

# PAHO



Pan American  
Health  
Organization



World Health  
Organization  
REGIONAL OFFICE FOR THE  
Americas

## PAN AMERICAN HEALTH ORGANIZATION RESPONSE TO COVID-19 IN THE AMERICAS



17 January  
to 31 August 2020

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# Introduction

Following an outbreak of a novel Coronavirus (COVID-19) in Wuhan City, Hubei Province of China, rapid community, regional and international spread has occurred across the globe, with exponential growth in the number of cases and deaths. On 30 January 2020, the Director-General (DG) of the World Health Organization (WHO) declared the COVID-19 outbreak a public health emergency of international concern (PHEIC), under the International Health Regulations (IHR) (2005). The first case in the Americas was confirmed in the USA on 20 January 2020, followed by Brazil on 26 February 2020.

COVID-19 has now spread to all 54 countries and territories in the Americas. By 26 May 2020, cases and deaths in Latin America had surpassed Europe and the United States in the daily number of reported coronavirus infections. Since June, and up until the time of this update to the report, the region of the Americas remains the epicenter of the COVID-19 pandemic. By 31 August 2020, six of the ten countries with the highest number of reported cases globally are located in the Americas<sup>1</sup> – although currently trends are decreasing in terms of both cases and deaths

On 17 January 2020, the Pan American Health Organization (PAHO) activated an organization-wide response to provide technical cooperation to all its countries and territories to address and mitigate the

impact of the COVID-19 pandemic. Working through its regional and country incident management system teams (IMST) in Latin America and the Caribbean, PAHO has been providing direct emergency response to Ministries of Health and other national authorities to scale up their readiness and response operations, supporting the improvement of surveillance, testing, and laboratory capacity; preparing and strengthening health care services; infection prevention control; clinical management; and risk communication, in alignment with the WHO COVID-19 Strategic Preparedness and Response Plan<sup>2</sup> and PAHO's Response to COVID-19 Outbreak in the Region of the Americas: Response Strategy and Donor Appeal.<sup>3</sup>

PAHO has developed, published, and disseminated evidence-based technical documents to help guide countries' strategies and policies to manage this pandemic. It has collaborated with its partners in the Region and across the globe to deliver technical cooperation, evidence-based guidance and recommendations, and to advocate for the Americas on the global stage.

This report updates an earlier version on PAHO's response to the COVID-19 pandemic, which was published in June 2020<sup>4</sup>. It documents PAHO's efforts from the earliest days of the pandemic, when the Organization rapidly mobilized its experts, shipped

1 As of 31 August 2020, the top 10 countries worldwide with the highest number of reported cases are: USA, Brazil, India, Russian Federation, Peru, South Africa, Colombia, Mexico, Spain, and Chile World Health Organization: Coronavirus Disease (COVID-19) Dashboard. Available online at: <https://covid19.who.int>

2 WHO Strategic Preparedness and Response Plan for COVID-19. Available online at: <https://www.who.int/publications/i/item/strategic-preparedness-and-response-plan-for-the-new-coronavirus>.

3 Response to COVID-19 Outbreak in the Region of the Americas. Response Strategy and Donor Appeal. August 2020. Available online at: <https://www.paho.org/en/documents/response-covid-19-outbreak-region-americas>

4 Pan American Health Organization Response to COVID-19 in the Americas. Available online at: <https://iris.paho.org/handle/10665.2/52453?locale-attribute=en>

needed laboratory supplies for molecular detection of the virus, and acted rapidly to prepare the region's national laboratories to test for COVID-19 before cases spiked exponentially across the Americas. This updated version captures PAHO's response efforts during the three months that followed, in a changing and uncertain environment. The number of cases and deaths, while still dwarfing other regions, are on a gradual decline in many countries in the Region. However, cases are spiking in other countries that previously had seen relatively few cases once they had implemented strict public health measures.

The marketplace for PPE and other critical supplies has since stabilized and PAHO played a critical role

in procuring these goods to support national efforts to combat the virus. Meanwhile, a global push is underway to find a safe and effective vaccine and new treatments for COVID-19 case management.

The information that follows presents an updated analysis of the epidemiological situation in the Americas and the impact of the spread of the virus on health systems in Latin America and the Caribbean. It includes selected highlights of PAHO's work in the countries and territories of the Americas. Epidemiological data is presented as of 31 August 2020 (unless indicated otherwise) to reflect this rapidly evolving situation more accurately.

# Epidemiological Situation Analysis

As of 31 August 2020, the Region of the Americas, which remains the epicenter of the COVID-19 pandemic, reports 13,356,411 cases and 467,149 deaths from COVID-19. These figures account for almost 53% of the 25,206,416 cases and 55% of deaths reported globally. This Region has the highest number of reported cases and deaths among all six WHO Regions (followed by the European Region, which has reported 4,205,708 cases and 219,131 deaths).

While there is an overall decreasing trend in incidence and deaths in the Region, the daily incidence rates are now accelerating in certain countries and territories, many of which are experiencing larger outbreaks for the first time since the onset of the pandemic (e.g., countries and territories in the Caribbean subregion). Six countries in the Americas (Brazil, Chile, Colombia, Mexico, Peru, and the United States of America) are among the ten countries reporting the highest number of confirmed cases and deaths globally.

## Americas Region Reporting of COVID-19 as of August 31, 2020



**13,356,411 cases**

53 % of the 25,206,416 cases globally

**467,149 deaths**

55 % of deaths reported globally

## Region

Of all COVID-19-reported cases and deaths in the Region as of 31 August 2020, the United States of America accounts for 44% of cases and 39% of deaths, while Brazil accounts for 29% of cases and 26% of all deaths. Together, these two countries account for 73% of all cases and 65% of deaths currently reported in the Americas. Countries reporting the highest proportions of new deaths between 1 June and 31 August are Brazil (30%, ~92,000 deaths), the United States of America (26%, ~79,000 deaths), and Mexico (18%, ~54,000 deaths). The pooled crude case fatality estimate (number of reported deaths divided by the number of reported cases) in the Region is 3.5%.<sup>5</sup>

The median country-specific estimate is 2.1%, with an interquartile range of 0.7%-3.1%. Table 1 shows the ten countries in the Region reporting the highest number of cases. Regionally, with regard to the number of cases, there is no difference between sexes. However, in terms of deaths, men are more affected (58% in the age group of 60-69 years old). Sixty-nine percent of cases occur in people aged 20-59 years old and 77% of deaths occur in the group aged 60 and over.

As of 19 August 2020, according to available information from 19 countries, a total of 569,304 cases of COVID-19, including 2,506 deaths, have been reported among healthcare workers.<sup>6</sup> Of these, 72% are female, and the age groups with the highest proportions of confirmed cases are 30-39 years and 40-49 years.<sup>7</sup>



In Latin America and the Caribbean, indigenous and Afro-descendant communities have historically faced inequalities. Their lower incomes, lower levels of educational attainment, and other disadvantaged social determinants of health, compounded with their reduced access to health services, geographic barriers, discrimination, and stigma, make these populations particularly vulnerable to COVID-19 infection and mortality.

While precise data on these populations is not always available, reports have shown that the impact on indigenous populations is not homogenous. From the beginning of the COVID-19 pandemic in the Americas through 22 August, 93,622 confirmed cases, including 1,893 deaths (2.0%), were reported among indigenous peoples or communities in 11 countries for which information was available.<sup>8</sup> Comparing data available as of 21 August 2020 with the data published in the PAHO/WHO Epidemiological Update from 5 August 2020, the highest relative increase in the number of cases has been observed among the

<sup>5</sup> Pan American Health Organization. Epidemiological Alert: COVID-19 among health workers - 31 August 2020; available at: <https://www.paho.org/en/documents/epidemiological-alert-covid-19-among-health-workers-31-august-2020>

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> Pan American Health Organization. Epidemiological Update: Coronavirus disease (COVID-19) - 26 August 2020; available at: <https://www.paho.org/en/documents/epidemiological-update-coronavirus-disease-covid-19-26-august-2020>

indigenous peoples of Colombia, followed by Ecuador and Brazil. With regards to the number of deaths, the highest relative increase has been observed in Ecuador, followed by Colombia. Available data indicates that the three highest numbers of confirmed cumulative cases in indigenous nations or indigenous communities by country were reported in the United States of America (39,051), followed by Brazil (21,142) and Peru (11,182).<sup>9</sup>

Many of these already vulnerable populations are

employed in the informal economy, which has been hard hit as public health measures, such as lockdowns, have been put in place. The additional stressors on their livelihoods is compounding food insecurity and impacting their access to health, communication, and transportation services. PAHO, through its country offices and in partnership with the national health authorities, is conducting risk assessments and an analysis of vulnerabilities, capacities, and exposures of these vulnerable populations.

9 Ibid.

**Table 1: Cumulative cases, deaths, and crude case fatality rates (CFR%) among the ten PAHO countries/territories reporting the highest number of cumulative cases as of 31 August 2020.<sup>10</sup>**

Country/Territory	Cases	Deaths	CFR (%)
United States	5,936,572	182,162	3.1%
Brazil	3,862,311	120,828	3.1%
Peru	647,166	28,788	4.4%
Colombia	607,938	19,364	3.2%
Mexico	595,841	64,158	10.8%
Chile	411,726	11,289	2.7%
Argentina	408,426	8,498	2.1%
Canada	127,940	9,117	7.1%
Bolivia	115,968	4,966	4.3%
Ecuador	113,767	6,556	5.8%

10 Op. cit., 31 August 2020.



## North America subregion

The North America subregion, which consists of Canada, Mexico, and the United States of America, accounts for 50% of the total cases and 55% of the total deaths reported as of 31 August in the Americas. Of the approximately 3.7 million new cases, including the almost 93,000 new deaths reported in the subregion in the prior two months, the majority of the new cases were reported by the United States of America (89%), followed by Mexico (10%) and Canada (1%). With regards to new deaths, approximately 58% were reported by the United States of America; 41% by Mexico; and 1% by Canada. All three countries have reported community transmission, per the WHO classification for COVID-19 transmission category. Overall, the daily notifications of cases at the national level are on a downward trend in all three countries.

## Central America subregion

As of 22 August, the total confirmed cases (~266,000) and deaths (7,203) have each increased by over 300% in the Central America subregion, compared to the totals (61,058 cases and 1,580 deaths) reported two months before in the PAHO/WHO COVID-19 Epidemiological Update from 23 June 2020. Of the almost 205,000 new cases reported in the prior two months, the majority were reported by Panama (29%), Guatemala (27%), and Honduras (20%). The same three countries also made up the majority (83%) of new deaths reported in the subregion, with Guatemala accounting for the highest proportion (36%), followed by Panama (24%) and Honduras (23%). As of 31 August, all seven countries in this subregion have reported community transmission, per the WHO classification for COVID-19 transmission category. Overall, the daily notification of cases has been decreasing in Central America since 25 July, when the 7-day moving average was 4,256 cases per day,

compared to the average of 3,449 cases reported as of 31 August – a 19% relative decrease.

## South America subregion

Following North America, South America remains the subregion with the highest number of confirmed cases and deaths reported to date. As of 22 August, the subregion's 10 countries have reported a combined total of more than 5.6 million cases, including close to 186,000 deaths, nearly three times the number of cases and more than twice the number of deaths since the last report (~1,780,000 cases, including ~71,500 deaths). All the countries have reported community transmission except for Uruguay (clusters of cases). Of the 3.8 million new cases reported in the prior two months, Brazil accounts for the highest proportion of cases (64%), followed by Colombia (12%), Peru (8%), and Argentina (7%). Similarly, of the 106,000 new deaths, the highest proportions were reported by Brazil (55%), Peru (17%), and Colombia (13%).

## Caribbean subregion

The Caribbean and Atlantic Ocean Islands subregion reported more than 100,000 new cases, including 1,384 deaths, since the PAHO/WHO COVID-19 Epidemiological Update two months prior on 23 June 2020. This represents a 230% and 123% increase in cases and deaths, respectively. Eighty percent of new cases reported in the prior two months were from the Dominican Republic (59%) and Puerto Rico (21%). The Dominican Republic reported 64% of the new deaths, followed by Puerto Rico (17%) and Haiti (8%). In addition to the Dominican Republic, Puerto Rico, French Guiana, Haiti, Aruba, Sint Maarten, Suriname, Trinidad and Tobago, and the U.S. Virgin Islands also have community transmission as of 22 August.



# Health Systems Situation Analysis

PAHO supported more than 500 hospitals (public and private) in 15 countries<sup>11</sup> to carry out a 'COVID-19 Readiness' self-assessment. The results indicated a moderate level of preparedness in some key areas, such as laboratory diagnosis of SARS-CoV-2 virus, isolation, and case management. Scores were lowest in areas related to the care of patients requiring critical care and the availability of equipment and supplies for medical care (including personal protective equipment and ventilators). Epidemiological projections indicated that countries were still facing the threat of their health systems network reaching maximum capacity for care. Preparedness activities, therefore, focused on the reorganization and expansion of health services to meet needs created by an exponential increase of patients. Travel restrictions have provided an additional challenge, as international emergency medical teams—which can provide essential medical surge functions—could not be deployed.

Countries have begun reorganizing their first levels of care to respond to the pandemic. In the Region, 20 of 24 countries reporting have incorporated the first level of care into the response to COVID-19.<sup>12</sup> The COVID-19-related actions carried out by the first level of care have included education and communication (67%); case investigation and contact tracing (63%); triage (63%); testing (42%); referral (54%); and follow-

up of cases and contacts in the community (54%).<sup>13</sup>

In addition, the key actions<sup>14</sup> carried out for the continuity of essential services have been the care of pregnant women (58%) and newborns (54%); immunizations (63%); dispensation of medications (42%); and monitoring of patients with chronic conditions by tele-consultation or home care (71%). Routine immunization services were maintained in 22 (67%) of 33 countries reporting to the PASB immunization survey. However, 10 (30%) countries experienced partial suspension of services. Despite shortages, there has been no interruption of treatment for HIV, thanks to mitigation measures implemented by countries and territories, including support from PAHO through the Strategic Fund.

COVID-19 has affected the continuity of essential services provided at the first level of care, especially in peri-urban and rural areas, and among indigenous populations, due to the already existing deficit of health teams, social distancing measures, infected staff, and the closure of various primary care facilities. Outpatient services for non-communicable diseases (NCD) continue to be maintained, but with limited access in 18 countries (64%), and completely open in seven countries (25%).<sup>15</sup>

Other challenges to health services at country level include gaps in human resources and a lack of

11 Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, and Venezuela.

12 Argentina, Bahamas, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Honduras, Guatemala, Guyana, Jamaica, Mexico, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, and Venezuela PAHO office reports in 24 LAC countries on first level of care during COVID-19, carried out in May 2020.

13 Op. cit., dated in May 2020.

14 Op. cit., dated in May 2020.

15 Rapid Assessment of COVID-19 Impact on NCD Programs in the Region of the Americas. 4 June 2020. <https://www.paho.org/en/documents/rapid-assessment-covid-19-impact-ncd-programs-region-america>

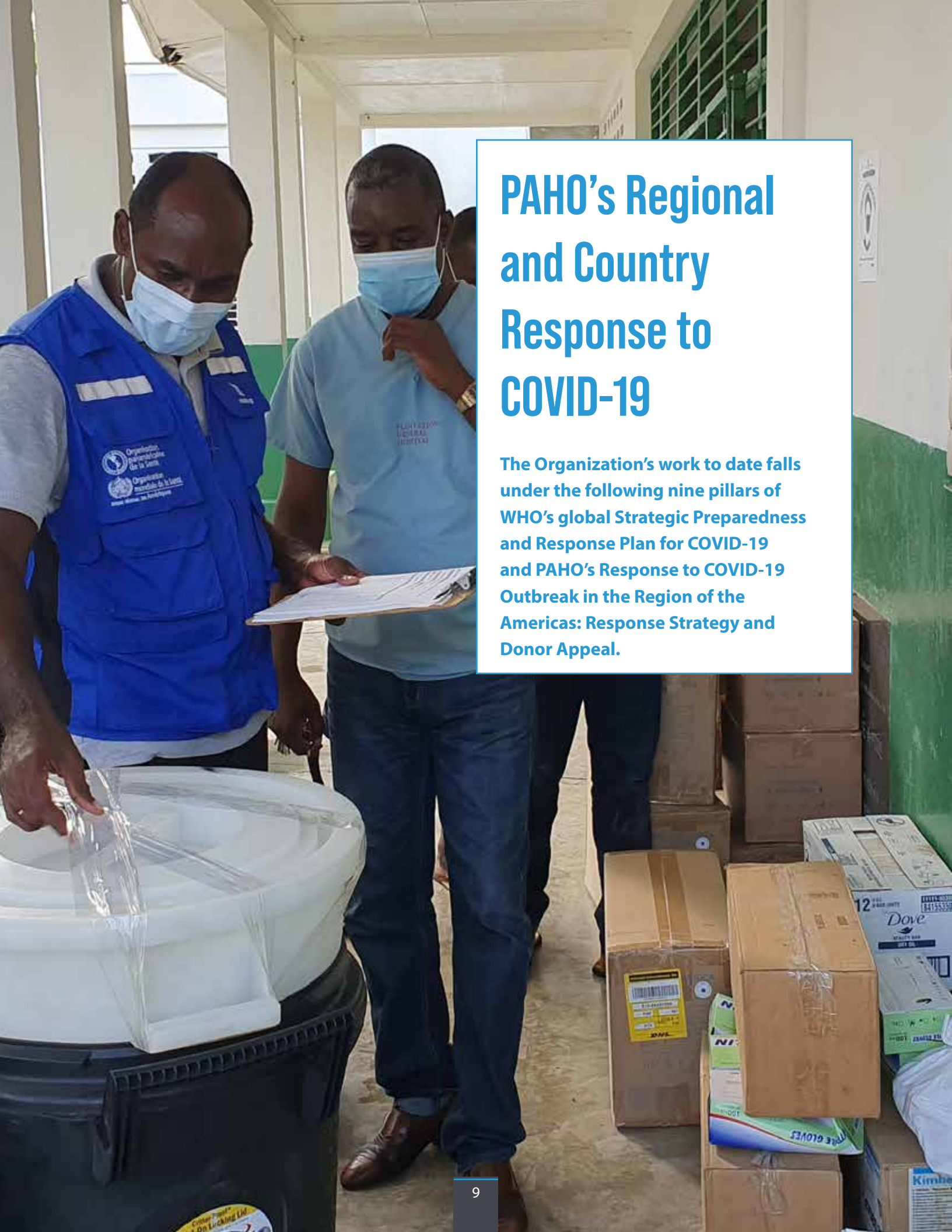
incentives; difficulties in connectivity; shortages of medicines, supplies, medical devices, PPE and logistics to carry out case investigation and contact tracing; testing, triage, home care; and management of call centers and teleconsultations. The main reasons for disruption of services related to non-communicable diseases include cancellation of elective care services (58%); clinical staff being re-allocated to the COVID response (50%); and patients not presenting (50%).<sup>16</sup> To date, all Member States have put in place measures to reorganize and expand hospital capacity to respond to COVID-19, including decisions to integrate national capacity for critical care; the centralized management of beds (repurposing, retrofitting, and upgrading); strengthening clinical management within the network for the continuity of care; and efficient use of hospital resources. An analysis of eight countries (Brazil, Chile, Colombia, Dominican Republic, Ecuador, Mexico, Panama, and Peru) indicates an increase of 99.7% in critical beds between March and end of July (46,928 to 93,700 beds). In addition, as of 31 August, 22 countries reported 158 national EMTs deployed; and 189 alternative medical care sites (AMCS) are operational, providing a total of 14,613 inpatient beds and 1,657 critical care beds. In addition, there have

been 32 regional EMT missions. Initiatives that focused on using stadiums and mobile hospitals as AMCS, which in some cases have prioritized increasing the number of beds over the capacity for patient care, have resulted in a shortage of qualified staff and in limited self-sufficiency for the effective delivery of clinical care.

The availability and safety of health personnel has been a critical factor in the expansion of health services. Many countries have promulgated legal and normative tools to manage human resources for health (HRH), with some declaring COVID-19 an occupational disease. Approaches to expand HRH capacities included: using health sciences students to support contact tracing; issuing temporary contracts and increasing the number of permanent contracts; establishing bilateral arrangements with other countries; authorizing temporary licensing, on an exceptional basis, for health professionals who received their degree in another country; and accelerating the graduation of residents and students in their final year of studies. Some countries have also provided economic and non-economic incentives for personnel responding to the pandemic.

<sup>16</sup> Op. cit., dated May 2020.





# PAHO's Regional and Country Response to COVID-19

The Organization's work to date falls under the following nine pillars of WHO's global Strategic Preparedness and Response Plan for COVID-19 and PAHO's Response to COVID-19 Outbreak in the Region of the Americas: Response Strategy and Donor Appeal.





## Pillar 1. Country-level Coordination, Planning, and Monitoring

This pillar of the response to the global COVID-19 pandemic calls for the activation of national public health emergency management mechanisms, with the engagement of all relevant ministries such as health, education, travel and tourism, public works, environment, social protection, and agriculture, to provide coordinated management of COVID-19 preparedness and response.

### Activated Mechanisms for PAHO's Response

PAHO activated its Incident Management Support Team (IMST) on 17 January 2020. The Organization rapidly mobilized 71 regional-level technical staff and convened technical subgroups to provide additional technical and analytical support. PAHO's 27 country offices established country-level IMSTs to provide immediate and rapid

technical guidance and support to the health authorities across Latin America and the Caribbean (LAC).

PAHO's Incident Management Support Team was structured around three broad response pillars:

- **Epidemic intelligence**, critical to ensuring that surveillance systems are in place to detect cases of COVID-19; that people have access to timely and accurate testing; and that decision makers have the analysis they need to formulate policies and strategies to stem the spread of the virus.
- **Public health measures**, to guide Member States in reducing the number of infections through public health and travel-related measures that help reduce the likelihood of infection while ensuring that systems are in place to detect new cases coming from abroad.<sup>17</sup>

<sup>17</sup> These measures are in compliance with the International Health Regulations (IHR 2005). Early projections demonstrated that the COVID-19 virus had the potential to result in an extraordinary rise in cases, which could rapidly overwhelm health systems.

- **Strengthening health systems**, ensuring they are prepared to manage outbreaks of COVID-19 with adequate staffing levels, protected health workers, evidence-based treatment protocols, and the appropriate supplies and equipment of good quality.

Since its activation, the Organization's IMST has been engaging actively with Member States. The Director of PAHO has provided the highest possible level of representation, advice, and support to all requests from Member State groupings such as CARICOM, PROSUR, SICA, MERCOSUR, as well as the OAS and other regional multilateral organizations to support and finance the response. The PAHO Director convenes regular meetings with Ministers of Health and, together with the PAHO Secretariat, provides Member States the best available advice, based on all available evidence and science, as it becomes available.

### Rapid Deployments and a New Approach for Technical Cooperation

Between February and 15 March 2020, PAHO deployed 25 missions of technical experts to 20 countries to ensure they were prepared to conduct laboratory molecular testing for COVID-19 and implement contact tracing. They were armed with country assessments on readiness to manage COVID-19 cases, including infection prevention and control measures.

Once borders closed, PAHO rapidly adapted to a new, mostly virtual modus operandi. PAHO delivered more than 150 regional and national virtual trainings and webinars to more than 10,000 health professionals across the Americas on estimating needs for PPE and hospital and ICU beds; identifying alternative medical

care sites, given overburdened health systems; molecular diagnostics for COVID-19; surveillance; and other essential areas.

### Supporting Multisectoral and National Action to Respond to COVID-19

PAHO's support is aligned with the global Strategic Preparedness and Response Plan for COVID-19 (SPRP),<sup>18</sup> published on 3 February 2020 and subsequently updated 14 April 2020. This plan outlines the support that WHO and the international community stand ready to provide to enable all countries to respond to COVID-19. On 12 February 2020, WHO issued Operational Planning Guidelines, with an updated draft version released 22 May 2020 to support the development of Country Preparedness and Response Plan for COVID-19.

Since then, PAHO integrated the pillars from WHO's SPRP into its Response Strategy and Donor Appeal (updated on 28 August 2020). This document includes high-level priority lines of action for the regional and country levels. The link to this document is provided in the Introduction.

PAHO's country office teams worked directly alongside government counterparts to develop national plans of action based on countries' transmission and risk levels at the time. As of 31 August 2020, 32 of 35 countries in the Americas had already developed and were implementing their COVID-19 preparedness and response plans with guidance and support from PAHO.

All 35 Member States activated intersectoral mechanisms in response to the COVID-19 pandemic, involving the highest political leadership, and including key sectors to provide a comprehensive

<sup>18</sup> Online at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/strategies-and-plans>

response. PAHO liaised with other UN agencies within countries to lead the health sector response and ensure that the UN system followed a holistic approach to tackling this pandemic and its repercussions.

It is important that governments revisit these plans, considering that transmission situations and resource needs have changed significantly for many countries since the early days of the pandemic. This is equally important for those countries now facing community transmission (28 countries and territories as of 31 August 2020).

### Partnerships that Save Lives

WHO launched the COVID-19 Partners' Platform, a tool to facilitate coordination and governance between

countries, UN Country Teams, donors, and partners. The Platform facilitates joint resource planning, the identification of funding gaps, and the monitoring of progress against the National Action Plans. To date, PAHO, in coordination with WHO, has supported and trained 33 countries in LAC to access the Partners Platform. Twenty countries are now using this web-based tool and the information collected through the portal has helped inform the global allocation of resources.

### Guidance for Decision-Makers

PAHO has published 102 evidence-backed publications and guidelines<sup>19</sup> geared toward an effective response to the COVID-19 pandemic. These resources are the result of extensive consultations with global and regional experts as well as exhaustive

<sup>19</sup> All publications and technical guidelines are available at <http://www.paho.org>.



reviews of existing and emerging evidence. They have facilitated the work of national governments and health authorities by allowing them to adapt the recommendations, protocols, and considerations to create national strategies, policies, and protocols. Examples of the guidance PAHO has developed include:

- Considerations on health equity, gender, ethnic equality, and human rights as national authorities plan and implement their response to COVID-19.
- Considerations on Indigenous peoples, Afro-descendants, and other ethnic groups for planning health services delivery during the pandemic, while bearing in mind existing inequities that have affected these populations.
- Guidance for establishing shelters in the Caribbean in the context of COVID-19 (in light of the upcoming Atlantic hurricane season), including spacing for beds and cots, recreation areas, ventilation, and other key factors.
- A Common Public Health Policy (joint work with CARICOM, CARPHA, UWI and CDEMA) to address the COVID-19 pandemic, including principles surrounding testing, joint procurement of supplies (pharmaceuticals, PPE), testing protocols, and sourcing of additional medical personnel.

PAHO also has played an essential role in helping countries and partners in the Americas to share technical knowledge. For example, recognizing the strength of the national reference laboratories in Chile, PAHO made it possible for laboratory experts from Chile's national laboratory to provide live virtual demonstrations and training to Uruguay on molecular diagnostics for COVID-19.

## Mobilizing Resources for the Americas

On 2 April 2020, PAHO launched a US\$95 million appeal (through 31 August 2020) to support and scale-up public health preparedness and response efforts in LAC countries facing the COVID-19 pandemic. As the mounting scale of the pandemic became clearer, PAHO reassessed the required resources to support the Americas to US\$200 million. Generous contributions received and/or pledged from the following donors enabled PAHO to reach 61% of the total appeal as of 31 August 2020: governments of Belize, Canada, Japan, New Zealand, Spain, Switzerland, the United Kingdom of Great Britain and Northern Ireland, the United States of America, as well as the Caribbean Development Bank, the Caribbean Confederation of Credit Unions, Corporación Andina de Fomento – Banco de Desarrollo de América Latina, Direct Relief, the European Union, Fonds d'Assistance Economique et Sociale, Fundación Yamuni Tfgabush, the Inter-American Development Bank, the World Bank Group, World Food Program, the UN Central Emergency Response Fund, the UN Development Fund, the UN Multi-Partner Trust Fund, the UN Special Session on Children, the World Health Organization and its donors, other small contributions, and to the invaluable collaboration from our partners within the Americas and beyond.

With these resources, PAHO has provided critical technical support. More than 69% of funds have gone directly to procuring PPE, laboratory tests, and other essential goods for the Americas; the remainder has gone to capacity building and providing technical experts to support Ministries of Health. PAHO estimates that an additional \$78 million are needed to support LAC countries through 31 December 2020.





## Pillar 2. Risk Communication and Community Engagement

In a situation report earlier this year, WHO stated that the “2019 novel Coronavirus outbreak and response has been accompanied by an ‘infodemic:’ an over-abundance of information — some accurate and some not — that makes it hard for people to find trustworthy sources and reliable guidance when they need it. With the popularity of social media, managing the COVID-19 pandemic and the related ‘infodemic’ requires ever more swift, regular and coordinated action from across government and society.”<sup>20</sup>

During this pandemic, governments must provide quick, sensitive and trustworthy responses to a public eager to know the current situation, how the government will respond, and what they can and should do. Risk communication, which includes

developing risk communication and community engagement (RCCE) plans and materials tailored to the population, is an integral component of a national response to COVID-19.

### Technical Cooperation on Risk Communication

PAHO has developed guidance on risk communication for Member States.<sup>21</sup> Risk communication strategies and tools for health care workers, media communicators, and leaders were developed and distributed to Member States. This helped to develop and implement national risk communication and community engagement (RCCE) plans that consider all segments of countries’ populations.

<sup>20</sup> World Health Organization (2020). Coronavirus Disease Situation Report. Online at: [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200415-sitrep-86-covid-19.pdf?sfvrsn=c615ea20\\_6](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200415-sitrep-86-covid-19.pdf?sfvrsn=c615ea20_6)

<sup>21</sup> For more information, consult the PAHO publication on Risk Communication and Community Engagement, available online at: <https://www.paho.org/en/documents/covid-19-risk-communication-and-community-engagement-rcce>

## Facilitating Online Training on COVID-19

The PAHO/WHO Virtual Campus for Public Health hosts eight online WHO courses, which PAHO has translated into Spanish and Portuguese (472,623 enrolled as of 31 August 2020):

- General COVID-19 considerations;
- Operational planning;
- Infection prevention and control;
- Emerging respiratory viruses, including COVID-19: detection methods, prevention, response, and control;
- Standard precautions: Hand hygiene;
- Occupational health;
- Clinical management;
- Design of treatment facilities.

The Virtual Campus also features the Caribbean Node, a dedicated space for COVID-19 resources such as webinars, five virtual courses (including three translated into Dutch), public information, and

lessons learned (currently from Grenada). PAHO also collaborated with CARICOM and PANCAP (the Pan Caribbean Partnership Against HIV and AIDS) to:

- Provide ten webinars on COVID-19 to Caribbean countries and territories;
- Broadcast key messages on infection prevention and control (IPC); delivery of HIV services; and psychosocial aspects for health care workers and adolescents.

## Communicating to the Public

PAHO produced infographics, social media cards, and videos (many with sign language interpreters) that offer guidance on protecting health workers, the elderly, and other populations vulnerable to infection. These materials tackle the correct use of masks, handwashing without wasting water, vaccination during the pandemic, domestic violence, and other priority issues. Spanish-language radio spots have



been produced to address stress during lockdown or quarantine, fight stigma, and help protect others from COVID-19.

Its Facebook Live events allow the public to directly “Ask the Experts” questions about COVID-19, ranging from indigenous health and mental health to tobacco use and the health of youth in the face of the pandemic. PAHO participated in Univision’s #Juntosencasa show and at the World Economic Forum (WEF).

The Director of PAHO holds weekly virtual press conferences to inform and update the public, issue calls for action, and share recommendations to stem the spread of COVID-19. This venue has allowed PAHO to urge governments and public alike to remain vigilant while responding to emerging issues and concerns such as hurricane readiness, the vulnerability of certain populations, and the risk of interruption to routine health services such as vaccinations and chronic disease management. The live broadcast of these virtual press conferences is also shared on the regional social media sites on Facebook, Twitter (Spanish/English) and YouTube. Key messages from the Director and spokespersons are also posted during and after each session, particularly on Twitter. All these efforts have helped the Organization to reach over 1.2 million people in the region and around the globe -members of the press from global, regional, and national outlets, as well as partners and other stakeholders.

PAHO developed a COVID-19 manual for reporters to help them better grasp and report on the key issues around the pandemic. More than 200 journalists have

participated in training on the recommendations from its publication, “An informative guide. Advice for journalists.”<sup>22</sup>

## Partnering with Artists to Combat COVID-19

Colombian singer Salomón Beda is donating the royalties from his musical theme, “Pa’alante,” to PAHO COVID-19 response activities. Artists from Argentina, Chile, Colombia, Ecuador, Mexico, Peru, Puerto Rico, the United States, and Venezuela joined forces to record a new version of the song, called “Pa’alante”, with the aim of raising funds under an initiative called #Volveranlosabrazos (the hugs will return).

Joining forces in the fight against COVID-19, Sony Music Latin and international advocacy organization Global Citizen collaborated to release a brand-new version of Diego Torres’ “Color Esperanza (The Color Hope).” The song’s record label net proceeds benefit PAHO’s COVID-19 relief efforts. PAHO also collaborated with Sony Music Latin-Iberia to disseminate messages on fighting COVID-19 during the Made in: Casa concert.

PAHO collaborated with artists from ten Latin America countries to produce a collection of graphic pieces to support PAHO’s COVID-19 response. This “Hackathon” of images designed to heighten awareness of COVID-19 focused on three themes: slowing the spread; bolstering mental health during quarantine, and counteracting myths and misinformation.

22 COVID-19: An informative guide. Advice for journalists. Available online at: <https://iris.paho.org/handle/10665.2/52392>



## Pillar 3. Surveillance, Rapid Response Teams, and Case Investigation

COVID-19 surveillance data are essential to calibrate appropriate and proportionate public health measures. In addition to active case finding in communities, health facilities, and at points of entry/exit, it will be necessary to enable the general population to practice self-surveillance, in which individuals are asked to self-report as a suspected case as soon as they have symptoms or signs and/or if they are a contact of a confirmed case.

All countries are encouraged to adopt international R&D Blueprint efforts and research protocols such as the Unity studies to investigate additional epidemiological, virologic, and clinical characteristics.

In a scenario in which community transmission is occurring, it is essential to monitor the geographical spread of the virus, transmission intensity, disease trends, characterize virological features, and assess impacts on health-care services.

*Source: WHO Operational Guidelines to Support Country Preparedness and Response for COVID-19*

An essential part of PAHO's response has been to work with countries to strengthen the capacity of surveillance systems to detect COVID-19 cases. PAHO conducts event-based surveillance (EBS),

complementary to countries' indicator-based surveillance (IBS). This joint approach provides the Region with a better grasp of the epidemiological situation in the Americas.<sup>23</sup>

<sup>23</sup> Event-based public health surveillance looks at reports, stories, rumors, and other information about health events that could be a serious risk to public health. Such information may be described as unstructured information because the information obtained is non-standardized or subjective. Indicator-based public health surveillance is a more traditional way of reporting diseases to public health officials. Indicator-based surveillance involves reports of specific diseases from health care providers to public health officials.

## Surveillance Systems Ready to Detect COVID-19

Efforts continue to enable all countries in the Americas to integrate COVID-19 into routine severe acute respiratory illness / influenza-like illness (SARI/ILI) surveillance systems. Twenty countries have already done so. PAHO shared case definitions, reporting forms, and surveillance guidelines with countries and coordinates with health authorities to collect the line list of nominal COVID-19 cases. As of 28 August 2020, 56% of the 12.5 million cases and 47% of the 454,818 deaths reported in the Americas are captured in the Global and Regional COVID-19-line list database.

## Monitoring and Projecting the Spread of the Pandemic in the Americas

Tracking, analyzing and forecasting epidemiological trends is key to an effective response. PAHO closely monitors the pandemic in the Americas and also looks at healthcare workers, indigenous populations, Afro-descendants, and other population segments. PAHO produced its first epidemiological alert on this novel coronavirus on 16 January 2020. By August, it had disseminated twelve epidemiological updates<sup>24</sup> and alerts with overviews of the regional and subregional epidemiological situation as well as key topics including cases among indigenous peoples in the Americas, dengue in the context of COVID-19, COVID-19 during pregnancy, and the impact on health workers. The Organization publishes weekly reports with SARS-CoV-2 surveillance indicators, as well as influenza and other respiratory viruses. It developed simulation models to

aid local-level preparedness and response by forecasting regional response needs.

PAHO launched a hub with COVID-19 data for the Americas, produced in collaboration with WHO-HQ and ESRI. It includes a dashboard with epidemiological data updated daily, as well as an interactive map showing cumulative cases reported by countries and territories. This real-time information has been crucial in supporting countries with their preparation and response. This data also promotes international coordination and awareness of the situation in the Region.

GIS data is invaluable when it comes to identifying the scope and scale of the spread of COVID-19. PAHO supported ten countries (Argentina, Belize, Chile, Costa Rica, Ecuador, Guatemala, Guyana, Nicaragua, Suriname, and Venezuela) to establish their own GIS hubs, linked to the regional hub, to better monitor COVID-19 cases.

To have a clearer understanding of the current dynamic of the COVID-19 epidemic, PAHO partnered with WHO, Harvard University, and the Epimos GmbH and ExploSYS GmbH projects to further develop tools that enable countries to analyze and visualize the effective reproductive rate of the virus and make projections as to the number of new infections; the number of individuals who may become sick; or how many will require hospitalization or admission to an intensive care unit. Both CovidSIM and EpiEstim are available for health authorities to use, free-of-charge. PAHO has developed step-by-step guidelines so that countries can apply these tools to their epidemiological and health system contexts.<sup>25</sup> Nine countries are being supported to use

<sup>24</sup> The Epidemiological Alerts are released in order to provide information about the occurrence of international public health events which have implications or could have implications for the countries and territories of the Americas; as well as recommendations issued by the Pan American Health Organization. The Epidemiological Updates are released as new information becomes available regarding events previously shared through Epidemiological Alerts. The Epidemiological Alerts and Updates are primarily of events caused by infectious agents, although they may also be of events concerning contaminated goods, food safety, or of chemical or radionuclear origin, per the provisions of the [International Health Regulations \(IHR \(2005\)\)](#)

<sup>25</sup> Pan American Health Organization, 2020. COVID-19 Modeling Exercise Technical Guide: Methodology and Parameters, 4 May 2020. Available at: <https://iris.paho.org/handle/10665.2/52405>

these tools: Argentina, Bolivia, Chile, Colombia, Dominica, El Salvador, Guatemala, Guyana, and Saint Lucia.

Countries face the challenge of formulating strategies and implementing effective interventions to stem the spread of COVID-19 while armed with incomplete data on COVID-19. Recognizing this reality, PAHO developed guidelines for conducting excess mortality analyses<sup>26</sup> Using mortality data from Ecuador and Peru, PAHO conducted case studies on excess mortality in both countries, considering COVID-19 and non-COVID-19 deaths (with disaggregation by sex, age group, marital status, education, and place of occurrence).

PAHO and other health partners collaborated with Vital Strategies, a health NGO, to finalize a methodology and criteria for estimating excess mortality from the COVID-19 pandemic. This collaboration has yielded a web-based Excess Mortality Calculator,<sup>27</sup> a tool to help countries to produce analysis and graphs on the current situation.

## Tools for Contact Tracing

PAHO has supported countries to ramp up capacities for tracing and quarantine of contacts. Grounded in the early detection and confirmation of COVID-19 patients, contact tracing and quarantine required the implementation of novel approaches and tools. Go.Data, WHO's contact tracing tool, was designed to help health authorities follow up on cases and possible contacts and to rapidly identify and isolate potential cases before they can spread the virus further. Collaborating with Global Alert and Response Network (GOARN), PAHO's training has allowed 20 countries in the Americas to use this tool, many of which now utilize PAHO's servers to host their data. Additionally, PAHO issued considerations for health authorities undertaking effective contact tracing for COVID-19, as a complement to existing WHO recommendations.<sup>28</sup>

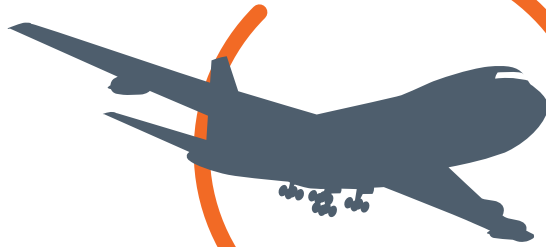
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26 Pan American Health Organization, 2020. Enhancing COVID-19 mortality surveillance in Latin America and the Caribbean through all-cause mortality surveillance. Online at: <https://www.paho.org/en/documents/enhancing-covid-19-mortality-surveillance-latin-america-and-caribbean-through-all-cause>

27 Available at: <https://preventepidemics.org/covid19/resources/excess-mortality/>.

28 Considerations for the Implementation and Management of Contact Tracing for Coronavirus Disease 2019 (COVID-19) in the Region of the Americas; PAHO; 2 June 2020; available at <https://iris.paho.org/handle/10665.2/52384?locale-attribute=en>





## Pillar 4. Points of entry, international travel, and transport

Efforts and resources at points of entry should focus on supporting surveillance and risk communication activities.

Appropriate public health measures at points of entry may include: entry and exit screening; education of travellers on responsible travel behaviours before, during, and after travel; case finding; contact tracing; isolation; and quarantine. Risk of imported cases can be managed through: an analysis of the likely origin and routes of importations; measures put in place at points of entry to rapidly detect and manage suspected cases among travellers, including the capacity to quarantine individuals arriving from areas with community transmission; and cleaning and disinfection of the environment at points of entry and onboard conveyance. It is critical that countries enable essential travel needed for pandemic response, humanitarian relief, repatriation, and cargo operations.

*Source: WHO Operational Guidelines to Support Country Preparedness and Response for COVID-19*

SARS-CoV-2 rapidly spread across the globe. As more and more countries reported imported cases, international travel-related measures were put in place to prevent further importations. In the absence of a vaccine for the specific treatment for COVID-19, a cornerstone of the COVID-19 control strategy is the use of non-pharmaceutical interventions, including personal protective measures, environmental

measures, social distancing, and international travel measures. Following the WHO Director General's declaration of COVID-19 as a Public Health Emergency of International Concern (PHEIC), countries in the Americas implemented measures to restrict the entry of international travelers from specific countries that were experiencing significant COVID-19 transmission. Shortly after countries began closing their borders.



PAHO<sup>29</sup> and WHO issued considerations on a range of social distancing and travel-related measures based on the global, regional, and national circumstances. In anticipation of adjustments to social distancing and travel-related measures (either tightening or lessening them), PAHO provided national authorities with a framework of considerations to inform their decision-making process concerning the adjustment of social distancing and travel-related measures. PAHO continues to provide guidance to Member States.

While, since the beginning of the pandemic, virtually all countries and territories in the Americas have maintained essential travels – humanitarian (e.g., repatriation, medical evacuation, transport of supplies

for the response), food security, maintenance of essential services, national security – as of 31 August 2020, most of the countries and territories in the Caribbean sub-region have initiated the process to resume non-essential travel (e.g. tourism) to reactivate their tourism-dependent economies, and the remaining countries are in the process of establishing modalities and procedures to do so.<sup>30</sup>

PAHO has developed risk communication material providing travelers with clear and evidence-based information, including infection prevention and control measures, to reduce the risk of infection.

29 Pan American Health Organization. Considerations on Social Distancing and Travel-Related Measures in the Context of the Response to COVID-19 Pandemic. Online at: <https://iris.paho.org/handle/10665.2/52409>

30 Pan American Health Organization, Considerations on the Adjustments of Social Distancing and Travel-Related Measures in the Context of the Response to COVID-19 Pandemic, 24 April 2020. The link goes to: <https://iris.paho.org/handle/10665.2/52407>





## Pillar 5. National Laboratories

Countries should prepare laboratory capacity to manage large-scale testing for COVID-19 — either domestically or through arrangements with international reference laboratories. If COVID-19 testing capacity does not exist at national level, samples should be sent to a regional or international reference laboratory with appropriate capacity. In the event of widespread community transmission, surge plans should be activated to manage the increased volume of samples from suspected cases. WHO can provide support to access relevant reference laboratories, protocols, reagents, and supplies.

*Source: WHO Operational Guidelines to Support Country Preparedness and Response for COVID-19*

### Ready for Testing Since the Onset of the Pandemic

Laboratory-based surveillance, necessary to monitor COVID-19 disease trends, relies on data produced in clinical and/or public health laboratories. The Americas was the first WHO Region to provide its Member States with laboratory diagnostic kits. Beginning 17 January, 56 test kits were ordered and distributed to 21 Member States to implement the WHO-approved Charité protocol. WHO donated an additional 130 kits to support the diagnostic capacity in the Americas on 21 February. PAHO has continued purchasing additional laboratory supplies and distributing them to countries.

With these supplies in hand, during February and March, PAHO focused on building diagnostic capacity in the Region's National Influenza Centers (NICs) and SARI (Severe Acute Respiratory Infection) Laboratory network. PAHO held two subregional trainings, in Brazil and in Mexico, where 18 Central and South American countries were trained and received reagents. PAHO also deployed experts and reagents to nine additional countries to carry out trainings on-site in their laboratories. By mid-February, capacity for molecular diagnostic testing for SARS-CoV-2 was successfully implemented in all 35 Member States. Following border closures throughout March and

April, PAHO continued to follow up with countries via virtual trainings and calls to ensure appropriate implementation of the protocols.

PAHO also collaborated with countries to establish a clear algorithm for testing for SARS-CoV-2, building upon the existing influenza systems of routine surveillance of severe acute respiratory infections (SARI). PAHO continued to provide guidance on testing strategies, quality assurance procedures, and genomic epidemiology. Technical guidance on the interpretation of laboratory results for COVID-19 diagnosis<sup>31</sup> was developed and shared and training was delivered to Saint Vincent and the Grenadines and other countries to apply these steps.

More recently, in July 2020 PAHO released Laboratory Guidelines for the Detection and Diagnosis of COVID-19 Virus Infection. This updated document takes into account new case definitions for suspected cases and updated WHO guidance for laboratory testing. These have been distributed to the National Influenza Centers (NICs) and national public health laboratories across the Americas. PAHO participated in a webinar to disseminate its methodology for molecular diagnosis, including an overview of limitations and how to interpret antibody-based tests, co-organized with Council of Ministers of Health of Central America (COMISCA) and CDC's office in Central America, and the Ibero-American Program for Science and Technology for Development (CYTED.) PAHO disseminated this guidance throughout Latin America and the Caribbean.

Capacity building has continued throughout the pandemic. Through region-wide and country-specific training, PAHO has provided virtual workshops on

techniques and limitations of virologic and serological assays to 300 laboratory personnel in Bolivia. Saint Kitts and Nevis received PAHO guidance on designing the layout of its laboratory spaces designated for molecular testing for COVID-19, whereas Grenada was trained to install PCR diagnostics in two health centers in the country. Jamaica received PAHO support to scale up COVID-19 testing, whereas Grenada and Saint Vincent and the Grenadines were trained to utilize newly acquired PCR machines to conduct molecular detection of COVID-19.

Testing capacities must be maintained and strengthened to ensure that country health systems capture as many cases as possible. To this end, PAHO supported seven Caribbean laboratories to participate in the WHO External Quality Assessment Program for the detection of influenza viruses by PCR, including COVID-19, which allows an external laboratory to monitor the quality and standards of performance of another laboratory. This will help these laboratories identify any critical issues with its testing for COVID-19.

## Expanding Testing for the Americas

The emergence of SARS-CoV-2 led to an unexpected surge in global demand for laboratory supplies, causing product scarcity in the market and adding complexity to maintaining the supply chain for in vitro diagnostics (IVDs) using polymerase chain reaction (PCR), which is considered to be the most reliable diagnostic test recommended by WHO. Conversely, a range of newly developed rapid diagnostic tests, with varying levels of sensitivity and accuracy, has flooded commercial markets. To guide countries' decisions to procure different kinds of tests, PAHO released

31 Pan American Health Organization, 2020. Interpretation of laboratory results for COVID-19 diagnosis. Online at: <https://iris.paho.org/handle/10665.2/52138>

considerations and criteria on diagnostic tests, their use, and their efficacy. The Organization continues to identify prioritized IVD tests for potential procurement to deploy across the Americas once supplies are available.

The surge of COVID-19 cases in the Region highlights challenges for laboratories to process exponentially increasing numbers of samples. Throughout the pandemic, PAHO has continued to donate laboratory reagents and supplies to countries to support their capacity to detect and confirm SARS-CoV-2. As of 31 August, PAHO provided enough laboratory reagents and supplies (reagents, primers, probes, extraction kits, and enzymes to cover 6.4 million tests in 36 countries and territories in the Region). In addition, countries were helped to procure more than 10.292 million PCR tests through PAHO's Strategic Fund, a regional technical cooperation mechanism for pooled procurement of essential medicines and strategic health supplies.

PAHO continues to explore possible collaborations with the World Organization for Animal Health (OIE) to expand laboratory capacity. Two webinars have already been held with veterinary laboratories from 22 countries to explore how these animal laboratories could supplement existing human laboratory capacity to detect and confirm COVID-19.

There is a global effort to sequence SARS-CoV-2 to monitor how the virus evolves and whether mutations will change how the virus behaves. Sequenced genomes from all over the globe are shared on WHO's Global Initiative on Sharing All Influenza Data Platform (GISAID), an open-access database that shares data freely to researchers to promote better understanding of the virus and potentially contribute to vaccine development. Initially, only three countries in the Region (Brazil, Chile, and Mexico) were sharing sequences of the strains circulating in their countries. To ensure increased representation of the strains circulating in the Americas, PAHO is coordinating the COVID-19 Genomic Surveillance Regional Network Project and supporting 17 countries to share their genomic sequences in a timely fashion with GISAID. In addition to the original three countries, Argentina, Belize, Canada, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Jamaica, Panama, Peru, Suriname, the United States of America, Uruguay, and Venezuela have also begun to upload sequences. Meanwhile, PAHO collaborated with Brazil's Oswaldo Cruz Foundation (Fiocruz) and Chile's Institute of Public Health to discuss the COVID-19 sequencing protocol, technical recommendations, and next steps to collaborate with the Regional Genomic Surveillance Network.



## Pillar 6. Infection Prevention and Control

Infection prevention and control (IPC) practices in communities and health facilities should be reviewed and enhanced to prepare for treatment of patients with COVID-19, and prevent transmission to staff, all patients/visitors, and in the community.

*Source: WHO Operational Guidelines to Support Country Preparedness and Response for COVID-19*

Infection prevention and control (IPC) is critical to prevent or slow the dissemination of a new virus with unclear natural history. Since the onset of the pandemic, PAHO has worked closely with health authorities to reiterate the need for fostering good hand hygiene practices, appropriate and rational use of PPE, the cleaning and disinfection of medical devices, and water and sanitation (WASH).

All countries have implemented measures to reinforce IPC and, as of 31 August 2020, 33 countries reported having a national IPC program and WASH standards in health care facilities. In addition to developing and updating guidelines, PAHO organized a total of 64 virtual informative/training sessions with over 80,000 participants.

### Keeping Health Workers and Patients in the Americas Safe

Health workers are at the frontlines of medical care for possible and confirmed COVID-19 patients, where, in the process, they put their own safety on the line. PAHO has issued interim guidelines on care for health workers exposed to COVID-19 in health facilities<sup>32</sup> and provided in-person and virtual training to Ministries of Health and health workers on:

- the proper use of personal protective equipment (PPE).
- technical and regulatory aspects of the extended use, reuse, and reprocessing of respirators during shortages.
- IPC transmission-based measures that health workers can take to reduce the likelihood of infection from

<sup>32</sup> Pan American Health Organization. Care for health workers exposed to the new coronavirus (COVID-19) in health facilities. Interim Recommendations, 13 April 2020. Online at: <https://iris.paho.org/handle/10665.2/52032>



COVID-19 while managing possible and confirmed cases. This includes in isolation areas in acute healthcare settings and in nontraditional settings such as hotels, motels, shelters, dormitories, and home care.

### IPC Outside the Health Sector

PAHO has developed recommendations for reducing the risk of infection from COVID-19. In addition to safeguarding the health workforce, the recommendations also focus on persons living in long-term care facilities, workers at points of entry, and the general population seeking guidance on how to avoid COVID-19.

In collaboration with the United Nations Office on Drugs and Crime (UNODC), PAHO trained 200 maritime

law enforcers from African countries, the Caribbean, and the USA on considerations for preventing infection while conducting operations against maritime crime.

Recommendations on the management of dead bodies were distributed to guide health authorities to ensure that protocols are in place for the safe and respectful management of fatalities in the context of COVID-19.

As part of the SMART Hospitals initiative that launched in 2009, PAHO issued recommendations and other measures that countries can use to retrofit their health facilities, so that they are not only resilient to natural disasters but also have reduced the risk to patients and staff of becoming infected with COVID-19.<sup>33</sup>

33 Pan American Health Organization. Retrofit Measures for COVID-19, 10 June 2020; available at: <https://iris.paho.org/handle/10665.2/52292>



## WASH in the Context of COVID-19

Water, sanitation and hygiene (WASH) is an important component of reducing the risk of infection. PAHO issued recommendations<sup>34</sup> for communities, healthcare facilities, and institutions responsible for WASH at different levels of government and is working with health and WASH authorities to develop and implement measures across the Americas.

## Securing PPE in a Competitive Global Marketplace

The global market for PPE products is limited and extremely competitive. PAHO has delivered 90 shipments of PPEs to 32 countries and territories, ensuring fewer COVID-19 infections among health workers and patients. Meanwhile, it has trained Ministries of Health to calculate needs estimates for PPE, essential medicines, and other supplies based on epidemiological trends and projections. Such analysis and planning is essential to guide procurement and the subsequent distribution to prioritized areas.

This shortage of PPE available for procurement led PAHO to issue technical and regulatory considerations

for governments on the extended use, reuse, and reprocessing of N95 masks and equivalent respirators.<sup>35</sup>

## Reducing infection in other contexts

The COVID-19 pandemic has created numerous challenges to countries with electoral processes that are ongoing or planned for this year and 2021. Given the risks of large groups of people congregating at polling stations, PAHO collaborated with the Organization of American States to formulate recommendations and considerations for electoral authorities seeking to keep voters and election workers safe, published as *Guidance for Organizing Elections in Times of a Pandemic*.<sup>36</sup>

With the start of hurricane season in the Caribbean, PAHO provided recommendations and considerations to Member States on how to ensure that shelters are designed to reduce the risk of infection from COVID-19 while still providing safe refuge from natural disasters.

34 Pan American Health Organization. Key Recommendations on Water Sanitation and Hygiene: COVID-19, 2020. Online at: <https://www.paho.org/en/documents/key-recommendations-water-sanitation-and-hygiene-covid-19>

35 Pan American Health Organization. Technical and regulatory aspects of the extended use, reuse, and reprocessing of respirators during shortages. 10 June 2020, available at: <https://iris.paho.org/handle/10665.2/52431>

36 Organization of American States. Guidance for Organizing Elections in Times of a Pandemic. 9 July 2020; Available at: <http://www.oas.org/documents/spa/press/OEA-guia-para-organizar-elecciones-en-tiempos-de-pandemia.pdf>





## Pillar 7. Case Management

Healthcare facilities should prepare for large increases in the number of suspected cases of COVID-19. Staff should be familiar with the suspected COVID-19 case definition, and able to deliver the appropriate care pathway. Patients with, or at risk of, severe illness should be given priority over mild cases. A high volume of cases will put staff, facilities and supplies under pressure.

Guidance should be made available on how to manage mild cases in self-isolation, when appropriate. Plans to provide business continuity and provision of other essential healthcare services should be reviewed. Special considerations and programmes should be implemented for vulnerable populations (elderly, patients with chronic diseases, pregnant and lactating women, and children).

All Member States took significant measures to rapidly strengthen their public health system in the face of the COVID-19 pandemic. These measures included increasing the availability of beds in health facilities; provision of essential equipment and human resources to health facilities (see Pillar 9); expansion of testing and treatment for COVID-19 in laboratories and health facilities; provision of hygiene kits to governments; provision of PPE to healthcare providers and patients; establishment of respiratory clinics; and ensuring continuity of essential health services, among others.

### Therapeutics for COVID-19 Cases

Much is still unknown about the efficacy of therapeutics for treating COVID-19 cases. Amidst this uncertainty, PAHO has shared guidance on current evidence-based case management and therapeutics for COVID-19 with all countries and territories. It has conducted webinars on case management and therapeutics with networks of health professionals within the Member States. It trained 430 participants on recommended practices for COVID-19 intensive care delivery in hospital settings. In the Eastern Caribbean, 175 health professionals were trained in clinical management. Since the onset of the

pandemic, PAHO has trained over 70,000 health workers on the various facets of case management.

PAHO issued guidelines for the critical care of seriously ill adult patients with COVID-19 and interim recommendations on the initial care of persons with acute respiratory illness in the COVID-19 context in healthcare facilities. Considering the increased severity of the virus in older persons, PAHO delivered a webinar to facilitate the exchange of experiences in caring for adults with COVID-19 in middle and low-income countries (86 participants from 12 countries).

With regard to the need for continued blood supplies, PAHO convened a meeting with authorities to provide recommendations on donor eligibility, blood collection, roles and responsibilities, and existing scientific evidence. It reached 610 participants from

17 Spanish-speaking countries and Guyana. PAHO organized a session with local authorities to explain regulatory considerations on the authorization of the use of convalescent plasma to address the COVID-19 emergency. PAHO shared recommendations on blood availability, blood collection, national health authority responsibilities, and existing evidence on the use of convalescent plasma with the Andean Health Organization (ORAS).

PAHO held a webinar with more than 70 head radiologists, medical physicists, and radiographers from English-speaking Caribbean countries. It focused on the role of imaging for diagnosis and for monitoring the clinical course of patients with COVID-19 infection, as well as current IPC practices of radiology departments to reduce cross-infection and protect medical professionals and patients.



## Estimating Needs to Manage COVID-19 Cases

Simulated numbers have been provided for mild, severe, and critical cases during the first two months after the virus is introduced into a given country, as well as the required hospital beds and ICU beds to manage each scenario. PAHO combined this with a hospital capacity progressive expansion tool, which helps estimate needs for beds and health workers. This was complemented with a tool to support needs estimates for PPE, supplies and medicines; 800 people throughout the Region have been trained.

These steps gave countries valuable information as they readied surveillance and health systems for the arrival of COVID-19 cases in their territories. The Organization also supported 12 countries to complete needs estimates for hospital capacity expansion and essential medicines for the management of patients admitted to intensive care units with suspected or confirmed COVID-19 diagnosis.

Research to date has identified specific underlying health conditions associated with an increased risk of severe COVID-19. Leveraging existing data on communicable diseases and chronic conditions present in the population of the Americas, PAHO collaborated with the London School of Hygiene and Tropical Medicine / Centre for the Mathematical Modelling of Infectious Diseases COVID-19 working group to adapt and tailor an existing tool to the context of the Americas. This tool allows national health authorities to understand the number of individuals at increased risk of severe COVID-19, thus informing the design of possible strategies to shield

extremely vulnerable people from infection, manage chronic care conditions, and guide the vaccine allocation for those at highest risk.

## Medical Surge Capacity

The COVID-19 pandemic has created significant stress on national health systems. Health workers are disproportionately becoming infected; many are reluctant to work without appropriate PPE and health facilities may not have the resources and infrastructure to manage highly contagious cases. PAHO issued recommendations for countries to prepare pre-hospital emergency medical services (EMS) to manage suspected COVID-19 cases and transport them safely to designated hospital facilities if necessary.

Emergency Medical Teams (EMTs) can play a critical role in expanding the capacity of a country's health system to respond to an emergency. PAHO issued recommendations to facilitate the medical surge capacity through the deployment of EMTs and the selection and set up of alternative medical care sites (AMCS).<sup>37</sup> PAHO provided training and technical support to develop the local capacity of EMTs, improve medical coordination using the CICOM methodology, and in setting up AMCS. The Organization also developed a community of practice for pre-hospital emergency care and a technical discussion group has been created on the EMT Americas platform. Surge personnel have been activated at all levels of the Organization and deployed to countries to strengthen established in-country and local technical expertise.

37 Pan American Health Organization. Recommendations for medical surge capacity and deployment of emergency medical teams. Online at: <https://www.paho.org/en/documents/recommendations-medical-surge-capacity-and-deployment-emergency-medical-teams>

## Regulatory Considerations for COVID-19 Therapeutics, Supplies, and Equipment

National regulatory agencies are critical to ensuring that robust mechanisms are in place to adapt to a rapidly changing panorama in which new products will become available for treatment, diagnostics, and other COVID-19-related uses. Given the exhaustive resources needed to build strong regulatory agencies, PAHO has facilitated access to information and assessments produced by regulatory agencies from the European Union, Australia, and other countries to guide LAC countries in assessing the use of certain products. PAHO maintains a platform on regulatory matters and good regulatory practices in response to the pandemic, updated weekly and available on the Regional Platform on Access and Innovation for Health Technologies<sup>38</sup> (PRAIS). Forty-four health technology assessments (HTA) related to COVID-19 are available in the regional database of HTA reports, BRISA.

With WHO participation, PAHO convened its 7th COVID-19 Regulatory Update virtual meeting to provide regulatory authorities with updated information on improving access to vaccines, therapeutics, diagnostics, and medical devices. PAHO conducted a meeting tailored to local authorities involved in regulatory aspects related to the use of ventilators in the COVID-19 context (82 participants).

PAHO launched a network of regulatory focal points for COVID-19 to improve information sharing and enable potential collaborations for the approval and oversight of new products.<sup>39</sup> One hundred country representatives and experts participated and the focal points hold virtual meetings biweekly to discuss relevant issues such as reliance practices during emergencies and clinical trials of COVID-19 products. The Organization released recommendations on crisis management during this pandemic, tailored primarily to regulatory authorities.

## Ethics and the Allocation of Scarce Life-Saving Resources

The pandemic has brought bioethics to the forefront because of the challenges in prioritizing scarce resources in the delivery of critical care (e.g. ventilators). Ethics guidance, including the use of scarce resources in the delivery of critical health care during the COVID-19 pandemic, was developed and shared with Member States. Advancing justice between countries in the distribution of therapeutics and vaccines that are now in the pipeline is an upcoming challenge, which includes elucidating what exactly justice entails in this extraordinary scenario.

<sup>38</sup> Online at: <https://prais.paho.org/en/home>

<sup>39</sup> Coordination and collaborations of regulatory bodies for medicines and other health technologies and the use of reliance practices (i.e., when a national regulatory agency, or NRA, considers and gives significant weight to evaluations performed by another NRA or trusted institution in reaching its own decision, although accountability remains with the relying authority) may greatly accelerate and improve the efficiency of these processes.





## Pillar 8. Operational Support and Logistics

In light of the situation facing countries in the Region due to the COVID-19 pandemic, particular attention must be paid to:

- Logistical arrangements to support incident management and operations should be reviewed.
- Expedited procedures that may be required in key areas (e.g. surge staff deployments, procurement of essential supplies, staff payments).

### Logistics During a Global Pandemic

This unprecedented pandemic has created severe interruptions to regular supply chains for medical supplies and equipment, as well as to the commercial flights that PAHO has relied upon in the past to deploy its experts and ship medicines, supplies, and equipment. Countries face a complex market for procuring supplies and medicines related to COVID-19. Quality must always be verified, as the market is flooded with products produced by unscrupulous actors. PAHO is working tirelessly with other UN agencies, partners, international NGOs, and donors to secure the resources needed to enable countries to prevent infections and mitigate deaths. Through

its network and logistical hubs, 36 countries and territories have received tests for molecular detection of COVID-19 and 32 countries and territories received life-saving PPE.

### Procurement in a Challenging Marketplace

PAHO works with countries to develop strategies to meet their procurement needs. The Organization shares tools to help quantify essential supplies and provide information on the current global market situation. Additionally, it helps countries to identify qualified suppliers and obtain pricing information for the procurement of medical equipment and supplies. PAHO will support its Member States to procure

prioritized items through PAHO's Strategic Fund and other joint procurement mechanisms.

PAHO collaborated with the Caribbean Community (CARICOM) and the Caribbean Disaster Emergency Management Agency (CDEMA) to develop a procurement protocol for the consolidated purchase of prioritized medical devices and supplies in the context of COVID-19 in the Caribbean.

PAHO continues to support Member States by advising them on current logistical challenges and the market situation regarding stocks of medical supplies and PPE. The critical need for PPE requires

quality assurance processes to ensure that procured items meet necessary specifications. PAHO is applying criteria developed to guide the procurement of PPE and in vitro diagnostic (IVD) tests for COVID-19. PAHO's warehouse for emergency stocks of supplies and equipment continues to assemble COVID-19 PPE kits.

These efforts are made in close coordination with WHO, UNICEF, UNDP, UNOPS, UNFPA, and other agencies in the COVID-19 Supply Chain Interagency Coordination Cell. As an example, PAHO supported the review of technical specifications for UNICEF's procurement of PPE.





## Pillar 9. Maintaining Essential Health Services during the Pandemic

When health systems are overwhelmed, both direct mortality from an outbreak and indirect mortality from preventable and treatable conditions increase dramatically. Countries will need to make difficult decisions to balance the demands of responding directly to COVID-19, while simultaneously engaging in strategic planning and coordinated action to maintain essential health service delivery, mitigating the risk of system collapse. For more in-depth information, consult the WHO publication: COVID-19: Operational guidance for maintaining essential health services during an outbreak. This publication is available online at: <https://www.who.int/publications/i/item/10665-332240>

The COVID-19 pandemic has created unparalleled stress on the countries' health systems and services. Many countries are finding that they do not have sufficient health workers to manage the uptick in cases. Meanwhile, the priority given to managing the pandemic has interrupted other routine health services and programs, including vaccination campaigns, malaria elimination, tuberculosis prevention and control, and programs for non-communicable diseases. The impact of the pandemic on supply chains has hampered efforts to secure medicines and supplies for other health issues. PAHO has prioritized the development of guidance and

tools to inform countries on how to assess existing resources and formulate strategies to bridge identified gaps without jeopardizing the fight against COVID-19.

### Reorganization and Progressive Expansion of Health Services

PAHO has developed technical guidance and provided technical support on the reorganization and progressive expansion of health services for the response to the COVID-19 pandemic, particularly for triage, isolation, and intensive care in adults. Within days of the confirmation of the COVID-19 outbreak by



WHO, and to enhance health services preparedness at country level, several technical guidance documents and tools were developed, shared and provided onsite and through online trainings to Member States.

PAHO/WHO has published the following documents to support the response to the pandemic.

- Hospital Readiness Checklist for the COVID-19 Response
- Adapting the First Level of Care in the Context of the COVID-19 Pandemic: Interventions, Modalities, and Scope
- Reorganization and Progressive Expansion of Health Services for the Response to the COVID-19 Pandemic
- Recommendations for Reorganization and Expansion of Hospital Services in Response to COVID-19

PAHO worked with countries to assess the readiness of health facilities in more than 500 hospitals (public and

private) in 15 countries, using the COVID-19 Hospital Readiness Self-Assessment Checklist. This checklist helped to identify their level of preparedness for imminent emergency response and to address and prioritize identified gaps. In addition, PAHO supported needs assessments by considering epidemiological models to expand health services to deal with an increased numbers of cases, including estimates of needs for human resources and hospital beds. PAHO has supported countries to analyze options for reorganization and expansion of hospital services and to share experiences. Considering the need for sustaining and expanding a health workforce, PAHO also developed a checklist for managing human resources for health to respond to COVID-19. The Organization presented three webinars on health systems, with 23 countries from all the subregions participating and sharing their experiences and practices.

Vaccination programs require continued investments to build upon the significant progress made to date



in the Americas. As the Director of PAHO stated in a press briefing, three countries in the Americas - Argentina, Brazil and Mexico - are currently battling measles outbreaks, as well as dealing with COVID-19 cases.<sup>40</sup> PAHO published guidance on the operation of immunization programs in the context of the COVID-19 pandemic and country teams worked in tandem with health authorities to devise strategies for vaccinating high-risk people against influenza and other diseases.

### Maintaining Essential Services

With fiscal revenues diminishing, governments face significant resource constraints to address the pandemic while maintaining essential services. PAHO is working with Ministries of Health and other stakeholders to assess how health systems can continue to operate at the needed levels to sustain health gains achieved since the turn of the millennium.

While the priority is to prevent infection, reduce transmission, and provide adequate care and treatment to those with COVID-19, non communicable diseases (NCDs) continue to pose the greatest health burden. In the Americas, it is estimated that one in four (220 million) people live with at least one NCD, including cardiovascular diseases, diabetes, cancer and chronic respiratory diseases, among others. This population requires access to essential NCD services to ensure the continuity of disease management. Furthermore, people with NCDs and older persons are at higher risk of developing severe COVID-19 disease and dying as a result, making this population highly vulnerable. PAHO conducted a rapid assessment on how the pandemic might affect this population.

According to a recent assessment, outpatient services for noncommunicable diseases continue to be maintained, with limited access in 18 countries (64%) and full access in 7 countries (25%). The main reasons for disruption to NCD services include cancellation of elective care services (14 of 24 countries, or 58%), reallocation of clinical staff to the COVID-19 response (12/24, 50%), and patients not presenting (12/24, 50%). Since April 2020, through its Country Offices, PAHO conducted four surveys on routine immunization (IM) services covering 39 countries and territories. It found that routine IM services were maintained in 31 (79%) countries; however, 8 countries (21%) experienced partial suspension of services. Sixty percent of countries have reallocated TB resources to COVID-19, and there is a reduction in the frequency of outpatient visits for drug susceptible TB treatment, up to 86% among MDR TB patients. HIV treatments have continued uninterrupted despite shortages, thanks to mitigation measures implemented by countries and territories, including support from PAHO through its Strategic Fund.

The Caribbean Subregional Program Coordination convenes bi-weekly virtual meetings on mental health and psychosocial support for trained mental health providers, national health authorities, and relevant stakeholders and institutions including CARICOM, CARPHA, CANPA (Caribbean Alliance of National Psychologists Association), and Public Health England. These sessions have touched on topics ranging from alcohol abuse to violence against women and girls in the context of COVID-19.

<sup>40</sup> From a press briefing by the Director of the Pan American Health Organization. Available online at: <https://www.paho.org/en/news/24-4-2020-paho-urges-countries-maintain-vaccination-during-covid-19-pandemic>

# Research, Innovation, and Development

Much remains unknown about the SARS-CoV-2 coronavirus. Clinical studies are ongoing across the globe and scientific papers are being published at a rapid pace, many without the needed peer review to validate methodologies and the validity of conclusions. Recognizing the flood of information, PAHO has prioritized the assessment of evidence coming from research studies and has synthesized emerging evidence to help Ministries of Health make decisions based on available evidence. With WHO leading three global studies, Unity, Solidarity I, and Solidarity II, PAHO is working with Ministries of Health and regulatory agencies to ensure that countries are prepared to undertake these studies.

## Helping Countries Navigate Emerging Evidence

An area of concern is that of normative guidance on standard treatment guidelines for COVID-19, which includes pharmaceutical and other supportive care treatments. Currently, no intervention(s) has proven effective in targeting the etiological cause of COVID-19; the same can be said about prophylaxis. However, some clinical management guidelines from Member States recommend interventions based on expert consensus, very low quality of evidence, and contradictory research. The use of unproven interventions (which may be not be beneficial and may even harm patients) outside of research raises ethical concerns. PAHO provided specific guidance

for COVID-19 patient safety and the use of medicines without scientific evidence of their benefit.

PAHO has provided Member States with updated guidance, information, and technical advice on scientific evidence, advancements in laboratory diagnosis, clinical management, and therapies as new studies are published. As such, PAHO has conducted rapid reviews of literature on key topics to contribute to an evidence base to combat the virus. PAHO has launched a COVID-19 Technical Database<sup>41</sup>, to further support countries and territories in the Americas and international partners with evidence-based information on science and technologies. This is the result of partnerships with WHO, Cochrane, McMaster University, Epistemonikos, and other partners. This database is regularly updated with published technical guidelines, scientific publications, and ongoing research protocols, and is available to the public.

PAHO continuously reviews emerging evidence and information in order to build an evidence base to help governments to combat this virus. It maintains an updated document on potential COVID-19 therapeutics<sup>42</sup>, the product of a series of rapid systematic reviews on the evidence backing the relevance of 35 drugs for treating COVID-19 patients. This includes the use of Chloroquine and Hydroxychloroquine to treat COVID-19 cases (concluding that more evidence is still needed and that governments should take steps to ensure

41 See more at <https://covid19-evidence.paho.org>

42 Pan American Health Organization. Ongoing Living Update of Potential COVID-19 Therapeutics: summary of rapid systematic reviews. Available online at: <https://www.paho.org/en/documents/ongoing-living-update-potential-covid-19-therapeutics-summary-rapid-systematic-reviews>

the continued availability of these medicines for treatments for other diseases and conditions), as well as other topics including COVID-19 patients with hypertension and risk of death, corticosteroid therapy, convalescent plasma, IL-6 and lung disease, Interferon- $\beta$ -1a for patients with moderate to severe acute respiratory distress syndrome, and potential drug treatments (Remdisevir, Gavipavir, Umifenovir, Danoprevir, Nelfinavir, Darunavir, Meplazumab, and Siltuximab).

Considering the breadth of knowledge and evidence related to COVID-19, PAHO produced an interactive infographic<sup>43</sup> to help external partners navigate PAHO and WHO's technical material and compilations of evidence from the Americas and around the globe.

### Ethics and COVID-19 Research

In the context of the COVID-19 pandemic, Member States had to establish procedures for rapid ethics reviews, which were almost entirely absent in the Region in early 2020. PAHO provided specific guidance with strategies to streamline the ethics review and oversight of COVID-19 research,<sup>44</sup> along with a template and operational guidance for ethics review committees,<sup>45</sup> which are being widely implemented by Member States with PAHO support.

### The Americas in Global Clinical Research Studies

From the start, PAHO and its Member States integrated research and development into the pandemic response.

A coordinated Global Research Roadmap was created to accelerate research that can lead to evidence needed to strengthen the response. The scientific community has focused on developing and/or repurposing medicines that can target SARS-Cov 2 and help control the pandemic. Member States are funding and promoting research from a variety of disciplines to address the COVID-19 pandemic. Countries are also conducting a substantial number of studies that are not clinical trials and thus not registered in WHO's International Clinical Trials Registry Platform (ICTRP).

### The Solidarity Trial

Early on, the global scientific community quickly launched efforts to find effective treatment for COVID-19. In support of this, on 18 March 2020, WHO launched an international clinical trial (known as "Solidarity") to help find such a treatment for COVID-19. PAHO provided support in the development of Seroepidemiology Study Solidarity II and in the country implementation of sero-epi investigations (known as WHO "Unity Studies") in a number of countries in the Americas. Eighteen countries of the 105 that have expressed interest in participating are from the Americas.

43 See more at: <https://www.paho.org/en/covid-19-communication-materials>

44 Pan American Health Organization. Guidance and strategies to streamline ethics review and oversight of COVID-19-related research, 7 April 2020. Online at: <https://iris.paho.org/handle/10665.2/52089b>

45 Pan American Health Organization. Template and operational guidance for the ethics review and oversight of COVID-19-related research, 15 April 2020. Online at: <https://iris.paho.org/handle/10665.2/52086>

# The Road Ahead

With six of the ten countries reporting the highest number of cumulative COVID-19 cases worldwide, the Region of the Americas has stubbornly remained the epicenter of this pandemic. Cases in the Brazil and the United States, the two countries with the highest number of cases for several months, are finally stabilizing while cases in many Caribbean countries and territories surge. Health workers are increasingly fatigued and their mental health suffers from months working under extremely challenging circumstances. Meanwhile, a study by ECLAC expects that the global GDP in 2020 will likely face its greatest contraction since the Second World War.<sup>46</sup> This is compounded where health systems are underfunded and not adequately equipped to respond to malaria, measles, yellow fever, and other diseases that predate the arrival of COVID-19 in the Americas. This triple crisis of health, social protection, and an economic downturn represents a risk that the Americas may see a loss in some of the gains in health outcomes that it has achieved over the past decades.

The most plausible epidemiological evolution of the pandemic in the coming months may involve recurring epidemic waves interspersed with periods of low-level transmission. This also could include different transmission scenarios simultaneously occurring in non-contiguous areas within the same country<sup>47</sup>. Absent the development of an evidence-backed vaccine or treatment that is readily accessible to all peoples of the Americas, a challenging scenario is

anticipated. Countries in the Americas should maintain social distancing measures, improve surveillance, and strengthen health systems as three key actions to controlling the COVID-19 pandemic in the Region. Solidarity, the bedrock of Pan-Americanism, will prove critical in addressing this pandemic as a united Western Hemisphere. Countries will benefit from learning from one another, pooling resources and expertise, and drawing upon the latest data that is shared transparently and rapidly.

As it has since 1902, the Pan American Health Organization will work directly alongside its Member States in the trenches of the battle against the COVID-19 pandemic. Its health experts will continue to track the virus in every country and territory in the Americas, sharing and disseminating up-to-date data on trends and cases as they emerge. It will periodically reassess the capacities of health systems to ensure that the necessary resources are in place to treat cases and protect health workers and the general public as COVID-19 cases rise and fall, while maintaining essential health services. It will produce and update its guidelines and technical guidance as new evidence becomes available, while carefully assessing the underlying robustness of new information to ensure it sufficiently backs emerging treatments, diagnostic kits, and strategies for facing the virus. PAHO remains committed to the peoples of the Americas and is confident that the Americas will ultimately prevail against COVID-19.

46 Economic Commission for Latin America and the Caribbean. The effects of the coronavirus disease (COVID-19) pandemic on international trade and logistics. August 2020. Available at: <https://www.cepal.org/en/publications/45878-effects-coronavirus-disease-covid-19-pandemic-international-trade-and-logistics>

47 PAHO, Considerations on the adjustments of social distancing and travel related measures, 27 April 2020, found at: <https://www.paho.org/en/documents/considerations-adjustments-social-distancing-and-travel-related-measures>





# Selected Highlights of PAHO's Response to COVID-19 in Countries of the Americas

Country pages are provided for all countries and territories with the exception of Canada and the United States of America, due to the nature of PAHO's cooperation with these countries.



## Antigua and Barbuda



### Country-level coordination, planning, and monitoring

- Collaborated with partner UN agencies (UNDP, UNICEF, and UNOPS) to procure medical equipment for health facilities treating COVID-19 cases.
- Provided technical support for the development of national response plan.
- Launched consultations with national health authorities on the development of country strategic preparedness and response plans according to WHO guidelines.
- Continued publication of the COVID-19 information bulletin including measures taken by countries to contain the spread of the virus and highlights on PAHO support to countries.
- Maintained the Country Office's Incident Management System Team structure and adaptation of the members' roles to the WHO SPRP pillars to facilitate implementation and reporting.
- Monitored country response to COVID-19 through monthly and weekly reporting on WHO M&E indicators.
- Developed country action plans for various COVID-19 donor grants, followed by engagement of national focal points to support implementation at country level.
- Facilitated coordination with the UNRC system on COVID-19 initiatives.



### Risk communication and community engagement

- Delivered virtual training in psychological first aid for healthcare workers (HCWs), community leaders, teachers and hotline workers to provide mental health and psychosocial support to strengthen individual and community resilience.
- Provided technical support for the development of risk communication materials for HCWs and the general population.
- Produced and distributed posters and booklets on preventive public health measures.
- Produced five-part television series and public service announcements (PSAs) for radio on coping with COVID-19, addressing stigma and fear.
- Purchased equipment to strengthen the Health Promotion Unit.



### Surveillance, rapid response teams, and case investigation

- Disseminated technical guidance on COVID-19 surveillance, including case definitions.
- Worked with health authorities to ensure that their surveillance systems were calibrated with COVID-19 case definition, and introduced data collection tools (e.g. Excel line listing, revised case reporting form).
- Provided orientation on Go.Data, the WHO contact tracing software for capturing data and monitoring the chain of transmission.
- Provided orientation on EpiEstim & CovidSim, mathematical models for short-term forecasting of cases.
- Provided guidance to national epidemiologists and laboratory personnel on the PAHO regional programme for influenza laboratory-based surveillance for SARI/ILI and its link to COVID-19.
- Provided a vehicle to national authorities for surveillance and contact tracing strengthening.



### Points of entry, international travel, and transport

- Provided communication materials, including banners, to raise awareness about COVID-19 among travelers and officers at ports of entry.
- Reviewed entry protocols for the reopening of borders as they became available and provided feedback to national health authorities as appropriate.
- Provided necessary equipment, e.g. thermal imagers and IT tools for data collection, to strengthen infrastructure for case detection at points of entry.
- Conducted webinar on "Considerations for resuming non-essential travel in the Caribbean."



### National laboratories

- Disseminated guidelines and protocols for COVID-19 testing.
- Procured and distributed sample collection materials.
- Procured and distributed RT-PCR enzymes, extraction kits and consumables.
- Trained laboratory staff from the National Health Laboratory to test for COVID-19 using open platforms for molecular diagnostics.
- Ensured laboratory capacity to detect COVID-19 cases by providing tests and reagents, and to scale up capacity as more cases were detected.

- Conducted a webinar on “Scaling up laboratory testing in the Caribbean.”
- Jointly collaborated with the regional team to establish an emergency stock of COVID-19 laboratory materials for distribution to countries and territories in the sub-region.
- Facilitated the regional team’s training on molecular testing to establish on-island testing capacity.
- Delivered test kits and critical material to implement the reference protocol for SARS-CoV-2. This is the first time that Antigua and Barbuda’s national laboratory has installed capacities for PCR laboratory testing.



### Infection prevention and control

- Provided PPE and supplies for healthcare workers to keep them safe as they respond to the pandemic.
- Trained HCWs in IPC techniques. Trained nurses, doctors, and surveillance officers to safely and appropriately use PPE.



### Case management

- Provided technical support for the development of an isolation unit in acute healthcare settings.
- Improved local health system capacity and protected healthcare workers to safely detect and deliver healthcare services.



### Maintaining essential health services during an outbreak

- Worked with the national immunization program to ensure continuity in vaccinations during the COVID-19 pandemic; created a forum to exchange experiences and challenges in adjusting the delivery of immunization services.
- Provided training on the use of the WHO/UNICEF’s annual Joint Reporting Form (JRF) and the new monthly reporting system for vaccines; convened a virtual campaign to support the annual Vaccination Week in the Americas.
- Provided guidance and training for caregivers and family members of children with disabilities on care during the COVID -19 pandemic.
- Convened a Young People’s Dialogue and a COVID-19 awareness webinar for youth leaders.
- Provided mental health and psychosocial support to HCWs by a dedicated psychologist.
- Provided capacity building for HCWs in the Mental Health Gap Action Plan.

## Argentina



### Country-level coordination, planning, and monitoring

- Participated in the newly created International Argentinian Humanitarian Network (RHIA), which includes the Health Cluster; coordinated the influenza vaccination for all Agencies/Programs and Funds (APFs) of the UN system.
- Created a medical-coordination network for medical advice and reference of patients to the private or national health services according to national guidelines for the UN system personnel.
- Conducted the technical review of all COVID-related documents developed by the UN system in Argentina.
- Shared technical information (interim guidelines, recommendations, protocols, and methodologies) on a timely basis with counterparts at the national and subnational levels for further adaptation to the context and incorporation into existing protocols, instruments, and approaches.
- Supported the procurement of COVID-19 supplies through PAHO's Strategic Fund.
- Provided advice to the governors of Cordoba and the city of Buenos Aires on pandemic and strategies as they progress toward lifting lockdown measures.
- Advised on the development of a strategic plan on quality 2020-2024, with COVID-19 and human resources for health as the cornerstones.
- Contributed to the development of a new digital modality for the Nation's Ministry of Public Health's Journal for Public Health in the context of the pandemic to disseminate scientific evidence on COVID-19.



### Risk communication and community engagement

- Trained more than 600 national and provincial journalists and journalists from 65 municipal communication teams on the pandemic.
- Collaborated with UN AFPs in Argentina to adapt and print COVID-19 communication materials to the contexts of migrants, refugees, prisons, elder care and other vulnerable populations.
- Collaborated on the launch and dissemination campaign to promote the donation of blood in the COVID-19 context, alongside the Ministry of Health and the Presidency.

- Developed messages for contact tracing tailored to the general population and health personnel.



### Surveillance, rapid response teams, and case investigation

- Alongside the Ministry of Health, trained the country's epidemiology teams (370 workers from 19 of 24 Argentinian provinces) to use Go.Data for contact tracing at the national and provincial level, and collaborated in the development of seven guides for using Go.Data.
- Conducted a national and subnational survey on contact tracing, which was organized with the Ministry of Health; 325 liaison officers and the Ministry's entire Telehealth Hospital Network of the Ministry took part.
- Supported the Government of Argentina to set up a new sentinel surveillance system with five sentinel sites for influenza and other respiratory viruses, including COVID-19.
- In coordination with the National Center of Community Organizations (CENOC), mobilized six NGOs working with vulnerable populations to help implement case detection / surveillance/ contact tracing strategy, DetectAR for COVID-19, as part of national efforts.
- Trained epidemiology professionals to use the 'EpiEstim' tool to calculate the effective reproductive rate of the virus and to use the CovidSIM tool to project how the virus will spread, in light of implemented public health measures and the health system.
- Hired ten strategic professionals (epidemiologists, hospital engineers/architects, information systems engineers) to provide direct support to the Ministry of Health's pandemic response.
- Mapped COVID-19 research and innovation initiatives in which the country is participating, alongside the Ministry of Health's Research Directorate.
- Trained 50 professionals that coordinate resident activities of the Ministry of Health in the city of Buenos Aires on "Policies for Human Resources for Health in the Context of the Pandemic."



### Points of entry, international travel, and transport

- Reviewed recommendations to reopen points of entry in the COVID-19 context, in coordination with the Directorate for International Relations and PAHO/WHO's IHR focal point.



### National laboratories

- Contributed with initial PCR primers and supplies to train more than 100 subnational laboratories in the 24 provinces, as part of a decentralized and expanded network of laboratory testing.
- Donated primers and enzymes to the National Laboratory Network for PCR diagnostic testing.



### Infection prevention and control (IPC)

- Trained 300 nurses nationwide and key psychiatric hospital staff and managers in recommended IPC practices.
- Provided guidance to the National Directorate of Water and Sanitation and the Ministry of Public Works to ensure water quality during the pandemic.
- Alongside the Ministry of Health, trained personnel from the Argentinian Network of Municipalities fighting Climate Change on the management of waste in the context of COVID-19.
- Supported the Ministry of Health to develop an instrument to certify the quality and safety of first level care in the context of COVID-19.



### Case management

- Trained national and subnational teams to use PAHO tools to calculate needed PPE, medical personnel, and supplies and equipment to manage anticipated COVID-19 cases.



### Operational support and logistics

- Shared information about SUMA, the PAHO/WHO system for managing humanitarian supplies, with multi-sectoral professionals in the province of Santa Fe.
- Presented and disseminated the COVAX mechanisms to the National Immunization Commission as a mean to access a COVID-19 vaccine.



### Maintaining essential health services during an outbreak

- In the context of the pandemic, provided technical support to the Ministry of Health to develop guidelines on mental health; NCD; immunization; maternal, child and adolescent health; elderly adults; and breast, cervicouterine, and colorectal cancers.





## Bahamas



### Country-level coordination, planning, and monitoring

- Provided on-going technical advice and operational support, at the highest level of the PAHO country office to the EOC for development of diverse public health and COVID-19 outbreak prevention and control policies, e.g., for clinical management, IPC, disease surveillance, quarantine/isolation/follow up of cases and contacts, mental health and psychosocial support (MHPSS), travel, employers, schools, and social support for vulnerable groups (e.g., urban poor, migrants, homeless, unemployed, elderly, persons with disabilities, persons deprived of their liberty, and other institutionalized groups).
- Supported the Ministry of Health (MOH) in their efforts to mobilize financial and technical support for the COVID-19 response from other UN agencies, foreign missions, public sector and civic society groups.
- Advised on legislative policies, strategies, and considerations on mental health and psychosocial support, and social support for vulnerable groups, as noted above.



### Risk communication and community engagement

- Supported national authorities to develop and roll out their risk communication strategies and products through press conferences, town hall meetings, radio/TV interviews, and social media to reach all Bahamians.
- Provided occasional logistical support to MOH for preparation and printing of communication products.
- Collaborated with the IOM and MOH to prepare Haitian Creole-language communication products for use with the Haitian migrant community.
- The PAHO Representative participated in periodic press conferences, town hall meetings and radio/TV interviews.
- Developed new corporate risk communication and public education products for dissemination through PAHO social media platforms and via local mass media and partner agencies. Products developed by the PAHO Country Office addressed mental health, cyber safety for children, prevention of gender-based violence and substance abuse, parenting during COVID-19, and COVID-19 quarantine/isolation tips.



### Surveillance, rapid response teams, and case investigation

- Assigned an epidemiologist for three months to support the Ministry of Health in disease surveillance and data management for COVID-19.
- Worked with the MOH to adapt PAHO/WHO guidelines on epidemiological surveillance, contact tracing, case isolation, and quarantine of contacts to the context of the Bahamas.
- Supported the MOH in data management and reporting, including use of Go.Data, the WHO contact tracing tool.
- Since 5 August, PAHO staff and national consultants provided technical assistance to MOH's data management team including in the use of WHO Go.Data tool for the analysis of chains of transmission.
- Provided technical assistance to review medical records to assist with classification of deaths.
- Provided financial support for production of videos to be used in an on-line contact tracing course for collaborative project with University of the Bahamas and the MOH.
- Supported the modeling of the trends of the two waves of the COVID-19 outbreak in The Bahamas.



### Points of entry, international travel, and transport

- Provided recommendations for appropriate IPC measures at points of entry and trained staff working at these points (airport, harbor).
- Contributed to the preparation of communication materials on the health risks of COVID-19, for use at points of entry.



### National laboratories

- Strengthened laboratory capacities through training and provision of enzymes, controls, primers and RNA extraction kits to support testing for COVID-19.
- Strengthened National Reference Laboratory through training and provision of reagents, enzymes, controls, primers and RNA extraction kits to support testing for COVID-19.
- Donated 2 GeneXpert machines and 1,800 tests for expansion and decentralization of laboratory testing capacities in response to surge in cases.



### Infection prevention and control

- Supported the MOH with access to WHO and PAHO IPC and clinical management guidelines and online training resources.
- Provided guidance to the MOH in the development of Standard Operating Procedures for IPC.

- Collaborated with MOH on investigation into risk factors associated with infections among health workers.
- Offered an online IPC course (total of 20 hours over 10-12 weeks) for 36 health care personnel from primary health care clinics and hospitals.



### Case management

- Provided modular units that have been adapted to expand isolation and triage capacity in two hospitals.
- Assisted MOH to plan for clinical and hospital surge capacities (hospital beds, human resources, and supplies) with the support of tools and guidelines prepared by PAHO.



### Operational support and logistics

- Delivered laboratory supplies, PPE, and nasopharyngeal swabs to enable Bahamas to ramp up testing for COVID-19.
- Procured and donated nasopharyngeal swabs, laboratory equipment and supplies, PPE, hand sanitizers and ventilators.



### Maintaining essential health services during an outbreak

- Provided PAHO/WHO guidance and guidelines and links to PAHO and WHO webinars and meetings to aid the MOH in selecting, adapting and maintaining essential health services in the face of the COVID-19 pandemic.
- Supported the rapid assessment for continuity of essential health services during the COVID-19 pandemic using a WHO assessment tool.
- Provided on-going support to the national authorities for procurement and delivery of vaccines through PAHO's revolving funds for maintaining immunization services.



## Barbados



### Country-level coordination, planning, and monitoring

- Launched consultations with national health authorities on the development of country strategic preparedness and response plans for COVID-19 according to WHO guidelines.
- Helped national health authorities to assess needed technical support/supplies to enable Barbados to effectively respond to the pandemic.
- Coordinated with the United Nations system to develop and implement the Multi-Sectoral Response Plan for the Eastern Caribbean, in coordination with CDEMA, and other partners.
- Continued publication of the PAHO Country Office information bulletin, including measures taken by countries to contain the spread of the virus and highlights on PAHO support to the member states.
- Maintained the structure of the Country Office Incident Management System Team and adapted the roles of members to the pillars of the WHO SPRP to facilitate implementation and reporting.
- Monitored country response through monthly and weekly reporting on WHO M&E indicators.
- Developed country action plans for various COVID-19 donor grants, followed by engagement of national focal points to support implementation at country level.
- Facilitated coordination with the UNRC system on COVID-19 initiatives.



### Risk communication and community engagement

- Produced posters and booklets on preventive public health measures for COVID-19.
- Produced and disseminated social media cards designed for the general public on coping with stress-related issues.
- Facilitated capacity building in Psychological First Aid for community and religious leaders, teachers, and influencers so that they can provide basic mental health and psychosocial support aimed at strengthening individual and community resilience.
- Hosted virtual youth dialogue titled “COVID-19: Adjusting to the new normal” for 1,400 persons.
- Produced two videos on hand hygiene and mixing of disinfecting solutions for the general public.
- Marketed social media cards on coping with stress on Facebook, Twitter and Instagram.



### Surveillance, rapid response teams, and case investigation

- Worked with health authorities to ensure that their surveillance systems were calibrated with the COVID-19 case definition and introduced data collection tools (e.g., Excel line listing, revised case reporting form).
- Provided orientation on Go.Data, the WHO contact tracing software for data capturing and monitoring the chain of transmission.
- Produced orientation on EpiEstim & CovidSim mathematical models for short-term forecasting of cases.
- Procured computers to support COVID-19 surveillance and contact tracing.



### Points of entry, international travel, and transport

- Produced communication materials to raise awareness of risks from COVID-19 at POE.
- Regularly reviewed entry protocols for the reopening of borders as they became available, and provided feedback to national authorities.
- Provided necessary equipment, e.g., thermal imagers, and IT tools for data collection, to strengthen infrastructure for case detection at POE.
- Organized a webinar on “Considerations for resuming non-essential travel in the Caribbean”.



### National laboratories

- Disseminated guidelines and protocols for COVID-19 testing, procurement, and distribution of sample collection materials.
- Procured and distributed RT-PCR enzymes, extraction kits and consumables.
- Trained laboratory staff in theoretical aspects of molecular diagnostics.
- Conducted a webinar on “Scaling up laboratory testing in the Caribbean.”
- Facilitated joint collaboration with the regional team for the establishment of an emergency stock of COVID-19 laboratory materials for distribution to countries and territories in the sub-region.



### Infection prevention and control

- Delivered PPE to protect frontline health workers and priority health facilities that receive and manage COVID-19 cases.
- Assessed isolation units and provided recommendations on how they should be designed and which IPC measures should be considered.



### Case management

- Conducted a webinar for health personnel on the clinical management of COVID-19, focusing on experiences and lessons learned from across the Region.
- Improved local health system capacity and protected healthcare workers to safely diagnose COVID-19 cases and deliver healthcare services.



### Operational support and logistics

- Ensured movement of essential medical supplies to the Eastern Caribbean and the British Overseas Territories, through a partnership with the Regional Security Mechanism. The Barbados Defense Force has helped with storage and distribution of medical supplies.



### Maintaining essential health services during an outbreak

- Worked with the country's immunization program to ensure continuity in vaccinations during the COVID-19 pandemic and to create a forum to exchange experiences and challenges in adjusting the delivery of immunization services.
- Provided training on the use of WHO/UNICEF's annual Joint Reporting Form (JRF) and the new monthly reporting system for vaccines, allowing national authorities to monitor the impact of the pandemic on the immunization program.
- Participated in the Vaccination Week of the Americas (VWA) virtual campaign: Shared guidance, posters, GIFs, and key messages to support Barbados to develop this campaign.
- Conducted training with MOH focal points to discuss considerations for children with disabilities, including continued specialized health services for the children and their families.
- Convened a virtual dialogue for young people to discuss what it will take to adjust to this new way of living, and how to cope with pandemic-related isolation in a positive way.
- Hosted webinar on "Building Back Better NCD Services."
- Collaborated with UNICEF to provide MHPSS support to the affected community.



## Belize



### Country-level coordination, planning, and monitoring

- Participated in the multisectoral national emergency response, the National COVID-19 Task Force and the medical and communication sub-committees.
- Collaborated with other Ministries in addition to the Ministry of Health, both directly and through the National COVID-19 Taskforce.
- Facilitated development of COVID-19 Country Preparedness and Response Planning (CPRP) with MoH and the UNCT. Provided orientation to the Partners Platform and updated content.
- Participated in development of the UN socio-economic response plan (SERP) for Belize.



### Risk communication and community engagement

- Disseminated critical information through the national press, media briefings, radio, TV, and social media.
- Developed and implemented, together with the MOH, a risk communication and community engagement strategy to reduce the impact of COVID-19. Updated key messages and communications materials to match evolving guidelines from PAHO/WHO.
- Developed language-specific public health messages in Spanish, Kriol, Garifuna and Ketchi Mayan. Initiated radio campaigns using language-specific public service announcements.
- Conducted virtual information sharing sessions with the Chamber of Commerce, Ministry of Education and UN entities.
- Developed joint PAHO/WHO, UNHCR and UNFPA risk communications strategy under the UN MPTF and participation in the UN Communication Group. Support to the MOH Community Health Platform.
- Made recommendations to Communications Subcommittee of the National COVID-19 Task Force on the management of returning Belizeans in quarantine hotels.
- Developed video public service announcements for television campaign to include the promotion of immunization in support of Blood Donor Service Day.
- Promoted the safety of breastfeeding, if lactating mothers are positive for COVID-19, with posters on COVID-19 and breastfeeding.

- Developed mental health and psychosocial support (MHPSS) webinars for health frontline staff and policy and operational level personnel of the Ministry of Education.
- Developed communication materials to include videos in English and Spanish to be disseminated to health facilities, schools, businesses, organizations, and public spaces with focus on mental health, NCDs, HIV, and general messaging for COVID-19.



### Surveillance, rapid response teams, and case investigation

- Provided technical guidance for the integration and timely reporting of COVID-19 into existing SARI surveillance including the adaptation of the surveillance guidelines.
- Offered guidance and capacity building exercises on the use and management of Go.Data for contact tracing. National authorities have developed a repository to deploy Go.Data in an affordable manner, and linked the information to develop mapping of COVID-19 positive cases.
- Provided technical guidance to the Statistical Institute of Belize and the MOH on the modelling of epi-projections.
- Facilitated capacity building on timely reporting and consensus on the variables to be reported to PAHO/WHO.



### Points of entry, international travel, and transport

- Produced health education materials for use at the airport and key health messages/infographics for nationals returning from abroad.
- Participated in the review of the modifications at the international airport, which included a port health unit together with the National COVID-19 Task Force.
- Facilitated the participation of the Ministry of Health in the webinar – Resuming International Travel in the Caribbean Countries.



### National laboratories

- Engaged in capacity building for laboratory diagnosis and provided tests, supplies, and PPE.
- Initiated procurement of seven F200 devices to facilitate the expansion and decentralization of COVID-19 testing at point of care in districts.
- Facilitated review of the testing algorithms to include the new PAHO/WHO recommendation.
- Facilitated the participation of the MOH personnel in the revision of the Americas' testing strategy.





### Infection prevention and control

- Facilitated briefing/dissemination of information on the regulation, use and procurement of PPE for health workers in critical facilities to include long-term care residential facilities.
- Held capacity building sessions for volunteers and health staff working in quarantine facilities.
- Further procurement of a variety of PPE for the MOH, including masks, gowns, gloves, goggles.
- Coordinated with the IDB and MOH on issues related to the management of medical waste in health facilities, to prevent re-infection.



### Case management

- Conducted joint readiness assessment and monitoring progress of hospitals and quarantine facilities; provided technical guidance and materials on ICUs and case management.
- Participated in the review of protocols, SOPs and facilitated capacity building webinars on the management of cases of COVID-19 including treatment and human resources for health.
- Trained nationals to use the PAHO tool on Estimation and Management of COVID-19. This has helped to gauge needs for PPE, health workers, ICU and critical care beds, and supplies.
- Facilitated dissemination of updated information for participation in the Solidarity Trials and recent clinical evidence produced by PAHO/WHO.
- Disseminated information on strengthening regulatory capacity and supply chain management to include forecasting for essential medicines and public health supplies.



### Operational support and logistics

- Accessed and requested equipment and other supplies through the COVID-19 Supply Portal and PAHO/WHO Strategic Fund.
- Supported the procurement of PPE to protect the health workforce and laboratory and other supplies, with an emphasis on ramping up testing for COVID-19.



### Maintaining essential health services during an outbreak

- Provided guidance on the reorganization of health services to meet the changing demands in essential services as a result of the pandemic.
- Engaged in capacity building in mental health and psychosocial support for the protection of healthcare providers working in an environment of COVID-19.
- Facilitated dissemination of capacity building on HIV self-testing, chronic non-communicable diseases, blood regulation, information systems and digital health, telemedicine and virtual care.



## Bolivia



### Country-level coordination, planning, and monitoring

- Supported national authorities to implement the Strategic Coordination Roundtable, composed of the ministries of Health, the Presidency, Defense, Development Planning, and others; the National Emergency Operations Center (EOC), the Office of the UN Resident Coordinator, the World Bank, the IDB as spaces to formulate COVID-19 emergency response strategies, based on projections of cases, analysis of the capacity of the health sector, gap identification, and prevention and response measures.
- Supported national authorities to develop and implement the National Emergency Response Strategy for COVID-19, which has four components: (1) strengthening capacities, (2) epidemiological and community surveillance, (3) organization of isolation and recovery centers, and (4) strengthening hospitalization capacity and cross-cutting risk communication.
- Disseminated and sought widespread socialization of and consensus on the National Emergency Response Strategy for COVID-19 with national and subnational authorities, the media, health personnel, international cooperation agencies, and other strategic actors to coordinate efforts and resources to support its implementation.
- Provided technical support to the Ministry of Health to develop the Post-Lockdown Containment, Mitigation, and Recovery Plan July – December 2020, with the Community Active Surveillance Strategy.
- Launched a project to implement a training and risk communication strategy for COVID-19 in indigenous Guaraní populations through a partnership with the Health Agreement – Tekove Katu, with similar efforts ongoing for the Yuki people.
- Led the Health Cluster, generating sectoral and intersectoral coordination processes within the framework of the Country Humanitarian Team.



### Risk communication and community engagement

- Supported the Ministries of Health and of Communications to develop and implement Bolivia's Risk Communications Strategy for COVID-19.
- Supported the Ministry of Health and the Departmental Health Services (SEDES) to develop risk communication materials to reach the general population and adapt

materials that target indigenous groups, Afro-Bolivians, and populations living in the Amazon region, the Chaco, and the country's highlands.

- Disseminated messages through social media designed to tackle discrimination against COVID-19, generate respect for health workers, foster self-care and social distancing measures adapted to the cultural and social context of different audiences.
- Built strategic alliances with the U.N. Interagency Communications Group in Bolivia, the Country Humanitarian Team, and with highly rated media groups in Bolivia (at the state, private, and community level).
- In coordination with the SEDES of Santa Cruz, Beni, and Oruro, conducted a survey on risk perceptions to guide community risk activities. In the Department of Beni, implemented a risk communication plan based on this study.



### Surveillance, rapid response teams, and case investigation

- Provided technical cooperation to the National Directorate for Epidemiology of the Ministry of Health on the methodology and tools for information management, case definition, protocols for case identification, quarantine, and house isolation.
- Supported the country to implement a community surveillance strategy to mobilize health brigades and rapid response teams in coordination with other actors in the society to identify and isolate cases on a timely basis.
- Trained all departments in Bolivia in sample taking and the use of PPE.
- Supported the Ministry of Health to adapt guidelines for the management and disposal of bodies of COVID-19 victims, tailoring them to agrarian populations; indigenous peoples; Afro-Bolivians; and others.
- Provided guidance to enable Bolivia to analyze and visualize the virus' effective reproductive rate (using EpiEstim) and project how the virus will spread, considering implemented public health measures and the national health system (using CovidSIM).
- Worked alongside the National Liaison Center in the periodic reporting of COVID-19 information in alignment with the IHR.
- Collaborated with the epidemiological team of the Ministry of Health from the SEDES of Beni, Santa Cruz, and La Paz to monitor and conduct surveillance of the pandemic.



### Points of entry, international travel, and transport

- Coordinated with the national EOC and the Risk Management Unit of the Ministry of Health to mobilize rapid response

teams for COVID-19 surveillance to air and land points of entry, in order to respond to situations created by 20,000 repatriated Bolivians arriving in the country and a similar number departing to their countries of origin.

- Supported the Ministry of Health and the SEDES to provide training in biosecurity protocols for airport, customs, and migration personnel.



### National laboratories

- Provided technical cooperation to implement new laboratories for open molecular biology and laboratories with the GeneXpert platforms in different Departments in Bolivia.
- Delivered reagents, RNA extraction kits, and other laboratory supplies to expand the diagnostics capacity for COVID-19.
- Provided, using KOICA-PAHO resources, 12,000 PCR laboratory kits and 10,000 sets of PPE.
- Trained laboratory personnel from the National Center for Tropical Diseases (CENETROP), the designated national influenza center (NIC), to interpret results from COVID-19 molecular detection.
- Trained the country's laboratory personnel in the analysis of molecular diagnostics by real-time PCR and GeneXpert.
- Through social media, provided national training in the use of virologic, serological, and antigen-based tests in coordination with the National Institute of Health Laboratories (INLASA).



### Infection prevention and control

- Trained health personnel in biosecurity protocols regarding the proper use of PPE, sample collection, and patient isolation.
- Provided capacity building to national and departmental-level laboratory personnel to implement biosecurity protocols.
- Widely disseminated guidelines and manuals on hygiene, water, and waste management to personnel from the Ministry of Health, the SEDES, and the health and WASH clusters to strengthen risk reduction and infection control in health and community facilities.
- Supported the Ministry of Health to develop a supply plan for PPE.
- Supported the implementation of isolation and recovery centers for patients with mild COVID-19, particularly on logistics, operations in these spaces, and biosecurity training for health and services personnel in the departments of Santa Cruz, Cobija, and Oruro.



### Case management

- Supported national health authorities to reorganize and strengthen existing hospital services for the management of COVID-19 cases, including critical cases.
- Trained health personnel hired by relevant health networks and COVID-19 hospitals.
- In coordination with the Ministry of Health, applied a readiness checklist (organization, leadership, differentiated triage, isolation, etc.) of COVID-19 hospitals in 42 reference hospitals in Bolivia's nine departments, including social security and private hospitals.
- Disseminated guidelines and protocols for case management for pre-hospital care.
- Supported the Scientific Committee of the Ministry of Health to design and update protocols and clinical guidelines for COVID-19 patient management for mild, moderate, and severe-critical cases.
- Supported the management of the Solidarity clinical trial through an agreement between the Ministry of Health and WHO, after having presented the protocol to the National Bioethics Committee. Provided training in the protocol and the data collection tool for 15 hospitals that will implement the study.
- Supported the Ministry of Health to design COVID-19 management guidelines for agrarian populations, indigenous peoples, and Afro-Bolivians.



### Operational support and logistics

- Supported the Ministry of Health in the programming of the distribution of equipment and supplies at the national level. The Office for Drugs and Supplies (CEASS) and the Agency for Health Infrastructure and Medical Equipment (AISEM) currently implement this plan.



### Maintaining essential health services during an outbreak

- Supported the reorganization and expansion of Bolivia's health services by assessing readiness in 57 hospitals and the readiness of the country's 70 health service delivery networks, including an equipment distribution plan for 47 items with detailed technical specifications.
- Provided an estimate of needed human resources and provided technical guidance for hiring 7,500 health professionals to support all levels of care (laboratory technicians, nurses, and doctors in various specialties, and intensive care personnel).

- Supported the Ministry of Health to strengthen the first level of care, using community brigades for monitoring of isolation centers, contact tracing, case identification and early referral.
- Supported the Ministry of Health in following up on the hiring of COVID-19 workers and in the formulation and implementing of a training plan.
- Supported the Ministry of Health to develop its document on the adaptation of health services for a consolidated COVID-19 response and to ensure the continuity of essential health services.
- Provided technical support to the Oruro and La Paz SEDES for an integrated epidemic response.
- Through the Health Cluster, developed a document on “Strengthening Essential Health Services for Populations in Situations of Vulnerability in the Context of the COVID-19 Pandemic,” geared toward authorities and technical working groups.
- Supported the reconversion of COVID-19 hospitals to maintain essential services or reassign them to other establishments.
- Developed a survey on the impact of COVID-19 on noncommunicable diseases and mental health in Bolivia.
- Carried out training on an integrated care model for victims of sexual violence, as part of implementing a contingency plan on violence in the context of COVID-19.
- Supported the organization of a national and department-level Network for Mental Healthcare and the prevention of mental health disorders arising from COVID-19.
- Supported the Ministry of Health to estimate the percentage of the population at high risk of COVID-19 due to underlying health conditions.
- Initiated the systematization of indirect effects from COVID-19 on essential health services for women, pregnant women, newborns, children, adolescents, and older adults.
- Supported the Ministry of Health as it ratified its participation in the COVAX mechanism.



## Brazil



### Country-level coordination, planning, and monitoring

- Facilitated COVID-19 emergency response coordination between the three levels of Brazil's administrative organization (federal, state, and municipal) under Brazil's Unified Health System (SUS).
- Strengthened Brazil's preparedness and response capacity by providing technical contributions to the country's emergency plans and protocols, including sharing international experiences.
- Facilitated the exchange of experiences between states related to surveillance, laboratory diagnostics, assistance and communication, through post-event assessment missions conducted to various states (Amazonas, Maranhão, Minas Gerais, Paraná) with the participation from multi-disciplinary teams from various states.
- Supported Brazil's executive and judiciary branches to develop protocols to reduce COVID-19 transmission, targeting indigenous populations, incarcerated persons, and workers at penitentiaries, based on PAHO's epidemiological and risk analyses.
- Supported states in Brazil to develop and monitor the implementation of non-pharmacological measures.
- Translated all WHO and PAHO COVID-19 publications and tools into Portuguese.
- Alongside the National Council of State Secretariats – CONASS, supported the creation of a "Strategic Information Center for the State-level Management of the SUS," including the development of business intelligence tools to score processes for analysis and monitoring and evaluation for decision making by the directives of the 27 state-level health secretariats.



### Risk communication and community engagement

- Produced communication materials with science-based messages; disseminated information in a timely fashion relevant to different target publics on the website, social media, and other platforms; worked with the press to provide accurate information to the population; and refuted false information.
- Developed postal stamps with Brazil's Postal Office, an institution of the Ministry of Sciences and Technologies, with information on COVID-19 prevention and trustworthy sources of information.

- In association with the International Network of Mental Health and Psychosocial Support, created a video with Brazilian actress Carol Castro performing the story "My Hero is You," using puppets to playfully explain to children what COVID-19 is and how they can keep themselves and others safe.
- Developed a postgraduate module on health communication with the Fiocruz and Brazil's Ministry of Health.



### Surveillance, rapid response teams, and case investigation

- Worked with the Ministry of Health to develop, adapt, and implement surveillance and laboratory strategies and guidelines.
- Shared analytical tools and provided projections to support government decision-making.
- Collaborated with the Ministry of Health to develop guidelines to intensify the identification and search of contacts and supported three states (Mato Grosso do Sul, Minas Gerais y Paraná) to implement an aggressive strategy for the search and monitoring of contacts.
- Supported the design of a seroprevalence study to estimate the prevalence of infection from SARS-CoV-2 in these populations.
- Supported 27 federal states to scale up their surveillance officers and laboratory staff and coordinated with the Ministry of Health, CONASS, and CONASEMS to strengthen surveillance capacities in key states and municipalities for emerging and re-emerging pathogens.
- Worked with the Special Secretariat for Indigenous Health to strengthen surveillance and case monitoring in 100 indigenous areas.
- Trained Ministry of Health personnel to use Go.Data for contact tracing and enabled an exchange between states on the use of other local tools for contact follow up.
- Supported the government of Manaus and the state of Amazonas to strengthen laboratory and surveillance capacities by expanding the workforce (23 nurses, two biotechnology nurses, four pharmacists, three biologists, and six nursing technicians).
- Collaborated with various states to develop a dashboard to visualize data to facilitate analysis and decision making.



### Points of entry, international travel, and transport

- Collaborated with the Ministry of Health to develop, adapt, and implement guidelines and protocols related to surveillance at borders.





### National laboratories

- Engaged in capacity building for laboratory workers to improve testing and diagnosis of COVID-19.
- Delivered test kits, extraction kits, and other supplies to national reference laboratories.



### Infection prevention and control

- Provided local authorities with specifications for PPE, mechanical respirators, and other supplies.
- Worked with national counterparts to formulate and implement strategies for the safe management of cadavers, in the context of COVID-19.
- Collaborated with the Ministry of Health to train health professionals.



### Case management

- Supported the Ministry of Health to develop, update, and implement guidelines on clinical management, surveillance, mental health, and implementing measures.
- Assessed hospital readiness and partnered with the Ministry of Health to train more health professionals, thus expanding the Unified Health System's workforce.



### Operations support and logistics

- Facilitated the purchase of diagnostic tests and supplies and critical medicines for patient care.
- Facilitated the donation of PPE to institutions in low-income communities.



### Maintaining essential health services during an outbreak

- Alongside the Ministry of Health, convened a meeting to award a prize on "Strong Primary Healthcare to combat the COVID-19 Pandemic," which seeks to identify, analyze, and disseminate successful experiences and innovations to primary health care. Close to 1,500 examples were approved and published on the web portal for access by professionals, technicians, managers, and policymakers.
- Systematized best primary healthcare practices through a program of live conferences with states and municipalities selected as resources for technical cooperation for SUS managers at the national level. Over 50,000 persons have accessed the videos.
- Collaborated with national authorities to enable them to

continue essential health services distinct from COVID-19, such as vaccination programs and the treatment of noncommunicable diseases.

- Participated in the development of a strategic action, "Brazil Can Count on Me" to register and gradually mobilize health professionals to prioritized states by the Ministry of Health since the start of the pandemic and supported the online course "Protocols for Clinical Management of COVID-19" (345,340 professionals enrolled).
- Developed training programs for health professionals in PPE, clinical management, and mental health.
- Trained 81,073 Brazilian health professionals in epidemiology and clinical management through PAHO's Virtual Campus and the Brazilian government's UNA-SUS.
- Supported training through realistic simulations in coordination with the network of university hospitals for health professionals before being sent to work in emergency services in the state of Amazonas.
- Alongside the CONASS, implemented a decentralized training program for health professionals which includes PAHO and WHO courses offered through PAHO's Virtual Campus and translated into Portuguese.
- Collaborated with the secretariats for human rights and social assistance from São Paulo to adapt services for women in situations of violence housed in temporary and long-term shelters.



## Chile



### Country-level coordination, planning, and monitoring

- Worked directly with the Ministry of Health, professional and scientific groups, and Chile's emergency response team to develop and implement Chile's COVID-19 Plan of Action while adapting PAHO and WHO protocols and methodologies to the country's context.
- Promoted measures that protect people in situations of vulnerability, including people with disabilities, pregnant women, elderly adults, the incarcerated, persons living with HIV, migrant populations, among others.
- Disseminated PAHO/WHO technical guidelines and their updates with national authorities, organizing discussions on topics of key interest between national experts and PAHO/WHO focal points, such as COVID-19 surveillance, excess mortality analysis, adjustments to public health measures, among others.



### Risk communication and community engagement

- Disseminated important facts and recommendations via radio, television, and the Internet and social media to combat misinformation.
- Developed virtual national-level trainings to train trainers on COVID-19 prevention in open markets, in coordination with the University of Chile and the University of Valparaiso.
- Provided technical advice to UN System working groups on preparedness and risk communication for UN personnel.
- Developed a campaign for the LGBTQ+ with participation from civil society organizations.
- Supported communication activities with institutional communication equipment.



### Surveillance, rapid response teams, and case investigation

- Collaborated with the Global Outbreak Alert and Response Network (GOARN) to train country counterparts to adopt Go.Data for contact tracing.
- Supported the definition of criteria for COVID-19 surveillance and case and death reporting through global and regional data platforms.
- Provided recommendations for strengthening the surveillance system and delivered support to analyze and visualize the virus' effective reproductive rate (using EpiEstim) and to project how the virus will spread in each country considering implemented public health measures and its health system (using CovidSIM).



### Points of entry, international travel, and transport

- Participated in the Intersectoral Roundtable on the IHR, communicating global recommendations, and following up on measures adopted at the country's points of entry.
- Participated in a meeting alongside health and national aeronautic authorities to analyze the resumption of non-essential national and international flights and provide PAHO/WHO recommendations.



### National Laboratories

- Participated in the Intersectoral Roundtable on the IHR, communicating global recommendations, and following up on measures adopted at the country's points of entry.



### Infection Prevention and Control

- Conducted technical meetings with authorities from the Ministry of Health and PAHO focal points to provide recommendations on the use of PPE, transmission mechanisms for the SARS-CoV-2 virus, and community protection measures.
- Trained UN system personnel in Chile on IPC in daily situations.



### Case management

- Provided therapeutics and technical support to the Ministry of Health to improve case management, providing access to WHO and PAHO clinical management guidelines, on-line training resources and virtual meetings.
- Facilitated access for the Ministry of Health to PAHO and WHO clinical management guidelines, online training materials, and virtual meetings.



### Operational support and logistics

- Promoted Chile's participation in collaborative mechanisms to eventually procure vaccines, via the COVAX mechanism.
- Supported the procurement of laboratory supplies through PAHO's Strategic Fund and local procurement with emergency funds.



### Maintaining essential health services during an outbreak

- Organized the exchange of experiences between countries regarding the means to safely resume elective surgeries.
- Collaborated with the University of Chile's School of Public Health to develop a complete triage model and remote care for patients with and without COVID-19 at the first level of care.



## Colombia



### Country-level coordination, planning, and monitoring

- Collaborated with the Ministry of Health to develop and adapt PAHO guidelines to Colombia's context and to generate national capacities to respond to the COVID-19 pandemic.
- Strengthened the health cluster, co-led by the Ministry of Health and PAHO, coordinating complementary actions with partners in the COVID-19 response.
- Developed an Intersectoral COVID-19 Response Plan.
- Facilitated a bilateral coordination meeting between health authorities from Colombia and Venezuela to formulate strategies to protect the health of border populations.
- Conducted a technical mission with the Ministry of Health to Amazonas state to help local authorities develop a contingency plan. PAHO deployed health workers and delivered medicines, PPE, hygiene supplies, three ventilators, and an oxygen concentrator to the local hospital.
- As part of the inter-agency (PAHO, IOM, and UNFPA) "Health for Peace" project, implemented COVID-19-focused interventions in 171 municipalities. These included the delivery of PPE, equipment for hospital emergency rooms of medium and low complexity in the health networks and the strengthening of COVID-19 surveillance.
- In coordination with the UN system, developed a plan of action to reinforce the response to COVID-19 in the Amazonas region, which involves Brazil and Peru, with a focus on indigenous communities.
- Coordinated with PAHO's office in Venezuela to develop interventions for the sanitary control of migrant population in the process of returning.
- Provided technical assistance to the Presidency of the Republic, the Ministry of Health, and other sectors in the follow up and analysis of cases, prevention measures and the COVID-19 response.
- Participated in sessions with the Unified Command Post, led by the Ministry of Health in which PAHO performed weekly follow up with prioritized territories.



### Risk communication and community engagement

- As of 31 August, developed 131 situation reports shared with the Presidency, PMU, the Ministry of Health, UN system agencies, the health cluster, embassies, territorial entities, and humanitarian partners.
- Collaborated with the Ministry of Health and other stakeholders to disseminate radio, television, and Internet-based content to combat the infodemic and advise the population on preventing infection, maintaining a healthy lifestyle, and safeguarding mental health. These were broadcast via the UN's weekly radio program, at Bogota's International Book Fair, and through other media.
- Delivered risk communication training to 70 media and hospital health workers and to indigenous leaders from the Guajira department. Materials were adapted to the Wayunaiki language).
- Maintained risk communication processes through the dissemination of key messages on social networks, risk communication workshops, programs, and radio spots and other platforms of the UN system directed to health personnel and the community in general.
- Formed alliances with manufacturing sectors to sensitize and prevent risks.
- Conducted ten webinars on key COVID-19 topics geared towards humanitarian partners and territorial entities that are part of the Health Cluster.



### Surveillance, rapid response teams, and case investigation

- Trained health professionals to use Go.Data for contact tracing; to analyze and visualize the virus' effective reproductive rate (using EpiEstim); and to project how the virus could spread considering implemented public health measures and its health system (using CovidSIM).
- Procured supplies to equip 16 community managers in La Guajira.
- Contracted a professional in the department of Chocó to strengthen public health surveillance, manage information, and respond to important public health events, with a focus on the COVID-19 response.



### National laboratories

- Provided technical support to strengthen laboratory diagnostics for COVID-19.
- Delivered 100,000 PCR tests for high-risk populations and priority areas.
- Provided equipment and supplies to five prioritized public health laboratories and PCR testing supplies to the department of Amazonas.



### Infection prevention and control

- Delivered PPE (440,000 gloves, 4,000 surgical and N95 masks, and other supplies) to Colombia's Air Force for use in the transport of severe cases from remote areas to designated specialized health centers.
- Delivered PPE to the departments of Vichada, Amazonas, La Guajira, Norte de Santander, a hospital in Cundinamarca, and the San Francisco de Asís de Quibdó Hospital and distributed PPE to migrants traveling on foot and residents in temporary shelters in Ipiales.
- Trained health professionals to use the needs estimating tool for PPE and other needed supplies. Provided supplies and viral transport mediums to take PCR-RT samples in the Amazonas department.
- Provided 250 hygiene kits for the indigenous population in the department of Vaupés.



### Case management

- Trained Ministry of Health workers on the reorganization and expansion of health services, primary care, the management of EMTs, and in establishing alternative medical care sites (AMCS).
- Facilitated the donation of 65 oxygen concentrators and other supplies from donor companies.
- Trained 70 health workers from hospitals in the Atlántico department to use supply management tools for medicines, goods, supplies and other essential items.
- Provided the Colombian Air Force with a transport capsule and accessories to reduce the risk of infection from COVID-19 patients.
- Procured an oxygen generator plant for the ESE hospital of Nazareth in the Alta Guajira area of Colombia.

- Equipped four prioritized health institutions in Norte de Santander and Arauca with triage and hospital expansion supplies and equipment.
- Provided the reference hospital of the department of Santander with technical support to expand hospital services and to improve triage capacities.



### Operational support and logistics

- Supported the Ministry of Health with the shipment of PCR supplies to Colombian territories.
- Supported the transport of the Rapid Response Team from the National Institute of Health to the department of La Guajira.



### Maintaining essential health services during an outbreak

- Collaborated with national authorities to maintain national vaccination services by hiring 100 vaccination workers and delivering vaccination kits and PPE to 12 departments, three districts, and 41 municipalities.
- Delivered medicines, equipment, anthropometric kits, therapeutic food, and antiparasitic drugs to health institutions prioritized to provide care to migrant populations. These will be used primarily in emergency rooms and for maternal and perinatal care.
- Supported the development of an Integrated Territory Care Model (MAITE) based on work coordinated by community health managers in the department of La Guajira.
- Adapted obstetric care services to ensure basic quality standards for emergency room care, prenatal care, delivery care, and obstetric emergency care, and adapted tools to facilitate home consultations and telemedicine as the pandemic continues.



## Costa Rica



### Country-level coordination, planning, and monitoring

- Coordinated health sector initiatives to combat COVID-19 with the national emergency operations center.
- Coordinated the official launch of the Costa Rica Health Cluster, with the Ministry of Health and CNE, to articulate the response of the UN System and humanitarian actors to the COVID-19 pandemic.
- Prepared the Health Cooperation Plan on the care for the population in conditions of vulnerability in cross-border areas in the face of the pandemic, with the participation of IOM, UNHCR and the Resident Coordinator office.
- Participated in the health roundtable with the University of Costa Rica, CCSS, and the Ministry of Health on projections for making decisions that allow the adjustment of containment measures and national economic recovery in the context of the pandemic.
- Implemented MEDEVAC for COVID-19 cases among UN staff in the Region. Within this context, a report on the capacities of private hospitals in Colombia was evaluated and prepared.
- Coordinated with the Ministry of Health and the CCSS to adapt protocols and PAHO/WHO recommendations for COVID-19, including the lifting of measures.
- Collaborated in the development of the COVID-19 Rights Repository, an international mechanism for equitable access to health products, launched with WHO on May 29.



### Risk communication and community engagement

- Collaborated with the radio, television, and virtual and social media to disseminate official health information.
- Disseminated educational and mental health messaging to people in conditions of vulnerability (migrants, people on the streets, incarcerated populations, and others).
- Collaborated in the editing of a children's book 'The Days when Everything Stopped', which explains the crisis and present safety measures.
- Carried out prevention campaigns in the context of COVID-19 aimed at children, adolescents, youth, adults, older adults, pregnant women, indigenous population, and migrants, among others, with the government and other UN agencies.
- Produced materials against domestic violence, migrant women's right to health, food safety, xenophobia and discrimination, and others in the context of the pandemic, with the government and other UN organizations.



### Surveillance, rapid response teams, and case investigation

- Collaborated with national authorities on the analysis of epidemiological information and decision-making for COVID-19, including preparation of operational technical documents.
- Analyzed disease projections and the impact on health systems together with the Ministry of Health, the CCS, and the UCR.
- Advised on COVID-19 surveillance and prevention and control measures for the following sectors: Health, Justice, Education, Housing, Human Development, Economy, Tourism, Culture, and Youth, as well as local governments.
- Provided training on the Go.Data tool for monitoring patients and contacts, in coordination with the regional team.
- Supported the Ministry of Health to develop a conceptual and operational proposal for the implementation of active community surveillance in priority areas.



### Points of entry, international travel, and transport

- Supported national authorities to assess the implementation of public health measures and advised on strategies and procedures for the control and opening at various points of entry into the country in the context of COVID-19.



### National laboratories

- Monitored the implementation of the national plan for COVID-19 surveillance of the Network of Public Health Laboratories.
- Trained INCIENSA personnel for molecular diagnosis of SARS Cov2.
- Donated reagents and supplies for the molecular diagnosis of SARS Cov2.
- Promoted exchange and technical discussions with INCIENSA and CCSS on genomic surveillance of COVID-19, expansion of the COVID-19 diagnostic network, and updating of the diagnostic methods for SARS Cov2.



### Case management

- Collaborated with priority municipalities to ensure integrated care for COVID-19 among vulnerable communities.
- Supported the preparation of the National Plan for Prehospital Services for COVID-19, with the Ministry of Health, Red Cross, CCSS, and the private sector.
- Advised on the inclusion of HRH management issues in the context of COVID-19 response.

- Developed recommendations on the establishment of alternative medical care sites for COVID-19 patient care.
- Supported the exchange of experiences with hyperimmune equine serum research.



### Operational support and logistics

- Implemented the PAHO/WHO Supply Management System (SUMA) for the CNE.
- Supported the implementation of the WHO COVID-19 Partners Platform and procurement portal.
- Donated PPE and other supplies for COVID-19 response to INAMU, DGME, Justice, CNE, CCSS, MS, INCIENSA, and Red Cross.



### Maintaining essential health services during an outbreak

- Collaborated in the formulation of the plan to strengthen and expand CCSS health services.
- Supported the development of CCSS Health Services Indicators in Phase II of expanding services for the response to COVID-19.
- Advised on maternal and perinatal health in the context of COVID-19 with the support of PAHO's Latin American Center for Perinatology / Women's Health and Reproductive Health (CLAP/WR).
- Advised on the continuity of the delivery of prioritized essential health services for communicable and noncommunicable diseases, including malaria, arboviruses, influenza, mental health, cancer, smoking, and alcoholism, among others.
- Advised on the implementation of strategies for the approach to mental health in the context of COVID-19.


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# Cuba



## Country-level coordination, planning, and monitoring

- Coordinated with Ministry of Public Health, UN agencies, multilateral partners, and foreign missions on efforts by the health sector to combat COVID-19.
- Spearheaded the immediate response of the United Nations System with the Ministry of Public Health while coordinating pillar 1 of the socioeconomic response plan to COVID-19.
- Informed MINSAP about the requirements and deadlines for participation in the COVAX mechanism with a view to accessing the vaccine against COVID-19.
- Collaborated with the health authorities and the biopharmaceutical sector in the search for financing alternatives for the development of the Cuban vaccine candidate against COVID-19, as well as the local production of supplies.



## Risk communication and community engagement

- Supported the formulation of key health messages and strategies for risk communication and community participation.
- Prepared list of decision-makers and researchers for information sharing, as well as information packages that have been delivered to the levels of surveillance, care, and management of COVID-19.
- Developed infographics and videos with information on COVID-19 for people with disabilities, maternal and child health programs, the elderly, and tobacco users.
- Disseminated a package of manuals for psychosocial support, prepared by external experts in psychology and mental health and in alignment with PAHO recommendations.
- Managed press conferences and interviews with national and foreign media accredited in Cuba.
- Provided coverage and disseminated technical cooperation activities related to efforts to deal with COVID-19 in the country.
- Prepared two issues of the PAHO/WHO country office's "Andar la salud" Bulletin, related to the behavior of the epidemic in the country and how to confront it.
- Contributed to the interagency risk communication work for

COVID-19, including with UNESCO and OCR, in dismantling fake news, and with UNICEF in the prevention of COVID-19 in Cuban schools.



## Surveillance, rapid response teams, and case investigation

- Participated in the training of national epidemiological surveillance and analysis teams.
- Disseminated updated WHO guidelines on COVID-19 surveillance.



## National laboratories

- Procured equipment and supplies for surveillance and case detection, such as reagents, RNA extraction kits, body bags, means of transporting tests, and other supplies.
- Trained the team of the National Reference Laboratory for Respiratory Viruses in the diagnosis of SARS CoV-2 through molecular biology and in genomic surveillance.



## Infection prevention and control

- Procured soap, disinfectants, and bio-indicators for cleaning hands, surfaces and autoclave equipment, as well as bags for the safe transfer of laboratory waste and protective equipment for health personnel in charge of patient care.
- Shared and disseminated PAHO and WHO protocols and guidelines for IPC in health facilities, prisons, and long-term care facilities, for consideration by the national authorities.



## Case management

- Procured pulse oximeters, two ultrasound machines, and medicines and medical supplies for the management of serious cases in the ICUs.
- Provided technical advice to the Ministry of Public Health in updating the different versions of the care protocol for people with COVID-19; and for the reorganization and expansion of health capacities.
- Facilitated documents and exchanges of regional experiences for COVID-19 case management.
- Shared PAHO/WHO recommendations regarding the emergency use of unproven treatment options, reinforcing ethical and regulatory aspects and the need to generate reliable scientific evidence.



### Operational support and logistics

- Supported health authorities to estimate needs for PPE, medicines, and essential supplies.
- Coordinated with the national authorities and UN agencies the use of the global platform, both in the technical and supply areas.
- Supported information and communication services for virtual meetings to exchange experiences in all services.



### Maintaining essential health services during an outbreak

- Provided guidance on modeling scenarios for health system planning.
- Supported the evaluation of hospital readiness for the management of COVID-19 cases according to PAHO/WHO guidelines.
- Supported the reorganization of health services into comprehensive networks to maintain essential services, in addition to prioritized programs, and not affect health benefits for the population at all levels of care.



## Dominica



### Country-level coordination, planning, and monitoring

- Produced daily COVID-19 briefs for the country.
- Provided in-country UN colleagues with PAHO and WHO guidelines and updates.
- Launched consultations with national health authorities on the development of country strategic preparedness and response plans according to WHO guidelines.
- Proceeded with gradual reopening of the Country Office, in accordance with the Business Continuity Plan, taking into account the epidemiological situation of COVID-19.
- Continued publication of the Country Office COVID-19 information bulletin including measures taken by countries to contain the spread of the virus and some highlights on PAHO support to the member states.
- Maintained the Country Office's IMST structure and adapted of the members' roles to the WHO SPRP pillars to facilitate implementation and reporting.
- Monitored country response to COVID-19 through monthly and weekly reporting on WHO M&E indicators.
- Developed country action plans for various COVID-19 donor grants, followed by engagement of national focal points to support the implementation at country level.
- Facilitated coordination with the UNRC system on COVID-19 initiatives.



### Risk communication and community engagement

- Participated in training for gender-based violence, immunization, use of the WHO/UNICEF Joint Reporting Form (JRF) for vaccines, Vaccination Week in the Americas, and psychological first aid.
- Conducted media briefing to detail PAHO's in-country support and collaboration with the Ministry of Health.
- Engaged with young people to ensure their participation in the Youth Leader Forum.



### Surveillance, rapid response teams, and case investigation

- Disseminated COVID-19 case definitions.
- Shared data collection tools, e.g., Excel line listing, revised case reporting form, and provided guidance on their use to strengthen COVID-19 surveillance.
- Delivered orientation on Go.Data, the WHO contact tracing software.

- Delivered orientation on applying the EpiEstim and CovidSim mathematical models for short-term forecasting of cases.
- Provided technical guidance on the design of a COVID-19 community survey.
- Shared protocols for surveillance, contact tracing, and case identification with national health authorities.
- Supported early detection of cases through existing surveillance systems to inform and improve analysis and decision-making.
- Strengthened capacity for surveillance and contact tracing by providing of a vehicle and laptops to national health authorities.



### Points of entry, international travel, and transport

- Provided training in infection prevention and control / surveillance / case management at ports.
- Provided technical advice regarding the reorganization of port facilities to facilitate case identification, quarantine/ isolation, and referral.
- Procured equipment to facilitate screening at points of entry (Thermal Scanner).
- Regularly reviewed entry protocols for the reopening of borders as they became available and provided feedback to national health authorities as appropriate.
- Procured equipment to strengthen infrastructure for case detection at points of entry.
- Jointly hosted a webinar on "Considerations for resuming non-essential travel in the Caribbean" with the regional team.



### National laboratories

- Disseminated guidelines and protocols for COVID-19 testing.
- Procured/distributed RT-PCR enzymes, sample collection materials, extraction kits and consumables.
- Trained laboratory staff in theoretical aspects of molecular diagnostics.
- Ensured laboratory capacity to detect cases with necessary tests and reagents, and to scale up capacity as more cases are detected in this region.
- Conducted webinar on "Scaling up laboratory testing in the Caribbean".
- Facilitated joint collaboration with the regional team for the establishment of an emergency stock of COVID-19 laboratory materials for distribution to countries and territories in the sub-region.
- The regional team conducted training on molecular testing to establish on-island testing capacity.





### Infection prevention and control

- Procured PPE to reduce the risk of infection for health workers.
- Delivered IPC training in Spanish and English to nurses, doctors, and allied healthcare workers.
- Shared IPC guidelines.



### Case management

- Delivered training in clinical management of cases, mental health in COVID-19, management of pregnancy in COVID-19, children and disabilities in COVID-19.
- Trained health personnel on the appropriate use of PPE.
- Shared case management guidelines with the country.
- Improved local health system capacity to protect healthcare workers to safely detect and deliver healthcare services.
- Procured ten infrared and 100 digital contact thermometers for surveillance and case management of persons with COVID-19



### Operational support and logistics

- Provided logistics support to clear COVID-19 materials and supplies through customs for delivery to the MOH.



### Maintaining essential health services during an outbreak

- Provided technical guidance on the reorganization of the health system to respond to COVID-19 cases.
- Completed the first stage of the Joint Reporting Form (JRF) aimed at improving capacity to track implementation of the Global Vaccine Action Plan. The Monthly reporting was established as part of the tracking mechanism to monitor effects of COVID-19 on the immunization program.

# Dominican Republic



## Country-level coordination, planning, and monitoring

- Engaged in high-level meetings with both current and former government to present PAHO's recommendations for different scenarios associated with the epidemic and with the Ministry of Economics, Planning, and Development to prepare a matrix of needs for the different social sectors.
- Participated in multisectoral meetings, along with the MOH, to prepare and oversee mitigation and containment plans and consider specific needs (storm alerts, interventions in the provinces, etc.).
- In coordination with the authorities of the MOH, prepared the Operational Plan for Response to the COVID-19 emergency, which was presented to the Presidency and the Health Cabinet.



## Risk communication and community engagement

- Held media briefings alongside MOH counterparts to disseminate key messages.
- Briefed the diplomatic corps and government on the International Health Regulations (IHR).
- Participated in meetings with the country humanitarian team and donor community.
- Worked with the MOH and UNHCR to distribute COVID-19 information to health personnel and the public via virtual platforms, and with UNHCR and IOM on key messages for broadcast via radio and loudspeakers (which were translated into Haitian creole).
- Prepared nine spots with messages about COVID-19 for vulnerable groups, broadcast through the community radio network; produced 4 videos with prevention messages aimed at different population groups, disseminated on virtual platforms.



## Surveillance, rapid response teams, and case investigation

- Supported MOH to create its Center for Intelligence and Health Situation Room.
- Collaborated in conducting the National COVID-19 Seroepidemiological Survey, which aims to estimate the extent of COVID-19 infection in the general population.
- Supported the emergency operations center in coordination and epidemiological analysis.
- Conducted training, together with GOARN, on the use of

Go.Data for contact tracing and weekly training to update on program implementation.

- Supported in the installation of Go.Data in the National Epidemiology Directorate.
- Supported the surveillance team, including in simulations, projection models, and supplies, and created an information dashboard that is updated daily with data from the MOH.



## Points of entry, international travel, and transport

- Worked with the MOH to develop materials in English and Spanish for the main points of entry.
- Facilitated a joint meeting with the government and local authorities from Dominican Republic and Haiti, to evaluate coordinated actions to mitigate the epidemic at the border zone.
- Coordinated with UNCT on an action plan to support the country and Haiti through binational cooperation.
- Worked with IOM on surveillance, IHR core capacities, migratory status, and reopening the economy, while ensuring access to services at the border and focusing on Haitian workers.
- Presented recommendations to the Ministry of Tourism on entry requirements for tourists, which were included in the Presidency's plan to reopen tourism.



## National laboratories

- Delivered test kits, extraction kits, reagents, means of transporting the virus, and other supplies to the national laboratory.
- Provided diagnostic training for private laboratories, including donating kits.
- Arranged the hiring of human resources to build capacity of the national laboratory.



## Infection prevention and control

- Delivered 49 tons of PPE to the Health Cabinet.
- Trained health workers in IPC and other key areas, including the proper use of PPEs, sample collection, patient isolation, and other priorities.
- Delivered supplies to the National Council for the Elderly, the Expanded Immunization Program, and eight organizations that work with persons with disabilities.
- Presented recommendations to the Central Electoral Board for the design of protection protocols for voters and the employees during the elections held on July 5.



### Case management

- Trained counterparts from the MOH and UNHCR on home care guidelines, care for key population groups, and diagnosis and treatment protocols.
- Supported the National Health Services to prepare protocols and manuals.
- Provided guidance to adapt the mechanism so that people with disabilities can report cases by phone or online.
- Supported the MOH's interest in having the country participate in the Solidarity clinical trial.



### Operational support and logistics

- Provided oxygen tanks, thermometers, and other supplies, as well as protection kits for use among vulnerable groups.
- Delivered two vehicles to be used at two regional health facilities located in the South region.



### Maintaining essential health services during an outbreak

- Collaborated with health authorities to evaluate hospital readiness for managing cases.
- Identified health centers for the establishment of alternative medical care sites.
- Strengthened capacities for protecting mental health.
- Supported the country with modelling/estimating efforts to plan, including for ICU and hospital bed needs.
- Supported the National Health Service in its expansion plan for the Hospital Centers Directorate, in order to ensure timely access to health services.
- Collaborated with the MOH to develop a proposal on general guidelines for the progressive return to normality in public and private health centers, after the de-escalation phase announced by the Government.

# Dutch Island Territories



## Country-level coordination, planning, and monitoring

- Supported national authorities and health agencies to formulate strategies to address COVID-19 response.
- Provided technical guidance to focal points in the countries participating in Crisis Management Teams.



## Risk communication and community engagement

- Shared PAHO/WHO guidelines for risk communication, especially physical distancing, use of masks, re-opening of schools, coping with the stressors, and safe hygiene practices.
- Provided technical guidance to Sint Maarten regarding reaching the migrants in the community to provide information on physical distancing and safe hygiene practices and to encourage those feeling ill to get tested.
- Shared guidelines on economic reopening, especially for hotels and other accommodation, with counterparts in Aruba, Curacao, and Sint Maarten.
- Shared guidelines for the reopening of borders to international travel with Aruba and Sint Maarten.



## Surveillance, rapid response teams, and case investigation

- Hosted a webinar on COVID surveillance and interruption of transmission.
- Provided technical support to Aruba, Curacao, and Sint Maarten to enhance the collection and analysis of surveillance data for submission of reports to PAHO/WHO that are reflected in the COVID-19 dashboard.
- Convened discussions with the Sint Maarten Department of Health about contact tracing protocols for COVID-19 cases, all of which were imported and arrived before the borders were closed.



## National laboratories

- Shared PAHO/WHO guidelines on COVID-19 PCR testing with Sint Maarten Department of Health and provided guidance on the limitations of the use of rapid testing, which was presented to the Council of Ministers.
- Shared WHO guidelines with Saba for the establishment of a drive-through testing facility.



## Infection prevention and control

- Provided technical assistance with the development of the IPC guidelines for the elderly and long-term care facilities, children's homes and residential healthcare facilities.
- Hosted a webinar on the reopening of schools in the context of COVID-19.
- Provided technical assistance on infection prevention and control for homecare of patients with mild COVID-19 symptoms.
- Hosted webinar on "Caring for the Caregiver, protecting your mental health when caring for others."



## Case management

- Conducted a virtual session on COVID-19 clinical management for all Dutch-speaking countries/territories.
- Provided technical guidance to Aruba and Curacao on mental health and psychosocial support for COVID-19 and ensured participation in all virtual mental health webinars.



## Maintaining essential health services during an outbreak

- Provided technical assistance to Aruba and Curacao on the reorganization of mental health services as they move through the different phases of reopening.
- Collaborated with national authorities in Aruba on the continued reorganization of the mental health and substance use services as part of their socioeconomic rebuilding and recovery efforts during the COVID-19 pandemic.
- Collaborated with counterparts in Aruba on a roadmap and proposed methodology for the development of the National Health Plan, considering the reorganization and streamlining of the healthcare system to improve the efficiency of their response to future disasters.
- Provided support to Aruba and Curacao to purchase vaccines to maintain the implementation of their immunization programs.
- Shared information and discussed the COVAX mechanism with Aruba, Curacao, and Sint Maarten.
- Provided technical assistance to assess disability services within the context of COVID-19 in Aruba.



## Ecuador



### Country-level coordination, planning, and monitoring

- Collaborated directly with the Ministry of Health Ecuador and its health emergency operations center to develop and implement the Ecuador Preparedness and Response Plan for COVID-19.
- Activated the Health Cluster of the country's humanitarian team to formulate a response to COVID-19.
- Coordinated with the country's health sector working group 2 (MTT2), to adapt and adopt PAHO and WHO protocols and methodologies for epidemiological surveillance, points of entry, IPC, case management, coordination, and risk communication.
- Deployed experts in surveillance, contact tracing strategies, reorganization of health services, and organization of national emergency response structure.
- Formulated health cooperation activities at the territory level to strengthen epidemiological surveillance, risk management, health services, IPC, among others, and to develop health actions with related civil society organizations.
- Collaborated with the Working Group on Refugees and Migrants (GTRM), the health group for coordinating activities for persons in situations of mobility.



### Risk communication and community engagement

- Supported the formulation of a national COVID-19 education/communication plan and trained personnel to implement the COVID-19 Risk Communication Plan.
- Helped design and implement a health promotion and risk communication plan for indigenous peoples, Afro-descendants, and Montubias, with different national health actors and organizations.
- Supported the development and validation of the "Protocol with Intercultural Considerations for the Prevention and Care of COVID-19 in Indigenous Peoples and Nationalities, Afro-Ecuadorians, and Montubias of Ecuador."
- Trained journalists and communicators from Afro-descendent populations, indigenous groups, and the Montubio population, and community radio stations to disseminate key messages and exchange strategies.
- Supported the development of communication pieces adapted to the relevant culture and held weekly engagement meetings with community and youth leaders from these groups.

- Adapted and printed of risk communication materials culturally adapted to the indigenous communities, Afro-descendants, Montubias, Shuar, Achuar, and Waorani of the country, with the support of UNESCO.



### Surveillance, rapid response teams, and case investigation

- Supported the Ministry of Health to develop and implement national guidelines for COVID-19 containment and mitigation and analyze COVID-19 trends and indicators for the analysis of excess mortality from COVID-19.
- Delivered computer equipment to the national health situation room and contracted 13 data officers to manage province-level databases.
- Provided technical advice and supported the development of a risk evaluation tool based on COVID-19 surveillance indicators.
- Contracted professionals to support the preparedness and response of COVID-19 in eight provinces.
- Collaborated in the training and follow up on the completion of a COVID-19 case database in alignment with WHO's global efforts to monitor the pandemic.



### Points of entry, international travel, and transport

- Provided guidance for updating contingency plans for the country's designated points of entry; developed a list of key actions related to alert, preparedness, and response for points of entry without official designation but which may represent public health risks.



### National laboratories

- Provided technical guidance on molecular diagnostics to the country's decentralized laboratory network in Guayaquil, Quito, and Cuenca and donated laboratory supplies to maintain the gold standard for COVID-19 diagnostics (PCR).
- Supported the deployment of a technical laboratory team to the National Influenza Center (INSPI) located in Guayaquil to reinforce sample processing capacity of the INSPI in Quito, given the high transmission scenario in the province of Pichincha.





## Infection prevention and control

- Supported the Ministry of Health to develop and implement IPC guidelines for the health sector.
- Provided PPE and body bags to different institutions to support the country's COVID-19 response and the management of cadavers, along with virtual and in-person trainings in IPC.
- Facilitated the procurement of PPE through the WHO procurement platform (estimated value of \$3.25 million).



## Case management

- Provided assessments for reorganizing and expanding Ecuador's health services to respond to COVID-19. This included a province-level analysis and identification of gaps for 303 hospitals.
- Trained Ecuador's country teams to manage emergency medical teams (EMTs), establish alternative medical care sites (AMCS), and use tents and adapted housing units for triage.
- Trained health workers from public and armed forces hospitals to assess their readiness to face the COVID-19 pandemic.
- Supported the development of guidelines for patient management, neonatal management, and pregnant women.
- Supported the MSP and the Ecuadorian Institute for Social Security (IESS) with a tool to calculate needs for hospitalized patients and define the capacity limits of the hospital response.
- Provided advice to the MSP on the requirements to participate in the Solidarity trial.
- Trained province-level medical personnel with a high proportion of indigenous populations and lower access to health services in the use of the algorithm for case management for patients suspected of COVID-19 infection at the first level of care in remote areas of the Region of the Americas.
- Strengthened capacities in first level health centers providing treatment with oxygen therapy in areas of difficult access.



## Operational support and logistics

- Collaborated in the training of logistics officers to use the SUMA and SISTOCK software programs for managing supplies and medicines during emergencies.



## Maintaining essential health services during an outbreak

- Worked with the Ministry of Health and other partners to assess strategies to ensure continuity in vaccination, malaria, tuberculosis, and HIV/AIDS programs.
- Contributed to the development and revision of guidelines for vaccination and maternal and childcare during the COVID-19 emergency.
- Trained province-level personnel from the first level of care in prioritized provinces to organize health services and maintain essential services during the pandemic.
- Provided WHO and PAHO guidelines to adapt immunization services and vaccines for newborns within the context of the COVID-19 pandemic, and collaborated in the development of national guidelines.
- Provided the country with updated information on the situation of the development of a COVID-19 vaccine.
- Collaborated with the MSP on the inclusion of the country in the COVAX mechanism.
- Developed and shared guidance for planning the introduction of a COVID-19 vaccine into the national Expanded Immunization Program.
- Supported the implementation of psychosocial tele-support for the population in general, and the structuring of a mental health response plan for the pandemic.
- Collaborated in the planning and implementation of a virtual course on mental health designed to reduce the gap in specialized human talent and strengthen the competencies of health teams to respond to the demand for psychosocial care.



# El Salvador



## Country-level coordination, planning, and monitoring

- Provided ongoing support to national authorities in data analysis, preparation for the response, and the monitoring of the evolution of the pandemic.
- Provided technical assistance to MOH authorities on priority health issues, such as vaccination coverage, care for vulnerable populations, maternal and child mortality, among other aspects.
- Followed up on the implementation of the WHO response plan (Partners Platform) and accompanied the UN System in the preparation of the Socioeconomic Response Plan as the lead agency for Pillar 1 (Health First).



## Risk communication and community engagement

- Provided ongoing support for risk communication actions against the pandemic through the social networks of the PAHO Country Office.
- Accompanied the MOH Communications Unit in the preparation of the vaccination plan.



## Surveillance, rapid response teams, and case investigation

- Monitored the implementation of case modeling through the tools available in the Organization to monitor cases. All information related to COVID-19 in El Salvador is online at <https://covid19.gob.sv/>.
- Provided ongoing support to the Epidemiology Directorate in the monitoring of cases of pneumonia in health establishments, beginning in February 2020.
- Collaborated in the detection of cases of Multisystemic Inflammatory Syndrome in children and adolescents (under 19 years of age) and in the implementation of the pilot application of the Perinatal Information System COVID-19 module in five hospitals in the country, both in coordination with CLAP.



## Points of Entry, International Travel, and Transport

- Provided support to the country's IHR National Focal Point and constant communication with all countries and headquarters to monitor the pandemic.



## National laboratories

- Delivered RT-PCR tests, reaching approximately 600,000 since the onset of the emergency.
- Delivered laboratory supplies and provided training to personnel for the use of tools that allow for the extraction of the virus and processing of tests.
- Engaged in constant communication between the National Reference Laboratory, PAHO/WHO country office, and headquarters to constantly update diagnostic material and available tests.
- Supported the inclusion of El Salvador as a pilot country, along with Ecuador and Suriname, in the use of rapid antigen tests to define their use in a next phase of the pandemic in the Americas.



## Infection prevention and control

- Delivered a shipment of PPE (with a value exceeding US\$1M) to support authorities in the management of patients.
- Distributed technical material produced by PAHO/WHO in the field of management of COVID-19 infections and other infectious diseases on an ongoing basis.



## Case management

- Delivered medical equipment for the management of patients affected by COVID-19 and for the use of health facilities (wheelchairs, electrocardiographs, lecterns, healing carts, among others).
- Acquired medications to ensure the management of patients with HIV/TB as a key area of focus in the context of the pandemic.



## Operational support and logistics

- Provided support to hospitals through visits and needs assessment and support the acquisition of supplies to meet needs, using funds for pandemic response.



## Maintaining essential health services during an outbreak

- Worked with the first level of care, the hospital directorate, and health promotion to ensure the continuity of services, especially those associated with NCDs, mental health, and access to medications, among others.
- Provided technical assistance to the vector control program to reactivate arbovirus vector control activities, with an emphasis on dengue and the malaria elimination process in the context of COVID-19.

# French Departments in the Americas

(French Guiana, Guadeloupe, and Martinique)



## Surveillance, rapid response teams, and case investigation

- Shared PAHO's surveillance guidelines to facilitate the exchange of epidemiological information between the French departments (Guadeloupe, Martinique, and French Guiana), the IHR focal point in France, and the IHR regional contact point for the Americas.
- Shared COVID-19 case definitions with department-level health authorities.
- Facilitated the sharing of information between French Guiana, Suriname, Guyana, and Brazil regarding the dynamics of COVID-19 in the Guyanese Shield.



## Points of entry, international travel, and transport

- Collaborated closely with counterparts from the French Departments to conduct joint risk assessments, particularly regarding outbreaks on cruise ships and their movement in the Caribbean.



## National laboratories

- Shared PAHO and WHO guidelines for laboratory molecular testing.



## Case management

- Facilitated the exchange of the French Departments' experiences in COVID-19 clinical management with other countries and territories in the Eastern Caribbean.



## Grenada



### Country-level coordination, planning, and monitoring

- Strengthened the national Influenza Pandemic Plan to adapt to COVID-19.
- Strengthened the coordination of the COVID-19 response at the national level.
- Launched consultations with national health authorities to develop country strategic preparedness and response plans according to WHO guidelines.
- Continued publication of the Country Office COVID-19 information bulletin, including measures taken by countries to contain the spread of the virus and highlights on PAHO support to the member states.
- Maintained the Country Office's IMST structure and adaptation of the members' roles to the WHO SPRP pillars to facilitate implementation and reporting.
- Monitored country response to COVID-19 through monthly and weekly reporting on WHO M&E indicators.
- Developed country action plans for various COVID-19 donor grants, followed by engagement of national focal points to support the implementation at country level.
- Coordination with the UNRC system on COVID-19 initiatives.



### Risk communication and community engagement

- Produced and distributed posters and booklets on preventive public health measures.
- Provided banners for placement at points of entry.
- Supported the country to develop social media tools and public service announcements to address stigma.
- Disseminated risk communication information to citizens and travelers.
- Provided technical support for the development and dissemination of social media cards to support healthy nutrition during the implementation of public health measures imposed during COVID.
- Developed a breastfeeding campaign using various media platforms; developed posters; and aired on national TV stations a video "Safe Breastfeeding during COVID-19."



### Surveillance, rapid response teams, and case investigation

- Introduced data collection tools, e.g., Excel line listing, revised case reporting form.
- Offered training on Go.Data, the WHO contact tracing software for data capturing and monitoring the chain of transmission.
- Provided orientation on EpiEstim and CovidSim, mathematical models for short-term forecasting of COVID-19 cases.
- Contracted a short-term surveillance officer to strengthen contact tracing.
- Provided orientation for national epidemiologists and laboratory personnel on the PAHO regional program for influenza laboratory-based surveillance for SARI/ILI and its link to COVID-19.
- Collected weekly data on COVID-19 trends; contact tracing was further enhanced by contracting a surveillance officer.



### Points of entry, international travel, and transport

- Assessed existing capacities at the international airport to ensure surveillance systems.
- Provided technical guidance on considerations for the phased reopening of borders.
- Regularly reviewed entry protocols for the reopening of borders as they became available and provided feedback to national authorities as appropriate.
- Provided equipment, e.g. thermal imagers and IT tools, for data collection at main airports, to strengthen infrastructure for case detection at points of entry.
- Hosted a webinar on "Considerations for resuming non-essential travel in the Caribbean."



### National laboratories

- Disseminated guidelines and protocols and provided training for RT-PCR detection.
- Procured sample collection materials, a RT-PCR machine, enzymes, extraction kits, and other supplies.
- Ensured laboratory capacity to detect COVID-19 cases with necessary tests and reagents, and to scale up capacity as more cases are detected in this region.
- Hosted a webinar on "Scaling up laboratory testing in the Caribbean."

- Facilitated joint collaboration with the regional team for the establishment of an emergency stock of COVID-19 laboratory materials for distribution to countries and territories in the sub-region.
- Facilitated training by the regional team on molecular testing to establish on-island testing capacity.



### Infection prevention and control

- Strengthened infection prevention and control capacity for healthcare workers (HCWs) through in-person and virtual training and provided PPE.
- Supported the country's reopening strategy by providing training to hotel workers where hotels are being used as quarantine sites for repatriated Grenadian nationals.



### Case management

- Provided training in hospital bed assessment and supply management tools.
- Strengthened the country's ability to deliver mental health and psychosocial support (MHPS) in the context of COVID-19 to HCWs.
- Strengthened tele-health services and community engagement to provide psychosocial support.
- Improved the local health system's capacity and protected healthcare workers to safely diagnose COVID-19 and deliver healthcare services.



### Operational support and logistics

- Supported the delivery of supplies/equipment through the Regional Security System.



### Maintaining essential health services during an outbreak

- Using the Virtual Campus in Public Health, two case studies were tailored to HCWs.
- Strengthened the country's ability to deliver mental health and psychosocial support (MHPS) in the context of COVID-19 to HCWs. Conducted technical webinars on the reorganization and expansion of services, including managing emergency medical teams (EMTs), maternal and perinatal care, children with disabilities, and the Expanded Program on Immunization (EPI).

## Guatemala



### Country-level coordination, planning, and monitoring

- Collaborated with coordinating mechanisms such as the EOC, IHR Committee, and the Health Cluster.
- Supported the Ministry of Health in the organization and weekly operation of the Health Cluster and the formation of six working subgroups to support the coordination and response of the partners in the different areas of health.



### Risk communication and community engagement

- Produced risk communication materials, including almost 70,000 posters on topics such as handwashing, isolation, and PPE, and trained healthcare workers in hospitals and related services to better inform the public.
- Trained 260 journalists, in coordination with other UN agencies.
- Supported the Ministry of Health in the development of key messages and videos that were translated into five Mayan languages, in coordination with the Academy of Mayan Languages.
- Provided support in developing a campaign against stigma and discrimination, preparation of key messages for a strategy to track cases and contacts, and production of videos in support of vaccination during the pandemic and videos of hand washing and PPE donning.



### Surveillance, rapid response teams, and case investigation

- Trained 300 health workers in surveillance, laboratory, hospital, and social communication.
- Supported the country in analyzing and visualizing the virus' effective reproductive rate and in projecting how the virus will spread, considering implemented public health measures.
- Supported the Ministry of Health in the development of the COVID-19 situation dashboard, a tool that provides epidemiological information updated daily.
- Supported the Ministry of Health and the Municipality of Guatemala to develop a strategy for tracking cases and contacts, which will subsequently expand nationwide.
- Provided technical support to the Ministry of Health in the adaptation of the Go.Data platform, including the training of supervisors and trackers, as well as technical support to the health area directorates and the creation of information dashboards.



### Points of entry, international travel, and transport

- Supported the authorities and relevant government institutions to identify designated COVID-19 facilities, managing points of entry, and working with individuals returning from abroad.
- Supported the MOH in the planning and implementation of a simulation exercise to prepare for the response to outbreaks.
- Supported the MOH in discussions with counterparts and other stakeholders and in preparing a technical document with the public health considerations to resume international traffic.



### National laboratories

- Conducted training on laboratory response through subregional training at the InDRE in Mexico.
- Provided primers, probes, enzymes, and kits to conduct PCR tests.
- Accompanied the National Health Laboratory in the analysis and evaluation of delays in the processing of samples and in the flow of information with other laboratories.
- Supported the MOH in the integration of Guatemala into the project of the regional network for genomic surveillance of the COVID-19 virus in the Americas.



### Infection prevention and control

- Trained 1,023 health workers on IPC measures and 637 others on WASH measures.
- Advised in the assessment of temporary facilities for people with COVID-19 in Guatemala City and in 51 hospitals (including 5 temporary hospitals).
- Provided IPC training to 420 medical students at the Universidad de San Carlos.
- Together with the Guatemalan Association for Infectious Diseases and the CDC, designed a free online course on prevention, control, and management of COVID-19. 3,000 health professionals participated and staff were trained in three hotels designated for managing cases.
- Supported the country with the donation of PPE, including 129,400 masks; 44,259 disposable gowns; 17,510 pairs of gloves; 3,833,265 surgical masks; 145,556 N95 masks; 34,487 goggles.





### Case management

- Provided guidance on preparing personnel in health facilities for treating infected persons and for intensive care.
- Trained more than 100 health workers on prehospital emergency services.
- Advised Ministry of Health on hospital coordination for expanding health services and using the hospital readiness checklist.
- Provided guidance on treating child and adult patients, pregnant women, newborns, adolescents, and for family planning.
- Trained more than 10,000 people in the handling of corpses, through the virtual course developed in coordination with the Ministry of Health, the INACIF School of Forensic Sciences and the CICR, aimed at health personnel and those responsible for handling corpses.
- Trained 734 people in case management and reorganization of health services.
- Provided technical support on medical care to 46 hospitals in the network through the Vice Ministry of Hospitals; supported the organization of temporary hospitals and offered guidance on planning human resources for health.



### Maintaining essential health services during an outbreak

- Promoted measures that protect people in conditions of vulnerability, including people with disabilities, pregnant women, newborns, migrant populations, among others.
- Supported country to develop strategies to address health-related issues arising from migrants, asylum-seekers, and persons returning from abroad, and measures to protect other persons in conditions of vulnerability, such as persons with disabilities and pregnant women.
- Supported the Health Cluster subgroups in preparing work plans for the continuity of essential services, specifically in mental health, communicable diseases (HIV, malaria, and TB), SRH and maternal and neonatal health, gender and interculturality, and management of corpses.
- Trained 4,600 professionals in maternal and newborn, adolescent and youth health, and family planning and contraception, together with UNFPA, UNICEF and Tula Salud.
- In coordination with the MOH, supported the development of a virtual course to train health personnel for implementing the sociocultural guide for the prevention, containment, and management of COVID-19 cases at the community level in indigenous peoples of Guatemala.



### Operational support and logistics

- Provided training on the use of tools to calculate needs for supplies, medications, and PPE.
- Provided support on logistics and incident management, as well as procurement mechanisms.
- Facilitated donations of oxygen concentrators and other related supplies.
- Facilitated the distribution of more than 31 tons of personal protection supplies for health workers in the hospital network, with the support of the government of Canada and WHO.



## Guyana



### Country-level coordination and governance

- Assisted with the activation of the Health Emergency Operations Centre (HEOC) and its daily reporting.
- Revised the terms of reference and standard operating procedures for the HEOC.
- Worked within national emergency operations centers and with other UN agencies, multilateral partners and foreign missions to support coordination of health sector efforts to combat COVID-19.
- Assisted with the development of the COVID-19 Preparedness and Response Plan.
- Assisted with the development of a Risk Assessment of COVID-19 Public Health and Social Measures.
- Prepared a proposal for the creation of a National CDC Guyana.
- Assisted with the monitoring of phases through the Measures Assessment Committee.



### Risk Communication and Community Engagement

- Conducted periodic press conferences with the local media, in collaboration government authorities.
- Assisted with development and distribution of information and communication materials.
- Conducted COVID-19 sensitization sessions with UN staff.
- Provided technical support to the Ministry of Public Health to conduct public symposiums.
- Assisted in the preparation of the national risk communication plan.
- Provided technical assistance and materials for the production of a COVID-19 sitcom.
- Coordinated, with the Ministry of Health, a public social media campaign with live Q&A.
- Developed a MHPSS information and communications campaign for the public and select target groups.



### Surveillance, rapid-response teams, and case investigation

- Conducted training on contact tracing and case definitions.
- Provided support for the implementation of Go.Data for case management, contact tracing and follow-up.
- Provided technical support and training on epidemic modeling to define potential disease scenarios and the

implications on adopting, adjusting and lifting of social distancing measures.

- Produced a weekly Epidemiological Bulletin; analyzed data and prepared report on transmission rate.
- Analyzed data and provided advice related to testing rate and provided a modeling of expected epidemic evolution in two remote regions of the county.
- Installed and configured Go.Data in the Surveillance Unit and provided training.



### Points of Entry (PoE) Readiness and Strengthening

- Identified and mapped official and informal points of entry (PoE) and provided technical support to undertake a baseline assessment of key capacities and resources needed for screening and referral of suspect imported cases.
- Assisted in the development of a PoE screening tool and conducted training on case definitions.
- Provided technical support to estimate supplies, equipment and needs for PPE required to establish an isolation area at all official and informal PoEs.
- Conducted site visits to selected PoEs to conduct on-the-job training in screening for key personnel.



### National Laboratories

- Strengthened laboratory capacities through the provision of critical lab supplies and training in theoretical aspects of molecular diagnostics.
- Provided trouble-shooting support regarding testing procedures and sample collection.
- Provided technical support to develop costed list of supplies for diagnostic support.
- Expanded testing capacities by training an additional 50 medical technologists.



### Infection prevention and control

- Provided training to improve IPC standards in isolation units at hospitals managing COVID-19 patients.
- Estimated the demand and cost of PPE required at all levels of care.
- Conducted Hospital Readiness Assessment.
- Conducted visits to five hospitals with isolation capacity and provided orientation on implementing IPC measures.
- Assessed the capacity of human resources to provide intensive care services in 10 Administrative regions.

- Contributed to a new COVID-19 action plan being adopted by the new government of Guyana.
- Provided guidance to the MoPH in the preparation of National Public Health Plan for COVID-19.
- Briefed the President on COVID-19 trends and the continuation of social distancing measures.



### Case Management

- Estimated the expected demand for hospital care and determined additional ICU and intermediate care needs to address the epidemic; costed all additional resources needed.
- Defined with national counterparts the model of care for COVID-19, mapped 42 key geographic areas to focus the response, defined referral pathways and transport needs.
- Conducted an estimation review of ICU COVID-19 cases admitted to the main referral hospital.
- Mapped human resources and infrastructure needed to implement intensive care services in 10 regions.
- Carried out training on death certification and ICD coding for medical doctors.
- Held training on clinical management, laboratory diagnostic, and intensive care treatment.



### Maintaining essential health services during an outbreak

- Trained national authorities on key aspects for building national EMT capacity.
- Trained national health authorities in techniques to estimate needs, and how to expand services.
- Supported the design and adoption of a telemedicine initiative access to maternal/child services.
- Provided technical support to design and adopt mental health and psychosocial support (MHPSS) for affected populations and health workers.
- Developed a response plan of action for MHPSS for COVID-19.
- Conducted MHPSS capacity building activities for health care providers, University of Guyana Psychology students, COVID-19 hotline operators, and frontline health workers.
- Developed a plan for the establishment of a Technical Working Group for MHPSS in the country.
- Established a referral mechanism for individuals who require first-line and long term MHPSS.



### Operational support and logistics

- Conducted assessment of procurement process and modelling of needs and coordinated donations.
- Provided the country with additional PPE and COVID-19 test kits.
- Assisted with the coordination of supplies/needs through global procurement mechanisms.



## Haiti



### Country-level coordination, planning, and monitoring

- Coordinated with national authorities to evaluate hospital readiness for managing cases, in alignment with PAHO guidelines.
- Supported the National Emergency Response Unit of the Ministry of Public Health and Population (MSPP) to improve coordination.
- Supported the National Multisector Commission for the Management of the COVID-19 Pandemic to coordinate between national and subnational levels.
- Supported crisis cells at departmental level (Nord and Nord-Est departments) to improve coordination and response to COVID-19 and other crises, notably during the ongoing hurricane season.



### Risk communication and community engagement

- Deployed field missions to train 3,013 community health workers in seven out of 10 departments in risk communications, preventive measures, contact tracing, and the continuity of essential health services.
- Translated educational materials to Haitian Creole.
- Provided technical guidance to the Health Services Organization Directorate (DOSS) of the MSPP to develop a strategic framework document for the District Health Units in the context of COVID-19
- Supported the MSPP to update its webpage with information on COVID-19, including the daily national situation report.
- Supported the MSPP Communication Unit to enable teleworking.
- Took leadership in coordination meetings with the MSPP and other partners to strengthen community response and engagement.
- Supported the Department of Health Promotion and Environmental Protection of the MSPP in community engagement and response to COVID-19 during religious celebrations and festivals around the country.
- Conducted community meetings in four departments (Ouest, Artibonite, Sud and Nord Ouest) with community leaders including boards of communal sections (Conseil d'Administration de la Section communale, CASEC), assemblies of communal sections (Assemblée de la Section communale, ASEC), voodoo priests, pastors, and traditional birth attendants.



### Surveillance, rapid response teams, and case investigation

- Supported the MSPP to implement plans for strengthening COVID-19 surveillance at the departmental level, including improving data management and information sharing.
- Facilitated the deployment and active maintenance of 49 investigation teams and 310 contact tracing teams throughout the country, ensuring that all alerts are responded to as quickly and as effectively as possible. Call centers and data analysis teams are present in all the country's 10 departments. Information sharing systems are currently being set up in all departments.
- Supported the MSPP to screen incoming passengers at the airport in Port-au-Prince, as well as migrants returning to Haiti through the four main ports of entry on the border with the Dominican Republic: Anse-à-Pitre (Sud-Est), Belladère (Centre), Malpasse (Ouest), and Ouanaminthe (Nord-Est). Measures to raise awareness among migrants and incoming passengers on COVID-19 prevention measures were put in place. At Port-au-Prince airport, suspected cases were referred to the MSPP, through a validated protocol.
- Collaborated with partner international agencies IOM, UNFPA and UNICEF to strengthen surveillance at the border with Dominican Republic.
- Strengthened surveillance in seven priority Departments.
- Contracted workers in the Nord-Est Department to carry out contact tracing.
- Trained national counterparts in the use and management of Go.Data, WHO's contact tracing tool, to better follow up on cases and possible contacts.
- Implemented Go.Data in facilities to support contact tracing.



### National laboratories

- Supported the MSPP to strengthen laboratory capacity by training personnel and providing the necessary reagents and equipment as part of the decentralization efforts. In July and August, 3,600 GeneXpert cartridges and 200 reagents were procured. To date, six regional laboratories (in addition to the National Laboratory and Gheskio) have the capacity to test for COVID-19 using the GeneXpert system. Furthermore, two other regional laboratories are being set up.
- Supported the sampling of COVID-19 suspected cases and transportation of samples to the National Laboratory, using 18 Labomoto nurses who normally work with the sampling of suspected cases of cholera. Between July and August, these nurses assisted with the testing of 2,836 samples.
- Supported the re-training of 12 nurses, initially trained to work on cholera, to support sampling of suspected cases.

- Strengthened laboratory capacities by providing enzymes, internal control primers, PCR tubes, extraction kits to support early testing and detection.
- Strengthened laboratory capacities by providing training in theoretical aspects of molecular diagnostics.
- Provided troubleshooting support regarding testing procedures and sample collection.



### Infection prevention and control

- Distributed WASH kits to COVID-19 and non-COVID-19 health institutions. Twenty-four institutions perform early detection of suspected cases.
- Trained 668 healthcare workers in the appropriate use of PPE (both in COVID case management health institutions and in institutions with triage and isolation capacities).



### Case management

- Trained 520 healthcare workers in oxygen therapy and respiratory rehabilitation.
- Conducted training of trainers in early detection in North and North-East Departments.
- Trained personnel in 21 health institutions in the proper set-up of an isolation room, following WHO guidelines.
- Evaluated 171 health institutions for setting up early detection and isolation of suspected COVID-19 cases. 107 have already set up a triage space and 21 are in the process of setting up triage space.
- Distributed PPE kits to four COVID-19 case management health institutions.
- Distributed oxygen masks and other medical supplies to three COVID-19 case management institutions.
- Distributed early detection kits to 33 health institutions with triage and isolation capacities.
- Set-up a medical call center with 24/7 service, in support to MSPP, for follow-up of COVID-19 suspected and confirmed cases in home isolation.



### Maintaining essential health services during an outbreak

- Conducted missions to various health institutions to provide recommendations and examine progress made to strengthen health care capacity.
- Conducted meetings with community leaders to reinforce their engagement in COVID-19 risk control and inform them about the continuity of essentials services at health facilities.

## Honduras



### Country-level coordination, planning, and monitoring

- Collaborated with authorities on the COVID-19 Preparedness and Response Plan and later revisions.
- Facilitated the visit of a mission of experts in health systems for emergencies and health workers protection.
- Collaborated with the authorities in resource mobilization to support the response.
- Provided ongoing technical cooperation to national health authorities in the planning and adaptation of health services in prioritized areas.
- Established and facilitated coordination mechanisms between international and national partners and national health authorities to support the response. Participated in the national integration team for the introduction and access to the vaccine against COVID-19, serving as a link with international entities such as the COVAX mechanism.



### Risk communication and community engagement

- Developed and implemented a risk communication strategy, in collaboration with other UN agencies, and provided technical cooperation to develop a risk communication plan for the Secretariat of Health.
- Convened media briefings alongside counterparts, worked with journalists and health facilities, and used social networks to disseminate key messages.
- Translated risk communication materials into indigenous languages to disseminate information on COVID-19 infection prevention and biosafety measures.
- Financed and developed communication materials for the Secretariat of Health.
- Maintained a campaign through social networks and media, at no cost to the Organization. The website was the second most visited country page in the Region.



### Surveillance, rapid response teams, and case investigation

- Supported the country to develop models and statistical projections using existing epidemiological data, which have helped with strategic planning.
- Deployed surveillance teams to the most affected Departments to support and train RRTs.

- Worked with authorities to adapt surveillance, laboratory, and case management guidelines and protocols to the country's context. Conducted training, together with GOARN, on the use of Go.Data for contact tracing.
- Provided technical and financial cooperation to strengthen the health surveillance system, integrating COVID-19 surveillance into the SARI/ILI surveillance system, using a single information system (PAHO-Flu). Established situation rooms in each health region, and trained personnel at sentinel sites to use PAHO-Flu for COVID-19.
- Designed a course for RRTs to expand their coverage.
- Hired epidemiology consultants to carry out technical cooperation in prioritized networks.



### Points of entry, international travel, and transport

- Worked with authorities from various sectors to adjust points of entry according to the IHR, providing training, guidelines, equipment, risk communications materials, and PPE.



### National laboratories

- Strengthened laboratory capacity to improve timely detection, case traceability, and contact tracking. In partnership with USAID and health authorities, established three additional virology laboratories in geographically strategic locations, fully equipped, thanks to the UN COVID-19 Response and Recovery Trust Fund.
- Developed a barcode laboratory test registration system to guarantee the reliability of patient test results. The registry connects to the information system.
- Provided training to the virology laboratory on timely RT-PCR testing.
- Donated supplies for PCR tests.
- Provided support and advice for maintaining laboratory equipment with the acquisition of materials, equipment and supplies, as well as laboratory equipment repairs.



### Infection prevention and control

- Delivered PPE and hygiene supplies, procured by PAHO/WHO, to hospitals and health centers.
- Designed various courses for health workers on priority topics, in addition to widely disseminating courses that were developed by PAHO/WHO. To date, 25,000 people have been certified through different courses.



- Trained health professionals, NGOs, government officials, and other partners on IPC.
- Distributed more than 90 PAHO and WHO guidelines, protocols, and recommendations for adequate management of the pandemic.



### Case management

- Strengthened infrastructure at prioritized hospitals and case detection and stabilization centers to respond to the emergency.
- Advised on preparing health facilities to treat persons infected with COVID-19.
- Prepared courses for the PAHO Virtual Campus for Public Health and YouTube on home care for confirmed or suspected COVID-19 patients with mild symptoms and another for the care of pregnant women, those in labor, and the puerperium in the context of COVID-19. The former course has generated more than 145,000 views.
- Delivered guidelines, protocols, and updates to the Secretariat of Health.
- Donated medical instruments and equipment for adequate case management.



### Operational support and logistics

- Provided support to develop modeling of the impact of the pandemic for planning purposes.
- Supported the Secretariat of Health in planning, quoting, and procuring supplies.
- Delivered planning tools for beds, PPE, equipment, and supplies and provided financial support for ventilators.
- Facilitated the sustainability of the supply chain through purchases through PAHO Strategic Funds and the WHO Procurement Platform.
- Analyzed the evolution of the pandemic on an ongoing basis and provided recommendations for the best approach.



### Maintaining essential health services during an outbreak

- Advised on maintaining logistical systems and the cold chain for routine vaccination programs and services for maternal and mental health, dengue, and diabetic patients during the pandemic.
- Supported the continuity of the approach to communicable and noncommunicable diseases, immunizations, prevention of adolescent pregnancy and maternal and infant mortality, Safe Hospitals, hospital security, environmental determinants, etc.



## Jamaica



### Country-level coordination, planning, and monitoring

- Led the UN health sector response; worked with Foreign Ministry on other health sector efforts among multilateral partners, and foreign missions.
- Collaborated with the national disaster mechanism led by the Prime Minister and within the health EOC to provide guidance on health preparedness/response/recovery.
- Facilitated involvement of Jamaica in the COVAX mechanism through special national briefings.
- Procured and distributed laboratory supplies and medical equipment and supplies for five isolation areas, plus 15 ICU beds, 50 VHF radios, 50 mobile phones, 13 satellite phones, digital thermometers, hand-held non-contact infrared scanners and 43 tablets to the Ministry of Health and Wellness (MOHW).
- Briefed the MOHW at national and sub-national levels on PAHO modelling exercise using EpiEstim and COVID-SIM and clinical management.
- Collaborated with UN agencies on development of MEDEVAC guidelines for COVID-19, as UN coordinator.
- Prepared proposals for resource mobilization and implemented work plans for multiple partners/donors.
- Collaborated with the MOHW for weekly and monthly submission of WHO COVID-19 indicators.
- Provided guidance to the Technical Working Group of the HSS project of the MOHW



### Risk communication and community engagement

- Produced a video on breastfeeding in the context of COVID-19 and print material for travellers.
- Produced a video championing healthcare workers in support of International Nurses Day.
- Disseminated PAHO's video on mental well-being / coping with stress during isolation.
- In collaboration with UNICEF, produced infographics tailored to pregnant women and lactating mothers. This is in addition to two videos tailored to seniors.
- Produced a one-page flyer on tobacco cessation: "COVID is no joke, it gets worse with smoke".
- Developed animations on mental health and physical wellbeing.
- Produced video/materials for blood donations under the title "Safe blood saves lives."

- Undertook a rapid risk assessment of communications needs for vulnerable groups to inform risk communications strategies in advance of the 'now normal' phase.
- Supported the production of weekly 'Ask the Experts' Facebook live sessions.
- Supported training for journalists on responsible reporting on COVID-19.



### Surveillance, rapid response teams, and case investigation

- Collaborated with MOHW to determine epidemiological transition to community transmission.
- Provided equipment to support field epidemiology/data collection in priority parishes.
- Trained health care workers in the WHO surveillance protocol for SARS-CoV-2.
- Trained national and field teams to use Go.Data and provided 25 tablets to expand contact tracing.



### Points of entry, international travel, and transport

- Worked with the MOHW to reinforce training on IHR (2005) compliance for officials from the health sector, airports/seaports, immigration, customs and the Jamaica Defence Force.
- Collaborated with the MOHW to provide technical guidance on appropriate procedures at points of entry for the phased re-opening of borders to international travelers and establish appropriate areas for screening, quarantine and isolation.
- Co-hosted, with the MOHW, three meetings of the IHR Stakeholders Advisory Group, with representatives of all Ministries, Departments and Agencies, the Airports and Ports Authorities and Jamaica Defence Force on their roles within the IHR (2005) in the context of COVID-19.



### National laboratories

- Provided technical advice and material to MOHW to update COVID-19 testing strategy.
- Provided technical advice to national authorities to review the NIC's testing protocols.
- Strengthened laboratory capacities by providing enzymes, internal control primers, PCR tubes, extraction kits to support early testing and detection.
- Strengthened laboratory capacities through training in theoretical aspects of molecular diagnostics and troubleshooting support for testing procedures and sample collection.



### Infection prevention and control (IPC)

- With UNAIDS, trained members of 11 civil society organizations working in HIV/AIDS in IPC measures.
- Revised the National Strategy for Infection Control to cover COVID-19 response.
- Provided recommendations for use of non-traditional facilities as treatment centers.



### Case management

- Collaborated with MOHW to train 180 managers and staff of 14 infirmaries in MHPSS during COVID 19, including on stressors faced by the elderly and self-care.
- Facilitated the completion and submission of the MOHW EMT National Response Matrix.
- Provided technical advice to national counterparts to identify potential isolation facilities.
- Provided technical support for the establishment of Alternative Medical Care Sites (AMCS).
- Remained embedded in the MOHW EOC, supporting the updating of standards for quarantine and isolation facilities.
- Provided guidance/support in nutritional management/ breastfeeding during COVID-19.
- Developed guidelines aimed at keeping businesses/offices safe for returning workers.
- Provided technology/communications equipment to assist with operations and logistics.



### Maintaining essential health services during an outbreak

- Completed mental health support to school-based adolescents with train-the-trainers sessions for 46 persons.
- Provided support to Technical Working Groups on Sickle Cell Disease and Childhood Cancers.
- Under the umbrella of the PAHO/DFID Smart Health Care Facilities project, prepared tender documents for retrofitting and interventions at 10 facilities.
- Provided technical analysis/advice on the reorganization of health services.
- Worked with MOHW and the regulatory agency to share crisis management guidance.
- Supported acquisition of antiretrovirals (ARVs) for maintenance of HIV treatment during the response.
- Supported the development and implementation of COVID-19 Research Agenda.
- Provided support for the upgrade of the information infrastructure in 110 health facilities.



## Mexico



### Country-level coordination, planning, and monitoring

- Collaborated with emergency operations centers, UN and multilateral partners, and foreign missions to coordinate health sector efforts to combat COVID-19.
- Developed recommendations on adapting PAHO/WHO protocols for COVID-19 response.
- In Guerrero, collaborated on prevention and mitigation of maternal and neonatal mortality in pregnancies complicated by COVID-19. In Mexico City, Chiapas, Puebla, and Tabasco, progress was made in the implementation of the Community Strategy for Prevention, Mitigation, and Care for COVID-19 from the first level of care with a primary health care approach and in the deployment of the HEARTS project as tool to protect people with risk factors from severe forms of COVID-19.



### Risk communication and community engagement

- Disseminated information on COVID-19 through national media and improved country office media presence to battle misinformation.
- Partnered with UNHCR, IOM, UNICEF, and the ICRC to ensure a coordinated approach to communicating risk.
- Trained UNHCR staff in risk communications and the use of PPE.
- Delivered risk communication training to state leaders to boost health promotion efforts.
- Advanced the initiative on the analysis of perceptions and risk communication, in collaboration with national and state governments.
- Developed a tool to analyze public perceptions of risk and contribute to the development of strategies adapted to local contexts, forming the basis for the weekly national reports.
- Provided support for the preparation of the local risk communication guide, intended for the state-level training process, under the framework of the new PHC community strategy.
- Supported a national dialogue to integrate risk strategies for COVID-19 and collaborated with the Mexican Network of Health-promoting Universities to prepare the guidelines for the reopening of higher education.
- Collaborated with the National Institute of Indigenous Peoples to develop and disseminate radio COVID-19 prevention messages in 68 indigenous languages, reaching

an estimated 16 million people.

- Formed working group between the Mexico City secretariats of the environment, health, and mobility and the UN agencies (UNEP, UN-Habitat, and PAHO/WHO) to design a risk communication strategy focused on the sustainable use of masks.
- Developed recommendations to improve pharmacovigilance and risk communication on the rational use of drugs in the management of COVID-19.



### Surveillance, rapid response teams, and case investigation

- Promoted the Go.Data platform and held advanced training courses for participants from 10 states.
- Supported the Sub-Secretariat for Prevention and Health Promotion in its daily evening briefings.
- Supported the revision of the Influenza Surveillance System (SISVEFLU) to incorporate COVID-19 into the Respiratory Diseases Surveillance System (SISVER).
- Contributed to updating standardized guidelines for epidemiological and laboratory surveillance of viral respiratory disease with a new operational definition, to expand the diagnosis of suspected cases.
- Hired four epidemiologists to assist in the capture and analysis of the information.
- Supported the improvement of surveillance of excess mortality from all causes in 22 states.
- Participated in the analysis of maternal mortality, and guidance on maternal death audits.
- Provided training on completing death certificates for those who died from or with COVID-19.



### Points of entry, international travel, and transport

- Coordinated with the Secretariat of Health, IOM, UNHCR and ICRC to design infection prevention measures to detect possible cases among returnees arriving at entry points.
- Shared recommendations as the country considered reopening its tourism sector.



### National laboratories

- Provided guidance to the national laboratory, InDRE, to update guidelines and build capacities.
- Provided tailored training and troubleshooting on COVID-19 testing.
- Donated laboratory test kits, extraction kits, enzymes, internal controls, and other supplies.



### Infection prevention and control

- Supported the formulation and implementation of IPC measures in psychiatric hospitals.
- Provided training for use of PPE.



### Case management

- Provided support to draft a PHC-based strategy for the first level of care to search for alert signs in people suspected of COVID-19 and maintain under control persons at risk; with community-sensitive health promotion and risk communication messages.
- Provided support on recommendations to improve case management of COVID-19 patients.
- Provided support to draft and implement a strategy for rotation of clinical personnel (doctors and specialized nurses) in a bid to strengthen clinical capacities given strained health services.
- Strengthened capacities for protecting mental health, including measures to prevent suicide.
- Provided guidance on preparing healthcare facilities to treat people infected with COVID-19.



### Operational support and logistics

- Provided technical recommendations on the selection of equipment and medical devices for COVID-19.
- Trained health authorities in estimating PPE needs.



### Maintaining essential health services during an outbreak

- Supported the provision of essential health services for persons with chronic diseases, and coordinated with state authorities and other entities on the use of telemedicine.
- Provided intersectoral support to address risk factors for NCDs in the context of COVID-19.
- Promoted measures to protect people in conditions of vulnerability, including implementing a National Commission to Care for Vulnerable Populations in Emergency Conditions.
- Supported the drafting of a national guide for COVID-19, targeting pregnant women and newborns and provided recommendations to health professionals at the state level on caring for pregnant women with COVID-19 symptoms.
- Shared SIP-COVID tool with authorities and trained officials from the National Centre for Gender Equity and Reproductive Health, as well as the General Directorate of Epidemiology.
- Supported country in addressing health-related issues of migrants, asylum-seekers, and persons returning from abroad (in coordination with UN agencies and NGOs).

# Nicaragua



## Country-level coordination, planning, and monitoring

- Evaluated the readiness of the health services, including in infection prevention and control.
- Prepared recommendations to the MINSA on protocols of care for the response to COVID-19, both in first and second levels of health care.
- Applied checklist for COVID-19 response readiness at designated hospitals.
- Provided technical cooperation for the organization of Emergency Operations Centers at the local and national levels.



## Risk communication and community engagement

- Provided targeted support for the development of a communication plan and helped develop messages in accordance with PAHO/WHO recommendations.
- Delivered 70,200 units of posters, banners, and flyers for the prevention of respiratory diseases and 40,540 on the promotion of healthy habits.
- Updated the Nicaragua node on the PAHO Virtual Campus for Public Health with COVID-19 relevant WHO and PAHO publications and scientific articles.



## Surveillance, rapid response teams, and case investigation

- Conducted training, together with the Global Alert and Response Network (GOARN), on the use of Go.Data for contact tracing.
- Supported Nicaragua to establish a GIS hub to facilitate the monitoring of COVID-19 cases.



## Points of entry, international travel, and transport

- Supported the preparation of a binational cross-border plan (Costa Rica and Nicaragua) for the timely detection of suspected cases and contact tracing.



## National laboratories

- Provided primers, probes, and swabs for molecular detection.



## Infection prevention and control

- Collaborated with WHO to deliver PPE.



## Case management

- Accompanied the Cuban medical brigade “Henry Reeve” in the exchange of experiences with Nicaragua on surveillance, contact identification and tracing, case management, and application of non-pharmaceutical measures such as social distancing.
- Coordinated with the National System for the Prevention, Mitigation and Response to Disasters (SINAPRED) to train and implement COVID-19 care protocols with the institutions providing prehospital services.



## Operational support and logistics

- Coordinated with institutions providing pre-hospital services (Nicaraguan Red Cross and Federation of Fire Departments) to establish care protocols according to the recommendations of the guide for Pre-Hospital Medical Emergency Services.



## Maintaining essential health services during an outbreak

- Provided technical cooperation to organize vaccination week, adapt immunization services to COVID-19 context, implement the Malaria Elimination Initiative, and strengthen the national regulatory authority.





## Panama



### Country-level coordination, planning, and monitoring

- Activated a joint PAHO-Ministry of Health situation room; supported national authorities to develop and implement the country's national COVID-19 response plan.
- Adapted protocols for surveillance, laboratory, case management, and risk communication to Panama's context.
- Worked with national authorities to assess the effectiveness of implemented public health measures as the government considers how to gradually reopen different work sectors.



### Risk communication and community engagement

- Supported development of the Plan for Managing Risk Communication and the national strategy for COVID-19 preparedness and response.
- Created an information portal with guidance on COVID-19 for the general public and health personnel.
- Worked with the Ministry of Health and the Presidency of the Republic to develop, adapt, and disseminate COVID-19-related communication materials in Spanish and indigenous languages.
- Trained health promoters in risk communications and coordinated closely with the Ministry of Indigenous Affairs to reach the Guna-Yala and Ngäbe-Buglé indigenous populations and with the IOM and UNHCR to reach migrants.
- Promoted discussions and exchange of knowledge on aspects related to treatments, medicines, clinical trials, and the development of vaccines to respond to the COVID-19 emergency.
- Collaborated with the UN Information Center to implement a national campaign to encourage the adoption of COVID-19 prevention measures considering the "new normal" context.



### Surveillance, rapid response teams, and case investigation

- Trained epidemiological personnel in COVID-19 surveillance and analysis.
- Supported the Ministry of Health to build a database of COVID-19-related data that supports case management and collaborated in data analysis, with a focus on detecting imported cases.
- Contributed to the weekly development of situation reports on the pandemic, an analytical document that has been critical for national and local authorities for decision making.



### Points of entry, international travel, and transport

- Worked with health authorities, points of entry officials, and the country's IHR focal point to establish systems to improve surveillance for possible cases; delivered PPE and other supplies for these front-line workers.



### National laboratories

- Provided training and supplies to the network of 11 laboratories to perform molecular detection of SARS-CoV-2, essential for contact tracing and outbreak investigation.
- Supported the country to formulate a strategy to expand testing across the country.
- Delivered 26,000 kits to take samples using nasopharyngeal swabs as a donation to the Gorgas Memorial Institute of Health Sciences (ICGES).



### Infection prevention and control

- Delivered 25 air-conditioned tents with generators and other equipment to establish field hospitals for triaging patients from Panama's public hospitals.
- Provided recommendations to mitigate new infections as restrictions are gradually lifted.
- Supported security authorities (SENAFRONT), training all personnel assigned to migrant reception centers and migrant shelters in COVID-19 prevention and control.



### Case management

- Analyzed health system capacities, shared guidance to help Panama reorganize and expand its health services, and created a dashboard to track health system indicators and ICU bed availability.
- Trained 17 participants from the Ministry of Health to use PAHO's tool for planning for the progressive expansion of hospital capacity.
- Supported the strengthening of the COVID-19 Community Tracing and Control Operations Center (COCYTC), prepared a training course on promoting community tracing of SARS-CoV-2 and COVID-19, and facilitated the application of Guidelines for the Return to Normalcy, directed towards health promoters and local volunteers.
- Coordinated the donation of 70 oxygen concentrators and PPE for managing COVID-19 patients.



### Operational support and logistics

- Worked with health authorities to help manage donations for a field hospital that provides care and shelter for the general population and migrants.
- Coordinated the logistics for receiving and delivering the donation of PPE to national authorities.
- Supported the country to join the global COVAX mechanism to access vaccines for COVID-19.
- Supported the procurement of PPE purchased through WHO's Global Procurement Platform.
- Advised the MINSAs on defining actions to include in the World Bank's budget support for Panama's health sector.



### Maintaining essential health services during an outbreak

- Supported the Ministry of Health to develop strategies to ensure the continuity of essential health services and key programs for its return to the new normal (vaccinations, NCDs, malaria, tuberculosis, dengue, and others) during this pandemic; developed mechanisms for health authorities and pharmacies to follow up with chronic patients and to provide home delivery of medicines.
- Supported the formulation of a plan for mental health care for the migrant population and provided recommendations on psychosocial support for volunteers working in the COVID-19 response. This included an analysis of the availability of human resources for mental health.
- Collaborated in the technical coordination of the monitoring of essential medicines for ICUs for caring for COVID-19 patients; revising the list of COVID-19 medicines considering the MINSAs's treatment guidelines; and piloted the Medicine Inventory Management System (wMSSM), a PAHO/WHO platform for monitoring the MINSAs's stock levels of vital ICU medicines.



# Paraguay



## Country-level coordination, planning, and monitoring

- Collaborated with the Ministry of Health to develop and implement Paraguay's National COVID-19 Pandemic Response Plan, establish its national Emergency Operations Center, and adapt and adopt PAHO and WHO protocols and methodologies to the country's context.
- Collaborated with the emergency operations team to activate and guide department-level centers.
- Worked with the Ministry of Health and the National Secretariat for Human Rights for Persons with Disabilities (SENADIS) to improve health access for persons living with disabilities.



## Risk communication and community engagement

- Supported the Ministry of Information, Technology, and Communications to disseminate Guaraní and Spanish-language risk communication materials.
- Trained 50 health communicators and 40 journalists in risk communication for COVID-19.



## Surveillance, rapid response teams, and case investigation

- Worked with national authorities to establish COVID-19 surveillance systems in shelters housing migrant workers returning from abroad.
- Provided guidance for establishing a call center for persons who suspect that they may be infected with COVID-19.
- Supported the analysis and projection of cases in the national situation room and the Emergency Operations Center for Health (COESalud).



## Points of entry, international travel, and transport

- Developed communication materials for travelers and/or returning citizens who arrive at land and air points of entry.



## National laboratories

- Provided training and guidance to the Ministry of Health to conduct PCR testing for COVID-19. Delivered supplies for PCR diagnostics, and assessed needs for capacity building.
- In close collaboration with Paraguay's Central Public Health

Laboratory, worked with the Ministry of Health and the Ministry of Agriculture and Livestock to install COVID-19 testing capacities within the reference veterinary laboratory, in alignment with PAHO protocols and guidelines.

- Provided continuous support to update the country's diagnostics strategy for COVID-19 using PCR-RT and other methods.



## Infection prevention and control

- Trained health workers to reduce infections among persons with disabilities, with support from UNHCR and AECID.
- Distributed PPE and provided IPC training to health workers, the Ministry of Justice for long-stay facilities, and the Ministry of Labor for workspaces.
- Supported the country to adapt hotels and similar spaces for isolation and patient care.



## Case management

- Contributed to the training of over 8,000 health workers to reorganize and expand health services (i.e., case management, safe management of cadavers).
- Provided orientation on all PAHO/WHO clinical management guidelines for adult and pediatric cases, including mild and critical cases.
- Provided guidance so that the network of over 808 Family Health Units could maintain essential primary healthcare services and case management for mild cases of COVID-19.
- Contributed to the reorientation of the flow of patients and health personnel within the network of services for the safe management of cases.
- Assessed estimated needs to expand Paraguay's health services to manage COVID-19 cases.
- Facilitated processes to integrate public sector services (from the Ministry of Public Health and Social Wellbeing and the Institute of Social Care) to provide an effective and efficient response to the increased demand for COVID-19 services.
- Provided support to the national authorities to adapt military facilities, hotels, and other locations at Paraguay's borders as Alternative Medical Care Sites in line with EMT/AMCS recommendations for managing returning persons from abroad.
- Supported prevention measures in vulnerable populations including indigenous, older adults, and populations deprived of liberty.



### Operational support and logistics

- Provided support in logistics planning, coordination and management for critical supplies, medicines, and equipment.
- Ensured that donors and partners within the UN system are working in alignment with procedures for donations related to COVID-19 delivered to the Ministry of Health.



### Maintaining essential health services during an outbreak

- Implemented communication campaigns on NCDs, mental health, violence and COVID-19.
- Worked with the Ministry of Health to implement protocols and guidelines to maintain essential services (maternal, child, and adolescent health, vaccination, etc.).
- Technical cooperation to strengthen mental health services in COVID-19 and reform the country's current mental health system.
- Provided technical cooperation to maintain all activities for communicable diseases (HIV, TB, neglected infectious diseases, and antimicrobial resistance)

## Peru



### Country-level coordination, planning, and monitoring

- Supported the Peruvian government's response, coordination and communication mechanisms with different sectors and levels of government as part of its integrated emergency response.
- Participated in expert commissions from the Ministry of Health (MINSa), providing recommendations to develop or adapt plans, strategies, and protocols to organize health services, telemedicine, epidemiological surveillance, IPC, case management, biosecurity, procurement, risk communication, and research.
- Supported the COVID-19 Operations Command to organize health services and define their roles and functions of its many institutions as well as in their activities.
- Promoted attention to considerations regarding equity, gender, ethnicity, and human rights in the COVID-19 response.
- Collaborated with the regional governments of Loreto, Ucayali, Ancash, Tumbes, and Piura and health establishments at the borders with Brazil and Colombia, to develop a COVID-19 intervention plan with indigenous populations, the reopening of primary care services, rapid response teams, the appropriate use of PPE, and care for refugees and migrants.
- In partnership with the private sector, implemented an intervention with the regional government of Ancash and the WFP for halting the COVID-19 transmission at the first level of care.



### Risk communication and community engagement

- Supported the MINSa and the Presidency of the Council of Ministers to strengthen risk communication in 13 regional governments and with 280 journalists. Collaborated in the development of risk communication plans for Tumbes, Piura, Lambayeque, La Libertad, Loreto, Ancash, and Ica.
- Developed, adapted, and disseminated PAHO health materials for pregnant women, elderly adults, and caregivers on the use of PPE, handwashing, cleaning and disinfection of surfaces and floors, waste management, COVID-19 prevention in lockdown situations, vaccination against influenza and pneumococci, the risks of self-medication, and care for patients with limited symptoms.
- Coordinated 60 media interviews to reinforce messages and sanitary recommendations. It is estimated that each interview reached over 500,000 homes.



### Surveillance, rapid response teams, and case investigation

- Strengthened the surveillance system through the adaptation of national tools and protocols for contact tracing and monitoring.
- Collaborated with the MINSa regarding updates to the national surveillance regulations and epidemiological technical documentation.
- Collaborated in the design of a seroepidemiological population survey for COVID-19 infection in the cities of Lima and Callao. This study intends to determine the infection prevalence by age group.
- Reviewed the strategy for syndromic surveillance for acute respiratory infections and surveillance of other events indirectly related to COVID-19 including those related to mental health.
- Collaborated in the reinforcement of epidemiological surveillance teams and health management in all regions and strengthened the Situation Room for the department of Loreto.



### Points of entry, international travel, and transport

- Collaborated with CDC-Peru and the National Liaison Center on institutional strengthening, the development of guidelines and procedures for points of entry, and capacity building.
- Supported the design of a declaration for travelers on the gradual lifting of the quarantine and the regularization of air and maritime transit and the implementation of controls on travelers at airports.
- Supported the surveillance functions pertaining to points of entry from Brazil, Colombia, and Peru, and provided corresponding technical assistance to the Ramón Castilla Health Network.



### National laboratories

- Developed a management plan for testing needs, based on scenarios and data modeling, in addition to strengthening quality control.
- Strengthened the laboratory of the National Health Institute and the laboratory network in 12 regions for processing molecular samples of COVID-19: supplies for 1,185,207 molecular reactions, RNA extraction kits and inverse

transcription, including for the Ancash project.

- Collaborated to develop a biosecurity protocol for taking biological samples and transporting them, a flowchart for the rational use of laboratory supplies, and a manual of best practices for storing supplies.



### Infection prevention and control

- Promoted the reactivation of the Hospital Infections Committee and provided recommendations on IPC measures for the COVID-19 case management protocol.
- Trained health personnel and 4,200 medical students in clinical epidemiology for COVID-19 infection, and in the use and disposal of PPE and biosecurity.
- Collaborated with the MINSa and the National School of Public Health to develop content for a virtual course on IPC.
- Updated clinical guidelines for COVID-19 patients, regulations for isolation centers at the primary care level, regulations for biosecurity for suspected patients, management of contaminated materials and technical specifications, evaluation, recommendations on the use and disposal of PPE.
- Donated PPE to the Ministry of Health (250,250 nitrile gloves, 106,400 masks, 92,390 aprons, 56,600 caps, 16,540 goggles, 9,290 protection suits, 3,354 face shields, 200 N-95 respirators, and 100 gowns). Goods were provided to the CDC, COVID-19 Command, INS, and CENARES, hospitals in five regions, regional governments, the Peruvian army, and the National Penitentiary Institute (INPE).
- Collaborated in the development of a pharmacosurveillance plan and the monitoring of the use and safety of medicines and medical devices.
- Adapted regulatory measures to facilitate the availability and donations of technologies, as well as authorizations for the sanitary registration of products.
- Concluded the protocol for the management and final disposal of solid wastes from homes and hospitals in the context of COVID-19.



### Case management

- Collaborated in the evaluation and formulation of recommendations for the organizing of care for the Hipólito Unanue, Dos de Mayo, Loayza, San Juan de Lurigancho y la Villa Panamericana hospitals.
- Developed a proposal for patient management, estimating gaps, and reorganizing human resources for ICU care, basic equipment, and initiatives for the continuity of assisted care and outpatient services.

- Contributed to the analysis and management of critical beds, review of figures and trends, estimations of the consumption of oxygen, and procurement processes.
- Signed an agreement with the MINSa to apply a Unified System for Urgencies, Emergencies, and Disasters for the management of prehospital care for COVID-19 patients.
- Supported the modification of the rules under the SERUMS Law (rural, urban, and marginal Health Services for Rural, Urban, and Marginal Populations) to facilitate the incorporation of professionals trained abroad.
- Collaborated in the reinforcement of the first level of care.
- Shared PAHO/WHO guidelines, flowcharts, and the recommended set of basic services for care in the context of COVID-19.
- Donated biomedical equipment to health facilities.
- Collaborated in the revision of protocols for the prevention, diagnosis, and treatment of COVID-19 for pregnant women and newborns and implemented a local network of support for older adults and persons living with disabilities.
- Supported policies for the prevention and control of COVID-19 in penitentiary centers, delivered PPE to INPE personnel, and provided training in juvenile centers.
- Collaborated in the development of a plan for mental health in the COVID-19 context, including the evaluation of the impact of the quarantine on the population's mental health.
- Supported the adaptation of vaccination guidelines in the context of COVID-19, including procurement through PAHO's Revolving Fund and the COVAX mechanism.
- Facilitated Peru's participation in the Solidarity Trial.



### Operational support and logistics

- Supported the monitoring of the supply chain for pharmaceutical products, medical devices, and others.
- Supported the formulation of warehousing strategies and in identifying national and international suppliers for products with limited availability.
- Supported the DIGEMID/CENARES procurement of vaccines through PAHO's Revolving Fund and, medicines, medical devices, and diagnostics supplies through PAHO's Strategic Fund.





## Puerto Rico



### Country-level coordination, planning, and monitoring

- Participated in virtual meetings coordinated by PAHO; sharing and presenting information and materials received from the Department of Health.
- Maintained active communication with national authorities by providing up-to-date information to guide the planning and implementation processes of public health strategies.



### Risk communication and community engagement

- Worked with the Office of Public Health Preparedness and Response in the Department of Health to distribute COVID-19 information to health personnel and the public.
- Supported the Department of Health's Geriatric Program through the distribution of informational and risk communication materials and responded to inquiries as received.
- Participated in the PAHO virtual training on responding to mental health challenges and issues, which the Department of Health utilized to organize social support and community outreach.



### Case management

- Shared materials on COVID-19 prevention and case management in hospitals in digital format, which have been distributed to the Department of Health's programs as a guide/tool in the planning of strategies and services.



## St. Kitts and Nevis



### Country-level coordination, planning, and monitoring

- Conducted a webinar on Health Emergency and Disaster Risk Management in the context of the COVID-19 pandemic.
- Launched consultations with national health authorities on the development of country strategic preparedness and response plans according to WHO guidelines.
- Continued publication of the Country Office COVID-19 information bulletin, including measures taken by countries to contain the spread of the virus and highlights of PAHO support to Member States.
- Monitored country response to COVID-19 continued through monthly and weekly reporting on WHO M&E indicators.
- Coordinated with the UNRC system on COVID-19 initiatives.



### Risk Communications and Community Engagement

- Conducted risk communication training and review of the messaging for COVID-19.
- Provided support to develop the country's Risk Communication Plan.
- Conducted psychological first aid training for COVID-19 hotline volunteers, community leaders, and hotline workers to support individual and community resilience.
- Conducted a visit to and educational session for the country's prison population and prison staff.
- Produced 500 posters on different aspects of COVID-19, including IPC and handwashing.
- Supported the production of 800 parenting booklets.
- Convened a virtual PAHO/WHO COVID-19 Presentation and Update for journalists and media professionals from St. Kitts and Nevis.
- Carried out a three-month gender and violence awareness campaign in the context of COVID-19 in St. Kitts and Nevis.
- Provided technical assistance for the development of a short animation video targeting caregivers, children, adolescents, and the general population to promote confidence in the EPI program in the context of COVID-19.
- Developed and disseminated social media cards on the prevention of non-communicable diseases; mental health risk factors; healthy eating; how to provide mental health and psychosocial support; and prevent stigma during the COVID-19 pandemic.



### Surveillance, rapid response teams, and case investigation

- Procured a vehicle to support contact tracing activities in Nevis.
- Contracted the services of two workers to conduct contact tracing and surveillance.
- Convened a webinar to share methods for the mathematical modelling of COVID-19.
- Provided orientation of national epidemiologists and laboratory personnel on the PAHO regional programme for influenza laboratory-based surveillance for SARI/ILI and its link to COVID-19.
- Collected weekly data on COVID-19 trends and contact tracing and enhanced this by contracting the services of two surveillance officers.



### Points of entry, international travel, and transport

- Provided banners to raise awareness about COVID-19 at ports of entry.
- Reviewed, as necessary, entry protocols for the reopening of borders and provided feedback to national health authorities as appropriate.
- Provided necessary equipment, e.g. thermal imagers, and IT tools for data collection to strengthen infrastructure for case detection at points of entry.
- Hosted a webinar on "Considerations for resuming non-essential travel in the Caribbean."



### National laboratories

- Procured laboratory supplies for COVID-19 testing.
- Conducted a webinar on "Scaling up laboratory testing in the Caribbean".
- Facilitated training on molecular testing to establish on-island testing capacity.



### Infection prevention and control (IPC)

- Trained staff (hospital and clinics) in the donning and doffing of PPE.
- Assessed the country's IPC system.
- Procured and disseminated 397 complete PPE kits to reduce the risk of infection for health workers.
- Convened a webinar on the protection of healthcare workers in COVID-19.
- Provided training on clinical management for COVID-19.



### Case management

- Convened a seminar on managing the flow of healthcare workers exposed to COVID-19 in health facilities.
- Produced and distributed a mobile booklet for healthcare workers.
- Convened a seminar on WHO's Mental Health Gap Action Program's Humanitarian Intervention Guide (mhGap-HIG), focusing on general care and acute stress among healthcare workers.
- Improved local health system capacity and protected healthcare workers to safely diagnose COVID-19 and deliver healthcare services.
- Procured three patient monitors for surveillance and case management of persons with COVID-19.



### Operational support and logistics

- Shared the COVID-19 Supply Management Model Tool to facilitate logistics for managing supplies, equipment, and medicine received for the country's response.



### Maintaining essential health services during an outbreak

- Worked with health authorities to ensure continuity with the country's immunization program and maternal and perinatal response during the COVID-19 pandemic.
- Shared the Epidemic Needs Analysis Tool and provided virtual training to health workers.
- Worked with health authorities to ensure that environmental public health is integrated into the COVID-19 emergency.
- Worked with the Ministry of Health to support Family Health Day – Families in the time of COVID-19 in Nevis
- Coordinated with the Chief Medical Officer (CMO) to highlight COVID-19 experiences and best practices.
- Provided support for the establishment of a national MHPSS Coordinating Committee.



## St. Lucia



### Country-level coordination, planning, and monitoring

- Supported the national authorities to develop the COVID-19 preparedness and response plan.
- Launched consultations with national health authorities on the development of country strategic preparedness and response plans according to WHO guidelines.
- Continued publication of the Country Office COVID-19 information bulletin including measures taken by countries to contain the spread of the virus and some highlights on PAHO support to the Member States.
- Monitored country response to COVID-19 continued through monthly and weekly reporting on WHO M&E indicators.
- Developed country action plans for various COVID-19 donor grants, followed by engagement of national focal points to support the implementation at country level.
- Coordination with the UNRC system on COVID-19 initiatives.



### Risk communication and community engagement

- Provided support for the development of communication and community awareness materials for the general population and vulnerable groups.
- Produced and distributed posters and booklets on COVID-19 preventive public health measures.
- Provided retractable information banners for placement at points of entry.
- Disseminated risk communication information to the public and travelers.
- Created a public service announcements (PSA) on alcohol use and abuse and implications for COVID-19; disseminated PSA [HEARTS jingle] on promoting a healthy lifestyle in the COVID-19 context for persons with chronic diseases.
- Developed risk communication materials for patients with chronic diseases to better control and manage their disease and reduce the risk of increased severity of symptoms if tested positive for COVID-19.
- Provided capacity building for health care workers on mental health and psychosocial support.



### Surveillance, rapid response teams, and case investigation

- Disseminated COVID-19 surveillance technical guidance.
- Introduced COVID-19 data collection tools, e.g. Excel line listing, revised reporting form.
- Provided orientation on Go.Data, the WHO contact tracing software for data capturing and monitoring the chain of transmission.
- Provided orientation on EpiEstim and CovidSIM mathematical models for the generation of effective reproductive rate and short-term forecasting of COVID-19 cases.



### Points of entry, international travel, and transport

- Conducted training on port health surveillance for COVID-19.
- Reviewed entry protocols for the reopening of borders and provided feedback to national health authorities as appropriate.
- Procured necessary equipment, e.g. thermal imagers, and IT tools for data collection at main airports to strengthen infrastructure for case detection at points of entry
- Convened a webinar on “Considerations for resuming non-essential travel in the Caribbean.”



### National laboratories

- Distributed sample collection materials and RT-PCR testing materials for COVID-19 testing.
- Conducted training and hands-on practice in theoretical aspects of molecular diagnostics.
- Ensured laboratory capacity to detect COVID-19 cases with necessary tests and reagents, and to scale up capacity as more cases were detected.
- Convened a webinar on “Scaling up laboratory testing in the Caribbean”.
- Led training on molecular testing to establish on-island testing capacity.



### Infection prevention and control

- Conducted training on IPC for healthcare workers.
- Conducted training in the use of PPE.
- Delivered PPE to reduce the risk of COVID-19 infection among healthcare workers.



## Case Management

- Improved local health system capacity and provided recommendations for healthcare workers to safely detect and deliver healthcare services.
- Procured ten infrared and 100 digital contact thermometers for the surveillance and case management of persons with COVID-19.



## Operational support and logistics

- Facilitated the international procurement of laboratory supplies and PPE for shipment to Saint Lucia.



## Maintaining essential health services during an outbreak

- Procured and distributed water testing kits to the Ministry of Health.
- Worked with the country's immunization program to ensure continuity in vaccinations during the COVID-19 pandemic and to create a forum to exchange experiences and challenges in adjusting the delivery of immunization services. Provided training on using WHO/UNICEF's annual Joint Reporting Form (JRF) and the new monthly reporting system for vaccines. PAHO also conducted a virtual campaign to support Vaccination Week of the Americas.
- Provided training on COVID-19 and its impact on children living with disabilities.
- Developed a UNICEF and PAHO Interagency work plan for preparing the country to ensure that children can safely return to school ("Safe Back to School").
- Conducted a webinar for youth and adolescents to raise awareness on COVID-19 and familiarize them with the roles they plan in the country's response to the pandemic.
- Provided technical support for the development of self-management strategies for patients with chronic disease to better manage their conditions and reduce the risk of increased severity of symptoms if tested positive for COVID-19.
- Provided support for the establishment of a national MHPSS Coordinating Committee.

# St. Vincent and the Grenadines



## Country-level coordination, planning, and monitoring

- Briefed national experts and oriented them on recommendations for the response to COVID-19.
- Procured eight A/C Units for the country's PCR laboratory and the Health Emergency Operations Center (EOC)
- Launched consultations with national health authorities on the development of country strategic preparedness and response plans according to WHO guidelines. Technical Advisors and CPSs worked to provide pre-populated templates as working documents for discussion with the national health authorities.
- Continued publication of the Country Office COVID-19 information bulletin, including measures taken by countries to contain the spread of the virus and highlights on PAHO support to the Member States.
- Monitored country response to COVID-19 continued through monthly and weekly reporting on WHO M&E indicators.
- Coordinated with the UNRC system on COVID-19 initiatives.



## Risk communication and community engagement

- Produced COVID-19 video for Nurses Week.
- Distributed 580 posters on COVID-19 island-wide.
- Produced information, education, and communication (IEC) Materials in the form of 250 posters for pre and primary school children
- Conducted training with focal points from the region to discuss public health considerations for children with disabilities and to offer guidance for continuation of specialized health services for children with disabilities and their families.
- Developed a UNICEF and PAHO Interagency work plan for Safe Back to School.
- Convened a virtual dialogue targeting young people from the Region aimed at exploring what it will take to adjust to this new way of living, and how to cope with pandemic-related isolation in a positive way. There were over 1,400 participants.
- Participated in weekly meetings with the Ministry of Health and youth leaders.
- Developed a work plan that will serve as a framework for encouraging young people to invest their time in positive ways.

- Convened discussions with country focal points that resulted in agreed interventions to use as a framework to address gender-based violence in the region.
- Provided support to the safe re-opening of schools, and the production and airing of videos on "Safe Reopening of Schools".
- Trained health care workers and responders in psychosocial aspects of COVID-19, including responders in ports of entry, basic needs services, in-patient, and long-term care facilities.



## Surveillance, rapid response teams, and case investigation

- Procured equipment for COVID-19 surveillance activities.



## Points of entry, international travel, and transport

- Supported the production of information banners for points of entry.
- Reviewed, on a regular basis, protocols for the reopening of borders and provided feedback provided to national health authorities as appropriate.
- Provided necessary equipment, e.g. thermal imagers and IT tools for data collection, to strengthen infrastructure for case detection at points of entry.
- Conducted a webinar on "Considerations for resuming non-essential travel in the Caribbean."



## National laboratories

- Procured materials including enzymes, internal control primers, PCR tubes, and extraction kits, and coordinated with the IAEA to donate supplies and equipment.
- Trained laboratory staff from the National Health Laboratory to test for COVID-19 using open platforms for molecular diagnostics. Delivered test kits and critical material to implement the reference protocol. This marks the first time that Saint Vincent and the Grenadines' national laboratory has installed capacities for PCR laboratory testing. Having in-country PCR diagnostics know-how means the country is better prepared to detect COVID-19, influenza, and other diseases that could arise in the future.
- Strengthened the diagnostic/surveillance capacity of the molecular lab by providing a computer, printer and related peripherals as well as installation of two split air conditioning systems to support cold chain management of COVID-19 diagnostics.
- Conducted a webinar on "Scaling up laboratory testing in the Caribbean."
- Led training on molecular testing to establish on-island testing capacity.





### Infection prevention and control

- Conducted training on essential aspects of infection prevention and control.
- Reduced human-to-human transmission in health facilities through re-organization of health services.
- Procured 1,000 infrared thermometers and 5,000 face shields to support COVID-19 management in schools.



### Case management

- Trained responders in psychosocial aspects of COVID-19, including responders at ports of entry, basic needs services, in-patient, and long-term care facilities.
- Supported national authorities to develop a plan to address country mental health needs.
- Improved local health system capacity and protect healthcare workers to safely diagnose COVID-19 and provided recommendations for healthcare services.
- Procured three patient monitors, 10 infrared thermometers, 100 digital contact thermometers and two defibrillators for the surveillance and case management of persons with COVID-19.



### Maintaining essential health services during an outbreak

- Procured two water quality testing kits for environmental health.



## Suriname



### Country-level coordination, planning, and monitoring

- Collaborated with the COVID-19 Outbreak Management Team of the new government, Ministry of Health, and technical working groups on the development of protocols and procedures, as well as strategies for the control of the spread of the disease.
- Convened a donor group meeting to introduce UN agencies, multilateral partners, and foreign missions to the national response plan and needs list, as well as the Donor Coordination Working Group, to ensure streamlined, multi-sectoral support to the response.
- Provided technical guidance, equipment, and supplies to support the establishment of a national Health Emergency Operations Centre and guidance on the establishment of an Inter-Ministerial Committee to provide oversight of the response.



### Risk communication and community engagement

- Collaborated with other UN agencies to distribute prevention posters to long-term care facilities and other public places, and engaged social media influencers in the WHO Safe Hands Challenge as well as the dissemination of social media cards on prevention measures.
- Produced risk communication and awareness materials in Dutch and Sranan Tongo, including the Inter-Agency Standing Committee children's book, "My Hero is You," and aired them on radio, TV, and social media. Collaborated with the UN Communications Group to produce materials tailored to indigenous and migrant populations.
- Convened two media sensitization sessions with sixteen media outlets; conducted sensitization sessions with indigenous and tribal leaders; and fostered active participation in the Risk Communication Working Group of the national Outbreak Management Team for the development and dissemination of messages.
- Provided equipment to the Medical Mission and the Ministry of Health to support risk communication and community engagement in the interior and rural areas.



### Surveillance, rapid response teams, and case investigation

- Provided technical cooperation for strengthening case detection, contact tracing, and epidemiological analysis through the use of Go.Data and other databases.

- Collaborated with the Epidemiology Unit to develop and carry out training in case detection and contact training for staff in the contact tracing and Rapid Response teams.
- Coordinated with authorities to boost capacities for active surveillance, case investigation, and contact tracing at high-risk border areas and in the interior (including in the Portuguese and Spanish-speaking communities).
- Supported country to establish a GIS hub to facilitate the identification of clusters and the monitoring of COVID-19 cases.
- Provided guidance on adapting surveillance, laboratory, IPC, case management, health promotion, and risk communication guidelines and protocols to the country's context.
- Provided laptops and tablets to support the work of the hotline, rapid response teams, contact tracers, and the Epidemiology Unit in data collection, collation, and analysis.



### Points of entry, international travel, and transport

- Provided technical guidance for cargo handlers working at the country's ports of entry.
- Provided technical guidance on the surveillance among migrant populations at land borders.



### National laboratories

- Built capacity for RT-PCR testing for SARS-CoV-2 at the Central Laboratory,
- Provided test kits and other reagents and materials, such as swabs, to the Central Laboratory.
- Provided support for the decentralized sampling for SARS-CoV-2 and engaged the government regarding the use of a rapid antigen test for decentralized testing at the first level of care in rural areas and in the interior.



### Infection prevention and control

- Conducted ongoing training of health personnel in IPC measures and produced a training video for facilities to use.
- Translated the OpenWHO IPC and PPE courses into Dutch and placed these on the PAHO virtual campus to facilitate improved access and utilization by the health team in Suriname.
- Donated PPE and other prevention supplies to the Ministry of Health to reduce the risk of infection for health workers and other frontline officers.



### Case management

- Provided technical guidance for the development of protocols on the management of confirmed cases, as well as the home-based management of asymptomatic and mild cases.
- Collaborated with Direct Relief, a U.S.-based donor, to donate equipment and essential medicines for the management of persons with COVID-19 in hospital wards and ICU.



### Operational support and logistics

- Provided guidance on the logistic management information system to be used for procurement, warehousing, and distribution of supplies for COVID-19.
- Supported the central procurement agency (BGVS) with equipment to strengthen their capacity for the 24/7 management and distribution of supplies for COVID-19
- Successfully advocated for the use of the BGVS as the national entity for the centralized warehousing, management, and distribution of all donated and procured equipment, supplies, and medicines for the COVID-19 response.
- Collaborated with the Brazilian Embassy to provide technical support for the development of specifications and the procurement of an ambulance to support the response.



### Maintaining essential health services during an outbreak

- Provided ongoing guidance on maintaining essential health services, such as mental health, HIV/AIDS, immunizations, and management of persons with NCDs, as well as the collection of data to monitor the impact of COVID-19 on these services.
- Collaborated with the Suriname Red Cross to provide awareness and prevention messages in Spanish and Portuguese for migrant and refugee populations.
- Developed risk communication material for pregnant women on COVID-19 and implemented a public awareness media session on TV on breastfeeding during World Breastfeeding Week.
- Produced and aired a five-part TV series called “You are not alone” to promote mental health and psychosocial support for the general population and especially for health care workers and the elderly during the time of COVID-19.



# Trinidad and Tobago



## Country-level coordination, planning, and monitoring

- Presented considerations for the reopening of schools in the context of COVID-19 at a webinar for Ministries of Education and Health, principals and teachers in the Caribbean.



## Risk communication and community engagement

- Disseminated critical, tailored information through the national press, using this opportunity to reach wider audiences, and developed a risk communications strategy and campaign.
- Built capacity in public health and social measures for the Trinidad and Tobago Medical Association.
- Reviewed the Ministry of Health's (MOH) communication plan and the implementation of the national communications campaign.
- Participated in radio and TV interviews, sharing information and responding to questions from the public.
- Supported the MOH contracting of a Graphic Design Artist, Social Media Officer, Visual Communications Assistant and Website Content Assistant to improve their risk communication strategy.
- Collaborated with UNDP, UNICEF, and MOH to develop a television series ("Family Vibe") focusing upon families and children, their health, and coping strategies during COVID-19.



## Surveillance, rapid response teams, and case investigation

- Provided technical guidance for surveillance, to enhance the collection and analysis of surveillance data.
- Developed a database on COVID-19 patients for use in evidence-informed decision making.
- Delivered a presentation on COVID-19 and respiratory illnesses surveillance and interruption of transmission on a webinar for epidemiologists, persons working in surveillance, and contact tracers in the Caribbean.



## National laboratories

- Procured RNA extraction kits, enzymes, internal controls, swabs, and PPE.
- Provided technical support for the expansion of the diagnostic network based on antigen-based detection tests.



## Case management

- Supported capacity building, in collaboration with the UWI, of 50 registered nurses on the core competencies to function in the critical care setting.
- Established a mental health and psychosocial support (MHPSS) coordination mechanism.
- Conducted four webinars related to MHPSS with a range of target groups.



## Operational support and logistics

- Worked with national counterparts to analyze available stocks of medicines for HIV, TB, and malaria.
- Developed and implemented a plan to address possible stock-outs of medications.
- Collaborated with the MOH to ensure availability of medications through the PAHO Strategic Fund and facilitate loans of medications from other countries.
- Provided technical support for the engagement of the MOH in the COVAX mechanism and submission of confirmation of intent by 31 August 2020.



## Maintaining essential health services during an outbreak

- Provided guidance on prioritizing care for patients with NCDs amid the pandemic.
- Supported health promotion activities designed for vulnerable settings.
- Continued to support the procurement of vaccines through the Revolving Fund.
- Provided medical products, electrocardiogram, and ultrasound to an NGO that works in collaboration with the Ministry of Health in the provision of sexual and reproductive health with an emphasis on populations in conditions of vulnerability.

# United Kingdom Overseas Territories

 Anguilla  Bermuda  British Virgin Islands

 Cayman Islands  Montserrat

 Turks and Caicos Islands



## Country-level coordination, planning, and monitoring

- Facilitated the involvement of Bermuda and Cayman Islands in the COVAX mechanism through special briefings for the Ministries of Health.
- Provided technical guidance to the national authorities of Bermuda and the Cayman Islands to coordinate health sector activities, conduct needs assessments, and identify priorities.
- Provided Bermuda, Cayman Islands and Turks and Caicos Islands with technical guidance for documenting public health and social measures for all phases of the response.
- Provided technical advice on operational support for the national Emergency Operations Centre (EOC) in the Turks and Caicos Islands.
- Provided technical guidance to Bermuda and the Cayman Islands on the scope of rapid response teams and community engagement



## Risk Communications and Community Engagement

- Distributed communication materials (posters, banners, and parenting booklets) in Anguilla, British Virgin Islands and Montserrat.
- Trained community leaders in Anguilla, British Virgin Islands, and Montserrat in psychological first aid.
- Distributed communication materials to Turks and Caicos Islands on mental health, cyber safety, COVID-19 prevention, prevention of substance abuse and gender-based violence in the context of COVID-19 social distancing emergency orders. Also distributed PAHO and WHO corporate risk communication and public education materials.
- Facilitated a series of webinars on MHPSS to build individual and community resilience.



## Surveillance, rapid response teams, and case investigation

- Disseminated COVID-19 case definitions and guidelines for laboratory molecular testing in Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat and Turks, and Caicos Islands.
- Trained national counterparts in Anguilla, Bermuda, and Turks and Caicos Islands to use and manage Go.Data, WHO's contact tracing tool for capturing and monitoring the chain of transmission.
- Oriented national counterparts in Anguilla, British Virgin Islands, and Montserrat on the use of EpiEstim and CovidSim, mathematical models for short-term forecasting of COVID-19 cases.
- Provided Turks and Caicos Islands with access to PAHO/WHO guidelines on epidemiological surveillance, contact tracing, case isolation and quarantine of contacts for adaptation to the national context.
- Provided technical advice and support for expanding and strengthening contact tracing capacity in Turks and Caicos Islands, including access to an online training course and data management tools and standard operating procedures.



## Points of entry, international travel, and transport

- Provided PAHO/WHO guidelines on COVID-19 and travel precautions at points of entry of Bermuda, Cayman Islands, and Turks and Caicos Islands.



## National laboratories

- Strengthened laboratory capacities by providing enzymes, internal control primers, probes, positive controls, extraction kits, and RT-PCR testing materials to support early testing and detection.
- Strengthened laboratory capacities by providing training/guidance/trouble-shooting support in theoretical aspects of molecular diagnostics and laboratory testing procedures. This resulted in RT-PCR testing for SARS-CoV-2 being implemented at two laboratories of Bermuda and two laboratories in the Cayman Islands.
- Ensured that Turks and Caicos Islands had access to reference laboratories for referral of samples for PCR testing.
- Provided the Turks and Caicos Islands with technical advice for validating test results and external quality assessment samples after Public Health England provided equipment and training of personnel for building in-country real time PCR capacity.



### Infection prevention and control (IPC)

- Supported the protection of healthcare workers through the provision and distribution of PPE.
- Supported the Ministry of Health of the Turks and Caicos Islands with access to WHO/PAHO IPC and clinical management guidelines, on-line training resources and virtual meetings.
- Donated PPE to Turks and Caicos Islands.
- Supported Anguilla in its preparation for “soft” reopening of borders by providing IPC training for ferry operators, taxi drivers and hotel housekeeping staff.



### Case management

- Assisted the Turks and Caicos Ministry of Health to plan for clinical and hospital surge capacities.
- Supported MOH of Bermuda, Cayman Islands, and Turks and Caicos Islands with access to WHO/PAHO clinical management guidelines, on-line training resources and virtual meetings.



### Maintaining essential health services during an outbreak

- Provided PAHO/WHO guidelines to Turks and Caicos Islands on selecting and maintaining essential health services.
- Guided Bermuda in technical aspects to enable procurement of pharmaceuticals for essential health services.
- Trained national counterparts in Anguilla, British Virgin Islands, and Montserrat in monitoring the impact of COVID-19 on the national immunization program.
- Continued procurement of vaccines for the immunization program in Turks and Caicos Islands through the PAHO revolving fund.
- Oriented Anguilla, British Virgin Islands, Montserrat, and Turks and Caicos Islands on PAHO’s recommendations for maintaining immunization programs in the context of COVID-19.
- Provided Turks and Caicos Islands with information on the COVAX mechanism and its planned role in improving access to and future procurement of COVID-19 vaccines and relationship of the COVAX mechanism to the PAHO Revolving Fund.





# Uruguay



## Country-level coordination, planning, and monitoring

- Provided support to the Ministry of Health's emergency operation command.
- Worked with the Ministry of Health to update Uruguay's national COVID-19 Plan of Action.
- Participated in inter-disciplinary advisory groups to deliver expert advice on responding to the COVID-19 pandemic.



## Risk communication and community engagement

- Disseminated key messages on hygiene, physical distancing, mental health, and others to populations in situations of vulnerability.
- Supported the development of informational and multimedia materials according to the national context.
- Supported the dissemination of critical messages in communication mediums and social network.



## Surveillance, rapid response teams, and case investigation

- Trained surveillance personnel and shared tools and equipment to strengthen the country's epidemiological surveillance system's capacity to detect COVID-19 cases.
- Supported the provision of key supplies as a contingency reserve.
- Trained the epidemiological team with an ad hoc diploma program in coordination with a university in Uruguay.
- Strengthened training in information analysis and the dissemination of information.



## Points of entry, international travel, and transport

- Developed communication materials for travelers arriving at land and air points of entry.
- Contributed to mass media campaigns designed to sensitize persons traveling from abroad.



## National laboratories

- Facilitated South-South cooperation efforts with the Governments of Uruguay and Chile to strengthen SARS-CoV-2 sequencing in Uruguay.
- Procured and donated corresponding COVID-19 tests.



## Infection prevention and control

- Delivered PPE to the national authorities for use by emergency health workers.



## Case management

- Supported national health authorities to adopt and implement strategies for caring for COVID-19 patients.



## Operational support and logistics

- Consolidated the health sector's resources needs and created a contingency reserve of PPE and equipment to bridge critical gaps.
- Worked with the Ministry of Health to ensure continuity in Uruguay's vaccination programs, including the procurement of vaccines.



## Maintaining essential health services during an outbreak

- Provided updated guidelines and recommendations on maintaining essential health services during the pandemic and on strengthening the first level of care.
- Exchanged international experiences for best practices.
- Supported the sustainability of key public health programs.



# Venezuela



## Country-level coordination, planning, and monitoring

- Facilitated the signing of an agreement between national entities to protect the health of Venezuelans during the COVID-19 pandemic. The agreement centers on core priorities including surveillance, diagnostics, access to PPE, decentralization of testing, and prioritizing most affected states.
- Developed six COVID-19 donor projects to: tend to the needs of the Venezuelan people; save lives; reduce contagion; provide priority access to PPE; access diagnostic tests; and strengthen hospitals.
- Supported Venezuela's regions through its five field offices established to implement priority COVID-19 prevention and control activities, with priority on border crossings.
- Facilitated bilateral coordination meetings between health authorities from Colombia and Venezuela to formulate strategies to protect the health of people living in the countries' border regions.
- Led the Health Cluster and five subnational clusters or health roundtables, convening over 65 partners including national and international NGOs, the UN system, and donors to coordinate the health sector's humanitarian response to COVID-19.
- Led the development of the health component of the Venezuela Humanitarian Response Plan and Panorama of Needs 2020.
- Supported NGOs from the health cluster to present COVID-19 projects for the Humanitarian Response Plan and in field work primarily related to indigenous communities, oncology patients, and other vulnerable populations.



## Risk communication and community engagement

- Launched a web video to disseminate messages on hygiene and in-hospital infection control.
- Partnered with Digitel, a mobile phone company, to send out 1.5 million SMS messages to the public, with information COVID-19 prevention and quarantine measures.
- Developed communication materials tailored to pregnant women and the community: cards for social media, posters, and flyers on "COVID-19 pregnancy, delivery, and breastfeeding."
- Adapted materials regarding alternative ways for handwashing, in coordination with UNICEF.
- Convened a conversation with directors and journalists of 17 national communication media groups to guide them in the prevention campaign on #TómateloEnSerio ("Take It Seriously").
- Produced materials for COVID-19 prevention, including the "Protect Yourself and Protect Everyone Else" campaign.



## Surveillance, rapid response teams, and case investigation

- Advised and supported the MPPS in the analysis of clinical-epidemiological database for COVID-19 confirmed cases.
- Supported Venezuela to establish its own GIS hub to facilitate the monitoring of COVID-19.
- Advised the MPPS in the use of the International Classification of Diseases (ICD) coding system updated by WHO in which COVID-19 has been included as a cause of death.



## National laboratories

- Collaborated with the National Hygiene Institute "Rafael Rangel" (INHRR), the country's reference laboratory, regarding training, technical support, and supplies to conduct molecular detection of COVID-19.
- Worked alongside the MPPS, INHRR, and regional governments to decentralize PCR tests and expand COVID-19 diagnostic capacities in the country.



### Infection prevention and control

- Trained health workers in IPC, sample collection, patient isolation, and proper use of PPE.
- Trained MPPS and the Venezuelan Society of Infectiology in IPC.
- Delivered critical medicines, PPE, and hygiene kits to hospitals in Caracas and three other states.
- Established the technical roundtable with the MPPS and the Venezuelan Society of Infectiology to operationalize the program and implement IPC actions in Venezuela.
- Supported the review of technical documents from the Venezuelan Society of Infectiology to operationalize the protocol for the use of PPE and hospital sterilization and from the MPSS in healthcare-associated infections at the hospital level.
- Standardized PAHO's audiovisual materials with the MPPS and the Venezuelan Society of Infectiology for a risk communication campaign for health in the hospital area of Venezuela.



### Maintaining essential health services during an outbreak

- Coordinated the donation of 4.7 million doses of the yellow fever vaccine and 2.5 million doses of the oral vaccine against polio.



### Case management

- Trained health workers in case management, with a focus on therapeutics, and on the expansion and reorganization of health services.
- Conducted a joint evaluation with health authorities on hospital readiness for managing COVID-19 cases.
- Collaborated with Direct Relief to deliver life-saving supplies to Venezuela.
- Exchanged specialized technical knowledge on addressing COVID-19 in the country's context with the academic community.
- Supported the MSPP's Therapeutic Committee and in the identification and exchange of best evidence for clinical management and a treatment scheme for COVID-19 cases.



### Operational support and logistics

- Delivered 38.3 tons of PPE, antibiotics, biomedical equipment, and reagents and diagnostics equipment to 37 hospitals, other health facilities, and NGOs in 15 states to improve the capacity and safety of healthcare workers as they care for the population affected by COVID-19. Specifically, the following was delivered: more than 1.4 million masks; 134,000 face shields; 35,000 gowns; 9,000 goggles; 515,000 gloves, 320 PPE kits; 16 hygiene kits; 196,000 doses of antibiotics; 13 electrocardiographs, 100 infusion pumps, and 481 gallons of antibacterial gel.

# PAHO



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