

Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022

Volume I Final Report

PAHO



Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE
Americas

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Acronyms and abbreviations

ACT	access to COVID-19 tools
Ag-RDT	antigen-based rapid detection test
AIDS	acquired immune deficiency syndrome
AMC	advance market commitment
Aoi	area of inquiry
CAM	Central America
CO	country office
COVAX	COVID-19 Vaccines Global Access
COVID-19	coronavirus disease 2019
CSO	civil society organization
CRB	Caribbean
DAC	development assistance committee
ECLAC	Economic Commission for Latin America and the Caribbean
EGC	equity, gender, and cultural diversity
EMT	emergency medical team
EOC	emergency operations center
EPRC	evaluation of PAHO's response to COVID-19
ERC	ethical review committee
ERG	evaluation reference group
ERP	enterprise resource planning solution
ET	evaluation team
GDP	gross domestic product
HIC	high-income country
HIV	human immunodeficiency virus
HQ	headquarters
HR	human resource
HRH	human resources for health
HSS	health systems and services
ICU	intensive care unit
IHR	International Health Regulations
IMS	incident management system
IMST	incident management support team

IOM	International Organization for Migration
IPC	infection prevention and control
LAC	Latin America and the Caribbean
LGBTQ+	lesbian, gay, bisexual, transgender, queer+
LMICs	low- and middle-income countries
MCIF	master capital investment fund
MoH	ministry of health
mpox	monkeypox
MS	Member State
NAM	North America
NAP	national action plan
NCD	noncommunicable disease
NGO	nongovernmental organization
NGS	next-generation sequencing
NHP	national health plan
NIC	National Influenza Center
NID	neglected infectious disease
NIP	national immunization program
NPHL	national public health laboratory
NPI	nonpharmaceutical intervention
NRP	national response plan
NVDP	national vaccine deployment plan
OAS	Organization of American States
OCR	outbreak and crisis response
OECD	Organization for Economic Co-operation and Development
OOP	out-of-pocket
PAHO	Pan American Health Organization
PASB	Pan American Sanitary Bureau
PBE	PAHO's Department of Planning, Budget, and Evaluation
PCR	polymerase chain reaction
PHAC	Public Health Agency of Canada
PHE	PAHO's Department of Health Emergencies
PHEIC	public health emergency of international concern
PPE	personal protective equipment
PWR	PAHO-WHO representative
RRF	Regional Revolving Funds
SAM	South America

SARS-CoV-2	severe acute respiratory syndrome coronavirus 2
SERP	socioeconomic response plan
SPRP	Strategic Preparedness and Response Plan
UHC	universal health coverage
UNCT	United Nations country team
UNDP	United Nations Development Programme
UNEG	United Nations Evaluation Group
UNETT	United Nations Emergency Technical Team
UNHCR	United Nations High Commissioner for Refugees
UNHRD	United Nations Humanitarian Response Depot
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
VCPH	Virtual Campus for Public Health
VIRAT	vaccine introduction readiness assessment tool
VOC	variants of concern
WASH	water, sanitation, and hygiene
WFP	World Food Programme
WHO	World Health Organization



Executive summary

Background

Overview of the impact of coronavirus disease 2019 (COVID-19) in the Americas

The Americas was one of the regions most affected by COVID-19. As of 25 October 2022, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has infected over 624 235 272 people and caused 6 555 270 deaths worldwide. Of these, 28.7% of infected cases (179 348 497 people) and 43.4% of deaths (2 848 030 people) occurred in the Americas. The United States of America, Brazil, Mexico, and Peru were among the top 10 countries in the world with the highest COVID-19-related deaths and the highest number of cumulative cases (United States 53.2%, Brazil 19.3%, and Argentina 5.38%). Most deaths occurred in the United States (36.92%), Brazil (23.96%), and Mexico (11.51%). These three countries are also the most populated in the Region.

The COVID-19 pandemic had an important demographic impact in Latin America and the Caribbean (LAC), with a loss of 3 years of life expectancy at birth (from 75.1 years in 2019 to 72.1 years in 2021). Central America was the subregion with the greatest loss in life expectancy, with 3.6 years. This demographic impact makes the Americas the region of the world that lost the most years of life expectancy due to the pandemic.

Health systems and health workers were under enormous pressure and were not prepared for the prolonged crisis caused by COVID-19. The Americas had the highest percentage of essential health services disrupted (55% average of health services disrupted in 27 countries compared to 28% in 23 countries in Europe), and the biggest disruption was in primary care services (70%).

Overview of the Pan American Health Organization (PAHO) response to COVID-19

By mid-January 2020, the Pan American Health Organization (PAHO) activated an Organization-wide response to support all its Member States in accordance with the World Health Organization (WHO) COVID-19 Strategic Preparedness and Response Plan (SPRP). On 5 March 2020, PAHO launched its COVID-19 Response Strategy and Donor Appeal to support COVID-19 preparedness and response efforts in the Americas, followed by its Regional COVID-19 Response Strategy (2021). PAHO's COVID-19 Response Strategy was regularly updated to reflect the evolution of the pandemic and changes in regional needs. The SPRP was initially structured around nine pillars, but this was revised in 2021 to include Pillar 10 (vaccination). In 2022, the updated response plan set out the actions needed to end the pandemic in the Region.

Purpose, scope, and objectives of the evaluation

The purpose of this evaluation was to provide an objective and independent assessment of PAHO's overall performance, in terms of its preparedness for and response to the COVID-19 pandemic from January 2020 to August 2022. It was intended to serve both as an accountability and organizational learning function. The evaluation included the response operations undertaken by the entire

Organization across its four subregions – the Caribbean (CRB), Central America (CAM), South America (SAM), and North America (NAM) – and all 35 Member States.

This was a strategic rather than a technical evaluation; therefore, it did not evaluate PAHO's specific departments, units, or programs. The evaluation assessed the overall performance of the Organization during the COVID-19 pandemic and used cases, situations, and examples to illustrate the findings. However, and relatedly, this was not a technical evaluation of the 10 pillars of the COVID-19 SPRP and the large number of actions implemented in support of Member States. The evaluation focused on PAHO as an organization, and it did not assess Member States' responses to the pandemic.

Evaluation criteria and questions

The evaluation questions were structured according to evaluation criteria based on PAHO's 2021 Evaluation Policy and in line with the Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) evaluation criteria. The evaluation assessed PAHO's COVID-19 response in terms of its relevance, effectiveness, coherence, coordination, efficiency, and sustainability. The analysis of PAHO's added value was also incorporated into the analytical framework to reinforce the strategic level of analysis and identify areas where PAHO's support to Member States made a difference.

Methodology

The evaluation design combined two major areas of inquiry (Aol). The first Aol corresponded to the assessment of PAHO's efforts in working with Member States and partners to attenuate the effect of the pandemic. The second Aol aimed to assess PAHO's internal adaptive capacity to operate within a pandemic. The evaluation also assessed internal perceptions about PAHO's performance (PAHO personnel). In addition, the evaluation considered three different (but interrelated) levels of analysis: strategic, operational, and organizational.

The evaluation used mixed methods to collect data from multiple sources, using desk review (about 100 documents), semi-structured key informant interviews (112), and online surveys with PAHO personnel (1363 females and 927 males). Finally, an in-depth country/subregion analysis was conducted in six country offices (Barbados, Brazil, Guatemala, Haiti, Mexico, and Peru), Panama's regional logistic hub, and Barbados as a subregional office.

Limitations

The most significant limitation was the short timeline to complete the evaluation, given its large scope. Other challenges included government and PAHO personnel turnover; timely availability of key informants; ongoing operational pressure due to mpox and polio outbreaks; difficulties in gaining access to personnel within ministries of health (MoH); and the absence of a specific organizational emergency response monitoring framework to the COVID-19 pandemic. The evaluation team was only able to interview one key informant from WHO, which affected the evaluation team's understanding of WHO's views.

Ethical considerations

The evaluation team followed PAHO rules and regulations and the United Nations Evaluation Group's (UNEG) Ethical Guidelines for Evaluation (2020) to fulfill obligations to respondents participating in this

evaluation. In particular, the evaluation adhered to relevant ethical considerations. The data collection instruments underwent review and clearance by PAHO's Ethical Review Committee (ERC) prior to their use.

Key findings

Relevance and coherence

Alignment with national response plans (NRPs). PAHO's mandate, close collaboration with most of the MoHs in the Region, experience and technical expertise in emergency preparedness and response, early activation of the Incident Management System (IMS), and integration into national emergency operations centers ensured alignment with national response and vaccination plans.

Determination of needs. The needs generated by the pandemic were determined using routine health information systems, ad hoc research, surveys, and epidemiological predictive modeling in close coordination between MoHs and PAHO. However, the lack of quality and disaggregated indicators needed for targeted and effective priority-setting hindered a more accurate assessment of national needs. As the pandemic evolved, recommendations from international bodies, improved knowledge of the virus and its behavior, greater availability of epidemiological data, and more precise information about the socioeconomic impact of COVID-19 provided more robust data to facilitate decisionmaking and prioritize actions. PAHO's participation in the national emergency operations centers and preparation of the PAHO-supported country readiness assessments were instrumental in providing an initial estimation of needs and an indication of national capacities required for the response. PAHO also supported needs assessments and country readiness for COVID-19 National Vaccination Deployment Plans (NVDPs).

Equity in Member States' national responses. PAHO planned for an equitable response and advocated for actions aimed at reducing barriers to access for vulnerable groups or underserved areas, and for distributing COVID-19 vaccination to those most in need. However, PAHO's advocacy and actions to ensure an equitable response were challenged by the overwhelming health situation, the protracted inequities in the Region, and the limited access to resources, especially vaccines.

Relevance of cooperation modalities. The cooperation modality that ranked highest in terms of relevance was technical assistance, and its quality has been acknowledged by external informants. Logistics and supply chain, and then education and training, were part of the highest-ranked cooperation modalities. In contrast, South–South and triangular cooperation was ranked lowest, which probably reflects the dilution of regional solidarity and cooperation during the pandemic.

PAHO adaptation. PAHO adapted its response at programmatic and organizational levels during the various phases of the response. This enabled the Organization to operate in an unprecedented context with evolving health challenges and urgent emerging needs.

At the programmatic level, considerable restructuring of most health programs was needed, including reallocation of human resources, new approaches to risk communication, and innovative vaccination strategies. At the organizational level, the IMS was activated, its structure progressively adapted, and

PAHO personnel had to assume new (and additional) roles. The Virtual Campus for Public Health (VCPH) was expanded to also train PAHO personnel. New relations were established with donors, and new partnerships were formed. The digital transformation was accelerated, and some internal procedures were changed.

Effectiveness

PAHO's most and least effective activities. PAHO adjusted its response as the pandemic evolved in the Region and implemented actions to support the MoHs in all pillars of the COVID-19 SPRP, although with varying intensity and in consideration of the national contexts and resources allocated to each pillar. PAHO personnel had a largely positive view of PAHO's performance during the pandemic. However, opinions varied across national counterparts and partners regarding key aspects of PAHO's performance (e.g., administrative, logistical, decisionmaking delays, operational capacity at country level, policy dialogue, communication management, reporting).

The most highly rated pillars of PAHO's COVID-19 SPRP were: (i) vaccination; (ii) operation support, logistics, and supply chains; (iii) coordination, planning, financing, and monitoring; (iv) surveillance, rapid response teams, and case investigation; and (v) infection prevention and control, and protection of health workforce. External stakeholders were, however, critical about vaccination due to the difficulties experienced in getting timely and widespread access to the COVID-19 vaccine.

The COVID-19 SPRP monitoring framework was primarily intended to support the monitoring of national response actions; enable aggregation at subregional, regional, and global levels; and inform analysis and decisionmaking. However, it was not intended to be used to assess PAHO's performance in the Organization's role of providing technical support to countries.

There is broad recognition of PAHO's work in supporting government counterparts, including MoHs, to develop national crisis management plans and emergency response mechanisms. One of the most successful activities implemented by PAHO was the immediate actions taken to strengthen the regional capacity of surveillance systems and adopt innovative tools for outbreak investigation.

Health authorities implemented risk communication campaigns to disseminate accessible and reliable information on COVID-19 and public health advice on how to protect from the virus with PAHO's support. PAHO provided support and guidance to prepare the COVID-19 NVDPs and strategies related to financing the procurement of vaccines, although the delays and unpredictability of vaccine procurement impacted the relationships between PAHO and some MoHs.

Internal and external factors affecting PAHO's response. Internally, PAHO's response to COVID-19 was affected by the critical financial and human resource situation, and the shortcomings in communication between PAHO Headquarters (HQ) and country offices (COs). PAHO's personnel contracting policy during the pandemic limited operational response capacity in some COs and led to PAHO's personnel assuming new and additional roles. More broadly, factors that affected PAHO's capacity to respond in key areas included the excessive centralization of decisions in Geneva (WHO), and the dependence on COVID-19 Vaccines Global Access (COVAX) for vaccine purchase and distribution.

Major external challenges in responding to COVID-19 included the politicization of the response, the infodemic, the heterogeneous health systems (making it difficult to implement a unique strategy suited to the Region's diverse needs and national capabilities), and low International Health Regulations (IHR) compliance. In terms of logistics, the disruption of supply chains delayed and made the procurement of medical supplies more complex and expensive.

In addition to the pandemic, PAHO had to confront overlapping natural disasters and support health systems suffering from chronic underfunding and understaffing of health professionals. At country level, it was challenging for Member States to adhere to PAHO's recommendations due to insufficient financing, inadequate equipment, and lack of medical and specialized personnel trained for emergencies, especially for those countries coping with concurrent crises.

Efficiency

Repurposing. PAHO made remarkable efforts and took exceptional measures to repurpose resources, organizational structures, and key processes to be able to respond to the pandemic, especially given its weak financial situation at the onset of the pandemic. PAHO simplified and expedited some administrative and financial processes, as well as developed new ones, balancing flexibility with control mechanisms to ensure accountability.

Despite efforts made at all levels within PAHO, the resource constraints during the first year of the pandemic resulting from the nonpayment of quota contributions from some Member States and internal bureaucracy (complicated or unsuitable administrative procedures) left the Organization in a dichotomy of the "want to do" (will) and the "be able to do" (resources).

PAHO's institutional response, the activation of the IMS, and the adaptation and innovation in procurement processes were timely, but response in other operational areas was generally perceived to be slow or insufficiently adapted to a large-scale crisis. Administrative rigidity affected the efficiency of service delivery to Member States and resulted in missed funding opportunities, dissatisfaction among some donors and partners, difficulties in recruitment of personnel, and delays in signing agreements. In addition, the dual management through COVAX and bilateral agreements added complexity to procurement.

PAHO's ability to rapidly mobilize support. PAHO's unique and specialized regional mandate was in itself a key factor for obtaining financial, political, and institutional support. The strategic relations between the United States, Canada, and PAHO were key in mobilizing technical cooperation, obtaining financial resources, providing technical expertise, and donating vaccines to other MoHs in the Region (once domestic needs were covered). In addition, PAHO's funds and logistical capabilities attracted the interest of donors and partners. With additional COVID-19-related funding, PAHO's procurement function significantly evolved to play a strategic role within the Organization and provide critical support to Member States.

PAHO's regular programs were affected during the pandemic by operational, human resource, and financial constraints. Internally, PAHO personnel from regular programs were assigned to support the pandemic response.



Health and well-being of PAHO's personnel and continuity of operations. There is broad recognition that PAHO's achievements during the pandemic were due to the commitment and professionalism of its personnel, although at a high personal cost. PAHO expanded its employee assistance program, including its counseling services and its existing remote working modality, as part of the duty-of-care policy.

Teleworking did not negatively impact work productivity, but it had an impact on PAHO personnel's ability to deliver technical cooperation and interact with some national counterparts. Achieving a satisfactory work-life balance while working from home was challenging for PAHO personnel. There was a significant increase in workload, and many worked long hours, especially during the first year of the pandemic. The hiring of personnel was initially frozen (due to existing cost-containment measures), and the measures provided by PAHO to support health and well-being were neither available to all personnel nor adequate to support their mental health and well-being.

Coordination

Overall, PAHO's coordination role within United Nations Country Teams (UNCTs) was considered to be useful. In particular, the joint work through the United Nations Humanitarian Response Depot (UNHRD)

in Panama significantly reinforced regional logistical and distribution capacities. In addition, PAHO contributed to setting up roundtable discussions with donors and providing guidance to the Member States on funding and support opportunities. PAHO worked with existing partners during the response to COVID-19, considering their experience and regional and national capabilities, and established new partnerships with more and different types of organizations to mobilize resources in order to increase the reach and coverage of its programs and foster cooperation.

Sustainability

Measures supported by PAHO with potential to strengthen health systems and to be applied to nonemergency periods and programs. Decades of joint work in preparedness and the response to the influenza H1N1 pandemic provided MoHs with a relevant background to deal with COVID-19, due to the airborne nature of its transmission and the establishment of influenza-like illness surveillance systems. PAHO's and MoHs' long-standing investments in laboratory support were particularly important in facilitating an evidence-based response to COVID-19. In turn, these investments contributed to strengthening some essential functions of national health systems and can be applied to non-pandemic periods.

From an organizational perspective, the exceptional funding raised for the emergency response has mitigated PAHO's difficult financial situation; however, the termination of emergency funds in the short term will pose new challenges that could have organizational and programmatic implications.

Member States' uptake of PAHO's technical cooperation. Overall, MoHs adopted PAHO recommendations, although at some points in time and in relation to essential public health decisions, some Member States made decisions not aligned with the scientific evidence provided by PAHO. In several cases, changes in administration and rotations in national institutions caused discontinuity in public health approaches and interventions.

Added value

PAHO was the only regional organization with the mandate, institutional capacity, and technical expertise to encourage a regional response at the highest political level to a health crisis that transcended borders and remits of national health systems. PAHO contributed not only to supporting health systems but also to facilitating the continuity of Member States' essential functions beyond the health sector ("whole-of-government" approach). Furthermore, PAHO's Revolving Fund was instrumental in expanding access to vaccines in the region and may serve as a benchmark for other regions.

PAHO excelled in its technical support of Member States by rapidly strengthening capacity in laboratory diagnosis and epidemiological surveillance (the implementation of SARS-CoV-2 laboratory detection in 28 Member States took in place in 25 days), expanding human resources for health (HRH) training, deploying the Incident Management Support Team (IMST), and developing a massive logistical capacity to meet the needs at the country level.

Key conclusions

Strategic dimension

PAHO consolidated its position as the reference agency and preferred partner in health in the Region at a time when health and global health security have become a priority. PAHO provided consistent and sustained technical and logistical support to MoHs and significantly strengthened the procurement function (through the Revolving and Strategic Funds), despite the internal and external factors that constrained PAHO's operations and risked trust in the Organization, particularly at the onset and during key moments of the COVID-19 response.

Operational dimension

PAHO's institutional response at the onset of the pandemic was timely, but bureaucracy (with slow and unsuitable procedures for a large-scale, protracted pandemic response in some areas) and limited resources affected the Organization's implementation capacity and efficiency in some areas. PAHO's performance during the pandemic yielded mixed results, with an overall positive balance in technical cooperation to Member States and more limited results in institutional and social spheres.

PAHO had the ability to innovate and integrate the learnings acquired throughout the response to the pandemic ("learning by doing") in key areas to adapt and transform the way it works institutionally and technically, and to evolve as an organization.

PAHO contributed to address the digital gaps in the Region, exacerbated by the pandemic, supporting the digital transformation of the health sector at the country level and strengthening its own digital transformation policy.

The equity principle was at the center of PAHO's strategic preparedness and response plan for the COVID-19 pandemic. However, its practical application was limited due to the protracted and preexisting barriers that hampered access to COVID-19 diagnoses, treatment, and vaccines at national or subnational levels. In many cases, efforts were insufficient to mitigate the differential impact of the pandemic on women and vulnerable groups.

The planning and monitoring systems for the response to COVID-19 (SPRP, PAHO Strategic Plan 2020–2025) were not designed to assess organizational performance during the pandemic. PAHO's contribution to the pandemic response at the regional, subregional, and national levels has been extensively documented, but the assessment of its broader effects is challenging and seems to vary significantly depending on the modalities of cooperation, the pillars of the SPRP, and the different subregional and national realities.

Organizational dimension

The early activation of PAHO's IMS effectively provided support and strategic guidance to the region and Member States, and it contributed to the coordination of national response activities. However, co-optation of professionals from other units and the long-term operation of the IMS generated organizational unbalances.

PAHO expanded the existing remote working modality as part of the duty-of-care policy enabling the continuity of operations while aiming to protect its personnel and their families. However, this decision put PAHO personnel in COs in a difficult situation, as they needed to continue working face-to-face in the facilities of their national counterparts to ensure full support and consistent technical cooperation in an acute crisis context (“teleworking paradox”).

PAHO’s achievements during the pandemic were due to the commitment and professionalism of its personnel who, despite PAHO’s investments in duty of care, experienced mental health issues, a decline in their well-being, and difficulty in maintaining work–family life balance. Some PAHO personnel did not consider emergency response as part of their contractual responsibilities, which generated unequal workloads and internal imbalances.

Key recommendations

Strategic level

PAHO’s governance and engagement with member states. PAHO should review and update its governance for use during a crisis and engage Member States in conceiving the “PAHO of the future” in a post-COVID-19 era.

Scientific-based platforms and tools to address public health emergencies. PAHO should encourage the creation of a specialized regional mechanism for convening an independent scientific advisory group for responding to complex public health emergencies.

Funding model. PAHO should diversify its funding model that is fit for purpose during normal times and crisis periods, building on the successful strategies employed during the pandemic. The PAHO-reviewed funding model should ensure adequate means to consistently support MoHs in emergency preparedness and response for large-scale crises (but also stabilize technical cooperation at regular times).

Operational level

Gender and equity. PAHO should mainstream evidence-based gender and equity approaches into pandemic preparedness, response, and recovery actions.

IMS and the continuous operation strategy. PAHO should conceive a specific organizational model to allow the Organization to operate on a sustained basis during long-term public health emergencies, based on the vast experience of the IMS.

Digitalization and innovation. PAHO should capitalize on new technologies and approaches (e.g., artificial intelligence, use of social media, strategies to tackle vaccine hesitancy, e-health, new health technologies) adopted during the pandemic to develop new ways of increasing cooperation with the MoHs (e.g., technical cooperation, training, research and analysis), address the digital gap, and promote technological transformation.

Organizational level

Corporate management during public health emergencies. PAHO should comprehensively review management procedures and tools as well as internal communication mechanisms for use during times of crisis.

Human resource policies and adjusting duty-of-care processes. PAHO should reinforce the organizational capacity to deploy specialized personnel for emergency response, and review and update the hiring policy, duty-of-care policy, and remuneration schemes (based on performance and extra workload) during public health emergencies.



CHAPTER 1

Background

1.1 Context¹

Key aspects of the health situation in the Americas before COVID-19

The Region of the Americas represents a broad spectrum of economically, socially, and culturally diverse countries. The health systems in the Region are trying to adapt to the epidemiological transition. Endemic diseases – including dengue, yellow fever, Zika, chikungunya, malaria, and tuberculosis – remain an ongoing burden on the healthcare infrastructure, either acting as endemic infections or as major epidemics spreading rapidly throughout the region (1, 2).

Noncommunicable diseases (NCDs) represent the largest proportion of the health burden in the Region due to the rapid demographic and epidemiological changes (double burden of disease). This is especially the case in the Caribbean area, with 78% of all deaths attributable to NCDs (global average 74%) (3, 4). Premature mortality due to cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases is higher in the Caribbean (18.8%) than in the whole Latin America and Caribbean (LAC) region (14.8%) (5).

Prior to the outbreak of COVID-19, the Region of the Americas was experiencing improved access to health care and better health outcomes although disparities and protracted inequalities persisted. While mortality rates for many major diseases, such as human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS), malaria, and diarrheal diseases, were decreasing, life expectancy increased by five years between 2000 and 2019. Infant mortality and under-five mortality decreased by 52% and 50%, respectively, during the same period, indicating improvements in health system effectiveness and the overall well-being among the LAC population (6–8).

To achieve universal health coverage (UHC), many countries in Latin America implemented various health systems reforms. This is reflected in the increase in spending on health (an average increase of 1.43% of gross domestic product [GDP] between 2000 and 2019) and reaching an overall index of essential coverage of 76%–77%, in countries such as Argentina, Brazil, Colombia, and Mexico (9, 10). However, public health expenditure, as a proportion of GDP, remained low (3.5% of GDP on average) compared to the Organization for Economic Co-operation and Development (OECD) countries' average (6.6% of GDP), being more dependent on private spending (11).

Equitable access and the quality of health services are challenged due to the significant disparities and inequalities that persist across the Region of the Americas and within the countries (11, 12). Most countries in Latin America still struggle to meet their population's health needs and continue to face

1 The extended background section is in Annex 2. In: Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

rising healthcare costs – unequal access to and distribution of health services; large, informal economies; and high out-of-pocket expenditure (OOP) (13). At the onset of the COVID-19 pandemic, the Region was working toward achieving goals within different health priorities and struggling to provide universal coverage and health for all by focusing on the most vulnerable populations. No country or health system in the Region was prepared to deal with COVID-19, a sanitary crisis that overwhelmed the health sector.

Overview of the impact of COVID-19 in the Americas

In December 2019, the Wuhan Municipal Health Commission reported an outbreak of respiratory disease (COVID-19) caused by a novel coronavirus, SARS-CoV-2 (14). In the Americas, governments were able to anticipate the impact of the COVID-19 pandemic and hence imposed strict lockdowns when the number of cases was still low. As COVID-19 spread, severely challenged health systems failed to cope, impacting the population's health. However, since the global launch of the COVID-19 vaccination campaign in December 2020 and due to increased vaccination coverage, mortality due to COVID-19 has gradually decreased (see Figure 1) (15).

The Americas was one of the regions most affected by COVID-19. As of 25 October 2022, SARS-CoV-2 has infected over 624 235 272 people and caused 6 555 270 deaths worldwide (15). Of these, 28.7% of infected cases (179 348 497 people) and 43.4% of deaths (2 848 030 people) occurred in the Americas (15). The United States of America, Brazil, Mexico, and Peru were among the top 10 countries in the world with the highest COVID-19-related deaths and the highest number of cumulative cases:² most of the deaths occurred in the United States (36.92%), Brazil (23.96%), and Mexico (11.51%) (15).

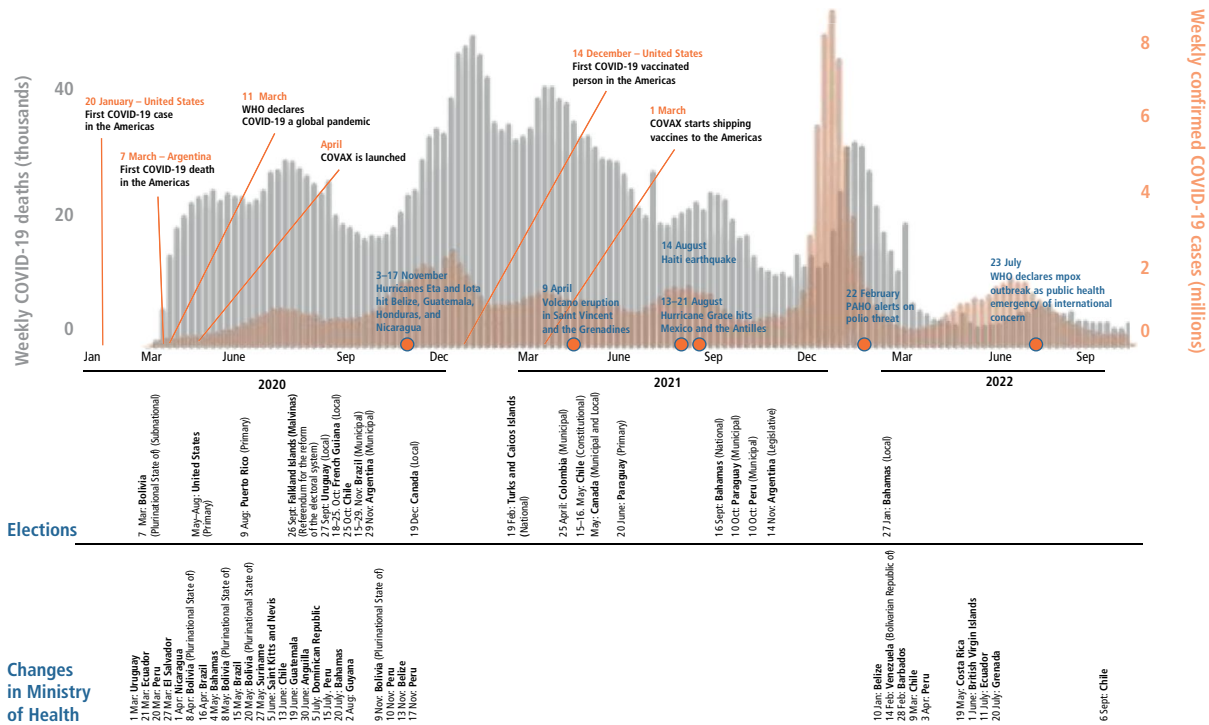
The COVID-19 pandemic had an important demographic impact in the Latin America and Caribbean (LAC) region, with a loss of 2.9 years of life expectancy at birth (from 75.1 years in 2019 to 72.1 years in 2021) (16). Central America was the subregion with greatest loss in life expectancy with 3.6 years. This demographic impact makes the Americas the region of the world that lost the most years of life expectancy due to the pandemic (16).

Health systems and health workers were under enormous pressure and were not prepared for the prolonged crisis caused by COVID-19 (17, 18). The Americas had the highest percentage of essential health services disrupted (55% average of health services disrupted in 27 countries compared to 28% in 23 countries in Europe); the biggest disruption was in primary care services (70%) (19).

Mass COVID-19 vaccination efforts led to 718 862 834 people being fully vaccinated in the Americas by October 2022 (76% in North America and 65% in South America) (20). However, the strains placed on health services by the pandemic affected regular immunization programs, resulting in 2.5 million children not receiving their scheduled vaccines in 2020 (20).

Additionally, on 26 October 2022, there were 49 935 confirmed cases of mpox and 16 deaths reported in the Americas (21). Also, on 21 July 2022, the New York State Department of Health in the United

² The United States of America, Brazil, and Mexico are the three most populated countries in the region.

FIGURE 1**Pandemic response in a challenging context from December 2019 to October 2022**

Source: Developed by the evaluation team for the evaluation of PAHO's response to COVID-19 based on data from the PAHO portal and review documents.

States reported a case of paralytic polio (22). The vaccination rate with all three doses of the polio vaccine stood at 82% in 2020, the lowest since 1994, when the Americas were certified free of the disease (23). Considering this, the Pan American Health Organization (PAHO) has called on countries to urgently strengthen epidemiological surveillance and routine vaccination campaigns (23).

Overview of Member States' response to COVID-19

In response to the COVID-19 pandemic, all 35 PAHO Member States activated intersectoral coordination mechanisms involving the highest political leadership and triggering management plans and emergency response mechanisms. Twenty-three Member States declared a State of Emergency. Contrary to the World Health Organization's (WHO) travel advice, 33 of the 35 Member States drastically limited the inflow of international travelers, and 16 adopted traffic-related measures even before the first case of SARS-CoV-2 infection was confirmed (24).

Responses varied across countries, with decisions depending on political and economic factors and past experiences of managing pandemics and epidemics. This heterogeneity was due to public health measures adopted, the population size, the country's development status, structure, and organization of health systems (25).

In response to management challenges posed by COVID-19 in the Region, many countries made active leadership changes within their ministry of health (MoH), reaching more than 50 changes (Figure 1).

Countries were able to access vaccines through the COVID-19 Global Vaccines Access (COVAX) Facility, donations, and bilateral negotiations. Most countries in the Region joined WHO's COVAX mechanism except for Cuba and the territories of Puerto Rico, the Virgin Islands, Aruba, Curaçao, and Sint Maarten (26).

PAHO's response to COVID-19 (object of the evaluation)

On 30 January 2020, WHO declared the COVID-19 outbreak a public health emergency of international concern (PHEIC) and by 12 March 2020 identified it as a pandemic (27). By mid-January 2020, PAHO had already activated an Organization-wide response to support all its Member States in accordance with the WHO COVID-19 Strategic Preparedness and Response Plan (SPRP) (28). On 5 March 2020, PAHO launched its COVID-19 Response Strategy and Donor Appeal to support COVID-19 preparedness and response efforts in the Americas, followed by its Regional COVID-19 Response Strategy (2021). See the [PAHO COVID-19 timeline website](#) for the detailed sequence of key PAHO actions.



PAHO's COVID-19 Response Strategy was regularly updated (three times in 2020, once in 2021, and once in 2022) to reflect the evolution of the pandemic and changes in regional needs. The SPRP was initially structured around nine pillars, but this was revised in 2021 to include Pillar 10 (vaccination), reflecting the availability of COVID-19 vaccines. In 2022, the updated response plan set out the actions needed to end the pandemic in the Region.

PAHO's COVID-19 strategy and response plan documents were intended to guide and support the Member States responses to COVID-19. These documents, therefore, served as a reference for the evaluation, but the focus of the analysis was on PAHO's organizational performance and its contribution to the response (see Section 1.3, Methodology).

1.2 Purpose, scope, and objectives of the evaluation

Evaluation purpose

The purpose of this evaluation was to provide an objective and independent assessment of PAHO's overall performance during the response to the COVID-19 pandemic from January 2020 to August 2022. It was intended to serve both as an accountability and organizational learning function.

Evaluation scope³

Geographic scope: The evaluation included the response operations undertaken by the entire Organization across its four subregions, the Caribbean (CRB), Central America (CAM), South America (SAM), North America (NAM), and all 35 Member States.

Time scope: The time frame covered was from January 2020 to August 2022.

Out of scope: This was a strategic rather than a technical evaluation and therefore did not evaluate PAHO's specific departments, units, or programs. The evaluation assessed the overall performance of the Organization during the COVID-19 pandemic and used cases, situations, and examples to illustrate the findings. However, this was not a technical evaluation of the 10 pillars of the COVID-19 SPRP and the large number of actions implemented in support of Member States. The evaluation focused on PAHO as an organization, and it did not assess Member States' response to the pandemic. Rather, it examined how PAHO collaborated with and supported Member States during the response.

Evaluation objectives

The specific objectives of the evaluation were to:

- Assess PAHO's preparation, internal organization, and implementation of the COVID-19 pandemic response strategy and document key achievements as well as challenges, gaps, and areas for improvement.

³ It is important to clarify that this evaluation serves a different purpose than the audits and other internal surveys that PAHO commissions, with a specific focus on learning as well as accountability.

- Examine key enabling and limiting factors responsible for achievements and gaps, including the implications for how PAHO delivers its regular programs outside the emergency context of the COVID-19 response.
- Provide evidence-based recommendations for corrective actions to strengthen the pandemic response while building a resilient recovery as per the Terms of Reference.⁴

Evaluation approach, criteria, and questions

The evaluation approach was utility-driven, participatory, and collaborative, aiming to ensure the participation of PAHO personnel, relevant stakeholders, and key informants (Member States, partners, and donors). This approach was taken to ensure that there is shared understanding and ownership of the evaluation findings, conclusions, and recommendations. Moreover, the evaluation incorporated methodological flexibility to adjust data collection, analysis tools, and processes given the time constraints. This approach ensured that the evaluation met given timelines, as well as PAHO's learning and accountability needs, serving both summative and formative purposes.

Evaluation criteria

The evaluation questions were structured according to evaluation criteria based on PAHO's 2021 Evaluation Policy and in line with the [OECD Development Assistance Committee \(DAC\)](#) evaluation criteria.

The analysis of PAHO's added value was also incorporated into the analytical framework to reinforce the strategic level of analysis and identify areas where PAHO's support to Member States made a difference.

Evaluation questions and framework

The evaluation questions and framework guided the evaluation, including data collection and analytical methods. The evaluation assessed PAHO's COVID-19 response in terms of its relevance, effectiveness, coherence, coordination, efficiency, and sustainability.⁵

During the analysis and drafting process, the evaluation team has slightly rephrased or merged some of the evaluation sub-questions to avoid duplication and improve the logical flow of the document.

1.3 Methodology, limitations, and ethical considerations⁶

Methodology

The evaluation was commissioned and managed by the evaluation function within PAHO's Department of Planning, Budget, and Evaluation (PBE). The evaluation was conducted between May 2022 and December 2022 by an external independent team.

4 For the Terms of Reference, please refer to Annex 1. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

5 The evaluation questions are given in Annex 3.4. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

6 The extended evaluation methodology, limitations, and ethical considerations are presented in Annex 3. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

The evaluation design combined two major areas of inquiry (Aoi). The first Aoi corresponded to the assessment of PAHO's efforts in working with Member States and partners to attenuate the effect of the pandemic. The second Aoi was related to the efficiency evaluation criteria and aimed to assess PAHO's internal adaptive capacity to operate within a pandemic (in terms of human resources, systems, procedures, tools, and financial resources). The evaluation also assessed internal perceptions about PAHO's performance (PAHO personnel). In addition, the evaluation considered three different but interrelated levels of analysis: strategic, operational, and organizational.⁷

The evaluation used mixed methods to collect data from multiple sources as follows:

1. Desk review of internal and external documentation (approximately 100 documents).⁸
2. Semi-structured key informant interviews with internal and external stakeholders and national counterparts. The evaluation team conducted 112 key interviews with 124 participants (58% males and 42% females). This consisted of PAHO personnel and counterparts/partners working with PAHO.⁹
3. Online surveys were conducted with PAHO personnel at all levels of the Organization. The online survey was sent to all 2290 PAHO personnel¹⁰ (1363 females and 927 males) and 27 respondents provided responses through Kobo.¹¹
4. In-depth country/subregion analysis was conducted to explore key issues. This included six country offices (Barbados, Brazil, Guatemala, Haiti, Mexico, and Peru), Panama's regional logistic hub, and Barbados as a subregional office.¹² A summary of the in-depth country studies and timelines of important events during the COVID-19 pandemic was developed for each in-depth country analysis.¹³

7 Refer to Annex 3.5. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

8 Refer to Annex 3.6. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

9 Refer to Annex 3.6 for detail of key informants interviewed and Annex 4.1 for the interview protocols. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

10 Except interns, outside providers, volunteer-local, and volunteer-United Nations.

11 Refer to Annex 3.6 for detailed response data, Annex 4.3 for the survey questionnaire, and Annex 6 for survey results. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

12 Refer to Annex 3.6 for more detailed information on the country/subregion selection criteria. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

13 Refer to Annex 7. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

Limitations

The most significant limitation was the short timeline to complete the evaluation, given its large scope. Other challenges included governments and PAHO personnel turnover,¹⁴ which partially limited responses from key informants who were engaged during the early stages of the pandemic; timely availability of key informants for interviews; additional ongoing operational pressures for PAHO teams (mpox and polio outbreak emergency responses); difficulties in gaining access to personnel within MoHs; and the absence of a specific organizational emergency response monitoring framework to the COVID-19 pandemic despite the large volume of information about PAHO's actions. The month of August was a holiday period for many PAHO personnel, affecting the data collection process, particularly for survey responses.

The evaluation team was unable to conduct a survey with as many representatives from MoHs as initially envisioned in the inception report. There were difficulties in accessing public officials and, due to time constraints, the perspectives of government counterparts were gathered from the six countries selected for in-depth analysis using key informant interviews.

The evaluation team was only able to interview one WHO key informant, which has affected understanding of WHO's views in general and specifically in relation to coordination with PAHO during the response.

Ethical considerations

Evaluation principles. The evaluation embraced the key principles of PAHO's Evaluation Policy and is aligned with [UNEG Norms and Standards for Evaluation](#) (2016). The evaluation process followed the principles of impartiality, independence, transparency, credibility, beneficence, and professionalism to ensure that a high-quality evaluation was delivered.

Ethical considerations. The evaluation team followed PAHO rules and regulations, and United Nations Evaluation Group (UNEG) Ethical Guidelines for Evaluation (2020) to fulfill obligations to respondents participating in this evaluation. In particular, the evaluation ensured adherence to relevant ethical considerations, and the data collection instruments underwent review and clearance by PAHO's ethical review committee (ERC) prior to their use.

¹⁴ Interviews with several country offices pointed to increasing personnel turnover during the pandemic, although no quantitative data are available to assess its intensity.



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CHAPTER 2

Evaluation findings

2.1 Relevance and coherence

2.1.1 To what extent has PAHO's COVID-19 response addressed Member States' overall priorities and been aligned with national response plans (NRPs)?

Summary of key findings: PAHO's mandate, close collaboration with the majority of the MoHs in the Region, experience and technical expertise in emergency preparedness and response, early activation of the incident management system (IMS), and integration into national emergency operations centers ensured its alignment with national response and vaccination plans.

The very nature of PAHO's work and its mandate ensures alignment with national priorities and strategies, both in response to public health emergencies and during regular times. PAHO and each Member State regularly define and agree on Country Cooperation Strategies that have systematically included a component on preparedness and response to public health emergencies.¹⁵ MoHs and PAHO have long-standing cooperation aimed precisely at strengthening national preparedness and response capacities, including adherence to International Health Regulations 2005 (IHR 2005) (29, 30). In January 2020, the IMS started supporting MoHs to conduct country readiness assessments and preparedness and response plans, which ensured PAHO's alignment with national health authorities.

At the onset of the pandemic, when PAHO country offices (COs) began supporting national emergency responses, the dissemination of PAHO's Response Strategy and Donor Appeal provided a common emergency response framework for the Region. It also served as a reference for incorporating the health pillar in the broader United Nations Socio-Economic Response Plans (SERPs) developed by the 25 United Nations Country Teams in the Region in 2020.

The NRPs were aligned with PAHO's Response Strategy and Donor Appeal, using WHO/PAHO pillars as a framework.¹⁶ In general, the reviewed national emergency response plans included functions related to early pandemic response, coordination, national laboratories, infection prevention and control (IPC) and protection of the health workforce, case management, and vaccination. COVID-19 NRPs and

¹⁵ Such as cholera, dengue, Zika, chikungunya, influenza H1N1.

¹⁶ For further information on alignment in five countries selected for in-depth analysis, refer to Annex 5.1. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

WHO/PAHO pillars were aligned and related to national health priorities, including health services to vulnerable populations, attention to NCDs, and essential health services (31).

From an organizational perspective, 51% (430 respondents) of the surveyed PAHO personnel said that PAHO's emergency response to COVID-19 highly aligned with Member States' NRPs, whereas 37% (321 respondents) said it was aligned to some extent. Only 2% (19 respondents) reported that there was no alignment between PAHO's COVID-19 response plan and the NRPs. In addition, 40% of PAHO personnel (341 respondents) reported that COVID-19 NRPs were completed and shared with PAHO. During the first year of the pandemic, progress was slow in relation to the completion and sharing of the COVID-19 NRPs.^{17,18}

PAHO's early engagement with MoH and its integration in national emergency operations centers (EOCs)

PAHO became part of the national EOCs from the onset of the pandemic. This facilitated the joint work and coherence between WHO's and PAHO's global and regional guidelines and national specificities. PAHO's participation in the national EOCs was important for two reasons: First, it allowed the sharing of global guidance and emerging information related to COVID-19 from the Americas and other regions with Member States and helped to inform national analyses. Second, it enabled United Nations coordination and contributed to the initial estimation of the socioeconomic and health impact of the pandemic and the elaboration of United Nations system response plans in each country, which were also aligned with NRPs.

It was easy to establish the subnational Emergency Operations Committee and for PAHO to provide technical expertise in countries where the PAHO/WHO Representatives (PWRs) had a close relationship with the MoH. In some countries, there were differences of opinion between PAHO and the national government on issues such as the use of face masks, non-approved medical treatments, and inconsistencies in surveillance data (31–34). This presented challenges for PAHO to support the national response (31, 32).

IMS activation and support for the development and implementation of NRPs

The activation in mid-January 2020 of PAHO's IMS and the national Incident Management Support Teams (IMSTs) helped to adopt a regional "emergency mindset" and to initiate interactions with the Member States. This worked particularly well in countries where the MoHs were designated as the national emergency coordination bodies. The IMSTs capitalized on the experience acquired in previous outbreaks and, particularly, used existing influenza pandemic preparedness plans and country self-assessment of IHR capacities¹⁹ to identify critical gaps.²⁰

17 PAHO personnel survey: 4% consider the completion and sharing of the COVID-19 NRP during the first month of the pandemic, 8% say it was during the first six months, and another 8% say it was during the first year of the pandemic.

18 Refer to Annex 5.1. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

19 IHR State Party Self-Assessment Annual Reports.

20 "A multisectoral response to ensure strengthened surveillance, health service readiness, preventing spread, and maintaining essential services are key interventions to slow transmission and save lives. Countries of the Americas have already been working on these areas since 2009 as part of their pandemic influenza plans. PAHO stands ready to support countries in rolling out these plans." Dr. Carissa F. Etienne, February 2020.

Alignment with COVID-19 national vaccine deployment plans (NVDPs)

During the later stages of the pandemic, vaccination became a pillar within PAHO's Response Plan. This supported vaccination planning, cold chain, costing and funding, identification of target populations, demand estimations, risk communication, rollout, vaccine safety monitoring, etc. (35, 36). In July 2020, PAHO published the Guidelines to Plan for COVID-19 Vaccine Introduction to help MoHs start preparing the infrastructure and key components for the introduction of vaccines and provided guidelines for the development of the COVID-19 vaccination plans during all vaccination phases, including vaccination rollout (36, 37).

2.1.2 How have the needs generated by the pandemic been determined at the country, subregional, and regional levels?

Summary of key findings: The needs generated by the pandemic were determined through the use of routine health information systems, ad hoc research, surveys, and epidemiological predictive modeling in close coordination between MoHs and PAHO. However, the lack of quality and disaggregated indicators needed for targeted and effective priority-setting hindered a more accurate assessment of national needs. This was specifically the case for assessing the needs of underserved populations.

- As the pandemic evolved, recommendations from international bodies, improved knowledge of the virus and its behavior, greater availability of epidemiological data, and more precise information about the socioeconomic impact of COVID-19, provided more robust data to facilitate decisionmaking and prioritize actions at country and regional levels.
- PAHO's participation in national EOCs and preparation of the PAHO-supported country readiness assessments were instrumental in providing an initial estimation of needs and an indication of national capacities required for the response. Previous experience in responding to outbreaks and knowledge of required national capacities also facilitated the preparation of response plans. PAHO also supported needs assessments and country readiness when NVDPs were being developed for the COVID-19 vaccine rollout.

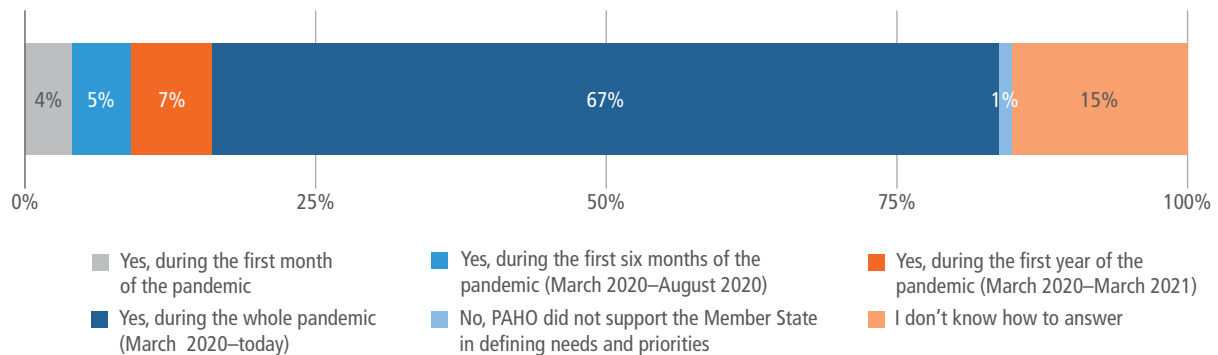
Estimation of initial needs and preparation of response plans

The lack of COVID-19-related information available at the initial stages of the pandemic made it difficult to estimate needs across all areas of the response. Hence, it was not possible to have evidence-based public health policies or political and technical decisions. The gradual improvement in knowledge of how the virus behaved and its impact contributed to the development of evidence-based measures. This helped to determine needs more accurately and to implement prevention and response measures more suited to the diverse epidemiological and social situations of each country.

At the start of the response, national health systems, with PAHO support, optimized the use of routine health information systems and conducted ad hoc surveys or research to understand the impact of

FIGURE 2

Extent to which PAHO supported Member States to define needs and priorities to respond to the COVID-19 pandemic (perceptions of PAHO personnel)



Note: All percentages are rounded up.

Source: EPRC Gallup and Kobo survey of PAHO personnel, 2022.

the virus on the population.²¹ They used this information to manage the pandemic by providing epidemiological modeling with the help of their in-house epidemiologists (30).

PAHO participated in the national COVID-19 response mechanisms (e.g., EOCs) responsible for the development of national strategies and response plans, which were based on country transmission and risk levels (38). PAHO's participation in the national COVID-19 response coordination mechanisms helped to provide MoHs with information and knowledge as well as assess national needs and define priorities.

PAHO's personnel, participating in the Gallup survey,²² reported that PAHO technically and operationally supported Member States in defining needs and priorities throughout the different phases of the pandemic, according to 67% of respondents (see Figure 2). The perception of PAHO's personnel is aligned with qualitative data collected through interviews with external informants.

While all response plans were led and supported by the national governments, most included only a limited number of quality indicators for effective priority-setting (38). Overall, PAHO faced challenges due to the heterogeneity of health systems and resources, such as high inequality rates and different health system financing schemes, making it difficult to reinforce a single strategy for the region (29, 39).

PAHO developed a Geo-Hub for COVID-19 to foster a unified COVID-19 response and provide a consistent and reliable information system that supported the development of readiness assessments and COVID-19 response plans. This included initial estimation of impact, facilitation of MoHs' strategic

21 Population modeling tools to create projections on how the COVID-19 pandemic might affect the countries.

22 Gallup survey question: Did PAHO provide technical support to help define needs and priorities in COVID-19 national response plans? (569 respondents).

planning and actions, and resource mobilization (40). Countries with previous experience of responding to outbreaks (e.g., influenza H1N1, cholera, dengue, Zika, and chikungunya) seemed to face fewer challenges in preparing their response plans.

In 12 countries, PAHO provided support for estimating the expansion required in hospital capacity using a hospital readiness checklist (41).

At a later stage during the pandemic, PAHO used epidemiological, clinical, laboratory, and healthcare data to support 33 countries in completing their NVDPs and 35 countries in completing the Vaccine Introduction Readiness Assessment Tool (VIRAT) with a dashboard that provided an overview of regional readiness (42).

Health information systems and routine health data collection

Although PAHO supported countries in collecting data, many still faced challenges in providing accurate and timely data through their health information systems (43). This included insufficient interoperability, a lack of information on needs, data collection, transmission, processing/analysis, and dissemination of processed information. Also, while countries took some measures to disaggregate data collected for health indicators, there were still many limitations. Lack of disaggregated data (by age, sex, ethnicity, gender, geographic location, migration status, etc.) limited countries' ability to prioritize settings, identify inequalities, and develop interventions to address them. In addition to experiencing difficulties in identifying and reaching marginalized groups, such as the Indigenous population in the Amazon region, routine health data collection systems failed to detect and track the extent of disruptions caused by the COVID-19 pandemic across essential health services (44).

In these circumstances, PAHO supported countries, to the extent possible, to generate and disseminate quality data and conduct analyses to build the evidence base and apply the results through its platform's COVID-19 guidance and the latest research in the Americas.²³ In some countries, PAHO generated daily statistical reports on COVID-19 to support national actors in their analysis and decisionmaking processes. In some countries, PAHO support also reached subnational-level authorities and other stakeholders at provincial, state, or municipal levels, such as health councils, which highly praised this effort.

Surveys and research

The COVID-19 pandemic accelerated research at country, regional, and global levels and the use of evidence to inform decisionmaking (45–48). Overall, PAHO has published more than 197 evidence-informed guidelines and guidance documents geared toward achieving an effective response to the pandemic (49).

To assess the impact of the pandemic and inform decisions to prevent or mitigate the effects (e.g., lockdowns), governments and organizations conducted national, subnational, and local surveys, in some cases with PAHO's direct support or as part of broader UNCT support to national authorities. Countries adapted their national household survey data collection methods during the pandemic, switching to

²³ PAHO/WHO technical guidelines, scientific publications, and ongoing research protocols are available to the public via PAHO's COVID-19 Technical Database. Available from: <https://covid19-evidence.paho.org/>.

telephone surveys using a self-applied web questionnaire or combining telephone data collection in urban areas with face-to-face surveys in rural areas (50).

PAHO developed population modeling tools in partnership with the University of the West Indies, the London School of Hygiene and Tropical Medicine, and the Johns Hopkins Bloomberg School of Public Health.²⁴ These models informed country-level analysis and facilitated the allocation and mobilization of resources. In some cases (e.g., Brazil), MoHs developed their own modeling tools in partnership with national universities.

Under a broader United Nations approach, United Nations agencies (United Nations Development Programme [UNDP], United Nations Children’s Fund [UNICEF], World Food Programme [WFP], Economic Commission for Latin America and the Caribbean [ECLAC], and others), in collaboration with PAHO, supported countries in producing evidence on the socioeconomic effects of the pandemic (51, 52). The aim was to help identify health needs as well as to assess socioeconomic priorities emerging from the impact of the pandemic.

2.1.3 To what extent has PAHO’s response included measures to ensure equity in Member States’ national responses?

Summary of key findings: PAHO planned for an equitable response and advocated for actions aimed at reducing barriers to access for vulnerable groups or underserved areas, as well as distributing COVID-19 vaccination to the most in need.

- PAHO provided technical guidance to MoHs to reach all the territories and populations and to adapt the national interventions to the diverse geographic, social, and cultural contexts. This included those most at risk and already experiencing barriers to accessing health care. However, PAHO’s advocacy and other actions to ensure an equitable response were challenged by the overwhelming health situation, the protracted inequities in the region, and the limited access to resources, especially vaccine supply.

The majority of the surveyed PAHO personnel (78%, 651 respondents) reported that the Organization frequently advocated for health equity in the COVID-19 national response, but only 28% (237 respondents) considered this advocacy to be fully successful and 47% (394 respondents) considered it to be partially successful.²⁵ Several informants reported that during critical moments of the pandemic (e.g., start of the pandemic in the region, successive waves), countries were not able to focus on achieving equity but rather on reducing mortality. Overall, the response focused on the direct

24 For example: Pan American Health Organization. Estimating the size of high-risk populations for COVID-19 death in the Americas. Washington, D.C.: PAHO; 2021. Available from: <https://iris.paho.org/handle/10665.2/53269>.

25 Refer to Annex 5.1. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

effects of COVID-19 but not on addressing protracted inequities and social determinants of health that exacerbated the impact of the crisis among vulnerable groups.

PAHO's equity framework

Efforts to address inequities faced the same challenges that already existed in the Region before the pandemic (18, 53). Despite the existing framework developed by WHO/PAHO to promote equity before and during the COVID-19 response, and the unanimous commitment of the countries toward equity-focused health policies, existing national health plans (NHPs) frequently excluded vulnerable populations, especially migrants, Roma people, members of the lesbian, gay, bisexual, transgender, queer+ (LGBTQ+) community, and Afro-descendants (54–57).

PAHO's Office of Equity, Gender, and Cultural Diversity (EGC) developed guidelines for the prevention of COVID-19 specifically targeting women, Indigenous people, and young people. Although a systematic analysis of all national action plans (NAPs) to respond to COVID-19 has not been conducted, the review of NAPs for the country case studies identified that Haiti, Mexico, and Peru specifically referred to women, children, adolescents, or vulnerable groups in their NAPs.

Response at subnational levels and in remote areas

PAHO provided technical cooperation by covering subnational areas or territories that lacked resources. In Haiti, for example, while the national pandemic response was focused on the capital, Port-au-Prince, PAHO supported other areas, integrating the response with subnational authorities, epidemiologists, and the local community. Also in Haiti, “labo-moto” nurses supported the sampling of suspected COVID-19 cases, providing support for diagnosis and surveillance in remote areas (24, 58).

Logistic stocks were distributed in the most needed countries, such as Dominican Republic, Haiti, Panama, and Venezuela (Bolivarian Republic of). In Peru, PAHO supported the distribution of equipment and supplies for hospitals in areas with the largest population or those serving urban areas and marginalized populations.

PAHO used online platforms, television, and community radio stations to conduct risk communication campaigns across the whole region, including in the remote areas²⁶ (59–61).

Vulnerable populations

PAHO COs worked directly with subnational governments in areas with greater vulnerabilities. In Ancash (Peru), PAHO partnered with the World Food Programme (WFP) and the Compañía Minera Antamina to mitigate the effects of COVID-19 among the population (mostly miners) by increasing the surveillance and case management capacity of COVID-19 cases; facilitating food access to COVID-19 patients in quarantine; and improving the ability to follow up, care for, and refer probable cases or those confirmed at the first level of health care (62). In the Amazon, PAHO was on-site for more than three months,

26 PAHO used Facebook to facilitate conversations among health experts and the community. However, gaps in access to technologies and connectivity barriers in underserved and rural areas (e.g., Gran Chaco Americano) or among vulnerable populations might have limited the impact of these initiatives.

working directly with the subnational authorities by providing personnel, rapid diagnostic tests, and field support for healthcare assistance and health management (63, 64).

The COVID-19 pandemic has had a significant impact on domestic workers, who carry a triple burden: they are mostly women (75%), many of them are migrants, and they work mostly in the informal sector (65, 66). It is estimated that 66% of female domestic workers in the Region have lost their jobs or reduced their working hours due to the pandemic (67). In Guatemala, protection policies supporting domestic workers were put in place to serve as an example for the Region.

For the most-affected groups, PAHO developed a specific COVID-19 surveillance protocol (65). In Brazil, PAHO developed a tool to reduce the risks of the COVID-19 pandemic in the prison system and to improve decisionmaking (61).

Response to COVID-19 by gender

The COVID-19 pandemic disproportionately affected women in the Americas (68). This was due to the high proportion of female nurses (86%), who were on the front line during the response; the increasing demand for care roles during the pandemic; the higher exposure to domestic violence during lockdowns; increased unemployment, as women worked more frequently in the informal sector; and the increased fear of being infected or infecting loved ones, which highly affected women's mental health (17, 69).

PAHO conducted a health analysis by gender that identified information gaps and lack of databases with a gender dimension. The findings showed that countries with weak institutional frameworks for gender policies disregarded the gender perspective in their response and failed to provide a timely gendered approach and response to emergencies and disasters (70, 71).

PAHO responded to an increase in domestic violence by strengthening technical cooperation to improve response services for victims; contributing to related policies, protocols, and strategies; raising awareness; and conducting training²⁷ (72).

PAHO, in collaboration with UN Women, promoted gender equity by developing virtual courses on gender equality in humanitarian action and conducted national surveys on violence against women.²⁸ In the Caribbean region, PAHO also offered training on evidence-based health system responses to survivors of intimate partner and sexual violence.

Despite the interventions implemented, gender perspectives were not included in the pandemic preparedness plans, and gender-specific initiatives were not frequently mentioned during the interviews and did not have a specific budget.

27 In line with: Pan American Health Organization. PAHO Strategy and Plan of Action on Strengthening the Health System to Address Violence against Women [CD54/9, Rev. 2]. 54th Directing Council, 67th Session of the Regional Committee of WHO for the Americas; 28 September–4 October 2015. Washington, D.C.: PAHO; 2015. Available from: <https://iris.paho.org/handle/10665.2/18386>.

28 Surveys took place in The Bahamas, Barbados, Guyana, Jamaica, Suriname, Trinidad and Tobago, and Turks and Caicos Islands.



Culturally inclusive response

PAHO's support to MoHs to adapt COVID-19 national responses to subnational sociocultural diversity has benefited from decades of PAHO's work on Indigenous health (73). For example, in Guatemala, PAHO collaborated with an external anthropological research team that investigated cultural barriers that impaired contact tracing and vaccination (74).

Human mobility

Closing of borders contributed to refugees and migrants being portrayed as a source of COVID-19, increasing their stigmatization and health risks (75). PAHO, in partnership with the World Bank, the International Organization for Migration (IOM), United Nations Trust Fund for Human Security, and Johns Hopkins University, conducted joint activities and developed funding proposals addressing migrants' health. In Brazil, PAHO specifically supported surveillance at points of entry, including people on the move, and in Mexico, PAHO and IOM developed communication materials on the prevention of COVID-19 and the right to health, to be used by points of care for migrant and mobile populations (49).

The joint advocacy efforts of PAHO, the United Nations High Commissioner for Refugees (UNHCR), and IOM ensured that stranded migrants or those arriving at the borders, as well as asylum seekers and refugees, were vaccinated (76). Although access to COVID-19 vaccination for the migrant population

was reasonably successful in several countries in the Region, other evidence indicates migrants faced persistent barriers to accessing health services (77).

Equitable COVID-19 immunization

PAHO provided guidelines to prioritize vaccine distribution for vulnerable groups based on epidemiological criteria. Several informants mentioned the positive impact of PAHO's technical guidance on helping Member States identify the most vulnerable populations to be immunized first. In Brazil, PAHO contributed to the logistics needed for distribution of vaccines to some municipalities so that most at-risk groups could be prioritized and vaccinated (78).

PAHO contributed to the design of the COVAX mechanism and to the procurement of vaccines in the Americas through the Revolving Fund mechanism²⁹ (79). Despite its good intentions, the COVAX mechanism was not as successful as expected (17, 80–82). In this context PAHO tried to facilitate communication between Member States and COVAX. By August 2021, as a response to the delay in vaccination coverage in the region, PAHO announced that it would use its Revolving Fund to help countries access vaccines for more than 20% of the Region's population, which was COVAX's commitment (83). PAHO also contributed to the distribution of donated vaccines to the most vulnerable across the LAC region (84).

PAHO's support to social protection actions

PAHO assisted countries in implementing financing protection strategies, including eliminating fees for treatment in public health facilities, to allow greater and more equitable access to health services required to respond to COVID-19 in line with Priorities for the Health Financing Response to COVID-19 (85).

2.1.4 Which PAHO strategic lines of action or cooperation modalities,³⁰ during the response to the pandemic, do Member States and other local, country-based partners consider as most relevant?

Summary of key findings: The cooperation modality that ranked highest was technical assistance,³¹ and its quality has also been acknowledged by external informants. Logistics and supply chain, and then education and training, are part of the highest-ranked cooperation modalities. In contrast, South–South and triangular cooperation was ranked lowest, which probably reflects the dilution of regional solidarity and cooperation during the pandemic.

29 Refer to Annex 5.1. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

30 The Evaluation of PAHO's Response to COVID-19 (EPRC) team defined cooperation modality as an activity developed and supported by PAHO as part of its technical cooperation function, following PAHO's Strategic Plan 2020–2025 outcomes, to evaluate the achievement of the aims of PAHO's COVID-19 Response Strategy and Donor Appeal. These cooperation modalities are *institutional and political advocacy, technical assistance, education and training, epidemic intelligence and evidence generation, South–South and triangular cooperation, risk communication, resource mobilization, and logistics and supply chains*.

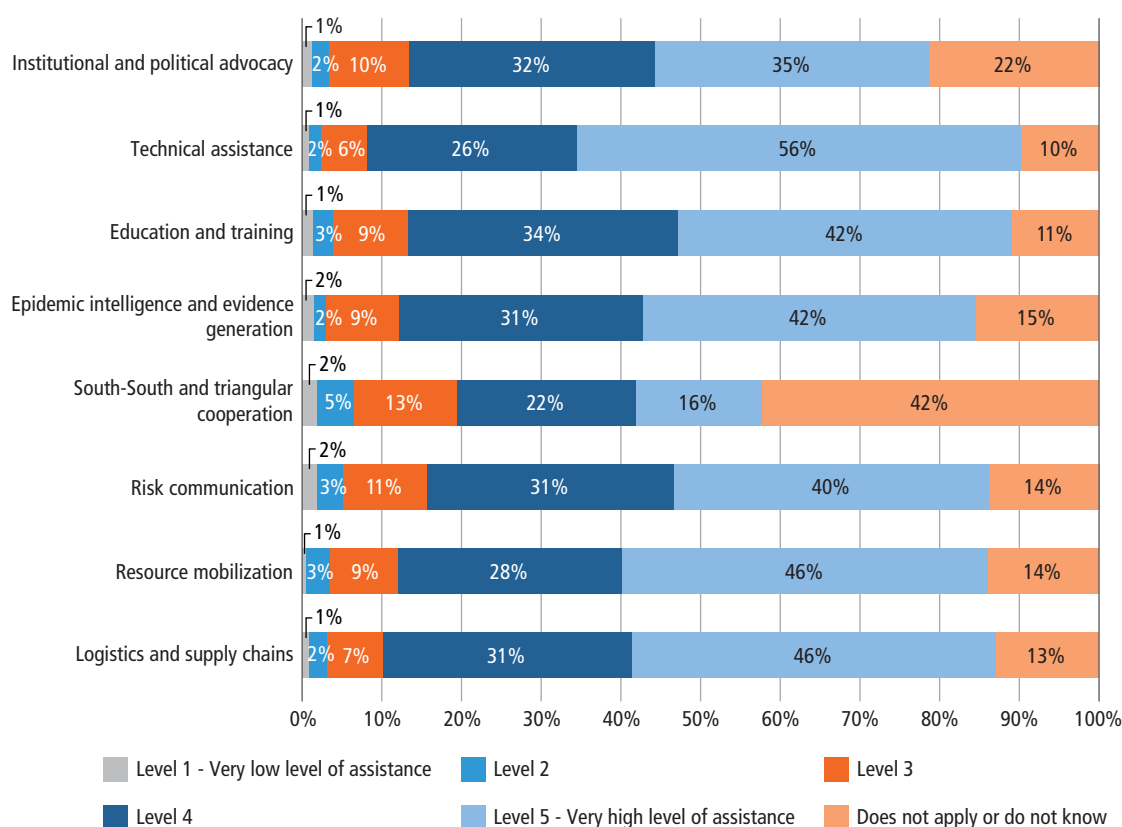
31 Although in the EPRC the evaluation team used the terms *technical assistance* and *technical cooperation* interchangeably, for the purpose of the survey, *technical assistance* is defined as the transfer of knowledge and skills from PAHO (by a team, personnel member, or consultant) to a Member State to achieve its health targets. Source: Alleyne G. Toward a taxonomy of technical cooperation in health. PAHO Bulletin. 1991;25(4):356–366.

Figure 3 shows perceptions regarding the level of assistance provided by PAHO to MoHs through eight major cooperation modalities. Technical assistance was considered the most prominent, as reported in PAHO personnel surveys. This finding is consistent with numerous internal and external interviews, PAHO's mandate, and with decades-long joint working with national counterparts. Logistics and supply chain, education and training of national health professionals, resource mobilization, and epidemiological intelligence were among the highest-ranked cooperation modalities.

As indicated by the interviewees, less assistance was provided through the South–South and triangular cooperation modality during the response. This finding is consistent with the perceptions about the modest level of Pan-Americanism that has characterized the response to the pandemic in the Americas. Risk communication was rated lower than other cooperation modalities, probably reflecting the challenges experienced by PAHO personnel in performing functions for which they were not prepared, as reported during interviews.

FIGURE 3

Perceptions of PAHO personnel regarding the level of PAHO assistance provided across its areas of cooperation (cooperation modalities)



Note: All percentages are rounded up.

Source: EPRC Gallup and Kobo survey of PAHO personnel, 2022.

2.1.5 How has PAHO adapted its response during various phases of the pandemic?

Summary of key findings: PAHO adapted its response at programmatic and organizational levels during the various phases of the response. This enabled the organization to operate in an unprecedented context with evolving health challenges and emerging priority needs.

- At the programmatic level, considerable restructuring of most health programs was needed, including reallocation of human resources, new approaches to risk communication, or innovative vaccination strategies.
- At the organizational level, the IMS was activated, its structure was progressively adapted, and PAHO personnel had to assume new (and additional) roles. The Virtual Campus for Public Health (VCPH) was expanded to also train PAHO personnel. New relations were established with donors, and new partnerships were formed. The digital transformation was accelerated, and some internal procedures were changed.

By mid-January 2020, PAHO had already activated an organization-wide response (through the IMS) to provide technical cooperation to Member States and help address the impact of the pandemic. The IMS organizational chart was rapidly modified by expanding both the number of positions (more than 60 professionals) and their responsibilities. In the midst of the COVID-19 vaccination rollout, the IMS was updated (July 2021) with a task force specifically dedicated to vaccination, a procurement team, and the Revolving Fund to support vaccination efforts in countries (86).

The early and effective activation of the IMS was complemented by the IMSTs at the country level, which enhanced national preparedness and response capabilities. Unlike in other regions, the IMSTs were composed of national professionals, which improved the surge capacity to target disadvantaged populations or localities without the need to rely on international professionals.

The COVID-19 pandemic presented a totally new scenario even for a structure, such as the IMS, that was specifically conceived and prepared to respond to health emergencies. Despite having a consolidated structure and resources, the activation of the IMS and its intense work for more than two years generated discord within the Organization. The IMS's ability to draw upon personnel from other PAHO units generated imbalance and friction between them.

At times, personnel assigned to the IMST did not perceive the emergency response as being part of their role. In addition, the demands of working in a prolonged pandemic crisis (e.g., dedication and level of effort, extended hours, presence at Headquarters [HQ]) were not formally reflected in job descriptions, new roles assumed, or working conditions. On the other hand, incentives, such as vacations, were offered to all PAHO personnel, although not all had worked for the pandemic response, which generated internal imbalances.

The COs quickly reacted to the pandemic by building emergency teams, with personnel assigned both from HQ and hired locally. The local teams had to adapt their actions to the epidemiological status as well as the institutional and political situation. Some COs reacted before the pandemic reached their countries, such as Brazil, where the CO created an emergency unit and had an incident manager in place ahead of time.

Multiple aspects of PAHO's regular role were adopted during the pandemic. CO personnel had to take on new roles, such as becoming public speakers or project managers. In Mexico, PAHO personnel were frequently featured in the local media to disseminate information to the general population, and in Guatemala, epidemiologists were involved in formulating budgets and hiring personnel. Due to travel limitations, the COs reduced their travel by integrating several tasks into one trip. In some COs, however, the response strategy was not well accepted by PAHO personnel. In Peru, some international consultants refused to participate in the emergency response because it was not within the terms of their contract.

Risk communication strategies were revised and improved in response to the evolving situation to manage the uncertainty and fear among the public. In Mexico, the CO developed a weekly internal report on the public perceptions, trust in, and credibility of the authorities, and the behavioral and social response to the mitigation measures that guided and modulated the risk communication strategy in the country.

PAHO had to be innovative and started to support vaccination in banks, open spaces, and mobile vaccination units. Social media and influencers, such as religious leaders, were used to deliver information but also to understand people's needs, fears, and beliefs regarding vaccination. A new interdisciplinary expert group on risk communication was created, as the new vaccines required targeted information to avoid an infodemic. PAHO supported research on vaccination hesitancy through anthropological studies in Guatemala (74). Besides providing COVID-19 vaccine doses to supplement the COVAX supply, PAHO engaged in operations related to bilateral donations and negotiations (83).

PAHO's previous investments in digitalization (e.g., paperless organization) and in new technologies enabled the rapid transition to remote working, although significant differences in the availability and access to technologies between HQ and COs have been identified.

In general, the development of technologies and virtual ways of working has made a difference (e.g., telehealth; governing bodies meeting via videoconferencing platforms; operational coordination of the crisis response between HQ, COs, and external stakeholders; VCPH; remote monitoring, and clinical management of COVID-19 patients; streamlined administrative procedures and e-signatures). PAHO decided to expand an existing remote working modality at HQ and COs as part of the duty-of-care policy (87).

PAHO expanded the VCPH to address the need for emergency training. Approximately 43% of surveyed PAHO personnel reported receiving education and training from PAHO to implement the

national COVID-19 response plans, and 44% of PAHO personnel received material and/or technical support from PAHO. About 90% of those who received the support considered it helpful.³²

PAHO adapted its response by establishing agreements with new partners and providers (e.g., DHL, FedEx) and nongovernmental organizations (NGOs), such as Direct Relief, establishing an office in China to negotiate with local producers to speed up procurement and distribution of equipment. Also, local and private transportation services were subcontracted to provide medical assistance to any PAHO personnel that required it as part of the duty-of-care policy.

PAHO became the agency with the greatest capacity to mobilize existing resources and logistics at the United Nations Humanitarian Response Depot (UNHRD) in Panama, especially during 2021.

In terms of financial resources, PAHO adapted to the financial struggles during the crisis to ensure the continuity of programs (88, 89). From July 2020 to June 2021, PAHO mobilized a total of USD 270.3 million, signing agreements with 25 new funding partners (including foundations, public charities, academia, and development agencies). From July 2021 to June 2022, PAHO received USD 309.2 million in PAHO voluntary contributions from diverse governments, foundations, public charities, and development agencies.³³

PAHO developed internal procedures to expedite financial and administrative processes and improve administrative and budget management remotely.³⁴ During a major emergency, PAHO needed to transform its regular mode of operation and introduce changes in systems, tools, and procedures to continue to be operational in exceptional circumstances. PAHO assumed certain risks to operate under an emergency (e.g., purchases within a stressed cash flow situation). The regular checks and balances to control and audit financial and budget management had to be adjusted to ensure the timeliness and efficiency of PAHO's emergency response.

Adopting a flexible approach for certain procedures was also accompanied by the reinforcement of control mechanisms better adapted to work under emergency conditions (e.g., ex post facto financial monitoring). Despite adaptations that made it possible to adjust certain areas of management and allowed PAHO to work under an emergency mode, delays in response and decisionmaking, limitations in

32 27% of respondents report that they did not know how to answer if they received material and/or technical support from PAHO that was not included in the COVID-19 NRP; maybe because they were not involved in the implementation. The same was true for the question about receiving education and training from PAHO to implement the national COVID-19 response plan, where 27% did not know how to answer.

33 The partners comprise: Government of Belize; Government of Turks and Caicos Islands; MoH of Spain; U.S. Department of State; Ministry of International Relations and La Francophonie of the Government of Quebec; Health Department of Amazonas (Brazil); Health Department of the Federal District (Brazil); Health Department of Mato Grosso do Sul (Brazil); Health Department of Rio de Janeiro (Brazil); Health Department of Santa Catarina (Brazil); Unitaaid; MiracleFeet; Resolve to Save Lives; The Fred Hollows Foundation; Ford Foundation; and the MAPFRE Foundation.

34 For example: reduced number of approvals for acquisitions, decentralized procedures to cost centers, new category of focal point in cost centers, new tools, and automated reports to monitor execution of funds. The EPRC highlights financial questions and procedures of particular interest based on a documentary review complemented by data obtained from interviews and surveys. Note that a systematic assessment of internal financial and administrative procedures introduced or adapted to operate during the pandemic is out of the scope of the EPRC.

hiring, or the lack of flexibility in some administrative procedures hindered the timeliness and efficiency of the response (30).

2.2 Effectiveness

2.2.1 To what extent did PAHO's COVID-19 response achieve its intended outcomes (including demonstrated capabilities to adjust its objectives according to changes in circumstances, contexts, and assumptions)?

Summary of key findings: PAHO adjusted its response according to the evolving pandemic situation in the region and implemented actions to support the MoHs in all pillars of the COVID-19 SPRP. This was done with varying intensity and in consideration of the national contexts and resources allocated to each pillar.

- The most highly rated pillars of PAHO's COVID-19 SPRP are: (i) vaccination; (ii) operation support, logistics, and supply chains; (iii) coordination, planning, financing, and monitoring; (iv) surveillance, rapid response teams, and case investigation; and (v) infection prevention and control, and protection of health workforce. External stakeholders, however, expressed criticism due to the difficulties experienced in getting timely and widespread access to the COVID-19 vaccine.
- The COVID-19 SPRP monitoring framework was primarily intended to support the monitoring of national response actions; enable aggregation at subregional, regional, and global levels; and inform analysis and decisionmaking. However, it was not intended to be used to assess PAHO's organizational performance in its role of providing technical support to countries.
- PAHO personnel had a largely positive view of PAHO's performance during the pandemic. However, opinions vary across national counterparts and partners regarding key aspects of PAHO's performance (e.g., administrative, logistical, and decisionmaking delays, operational capacity at country level, policy dialogue, communication management and reporting).

WHO defined the first COVID-19 SPRP Monitoring Framework at the beginning of the pandemic (structured according to nine pillars), and it was updated in 2021 to include Pillar 10 (COVID-19 vaccination and research and innovation as a cross-cutting area³⁵). The COVID-19 SPRP Monitoring Framework set out the approach and methods for tracking and reporting on the global progress against the SPRP 2021 and served as a reference for all WHO regions (as well as countries, the United Nations, and other organizations).

35 Refer to Annex 5.3. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

In line with WHO global guidance, PAHO prepared its first regional response and donor appeal plan on 5 March 2020, which was updated twice during 2020 and again in 2021. PAHO adjusted its response strategy according to the behavior of the pandemic in the Region, in line with WHO global guidelines, as reflected in the five SPRPs developed between 2020 and 2022. Adjustments to the SPRP were more frequent during the first year of the pandemic due to lack of knowledge about the virus, the scarcity of available scientific information, and the uneven impact among countries in the Region. In 2021, the response plan was adjusted to concentrate efforts on mass vaccination against COVID-19. In 2022, the SPRP was updated to direct country efforts toward ending the pandemic in the Region, proposing different scenarios.

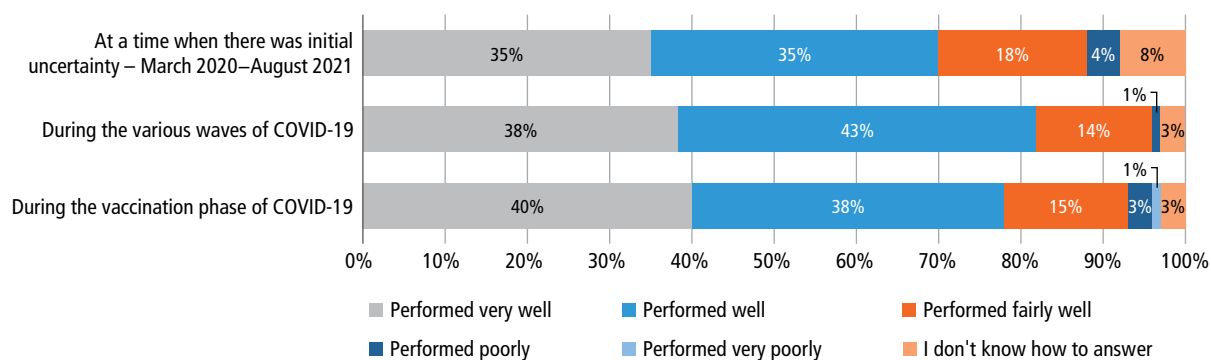
This regional response plan defined an overall goal (support Member States in the Americas in preparing for and responding to COVID-19 outbreaks) and two specific objectives: (1) save lives and protect those individuals and populations facing the severest vulnerabilities, including healthcare workers; and (2) limit human-to-human transmission, including reducing secondary infections among close contacts, to slow down the spread of the disease. While the overall goal was directly related to PAHO's mandate and role, the specific objectives remained within the countries' scope of action, even though national responses were supported by PAHO. The evaluation was able to document and assess PAHO's actions in achieving the overall goal, but assessment of country-level responses was out of scope.

In terms of corporate strategic planning, PAHO's Strategic Plan 2020–2025 contains three outcomes that are related to health emergencies: health emergencies preparedness and risk reduction (N.23); epidemic and pandemic prevention and control (N.24); and health emergencies detection and response (N.25). It also includes two clauses to develop country preparedness based on interprogrammatic work within the bureau and the activation of emergency response mechanisms.

At the corporate level, the assessment of planned Strategic Plan 2020–2025 targets showed that approximately 17% (6 out of 35) of impact-level targets are on track to be achieved by 2025 (44). At the outcome level, there was significant collective progress, with 60% (17 out of 28) of planned targets reached for the 2020–2021 biennium. However, by the end of 2021, the Region's collective progress was affected and only 25% (26 out of 105) of outcome-level targets and 19% (28 out of 148) of the output-level targets were achieved. The health emergencies detection and response (Outcome 25) received the most COVID-19 funds.³⁶

The pandemic has affected the achievement of some Strategic Plan 2020–2025 outcome and output-level targets at the country level due to the reprioritization of areas of work in response to the pandemic. Progress on achieving Strategic Plan 2020–2025 outcomes has been affected by low levels of political commitment to addressing priority areas of public health; absence of or insufficient intersectoral action; weaknesses in information systems; insufficient progress on addressing inequities in health; limited institutional capacity; and shortage of human and financial resources due in part to competing

³⁶ Other funds for COVID-19 were channeled through the special program outbreak and crisis response and, for the most part, to procurement.

FIGURE 4**PAHO's performance during different stages of the pandemic**

Note: All percentages are rounded up.

Source: EPRC Gallup and Kobo survey of PAHO personnel, 2022.

priorities within regional and national agendas. The sudden shift in public health priorities meant that some areas did not receive the necessary attention or resources, as reflected in outcome areas where targets were only partially met or not met at all. However, the pandemic has also encouraged improvements in public health functions, particularly those required for responding to public health emergencies.

PAHO personnel have an overall positive view of the Organization's performance during COVID-19; 80% (868 respondents) reported that PAHO's response achieved its intended results well or very well.³⁷ Moreover, between 35% and 43% of survey respondents reported that PAHO performed well or very well during the three phases of the response. Less than 5% reported that PAHO performed poorly across the phases (see Figure 4).

PAHO's technical support at regional and national levels excelled in key areas of the response (as presented in the following sections). There is a high level of agreement concerning the quality of the technical cooperation provided by PAHO not only to Member States but also to other agencies, international organizations, and regional actors. In parallel, there are also concerns regarding PAHO's performance on issues such as administrative, logistical, and decisionmaking delays; operational capacity at the country level; policy dialogue; and communication management and reporting. Concerning COVID-19 vaccination, PAHO personnel's positive views of the organization's performance contrast those of external stakeholders who, during the interviews and surveys, were more critical of the difficulties experienced in getting early and widespread access to the COVID-19 vaccine.³⁸

37 Refer to Annex 5.2. In: Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

38 See Section 2.2, Effectiveness, assessment of Pillar 10 (vaccination), for specific details about vaccination shortcomings.

2.2.2 Which activities have been most/least effective?

Summary of key findings: There is broad recognition of PAHO's work in supporting government counterparts, including MoHs, to develop national crisis management plans and emergency response mechanisms to prioritize actions, resources, and interventions.

- One of the most successful activities implemented by PAHO was the immediate action taken to strengthen the regional capacity of surveillance systems and adopt innovative tools for outbreak investigation.
- With PAHO's support, health authorities implemented risk communication campaigns to disseminate accessible and reliable information on COVID-19 and public health advice on how to protect oneself from the virus.
- PAHO provided support and guidance to prepare the COVID-19 NVDPs as well as strategies related to financing the purchase of vaccines. However, in some cases the delays and unpredictability of vaccine procurement and distribution impacted PAHO and MoH relations.

The survey indicated that the pandemic response pillars with the highest potential were vaccination (79%) (Pillar 10); operational support and logistics, and supply chains (67%) (Pillar 8); coordination, planning, financing, and monitoring (75%) (Pillar 1); surveillance, rapid response teams, and case investigation (75%) (Pillar 3); and infection prevention and control, and protection of health workforce (75%) (Pillar 6). Laboratory and diagnostics (Pillar 5) were perceived by 68% of respondents as having high potential despite the prompt implementation of serologic and molecular diagnosis being vital to the early identification of cases and contacts, and for monitoring of trends to understand the impact of mitigation, containment, and preventive measures (see Figure 5).

The importance given to Pillar 10 probably reflects the high level of investment (human and financial resources) made by PAHO to support COVID-19 vaccination. In 2021, Pillar 10 accounted for 51% of the funds used to implement activities through the 10 SPRP pillars. However, despite PAHO's efforts, vaccination was delayed and became a cause of concern for many outside PAHO.³⁹

The following paragraphs summarize the main activities implemented by PAHO for each of the 10 pillars of the SPRP (most and least effective measures for each of the 10 pillars⁴⁰).

Pillar 1: Coordination, planning, financing, and monitoring

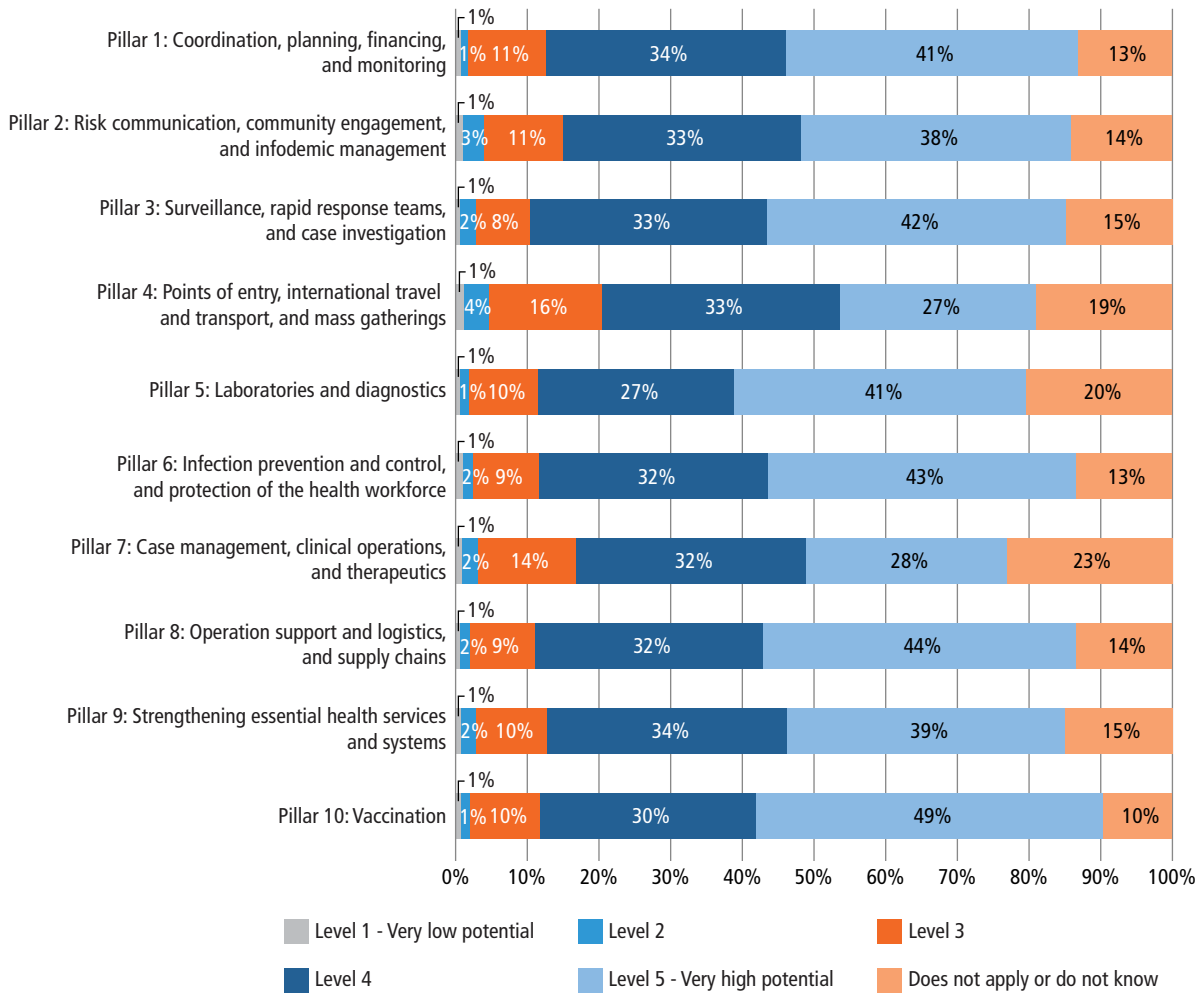
The PAHO-led joint coordination efforts, innovative measures, and unified messaging were instrumental in guiding an effective response to COVID-19 in the Region of the Americas. Regional coordination

39 Majority of external (to PAHO) interviewees.

40 Based on the documentary review, interviews, and surveys. For details, refer to Annex 5.2. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

FIGURE 5

Extent to which PAHO cooperation areas have the potential to strengthen health systems beyond the COVID-19 pandemic



Note: All percentages are rounded up.

Source: EPRC Gallup and Kobo survey of PAHO personnel, 2022.

became crucial in achieving region-wide approaches to tackling the pandemic and supporting regional and subregional coordination and emergency response mechanisms, such as the Caribbean Community, the Coordination Center for the Prevention of Disasters in Central America and the Dominican Republic, the Forum for the Progress and Development of South America, and the Organization of American States (OAS), among others (91). In addition, with the activation of the IMS and its IMST, PAHO supported the development of a national coordination mechanism in the form of EOCs to coordinate the national response to COVID-19 (90).

PAHO supported the Member States in developing COVID-19 NRPs, highly aligned with PAHO's Response Plan, to ensure coherence and operational alignment throughout all pillars. The

comprehensive, evidence-based public health guidelines, along with the coordinated response of all stakeholders, including United Nations and international agencies, academic institutions, NGOs, and other strategic actors, enabled the planning and implementation of effective public health interventions. Additionally, PAHO chaired and coordinated the UNCT and United Nations Emergency Technical Team (UNETT) and oversaw the channeling of requests made by governments to the United Nations System (76).

By establishing and strengthening existing partnerships and networks, PAHO supported funding of emergency response programs at the national and subregional levels. Moreover, PAHO supported countries in developing projects and documents to access and obtain funding from entities such as the Inter-American Development Bank and the World Bank to acquire and distribute COVID-19 vaccines and mitigate the pandemic's impact while supporting national health systems (91, 92). Also, through PAHO's Response Strategy and Donor Appeal, the Organization aimed to scale up its response and mitigate the longer-term impact of the pandemic in the Americas.

The COVID-19 partners platform played a key role in monitoring contributions and reporting by the COs. However, not all indicators were available for all countries (i.e., hospitalization, percentage of hospital bed occupancy, number of intensive care unit [ICU] patients, and percentage of ICU bed occupancy). Also, PAHO supported the development of action reviews (initially in selected Brazilian states) to monitor and review the emergency response and recovery actions, identify crucial gaps, and optimize response plans (90, 93).



Pillar 2: Risk communication, community engagement, and infodemic management

PAHO developed and distributed risk communication tools across the Region for healthcare workers, the media, and leaders. Communication efforts to address vaccine hesitancy and build trust in countries' immunization programs has been one key challenge. Countries also adapted messages to the specific context, to be culturally sensitive, and delivered in an effective manner.

PAHO undertook different activities to help improve risk communication campaigns at the country level. For example, in Mexico PAHO organized perception laboratories that analyzed and adapted the contents of messages to improve confidence in the public campaigns; manage uncertainty regarding the trend and evolution of the different epidemic waves; or mitigate the stigma and discrimination toward health personnel.⁴¹

In Guatemala, PAHO supported the MoH through rapid surveys to analyze barriers to COVID-19 vaccination, validated key messages (free vaccine, safety, collateral effects, voluntary, etc.); addressed topics and myths that required clarification (vaccine may cause death, includes a chip to control population, vaccines are bad, etc.); identified the best agents to deliver the health messages (radio, community visits, local leaders, teachers, etc.); and inquired into cultural issues relevant to supporting vaccination (indigenous language, positive contents, simple messages, avoiding technicalities, etc.) (74).

PAHO's support was key and important due to widespread misinformation, fake news, and disinformation on mass media channels and social networks. PAHO improved coverage by reaching millions of followers via social media (Facebook [1.1 million], Twitter [112 400], and Instagram [505 000]) and helped disseminate 361 million videos on YouTube, 19 200 articles on Google Scholar, and 550 million tweets (94).

PAHO's participation in press meetings as international experts was fundamental to clarify doubts about vaccine effectiveness and reinforce the need to enhance risk perceptions and conduct; improve adherence to preventive measures; and remove misconceptions, misbeliefs, and misinformation regarding COVID-19 and its prevention, control, and treatment. A total of 1026 infographics were produced to offer guidance on protecting the health of workers, older persons, and other vulnerable populations (95).

Pillar 3: Surveillance, epidemiological investigation, contact tracing, and adjustment of public health and social measures

To slow down COVID-19 transmission, social and public health measures were applied to affected communities. One of the most successful strategies implemented by PAHO was the immediate action taken to strengthen the regional capacity of surveillance systems to detect COVID-19 cases, supported by routine severe acute respiratory infections/influenza-like illness event-based and sentinel surveillance systems (96).

⁴¹ Confidential document provided by the MoH of Mexico.

PAHO adopted innovative tools for outbreak investigation, specifically Go.Data, that integrated functionalities for case investigation, contact follow-up, and visualization of chains of transmission (97). Together with the Global Outbreak and Response Network, PAHO trained over 30 countries; 21 integrated Go.Data in their COVID-19 pandemic response. PAHO also developed the COVID-19 risk assessment tool for health authorities to assess their vulnerability and the risk of COVID-19 spreading. This enabled countries to determine the number of individuals at increased risk of severe COVID-19 due to underlying conditions; formulate possible strategies to shield extremely vulnerable people from infection; manage chronic conditions; and guide vaccine allocation for those at the highest risk (98).

Pillar 4: Points of entry, international travel and transport, mass gatherings, and population movement

COVID-19 control strategies centered on the use of nonpharmaceutical interventions, including personal protective measures, environmental measures, physical distancing, and international travel measures. PAHO provided national authorities with a framework and technical guidelines for social distancing and travel-related measures (testing before travel). PAHO also worked with national authorities to disseminate risk communication materials in spaces where incoming travelers could find information and IPC measures to reduce the risk of infection (99). By September 2020, most of the countries in the Caribbean subregion began to resume nonessential travel to reactivate their tourism-dependent economies. This was later adopted by most countries as a political decision driven by economic pressures rather than the result of a risk assessment process proposed by PAHO (100).

The “indirect” effect of PAHO’s support ensured institutions and systems in many countries continued to function by providing technical guidelines for mass gatherings to guarantee safety to the populations, including security for the electoral process. PAHO’s technical guidance for preventing mass gatherings was a key measure used in the lead-up to 26 political elections that took place in the Region during the pandemic.

PAHO has been a key player in coordinating healthcare strategies and quarantine options (hotels, camps, houses) for groups on the move. Border controls created challenges, particularly where social and economic reasons caused the historical movement of migrants and refugees (Colombia/Venezuela [Bolivarian Republic of]; Guatemala/Mexico; Dominican Republic/Haiti; Mexico/United States). An additional input from PAHO was the socialization of mass gathering guidelines to support political elections in the Region.

Pillar 5: Laboratory and diagnostics

The Americas developed a strong influenza laboratory surveillance network (30 National Influenza Centers [NICs] in 26 countries) with molecular diagnosis platforms regularly evaluated by the WHO Global Influenza Surveillance and Response System. PAHO rapidly trained the NICs, as well as several national public health laboratories and the Caribbean Public Health Agency laboratory, on the recommended Charité-Berlin protocol to detect and confirm COVID-19 cases. As a result, 28 countries have implemented molecular diagnostic methods in at least one National Public Health Laboratory (NPHL), and at least 18 countries have in-country sequencing capacity.

PAHO supported countries to strengthen their capacity for timely access to enzymes, critical reagents, and testing material, and continued to donate laboratory reagents and supplies to at least 28 countries in the Region (101). Despite the efforts made by PAHO to support the NPHLs, the continued increase in the number of cases and associated samples received exceeded the capacities in most of the laboratories, resulting in a severe delay in the number of samples processed (more than 30% in some countries). Private laboratories provided serological and polymerase chain reaction (PCR) diagnoses to the population and the results were fed back to the MoHs. The epidemiological impact of this on improved surveillance is not available.

The rollout of an antigen-based rapid detection test (Ag-RDT) has allowed all countries to decentralize and increase their testing capacity. WHO launched the COVID-19 Access to COVID-19 Tools (ACT) Accelerator Diagnostics Partnership. Aligned with this initiative, PAHO developed guidelines for the introduction and implementation of alternative virologic diagnostic methods to complement and scale up diagnostic capacity and increase access to testing for remote areas and vulnerable populations. PAHO also donated millions of COVID-19 PCR tests and Ag-RDTs through PAHO's Strategic Fund.

PAHO has supported countries to strengthen surveillance within the framework of the Regional Network for Genomic Surveillance of COVID-19. Through this network, PAHO supported over 20 countries from all four subregions to generate high-quality SARS-CoV-2 genomic sequence data through next generation sequencing (NGS) and share their genomic sequences in a timely manner (102).

Pillar 6: Infection prevention and control (IPC), and protection of health workforce

PAHO worked with MoHs to estimate needs for personal protective equipment (PPE), essential medicines, and other supplies based on epidemiological trends and projections. All countries of the Americas have implemented measures to reinforce IPC, and 33 countries reported having a national IPC program and water, sanitation, and hygiene (WASH) standards in healthcare facilities. International procurement of essential response goods, such as PPE, was a challenge due to an increase in global demand, restrictions on air freight, and shipping and export bans imposed by manufacturing countries. Countries had to find ways to produce locally, including converting factories to produce their own PPE and essential medical devices.

Pillar 7: Case management, clinical operations, and therapeutics

Throughout 2020, PAHO shared guidance on evidence-based case management and therapeutics for COVID-19 through its Ongoing Living Update of COVID-19 Therapeutic Options: Summary of Evidence database. A new referral system also was set up to bring patients to ICUs that were designated for the COVID-19 response and provided appropriate medical equipment for treatment. The database is the result of this ongoing (daily) effort to update the therapeutic options for COVID-19 and presents an evidence summary of 235 pharmacological interventions for the management of COVID-19 (103).

There were moderate levels of preparedness in laboratory capacity for diagnosis of SARS-CoV-2, isolation, and case management as indicated by a COVID-19 readiness self-assessment survey (104). This was conducted between January and April 2020 in more than 579 hospitals (public and private) in

19 countries. Scores were lowest for areas related to the care of patients requiring critical care and the availability of equipment for medical care, including PPE and ventilators.

An analysis of four countries (Chile, Colombia, Mexico, and Peru) indicated an increase of 161% in critical care capacity between March 2020 and March 2021, with occupancy rates as high as 93% in January 2021. Brazil reported an increase of 61% in ICU capacity (including the private sector) between February 2020 and January 2021: 24 states and the Federal District had occupancy rates for ICU equal to or greater than 80% in March (105).

Countries struggled to provide patients with continued intensive care, and this was further compounded by long COVID. Other challenges to health services at the country level included gaps in human resources and a lack of incentives; difficulties in Internet connectivity to provide training and resources for telemedicine; shortages of medicines, supplies, medical devices, PPE, and logistics to carry out case investigation and contact tracing; and testing, triage, and home care. PAHO trained over 70 000 health workers in case management and therapeutics.

Pillar 8: Operational support and logistics, and supply chains

PAHO has made quality assurance a critical component of its technical support for procuring goods, supplies, and equipment. The pandemic severely interrupted regular supply chains for medical supplies and equipment. It also disrupted commercial flights that PAHO relied upon to deploy experts and transport medicines, supplies, and equipment. Countries found themselves in a complex market for procuring supplies and medicines, requiring permanent quality control of items produced by unreliable actors.

PAHO has been supporting and advising countries on regulatory frameworks related to procurement, shipping, freight, logistics, and technical specifications for PPE, oxygen concentrators, in vitro diagnostics, and other supplies and equipment critical to the COVID-19 response. PAHO has shared tools to help quantify essential supplies; provide information on the current global market situation; identify qualified suppliers; and supply pricing information for the procurement of medical equipment and supplies.

Pillar 9: Strengthening essential health services and systems

The pandemic created unprecedented pressure on health systems and services. Priority given to managing the pandemic interrupted routine health services and programs, including vaccination campaigns, sexual and reproductive health services, malaria elimination, tuberculosis prevention and control, and programs for NCDs. The situation was compounded by the stress and exhaustion experienced by healthcare workers, mainly women who were also at higher risk of burnout. This further constrained capacity of subnational health systems.

COVID-19 has particularly affected the continuity of essential services provided at the first level of care. The preliminary results from the Essential Health Services survey indicated important disruptions to essential services. The percentage of countries reporting partial or severe disruption of services varied

by program areas: 55% for family planning and contraception; 47% for antenatal care; 39% and 37% for routine immunization services in health facilities and outreach, respectively; 47% for NCD diagnosis and treatment; 47% for cancer diagnosis and treatment; and 77% for mental health services. Twenty countries started to reorganize their systems to provide the first level of care to respond to the pandemic (106).

Given the disruptions to health services in the region, PAHO's advocacy and guidance to Member States to protect essential health services and continue regular technical cooperation while addressing the pandemic response helped Member States ensure the continuity and recovery of health systems.^{42,43}

Pillar 10: Vaccination

PAHO provided ongoing support and guidance to prepare the COVID-19 NVDPs as well as strategies related to financing the procurement of vaccines.

Despite good intentions, the COVAX mechanism was not as successful as expected (80). COVAX failed to deliver on its targets and timelines due to vaccine supply shortage resulting from high-income countries purchasing vaccines directly from manufacturers, reducing the overall number of available vaccines in the market. Most LAC countries only received around 30% of the supply they contracted through COVAX, which had an indirect impact on PAHO's reputation (107).

In addition, a modification to the initial COVAX design allowed self-financing countries to purchase vaccines to cover 10%–50% of their population, while Advance Market Commitment (AMC) countries could only receive 20% coverage with vaccines selected by Gavi, contributing to an even more unequitable vaccine distribution. In response to the delays, countries on the COVAX waiting list started to purchase vaccines through bilateral agreements too, causing a self-reinforcing dynamic that reduced COVAX's vaccine supply. As of October 2022, 87% of the total vaccines available in the region had been obtained through bilateral or multilateral agreements (108).

As of 30 October 2022, COVAX had provided 155 million vaccines to the Region, which represents 6% of all vaccines delivered in the Americas, or 10% of all vaccines across the LAC region (155 million vaccines were provided by COVAX out of the 1.6 billion vaccines purchased overall in LAC countries). Twenty-three countries in the Region participated in COVAX, 13 of which were self-financing countries. The remaining 10 participating countries and territories were eligible to receive COVAX vaccines for free through AMC to vaccinate 20% of their population. These were Bolivia (Plurinational State of), Dominica, El Salvador, Grenada, Haiti, Honduras, Nicaragua, Saint Lucia, Saint Vincent and the Grenadines, and Martinique.⁴⁴

42 See Section 2.5, Sustainability.

43 Based on interviews with PAHO personnel as well as country office personnel (MoH) and other strategic partners.

44 Refer to Annex 5.1 for details on the COVAX mechanism. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

High-income countries (HICs) failed to financially contribute adequately and thus guarantee universal vaccine access. Double-standard vaccination targets (20% for low- and middle-income countries [LMICs] and 50% for HICs) were introduced in the COVAX self-financing mechanism (109). Wealthy countries procured vaccine doses through bilateral deals with multiple manufacturers. This vaccine nationalism resulted in the waste of expired vaccines. By January 2022, less than 10% of LMIC populations had received a single dose of the COVID-19 vaccine (110). The United States announced the donation of 900 million vaccines and by October 2022 had already donated 276.2 million (111). Distribution of the donated vaccines was sometimes challenging due to the short notice of the donation and the close expiration dates of the donated vaccines.

In the Americas, the PAHO Revolving Fund for Access to Vaccines (RFV) is recognized as the procurement mechanism for COVAX and the most suitable for providing equitable access to COVID-19 vaccines in the region, on behalf of the 10 countries eligible for AMC financing and the 28 self-financing countries and territories in the COVAX portfolio in the Americas.⁴⁵ PAHO estimated that the initial economic burden of the new COVID-19 vaccines could be 12 to 18 times the countries' annual national immunization budget.

To acquire the vaccine for 20% of their total population – the quantity required to target the most high-risk groups – countries would have needed to invest up to three times their annual immunization budgets in 2021. The introduction of the new COVID-19 vaccines placed unprecedented fiscal pressures on national budgets of the 28 self-financing countries in the Americas, with transfer of more than USD 433 million in down/up-front payments to the COVAX Facility during October 2020 and an additional USD 660 million in financial guarantees (35).

PAHO supported 28 countries to evaluate their cold chain capacities and update their cold chain equipment inventories, including logistics requirements for vaccine distribution. The [Guidelines to Plan for COVID-19 Vaccine Introduction](#) assisted national immunization programs (NIPs) in planning for COVID-19 vaccine introduction and supported the development and cost of comprehensive COVID-19 vaccination plans (112).

PAHO encouraged countries to strengthen their information systems, vaccine safety, and the surveillance of events attributable to vaccination or immunization and adverse events following COVID-19 and other vaccine immunizations. Together with WHO, PAHO developed the [Vaccine Introduction Readiness Assessment Tool \(VIRAT\)](#), a planning road map to prepare for COVID-19 vaccine introduction, with 35 countries populating a dashboard to provide an overview of regional readiness.

Table 1 summarizes which activities worked well and less well in PAHO's response.

45 For more than 40 years, the PAHO Revolving Fund has supported 42 Member States and territories to capture forecasted demand of vaccine, syringe, and other related immunization supplies across the Region and leverage economies of scale to ensure access to high-quality vaccines and affordable prices.

TABLE 1**Summary of what worked well and less well in PAHO's response**

WHAT WORKED WELL	WHAT WORKED LESS WELL
<ul style="list-style-type: none"> • PAHO's early institutional reactivity • Early activation of IMS/emergency medical teams (EMTs) • "Whole-of-government" approach • Alignment with MoH priorities and estimations of national needs (including vaccination plans) • PAHO bridging global information, regional perspective, and national realities (bilateral direction) • Cooperation modalities: Technical cooperation/ logistics and supply chain/education and training • Pillars: Operational support, logistics and supply chain/coordination, planning, and financing/ epidemiological surveillance/infection prevention and control • Virtual campus and regional laboratory network • Transformation of the procurement function (strategic role of Revolving and Strategic Funds) • Support to digital transformation (internal and external) • Expansion of partnerships • Coordination role for health response within UNCTs and synergies with WFP • Panama hub and national stockpiles 	<ul style="list-style-type: none"> • Policy dialogue at country level (in some countries) • Communication management • IMS setup for a sustained large-scale public health emergency • Cooperation modalities: South–South cooperation/risk communication • Pillars: vaccination • Dual management of COVAX and bilateral agreements • Internal communication (HQs, subregional, COs) • Synergies with UNICEF and alignment PAHO–WHO • SPRP monitoring framework not conceived for organizational performance • Teleworking paradox, closing of COs, and provision of technical cooperation remotely • Mental health and work–family life balance • Personnel responsibilities under emergency response and compensation schemes

2.2.3 What have been the main internal factors affecting PAHO's response?⁴⁶

Summary of key findings: Internally, PAHO's response to COVID-19 was affected by the critical financial and human resource situation, the shortcomings in communication between PAHO HQ and COs, and PAHO's personnel contracting policy during the pandemic.

46 More information about internal factors is in Annex 5.2, including main factors (internal, external) that compromised PAHO's response. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

- More broadly, factors that affected PAHO's capacity to respond in key areas included the excessive centralization of decisions in Geneva (WHO) and the dependence on COVAX for vaccine purchase and distribution.

PAHO's performance was modified accordingly in response to the financial crisis and the risks identified. The financial crisis experienced by PAHO was mainly due to the contributions lost from the United States and the assessed contributions due from Member States, participating states, and associate members (amounting to USD 179 million in January 2022) (113). Other key risk areas included dependence upon and need to ensure Member States fulfilled their financial commitments; the ability to support Member State needs through resource mobilization and leveraging support from partners and donors; the limitations to respond rapidly to Member State needs in emergencies and disasters; and the competing national priorities that reduced the attention given to health priorities.

Internal communication between different levels within WHO was not as smooth. There was lack of timely sharing of strategic information. Some topics were complicated, such as PPE, messages related to the use of masks and efficacy of quarantines (duration), as well as asymptomatic transmission. All this created a complex institutional environment. PAHO needed to improve communication and cohesion in content across various topics. An example was communication between PAHO, WHO, and COVAX regarding the arrival and quantity of vaccines. The teams that worked directly with the Member States did not have the information in advance to assist Member States better in terms of the quantity of vaccines and arrival dates.

Within PAHO there were gaps in internal communication systems – decisions that were taken at HQ were not always discussed with the country representatives. The operational infrastructure and need for cohesion between PAHO, HQ, and COs required better communication. The emergency mode, under the IMS, was not well accepted by all PAHO personnel. Some felt excluded from management and decisionmaking, while others argued that responding in an emergency mode was not within their terms of reference, making the incident manager's job difficult.

At the start of the COVID-19 pandemic, PAHO had limited human resource capacity to scale up and provide an adequate response to Member States. Many managers were focused on departmental agendas to recognize broader organizational needs. This issue became increasingly exacerbated during each phase of the pandemic, and PAHO faced enormous challenges in facilitating rotation and additional support for personnel. During the vaccination stage, PAHO struggled due to limited expertise in risk communication.

PAHO's personnel contracting policies and obligations impaired employees' work continuity during the pandemic. Limited technical and practical experience of PAHO personnel in responding to emergencies led to communication delays between COs and HQ, which slowed down logistic processes. There was a need for personnel to be in the field to understand the complex nature of and response to the pandemic. This meant PAHO did not have human resources in essential areas to provide the surge capacity required by the Member States. Given the reduced number of personnel at the start of the

pandemic, the border closures, and PAHO's long hiring processes, the PWRs did what they could with the resources available and hired local personnel when emergency funding started being available at the country level.

On occasions, specialized teams from outside PAHO were available and ready to contribute to the response; however, PAHO's administrative procedures impeded their use and optimum incorporation into the operations. The University del Valle in Guatemala, for example, performed an outstanding job analyzing vaccine hesitancy in Guatemala and produced communications materials in indigenous languages for the Western and Petén regions of the country (74). However, personnel at the country level were unable to provide financial resources for the fieldwork, data analysis, and production of reports due to PAHO's complex administrative, financial, and contracting procedures.

Governance of WHO proved to be inadequate for the pandemic response. WHO failed or was hesitant to act on potentially serious risks and uncertainties about the infectiousness of the virus, its asymptomatic spread, and the transmission methods. It was also slow to advocate for policy responses (e.g., WHO did not recommend the use of face masks until 5 June 2020) (17). PAHO had to follow WHO's lead even though pressure from within Member States mounted as they demanded immediate action. The organizational structures and leadership gave rise to misperceptions and opinions that undermined credibility and trust within both organizations (114).

The excessive centralization of political, strategic, technical, and administrative decisions in WHO Geneva prevented the optimum performance of entities such as PAHO. This resulted in mistrust in the recommendations provided by WHO in key aspects of the response. PAHO's dependence on WHO's decisionmaking prevented it from negotiating efficiently and responding to the Member States to the degree required. The high level of focus on Africa reduced the attention and priority given to the Americas, even though the Region experienced higher numbers of cases and deaths.⁴⁷

Dependence on WHO for vaccine purchase and distribution under the COVAX initiative was a major obstacle to achieving equity in vaccine delivery and protection of vulnerable groups. The bilateral agreements established by governments with the pharmaceutical industry severely undermined the opportunities for LMICs to access vaccines in sufficient numbers and at better prices. COVAX's communication channels with countries and PAHO were not functional. This affected PAHO's image. One of the main factors involved in COVAX's failure to deliver on its targets and timelines was that vaccine-producing companies made bilateral contracts directly with the governments that paid the highest prices rather than with COVAX, which insisted on lower prices for low-income countries.

Member States' criticism of PAHO was mainly linked to the performance of the COVAX initiative. Legislation or financial resources impeded the establishment of bilateral agreements with vaccine

47 As of 11 May 2022, 30% of all cases and 44% of all deaths reported globally had occurred in the Region of the Americas, which accounts for 13% of the world's population. See: World Health Organization. Weekly epidemiological update on COVID-19 - 11 May 2022. Geneva: WHO; 2022 [cited 19 December 2022]. Available from: <https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---11-may-2022>.

manufacturers in some countries. This meant that some countries were completely dependent on COVAX, and its failures led to uncomfortable situations for PAHO. For example, PAHO was blamed for vaccine shortages and delivery failures, and as a result, some countries like Guatemala and Paraguay requested changes of the PWRs.

The restrictive agreements signed by countries with vaccine companies prevented governments from donating vaccines to countries in need. Solidarity among Member States failed, and since all countries were dealing with their own emergency, humanitarian help for others was limited. Vaccine-producing companies and governments interested in purchasing vaccines from early in the pandemic were required to provide early financial support for the production, distribution, and supply of vaccines. The WHO Values Framework for the Allocation and Prioritization of COVID-19 Vaccines emphasized that “COVID-19 vaccines must be a global public good,” but COVAX fell short of achieving this vision (109, 115).

2.2.4 What have been the most significant challenges (external) in responding to COVID-19 across countries and subregions?

Summary of key findings: Major external challenges in responding to COVID-19 included the politicization of the response (with tensions between political and technical decisionmaking, and political personnel questioning scientific evidence), the infodemic (contributing to fake news, distrust in international organizations, and vaccine hesitancy), the heterogeneous health systems (making it difficult to implement a unique strategy suited to the Region’s diverse needs and national capabilities), and low IHR compliance.

- **Resourcing:** It was challenging for Member States to adhere to PAHO recommendations due to inadequate financing, insufficient or inadequate equipment, and lack of medical and specialized personnel trained for emergencies, especially for those countries coping with concurrent crises.
- **Logistics:** The disruption of supply chains delayed and made the procurement of medical supplies more expensive.

External challenges faced by PAHO prevented a cohesive and unified approach to the response. These challenges emerged from the contextual changes (social, economic, and political) and politicization of the response. This happened as countries adopted measures to contain the pandemic (e.g., border closures, lockdowns, closing of venues, prohibiting mass gatherings, tourism, and trade). In addition, the heterogeneous capacity of all the health systems in the Region influenced the effectiveness of the control measures and affected PAHO’s performance at the regional and country levels.⁴⁸

48 Refer to Annex 5.2 for a list of challenges and actions taken by MoHs and PAHO. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.



During the first phase of the pandemic, PAHO's ability to have an evidence-based policy was compromised by the lack of knowledge about the agent, the severity of the disease, and the uncertainty about the effectiveness of potential interventions for reducing the impact. Due to these uncertainties, PAHO was not able to provide an immediate response when the Member States demanded prompt action.

PAHO relied on WHO for provision of updated information on the virus, the preventive measures to be deployed, and the available control tools to respond to an emerging health crisis. At some moments, PAHO delayed the support and the technical advice to Member States because evidence-based information and recommendations only emerged as the epidemic evolved (17).

The COVID-19 response and related decisions became the subject of political debates (116, 117). Technical advice provided by PAHO and other experts was frequently questioned, creating hostile environments between politicians, PAHO personnel, and health sector personnel. PAHO respected situations where decisions were subject to political and social scrutiny, especially in cases where the emergency response was led by presidents or the highest political authorities and included border closures, relaxing travel restrictions, opening schools, and imposing restrictions on mass gatherings. However, PAHO still made efforts to ensure, to the fullest extent possible, that decisions were based

on technical and scientific evidence. It found alternative ways to provide technical support (e.g., virtual training for the most remote health units, courses on corpse management, risk communication, and epidemiological surveillance).

Some decisions made by Member States during the response were more political than technical in nature. Presidents led the response at the national level through executive committees that included experts from different sectors in support of MoHs. While this leadership was desirable and fundamental for the implementation of the NRP in some countries, the performance of and belief in the leadership influenced people's response. It led to use of alternative strategies and opposition to technical advice from PAHO and other scientific experts and delayed the implementation of sound policies. Political parties within some countries blamed their governments for the poor response to the pandemic.

In some countries, purchase of medical supplies was influenced by economic and political factors. The participation of certain economic and social groups in some advisory committees influenced decisionmaking processes related to the purchase of certain medical supplies, equipment, and early relaxation of mitigation measures (such as mass gatherings). In countries such as Argentina and Mexico, the designation of public figures to deliver public health information and messages about the use of face masks, closing of schools, improved surveillance of cases, contact tracing (sentinel vs. proactive), and testing modalities was open to criticism within academic circles and by political parties. All these factors provoked intensive debates in subnational media, thereby creating skepticism in the technical decisions made by MoHs.

At the height of the COVID-19 response, many countries had to cope with multiple concurrent crises. All these circumstances demanded additional attention and resources (financial and human) from governments and MoHs, and wide support from international agencies such as WHO, UNICEF, the United States Agency for International Development (USAID), and UNHCR. For example, in addition to the financial restrictions, economic and social turmoil was caused either by politics (Nicaragua, United States, Venezuela [Bolivarian Republic of]), or other disasters and emergencies (Eta and Iota tropical storms in Central America; volcanic eruption in Saint Vincent and the Grenadines; earthquake in Haiti; migrant crisis in Mexico/United States, Mexico/Guatemala, Venezuela/Colombia, and Haiti/Dominican Republic).

PAHO encountered several challenges due to the diverse capacities and structures of health systems across the Region and the limited resources at their disposal to respond to the emergency. A continuing challenge was the coordination and integration of primary level of care facilities and hospitals, emergency medical teams, and alternative medical care sites to maintain access to quality health services. Of the 17 countries in the Region that responded to WHO's national pulse survey on the continuity of essential health services during the pandemic, only 57% reported allocating additional government funding for the purpose of ensuring essential health services (118). This required adaptations to service delivery (e.g., using telemedicine, adopting safety protocols, and modifying clinical approaches).

The composition of COVID-19 response teams was enhanced by mobilizing community-based workers, optimizing roles, and engaging retirees and students as health providers. Some countries, such as Guatemala, Mexico, and Paraguay, advanced in reforming their care models (COVID hospitals).

Other countries, such as Argentina, Costa Rica, Ecuador, and Peru, reactivated national initiatives to improve the quality of care in delivering health services. Some countries, such as Paraguay and Peru, implemented interventions to improve access to essential health services, such as maternity care for vulnerable populations. Many countries also implemented innovations in the delivery of individual and population-based health services, using technologies and improvements in the planning and allocation of human resources through better contractual policies and the definition of professional profiles.

It was not easy for PAHO to implement a unified strategy suited to the Region's diverse needs and capabilities. While experiences in responding to past outbreaks and "milder" pandemics had prepared countries to respond in an organized manner – through the national EOCs deployed to provide a multisectoral response – the COVID-19 pandemic rapidly highlighted the drawbacks and deficiencies within every health system. Recommendations and guidelines were provided, but compliance, coverage, and duration of such interventions were hampered by subnational capacities within each country.

Member States and their health systems had varying levels of resources and capacities to provide the first level of care for case detection, contact tracing, testing capabilities, adherence to mitigation preventive measures, and delivery of essential health services. While most of the countries in the Region adopted a variety of mitigation measures, such as nonpharmaceutical interventions (NPIs), Nicaragua, for example, did not do so, either due to political decisions or a lack of resources. In such cases, Consejo de Ministros de Salud de Centroamérica (COMISCA) could have emerged as a regional mechanism to support countries in Central America and provide technical cooperation to, for example, Nicaragua so that it did not lag behind.

Due to imposed travel restrictions, it was difficult for PAHO to accurately assess how countries set themselves up to respond to the pandemic and their level of preparedness. PAHO had to rely on its in-country personnel (e.g., PWRs) and their relationship with MoHs to ensure that the support and resources provided were aligned with the needs of each country. Paradoxically, the adoption of teleworking as part of duty-of-care policy put COs in a difficult position to support MoHs and led to misunderstandings and the closing of several COs. It was challenging for Member States to adhere to PAHO recommendations due to a lack of adequate financing and human resources available for health at the regional, national, and local levels.

Human resources available in the health sector did not align with the scale of regional and epidemiological needs. Shifting from regular programs to support the emergency response seriously affected the regular provision of health care. The shortage of healthcare workers and a lack of medical and specialized personnel trained for emergencies and critical care at the subregional and country levels demanded that all other available personnel focus on activities related to COVID-19. Strategies adopted to mitigate disruptions and recover and maintain essential health services led to modifications in service delivery in the Region. There was a lower level of implementation of other technical cooperation activities due to the focus on the pandemic response. In addition to this, low retention of HRH and physical and mental burnout of healthcare workers prevented the provision of quality health care (119).

The pandemic created the highest demand ever experienced in the Region for medical supplies, PPE, and specialized medical equipment for ICUs. Resources needed to meet this demand were limited. Supplies

were only reaching those countries that had the financial capacity to purchase them rather than those poorer countries most in need. This meant that the Region did not adhere to the regional solidarity principles embraced by PAHO policies. Disruption to supply chains was a key issue throughout the first stages of the pandemic, and high shipment costs, low funding, and full dependency on donations called for an urgent need to mobilize resources from NGOs and governments. Shortages of laboratory equipment and supplies were reported by 50% of countries in the Region; lack of distribution capacity of diagnostic and testing equipment in 10%; shortages of PPE in 25%; and shortages of vaccines and equipment in 10%.

Supply of vaccines, along with vaccine hesitancy, was a challenge across the entire Region, even among HRH that inhibited adherence to vaccination policies and experienced low vaccine uptake (such as in Haiti). Despite the efforts made during the first eight months of the response, the lack of vaccine availability compounded the already challenging situation. Vaccine nationalism from high-income countries (United States, Canada, European Union countries) meant that they procured many more vaccines than required, putting LMICs at risk and compromising COVAX supply to countries that had already made the down payments.

The ability to grant emergency-use listing of COVID-19 vaccines was restricted to either WHO or one of the six stringent regulatory authorities in the United States, Canada, the United Kingdom, European Union, Australia, and Japan, which once again excluded any national regulatory authority based in an LMIC. This imposed serious restrictions on countries that had no access to vaccines certified by WHO and other regulatory authorities. These countries were “forced” to buy their vaccines from “non-certified” companies (vaccine Sputnik V – Gamaleya Research Institute - and vaccine Convidecia – CanSino Biologics). However, these vaccinations were not considered valid or accepted when traveling abroad.

The infodemic contributed to the spread of myths, fake news, distrust in international organizations, and vaccine hesitancy across the Region. Some media promoted dangerous or experimental treatments and anti-science rhetoric, as shown by their opposition to COVID-19 vaccines and anti-COVID-19 prevention measures. At the same time, WHO/PAHO established new alliances with Facebook and TikTok to engage in a mass campaign against the infodemic.

The cultural diversity in the Region required community-specific communication strategies to mitigate the infodemic and support adherence to preventive measures. The infodemic and concerns about the safety of unlicensed vaccines negatively impacted the response and demand for vaccines. As the pandemic progressed and those already vaccinated were being infected or hospitalized, this further reduced confidence in vaccines. PAHO tracked and addressed the infodemic and health misinformation in all countries in the Region by, for example, supporting national communication campaigns; bringing in Perceptions Laboratories (Mexico) to guide messages according to epidemiological and cultural contexts; and performing specific communication and research studies to understand vaccine hesitancy among rural and Indigenous populations (Guatemala).

Table 2 summarizes the facilitating and hindering factors of PAHO's response.

TABLE 2

Summary of facilitating and hindering factors of PAHO’s response

FACILITATING FACTORS	HINDERING FACTORS
<ul style="list-style-type: none"> • PAHO’s unique mandate, regional perspective, and presence • PAHO’s vast technical expertise • Decades of close collaboration with MoHs (experience in emergency preparedness and response) • Integration in EOCs • Relationships with United States, Canada • Consolidated Revolving and Strategic Funds • Previous investments in PAHO’s digitalization • Adaptation of some internal procedures (administration, logistics) • Expansion of employee assistance program and some duty-of-care measures 	<p>External:</p> <ul style="list-style-type: none"> • Overlapping emergencies • Heterogeneity of health systems • Chronic underfunding of health sector (countries) • Lack of specialized personnel (countries) • Lack of medical equipment and supplies (countries) • Politicization of response and questioning of scientific evidence • Infodemics • Disruptions in supply chains and increased costs of medical supplies • Dependence on COVAX • Global health governance and pandemic response architecture <hr/> <p>Internal:</p> <ul style="list-style-type: none"> • Financial crisis and cost containment measures • Human resources situation and hiring policy • PAHO’s personnel assuming new and additional roles • Operational capacity in some countries • Bureaucracy (delays, administrative rigidity) to work under large-scale emergency mode • Communication between HQ and COs • Centralization of decision in WHO Geneva

2.3 Efficiency

2.3.1 How well did PAHO adapt by repurposing to respond to the COVID-19 emergency in terms of the use of time, resources, and the timeliness of product and service delivery?

Summary of key findings: PAHO made remarkable efforts and took exceptional measures to repurpose resources, organizational structures, and key processes to be able to respond to the pandemic, especially given its weak financial situation at the onset of

the pandemic. PAHO simplified and expedited some administrative and financial processes, as well as developed new ones, balancing flexibility with control mechanisms to ensure accountability of resource management during the emergency.

- Despite efforts made at all levels within PAHO, the resource constraints experienced during the first year of the pandemic due to the nonpayment of quota contributions from some Member States and the internal bureaucracy (complicated or unsuitable administrative procedures) left the organization in a dichotomy of the “want to do” (will) and the “be able to do” (resources).
- PAHO’s institutional response, the activation of the IMS, and the adaptation and innovation in procurement processes were timely, but response in other operational areas (e.g., personnel hiring; signing of agreements; responding to national counterparts, partners, or donors) was generally perceived to be slow or insufficiently adapted to a large-scale crisis.⁴⁹
- PAHO’s unique mandate, strategic relations with the United States and Canada, and its institutional relations with donors facilitated resource mobilization and support for the pandemic response. However, the loss of some trust in PAHO’s role in key aspects of the response and its operational capabilities, internal bureaucracy, shortcomings in reporting, and limited role in decisionmaking hindered additional mobilization of resources.
- Prioritization of COVID-19 response prevented PAHO’s regular programs from benefiting from the additional funding. With additional COVID-19-related funding, PAHO’s procurement function significantly evolved to play a strategic role within the organization and provide more support to Member States.

In January 2020, PAHO was compelled to make exceptional decisions and activate operational mechanisms to respond to two interlinked and unprecedented crises. Internally PAHO was in a dire financial situation that risked its continuity as an Organization and weakened its capacities (reduced personnel, investments, and programs).⁵⁰ Externally, PAHO was facing an unprecedented global public health emergency.

Prior to the pandemic hitting the Region, PAHO had already updated its Business Continuity Plans and warned Member States of the onset of a health crisis. The early activation of the IMS was the main internal mechanism (at HQ and CO levels) to support the emergency response efforts of Member States.⁵¹ The activation of the IMS (which implies a “whole-of-PAHO” corporate response) entailed the

49 Data gathered throughout interviews with MoHs, donors, and partners.

50 “The level of unpaid assessed contributions was unprecedented in the history of the Organization.” Source: Pan American Health Organization. Final report [CE166/FR]. 166th Session of the Executive Committee; 22–23 June 2020. Washington, D.C.: PAHO; 2020. Available from: <https://iris.paho.org/handle/10665.2/56106>.

51 See previous sections for a detailed description of the IMS support to Member States.

“repurposing” of positions from regular units and programs to support the IMS organizational structure. The IMST structure evolved during the pandemic⁵² and, at one point, PAHO activated eight technical working groups (with personnel from other departments) to reinforce the IMST “classical” setup and the comprehensiveness of the emergency response. PAHO redirected a significant portion of its personnel to support the pandemic. Increased emergency funding allowed PAHO to recruit additional positions (mainly through national and international PAHO consultants) to strengthen its response capabilities. The annual increase (2020 and 2021) in the hiring of national and international PAHO consultants shows several relevant trends:

- The increase in hiring was significantly higher during the second year of the pandemic (+58% in 2021) than during the first year (+16% in 2020). Hiring during the first year was restricted by the cost containment measures adopted by PAHO due to its dire financial situation.
- In 2019, most consultants hired were at the CO level (62% in COs and 38% in HQ), while in 2021 the majority of consultants were at the HQ level (49% in CO and 51% in HQ).
- In 2019, national consultants accounted for 62% (international 38%), while in 2021 national consultants accounted for 50% (international 50%).
- There are variations across COs in hiring of consultants (additional emergency response workforce); while some COs increased hiring, other COs maintained or reduced the number of consultants during the two years of the pandemic.
- The sharp decline toward the end of 2021 and then the subsequent rapid increase in January 2022 indicates the administrative difficulties experienced in reconciling hiring modalities with the continuity required to maintain the deployment of personnel over time.⁵³

The activation of IMS led to the initiation of PAHO’s Epidemic Emergency Fund to enable the continuation of technical cooperation activities related to the pandemic, despite the critical cash-flow difficulties.⁵⁴ In May 2020, in a special session, PAHO’s Executive Committee authorized PAHO’s Director to provide the Capital Account of the Strategic Fund an internal emergency loan of up to a maximum of USD 50 million⁵⁵ to support Member States with urgent procurement of medical equipment (89). The Executive Committee also authorized the use of a maximum of USD 15 million from the Master

52 Refer to Section 2.1.5, How has PAHO adapted its response during various phases of the pandemic?

53 Refer to Annex 5.3. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

54 PAHO Epidemic Emergency Fund presented a balance of USD 537 000 as of 31 December 2019. Source: Pan American Health Organization. Financial Report of the Director and Report of the External Auditor 1 January 2020–31 December 2020. Washington, D.C.: PAHO; 2021. Available from: <https://iris.paho.org/handle/10665.2/54488>.

55 As of 30 April 2020, the Capital Account of the Regional Revolving Fund for Strategic Public Health Supplies (the Strategic Fund) had an available balance of only USD 2 million, a level of capitalization and available cash balance insufficient to meet the needs of Member States that participate in the Strategic Fund to respond to the pandemic.

Capital Investment Fund (MCIF) and suggested other measures.⁵⁶ Member States were urged to ensure immediate and full payment of all outstanding assessed contributions (88). These exceptional financial measures demonstrated organizational repurposing to maintain PAHO's basic functions and to support Member States in their responses to the pandemic. Amid the pandemic, in which the Americas was the most impacted region worldwide, PAHO had to make managerial decisions to ensure the continuity of its operations, despite facing financial difficulties.

The pandemic impacted budget forecasts of PAHO's Strategic Plan 2020–2025. The Program Budget expenditures represented 22.9% of PAHO's total expenditures in 2020, and 20.5% in 2021 (120, 121). The pandemic strengthened the importance of PAHO's role in the procurement of medical items, as reflected in the significant growth of the "Procurement on behalf of Member States" budget line between 2019 and 2021 (USD 600 million). In 2021, expenditure in "Procurement on behalf of Member States" was 3.6 times more than Program Budget expenditure and 14.8 times more than expenditure through the Outbreak and Crisis Response (OCR) program, which channeled the largest part of COVID-19 funding. The decrease in the relative proportion of Program Budget expenses is explained by the increase in spending through "Procurement on behalf of Member States" (from 71.5% to 73.7% between 2019 and 2021) (see Figure 6). The evolution of procurement is very important to understand, not only in budgetary terms but also in technological and organizational terms, as it could have strategic effects on PAHO's positioning and future strategic planning.

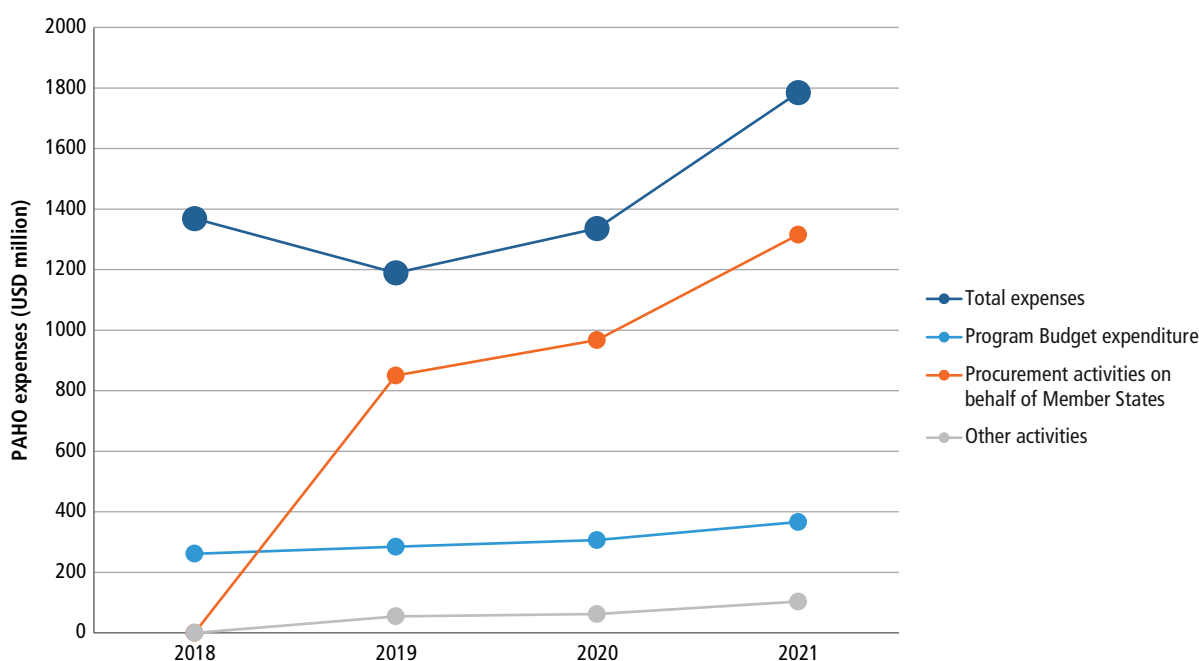
At the beginning of the biennium 2020–2021, the total approved budget for the Program Budget 2020–2021 was USD 650 million, including USD 620 million for base programs and USD 30 million for special programs. In total, the Program Budget 2020–2021 was overfunded by 48%, or USD 315 million more than the total approved budget, due to the increased mobilized resources (USD 329 million) for special programs (10 times more than budgeted). Of this amount, 85% (USD 280 million) was budgeted for the OCR program to address the COVID-19 pandemic and other health emergencies. Base programs were overfunded by only USD 16 million (+3%), benefiting mainly from Outcome 25 (health emergencies detection and response).

PAHO mobilized itself to secure extraordinary funding for the pandemic response;⁵⁷ the first PAHO donor appeal was launched on 5 March 2020, and PAHO liaised with Member States to mobilize voluntary contributions, reached agreements with traditional donors (e.g., repurposing budgets from regular programs to the emergency response, leveraging additional budgets), and expanded the portfolio of new donors. During 2020 and 2021, PAHO raised USD 210.6 million in PAHO voluntary contributions and USD 142 million in emergency funds coming from an expanded donor base.

PAHO Procurement and Supply Management implemented two innovative artificial intelligence solutions to automate the purchase order requisition process (MIA) and to create advance shipment notifications (MAX). Both platforms were linked to PAHO's existing enterprise resource planning (ERP) solution,

56 Including internal borrowing, the separation from service of a large part of the PAHO workforce, reductions in the take-home pay of PAHO personnel members, and discontinuation of technical programs.

57 See question below: What factors influenced PAHO's ability to rapidly mobilize support for the pandemic response?

FIGURE 6**Breakdown of PAHO expenses, differentiating Program Budget and procurement on behalf of Member State expenses (2018–2021)**

Sources: Pan American Health Organization. Financial report of the director and report of the external auditor. 1 January 2021–31 December 2021. Washington, D.C.: PAHO; 2022. Available from: <https://www.paho.org/en/documents/financial-report-director-and-report-external-auditor-2021-official-document-no-365-od365>.

Pan American Health Organization. Financial report of the director and report of the external auditor. 1 January 2020–31 December 2020. Washington, D.C.: PAHO; 2021. Available from: <https://iris.paho.org/handle/10665.2/54488>.

Workday, and were rapidly scaled to help Member States expedite the procurement of medical strategic products, including COVID-19 vaccines.⁵⁸ PAHO's Procurement Department also engaged in negotiations with new suppliers to find solutions in a collapsed global market and explored alternative routes to overcome disruptions to global supply chains.

2.3.2 What organizational arrangements and procedures worked well and less well to deliver on time and within budget?

Summary of key findings: Despite the efforts made at the corporate level to adopt more agile and flexible working mechanisms and procedures, internal PAHO bureaucracy led to delays and administrative rigidity. This affected the efficiency of service delivery to Member States and resulted in missed funding opportunities, dissatisfaction among some donors

⁵⁸ PAHO received the World Procurement Award for Digital Impact for the implementation of MIA and MAX solutions during the pandemic.

and partners, difficulties in recruitment of personnel, and delays in signing agreements. In addition, the dual management of acquisitions through COVAX and bilateral agreements added complexity to procurement.

Internal PAHO bureaucracy emerged as one of the major factors hindering more efficient delivery of services (e.g., technical cooperation) and products (e.g., medical supplies, vaccines). PAHO's bureaucracy, especially as it related to human resources (HR), procurement, and legal processes, resulted in delays and administrative rigidity. Some of PAHO's procedures were not considered flexible enough to operate in a large-scale emergency compared to those of other agencies (92, 122). Bureaucracy also led to missed funding opportunities and dissatisfaction among some donors and partners. There were communication gaps between COs and HQ, and delays in recruiting personnel and signing agreements. Several external informants reported that PAHO's "historical bureaucracy" affected the organizational agility to respond to the pandemic.

PAHO response times increased, and, in some cases, there was no response to significant requests from partners both at HQ and CO levels. Several informants also noted that PAHO's lack of administrative flexibility hindered and delayed the setting up of joint working mechanisms that were better adapted to the exceptional circumstances posed by the pandemic.

In procurement, there is widespread recognition of PAHO's capacity to support large-scale purchases of quality essential medical equipment and vaccines. However, delays were reported in procuring equipment and vaccines through PAHO. There were also reports of procedures that were not adapted or flexible enough to respond to the needs of Member States.

There was parallel management of vaccine procurement through COVAX and bilateral agreements. PAHO was obliged to manage vaccine procurement through COVAX. There were pressures from Member States, and PAHO also had to support bilateral negotiations with vaccine manufacturers as a result of the delays in access through COVAX. Managing two separate processes for the same purpose and responding to very diverse national realities created an additional layer of complexity for the Procurement unit. The Caribbean subregion and other countries (e.g., Guatemala) that were restricted by law to conduct bilateral negotiations with manufacturers were particularly affected.

Turnover of PAHO personnel⁵⁹ in countries where the impact of the pandemic was particularly high or where countries were experiencing other crises resulted in a sense of disorganization (e.g., lack of a PAHO focal person). This presented difficulties in coordinating or communicating with national counterparts and partners.

PAHO's decision to work remotely, and in some countries to evacuate personnel, led to the closure of COs during critical moments in the response. This generated misunderstandings within MoHs or EOC at a time when PAHO's support was most needed.

⁵⁹ Staff turnover seems to have affected COs in particular (according to interviews with PAHO staff at the country level, although quantitative data are not available).

2.3.3 How did repurposing affect PAHO's regular program delivery (including the effects of the financial crisis and PAHO's ability to mobilize resources and cover some of the essential functions without funding)?

Summary of key findings: PAHO's regular programs were affected during the pandemic due to operational, human resources, and financial constraints. Internally, PAHO personnel from regular programs were assigned to support the pandemic response. The budget was redirected to the response, and little or no funding was allocated to regular programs. Within countries, repurposing of the health workforce for the pandemic response resulted in disruptions to regular health programs and services.

National health systems redirected most of their health professionals and resources to the emergency response and, later on, to the COVID-19 vaccine. There is documented evidence to suggest that the pandemic contributed to the decline in numerous health indicators. Within PAHO (both at HQ and CO levels), human resources were also concentrated to respond to the pandemic. At the country level, PAHO personnel found themselves without counterparts, limiting their ability to mitigate the impact of the pandemic on other health programs and services (e.g., primary care, neglected infectious diseases (NIDs), NCDs, mental health, immunizations).

Regular programs, which were already underfunded prior to the pandemic, continued to lack support. However, a small portion of the pandemic funds were used to cover PAHO's operating costs, which was essential to maintain the Organization's operations and ensure its service delivery capacity.

2.3.4 What factors influenced PAHO's ability to rapidly mobilize support for the pandemic response?

Summary of key findings: PAHO's unique and specialized regional mandate was in itself a strong factor for obtaining financial, political, and institutional support. The strategic relations between the United States, Canada, and PAHO were key in mobilizing technical cooperation, obtaining financial resources, providing technical expertise, and donating vaccines to other MoHs in the Region (once domestic needs were covered).

- PAHO was able to expand and/or consolidate relationships with multilateral and bilateral donors as well as the private sector. It was able to attract the interest of donors and partners.

PAHO's mandate was reinforced by decades of joint work with the MoHs, the institutional diplomacy developed by PAHO (both at HQ and CO levels), and the technical expertise of the PAHO professionals. In some countries, the COs had good relations and communication with authorities at the subnational level, which was an additional advantage during the response.

PAHO also had two consolidated regional procurement mechanisms for medical supplies and vaccines (the Strategic Fund and the Revolving Fund), which were appreciated by most of the MoHs. In addition,



the logistical capacity in Panama (warehouse) motivated some countries and donors to rely on PAHO for the large-scale distribution of essential medical supplies.

PAHO's institutional diplomacy and good relations with donors were instrumental in leveraging funds for the response. Canada's long-standing role within PAHO was reflected by the initial emergency humanitarian funding (CAD 7.5 million) and, later, the additional grants to support COVID-19 vaccination (CAD 80 million) and vaccine manufacturing capacities in the region (CAD 15 million), an emerging area of strategic priority.

Canada provided technical cooperation and logistical support through the Public Health Agency of Canada (PHAC), Global Affairs Canada, and the military. In 2021, the change in the United States administration was crucial in reactivating not only United States financial support to WHO/PAHO but also in establishing renewed institutional and technical relationships with a larger variety of United States administrations.⁶⁰

60 Refer to Annex 5.3. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

PAHO was able to expand and/or consolidate relationships with multilateral and bilateral donors (e.g., European Union, World Bank, Inter-American Development Bank, Germany), private donors, and philanthropic organizations. For the first time, PAHO introduced a fundraising mechanism targeted at individual donors.

The relationship with WHO allowed PAHO to access global scientific knowledge about COVID-19, data on the behavior and patterns of the pandemic in other regions, and global funding mechanisms that were useful for the Americas.

Externally, PAHO's participation in global forums and mechanisms was limited. These mechanisms were making key decisions on pandemic response strategies and international funding that had an impact on the Americas. The political debates concerning scientific evidence and vaccine hesitancy made it difficult to obtain more decisive support for the COVID-19 vaccination campaigns in several countries in the region.

2.3.5 To what extent have PAHO duty-of-care measures contributed to protecting the health and well-being of PAHO personnel and ensuring the continuity of PAHO's support?

Summary of key findings: There is broad recognition that PAHO's achievements during the pandemic were due to the commitment and professionalism of its personnel although at a high personal cost. PAHO expanded its employee assistance program, including its counseling services and its existing remote working modality, as part of the duty-of-care policy.

- Teleworking enabled the Organization to continue its operations, but it had an impact on PAHO personnel's ability to deliver technical cooperation and interact with some national counterparts during the initial and critical moments of the pandemic.
- Achieving a satisfactory work-life balance while working from home was challenging for PAHO personnel while working remotely. There was a significant increase in workload, and many worked long hours, especially during the first year of the pandemic.
- PAHO personnel faced challenges to their well-being and suffered personal losses. The hiring process was initially frozen (due to existing cost-containment measures), and the measures adopted by PAHO were neither available to all personnel nor adequate to support their mental health and well-being.
- PAHO personnel, especially those in COs, reported that PAHO did not prioritize them or their families for COVID-19 vaccination.

To protect its personnel, PAHO, in accordance with WHO policies, prepared guidelines for personnel at HQ and COs, and expanded its teleworking modality and its employee assistance program, including counseling services. PAHO provided information about how to proceed if any of its personnel were sick

because of the pandemic and offered equipment for working at home. To address health and well-being, an existing web page was enhanced to include information about the pandemic and provide travel guidance, and information on psychological and medical support was updated to include medical evacuation procedures and a form for the reporting of positive COVID-19 cases (123).

Although PAHO quickly adapted to provide special working conditions and well-being support to its personnel, many of them still faced work overload and pressure, especially those who worked directly in the pandemic response, causing staff burnout, fatigue, and exhaustion.⁶¹ During the first year of the pandemic, PAHO was only able to hire to a limited extent due to cost-containment measures. It was not until mid-2021 that PAHO was able to massively mobilize additional human resources. In addition, survey respondents pointed out the imbalances between departments regarding the number of personnel. Some cost centers had more personnel, while others had smaller teams but a higher load of responsibilities and demands during the emergency response.⁶²

The Department of Health Emergencies (PHE) and the Health Systems and Services (HSS) department worked almost nonstop on the IMST since the start of the pandemic (based on interviews and survey).⁶³ A number of personnel in PHE have experienced burnout-related symptoms as a result of high workload and sustained stress.

Teleworking

PAHO's decision to expand an existing remote working modality as part of its duty-of-care policy reduced the potential exposure of personnel to the virus and enabled the Organization to continue its operations while aiming to protect its personnel and their families⁶⁴ (124).

The majority of PAHO personnel responding to the survey (89%; 769 respondents) worked remotely during the pandemic (both fully remote or via a hybrid model) and reported that teleworking (81%; 620 respondents) did not negatively impact their productivity (124, 125). Teleworking also enabled better work–life balance in addition to contributing to personal well-being, as reported by 82% of survey respondents (622 respondents).

The negative effects of teleworking and its impact on productivity was encountered when delivering technical cooperation to or interacting with national counterparts (30, 124). Additionally, working from home was sometimes challenging, especially for women who often found they were expected to attend to demanding family and domestic matters in addition to their professional duties (124). According to the surveys, the pandemic affected the work–life balance of 90% of respondents (782 respondents)

61 Interviews: PAHO HQ and CO; survey: open questions.

62 Survey open questions.

63 Survey open questions.

64 PAHO Constitution 1947 Article 1. Purposes: The fundamental purposes of the Pan American Health Organization (hereinafter called the Organization) shall be to promote and coordinate efforts of the countries of the Western Hemisphere to combat disease, lengthen life, and promote the physical and mental health of the people. See also Pan American Sanitary Code.

either positively (37%) or negatively (51%), but women were slightly more affected negatively than men (53% vs. 48%, respectively).

PAHO implemented measures to make working hours more flexible, alleviate administrative burden (e.g., a simplification of sick leave reporting) and challenges of remote work, and provide mental health counseling sessions free of charge (124). However, these measures were not available to all personnel and were not adequate to support the mental health and well-being of PAHO personnel⁶⁵ (126).

Regarding access to features/facilities to support PAHO personnel's health and well-being, 51% of respondents stated that PAHO provided some resources for their health and well-being, but few people accessed it; only 19% had access to counseling services and mental health professionals for free; 18% to flexible working hours; 15% to recognized support for accessing COVID-19 vaccines or testing and health care in case of symptoms; 10% to recognized support for reconciling life and work; and 4% to free-time activities to socialize.

Well-being

There is broad consensus that PAHO's achievements during the pandemic were due to the commitment and professionalism of its personnel. However, this commitment came at a cost to personnel well-being and personal losses; 45% of the survey respondents stated that they lost a friend or colleague due to COVID-19 and did not receive sufficient support from the Organization. The level of stress experienced by PAHO personnel increased during the pandemic (81%), with women being slightly more affected than men (82% vs. 78%, respectively) due to high workload (64%), difficulty balancing professional and personal life (43%), fear of COVID-19 (43%), health concerns (38%), tight deadlines for deliveries/tasks at work (38%), financial crisis (25%), and caring for ill family members (22%).⁶⁶

PAHO personnel took on several tasks in addition to their usual duties, which contributed to the increase in workload and levels of stress. Technical personnel had to deal with different tasks at the same time (e.g., project management, HR, and finances) without support from additional recruits. Several interviews at the HQ and COs mentioned the need to review hiring policies to improve workload, working conditions, and remuneration.

COVID-19 vaccination

PAHO actively helped facilitate the rollout of COVID-19 vaccines purchased by the United Nations for personnel working in PWR offices and centers in the Region (128). Nevertheless, PAHO personnel, especially in COs, perceived that PAHO did not prioritize vaccinating its personnel and their families. PAHO guidelines for its personnel indicated that they should follow the decision made by the countries

65 The Health and Well-being Unit became a very active unit to support and provide guidelines about personal mental health measures. The unit has expanded resources in terms of mental health counseling to CO/centers that used to be available only to HQ. They had a PAHO mental health services program, which provided support by texting, emailing, and online chat 24/7 to HQ and CO/centers where personnel could talk about any problem and have a counseling session with a psychologist.

66 Refer to Annex 6 – Survey results. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

they were based in.⁶⁷ This created tension and discomfort among personnel, especially those who were on the “front line,” working directly with MoHs or in COs that remained operational, and those who were located in countries where there was a high incidence of infection.

Due to this, there were two cases identified during the evaluation where PAHO personnel did not respect the internal guidelines, got vaccinated outside the country’s vaccination schedule, and had to resign. To protect its contingent workers,⁶⁸ PAHO took out a pandemic insurance policy that was available to all consultants responding directly to the COVID-19 emergency.

Equipment

To support the work during the pandemic, PAHO provided supplies and equipment for teleworking (e.g., Internet access, computer, screens, keyboard, and mouse) (57%); IT guidance and support (56%); and ergonomic guidance (35%), according to survey respondents. The number of laptops increased considerably, while the number of desktop PCs decreased. Most of these resources were made available during the second year of the pandemic (2021), while mandatory teleworking was initiated in 2020.

2.4 Coordination

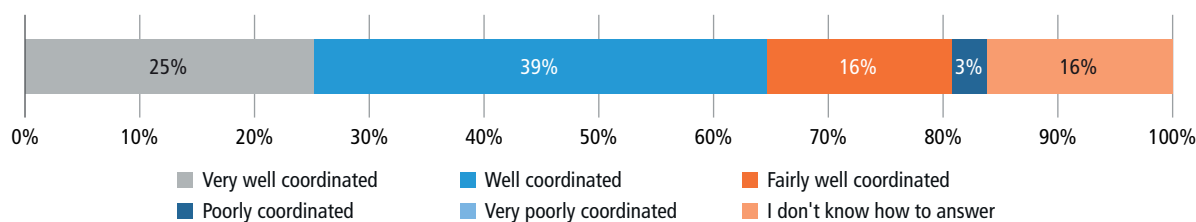
2.4.1 How has PAHO engaged with partners, including other United Nations agencies, regional institutions, academia, NGOs, civil society organizations (CSOs), and the private sector to ensure a focus on national needs? How well has PAHO coordinated its response to ensure a timely and cost-effective response and avoid duplication?

Summary of key findings: PAHO’s coordination role within UNCTs was overall considered to be useful. In particular, the joint work through the UNHRD in Panama significantly reinforced regional logistical and distribution capacities. In addition, PAHO contributed to setting up roundtable discussions with donors and providing guidance to the Member States on funding and support opportunities. PAHO worked with existing partners during the response to COVID-19, considering their experience and regional and national capabilities, and established new partnerships with a larger number and different types of organizations to mobilize resources to increase the reach and coverage of its programs and foster cooperation.

PAHO was the leading agency coordinating the health response to the pandemic and acting as a bridge between Member States, United Nations agencies, donors, partners, and stakeholders from across multiple sectors. Overall, the joint work between PAHO and the rest of the United Nations agencies was strengthened during the pandemic. The timeliness of PAHO’s institutional reaction to the pandemic and

67 In other words, “the corresponding national authorities had the ultimate decision of who should receive the vaccine in their countries.”

68 Only contingent workers, such as national and international PAHO consultants, interns, and temporary advisors.

FIGURE 7**Extent to which PAHO coordinated its response well to ensure timely and cost-effective response and avoid duplications**

Note: All percentages are rounded up.

Source: EPRC Gallup and Kobo survey of PAHO personnel, 2022.

the sharing within the UNCTs (and other humanitarian and development actors) of global and regional information about the evolution of the pandemic were positively perceived. According to the surveys, 65% of respondents reported that PAHO's response was coordinated well or very well (see Figure 7).

The evaluation was not able to fully document and assess the coordination between WHO and PAHO during the pandemic. There appears to have been intense interactions at senior management and operational and technical levels, and efforts by the joint working groups to regularly adjust the response plans to the pandemic and provide the international community with the most updated scientific and epidemiological information. However, alignment between WHO and PAHO on certain issues does not appear to have been optimal, which led to confusion at key moments of the pandemic. This suggests the need to rethink coordination mechanisms between the regional and global levels during large-scale public health emergencies.

Particular synergies have been documented with WFP and UNICEF. In Panama, coordination with WFP, particularly through UNHRD, was instrumental and effective in delivering 747 tons of medical supplies to 36 affected countries via 348 international shipments. PAHO, WFP, and the Government of Canada mobilized military aircraft to rapidly distribute medical supplies. Moreover, the installed capacity of the UNHRD was instrumental in responding effectively to the interrelation of emergencies in the subregion (e.g., hurricanes Eta and Iota, earthquake in Haiti, a volcanic eruption in Saint Vincent and the Grenadines). Concerning UNICEF, the coordination between the two agencies in some countries appeared to be challenging, and synergies were not sufficiently explored.

Concerning the private sector, the new partnerships established demonstrate how PAHO can engage new actors through innovative methods to collaborate and make use of new resources to strengthen its emergency response. Furthermore, the new partnerships with logistic institutions may continue to facilitate PAHO's work during other emergency responses, including response to disasters and outbreaks. As a result of the efforts made by academic and research institutions, new surveillance and diagnostic networks will remain in place for future outbreaks.

Assessment of coordination across categories of stakeholders is presented in Table 3.

TABLE 3

Coordination and transformation of selected partnerships during the pandemic response

TYPES OF PARTNERSHIPS	ACTIONS AND ACTIVITIES OF THE PARTNERSHIPS ^a	TRANSFORMATION AND ASSESSMENT OF PARTNERSHIPS
Academic and research institutions	<ul style="list-style-type: none"> • Sequencing and genomic surveillance of SARS-CoV-2. • Training professionals from Latin American countries for the diagnosis of COVID-19. • Developing and implementing molecular (PCR-based) screening protocols for early detection of variants of concern (VOC) and surveillance. • Producing AstraZeneca COVID-19 vaccine. • Evaluating the commercial diagnostic kits. • Developing a COVID-19 comorbidities tool, enabling countries to determine the number of individuals at increased risk of severe COVID-19 due to underlying conditions. • Developing tools to calculate the effective reproductive number (Rt) using the EpiEstim application and to project possible new infections and better understand the dynamics of the pandemic using a corresponding web-based application. 	<p>Although PAHO was already engaged with many academic and research institutions, the pandemic allowed these relationships to grow and regional capacity and subnational pandemic response to expand.</p> <p>Thanks to the relationship with academic and research institutions, PAHO was able to develop and implement diagnostic and surveillance tools in the countries, integrating the Member States in a surveillance network to detect SARS-CoV-2 variants.</p>
Government organizations	<ul style="list-style-type: none"> • Developing a subregional contingency plan for COVID-19, with PAHO providing technical cooperation and epidemic intelligence, especially for COVID-19 response during the hurricane season (Eta and Iota).^b • Improving access to quality health services for the most vulnerable populations in the region by strengthening sustainable health systems and reducing health inequalities. 	<p>The engagement with governments and public bodies, although preestablished, was strengthened during the pandemic response. These relationships allowed PAHO to provide a tailored response in the subregions to their own context.</p> <p>In contrast, the eventual lack of alignment between PAHO HQ and PAHO COs, the delays in procurement and supplies deliveries, and the differences in reporting expectations challenged the coordination between organizations.^c</p>

TABLE 3 (continued)

TYPES OF PARTNERSHIPS	ACTIONS AND ACTIVITIES OF THE PARTNERSHIPS ^a	TRANSFORMATION AND ASSESSMENT OF PARTNERSHIPS
Government organizations (continued)	<ul style="list-style-type: none"> • Focusing on the improvement of health outcomes in the areas of tuberculosis; malaria; neglected infectious diseases; and maternal, neonatal, child, and adolescent health during the COVID-19 pandemic. • Supporting the development of an IPC training program for Central America. • Contributing to strengthening the surveillance system. 	
NGOs	<ul style="list-style-type: none"> • Providing logistics services and transportation solutions for shipping PPE and laboratory and clinical supplies to the countries in need, including Barbados, Haiti, Honduras, and Venezuela (Bolivarian Republic of). 	<p>The collaborative work with organizations allowed PAHO to transform its work in the countries from technical cooperation to the expansion of activities, such as logistics and supply chain. The coordination with some partners was challenged by difficulties in logistic procedures and slow internal communication between PAHO COs and PAHO HQ.^d</p>
Philanthropic foundations	<ul style="list-style-type: none"> • Scaling up the use of SARS-CoV-2 Ag-RDTs in the Americas. • Supporting activities and projects on case testing and tracing. • Developing the COVAX mechanism, with PAHO as strategic partner to distribute COVID-19 vaccines in the Americas. 	<p>The partnerships with philanthropic organizations allowed PAHO not only to gather financial resources but also to strengthen national laboratories and surveillance networks by scaling up the use of resources in the development of new diagnostic and surveillance tools.</p>
United Nations agencies	<ul style="list-style-type: none"> • Coordinating humanitarian partners to avoid duplication of efforts and guarantee optimization of resources. • Working collaboratively in market intelligence and vaccine shortage beyond COVID-19 vaccines.^e • Facilitating and accelerating access to products, especially vaccines. • Developing the COVID-19 Partners Platform, a collaborative online space to facilitate coordination and governance among countries, UNCTs, donors, and partners, enabling a streamlined response to COVID-19 in the Region. 	<p>Existing relationships with United Nations organizations were further leveraged upon during the pandemic. PAHO increased its partnerships with United Nations agencies, which contributed to strengthening the existing relationships and coordinating a better response to the pandemic. However, some United Nations organizations found it challenging to work with PAHO due to its unique internal structure and processes, which are different from other United Nations organizations.</p>

TABLE 3 (continued)

TYPES OF PARTNERSHIPS	ACTIONS AND ACTIVITIES OF THE PARTNERSHIPS ^a	TRANSFORMATION AND ASSESSMENT OF PARTNERSHIPS
Private sector	<ul style="list-style-type: none"> Facilitating communication with the public, with infographics available in English, Portuguese, Spanish, Dutch, Haitian, Creole, and indigenous languages. Allowing PAHO to place COVID-19 public health messaging ads at no cost to PAHO. Donating advertising credits for PAHO to use on COVID-19 posts. Providing training sessions, including one on crisis response communications, in which PAHO personnel participated. Promoting a risk-based approach to international travel-related measures in the Americas. 	To address the pandemic response, PAHO showed more openness to collaborate with many private organizations, including social media and financial and logistic organizations. These partnerships contributed to reinforce implementation capacities and forge new ways of collaboration.
International financial institutions	<ul style="list-style-type: none"> Financing the acquisition of vaccines and supplies by some Member States, with PAHO as support in the development of tenders and agreements. 	PAHO engaged international financial institutions to cover some of the down payments and some of the financing for those vaccines. The relationship between these institutions and PAHO was challenging due to administrative rigidities and slow internal processes within PAHO.

Notes: ^a Pan American Health Organization. Pan American Health Organization response to COVID-19 up to 31 December 2021. Washington, D.C.: PAHO; 2022 Jul. Available from: <https://iris.paho.org/handle/10665.2/56162>.

^b Interview data: PAHO Partners, 2022.

^c Interview data: PAHO Donor, 2022.

^d Pan American Health Organization. Financial report of the director and report of the external auditor. 1 January 2020–31 December 2020. Washington, D.C.: PAHO; 2021. Available from: <https://iris.paho.org/handle/10665.2/54488>.

^e United Nations Children's Fund. UNICEF and PAHO launch joint COVID-19 vaccine tender on behalf of COVAX Facility. New York: UNICEF; 2020 [cited 10 December 2022]. Available from: <https://www.unicef.org/press-releases/unicef-and-paho-launch-joint-covid-19-vaccine-tender-behalf-covax-facility>.

2.5 Sustainability

2.5.1 What pandemic preparedness actions and response measures supported by PAHO were shown to be effective in previous outbreaks in the Region and during the pandemic and have the potential to strengthen health systems over time? To what extent can some of PAHO's interventions implemented during the emergency be applied to nonemergency periods and programs?

Summary of key findings: Decades of joint work in preparedness and the response to the influenza H1N1 pandemic provided MoHs with a relevant background to deal with COVID-19 due to the airborne nature of its transmission and the establishment of influenza-like illness surveillance systems. PAHO's and MoHs' long-standing investments in laboratory support were particularly important in facilitating an evidence-based response to COVID-19. In turn, these investments contributed to strengthening some essential functions of national health systems and can be applied to non-pandemic periods. From an organizational perspective, the exceptional funding raised for the emergency response has mitigated PAHO's difficult financial situation; however, the termination of emergency funds in the short term will pose new challenges that could have organizational and programmatic implications.

PAHO and MoHs have worked together to strengthen capacities to respond to public health emergencies since 1976.⁶⁹ As a result, MoHs, with PAHO technical cooperation, have prepared contingency plans, regularly conducted drills and tabletop exercises, and strengthened influenza-like illness surveillance systems to monitor transmission, which was supported by the extensive healthcare and public laboratories networks.

Moreover, the first EMTs in the Region were trained and certified. In addition, the Smart Hospital initiative was expanded, aiming to increase the health sector's capacity to respond to epidemics, and the health EOCs were consolidated to serve as country coordination mechanisms. The creation of the IMS in 2011 built on the existing network of Pandemic Influenza Preparedness (128). Since then, PAHO has had a focal point in each country to support preparedness and response to public health emergencies.

The emergency response plans and technical guidelines designed to tackle influenza were used as a preliminary approach to deal with the COVID-19 pandemic. Some of the conclusions and good practices derived from PAHO's response to the H1N1 pandemic served to inform

⁶⁹ In response to MoHs' requests, PAHO created its Emergency Preparedness and Disaster Relief Coordination program in 1976.

pandemic preparedness and response for COVID-19, although their application shows varying intensity (129).⁷⁰

For the preparedness and response to COVID-19, countries such as Brazil, Haiti, and Mexico mentioned the importance of using plans, strategies, and protocols based on their response to previous outbreaks in which they had PAHO's support. Haiti used the existing organization to handle cholera outbreaks and adopted contact tracing teams ("labo-moto") to increase testing of suspected cases. Brazil developed a strong epidemiological intelligence system based on its experience managing outbreaks and epidemics of yellow fever, Zika, and chikungunya, as well as the endemic situation of dengue. Mexico made decisions on nonpharmaceutical interventions as well as the sentinel surveillance system based on lessons learned from managing the 2009 H1N1 epidemic.

The large investments into COVID-19 and previous outbreaks (which expanded or created new infrastructures, capacities, and technologies initially intended for emergency responses) also contributed to strengthening the essential functions of national health systems. New or improved installed capacities remain not only for times of crisis but also for the regular functioning of health services and programs (130). For instance, strengthened health-related surveillance systems improve health information systems and public health decisionmaking; risk management can be integrated into the design or extension of health facilities and hospital networks; community and outreach approaches are included in emergency training of health professionals; and the work undertaken with the communities and risk communication actions are applicable to prevention and health promotion strategies or health education.

Additional key points where PAHO supported interventions and which could be applied to non-pandemic periods are as follows:

- The transformation of health information systems through digitalization and online apps, platforms, and virtual monitoring systems has been outstanding.
- The provision of updated epidemiological information at the subnational level provides new tools to health systems in the Region to analyze, describe, and monitor any other health problem.
- The consolidation of the VCPH for long-distance training proves to be a tool that will bring together the public health community, upgrade their knowledge, and unify their technical capabilities.
- The support for technology transfer generates new capacities, such as in the case of the production of vaccines (mRNA technology) and PPE in the Region and increases self-sufficiency.

⁷⁰ Other learnings from PAHO's response to the H1N1 pandemic seem to have been limitedly applied to COVID-19 preparedness and response actions (e.g., increase the capacity of all personnel at HQ for emergency response and EOC activities; develop a system for crisis information management and designate a group leader to coordinate information and dissemination; and create provisions for covering regular duties of personnel members assigned to the EOC during emergencies until they can resume routine responsibilities in their units as well as ensure the overall well-being of personnel).

- In terms of upgrading some capabilities for future emergencies, PAHO could invite partners, new alliances, and interactions with other sectors that could provide additional support and training in supply and resource mobilization.

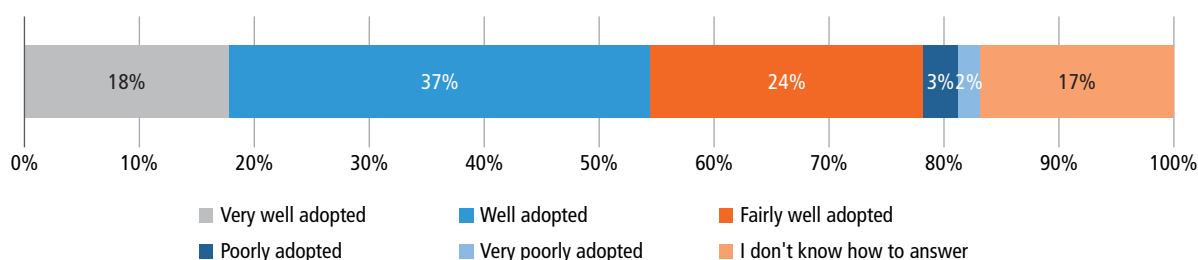
2.5.2 What was the level of uptake by Member States of PAHO’s technical cooperation in the pandemic response?

Summary of key findings: Overall, MoHs adopted PAHO recommendations, although at some point and in relation to essential public health decisions, some Member States made decisions not aligned with the scientific evidence provided by PAHO. In several cases, changes in administration or staff rotations in national institutions caused a discontinuity in public health approaches and interventions.

Surveyed PAHO personnel (55%) reported that Member States adopted PAHO recommendations well or very well through the technical support provided to MoHs (see Figure 8) (126). This is consistent with the positive views regarding “technical assistance” as a relevant PAHO cooperation modality⁷¹ and PAHO’s response to the H1N1 pandemic (129). The alignment with national strategies and response plans (technical alignment), as well as respect for national context and decisions (institutional alignment), helped to ensure the application of PAHO’s technical support at the country level.

FIGURE 8

Perceptions of PAHO personnel regarding Member States adoption of PAHO’s recommendations



Note: All percentages are rounded up.

Source: EPRC Gallup and Kobo survey of PAHO personnel, 2022.

⁷¹ Gallup survey question (On a scale of 1 to 5, with 1 being “Very low level of assistance” and 5 being “Very high level of assistance” to the country, please rate the level of PAHO assistance during the COVID-19 pandemic in the following areas of cooperation); interviews (PAHO COs, HQ, externals).

Political decisions not being based on scientific evidence meant that technical recommendations issued by PAHO (or other international organizations) were not adhered to. Some of the most noteworthy divergences were related to measures concerning the use of masks and social distancing. Some of the reasons which hindered the adoption of PAHO's technical recommendations included changes of national administration and turnover in senior public officials leading the response, as well as in MoHs. This affected continuity and communication at institutional and technical levels in some countries.

2.5.3 To what extent is PAHO's response contributing to equitable, resilient, and sustainable health systems?

Summary of key findings: Once the acute and control phases of the pandemic were over, PAHO began strengthening health systems, although some emergency actions reinforced the essential capacities of health systems.

- In the de-escalation phase of the pandemic, PAHO's support to the development of more resilient health systems ("building back better") will take place in a region experiencing economic crisis and reduced fiscal space. Internally, the termination of emergency funding may have organizational effects and will probably require a readjustment and reprioritization of PAHO's actions.

The results of the surveys show a modest appreciation concerning PAHO's contribution during the pandemic to achieving more equitable, resilient, and sustainable health systems (see Figure 9). On equitable health systems, the responses obtained, both in the survey and the interviews, indicate the challenges of ensuring equity in the pandemic response.⁷²

PAHO's contribution to achieving equitable, resilient, and sustainable health systems was rated modest overall (on average, 24% of respondents [200 respondents] stated that PAHO provided a "Very high level of assistance" in these areas). Although the data are not representative, they indicate the difficulty of reconciling a massive response to a large-scale public health emergency with the implementation of institutional mechanisms that, in the midst of a crisis, ensure a medium-term perspective on capacity-building.

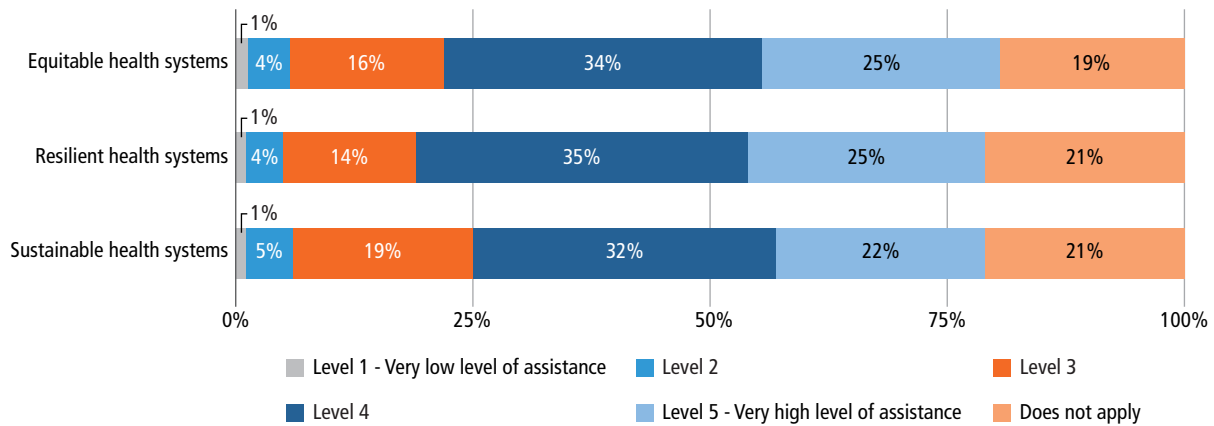
A series of PAHO interventions that took place once the acute phase of the pandemic was over have been identified as relevant contributions to achieving equitable, resilient, and sustainable health systems, as follows:

- Boost to digital transformation in health and health information systems.
- Advances in epidemiological intelligence, with better and expanded surveillance programs.

⁷² Regarding equity, 77% of respondents (651 respondents) stated that PAHO advocated for addressing health equity in the COVID-19 national response very frequently or frequently, but only 29% (250 respondents) responded that the advocacy was fully successful, while 46% (401 respondents) stated that it was partially successful.

FIGURE 9

Perceptions of PAHO personnel regarding the level of PAHO assistance during the COVID-19 pandemic to help achieve equitable, resilient, and sustainable health systems



Note: All percentages are rounded up.

Source: EPRC Gallup and Kobo survey of PAHO personnel, 2022.

- Strengthening of the network of laboratories with genomic analysis capacity.
- Strengthening of cold chain equipment and logistics for regular immunization programs.
- Establishment of new alliances with research centers, funding agencies, donors, and the private sector.
- Strengthening of public health emergency preparedness and response mechanisms.
- Expansion of the VCPH.
- Creation of an evidence-based task force for the MoHs decisionmaking.
- Large distribution of supplies to countries in need, such as Haiti and the Bolivarian Republic of Venezuela.
- Risk communication strategies to address infodemic and support prevention strategies.

However, the construction of equitable, resilient, and sustainable health systems (“building back better”) is now confronted with a generalized financial crisis and aggravated fiscal spaces (existing prior to the pandemic) in the majority of countries. These pose challenges to mobilizing additional public resources needed to meet financing needs for the transformation of the health sector (131, 132).

From an organizational point of view, PAHO’s support to the pandemic response was due to the exceptional mobilization of emergency funds, which allowed for an unprecedented deployment of technical, logistical, and human resources. However, the transition from the acute phase of the



pandemic to an endemic phase and the de-escalation of the response will result in the termination of emergency funding. In a context of likely funding reductions, there would probably be a need to readjust PAHO's support levels and prioritize interventions that have the greatest potential to strengthen the recovery of national health systems.

2.6 Added value

2.6.1 What have been PAHO's unique contributions during the response to the COVID-19 pandemic?

Summary of key findings: PAHO was the only regional organization with the mandate, institutional capacity, and technical expertise to encourage a regional response at the highest political level in response to a health crisis that transcended borders and remits of national health systems. PAHO contributed not only to supporting health systems but also facilitating the continuity of Member States' essential functions beyond the health sector ("whole-of-government" approach). Furthermore, PAHO's Revolving Fund was instrumental in expanding access to vaccines in the Region and may serve as a benchmark for other regions.

In January 2020, prior to the formal declaration of COVID-19 as a PHEIC, PAHO informed the heads of state, foreign affairs ministries, and MoHs within the Region of the imminent risk of a pandemic and the

need to activate national preparedness and response mechanisms. PAHO succeeded in bringing together heads of state to discuss strategies, promote cooperation, and explore solutions to tackle the pandemic during January 2020.

Despite various limitations and gaps in PAHO's response, the Organization optimized its presence at the country level through its close relationships with MoHs and expertise in preparedness by providing reliable technical and scientific-based cooperation. These strengths help explain why PAHO has been able to act as an institutional and politically neutral reference for many public administrations and subregional and regional actors in a highly politicized health crisis (133).

PAHO contributed by gathering, consolidating, elaborating, and implementing many guidelines. This included implementing WHO's public health considerations for elections and related activities in the context of the COVID-19 pandemic, which helped the Organization during democratic elections in the Region (134–136).⁷³ It also provided guidelines to help protect vulnerable groups (e.g., Indigenous populations, migrants in temporary settings, and prisoners) and facilitated the coordination of border issues (e.g., Haiti/Dominican Republic, Colombia/Venezuela, Colombia/Brazil) (56, 137).

PAHO's leadership and positioning as a nonpartisan organization contributed to mitigating domestic discrepancies on how to address the pandemic at the country level (e.g., Brazil). In sensitive contexts (e.g., the Haiti/Dominican Republic border or the Venezuela economic embargo), PAHO found alternatives, through diplomacy, to provide access to medical care and critical supplies. PAHO, as a trusted partner of the MoHs, has been able to influence government decisions in many (and diverse) areas of the pandemic response by providing evidence-based advice.

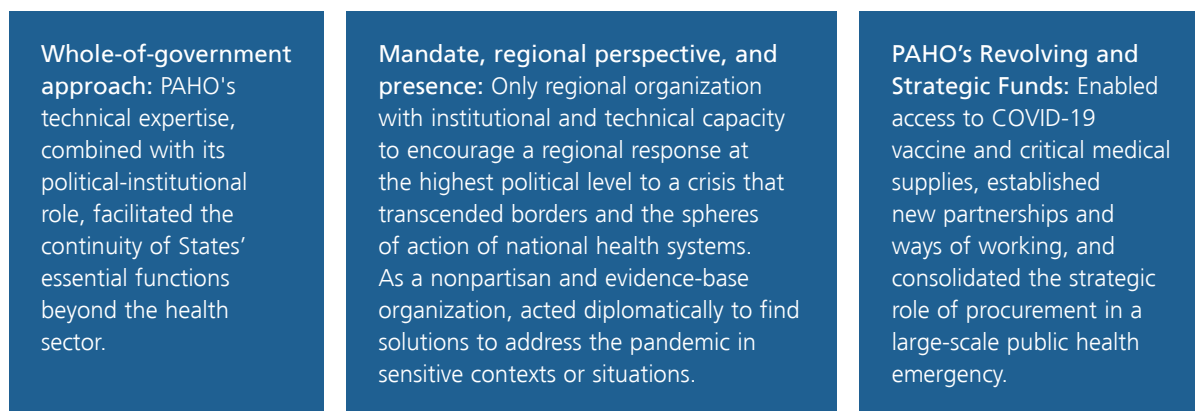
The strengthening of the Revolving Fund mandate by purchasing COVID-19 vaccines enabled the increase of COVID-19 vaccine coverage in the LAC region (49). This initiative allowed procurement of COVID-19 vaccine doses to supplement those supplied by the COVAX Facility despite delays and shortages via COVAX. For these reasons, the Revolving Fund is recognized by PAHO personnel and external partners as a unique PAHO contribution to the COVID-19 response (126). A recent scientific publication suggests PAHO's Revolving Fund as a model for other regions in the world (138).

PAHO's Strategic Fund strengthened its functions to meet the increasing demands of the Member States in maintaining essential health services as well as responding to the COVID-19 emergency (139). During the pandemic, purchases through the Strategic Fund increased threefold due to new partnerships with countries and health agencies (139). Models such as PAHO's Strategic Fund provide a unique value proposition, as they integrate diverse technical expertise, multistakeholder engagement, and strategy development and implementation (140). Figure 10 summarizes the dimensions of added value of the PAHO response.

73 Refer to Annex 5.4. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

FIGURE 10

PAHO's unique contributions during the response to the COVID-19 pandemic



Source: Developed by the EPRC Evaluation Team.

2.6.2 In which areas has PAHO's technical support to Member States excelled or made a difference?

Summary of key findings: PAHO excelled in its technical support to Member States by rapidly strengthening capacity in laboratory diagnosis and epidemiological surveillance (the implementation of SARS-CoV-2 laboratory detection in 28 Member States took place in 25 days), expanding HRH training, deploying the IMST, and developing a massive logistical capacity to meet the needs at the country level.

Once the COVID-19 pandemic was declared, laboratory technical guidance was published and disseminated to the MoHs through IHR national focal points (101). Consequently, PAHO implemented a SARS-CoV-2 detection strategy involving a multilevel approach that ensured the purchase and delivery of specific reagents, regional training, in-country missions, and technical support (101). Following this strategy, the full implementation of SARS-CoV-2 molecular detection across the whole laboratory network in the Americas was achieved 25 days after the declaration of COVID-19⁷⁴ (102). PAHO's support in building laboratory capacity and epidemiological surveillance has been described as remarkable and outstanding, both within PAHO and by external stakeholders.

The COVID-19 IMST was instrumental in response planning and implementation, establishing partnerships and mobilizing resources, supporting healthcare services, providing epidemic intelligence and surveillance, strengthening health systems, and contributing to risk communication (141).

74 Refer to Annex 5.4. Pan American Health Organization. Evaluation of the Pan American Health Organization Response to COVID-19 2020–2022. Volume II. Annexes. Washington, D.C.: PAHO; 2023. Available from: <https://doi.org/10.37774/9789275127476>.

On 17 January 2020, PAHO formally activated the IMS to provide technical cooperation to all MoHs, addressing and mitigating the impact of the COVID-19 pandemic (142). Through the national IMST, PAHO provided direct emergency response to MoHs and other national authorities and supported the coordination of various countries' readiness and response operations (142).

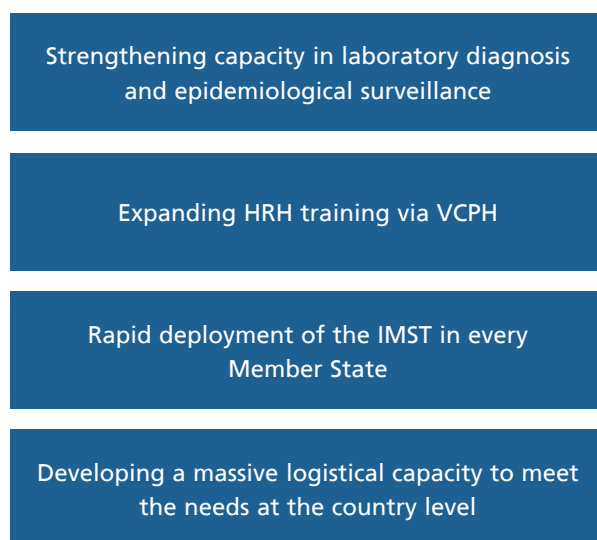
The VCPH was instrumental in building personnel's capacity via training amid the pandemic. The expansion and the significant role played in training the workforce and MoH personnel makes the VCPH one of the highlights of PAHO's technical support to the MoHs.

PAHO's operational support in logistics and supply chain enabled the 35 Member States to receive emergency relief and laboratory supplies, support the emergency response, and ensure the continuity of some essential health services at a time when the availability of supplies was challenging globally. PAHO's Strategic Reserve enabled the quick mobilization of essential supplies, especially to countries with concomitant social and disaster emergencies. Through its Strategic Reserve in Panama, PAHO coordinated the distribution of medical supplies to countries and territories in the region based on country-specific needs and established relationships to ensure supply availability and mitigate price inflation (140, 143). In addition, PAHO developed new partnerships with logistic and international partners to provide effective shipments and procure high-quality supplies, coordinating the most cost-effective and timely transportation methods to address supply disruptions caused by the pandemic (140).

Figure 11 summarizes the areas of excellence in PAHO's technical support to Member States. The areas of excellence reflect the domains for which the evaluation has identified a high level of consensus or

FIGURE 11

Actions that have made a difference to Member States through PAHO technical support



Notes: HRH, human resources for health; VCPH, Virtual Campus for Public Health; IMST, incident management support team.

Source: Developed by the EPRC Evaluation Team.

acknowledgment at the regional level but do not exclude other possible areas or Member States in which the Organization has performed outstandingly well.

2.7 Lessons learned

The following key lessons emerged from PAHO's response to COVID-19 and represent a selection of the best documented lessons.

Lesson 1: Timely activation of the IMS can be effective in providing rapid and short-term emergency response, but such a mechanism needs to be adapted for responding to sustained health crises.

During the COVID-19 response, early activation of IMS was effective in providing immediate support and strategic guidance to the Region and at the country level (76). However, the processes needed to activate and operationalize the IMS (e.g., secondment of professionals from other PAHO units during the pandemic) implied deprioritizing other programs (144, 145). This had implications for supporting the recovery of essential health services and maintaining a comprehensive perspective of the broader needs of health systems beyond the pandemic. Reviewing the setup of the IMS and some internal procedures (i.e., HR) might allow for better management of acute and sustained emergencies while maintaining more balanced support for regular programs.

Lesson 2: Investments in digitalization (at PAHO level and in support of MoHs) can facilitate the integration of public health interventions and health systems and open up new ways of providing technical cooperation in health.

The COVID-19 pandemic has been a catalyst for PAHO's digitalization. This consisted of automating processes and procuring software and hardware; providing telemedicine and virtual trainings; and facilitating data communication through digital interphases allowing the convergence of public health interventions and digital systems. PAHO strengthened the capacity of MoHs to develop and implement evidence-informed digital solutions, interactive surveillance dashboards, telehealth, and digitalized registries (146). This facilitated home monitoring of people with COVID-19, data tracking, and data sharing, strengthening Member States' health information systems.

Lesson 3: Subregional stockpile capacities and local production of medical supplies mitigate the risk of shortages and facilitate a rapid response capacity, especially amid social, economic, and political turmoil and when there are disruptions in supply chains. However, stockpile capacities alone are not sufficient when there is limited local production capacity of essential medical supplies. This points to the need to reinforce regional capacities to gain self-sufficiency in strategic items.

The regional strategic reserve in the UNHRD contributed to mitigating the limited supplies in the region due to global market constraints and supply chain management challenges (147). PAHO streamlined, strengthened, and expanded the depot and facilitated the rapid dispatch of critically needed emergency items. Brazil, Cuba, and the United States were the only COVID-19 vaccine producers in the Region, which ensured that their populations could be vaccinated (148). However, the reliance of the region on supplies from outside the Americas and its lack of self-sufficiency created challenges. This lesson could

help develop further subregional and national stockpiles and encourage an increase in local production of medical supplies so the region can reduce dependencies.

Lesson 4: PAHO's Revolving Fund is a paradigmatic case of a consolidated technical cooperation mechanism, adapted to regional specificities, which can play a crucial role in the procurement of vaccines and immunization supplies not only for regular times but also in large-scale public health crises.

The Revolving Fund was a well-known and efficient mechanism in the Region and could have been used to provide equitable vaccine coverage as in previous situations. Only in August 2021 did the Pan American Sanitary Bureau (PASB) announce that the Revolving Fund would purchase COVID-19 vaccines to expand access in the LAC region. To some extent, this action affected PAHO's reputation, which was affected by shortcomings with COVAX and other challenges to PAHO's procurement function.

Lesson 5: Diversifying and strengthening partnerships can be instrumental for PAHO to provide a coherent and sustained response to a large-scale crisis. Opportunities may emerge to strengthen PAHO's work beyond the current pandemic.

By contacting new donors or partners (e.g., private sector, philanthropy) and reinforcing and transforming existing alliances (e.g., with United Nations agencies or academic institutions), PAHO has forged a broader partnership base with more response capacity. These partnerships present an opportunity to reinforce PAHO's capacity to respond to future disasters and outbreaks beyond the current pandemic.

Lesson 6: PAHO's timely integration in the national EOCs allows for early estimations of national needs, assesses the impact of the pandemic and the potential healthcare demands, facilitates sharing information with MoHs on emerging scientific data, and enables coordination within the United Nations system.

PAHO's participation in the national EOCs enabled close communication between PAHO and the Member States and facilitated PAHO's support on the assessment of national needs and response capacities based on previous pandemics. As scientific data on COVID-19 were generated, PAHO informed the operations committees and contributed to evidence-based national analyses, response plans, and control measures. Integrating PAHO in the national emergency operations committee also facilitated the coordination of United Nations agencies and the elaboration of national United Nations system response plans.



CHAPTER 3

Conclusions

Overall statement

The evaluation shows PAHO's organizational and professional commitment to fulfill its mandate at a critical time for the Organization, both due to internal difficulties as well as to the challenges arising from the pandemic. Overall, PAHO provided high-quality technical support and expertise to Member States and regional and subregional organizations; at the same time, PAHO's regular governance mechanisms and management were not sufficiently adapted to respond to the magnitude and intense demands of the pandemic, especially in 2020.

Nonpayment of contributions by certain Member States brought the Organization to the brink of insolvency, severely limiting its ability to provide regional institutional and technical support when the pandemic hit the Americas. Although an in-depth analysis of PAHO's governance has not been conducted and a comprehensive review of management systems and processes is beyond the scope of the evaluation, some challenges experienced during the pandemic appear to suggest the need for deeper and specialized organizational review.

The evaluation also documents the modest level of commitment of many Member States to the Organization at the most difficult time in its history and the threat to Pan-Americanism during the response to the pandemic. This reinforces the need to reflect on the governance of the Organization during times of crisis. An illustrative example of the need to consolidate a regional approach for public health emergency preparedness and response was the response to the H1N1 pandemic; in 2009, at the height of the H1N1 pandemic, the Union of South American Nations (UNASUR) established "a commitment not to purchase individually above the prices established by the Pan American Health Organization's Revolving Fund, preventing commercial interests from taking advantage of the pandemic panic." Eleven years later, and as understandable as it is, panic prevailed over Pan-Americanism.

One of the main lessons learned from the current pandemic, widely documented worldwide, is the effectiveness of international cooperation and solidarity to respond to pandemics. The commitment and vision of the Member States in relation to the "PAHO of the future" will be essential to promote the corporate development and modernization of key areas of the Organization, aiming at providing the region with a reference organization that is better prepared for future health emergencies and new risks to global health security.

Strategic dimension

PAHO consolidated its position as the reference agency and preferred partner in health in the region at a time when health and global health security have become a priority. PAHO provided consistent

and sustained technical and logistical support to MoHs and significantly strengthened the procurement function (through the Revolving and Strategic Funds) despite the internal and external factors that constrained PAHO's operations and risked the trust in the organization, particularly at the onset and during key moments of the COVID-19 response.

PAHO had to respond to the worst pandemic in recent history by facing one of the most critical situations (financial and human resources limitations)⁷⁵ since its creation. PAHO response overcame: (i) the critical financial situation experienced at the onset of the pandemic due to the failure of many Member States to meet their financial commitments; (ii) the limited human resources and restrictions in hiring policy; (iii) the uncertainty created by a new virus; (iv) the uncertainty in key areas of the response (e.g., lack of biomedical tools, diagnostic and specific treatments, and access to vaccines); and (v) the politicization of national responses. In addition, the shortcomings of the global health governance and pandemic response architecture have given PAHO limited opportunities to interact at the global level, where relevant decisions affecting the Americas were made.

The impact of the pandemic in the region led to the prioritization of national interests and, consequently, the dilution of the principles of regional cooperation and solidarity (Pan-Americanism). These factors limited PAHO's ability to fulfill its mandate and the scope of PAHO's response, as well as bring regional coherence and ensure a regional approach (149). Countries acted more individually and unilaterally despite PAHO's advocacy, some bilateral cooperative actions conducted by a few Member States, and the evidence showing that coordinated responses to highly transmissible viruses are more effective than fragmented responses (17). Member States did not recognize the benefits of responding in a concerted manner and with a regional (or subregional) vision.⁷⁶

Operational dimension

PAHO's institutional response at the onset of the pandemic was timely, but bureaucracy (with slow and unsuitable procedures for a large-scale protracted pandemic response in some areas) and limited resources affected the organization's implementation capacity and the efficiency in some areas. PAHO's performance during the pandemic presented mixed results, with an overall positive balance in technical cooperation to Member States and more limited results in the institutional and social spheres.

PAHO did not have the appropriate internal organizational structures and tools to comprehensively respond to such a large-scale and sustained health crisis. This is despite its experience responding to pandemics and epidemics (albeit on a smaller scale)⁷⁷ and having identified the threat of new pandemics⁷⁸ in its analyses and plans for preparedness and response to public health emergencies.

75 Cost-containment actions resulted in a reduction of personnel at Headquarters and COs, and motivated advocacy by some Member States to resolve PAHO's critical financial situation.

76 Except the Caribbean region.

77 For example, H1N1.

78 Disease X was included in WHO's list of potential threats to global health security in 2018, and the risk of outbreaks caused by a highly transmissible respiratory virus have been part of PAHO scenarios, training, and analysis to develop preparedness and response capacities at the national and subnational levels.

In addition, internal bureaucracy led to delays, inefficiencies, missed opportunities, and difficulties in communication or coordination between HQ, COs, and key partners.

At the technical level, there was a broad consensus on the quality of PAHO's assistance to countries and on the achievements where PAHO's support made a difference. However, there were some operational gaps, such as delays in having response implementation capacities in place at key moments (largely explained by the critical shortfall in resources during 2020), inconsistencies in some public health messages, and partial success of the COVAX mechanism.

At the institutional level, PAHO's COs had to operate in political and social environments for which they did not have the roles, human resources, or technical skills; however, efforts were made. PAHO provided mainly technical cooperation, although the pandemic response sometimes demanded more political involvement in countries where decisions were not evidence-based. This challenged PAHO's previous historical neutrality and required additional skills from PWRs so that they could influence political decisions in favor of more technical ones.

At the social level, PAHO's management of risk and public communication varied significantly between countries. In a pandemic context, the shortage of communication professionals in PAHO meant that nonspecialized profiles had to assume a critical function for which they were not trained, adding workload to already stretched capacities. Difficulties were also identified in adapting messages to the diversity of existing social, cultural, and linguistic realities. Even so, innovative experiences in the field of communication were developed in some countries.

PAHO had the ability to innovate and integrate the learnings acquired throughout the response to the pandemic ("learning by doing") in key areas to adapt and transform its ways of working institutionally and technically, and to evolve as an organization.

PAHO transitioned from being mainly focused on national and subregional health services and programs to developing, strengthening, and assuming a wider institutional role. PAHO had to intensify its advocacy (e.g., deal with heads of state, changes in governments and rotations, operate in contexts of sociopolitical instability); lead the health response within the framework of the United Nations system; coordinate with new cooperation actors; become a media and public reference for new audiences; and broaden its partnerships. PAHO innovated and explored new approaches on how to respond to health emergencies – for example, adapting health structures, promoting use of new technologies and telehealth, and innovating in vaccination and communication.⁷⁹

PAHO also accelerated the adoption of new technologies and tools to provide remote services to Member States and operate internally, launching new applications and digital platforms to gain operational capacity and efficiency. The range of partners increased and diversified, including private

⁷⁹ See Section 2.3.1 on how PAHO used innovation to adapt to the pandemic.

organizations and donors that PAHO had never worked with before. These were instrumental to broaden PAHO's support to countries and mitigate the financial crisis.

PAHO contributed to address the digital gaps in the Region, exacerbated by the pandemic, supporting the digital transformation of the health sector at the country level and strengthening its own digital transformation policy.

PAHO's digital health transformation went beyond data integration and included aspects of governance, knowledge sharing, and innovation, as well as infrastructure, ethics, and legal frameworks. To achieve this, PAHO had to coordinate the information gathered and exchanged between countries and liaise between epidemiological intelligence and the health information system. PAHO played a key role in supporting countries to develop or adapt epidemiological data tools (dashboards and online platforms) and use them to provide regular epidemiological updates to MoHs. PAHO also supported countries in developing epidemiological models to estimate excess mortality or predict the scale of needs based on concrete estimates.

The equity principle was at the center of PAHO's strategic preparedness and response plan for the COVID-19 pandemic. However, its practical application was limited due to the protracted and preexisting barriers that hampered access to COVID-19 diagnoses, treatment, and vaccines at national or subnational levels. In many cases, efforts were insufficient to mitigate the differential impact of the pandemic on women and vulnerable groups (150).

The principles of equity, gender mainstreaming, and the prioritization of vulnerable groups were reflected in PAHO's SPRP. PAHO conducted advocacy and analysis to include these aspects in national responses. However, health systems in the region were overwhelmed during critical phases of the pandemic and had neither the resources nor the capacity to implement additional pandemic response actions needed to strengthen outreach to traditionally excluded population groups. Persistent barriers to health services that existed prior to the pandemic continued to affect vulnerable populations and underserved localities.

The planning and monitoring systems for the response to COVID-19 (SPRP, PAHO Strategic Plan 2020-2025) were not designed to assess organizational performance during the pandemic. PAHO's contribution to the response to the pandemic at the regional, subregional, and national levels has been extensively documented, but the assessment of its broader effects is challenging and seems to vary significantly depending on the modalities of cooperation, the pillars of the SPRP, and the different subregional and national realities.

The COVID-19 monitoring framework was primarily intended to support the monitoring of national responses; enable their aggregation at subregional, regional, and global levels; and inform analysis and decisionmaking in relation to the evolution of the pandemic. The 38 indicators in the monitoring framework were not intended to monitor the organizational performance of PAHO (or WHO) in their global or regional role of technical support, even though both organizations were supporting national responses and were the reference organizations for the response of the United Nations system and other

key actors. In some cases, the effects of PAHO's contribution to national responses have been difficult to appreciate due to the multiple factors that have influenced the decisions and actions of the MoHs, which were beyond PAHO's influence.

Organizational dimension

The early activation of PAHO's IMS effectively provided support and strategic guidance to the Region and Member States, and it contributed to the coordination of national response activities. However, co-optation of professionals from other units and the long-term operation of the IMS generated organizational imbalances.

The IMS was essential to provide the region with specialized expertise to support national emergency preparedness and responses in the short term. The IMS contributed to the coordination of regional, subregional, and national response activities and the scale-up of readiness and response operations. It supported surveillance, testing, and laboratory capacity; infection prevention and control; clinical management; and risk communication. The long-term operation of the IMS, as has been the case so far for the COVID-19 response, reduces capacities in other PAHO programming areas, with implications for the recovery of essential health services and supporting critical needs of health systems beyond the pandemic.

PAHO expanded the existing remote working modality as part of the duty-of-care policy, enabling the continuity of the operation while aiming to protect PAHO personnel and their families. However, this decision put PAHO personnel in COs in a difficult situation, as they needed to continue working face-to-face in the facilities of their national counterparts to ensure full support and consistent technical cooperation in an acute crisis context ("teleworking paradox").

PAHO personnel were confronted with the dilemma of following the internal guidelines and protecting their health or responding to the demands of the MoHs in an unprecedented pandemic context and providing face-to-face assistance. There have been divergent views between Headquarters and COs regarding how PAHO could or should continue to support MoHs in a crisis situation, which led to frustration and fatigue among CO personnel. PAHO's decision for remote working has been very different from positions taken during previous pandemics.⁸⁰

⁸⁰ In 2009, during the H1N1 pandemic, the Mexico CO kept the office open, and teams were fully operational in a context where many other organizations stopped operations.

PAHO's achievements during the pandemic were due to the commitment and professionalism of its personnel who, despite PAHO's investments in duty-of-care, experienced mental health issues, a decline in their well-being, and found it difficult to maintain work–life balance. Some PAHO personnel did not consider emergency response as part of their contractual responsibilities, which generated unequal workloads and internal imbalances.

PAHO personnel worked under sustained pressure during the COVID-19 response. High workload with increased working hours, health concerns, and fear of being infected, and the loss of colleagues, family, and friends impacted PAHO personnel's mental health and well-being. Stress affected most personnel and was relatively higher among females. PAHO personnel were provided with free access to counseling services, mental health professionals, guidelines, vaccines, and COVID-19 testing. However, counseling services and access to mental health professionals were reported by PAHO personnel to be less accessible and effective. A shortage of personnel during the pandemic prevented many from benefiting from these services. PAHO personnel were unable to take time off to rest and recover, especially at the country level. Personnel shortages and increased workload seem to have increased absenteeism and burnout.⁸¹ Although it has not been possible to appreciate the extent of the problem, there was a certain number of PAHO personnel (mainly consultant contracts) who did not assume an emergency mindset because it was not specified in their contracts or they did not consider it part of their responsibility.

81 Reported in several interviews with PAHO COs' personnel but no quantitative data available.

Lançamento do Projeto

IMUNIZA ESTRUTURAL



Articulando a comunidade para ampliar
a cobertura vacinal de COVID-19



CHAPTER 4

Recommendations

The proposed recommendations are based on the analysis of the evidence and the key findings and conclusions. These recommendations are presented at strategic, operational, and organizational levels. The responsible entities are proposed and should be confirmed by PAHO.

Strategic level

#	RECOMMENDATION	HOW (SUGGESTED LINES OF ACTION)	BY WHOM ⁸²	PRIORITY	WHEN (2023)
R1	PAHO's GOVERNANCE AND ENGAGEMENT WITH MEMBER STATES: PAHO should review and update its governance for use during a crisis and engage Member States in conceiving the "PAHO of the future" in a post-COVID-19 era.	<ul style="list-style-type: none"> Review the existing standard operating procedures of governing bodies and include a specific chapter and governance mechanisms on functions needed during complex public health emergencies and organizational crises. Adjust PAHO's 2020–2025 Strategic Plan based on post-pandemic realities and develop a comprehensive organizational development plan involving all of PAHO's functional areas (the organizational development plan builds on the 20 organizational development initiatives and the Organizational Strategies 2025). 	DIR PHE GBO CSC LEG PBE EIH	High	Q4

82 Country and Sub-regional Coordination (CSC); Communications (CMU); Evidence and Intelligence for Action in Health (EIH); Equity, Gender and Cultural Diversity (EGC); External Relations, Partnerships and Resource Mobilization (ERP); Governing Bodies (GBO); Health Systems and Services (HSS); Health Emergencies (PHE); Director of Administration (AM), Assistant Director (AD), Planning, Budget and Evaluation (PBE); Procurement and Supply Management (PRO); Regional Revolving Funds (RRF); Director's Office (DIR); Deputy Director (DD); Executive Management (EXM); Legal Counsel (LEG); Social and Environmental Determinants for Health Equity (DHE); Information Technology Services (ITS); Financial Resources Management (FRM); Human Resources Management (HRM).

(continued)

#	RECOMMENDATION	HOW (SUGGESTED LINES OF ACTION)	BY WHOM	PRIORITY	WHEN (2023)
R2	SCIENTIFIC-BASED PLATFORMS AND TOOLS TO ADDRESS PUBLIC HEALTH EMERGENCIES: PAHO should encourage the creation of a specialized regional mechanism for convening an independent advisory scientific group for responding to complex public health emergencies.	<ul style="list-style-type: none"> Encourage Member States and subregional bodies to evaluate national responses to the pandemic and adjust emergency preparedness and response strategies and mechanisms accordingly. Advocate for “whole-of-society” and “whole-of-government” centralized approaches to public health emergencies, preparedness, and response. This should be undertaken at the highest government levels. Strengthen knowledge management and learning mechanisms based on the available scientific evidence to mitigate future risks to global health security (“learning organizations and systems” approach). 	DIR AD PHE PBE CSC CMU HSS EIH	Medium	Q4 into 2024
R3	FUNDING MODEL: PAHO should diversify its funding model that fit for purpose during normal times and crisis periods, building on the successful strategies employed during the pandemic. The PAHO-reviewed funding model should ensure adequate means to consistently support MoHs in emergency preparedness and response for large-scale crises (but also stabilize technical cooperation at regular times).	<ul style="list-style-type: none"> Set up specific financial mechanisms for the PAHO Epidemic Emergency Fund to facilitate rapid and comprehensive regional responses to large-scale public health emergencies. Strengthen emerging (and existing) alliances during the pandemic to develop institutional, political, and operational synergies; broaden PAHO’s visibility in regional and global health forums; reinforce implementation capabilities; and broaden funding sources. Review WHO/PAHO coordination and decisionmaking mechanisms at senior management level, particularly criteria for the allocation of global and regional resources during PHEIC. Develop strategic external communication plan to disseminate PAHO’s contribution to the response to the pandemic to key stakeholders (Member States, donors, international financial institutions, United Nations agencies, international organizations, and academia and research centers) to reinforce its positioning and accountability both internally and externally. 	DIR DD EXM PHE PBE ERP FRM CMU	High	Q3 2023

(continued)

Operational level

#	RECOMMENDATION	HOW (SUGGESTED LINES OF ACTION)	BY WHOM	PRIORITY	WHEN (2023)
R4	GENDER AND EQUITY: PAHO should mainstream evidence-based gender and equity approaches into pandemic preparedness, response, and recovery actions.	<ul style="list-style-type: none">• Advocate and technically support Member States to integrate gender and equity in the review and elaboration of pandemic preparedness, response, and recovery actions, including specific monitoring indicators.• Adopt global gender and equity frameworks as a reference (such as UN System-wide Action Plan [UNCT-SWAP] gender equality scorecard, the Civil Society Alliance for Human Rights in the Pandemic Treaty, or the Ten Human Rights Principles for a Pandemic Treaty [under discussion – addressed to WHO's Intergovernmental Negotiating Body]).	PHE AD EGC DHE CSC EIH	Medium	Q4 2023
R5	INCIDENT MANAGEMENT SYSTEM AND THE CONTINUOUS OPERATION STRATEGY: PAHO should conceive a specific organizational model to allow the organization to operate on a sustained basis during long-term public health emergencies based on the vast experience of the IMS.	<ul style="list-style-type: none">• Establish internal mechanisms and regulations to better balance the role of the IMS and the continuity of regular programs, reinforcing interprogrammatic collaboration and shared responsibilities among departments (“one organization, one response” principle).• Design and develop scenarios for short and long duration of the IMS. In cases of sustained public health emergencies, define measures, as part of the surge capacity system, for rotating and providing rest and recovery to personnel who participate in the IMS response.	DIR AD AM PHE CSC	High	Q3 2023
R6	DIGITALIZATION AND INNOVATION: PAHO should capitalize on new technologies and approaches (e.g., artificial intelligence, social media, strategies to tackle vaccine hesitancy, e-health, new health technologies) adopted during the pandemic to develop new ways of increasing cooperation with the MoHs (e.g., technical cooperation, training, research, and analysis), address the digital gap, and promote technological transformation.	<ul style="list-style-type: none">• Assess innovations and digitalization technologies to identify gaps and make required improvements in surveillance, case management, procurement strategies, and monitoring.• Develop a regional strategy and negotiate the transfer of technologies with a regional perspective, reinforcing Pan-Americanism and enabling manufacturers in LMICs to develop quality-assured and affordable vaccines, tests, and therapeutics while strengthening horizontal cooperation, equity, self-sufficiency, and sustainability in the Americas (e.g., mRNA vaccines, PPE).• Build on the expanded capacities of the Strategic and Revolving Funds to boost access to and the development of health innovation in the region and promote the development of a regional regulatory framework.	AD PHE HSS RRF IMT CIM PRO CSC EIH	Medium	Q4 into 2024

(continued)

Organizational level

#	RECOMMENDATION	HOW (SUGGESTED LINES OF ACTION)	BY WHOM	PRIORITY	WHEN (2023)
R7	CORPORATE MANAGEMENT DURING PUBLIC HEALTH EMERGENCIES: PAHO should comprehensively review management procedures and tools as well as internal communication mechanisms for use during times of crisis.	<ul style="list-style-type: none"> Assess and update decisionmaking processes, delegation of authority, and the setup of cross-functional teams. Assess and update managerial, administrative (e.g., legal support, approval and signing of agreements, grant management and reporting, hiring), and logistical (e.g., acquisitions) processes. Improve internal communication tools across the three levels of the organization (HQs, subregional, national). Develop organizational metrics (e.g., internal monitoring framework, management dashboard, or similar tools) to monitor the performance and mobilization of internal resources and capabilities for emergency response. This internal management tool may complement preparedness and response plans developed to frame and support national responses under a common regional approach (e.g., SPRP). 	PHE AD AM FRM PRO PBE CSC CMU LEG	High	Q3 2023
R8	HUMAN RESOURCE POLICIES AND ADJUSTING DUTY-OF-CARE PROCESSES: PAHO should reinforce the organizational capacity to deploy specialized personnel for emergency response, and review and update the hiring policy, duty-of-care policy, and remuneration schemes (based on performance and extra workload) during public health emergencies.	<ul style="list-style-type: none"> Develop a surge system (United Nations experience may serve as a reference) to respond to public health emergencies both to scale up capacity using the existing personnel and to recruit additional specialized professionals (including during short-, medium-, and long-term scenarios). Update recruiting and training policies as well as the definition of appropriate workloads, remuneration, and incentives to ensure an adequate roster in terms of quantity, capacity, and stability. 	PHE AM HRM LEG	High	Q3 2023

(continued)

#	RECOMMENDATION	HOW (SUGGESTED LINES OF ACTION)	BY WHOM	PRIORITY	WHEN (2023)
		<ul style="list-style-type: none">• Adjust the teleworking policy during public health emergencies (in agreement with national counterparts) to facilitate the continuity of technical cooperation with Member States and national emergency operations committees.• Provide additional well-being support for personnel (including consultants and short-term collaborators), particularly broader access to mental health services and better tools for monitoring and responding to personnel concerns during public health emergencies.			

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The report on the evaluation of the Pan American Health Organization (PAHO) response to the COVID-19 pandemic in the Region of the Americas reflects the findings that covered the period from January 2020 to August 2022. It provides information on PAHO's support to its Member States in accordance with the World Health Organization COVID-19 Strategic Preparedness and Response Plan. The data collected during the evaluation was consolidated and analyzed at strategic, organizational, and operational levels. It focuses on PAHO as an organization, and whilst it does not assess Member States' responses to the pandemic, it provides information on how PAHO collaborated with and supported Member States during the response.

In addition to presenting information related to the COVID-19 pandemic in the Americas and PAHO's programmatic response, the report provides information on key achievements, on the enabling and limiting factors, gaps and lessons that have emerged from PAHO's response to COVID-19 pandemic, which serve to inform preparedness for and response to future public health emergencies. Finally, evidence-based recommendations are provided for corrective actions to strengthen future pandemic responses, while building a resilient recovery in the Region. These recommendations are focused on PAHO's governance and management, specialized regional mechanisms, diversified funding models, and use of new technologies.

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