Real-Time Assessment of UNICEF's support to the COVID-19 vaccine rollout and immunization programme strengthening

in the Latin America and the Caribbean region

Synthesis Report

December 2022

Acknowledgements

The RTA team would like to thank all UNICEF LACRO and Country Office staff for their time and essential contributions to this evaluative exercise. We would like to thank UNICEF's partners in Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, and Paraguay, including national institutions, implementing partners, non-governmental organizations, and other UN agencies for sharing their insights and perspectives with the RTA team. Special thanks are due to members of UNICEF's LACRO Evaluation and Survive & Thrive teams for their guidance and continuous support throughout the implementation of the RTA.

The RTA team appreciates the time all stakeholders granted us for the interviews and consultations conducted. The RTA team wishes to convey their admiration and appreciation for the work of all those who protect children's rights, assist communities in need, and promote humanitarian principles and universal values under the challenging circumstances of the COVID-19 pandemic in the region.

Table of Contents

ACRONYMS ..... **V**

1. EXECUTIVE SUMMARY **1**

2. BACKGROUND AND EVALUATION OBJECT **7**

2.1 CONTEXT: THE COVID-19 PANDEMIC AND ITS HEALTH EFFECTS IN THE LAC REGION 7
2.2 COVID-19 VACCINES, COVAX, AND UNICEF ROLE 9
2.3 DECLINE OF ROUTINE IMMUNIZATION COVERAGE DUE TO COVID-19 10
2.4 LEVERAGING COVID-19 VACCINE ROLLOUT TO STRENGTHEN ROUTINE IMMUNIZATION 14
2.5 EVALUATION OBJECT 14
2.6 SAMPLING STRATEGY 15

3. EVALUATION PURPOSE, OBJECTIVE, AND SCOPE **16**

4. EVALUATION METHODOLOGY **17**

4.1 EVALUATION QUESTIONS 19
4.2 DATA COLLECTION METHODS 20
4.3 METHODOLOGICAL LIMITATIONS AND MITIGATIONS 21
4.4 THEORY OF CHANGE 22

5. EVALUATION FINDINGS **25**

5.1 RELEVANCE OF UNICEF´S CONTRIBUTIONS TO COVID-19 VACCINE ROLL OUT 27
5.2 EFFECTIVENESS OF UNICEF´S CONTRIBUTIONS TO COVID-19 VACCINE ROLLOUT 30
5.3 COHERENCE OF UNICEF´S CONTRIBUTIONS TO THE COVID-19 VACCINE ROLLOUT 36

6. CONCLUSIONS **38**

7. LESSONS LEARNED **42**

8. KEY RECOMMENDATIONS **44**

Annexes

Annex 1: Terms of References for the Real-Time Assessment
Annex 2: Evaluation Matrix
Annex 3: List of People Interviewed
Annex 4: List of Key Documents Reviewed
Annex 5: Data Collection Tools
Annex 6: Schedule of the Real-Time Assessment
Annex 7: Use of Theory of Change and UNICEF's Framework of COVID-19 Recovery Investment and Building Back Better
Annex 8: Bolivia RTA Report
Annex 9: Guatemala RTA Report
Annex 10: Paraguay RTA Report
Annex 11: Desk Review Summaries from El Salvador, Guyana, Haiti, Nicaragua

List of Tables

Table 1. COVID-19 deaths and rate of completed vaccination schedule in LAC by country (countries with more than 1,000 deaths as of November 2022) 8
Table 2. RTA evaluation questions by evaluation criterion 19
Table 3. Number of people interviewed or consulted by location 20
Table 4. RTA limitations and mitigation measures 21
Table 5. Key strategies and activities supported by UNICEF for the COVID-19 vaccine roll-out in LAC 25
Table 6. Key actions, timeframe, and staff responsible for implementation of recommendation R1 46
Table 7. Key actions, timeframe, and staff responsible for implementation of recommendation R2 46
Table 8. Key actions, timeframe, and staff responsible for implementation of recommendation R3 47
Table 9. Key actions, timeframe, and staff responsible for implementation of recommendation R4 48
Table 10. Key actions, timeframe, and staff responsible for implementation of recommendation R5 49
Table 11. Key actions, timeframe, and staff responsible for implementation of recommendation R6 50

List of Figures

Figure 1. Global and regional coverage of DTP3, 2000-2021 10
Figure 2. Global and regional coverage of DTP1, 2000-2021 11
Figure 3. Number of unvaccinated (DTP1) and under-vaccinated (DTP3) infants in LAC, 2000-2021 11
Figure 4. Coverage of DTP3 in the LAC region by country, 2012-2021 12
Figure 5. Share of people vaccinated against COVID-19 by RTA focal country, August 2022 15
Figure 6. Design of the RTA COVID-19 vaccine roll out 18
Figure 7. Theory of change of UNICEF's support to the rollout of COVID-19 vaccine and immunization program strengthening in the LAC region with links to evaluation question 23
Figure 8. UNICEF framework for COVID-19 recovery investments and building back better 24

Acronyms

ACT-A	Access to COVID-19 Tools
AMC	Advance Market Commitment
C4D	Communications for Development
CCE	Cold Chain Equipment
CEPI	Coalition for Epidemic Preparedness Innovations
CO	Country Office
CPD	Country Programme Document
DAC	Development Assistance Committee
DTP1	Diphtheria, Tetanus and Pertussis, 1st dose
DTP3	Diphtheria, Tetanus and Pertussis, 3rd dose
EPI	Expanded Program on Immunization
ERG	Evaluation Reference Group
HAC	Humanitarian Action for Children
HRBA	Human Rights-Based Approach
HSS	Health Systems Strengthening
KII	Key Informant Interview
LAC	Latin America and the Caribbean
LACRO	Latin America and the Caribbean Regional Office
NDVP	National Deployment and Vaccination Plan
OECD	Organization for Economic Cooperation and Development
PAHO	Pan American Health Organization
PHC	Primary Health Care
RCCE	Risk Communication and Community Engagement
RAM	Results Assessment Module
RTA	Real-Time Assessment
SMQ	Strategic Monitoring Question
SWOT	Strengths, Weaknesses, Opportunities, and Threats
T4D	Technology for Development
ToA	Theory of Action
ToC	Theory of Change
ToR	Terms of Reference
UNEG	United Nations Evaluation Group
UNICEF	United Nations Children's Fund
WHO	World Health Organization

1. EXECUTIVE SUMMARY

Introduction and Object of the Real-Time Assessment

Between January and December 2022 a team of independent consultants conducted a real-time assessment (RTA) of UNICEF's support to the COVID-19 vaccine rollout and immunization programme strengthening in the Latin America and the Caribbean (LAC) region. To do so it reviewed UNICEF's support in seven countries including Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, Paraguay and LAC Regional Office (LACRO). This RTA (i) informs a forward-looking reflection of the contribution of the UNICEF Country Offices (COs) in their support to the roll out of COVID-19 vaccines and immunization programme strengthening, and (ii) provides strategic recommendations for repositioning the role of UNICEF in the region.

The first COVID-19 case in LAC was reported in Brazil at the end of February 2020. To date (October 2022), there are more than 640 million infection cases confirmed, and 6.6 million deaths reported worldwide[1]. The LAC region is home to about 8% of the global population but had reported about 12% of global cases and 26% of the global deaths due to COVID-19 by October 2022. According to the most recent data from the Pan American Health Organization (PAHO), more than 69% of the population in LAC have received a complete initial vaccination protocol.

While the negative effects of the pandemic in LAC are multidimensional beyond health, the region has experienced a disruption of essential health services, including an acceleration in the decline in routine childhood immunization that had already started pre-pandemic. Reversals in immunization coverage in LAC are putting millions of children's lives at risk. In the last decade, the LAC region has experienced a persistent downward trend in coverage of DTP3, a marker of health system performance in reaching children with immunization services, with coverage dropping from 93% (2012) to 75% (2021)[2]. Coverage of DTP1, a proxy measure for zero-dose children, also experienced a decline from 95% (2017) to 82% (2021)[2]. The number of children unvaccinated or under-vaccinated increased from about 1.1 million in 2000 to more than 2.4 million in 2021. ***The declining trends reveal a crisis in childhood vaccination rates in the region***. This situation points to the urgent need to ***restore and strengthen routine immunization programs for children*** to prevent outbreaks of vaccine-preventable diseases, which have already started to occur throughout the region, including measles, diphtheria, and yellow fever. ***Immunization services are a core part of primary healthcare*** (PHC) and are one of the most cost-effective public health interventions for reducing child deaths and disability from vaccine-preventable diseases.

The introduction and rollout of COVID-19 vaccines can be leveraged as a potential entry point and opportunity to improve routine immunization systems and thereby overall health outcomes in LAC. In this context integrating COVID-19 vaccination into routine immunization services has become a strategic choice. This RTA aims to provide recommendations for repositioning UNICEF to strengthen immunization services in LAC as the COVID-19 pandemic evolves into an expected endemic status.

At the regional level, the RTA assessed the implementation of UNICEF's regional strategy for the rollout of the COVID-19 vaccine and the support of UNICEF LACRO to COs for this rollout.

The RTA combined a retrospective and prospective analysis. The retrospective analysis focused on the strategies and activities that UNICEF carried out to support national governments to roll out the COVID-

[1] Coronavirus Resource Center. Johns Hopkins University. November 2022.
[2] WHO/UNICEF estimates of national immunization coverage, 2021 revision.

19 vaccine. Such an analysis was limited to inputs, outputs, and lessons learned based on the available information. The prospective analysis identified emerging opportunities for UNICEF, based on global, regional and national trends in vaccination efforts, including population coverage, and feasible strategies for strengthening health systems to mitigate future shocks and stressors.

Purpose, Scope and Methodology of the RTA

The RTA was designed as a light-touch evaluative exercise to assess the contribution of all seven COs in terms of three evaluation criteria: ***relevance, effectiveness, and coherence***. The RTA identified strategic and operational achievements as well as challenges in each country. While the findings, conclusions and recommendations of the RTA synthesis are not fully representative of UNICEF's overall work on COVID-19 vaccination in LAC, they provide a foundation for UNICEF to move forward in its efforts to strengthen its role as a key health player in the region.

The RTA had two purposes. First, to assess UNICEF's support in the roll out of COVID-19 vaccines in the selected seven countries, including its potential contribution to the overall routine immunization programme and PHC. Second, the RTA aimed to provide strategic recommendations to reposition UNICEF for strengthening routine immunization services and PHC in LAC.

The assessment also developed, reconstructed and validated a theory of change for UNICEF to identify which change strategies and related activities are actually supporting the rollout of the COVID-19 vaccines and the expected outcomes and contribution to impact as the pandemic evolves in the region. At the country level, the RTA assessed how relevant, effective and cohesive UNICEF activities were in supporting the introduction and rollout of COVID-19 vaccines in each country reviewed. The RTA also assessed how these activities are beginning to contribute to strengthening the routine immunization programs and other components of the health system at the country level, including the PHC system and the overall resilience of the health system to respond to the COVID-19 pandemic and future shocks or health system stressors.

The selection of the countries reviewed under the RTA followed an internal process that UNICEF LACRO conducted purposefully prior to the beginning of the inception phase. The selection took into account various dimensions, including size of the CO, geographic location, country presence, health programs footprint, and COVAX Advanced Market Commitment status.

With the UNICEF LACRO Evaluation and Survive and Thrive teams' guidance, the RTA team adopted a flexible approach by adjusting objectives, scope, and methods throughout the evaluative process. This fostered a utilization focused approach boosting CO and RO ownership. The RTA used a mixed-methods approach, including qualitative and quantitative data collection methods. Primary data was collected through both in-person and remote key informant interviews (113 individuals; 57 females and 56 males) while secondary data collection was carried through a desk review of key documents. The RTA drew on multiple sources to triangulate data and reduce bias. Recommendations were validated and prioritized during country office and regional office participatory workshops.

The RTA complied with UNEG Norms and Standards as well as UNICEF ethical guidance documents. An ethical clearance was not required since population beneficiaries of the vaccination services were not consulted. However, the assessment requested informed consent prior to all interviews conducted and explained how data would be used for reporting.

Findings

Relevance

In all countries reviewed, UNICEF´s contributions to the COVID-19 vaccine roll out responded to the host country government's needs and were aligned to specific objectives of the government-led National Deployment and Vaccination Plans (NDVPs). In the case of Bolivia, considering the decentralization of the government health system, UNICEF also provided direct support to some decentralized health units.

UNICEF's contributions focused on three dimensions of health systems: supply, demand and an enabling environment for COVID-19 vaccination services. For the supply side, UNICEF support was relevant as their procurement and distribution of CCE followed the objectives of the NDVPs to support the supply of COVID-19 vaccines. For the demand side, UNICEF's work on RCCE was relevant as it was implemented to address the demand-side objectives of the NDVPs, especially to address misinformation and increase demand for vaccination services. This demand-side intervention aimed to restore and increase trust in government health systems and increase social cohesion by convincing and mobilizing the vast majority population to receive COVID-19 vaccination. As for routine immunization, UNICEF support was also relevant when asked by host country governments as it focused on promoting the continuation of routine immunization services as part of RCCE activities for COVID-19 vaccination. For the enabling environment: the support for the planning with governments was relevant as it aligned with NDVPs; and UNICEF provided capacity building of host country government staff in key areas related to new CCE procured, vaccine logistics, and RCCE.

Effectiveness

Overall UNICEF's effectiveness in supporting the rollout of the COVID-19 vaccines was mixed. With regard to equitable access to COVID-19 vaccines, despite advocacy efforts by all UNICEF COs reviewed to promote the priority immunization of remote and indigenous populations, host country governments prioritized urban and densely populated areas for COVID-19 immunizations. Yet several UNICEF COs found ways, within the scope of NDVPs, to support immunization services for these remote and indigenous groups.

Multiple lessons emerged from UNICEF's support to the rollout of COVID-19 vaccines. A summary of those lessons are described further below.

The findings revealed emerging achievements in supporting the roll out of COVID-19 vaccines in three dimensions of health systems. For the supply side, the effectiveness of the procurement of CCE and vaccination supplies was at times limited given delays in the transportation of the equipment. This was due mostly to external factors as well as some internal ones. Internal expertise at regional and CO levels for CCE was limited. The related capacity-building activities were effective. For the demand side, RCCE and related capacity-building activities were effective as they included good practices (participation of government health authorities, population-based studies to assess reasons for vaccine hesitancy and reasons for non-vaccination and use of multiple media) and applied its existing partnerships with local organizations. Also, UNICEF's support to regular immunization programs was effective as part of its RCCE activities, which were implemented within the context of its support to COVID-19 vaccination. For the enabling environment, COs were effective in meeting the increased demand for their services and support during the roll out of COVID-19 vaccination. The engagement with governments and other stakeholders in planning the activities of the NDVPs had mixed effectiveness as it mostly depended on the timeliness and scope of UNICEF's participation in these processes. UNICEF-supported technological innovations in El Salvador and Nicaragua were effective in supporting current COVID-19 vaccination (Nicaragua) or a potential expansion of services for women and children (El Salvador).

When rolling out COVID-19 vaccines, certain challenges were within UNICEF's control. These include limited TA for timely support to procurement and distribution of CCE; timely availability of funding for the procurement of CCE; limitations in advocacy efforts to include underserved and remote populations early in the roll out of COVID-19 vaccination; UNICEF staff became overwhelmed with the level of effort required for the response; and limited internal monitoring systems. Findings also revealed two major challenges outside the control of UNICEF, including delays in global supply chain distribution systems; and delays in the availability of COVID-19 vaccines.

As for mainstreaming COVID-19 vaccination into routine immunization, analysis of the findings and conclusions has served to provide six recommendations and respective actions for UNICEF LACRO ***to reach zero-dose children,*** as described below and in full detail in section 8.

Coherence

UNICEF was the most valuable partner of host country governments for the procurement and distribution of CCE and for the implementation of RCCE activities. Two host country governments regarded UNICEF (along with PAHO) as their most important international development partner for the introduction and roll out of COVID-19 vaccination.

With regard to partnerships and collaboration, the findings revealed external coherence with three major actors in UNICEF's support for the rollout of the COVID-19 vaccines: (i) government units (ii) UN agencies; and, (iii) civil society and the private sector. With government units, UNICEF support occurred in all countries reviewed, but with variable intensity by country. An early and more proactive engagement with government facilitated more significant contributions from UNICEF. With UN agencies, the collaboration was variable in presence and intensity by country. Wherever UNICEF allied with PAHO, its reach with the host country government was more significant. And with civil society organizations (CSOs) and the private sector, the partnership was also variable in presence and intensity by country. UNICEF applied its existing partnership program with CSOs to expand the reach of its community engagement and promotion activities to increase the demand for vaccination services.

In the future, early and pro-active coordination of UNICEF with host country governments and international development partners (with a focus on PAHO) will enhance the relevance and effectiveness of UNICEF's contributions. UNICEF's existing partnership program with CBOs and NGOs, and its nascent approaches with the private commercial sector (as in Bolivia) will facilitate the implementation of its supported RCCE activities for increasing demand for vaccination services.

Conclusions

Relevance

UNICEF's contributions to the rollout of COVID-19 vaccination were relevant because:

- UNICEF focused on activities addressing weak supply and demand components of health systems; after the pandemic declaration, this systems approach responded to some of the priority needs of the country governments.
- UNICEF's initially supported activities in each country reviewed were closely related to its existing global and country strengths.
- UNICEF's engagement in addressing the COVID-19 pandemic (and contribution to the rollout of the COVID-19 vaccine) was driven by country demand, and rapidly accepted by host country governments and international development partners.

- UNICEF's capacity to provide critical contributions to the rollout of COVID-19 vaccination was acknowledged early by its donors.

Effectiveness

Overall, the effectiveness of UNICEF's support to the rollout of COVID-19 vaccination was mixed.

- UNICEF's effectiveness on the countries' population coverage with COVID-19 vaccines was difficult to assess given multiple factors, including diverse causal pathways (i.e., availability of vaccines), pre-existing capabilities of health systems, political context, and internal capacity of UNICEF to respond to multiple needs for an effective roll out.
- Procurement and distribution of CCE and vaccine supplies were of mixed effectiveness due to multiple implementation challenges; when CCE and vaccines arrived at the intended destinations they contributed to increased access to COVID-19 vaccines. Training of government officials on cold chain management and immunization logistics was effective.
- Equitable distribution of vaccination services was of mixed effectiveness given the priorities of host country governments to focus on high population density (urban) areas; however, many COs found ways to support remote and indigenous groups within the scope of NDVPs.
- RCCE activities were effective, including the use of existing partnerships with CSOs, the implementation of population studies to assess barriers to vaccination and reasons of vaccine hesitancy, and the building of local capacity to design and implement RCCE activities.

Coherence

- UNICEF's added value was mainly in two core interventions: strengthening of the cold chain for vaccination services, and risk communications and community engagement (RCCE). This was recognized by national and local governments.
- The strongest collaboration of UNICEF was with host country governments, particularly with ministries of health and respective immunization units. Collaboration with international and UN agencies and civil society organizations to achieve coherence of activities was of diverse occurrence and intensity in the different countries reviewed. This was mostly due to previous working relationships, the initiatives taken by the organizations' leaders, and ad hoc agreements between collaborating organizations.
- Overall, collaboration and coordination mechanisms with PAHO were weak, with the exception of one country.

Lessons Learned

- If UNICEF uses its core strengths to address urgent national needs, it will be quickly recognized by stakeholders as a key partner.
- Tailoring to the inherent strength of health systems, UNICEF's contribution to vaccination services would be more effective.
- Timely provision of technical assistance from LACRO to country offices enhances their contributions to vaccination services.
- Despite the host country government's priority to vaccinate densely populated areas, UNICEF can find ways to also support the provision of vaccination services to remote and indigenous populations.
- The activities supported by UNICEF are more effective with early and strong coordination with other international development agencies.

Key Recommendations

The following are key recommendations for UNICEF LACRO to address within 6-12 months.

- ***R1:*** *Develop a regional strategy and action plan to strengthen regular immunization systems and services in the context of PHC in LAC countries, including a resource mobilization plan and timeframe.*
  The regional strategy should build upon and leverage: (i) the activities that were more effectively supported by UNICEF during the COVID-19 vaccine roll out in LAC; and, (ii) UNICEF's global experience in responding to emergencies in health and other sectors.

The following are **operational recommendations** (R2-R6) to support the implementation of UNICEF LACRO's regional strategy (R1) within the same timeframe of 6-12 months.

- ***R2:*** *Strengthen its regional capacity for cold chain procurement and management.*
- ***R3:*** *Strengthen its own communication and advocacy efforts to support COs' ability to execute effective advocacy for more equitable PHC services ensuring that marginalized/minority groups are specifically targeted.*
- ***R4:*** *Support COs in assessing the relevance and feasibility of scaling up technological innovations for PHC and regular immunization services.*
- ***R5:*** *Strengthen its regional collaboration and coordination with PAHO's HQ in support of PHC and regular immunization services.*
- ***R6:*** *Increase its technical support to COs for strengthening existing PHC and regular immunization services, with an emphasis on countries with large numbers of zero-dose children, and/or inadequate coverage of childhood vaccination.*

2. BACKGROUND AND EVALUATION OBJECT

Following the Real-Time Assessment-UNICEF's response to COVID-19 in Latin America and the Caribbean (LAC) carried out between November 2020 and April 2021, in December 2021, UNICEF LAC Regional Office (LACRO) commissioned Alegre Associates, Inc. to conduct a real-time assessment (RTA) of UNICEF's support to the COVID-19 vaccine rollout and immunization programme strengthening in selected countries of the LAC region: Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, and Paraguay. The RTA (1) assessed the contribution of UNICEF for the introduction and rollout of the COVID-19 vaccine; and (2) informed a forward-looking reflection and recommendations to reposition UNICEF's role in strengthening routine immunization programs in LAC. The RTA was conducted between January and November 2022.

This document is the synthesis report of the RTA. The report documents the findings of the assessment along with conclusions, lessons learned and key recommendations. The report is structured into eight sections. The Executive Summary provides a summary of the entire report. Section 2 provides a comprehensive background of the context of COVID-19, its effects in LAC and the overall situation of childhood immunization services in the region. Section 3 presents a brief description of the purpose, objective and scope of the assessment while Section 4 describes de evaluation methodology used for the implementation of the RTA. Section 5 provides the evaluation findings categorized by evaluation criterion. Also, Section 6 presents the conclusions of the assessment based on retrospective and prospective analysis. Section 7 includes the emerging lessons obtained from the support of UNICEF to the rollout of the COVID-19 vaccine in the countries reviewed. Finally, Section 8 provides key recommendations formulated to UNICEF LACRO.

The results, conclusions and recommendations of The RTA aim to help UNICEF at three levels: (a) for individual COs: to further strengthen UNICEF's support to COVID-19 vaccination activities initiated during the pandemic and which could be helpful in their future support to routine immunizations; (b) between COs: to study the implementation of activities that were helpful in other countries and for relevant cross-learning actions among countries in the region; and, (c) for UNICEF LACRO: to design and allocate resources to new/existing activities that could strengthen UNICEF's future role for routine immunization.

2.1 Context: the COVID-19 pandemic and its health effects in the LAC region

COVID-19 was first reported in Wuhan, China, on December 31, 2019. Only a few weeks later after the first case was reported on January 30, 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a public health emergency of international concern (PHEIC). The first COVID-19 case in LAC was reported in Brazil at the end of February 2020. To date there are 640 million cases confirmed, and 6.6 million deaths reported worldwide[3]. The LAC region is home to about 8% of the global population but has reported about 12% of global cases and 26% of the global deaths due to COVID-19 by October 2022. Table 1 shows the health impact of COVID-19 in the LAC region and the coverage of full vaccination by country. Structural inequalities in LAC have made the region more vulnerable to the pandemic, in terms of both the number of cases and deaths from COVID-19.

[3] Coronavirus Resource Center. Johns Hopkins University. November 2022.

Table 1. COVID-19 deaths and rate of completed vaccination schedule in LAC by country (countries with more than 1,000 deaths as of November 2022)

Country	Deaths	Completed Vaccination Schedule (%)
Brazil	687,962	78.4
Mexico	330,353	62.8
Peru	216,942	84.8
Colombia	141,837	71.8
Argentina	129,979	83.0
Chile	61,632	92.1
Ecuador	35,920	79.2
Bolivia	22,239	50.3
Paraguay	19,601	52.0
Guatemala	19,882	38.3
Honduras	11,037	56.7
Costa Rica	8,990	82.1
Cuba	8,530	88.3
Panama	8,506	72.1
Uruguay	7,515	83.0
Venezuela	5,820	49.8
Dom. Republic	4,384	55.3
Trinidad & Tobago	4,249	51.1
El Salvador	4,230	68.0
Jamaica	3,320	24.7
Suriname	1,390	40.2
Guyana	1,281	56.8
Total LAC	**1.7M**	

Sources: Coronavirus Resource Center. Vaccination Progress Across the World and Mortality Analysis. Johns Hopkins University. November 2022.
Pan American Health Organization, COVID-19 Vaccination in the Americas. November 2022.

A recent study from ECLAC provides evidence of how uneven the impact of the pandemic has been across and within countries. It revealed that excess mortality was higher in those countries with higher levels of poverty, extreme poverty, and informal labor markets[4]. According to the Pan American Health Organization (PAHO), as of September 2022 more than 69.4% of the population in LAC had been fully vaccinated. Chile, Costa Rica, Cuba, Uruguay, Perú, and Argentina recorded the highest COVID-19 vaccination rates in the region with 82%-92% of their population fully vaccinated as shown in Table 1.

The impacts of the pandemic on socioeconomic dimensions, such as increased poverty and the effect on household income and the labor market, are expected to worsen the unequal distribution of social determinants of health, deepening inequalities in the region. This situation is all the more worrisome considering the profound impact the pandemic has had on health systems. This scenario points to the need to move towards stronger and resilient health systems that guarantee universal access and ensure that people's basic health needs are met, regardless of age, race, gender, place of living, educational attainment, level of income, and employment status.

While recognizing the consequences of the crisis on the health system (displacement effect, build-up of demand for non-COVID-19 diseases and duplicated demand), growing evidence points to the strong need

[4] Cid C, Marinho ML. Dos años de pandemia de COVID-19 en America Latina y el Caribe. CEPAL. 2022.

to continue tackling the pandemic through the primary health care (PHC) system, public health measures, and the deployment of vaccination.

Immunization services are a core part of PHC and are one of the most cost-effective public health interventions[5,6,7] for reducing child deaths and disability from vaccine-preventable diseases[8,9] including measles, polio, pneumonia, and diarrhea. To increase commitment and accelerate action toward achieving equitable coverage of immunization services, the Immunization Agenda 2030 (IA2030)[10] was officially launched in April 2021. IA2030 provides a bold global vision and strategy for the next decade, with a set of targets that are consistent with the Sustainable Development Goals (SDG) framework and its health-related targets.

2.2 COVID-19 vaccines, COVAX, and UNICEF role

The COVID-19 Vaccine Global Access (COVAX) Facility is a mechanism developed by global health organizations to facilitate the equitable distribution of COVID-19 vaccines. The COVAX Facility, co-led by CEPI, Gavi, WHO, and UNICEF, is open to any country and manufacturer that wishes to participate and requires participants to commit to the Facility's dose allocation principles. It pools funding commitments by creating mandate certainty, incentivizing expanded research and development, investments in clinical trials and the manufacture of a pipeline of vaccine candidates. It supports pricing principles consistent with manufacturers seeking adequate and affordable cost-effectiveness for participating countries. Through the COVAX Facility, Gavi, WHO, CEPI and UNICEF work with manufacturers and partners to procure the COVID-19 vaccine, as well as transportation, logistics and storage.

Within the COVAX Facility, the Gavi COVAX Advance Market Commitment (AMC), funded mainly by official development assistance, is used to support the participation of 92 low-and-middle-income economies. These are further divided into AMC Gavi countries (57 globally) which receive additional support from Gavi, and AMC Non-Gavi countries (35 globally). Ten countries in LAC are classified as AMC countries; two as AMC Gavi (Haiti and Nicaragua) and eight as Non-Gavi (Bolivia, Dominica, El Salvador, Granada, Guyana, Honduras, St. Lucia, and St. Vincent and Grenadines). The other countries and territories in LAC are self-financing. Cuba and Venezuela are still considering participation in the COVAX Facility, albeit for different reasons (own procurement and funds availability respectively).

PAHO's Revolving Fund for Access to Vaccines led the procurement of COVID-19 vaccines for the LAC region. UNICEF supported the deployment of COVID-19 vaccines across a broad spectrum of activities, ranging from planning, strengthening the cold and supply chain, logistics, digital health and innovation to

[5] Ozawa S, Mirelman A, Stack ML, Walker DG, Levine OS. Cost-effectiveness and economic benefits of vaccines in low- and middle-income countries: a systematic review. *Vaccine* 2012; **31:** 96–108
[6] Horton S. Cost-effectiveness analysis in disease control priorities. In: Jamison DT, Gelband H, Horton S, et al, eds. Disease control priorities: improving health and reducing poverty, 3rd edn. Washington, DC: The International Bank for Reconstruction and Development, The World Bank, 2017: 147–156.
[7] Ozawa S, Clark S, Portnoy A, Grewal S, Brenzel L, Walker DG. Return on investment from childhood immunization in low- and middle-income countries, 2011–20. *Health Aff (Millwood)* 2016; **35:** 199–207.
[8] Lee LA, Franzel L, Atwell J, et al. The estimated mortality impact of vaccinations forecast to be administered during 2011–2020 in 73 countries supported by the GAVI Alliance. *Vaccine* 2013; **31** (suppl 2)**:** B61–72
[9] Andre FE, Booy R, Bock HL, et al. Vaccination greatly reduces disease, disability, death and inequity worldwide. *Bull World Health Organ* 2008; **86:** 140–46.
[10] The Lancet. 2021: The beginning of a new era of immunisations? Lancet. 2021 Apr 24;397 (10284):1519.doi:10.1016/S0140- 6736(21)00900-4.PMID:33894817;PMCID:PMC8062086.

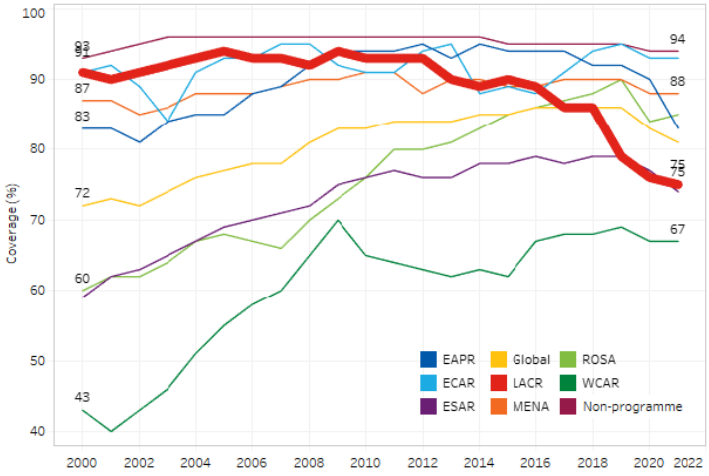
risk communication and community engagement (RCCE). UNICEF's specific actions varied from country to country, depending on the needs of each government, UNICEF's in-country capacity, and the presence and role of other actors and development partners.

By mid-September 2021, all countries in the Latin American and Caribbean region had introduced COVID-19 vaccines either through COVAX, donations, or direct procurement. However, access and coverage vary widely among countries in the region as shown in Table 1.

2.3 Decline of routine immunization coverage due to COVID-19

In general, countries have experienced a disruption of routine immunization with greater gaps in outreach services than in fixed-site immunization services, indicating that vulnerable populations were probably much more affected[11]. Reversals in immunization coverage in LAC are putting millions of children's lives at risk. In the last decade, the LAC region has experienced a persistent downward trend in coverage of DTP3, a marker of health system performance in reaching children with immunization services, with coverage dropping from 93% (2012) to 75% (2021). LAC's coverage level for DTP3 has dropped well below the global average and it now lags far behind all other regions except for West and Central Africa and East and Southern Africa as shown in Figure 1.

Figure 1. Global and regional coverage of DTP3, 2000-2021

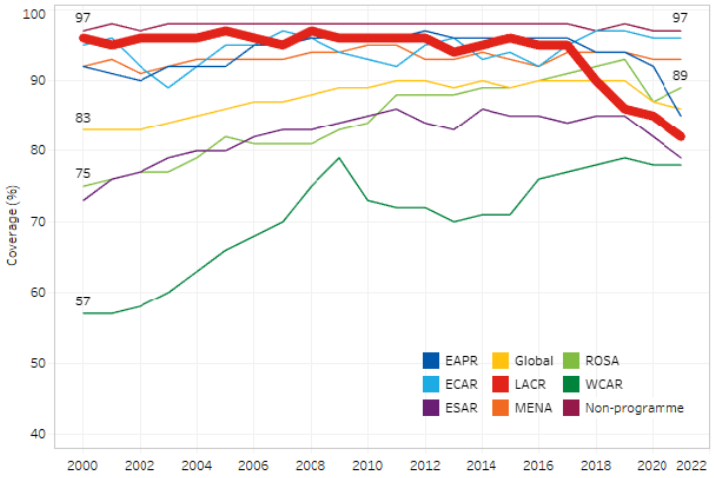


Source: WHO/UNICEF estimates of national immunization coverage, 2021 revision.

Coverage of DTP1 is used as a proxy measure for zero-dose children, which is defined as children not receiving any dose of DTP. In LAC, coverage of DTP1 remained above 90% from 2000 to 2017 (Figure 2) followed by a drop from 95% (2017) to 82% (2021).

[11] Impact of the SARS-CoV-2 pandemic on routine immunization services: evidence of disruption and recovery from 170 countries and territories. Lancet Glob Health 2022; 10: e186–94

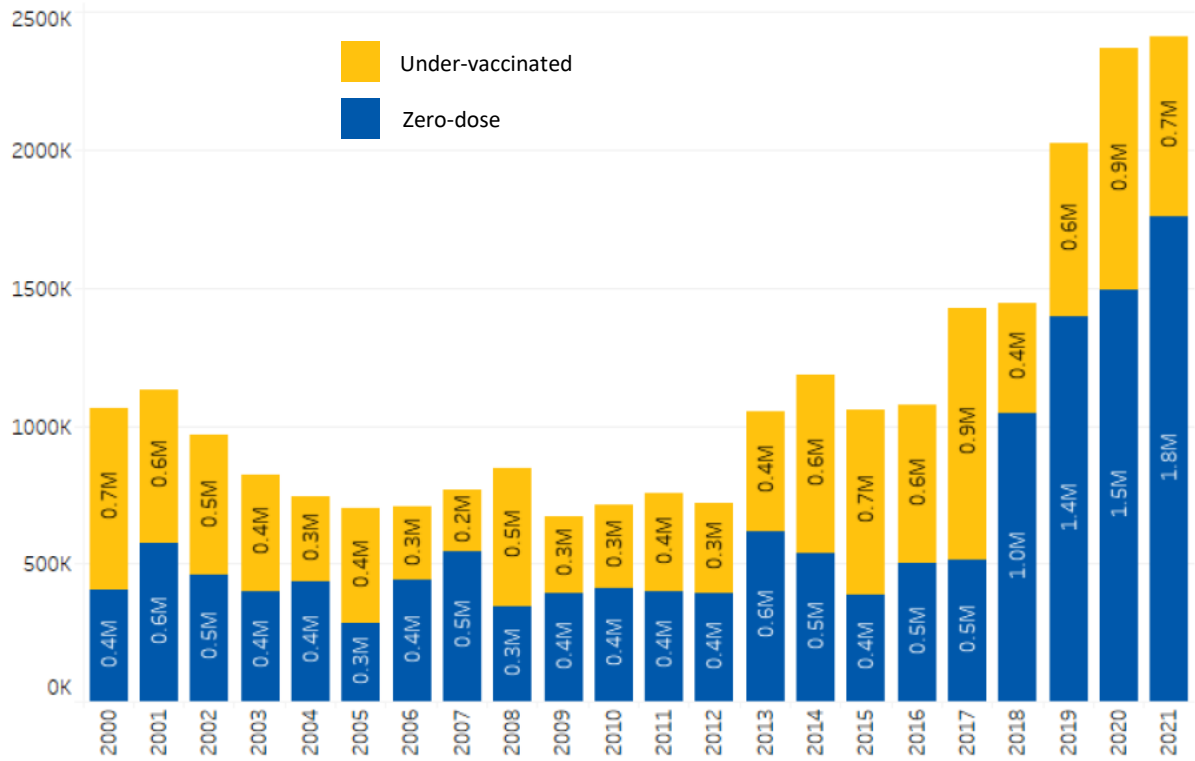
Figure 2. Global and regional coverage of DTP1, 2000-2021



Source: WHO/UNICEF estimates of national immunization coverage, 2021 revision.

Figure 3 shows how these drops in coverage levels have increased the number of children in LAC missing out on vaccinations. The number of children unvaccinated or under-vaccinated more than doubled over the past two decades, increasing from about 1.1 million in 2000 to more than 2.4 million in 2021.

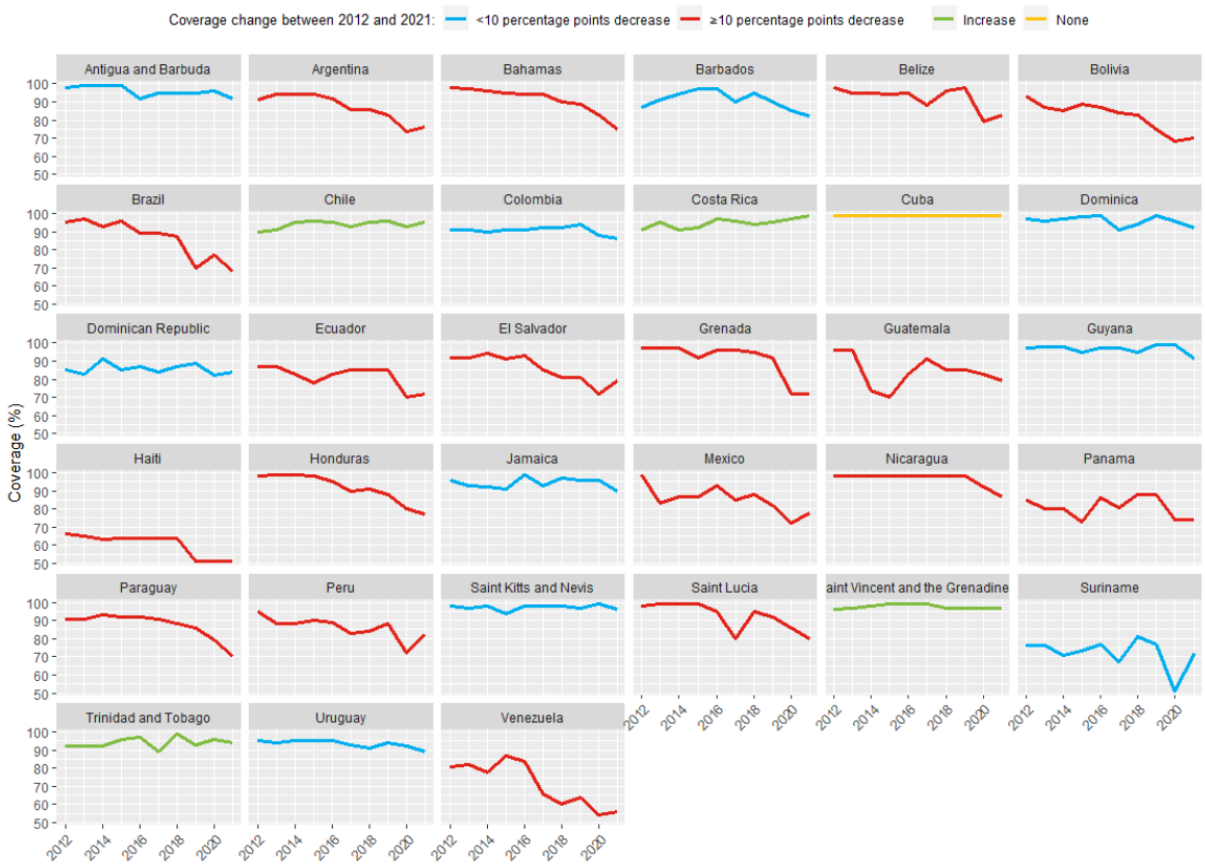
Figure 3. Number of unvaccinated (DTP1) and under-vaccinated (DTP3) infants in LAC, 2000-2021



Source: WHO/UNICEF estimates of national immunization coverage, 2021 revision.

Although on average coverage levels have been declining in the region, patterns in immunization coverage vary substantially across countries. Comparisons of coverage levels in 2012 and 2021 show that 18 (55%) of the 33 countries in the region experienced 10 percentage points or larger drops in DTP3 coverage. Brazil experienced the largest decline of 27 percentage points, followed by Grenada and Venezuela, both with declines of 25 percentage points. Only four countries (Chile, Costa Rica, Saint Vincent and the Grenadines, and Trinidad and Tobago) experienced an increase in DTP3 coverage during this timeframe, while coverage in Cuba remained stable at 99% as shown in Figure 4.

Figure 4. Coverage of DTP3 in the LAC region by country, 2012-2021



Source: WHO/UNICEF estimates of national immunization coverage, 2021 revision.

Multiple factors have contributed to the observed reversals in immunization coverage rates in the region and each country has faced its own unique set of challenges, including combinations of political instability, economic crises, insufficient funding of health services (especially PHC), barriers to storage and distribution of vaccines, and vaccine hesitancy. Additional obstacles to vaccination acceptance in LAC include individual/group influence, low levels of education, lack of awareness of diseases and their vaccines, and religious and cultural beliefs[12]. While there is scarce evidence on barriers to vaccination in LAC countries prior to the pandemic, higher levels of education and trust in healthcare workers favor

[12] Guzman-Holst A et al. Barriers to vaccination in Latin America: a systematic literature review. Vaccine 38 470-481. 2020.

vaccine acceptance. These factors should be considered in the implementation of strategies to increase childhood vaccination uptake in LAC.

The COVID-19 pandemic has further exacerbated already declining immunization coverage rates due to health service and supply chain disruptions, diversion of resources to the pandemic response, lockdown measures that limited access to health services, and the reluctance of caregivers to visit health facilities out of fear of infection.

Immunization coverage declined in most LAC countries during the first two years of the pandemic. Only two countries in the region (Costa Rica and Trinidad and Tobago) experienced an increase in DTP3 coverage between 2019 and 2021, and only three countries (Cuba, Haiti and Saint Vincent and the Grenadines) sustained coverage at a constant level over this period. The remaining 28 LAC countries experienced declines in DTP3 coverage, ranging from a drop of 1 to 20 percentage points. The three countries with the largest drops in DTP3 coverage were Grenada (dropping 20 percentage points), Paraguay (dropping 16 percentage points) and Belize (dropping 15 percentage points). Similarly, most countries in the region experienced reversals in DTP1 coverage between 2019 and 2021. Only two countries had an increase in DTP1 coverage and five maintained their coverage levels. The remaining 26 countries experienced declines in DTP1 coverage, resulting in an additional 366,000 zero-dose children in the region in 2021 compared to the number of zero-dose children in 2019.

The declining trends reveal a crisis in childhood vaccination rates in the region. This situation points to the urgent need to restore and strengthen ***routine immunization programs*** for children to prevent outbreaks of vaccine-preventable diseases, which have already started to occur throughout the region, including measles, diphtheria, and yellow fever[13,14,15,16,17,18.]

Based on these data, and considering the negative effects of COVID-19 on immunization programs, PAHO has published guiding principles and eight preliminary recommendations[19]: (1) Routine Vaccination during the COVID-19 Pandemic; (2) Vaccinating People with Suspected or Confirmed Infection by COVID-19 and Contacts; (3) Conducting Vaccination Campaigns; (4) Guidance for Vaccination Posts; (5) Reestablishing Vaccination Services; (6) Cold Chain and Vaccine and Supply Stock; (7) VPD Epidemiological Surveillance; and (8) Efficacy of BCG and OPV Vaccines in Preventing COVID-19.

[13] Pan American Health Organization. Epidemiological Update: Measles and Diphtheria. 1 February 2021, Washington, D.C.: PAHO/WHO; 2021
[14] Pan American Health Organization. Epidemiological Update: Measles and Diphtheria. 1 February 2021, Washington, D.C.: PAHO/WHO; 2021.
[15] MacDonald NE; SAGE Working Group on Vaccine Hesitancy. Vaccine hesitancy: Definition, scope and determinants. Vaccine. 2015 Aug 14;33(34):4161-4. doi: 10.1016/j.vaccine.2015.04.036. Epub 2015 Apr 17. PMID: 25896383.
[16] World Health Organization (WHO) *Ten health issues WHO will tackle this year.* -01- 2022. https://www.who.int/news-room/spotlight/ten- threats-to-global-health-in-2019
[17] Paniz-Mondolfi A, Tami A, Grillet ME, Márquez M, Hernández-Villena J, Escalona-Rodríguez M, et al. Resurgence of vaccine-preventable diseases in Venezuela as a regional public health threat in the Americas. Emerg Infect Dis. 2019.
[18] Cunha, M.d.P., Duarte-Neto, A.N., Pour, S.Z. *et al.* Origin of the São Paulo Yellow Fever epidemic of 2017–2018 revealed through molecular epidemiological analysis of fatal cases. *Sci Rep* **9**, 20418 (2019).
[19] Pan American Health Organization. The immunization program in the context of the COVID-19 pandemic. Version 2. April 2020.

2.4 Leveraging COVID-19 vaccine rollout to strengthen routine immunization

The introduction and rollout of COVID-19 vaccines can be leveraged as a potential entry point and opportunity to improve routine immunization systems and thereby overall health outcomes, considering the intermediate planning goals of quality, equity, efficiency, accountability, sustainability, and resilience[20]. Through a health system strengthening (HSS) approach, key aspects like human resources for health, planning and logistics, as well as cold chain and social and behavior change communication can be improved for PHC and routine immunization to benefit underserved populations.

At the same time, there is a risk that COVID-19 vaccines will compete with routine immunization, absorbing scarce human and supply resources. In this context, UNICEF aims to ensure that routine immunization is not undermined by COVID-19 vaccination but rather ***integrated into routine immunization services***. The rationale for the integration of the COVID-19 vaccination includes four reasons[21]: (1) ***epidemiological:*** the most likely COVID-19 pandemic scenario will require periodic booster doses for high-risk groups; (2) ***sustainability***: achieving higher and sustained COVID-19 vaccination coverage will require moving from mass vaccination campaigns to including regular immunization services mainstreamed in PHC; (3) ***leveraging resources***: leveraging existing investments and innovations in COVID-19 vaccination towards strengthening immunization, PHC, and pandemic preparedness (and vice versa); and (4) ***life-course approach***: optimize delivery platforms across the life-course for COVID-19 vaccination and for an integrated package of health services.

2.5 Evaluation object

The role of UNICEF in the roll out of the COVID-19 vaccine in the LAC region has been defined in its ***regional strategy*** released in May 2021. The strategy states that COVID-19 vaccines need to be rolled out in a way that strengthens health systems and routine immunization services, with emphasis on PHC. In addition to UNICEF's role as procurement and supply coordinator of the COVAX Facility, the strategy includes specific roles in supporting country readiness and vaccine roll out in seven areas: (i) planning and supporting for country readiness and delivery; (ii) supply and logistics; (iii) advocacy for equitable vaccine roll out; (iv) communication activities to promote vaccine acceptance; (v) risk communication and community engagement; (vi) development of monitoring and registration systems to support vaccine roll out and follow up; and (vii) collecting information from CO regarding COVID-19 vaccine coverage.

The strategy also points out that UNICEF COs decide on the nature and level of their engagement based on government needs, the CO's capacity, and in coordination with PAHO and the other UN Country Team members. The support from UNICEF is also expected to align with national deployment and vaccination plans (NDVPs) developed by country governments.

At the regional level, the RTA assessed the implementation of UNICEF's regional strategy for the rollout of the COVID-19 vaccine and the support of UNICEF LACRO to COs for this rollout.

At the country level, the RTA assessed how relevant, effective and cohesive UNICEF activities were in supporting the introduction and rollout of the COVID-19 vaccine in each country reviewed. This includes which change strategies were used and what key activities under each change strategy were delivered to

[20] Kieny MP et al. Strengthening health systems for universal health coverage and sustainable development. Bull World Health Organ. 95:537–539. 2017.
[21] WHO-UNICEF. Considerations for integrating COVID-19 vaccination into immunization programmes and primary health care for 2022 and beyond. Version 27 July 2022.

address the complex and dynamic environment under which COVID-19 vaccines were rolled out by country governments. The RTA also assessed how these activities are contributing to strengthening the routine immunization programs and other components of the health system at the country level, including the PHC system and the overall resilience of the health system to respond to the COVID-19 pandemic and future shocks or health system stressors.

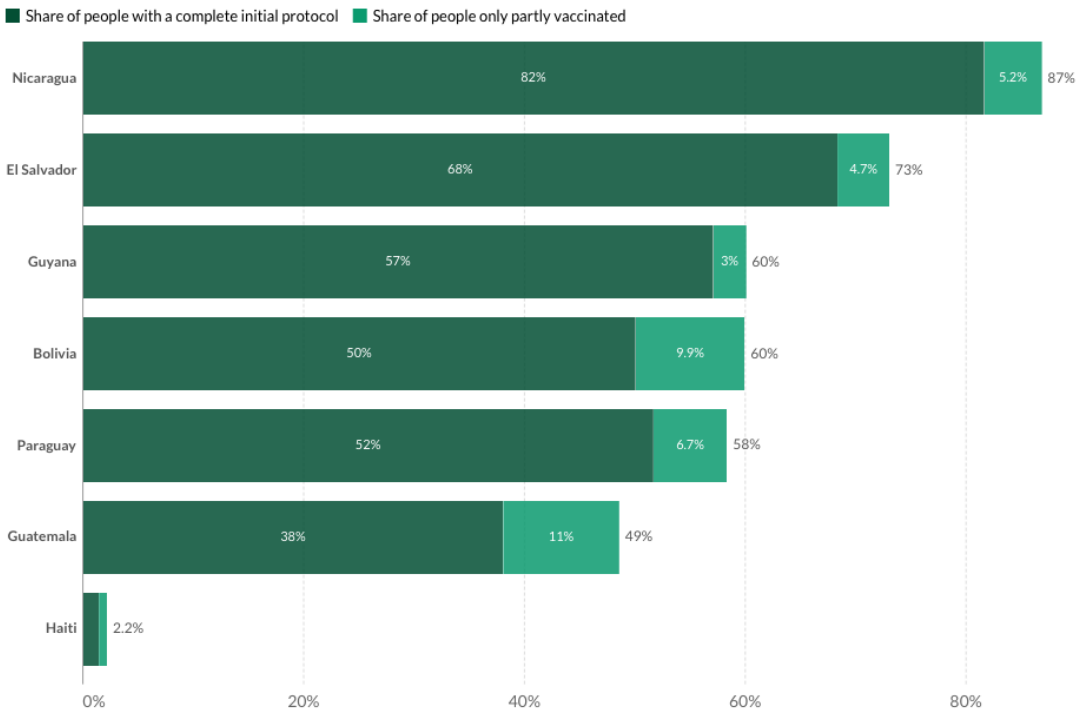
From both levels, the RTA has also identified key learnings to inform the continuous efforts of the rollout of the COVID-19 vaccine as well as opportunities for repositioning UNICEF to strengthen PHC and routine immunization services.

The analysis of the RTA focused on the period of calendar year 2021 when most countries in LAC began the rollout of COVID-19 vaccines. As the RTA activities commenced in mid-January 2022, the analysis also included roll-out activities delivered in the first half of 2022.

2.6 Sampling strategy

The RTA used purposive sampling to select LAC countries to participate in the assessment. The selection of the countries reviewed under the RTA followed an internal process that UNICEF LACRO conducted purposefully prior to the beginning of the inception phase. The selected focal countries that were the subject of an in-depth review as part of the assessment were: Bolivia, Guatemala, and Paraguay. In addition, the evaluation team conducted a desk review in four countries, including El Salvador, Guyana, Haiti, and Nicaragua. The selection of these countries took into account various dimensions, including the size of the CO, geographic location, country presence, health programs footprint, and AMC status. Figure 5 depicts the coverage of people vaccinated against COVID-19 with a complete initial protocol in the focal countries by August 2022.

Figure 5. Share of people vaccinated against COVID-19 by RTA focal country, August 2022



Source: COVID-19 Data Explorer. Our World in Data.

3. Evaluation Purpose, Objective, and Scope

The RTA was designed as a light-touch evaluative exercise to assess the contribution of all seven COs in terms of three evaluation criteria: relevance, effectiveness, and coherence. The RTA identified emerging operational achievements as well as challenges in each country. It used elements of the different rollout activities for COVID-19 vaccination to substantiate or illustrate findings, emerging lessons, and conclusions. The evaluation team used national and regional data sources to complement and triangulate data and findings to inform the analysis at the country level.

The RTA findings and conclusions are not fully representative of UNICEF's overall contribution to the rollout of the COVID-19 vaccine in LAC, which encompasses 24 COs operating in highly diverse and dynamic local contexts. Since the RTA focused on the contribution of COs and UNICEF's internal dimensions, a comparative analysis of responses of development and humanitarian organizations was not part of the exercise, even though perceptions about the role and value-added provided by UNICEF were gathered from external stakeholders.

The evaluation team used a 'live learning' approach to understand what happened, why it happened, and how to sustain and amplify strengths and reduce weaknesses. The Evaluation section of UNICEF LACRO and the RTA team adopted a flexible approach in adjusting objectives, scope, and methods throughout the implementation of the RTA to maximize the usability of the recommendations given the resources and timeframe available for the assessment.

The RTA included two purposes. First, to assess UNICEF's support in the roll out of COVID-19 vaccines in the selected seven countries, including its potential contribution to the overall routine immunization programmes and PHC. In addition, the RTA used a forward-looking reflection on the implementation of the response to the roll out of COVID-19 at both national and regional levels. This included participatory workshops facilitated by the RTA team to share findings, achievements, conclusions, lessons and recommendations with UNICEF LACRO and CO staff. Altogether the learnings from this experience aim to reposition the role of UNICEF for strengthening health systems and routine immunization services in LAC.

Overall, the RTA objective was to inform UNICEF's ongoing support to the roll out of COVID-19 vaccinations and identify ways to strategically position UNICEF in routine immunization and the health sector. More specifically the RTA aimed to inform a forward-looking reflection for UNICEF LACRO on the following issues:

1. The current implementation of UNICEF LACRO and CO's support to the COVID-19 vaccine rollout
2. Achievements in the rollout of COVID-19 vaccines.
3. The repositioning of UNICEF in overall immunization programme strengthening.
4. Strategic, programmatic, and advocacy actions for UNICEF to strengthen its role in routine immunization.

The RTA assessed the planning, coordination, and delivery of activities across different technical areas including health, communications, communications for development (C4D), supply, and technology for development (T4D), while also providing early insights on the outputs and outcomes achieved. Details of the original design of the RTA are included in the Terms of Reference in Annex 1.

The RTA used the following scope elements to achieve the objectives of the assessment given the interest of COs, time, and resources available.

Geographic scope

Assessed the extent of UNICEF's support for COVID-19 vaccine deployment in seven Latin American countries (Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, and Paraguay) where UNICEF normally supports at the central level, or national programs.

Timeframe

Calendar year 2021 through mid-2022. The calendar year 2021 was selected as it was in this year when all countries in the region began the roll out of the COVID-19 vaccine.

Key actors

The primary actors of the RTA included staff from UNICEF COs and LACRO management. COs and LACRO need the information to strengthen their role, not only in the COVID-19 vaccination rollout, but in strengthening primary health care and the routine immunization programs, which the COVID-19 pandemic exposed many weaknesses at all levels of the system. Recommendations of the RTA were crafted to strengthen and adjust future appeals and the next round of CO planning, including Country Programme Documents (CPDs) and Annual Work Plans for the seven countries reviewed. Other target audiences included UNICEF HQ staff and development partners with a vested interest in COVID-19 vaccine delivery and primary health care.

4. Evaluation Methodology

The RTA used a ***hybrid*** methodological approach blending ***theory-based***[22] and ***developmental evaluation***[23] approaches using elements from ***real-time learning***[24]. The rationale for using such a hybrid approach is to use a more learning-oriented approach to inform UNICEF about what is being developed—support for the COVID-19 vaccine roll out *and* leveraging such a roll out effort towards strengthening routine immunization including the use of PHC platforms—and using robust evidence through a reconstructed theory of change (ToC) that will inform a theory of action (ToA) as part of the forward-looking dimension of the evaluation.

The learning-oriented evaluation methods used included:

- A SWOT analysis with six COs: Bolivia, El Salvador, Guatemala, Guyana, Paraguay, and Suriname[25].
- Reflection from past and ongoing implementation of UNICEF's regional strategy for the rollout of the COVID-19 vaccine;
- Iterative feedback with UNICEF staff at regional and CO levels;
- Validation instances through structured and participatory workshops throughout the evaluation; and,
- Participatory analysis of the contribution to UNICEF's strategic, programmatic and advocacy actions to strengthen its role in routine immunization in the LAC region.

Given the purpose of the evaluation as well as the complexity of its object, and how emerging findings are to be used, the primary approach the evaluation team opted to use is a *developmental evaluation*

[22] Rogers P, Funnell S. Purposeful Program Theory: Effective Use of Theories of Change and Logic Models. Josey-Bass. 2011.
[23] Patton, MQ. *Developmental Evaluation.* The Guilford Press. 2010.
[24] Buchanan-Smith, M. and Morrison-Métois, S. From Real-Time Evaluation to Real-Time Learning: Exploring new approaches from the COVID-19 response. ALNAP paper. London: ODI/ALNAP. 2021.
[25] In coordination with UNICEF LACRO Evaluation Unit, Suriname was not included in the final analysis of the RTA.

approach namely using a complexity lens and a systems thinking approach. The rationale for the application of a developmental approach was to address the nature and context under which COVID-19 vaccination takes place in the LAC region: the ongoing need of ***adaptation*** to emergent and dynamic realities in complex and adaptive health systems under which the overall response to COVID-19 takes place, including the need for equitable and quality rollout of the COVID-19 vaccine. This is an important dimension as LACRO and COs are still updating their strategies and activities to support the equitable rollout of the COVID-19 vaccines and the strengthening of routine immunization programmes.

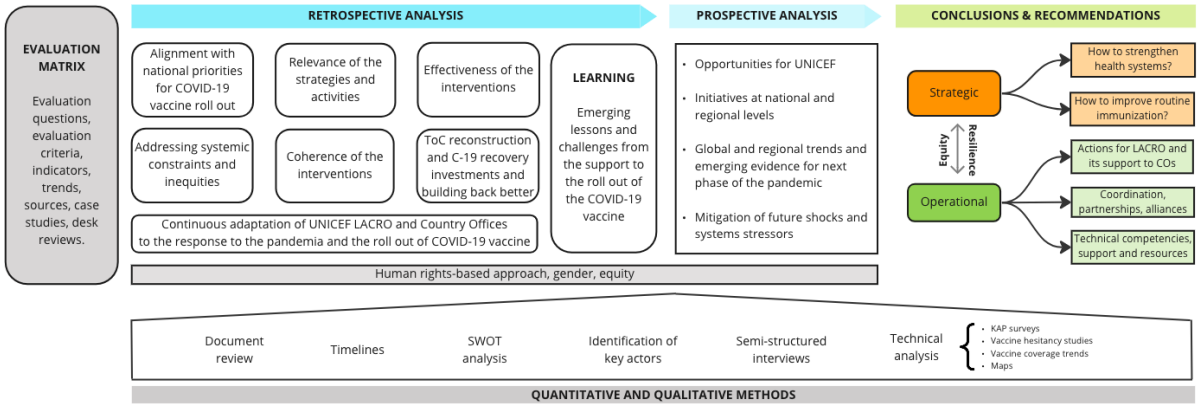
The findings presented in this report are based on evidence collected from the seven countries. The RTA team used all the information and data gathered (see section 4.3) to conduct a systematic analysis of the contribution of UNICEF LACRO and COs to the introduction and rollout of the COVID-19 vaccines in the seven countries reviewed.

The RTA was conducted in person (Bolivia and Guatemala) and remotely (El Salvador, Guyana, Haiti, Nicaragua, and Paraguay). The RTA team worked closely with UNICEF COs to identify a preliminary list of key informants among government officials, national partners, other stakeholders (e.g., PAHO, USAID), and UNICEF staff. The RTA team made a particular effort to interview government officials and local partners to cover a range of perspectives beyond UNICEF teams. The RTA team did not interview people receiving the COVID-19 vaccine, but it used available secondary data to gauge their input.

The RTA drew on multiple sources to triangulate data for validation and to reduce bias. A brief summary of data collection methods is described further below in this section. Data analysis of documentation (from UNICEF and external) was also triangulated by individual members of the RTA evaluation team.

The RTA design included two levels of analysis (retrospective and prospective) that informed the conclusions, lessons learned, and recommendations. Figure 6 provides a schematic representation of the design of the RTA.

Figure 6. Design of the RTA COVID-19 vaccine roll out



Source: Adapted from UNICEF RTA COVID-19 Response (2021) and UNICEF RTA Gran Chaco (2022).

4.1 Evaluation questions

The retrospective and prospective analyses were structured around three evaluation criteria of ***relevance***, ***effectiveness,*** and ***coherence*** based on the definitions of the OCDE/DAC and six evaluation questions as presented in Table 2. The dimensions of human rights and gender are examined transversally, with emphasis on the relevance evaluation question on determining the needs and rights situation of the most vulnerable populations and on the effectiveness question on reducing inequalities and the reduction of barriers to access to vaccination services.

Table 2. RTA evaluation questions by evaluation criterion

Relevance
EQ-1. To what extent are UNICEF LACRO and COs supporting the rollout of COVID-19 vaccination in the region, and responding to/meeting governments' and partners' local health sector needs and priorities, particularly for the most vulnerable populations and at-risk groups?
Effectiveness
EQ-2. To what extent are UNICEF COs prioritizing equitable access to COVID-19 vaccines? What are the factors contributing to or hindering access to COVID-19 vaccines?
EQ-3. What are the early lessons (at regional and country levels) that are emerging from UNICEF's support to the COVID-19 vaccine rollout? What are the emerging achievements from the response? What have been the greatest challenges in responding to the COVID-19 vaccine rollout so far?
EQ-4. How can UNICEF's contribution to the COVID-19 vaccine roll out be utilized to mainstream COVID-19 vaccination into routine immunization programmes and to better reach zero-dose children in the future?
Coherence
EQ-5. What is UNICEF's added value in the COVID-19 vaccine rollout in the LAC Region (particularly, when compared to other UN agencies)?
EQ-6. To what extent were meaningful partnerships and coordination mechanisms established by UNICEF to ensure equitable COVID-19 vaccine rollout? How could these be better leveraged in the future for COVID-19 vaccination and routine immunization?

For each question, several parameters have been formulated for the formation of the judgment. The retrospective analysis includes lessons learned from the UNICEF support to the roll out of the COVID-19 vaccine in different contexts. The evaluation matrix also includes two questions to structure the prospective analysis (EQ-4 and EQ-6). Annex 2 presents the evaluation questions embedded in the evaluation matrix. Annex 3 presents the list of all individuals interviewed while Annex 4 provides the list of key documents reviewed by the evaluation team.

The RTA used a ***country case study*** approach for three countries selected for the RTA: Bolivia, Guatemala, and Paraguay. Each country case study obtained further information and conducted an in-depth analysis to deepen the initial inquiries undertaken during the inception phase. For the remaining countries (El Salvador, Guyana, Haiti, and Nicaragua) the RTA used a ***desk review*** approach to synthesize the contribution of UNICEF in each of these countries for the introduction and rollout of the COVID-19 vaccine.

4.2 Data collection methods

The RTA has combined both face-to-face and remote data collection. Public health conditions have limited fieldwork at certain times and accessibility to certain informants. The RTA team has worked in compliance with the guidelines of UNICEF, of the health authorities in matters of public health, and the decisions adopted by the informants, opting for a "Do no Harm" approach and preservation of confidentiality. The RTA applied the guidelines of the UNEG and UNICEF in relation to gender and equity, but the availability of data has been limited. Annex 5 provides the data collection tools used by the evaluation team, while Annex 6 presents the overall schedule of the evaluation activities.

The RTA has used a combination of mixed methods to collect information, resorting to primary and secondary sources, given that the inception phase detected a shortage of quantitative parameters related to the UNICEF support to the rollout of the COVID-19 vaccine. The data collection methods are presented below.

- **Interviews:** The RTA team interviewed and consulted with a total of 113 informants with a balanced distribution by gender (50% women and 50% men), with a predominance of remote modality. The RTA team obtained views from UNICEF staff from HQ, LACRO and COs, government officials, international organizations, civil society and community-based organizations (CSOs), donors, and experts. Informants were selected through targeted sampling based on the type of organization, diversity of partners, diversity of sectors, and experience in immunization programs, in order to include diverse perspectives. Contacts from UNICEF were used in the first instance, then contacts from the RTA team and the "snowball" technique. Table 3 presents the disaggregation of interviews by country.

Table 3. Number of people interviewed or consulted by location

Location	Total people interviewed or consulted		Disaggregation by sex	
			Female	*Male*
Bolivia	31	27%	58%	42%
El Salvador	11	10%	64%	36%
Guatemala	25	22%	48%	52%
Guyana	6	5%	0%	100%
Haiti	2	2%	50%	50%
Nicaragua	2	2%	50%	50%
Paraguay	20	18%	60%	40%
LACRO/HQ	16	14%	38%	63%
Total	**113**	**100%**	**50%**	**50%**

Source: RTA Evaluation Team.

- **Document review**: the evaluation team reviewed documents from multiple sources, including internal documents from UNICEF COs and LACRO, reports from host country governments related to COVID-19 and regular vaccination services, reports from civil society organizations, donor agencies, and other global and local stakeholders. A detailed list of documents reviewed by country and other sources is presented in Annex 4.

- **Analysis of logic of interventions and activities with the Theory of Change and new framework from UNICEF HQ's Health Office**: as part of the reconstruction of the Theory of Change (ToC),

the RTA team analyzed the initial programmatic rationale of the ToC and the new UNICEF framework for COVID-19 recovery investments and building back better released this year and presented at LACRO on May 2022.

- **A systematic review of published scientific literature**: a bibliographic review has been carried out with the aim of capturing the published evidence on COVID-19 vaccination roll out and routine immunization services in LAC and similar settings.
- **Analysis, discussion and validation workshops**: the RTA team organized with each CO a first workshop to present the original scope of the RTA and to assess strengths, weaknesses, opportunities and threats (SWOT) of COs to inform the inception phase of the RTA. The RTA team also presented the RTA design to the UNICEF Evaluation Reference Group. The results of the RTA were presented and validated with the COs, and LACRO as part of the effort to validate findings, conclusions and recommendations.

4.3 Methodological limitations and mitigations

Several factors constituted methodological limitations for this RTA. Table 4 shows a brief summary of the main limitations and mitigation measures adopted by the evaluation team.

Table 4. RTA limitations and mitigation measures

Limitation	Mitigation measure
The most significant challenge faced by the evaluation team was the limited amount of monitoring data collected by UNICEF COs for assessing progress achieved in their support to the roll out of the COVID-19 vaccine. Most of the available data related to inputs provided through the support of UNICEF COs as part of the core activities they delivered in support of the rollout in the countries reviewed.	• The evaluation team used available secondary data from different sources, including reports at country and regional levels from government sources and other partners, including PAHO to fill gaps and triangulate the information obtained from COs. • Semi-structured interviews conducted with internal and external key informants
The RTA was conducted both in person and remotely. However, for in-person activities, the majority of key informants preferred to be contacted and interviewed through virtual ways given ongoing COVID-19 restrictions.	• The evaluation team supported multiple platforms to facilitate the evaluation activities, including MS Teams, Zoom, Miro Boards, Mentimeter, validation workshops, and small group work.
Time allocated for the implementation of the RTA was underestimated given the level of participatory planning and processes for the implementation of the evaluation activities that conflicted with multiple commitments of UNICEF staff at LACRO and CO levels. Also delays occurred given that the RTA team received ample support from UNICEF for the completion of the RTA, and the need for multiple versions of deliverables for their accurate completion.	• Flexibility of the evaluation team to accommodate schedules and making adjustments in close coordination with UNICEF LACRO Evaluation team, and the Survive & Thrive team, including geographic scope and adjustment of the overall timeframe of the assessment for the overall implementation and completion of the RTA.

4.4 Theory of Change

The implementation of the RTA included developing a theory of change (ToC) that could provide UNICEF with a coherent rationale of how its contributions could fit in as a comprehensive package of interventions to support the roll out of the COVID-19 vaccine in the region, and if they managed to produce the expected outcomes and contribution to impact.

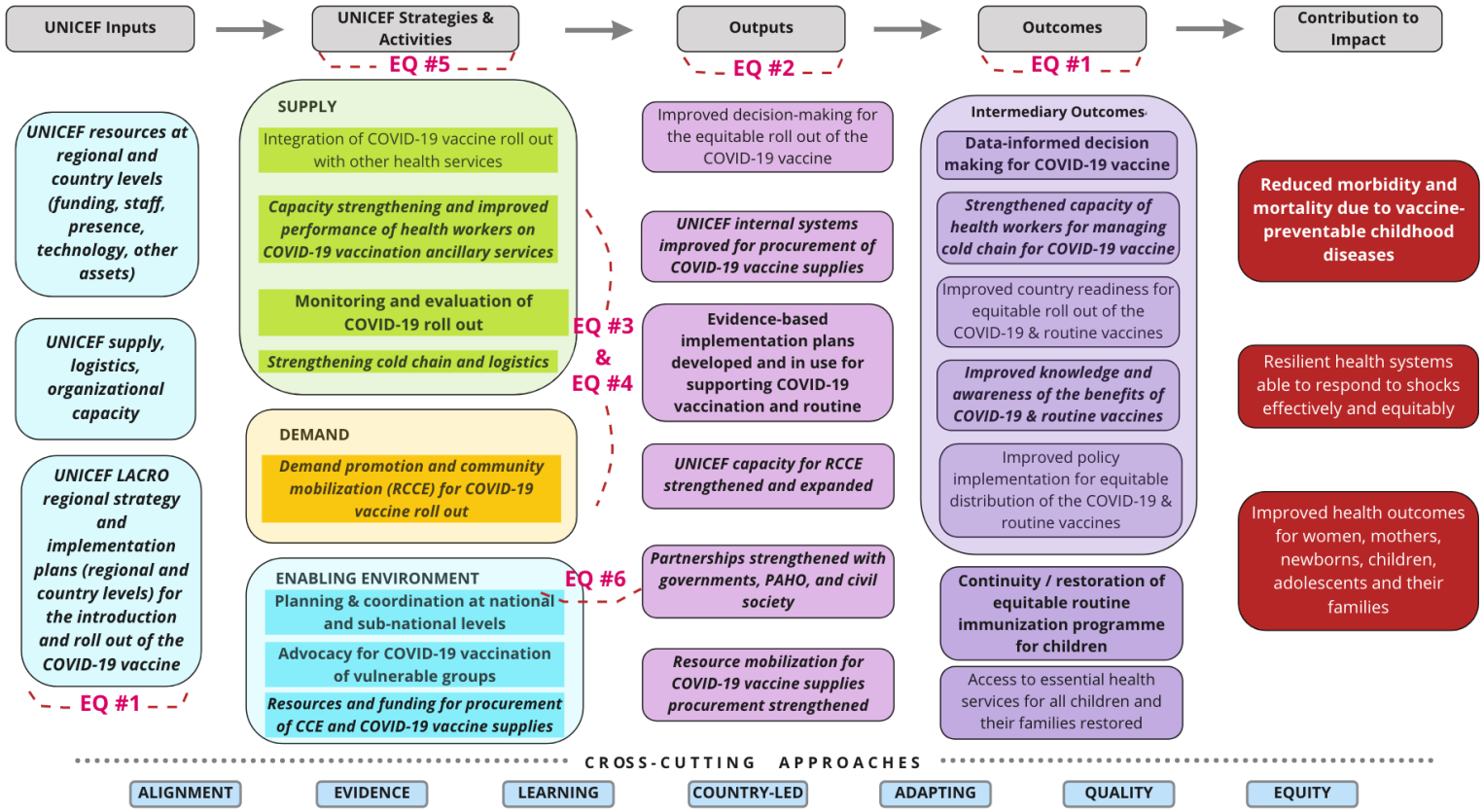
Figure 7 depicts the emerging ToC, including UNICEF's inputs, strategies/activities, outputs, outcomes, and impact. Of particular importance is the ***health systems*** lens embedded within the UNICEF strategies and activities that are part of the ToC.

The ToC is a living tool depicting and describing the programmatic rationale (causal mechanisms) and critical assumptions for UNICEF's support in the roll out of the COVID-19 vaccine and routine immunization strengthening in LAC. The logic behind the ToC and its various components was used by the evaluation team in the analysis of data and activities supported by UNICEF LACRO and implemented by UNICEF COs. Annex 7 presents a description of the use of the ToC as part of such analysis.

Testing and updating of the ToC—including its rationale and critical assumptions—should be done on a regular basis as UNICEF moves forward with its response to the pandemic in LAC and as the pandemic and its effects evolve in the region. Updates on the ToC should be in tandem with the new framework for the ***COVID-19 recovery investments and building back better*** released by UNICEF HQ as explained below.

The use of both tools, the ToC and the COVID-19 recovery investment framework, have served to formulate an initial theory of action in the form of six key recommendations for UNICEF LACRO to address within the next 6-12 months. Those key recommendations are presented in section 8 of this report.

Figure 7. Theory of change of UNICEF's support to the rollout of COVID-19 vaccine and immunization program strengthening in the LAC region with links to evaluation question

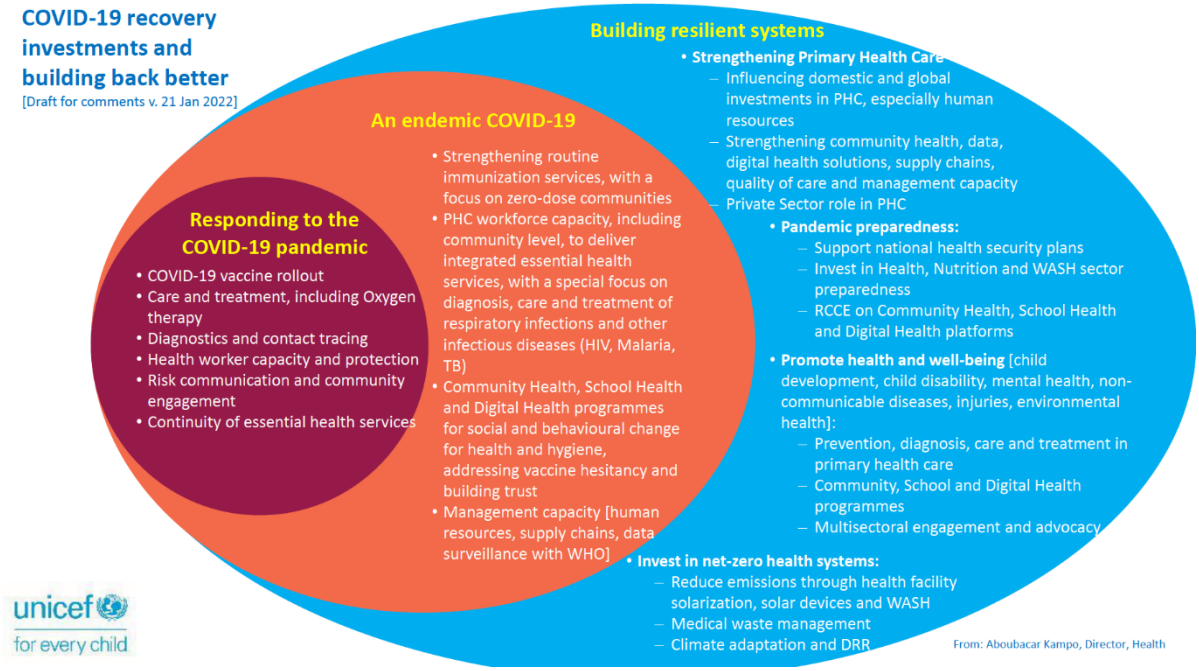


Critical Assumptions:

- Government agencies and other key stakeholders in the region are open to engage and/or partner with UNICEF.
- Vaccines for COVID-19 and regular childhood immunization are available to meet national targets.
- There is no major disruption of resources for UNICEF's support to the rollout of COVID-19 vaccines and routine immunization in the region.
- No major political, social (including migration), or economic unrest in the region except in Haiti.
- Security issues in the region remain stable without compromising the safety and security of UNICEF staff and partners except in Haiti.

In 2022, UNICEF HQ's Health Unit introduced a new framework entitled ***COVID-19 recovery investments and building back better***[26] as presented in Figure 8. The framework includes health actions in three thematic areas: (1) responding to the COVID-19 pandemic; (2) health actions for an endemic COVID-19; and (3) building resilient systems.

Figure 8. UNICEF framework for COVID-19 recovery investments and building back better



Source: UNICEF HQ's Health Unit. 2022.

While there was no specific written guidance from UNICEF HQ on how the new framework will be used by UNICEF regional and/or country offices, the RTA team in coordination with the UNICEF LACRO Evaluation unit began to use the contents of the framework for the analysis of interventions and activities delivered by UNICEF LACRO and COs in their support to the rollout of COVID-19 vaccines in the region. Specifically, the analysis used for the in-depth case studies carried out in Bolivia, Guatemala, and Paraguay of this RTA began to identify which interventions or activities delivered by these COs fit within the three thematic areas of the new framework, and which specific elements of the three thematic areas are being addressed by COs. Such an analysis also helped the RTA team in the formulation of key recommendations included in section 8 of this report.

This is a comprehensive framework that provides the vision of UNICEF for its response to the COVID-19 pandemic, as well as strategic interventions to focus on as the pandemic transitions to an endemic status. The foundation of this framework points to building resilient systems that focus on strengthening PHC for better pandemic preparedness while promoting the health and well-being of children in a net-zero health system environment.

[26] The framework was delivered by Dr. Aboubacar Kampo, UNICEF HQ Health Director at a presentation delivered at LACRO on May 18, 2022.

5. EVALUATION FINDINGS

UNICEF, through its country offices (COs) and with support from LACRO, provided critical contributions to the multi-sectoral and government-led National Deployment and Vaccination Plans (NDVP) for the introduction and rollout of the COVID-19 vaccine. The UNICEF-supported activities took place in the seven countries reviewed in this RTA: Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, and Paraguay.[27]

Given the existence of the NDVPs, which were designed through participatory processes by national stakeholders (government, international development agencies, NGOs), UNICEF focused its support to the rollout activities included in those plans and did not contribute to separate initiatives promoted by individual national or local actors.

A summary list of UNICEF-supported strategies and activities in the seven countries reviewed is shown in Table 5. These strategies and activities are grouped according to the components of the theory of change (ToC) of this RTA presented in section 4.4. The remainder of this chapter details these findings. In addition to this section, Annex 7 aligns the consistency of these findings both with the ToC of this RTA and with UNICEF's framework of ***COVID-19 Recovery Investments and Building Back Better***. Annexes 8-10 also present RTA's country reports for Bolivia, Guatemala, and Paraguay. Annex 11 includes the summaries of RTA desk reviews conducted for four COs: El Salvador, Guyana, Haiti, and Nicaragua. The contents of annexes 8-11 provide detailed findings, conclusions, and specific recommendations which are important for future country planning and implementation.

Table 5. Key strategies and activities supported by UNICEF for the COVID-19 vaccine roll-out in LAC

Strategy	Activities supported by UNICEF	UNICEF COs supporting the activities
Strategies and activities related to the Enabling Environment (as per ToC)		
Formulation of National Deployment and Vaccination Plans (NDVPs)	Provision of technical inputs/ membership in national, government-led committees and task forces.	Guatemala, Bolivia (mainly communication of contents), El Salvador
Technical assistance to the MoH	Provision of consultants on cold chain and immunization service delivery, RCCE.	Bolivia, Paraguay, El Salvador, Haiti, Guyana
Resource mobilization from other donors (in addition to the Government of Japan and funding channeled through UNICEF LACRO)	Specific needs related to COVID-19 vaccination roll-out.	Nicaragua, El Salvador, Paraguay, Guyana
Public-private partnerships in support to COVID-19 vaccine roll-out	With the private sector and NGOs.	Bolivia (with private for-profit companies); Paraguay (with NGOs), Guyana (with NGOs)
Innovations on information technology	Geospatial information system for vaccination supplies and delivery; expanding the existing population e-registry to include additional health services.	Nicaragua, El Salvador, Guatemala

[27] Originally, the RTA included Suriname as well.

Strategy	Activities supported by UNICEF	UNICEF COs supporting the activities
Strategies and activities related to Supply (as per TOC)		
Cold Chain Equipment (CCE) Procurement, Operation and Maintenance, and Vaccine Delivery Services	Purchase of cold chain equipment to strengthen national program capacities	Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, Paraguay
	Organized and/or funded the training for the operation and maintenance of the procured CCE.	Bolivia, Guyana, Haiti, Nicaragua, Paraguay
	Funded the transportation and local distribution of COVID-19 vaccines.	Bolivia, Guyana, Haiti, Nicaragua
	Financial support to health brigades and volunteers for door-to-door vaccination.	Bolivia, Guyana, Nicaragua,
Purchase of vaccination supplies	Procurement of Personal Protection Equipment for health staff and volunteers.	Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, Paraguay,
	Procurement of syringes and containers to safely dispose of biological waste.	El Salvador, Nicaragua
Strategies and activities related to Demand (as per TOC)		
Risk Communication and Community Engagement (RCCE)	Participation in the design, implementation, and/or dissemination of the communication activities within the NDVPs.	Bolivia, El Salvador, Guyana, Nicaragua, Paraguay
	Developing risk communications messages for mass media and social communication campaigns.	Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, Paraguay
	Supporting implementation of mass media social communication campaigns.	Bolivia, El Salvador, Guatemala, Guyana, Haiti, Nicaragua, Paraguay
	Fostering community-based promotion and outreach.	Guyana, Haiti, Nicaragua, Paraguay
Knowledge generation for enhancing implementation of RCCE strategies	KAP´s surveys and qualitative studies on vaccine hesitancy. Identification of barriers and myths related to COVID-19 vaccination.	Guatemala, Guyana, Haiti, Paraguay,
Support to the MoH to continue routine Immunization	Inclusion of promotion of routine immunizations as part of the RCCE initiatives, plus financial support to vaccination supplies	El Salvador, Nicaragua, Paraguay

UNICEF-supported activities addressed critical and specific needs of the existing health system to roll out the COVID-19 vaccines. The procurement of cold chain equipment (CCE), the purchase of necessary vaccination supplies, the support to vaccination services for remote and vulnerable populations, and the support to RCCE activities were the major activities supported by UNICEF across the seven countries reviewed.

To implement this effort, UNICEF's COs repurposed their existing resources and also received additional funding to hire consultants and procure equipment and supplies. This additional funding was channeled either by LACRO, i.e., UNICEF thematic funds, GAVI, and the Japanese government, or obtained directly by its COs: illustrative examples include Korea and the Czech Republic (El Salvador), USAID (Guyana, Paraguay) and Germany (Nicaragua).

One of the largest external financial contributions was the $21 million grant from the Japanese government which allowed the procurement of CCE in multiple countries in LAC, in addition to funding their delivery of vaccination services.

5.1 Relevance of UNICEF´s contributions to COVID-19 vaccine roll out

The following is a summary of relevance findings per key health system component of the ToC (EQ-1).

- *For supply:*
  - *CCE, vaccination supplies and vaccination service delivery: Relevant as their procurement and distribution followed the objectives of the NDVPs to support the supply of COVID-19 vaccines.*
- *For demand:*
  - *Risk communication and communication engagement: Relevant as it was implemented to address demand-side objectives in the NDVPs.*
  - *Routine immunization: relevant as it focused on promoting the continuation of routine immunizations within the RCCE activities for COVID-19 vaccination.*
- *For enabling environment:*
  - *Planning with government: Relevant as UNICEF supported and aligned with the NDVPs and not individual initiatives separate from the NDVPs.*
  - *Capacity building of host country government staff: Relevant as it provided training to government staff in key topics.*

5.1.1 Enabling Environment: Planning. In all countries, UNICEF´s contributions to the COVID-19 vaccine rollout were discussed and agreed upon with the host country government, and responded to specific objectives of the government-led NDPVs.

It is important to note that, in general, UNICEF COs only supported the activities included in the NDPVs and not independent activities separately promoted by national or local organizations. In addition, UNICEF support responded to the needs and characteristics of national health systems, including centralized and decentralized ones. A notable example was Bolivia: due to the decentralization of the government health system, UNICEF also provided direct support to the decentralized health units (i.e., SEDES as documented in Bolivia CO report in Annex 8) where it has offices in the country.

Within the NDPVs, UNICEF's contributions initially focused on activities addressing key supply and demand components of weak health systems to cope with the magnitude of the COVID-19 pandemic. This systems approach responded to some of the key needs of the host county governments: the procurement and distribution of CCE and supplies and on RCCE activities. Existing CCE was insufficient in all countries, in quantity and quality, to cope with the vast needs of rapidly vaccinating the majority of the country's population with vaccines which might have different storage and handling requirements. In addition, effective RCCE has been a frequent shortcoming in the majority of government health systems in LAC and

this expertise was urgently needed to increase demand by convincing and mobilizing the vast majority population to receive COVID-19 vaccination.

Most importantly, these initial contributions fully used UNICEF's institutional strengths, either global (e.g., procurement and distribution of CCE) or country-based ones (RCCE).

The relevance of UNICEF's contributions was most important when its participation in the government-led national committees and task forces for the roll out of COVID-19 vaccination was both early and strong. It was also more relevant when UNICEF coordinated its contributions with other international development agencies. See coherence section below.

Finally, it is important to note that three host country governments, Nicaragua, Paraguay, and El Salvador, requested UNICEF's support for routine immunizations while contributing to the roll out of COVID-19 vaccination. Thus, UNICEF promoted routine immunization as part of its RCCE activities and also provided supplies and transportation costs. Specific findings are in the below sections.

5.1.2 Enabling Environment: Capacity building. Early in its support to CCE and RCCE activities, UNICEF realized in some countries that the government staff had shortcomings in their skills to either: (a) operate and maintain the procured CCE or (b) to effectively design and implement RCCE activities. UNICEF's support to capacity building activities became relevant to make the initial investments in CCE and RCCE more effective, sustainable and scalable.

UNICEF coordinated with PAHO (and the World Bank in Guyana) the provision of technical assistance to train government staff on the operation and maintenance of the procured CCE (El Salvador, Guatemala, and Haiti, see box) or directly hired this technical support (e.g., Guyana, Paraguay). In Bolivia, UNICEF and PAHO have agreed with an academic institution –Universidad Mayor de San Andres– to establish a Diplomate Program on Cold Chain Supply and Management.

In El Salvador, UNICEF also supported the training of government health staff on the design and implementation of RCCE initiatives which provided nationwide scale-up and also benefitted the continuation of routine immunizations and other PHC programs. In Guatemala, a similar training also occurred for the government staff in 25 municipalities and 50 communities assigned to UNICEF for direct support due to their low COVID-19 vaccination rates. In Haiti, UNICEF trained government staff in each region to organize the immunization logistics and RCCE (see box) and to train community health workers.

> UNICEF Haiti supported the training of 15 national and departmental logisticians on social and behavior change communication, interpersonal communication and supply chain management as well as the training of 2,807 community health workers on the risks and prevention of COVID-19.

5.1.3 Supply: Cold chain equipment (CCE), vaccination supplies, and services. In six of the countries reviewed (Guyana excepted), UNICEF led the international procurement of CCE with funding from a $21 million grant provided by the Government of Japan. In Guyana, the World Bank was the main implementer for the procurement of CCE, while UNICEF provided technical assistance to the government on their operation and maintenance. An illustration of such contribution in Haiti is presented in the box.

During late 2020 or early 2021, UNICEF agreed with the governments in seven countries on the type of CCE and/or vaccination supplies to be procured. Thereafter, each CO – with support from LACRO– separately coordinated the procurement of CCE with UNICEF´s Global Supply and Logistics Hub in Copenhagen.

In Haiti, UNICEF procured and distributed seven cold rooms, 43 freezers, 30 Arktek passive vaccine storage devices, 224 cold boxes, 3,612 vaccine carriers, and 6,000 ice packs. UNICEF also supported the installation of 752 solar refrigerators through the CCE Optimization Platform.

However, the arrival of the procured CCE was delayed by the extensive demand for this hardware worldwide, and also, due to the disruption of the global supply chain. For example, the earliest delivery of UNICEF-procured CCE in the countries reviewed was received by Nicaragua in October 2021. In Guatemala, mainly the portable CCE arrived in October 2021, while the heavier CCE had yet to arrive to UNICEF in Bolivia and Guatemala by March 2022.

Due to UNICEF's initial procurement restrictions, country offices also needed to procure internationally the government-needed personal protection equipment (PPE) and other supplies to safely administer the vaccine. Later, some country offices were allowed to procure these supplies locally. Of particular importance was UNICEF's international and timely procurement of four million syringes in Nicaragua which allowed the government to rapidly continue both its COVID-19 and regular immunization program.

In Bolivia, Guyana, Haiti, and Nicaragua, UNICEF also funded the transportation of vaccines and their supplies from the central warehouses to the peripheral health units.

In Nicaragua, the ministry of health mobilized 459 vaccination teams (brigades) throughout the country, aiming to vaccinate 750,000 Nicaraguans (11% of total population) against COVID-19, mainly in rural areas. The long-standing PHC system and support of local community facilitators were key. UNICEF contributed to improve equitable COVID-19 vaccination by supporting the mobilization of the brigades with small stipends for community facilitators, portable CCE, and vaccination kits for the brigades.

After vaccinating frontline health workers, the government's priority was to vaccinate in urban and densely populated areas, beginning with those most at risk, per their age. In this situation, UNICEF constantly advocated in all countries for the distribution of CCE and supplies to remote regions and vulnerable populations, mainly indigenous, rural, and isolated communities. UNICEF participated in the funding of the local transportation and per-diem costs of the government outreach vaccination brigades in Bolivia, Guyana, and Nicaragua, which provided door-to-door vaccination services (see box).

5.1.4. Demand: Risk Communication and Community Engagement. In the seven participating RTA countries, the majority of UNICEF's RCCE expertise before the COVID-19 pandemic was mostly focused on topics different from health, e.g., education and child protection. However, UNICEF COs quickly adapted this existing expertise to the needs of promoting COVID-19 vaccination and reducing vaccine hesitancy among the population.

In general, UNICEF's RCCE strategies sought to empower communities to participate in the promotion and/or delivery of COVID-19 vaccination. Also, UNICEF disseminated key messages through mass media channels directed to the entire population, i.e., social media, TV, radio, and community outreach efforts.

UNICEF used its existing partnership program with civil society organizations to rapidly fund community outreach and education efforts implemented by NGOs, and community and youth groups.

Regional support for RCCE activities came from both LACRO's Communications and Advocacy units. LACRO's social and behavior change (SBC) specialist was recruited in early 2022, i.e., relatively late during the rollout of the COVID-19 vaccination in the region.

Below are examples of UNICEF's RCCE initiatives which took into account the local context and opportunities.

- In Bolivia, UNICEF used an existing agreement with RED UNO, a private broadcasting company with national coverage, and with two private commercial conglomerates (FINRURAL and CANEB) to implement its risk communication activities.
- In El Salvador, the "Vaccines save lives" campaign reached about 746,000 persons through multiple communication platforms: radio, TV, and social networks. The latter was the most predominant channel—using Facebook, Instagram, and Twitter—with more than 18 million messages sent out and close to one million interactions.
- In Guatemala, UNICEF helped the MOH in the development of guidelines and trained their staff on how to address myths and misinformation at the community level.
- In Guyana, the existing UNICEF-supported, community-based Children Advocacy Centers, operated by both Government and CSOs, promoted COVID-19 vaccination with their participants.
- In Haiti, a total of 11,000 community and religious leaders became engaged in community mobilization activities.
- In Paraguay, UNICEF partnered with Habitat for Humanity (an international NGO) and with the Settlement Support Network (RDAA, a network of local NGOs and CBOs) to implement its RCCE activities among large vulnerable populations in urban areas of the Central, Alto Paraná y Caaguazú regions.

In El Salvador, Paraguay and Nicaragua, UNICEF also promoted the country's **routine immunization program**, mainly as part of the messages included in the COVID-19 RCCE activities.

5.2 Effectiveness of UNICEF´s contributions to COVID-19 vaccine rollout

The following is a summary of effectiveness findings (EQ-2, EQ-3, EQ-4).

With regard to equitable access to COVID-19 vaccines: Mixed effectiveness

- *Despite advocacy efforts by all UNICEF COs to promote the priority immunization of remote and indigenous populations, host country governments prioritized urban and densely populated areas for COVID-19 immunizations.*

- *However, several UNICEF COs found ways, within the scope of NDVPs, to support immunization services for these remote and indigenous groups.*

With regard to lessons learned from UNICEF's support to the COVID-19 vaccine rollout:

- *Multiple lessons emerged from UNICEF's support to the roll out of COVID-19 vaccines, including: (1) the use of UNICEF's core strengths for addressing urgent COVID-19 vaccination needs; (2) tailoring of UNICEF support to the inherent strengths of health systems; (3) timely provision of technical assistance from LACRO to COs; (4) equity of vaccination services; and (5) the importance*

of early and strong coordination with other stakeholders for a more effective support to the roll out of COVID-19 vaccines. Section 7 provides further details for each lesson.

With regard to emerging achievements in supporting the rollout of COVID-19 vaccines (per key health system component of the ToC):

- *For Supply*
  - *The procurement of CCE and vaccination supplies had mixed effectiveness (see below). However, effectiveness could be improved if UNICEF-related challenges can be addressed. Their related capacity building activities were effective.*
- *For Demand*
  - *Risk communication and communication engagement and its capacity building activities were effective as it included good practices (participation of government health authorities, population-based studies to assess reasons for vaccine hesitancy and reasons for non-vaccination and use of multiple media) and applied its existing partnerships with local organizations.*
  - *UNICEF's support to regular immunization programs was effective as part of its RCCE activities, which were implemented within the context of its support to COVID-19 vaccination.*
- *For Enabling Environment*
  - *Country offices were effective in meeting the increased demand for their services and support during the roll out COVID-19 vaccination.*
  - *The engagement with government and other stakeholders in planning the activities of the NDVPs had mixed effectiveness as it mostly depended on the timeliness and scope of UNICEF's participation in these processes.*
  - *UNICEF-supported technological innovations in El Salvador and Nicaragua were effective in supporting current COVID-19 vaccination (Nicaragua) or a potential expansion of services for women and children (El Salvador).*

With regard to the greatest challenges in responding to the COVID-19 vaccine rollout:

- *Within the control of UNICEF: limited TA for timely support to procurement and distribution of CCE; timely availability of funding for the procurement of CCE; limitations in advocacy efforts to include underserved and remote populations early in the roll out of COVID-19 vaccination; UNICEF staff became overwhelmed with the level of effort required for the response; limited internal monitoring systems.*
- *Outside the control of UNICEF: delay in global supply chain distribution systems; delays in the availability of COVID-19 vaccines.*

With regard to mainstreaming COVID-19 vaccination into routine immunization:

- *The analysis of the findings and conclusions has served to provide six recommendations and respective actions for UNICEF LACRO to reach zero-dose children, as described in section 8.*

5.2.1 Enabling environment: Country Offices' efforts to become more effective. In all countries reviewed, UNICEF CO staff faced intense stress and increased workload with the pandemic and vaccination response. However, they adapted to these stressful and changing circumstances. In El Salvador and Nicaragua, UNICEF COs had to continue implementing their approved Country Program, while simultaneously, deploying the pandemic and vaccination response activities. In other countries, the regular program was put partially on hold to focus on addressing the emergency.

To rise to the challenge, CO´s effectiveness was enhanced in several offices. In El Salvador, UNICEF asked PAHO to provide technical assistance to the government on the proper operation and maintenance of the procured CCE. In Paraguay, the CO hired a local expert in CCE to support all aspects of the new equipment and to coordinate closely with the MOH in the installation and training of health technicians and managers in charge of the cold chain in the country.

In Nicaragua, the CO was reinforced with specialized staff coming from other COs; this translated into more agility to purchase and delivery, and hence, quicker arrival of the CCE in the country. Likewise, the Guatemala CO hired a specialist in acquisitions, who made a significant difference in overcoming obstacles regarding purchases, transport, and in-county customs procedures.

In all countries, UNICEF had limited capacity to verify the distribution of its provided equipment and supplies to their intended final users, e.g., CCE to the rural health centers. UNICEF was only able to track the distribution of these goods down to a middle level of the distribution chain, e.g., national or provisional warehouse.

Likewise, the UNICEF-supported RCCE activities lacked targets, measurement indicators, and baseline information on the expected changes in behavior. Without a monitoring system to link these RCCE inputs and outputs with their expected outcomes and impact it is difficult to assess UNICEF's overall effectiveness on the uptake of the vaccine due to a more motivated population.

5.2.1 Enabling Environment: Planning. The effectiveness of UNICEF's contributions to the national planning for the rollout of COVID-19 vaccination was mixed. It was most effective when UNICEF participated early in the national planning process and collaborated strongly with the government and/or international development partners. Examples are provided in the coherence section.

In addition, the leadership and support provided by the UNICEF Country Representative to his/her senior staff in this national planning process – including his/her participation in key meetings with government and international development officials - also made UNICEF's participation more effective.

The decision of COs to only support activities in the NDVPs – and not independent activities promoted by stakeholders outside the NDVPs– was effective as it allowed UNICEF to focus its limited resources on achieving the national immunization coverage for COVID-19 vaccination.

5.2.2. Enabling Environment: Innovations in information technology. UNICEF and its partners developed small-scale innovations to support COVID-19 vaccination. For example, In El Salvador, UNICEF is piloting the adaptation of the existing e-registry of persons with COVID-19 vaccination to include a wider array of health and development information for mothers, children and youth. In Nicaragua, UNICEF implemented a geospatial information system, available online, to track the delivery of its contributions (see box).

UNICEF Nicaragua has introduced a Geographical Information System (GIS) to monitor the distribution and use of its contributions to the COVID-19 pandemic and vaccine rollout throughout the country. Currently, MINSA is considering adopting this strategy to strengthen its own monitoring system, and UNICEF is ready to assist in this process.

These innovations, if further assessed by LACRO and proven to be impactful and feasible to be scaled up, can be important contributions of UNICEF to the enhancement of vaccination and PHC services in LAC.

5.2.3 Supply: Cold Chain Equipment, Vaccination Supplies and Immunization Service Delivery – includes capacity building activities. UNICEF's effectiveness in supporting these activities was mixed, as there were internal and external factors that hindered optimal implementation.

First, each CO carried out its own acquisition process, using approved UNICEF procedures and directly coordinating with UNICEF´s Global Supply and Logistics Hub in Copenhagen. LACRO assisted each country office in this process. This country-by-country process was time-consuming and not efficient. Economies of scale could have been achieved if a limited number of country offices (or LACRO) could have consolidated and coordinated the procurement of all/majority of country offices.

Second, since global demand for this type of equipment rose during the pandemic, and there were also limitations in the global transportation services, CCE took longer to arrive in the countries. Besides, national procedures regarding customs and acceptance of donations by the MOH in the different countries delayed the delivery of the CCE even more. CCE began to arrive in the countries around October 2021; in some cases (Bolivia, Guatemala, Paraguay), the delivery of CCE was still underway or was just arriving in the countries during the timing of the RTA. For most countries, the peak of the COVID-19 vaccine rollout occurred between June 2021 and March 2022. Hence, part of the CCE purchased by UNICEF was not necessarily available on-site when it was most needed.

Third, the lack of in-house expertise in cold chain systems was strongly felt in UNICEF´s COs and in LACRO. The challenge was addressed in some countries by hiring national specialists or by means of alliances made with PAHO, which has specialists in cold chain systems. UNICEF COs were also able to contract expert consultants and second them to the MOH on cold chain systems, RCCE, and immunization, to provide direct support for ongoing activities. Finally, UNICEF also facilitated the training of government staff on CCE operation and maintenance and/or immunization logistics. These capacity building activities were effective in facilitating a sustainable and effective use of the procured CCE.

Fourth, the host country governments frequently allocated the UNICEF-provided CCE and supplies firstly to densely populated areas. This allocation was made despite UNICEF's insistence that this equipment and supplies be also delivered to regions with the most vulnerable and remote populations. This situation meant that the most vulnerable populations had to wait for the vaccine longer than people in urban areas. For example, in Nicaragua, the government´s decision was to allocate the first two procurement of CCE to urban areas despite that the most vulnerable groups, including indigenous populations, reside in the Atlantic Coast/Caribbean region. A third procurement of CCE–now currently underway– will be destined for this region.

Despite of these challenges, and once it arrived at its intended destination, the UNICEF-provided CCE and vaccination supplies represented a significant difference in the delivery of COVID-19 immunizations. In addition, in regions where electricity is not readily available, the solar-powered CCE provided by UNICEF will be critical to increase COVID-19 vaccination efforts and to the recovery of routine immunization.

Furthermore, in Bolivia, Guyana, and Nicaragua UNICEF supported the government-led implementation of outreach vaccination brigades for vulnerable and remote populations. While this activity made vaccination more accessible, its effectiveness to increase vaccination coverage rates was mixed. In Bolivia (and in Guyana), UNICEF and the government provided additional funding to the decentralized health units so that their brigades could reach remote populations. However, neither the number of brigades nor the amount of allocated funding was enough to reach the planned targets of people vaccinated in remote areas. In Nicaragua, its success was significant as UNICEF and government funding was enough

and timely arranged to support a large number of brigades (459). Moreover, these vaccination brigades came to the communities and teamed up with local leaders (health or solidarity committees) who in turn, mobilized the population to get vaccinated, instead of only waiting for the people to reach the vaccination centers.

5.2.4 Demand: Risk Communication and Community Engagement (RCCE) – includes capacity building activities. Overall, UNICEF provided effective support to RCCE activities. For example, representatives from the Ministry of Health of El Salvador stated that UNICEF provided game-changing and leading contributions to the national effort of promoting COVID-19 vaccinations throughout the country.

Effective characteristics of UNICEF's support to RCCE were:

- UNICEF quickly adapted its existing expertise to the needs of the COVID-19 vaccination. While the host country government usually provided the content of the messages to disseminate through RCCE, UNICEF used its expertise in population targeting and communication channels to reach wide population groups with effective messaging. For example, social and mass media were used for wide information sharing while community outreach was used for hard-to-reach groups.

- UNICEF also funded and/or participated in population-based studies to assess their knowledge, practices, and attitudes towards COVID-19 vaccination including their barriers and hesitation. These studies ranged from identifying prevailing myths in the communities (Guatemala, Paraguay), to the implementation of specific surveys and qualitative studies (Bolivia, Guyana, see box). These findings enabled the MOH and UNICEF to design better communication messages and campaigns to promote vaccination, dispel misinformation, and foster self-care measures.

  For example, in Guatemala, UNICEF used its youth network (around 25,000 youth) and the existing online, youth-oriented U-Report platform to gather information on myths and misinformation in the communities. Informed by these findings, UNICEF prepared and disseminated messages – through the same online portal and other communication channels - that dispelled misinformation about COVID-19 vaccination among their users. The MOH also used that information to prepare guidelines and train health personnel to counteract those myths at the local level.

> In Guyana, UNICEF is implementing six KAP studies to better understand the drivers of vaccine hesitancy, a key barrier to achieve vaccination targets. Five were conducted in different regions of the country and one more will be carried out among priority populations. Knowledge generated from the KAP studies are informing RCCE activities and mid-long term COVID-19 vaccination strategy in the country.

Despite that the RCCE activities were effectively implemented, this RTA can't assess their population impact in increasing immunization coverage due to a lack of baseline and monitoring data that directly relates UNICEF-provided inputs and outputs with expected changes in the behaviors of the target population.

5.2.5 Demand: UNICEF's support for the regular immunization program. In Nicaragua, Paraguay, and El Salvador, UNICEF supported the continuation of the regular immunization program–and other health services—while also promoting COVID-19 vaccinations.

In El Salvador, at the beginning of the pandemic, the coverage of regular vaccination fell from 80% to 60%. UNICEF and PAHO offered technical assistance and resources to catch up and preserve regular vaccination in collaboration with The Office of the First Lady and the Salvadoran Pediatrics Association. Through its social communication campaigns, UNICEF promoted regular and influenza vaccination. In October 2021, and with the support of UNICEF, the Ministry of Health relaunched its regular vaccination program, achieving the gradual recovery of its coverage up to 80%. In addition, UNICEF has provided support for vaccination against measles, influenza viruses and HPV.

In Paraguay, UNICEF collaborated with civil society organizations to support working parents with young children to access vaccination services. The implemented "Infant spaces" were effective in facilitating COVID-19 information and vaccination services among parents and to provide regular immunization services to their young children.

In Nicaragua, the government continued the administration of its regular immunization program during the COVID-19 pandemic and asked UNICEF to fund part of its expenses such as RCCE, transportation costs of staff, vaccines, and supplies. This joint UNICEF-government effort prevented a significant decline of population coverage of regular vaccination, particularly for zero-dose children.

In all countries reviewed as part of the RTA, UNICEF COs advocated that vulnerable populations, including remote and indigenous groups, have the same priority in vaccination as in urban areas. However, these advocacy efforts had limited effectiveness given the already set priorities of host country governments to vaccinate the densely populated areas first. Paraguay is an exception, as its country office (along with other international development agencies) was able to convince the government that indigenous populations should have a higher vaccination priority than originally planned.

In addition, COs (e.g., El Salvador) also advocated the prompt immunization of teachers to ensure the early opening of schools. While some governments were positive to this ask, the overall effectiveness of this advocacy effort was limited as the opening of schools was anyway delayed due to other reasons (e.g. infrastructure).

It is important to note that governments' vaccination plans didn't follow a human rights-based approach but a "health needs" one: to vaccinate as many of the population of highest risk (mainly defined by age) as quickly as possible with priority given to the densely populated areas, rich and poor alike.

Despite the government's priority to vaccinate densely populated areas first, some COs found ways to privilege these underserved populations in their supported activities. For example, in Guatemala and in Paraguay, UNICEF agreed with the government to allocate part of its support to underserved rural areas (25 municipalities in Guatemala and two provinces in Paraguay). In both countries, UNICEF also agreed with the government that part of its donated CCE would be solar-powered and mainly distributed in remote population areas.

In Guyana and Paraguay, the RCCE activities included messaging for rural and indigenous groups in addition to urban poor populations. In Nicaragua, Bolivia, and Guyana, UNICEF provided financial support to government-led outreach vaccination brigades which targeted these population groups and to reach zero-dose children.

This RTA found no evidence that UNICEF's support was procured, distributed or used in a gender-biased manner as gender considerations were not part of the overall vaccination strategy of the host country governments, both for frontline workers (of which the majority are women) or to the general population.

In its RCCE messaging and community outreach, UNICEF frequently targeted women and youth as change agents to promote COVID-19 vaccination within their households and communities. In Guyana UNICEF explicitly included LGBTQ populations as part of its RCCE initiatives.

5.3 Coherence of UNICEF´s contributions to the COVID-19 vaccine rollout

The following is a summary of coherence findings (EQ-5, EQ-6).

UNICEF was the most valuable partner of host country governments for procurement and distribution of CCE and for the implementation of RCCE. In addition, two host country governments regarded UNICEF (along with PAHO) as its most important international development partner for the introduction and roll out of COVID-19 vaccination.

With regard to partnerships and collaboration:

- *With government: Universally present (in all countries reviewed) but of variable intensity by country. An early and more proactive engagement with government facilitated more significant UNICEF contributions.*
- *With UN agencies: Variable in presence and intensity by country. Wherever UNICEF allied with PAHO, its reach with the host country government was more significant.*
- *With civil society and private sector: Variable in presence and intensity by country. UNICEF applied its existing partnership program with CSOs to expand the reach of its community engagement and promotion activities.*

In the future, early and pro-active coordination of UNICEF with host country governments and international development partners (with focus on PAHO) will enhance the relevance and effectiveness of UNICEF's contributions. UNICEF's existing partnership program with CBOs and NGOs, and its nascent approaches with the private commercial sector (as in Bolivia) will facilitate the implementation of its supported RCCE activities for increasing demand of vaccination services.

UNICEF collaborated with the host country governments, the international development community, local/international NGOs, and CSOs. And in Bolivia UNICEF engaged three for-profit private sector organizations.

Cooperation with host country governments was universal but its timing and intensity varied with each country. This engagement in COVID-19 activities was either initiated by UNICEF's country representative (as in El Salvador) or was informed by an ongoing health-related relationship between both organizations (as in Bolivia).

In El Salvador, UNICEF was invited early to the National Committee to Address the COVID-19 Pandemic, led by the Office of the President. Thus, UNICEF was a key and early player in the design and implementation of the rollout of COVID-19 vaccination in the country. A similar collaboration occurred in Guatemala.

In Bolivia, UNICEF collaborated with both the national and sub-national levels of government given the decentralization of the health system.

A similar situation happened with PAHO which was the UN -designated leading agency for the response to COVID-19 in LAC. In El Salvador, UNICEF established a strong alliance with PAHO that facilitated close collaboration between the two agencies and the MOH (see box) on a variety of topics. In other settings, UNICEF collaborated with PAHO on a case-by-case basis. For example, in Guatemala, both PAHO and UNICEF collaborated in the training of government staff in the operation and maintenance of the procured CCE. In Nicaragua, both PAHO and UNICEF ran separate procurements of CCE. In Guyana, PAHO and UNICEF seldom collaborated while in Paraguay the coordination was minimal.

In El Salvador, the close collaboration between UNICEF and PAHO to share technical expertise and additional resources under a single work plan has allowed efficient and successful support to MINSAL. It has completely avoided the gaps, confusions and stumbles that frequently occur when two international cooperation organizations support the government on the same issue. This cooperation has been led by the leaders of both organizations and been exemplary and contagious for their teams. Furthermore, this example of "sharing the same stage" has raised the reputation of the United Nations with the government and people of El Salvador.

Two possible reasons explain the mixed collaboration with PAHO. The first reason is the limited collaboration between both agencies prior to the pandemic. UNICEF has not prioritized health as part of its program agenda in many of its COs in LAC and thus, they had little incentive to establish collaboration with PAHO. However, prior UNICEF's health programming doesn't ensure strong collaboration with PAHO. UNICEF Bolivia already had a health program but its collaboration with PAHO was limited, i.e., the joint diplomate program on Cold Chain Management with a local university. The second reason is the assertiveness, or lack thereof, between UNICEF and PAHO country representatives to collaborate for the COVID-19 vaccine rollout as clearly shown in El Salvador.

A similar case-by-case collaboration occurred with other UN and international development agencies. In Guyana, UNICEF partnered with the World Bank (the leading international development agency for COVID-19 response). While the World Bank procured the CCE, UNICEF provided technical assistance and training opportunities to the government staff to operate and maintain the procured CCE. In Guyana, USAID provided funds to UNICEF. In El Salvador, UNICEF and USAID only ensured that their own training activities were not overlapping.

Finally, UNICEF partnered with civil society organizations and in some cases with the private sector. UNICEF's funding of civil society organizations through its existing partnership program allowed local NGOs, and community and youth groups to implement community outreach activities that promoted COVID-19 vaccination and organized its delivery among their populations. In Bolivia, UNICEF collaborated with the private sector companies FINRURAL, CANEB and RED UNO. This collaboration improved access to information, fostered community participation, carried out research and improved access to vaccination in some regions of the country.

6. CONCLUSIONS

Relevance

UNICEF's contributions to the roll out of COVID-19 vaccination were relevant because:

UNICEF focused on activities that strongly responded to the objectives of NDVPs led by the host country governments. Existing CCE was insufficient in all countries, in quantity and quality, to cope with the vast needs of rapidly vaccinating the majority of the country's population with vaccines which might have different storage and handling requirements. In addition, effective RCCE has been a frequent shortcoming in the majority of government health systems in LAC and this expertise was urgently needed to increase demand by convincing and mobilizing the vast majority population to receive COVID-19 vaccination.

The decision of UNICEF COs to focus their support on the activities in the NDVPs – and not on separate activities sponsored by individual organizations – was appropriate as it allowed them to channel its limited resources to a national and coordinated effort.

UNICEF's initially supported activities in each country were closely related to its existing core strengths at global and country levels. UNICEF core strengths include: (1) strengthening cold chain by the procurement of CCE to improve the supply of vaccination services; and, (2) implementation of RCCE to increase demand for vaccination services. Governments and development partners quickly realized that UNICEF's global expertise in procuring and distributing CCE was needed to provide the necessary hardware for widespread vaccination[28]. UNICEF's country offices also realized that they could adapt their existing RCCE programs (e.g., on child protection and education) to the needs of promoting COVID-19 vaccination.

For countries with little or no UNICEF's prior health programming, UNICEF's decision to support a limited number of activities that addressed critical needs - but were also UNICEF's comparative advantages - was wise. When successfully implemented, these activities enhanced UNICEF's reputation among the countries' stakeholders, thus providing a "foot in the door" for its broader participation in the strengthening of regular immunization programs and PHC.

As procurement and distribution of CCE and RCCE activities were implemented, UNICEF COs realized that their support for additional and complementary activities was needed to ensure the success of the initial two. These additional activities were always approved by the host country governments and appeared in their national immunization plans., e.g., procurement and distribution of vaccination supplies; providing technical assistance and training government staff on CEE operation and maintenance and on RCCE design and implementation; funding the government-led vaccination brigades that reached remote populations; implementing population studies to assess vaccine hesitancy and barriers to immunization so that RCCE activities could have more effective messages and targeting. UNICEF's flexibility to adapt its initial programming to these emerging country needs was crucial to the success of the two initial activities.

UNICEF's engagement in addressing the COVID-19 pandemic (and to contribution to the roll out of its vaccine) was rapidly accepted by the host country governments and international development partners, despite its prior limited participation in the health sector in LAC countries (as compared to other

[28] Globally, UNICEF procured almost US$205 million worth of cold chain equipment and services in 2021 as reported by UNICEF Supply Division.

regions)**.** While the depth of this engagement varied by country, this quick acceptance of UNICEF as a valuable partner is a demonstration of the global power of UNICEF's legitimacy and brand.

UNICEF's relevance to provide critical contributions to the rollout of COVID-19 vaccination was acknowledged early by its donors. The government of Japan funded a multi-country effort for the procurement and distribution of CCE and related supplies and the implementation of complementary activities in the LAC region (US$21.1M). UNICEF COs also enjoyed support from other countries and different donors, e.g., the governments of Argentina, China, the Czech Republic, Germany, France, Korea, Mexico, Spain, Sweden, and the USA among others.

Effectiveness

UNICEF's effectiveness in support to the roll out of COVID-19 vaccination was overall mixed, with differences in effectiveness among multiple components.

UNICEF's effectiveness in supporting countries meeting their population coverage targets with COVID-19 vaccination is difficult to assess.

By October 2022, only Nicaragua and El Salvador had achieved their expected COVID-19 vaccination national targets, as defined by WHO (at least 70% of the total population with two doses); all other countries reviewed as part of the RTA lagged, with Guatemala and Haiti far behind.

Factors underlying the slow progress in vaccination coverage depended mainly on country circumstances, which were well beyond UNICEF´s capabilities to address amid the pandemic. Some factors were political; others were related to the preexistent capabilities of the health system (such as the presence -or not- of an established and strong PHC system) or due to the main strategy used by the MOH to implement the COVID-19 vaccine rollout. UNICEF's strengths and weaknesses, at the regional or country level, also played an important role in the effectiveness of its contributions.

It was not possible to quantify the effectiveness of UNICEF's contributions to population coverage with COVID-19 immunizations as causal pathways and their implementers/contributors are diverse and no monitoring strategy was implemented in the COs to account for it. However, it was noticeable that both Nicaragua and El Salvador already had strong health systems prior to the COVID-19 pandemic. We can assume that UNICEF's contributions to an already functional health system could be more effective than if happening in a weaker setting.

On the procurement and distribution of CCE and vaccination supplies, UNICEF's effectiveness is mixed because:

- There was a delayed delivery of UNICEF-procured CCE to the countries that did not match with the peak of COVID-19 vaccination efforts. The main reasons were:
    - lack or insufficient expertise in the CO and in LACRO in this area;
    - procurement strategy on an office-by-office basis, when all COs were purchasing more or less the same type of equipment;
    - global restrictions to the production and transportation of goods to the countries;
- While mobile CCE (e.g., vaccination boxes) could be used relatively quickly once they reached the vaccination sites, additional time was needed for the non-mobile CCE (e.g. vaccine refrigerators) to transport and install the equipment in the health facilities. Besides, this type of equipment was the latest to arrive in most countries. Mobile CCE was available as of October 2021 when the COVID-19 vaccination roll-out was already underway in these countries due to availability of vaccines; whereas

non-mobile CCE was still arriving at the time of the RTA. Thus, delays in the arrival of CCE reduced effectiveness and timeliness of UNICEF´s contribution to the COVID-19 vaccination roll-out.
- In many countries and localities, the MOH staff lacked the skills for the installation, operation and maintenance of the procured CCE. Thus, UNICEF enhanced its effectiveness by investing in training the MOH staff and seconding specialist staff to the MOH.

Regardless of these implementation challenges, whenever and wherever the UNICEF-procured CCE and vaccination supplies arrived at their intended destinations, they made a significant difference in making vaccines available to large population groups. Solar-powered equipment was especially appreciated in locations without a reliable electricity supply.

UNICEF's effectiveness in achieving an equitable distribution of vaccination services was also mixed. UNICEF's advocacy efforts to include underserved and remote populations early in the vaccination were seldom heard by the governments (a notable exception is Paraguay) because of the intense pressure on urban populations, rich and poor alike, to be vaccinated first. The absence of a widespread advocacy effort to prioritize these (usually powerless) population groups within the international development community and the public opinion in these countries was also influential in this situation.

However, several COs found ways to direct some of their support to these remote and indigenous groups through geographic targeting, RCCE messaging, deployment of CCE equipment and support to vaccination brigades.

On UNICEF-supported RCCE activities, this RTA could not systematically assess their impact on changing population behavior given the absence of a monitoring and evaluation system which related UNICEF-provided inputs and outputs with expected outcomes and impact. However, **the anecdotal and process-related evidence strongly suggests a significant effectiveness of UNICEF-supported RCCE initiatives**. For example, the government of El Salvador has already acknowledged the leading role of UNICEF in developing and implementing the national communications strategy to support the COVID-19 vaccine rollout.

Moreover, the RTA has identified the implementation of several UNICEF-supported processes that are usually conducive to successful outcomes and effectiveness. These processes are:
- The content of the RCCE messages was usually designed by the government but with population targeting and communication channels informed by UNICEF's expertise.
- In the countries of its application, UNICEF effectively used its existing partnership program with civil society organizations to implement community outreach and education activities by NGOs, community and youth groups.
- UNICEF's funding and participation in population-based studies to understand vaccine hesitancy RCCE initiatives are more responsive to the beliefs and expectations of their target populations.
- UNICEF built the government's capacity to design and implement RCCE by training its staff on this topic.

In Nicaragua and El Salvador, UNICEF was also effective in supporting the **continuation of regular immunizations** while promoting COVID-19 vaccination. In Nicaragua, the UNICEF-supported geospatial information system was effective in the government tracking of COVID-19 immunization inputs and its resulting population coverage. These examples of innovative activities provide the "foot in the door" for an expanded role of UNICEF in the regular immunization programs and primary health care in the region.

UNICEF's effectiveness could have been higher or happened earlier if **internal and/or external challenging** factors could have been better addressed (if possible). For example:

- Initially, LACRO and CO staff were overwhelmed by the tasks that UNICEF carried out to support COVID-19 vaccination. In many cases, they surpassed the number and skill sets of the available staff. Moreover, they had restrictions on mobility and on procuring needed supplies locally. In addition, LACRO's support to CCE procurement and RCCE activities was limited. When additional resources arrived and authorizations to procure locally were provided, COs were able to hire additional staff or consultants to fulfill their gaps in manpower and skill sets and to procure needed supplies. A quicker arrival and/or authorization to use this additional funding would have probably made an earlier solution to this situation. Moreover, an earlier and stronger support from LACRO in coordinating the procurement of CCE of their COs and/or in providing them with state-of-the-art technical assistance on RCCE would have improved the effectiveness of these core UNICEF's contributions.
- UNICEF's efforts in monitoring the results of the inputs provided (and some RCCE outputs) were very limited. While UNICEF's COs and LACRO kept count of the inputs and outputs provided to the government and its partners, there were no data collection/analysis methods and tools that related them to desired outputs, outcomes or population impact. However, the RTA acknowledges the complexity of assessing the specific value of UNICEF's contributions to national outcomes and impact, given the diversity of donors and causal pathways that each country used.

Coherence

The complexity of the introduction and the rollout of the COVID-19 vaccine demanded strong coherence to maximize the compatibility of the activities and interventions delivered by multiple stakeholders for an effective outcome. Key stakeholders involved in this process included: (1) ministries of health and their immunization units; (2) international development agencies, including PAHO and USAID; and (3) civil society organizations in all countries.

Overall, the strongest coherence was achieved with the ministries of health and their immunization units but the intensity of this effort varied significantly by country. UNICEF was identified by host country governments as the most important UN agency in these two topics of the rollout of the COVID-19 vaccine.

In countries where UNICEF's collaboration with host country governments has been the strongest, UNICEF's reputation has been significantly enhanced. For example, in El Salvador, UNICEF has just signed its first cooperation agreement with the Ministry of Health and now co-chairs the UN Humanitarian Health Cluster (jointly with PAHO). In Guatemala, PHC is already included in the 2022-2025 Country Development Program subscribed to by UNICEF and the government. The governments of Paraguay and El Salvador rated UNICEF's overall contributions (along with PAHO's) as the most important provided by the international development community for the COVID-19 vaccine rollout.

The coherence with international development and UN agencies varied significantly by country, being the collaboration with PAHO the most significant. Whenever occurred, a strong collaboration with PAHO was a win-win situation for both agencies.

With civil society organizations, UNICEF had a stronger collaboration given its existing partnership program. Within the UN system, UNICEF had the most extensive collaboration with civil society for the vaccine rollout.

The overall reasons for the observed diversity of UNICEF collaborating with other agencies are:

a. The initiatives taken by COs to meaningfully contribute to the national rollout of the COVID-19 vaccine. For example, UNICEF sought an early and strong collaboration with PAHO in El Salvador to jointly support the government. This was a result of open and clear channels of communication between the leaders of both agencies. With PAHO as its ally, UNICEF found an easy way to participate early - in a substantial and meaningful way - in the government-led national committees and task forces to design and implement COVID-19 vaccinations.
b. The previous positioning of UNICEF with civil society organizations and international development agencies. For example, UNICEF's existing partnership program with civil society organizations in several country offices provided local NGOs, and community and youth groups with funding to rapidly implement community outreach and education activities.
c. Ad-hoc agreements between organizations. For example, in Guyana, the World Bank agreed to procure the needed CCE while UNICEF provided the necessary technical assistance for their operation and maintenance.

Moving forward, it is important that COs strengthen their collaboration links simultaneously: (a) with governments for effective policymaking and advocacy, (b) with international development agencies (especially PAHO) to closely coordinate their inputs and contributions to the government, and (c) with civil society organization whose current engagement is UNICEF's comparative advantage within the UN system to increase access of essential services to vulnerable populations. UNICEF's emerging collaboration with for-profit companies and with decentralized health units (both in Bolivia) is also worth considering to accelerate the delivery of regular immunizations and PHC services, particularly for zero-dose children.

7. LESSONS LEARNED

The following lessons learned are informed by the RTA's findings as explained below. While they are applicable to all LAC countries reviewed in the RTA, they could also be applicable –prior analysis of UNICEF's capacities and the local context– to all LAC countries.

If these lessons learned are applied by UNICEF during its strengthening of regular immunization (and primary health care) programs, its contributions will be more relevant, effective, and coherent.

1. **Relevance: If UNICEF uses its core strengths to address urgent national needs, it will be quickly recognized by stakeholders as a key partner.** UNICEF initially used its core strengths, both at global (CCE procurement) and country levels (RCCE) to rapidly propose solutions to host country governments which addressed key felt needs for the design and implementation of the COVID-19 vaccine rollout. The initial application of UNICEF's core strengths made its contributions unique and significant within the national effort. For example, for RCCE, UNICEF is one of the few international development partners that can rapidly provide funding to local NGOs, community, and youth groups to promote COVID-19 vaccination because of its existing partnership program with civil society organizations.

   UNICEF didn't commit to comprehensively supporting one or more pillars of the existing health system. Wisely, and given its prior little or no experience with health programming in LAC, UNICEF committed its support to a limited number of activities whose implementation was critically needed to roll out the COVID-19 vaccine and which were also UNICEF's comparative advantages. The successful support to this limited number of activities has enhanced UNICEF's reputation in these

countries and opened future opportunities for its support to regular immunization programs and PHC in LAC.

2. **Effectiveness: Tailoring to the inherent strength of health systems, UNICEF's contribution to vaccination services would be more effective.** For example, UNICEF invested significantly in the operation of the government-led vaccination brigades in Nicaragua. These brigades were part of a health system with a strong community outreach component, and their vaccination plans were appropriate both in the number of the target population and the costs to be incurred. Thus, UNICEF's investments in the brigades' local transportation costs and per-diem contributed to a significant increase in vaccination coverage among remote and vulnerable populations. A different situation happened in Guyana and Bolivia, where a similar activity, embedded within weaker health systems and with a more limited scope, failed to provide meaningful increases in vaccination coverage. In other countries, e.g., Haiti, UNICEF realized that the existing health system had limitations in the operation and maintenance of the cold chain and basic logistics. Therefore, UNICEF trained government staff to bridge this skill gap. However, the inherent weakness of the Haitian health system makes the effectiveness of UNICEF's contributions uncertain.

3. **Effectiveness: Timely provision of technical assistance from LACRO to country offices enhances their contributions to vaccination services.** COs completed their work on CCE and RCCE with limited technical assistance from LACRO. While these achievements are tribute to the dedication of their staff and consultants, future health emergencies and programs will need a stronger technical guidance and support from LACRO to promote efficiencies of scale (e.g., in the procurement of CCE) or apply state-of-the-knowledge and skills (RCCE). Most importantly, UNICEF's limited effectiveness in advocating for the priority vaccination of remote and indigenous populations could have been enhanced with additional LACRO's guidance and support. It is also likely that COs would have been willing and able to embark on additional topics, in addition to RCCE and CCE, if they have had the necessary technical expertise from LACRO on these new topics (e.g., human resources for PHC).

4. **Effectiveness: Despite the host country government's priority to vaccinate densely populated areas, UNICEF can find ways to also support the provision of vaccination services to remote and indigenous populations.** From the beginning of the COVID-19 vaccination rollout, UNICEF advocated for the early vaccination of remote and vulnerable groups. However, these concerns were not taken into account by host country governments at the beginning of the vaccination because of their initial focus on densely populated areas. Later in the vaccination rollout, and in a minority of countries, UNICEF supported government-led initiatives to reach these vulnerable and remote populations, e.g., geographic targeting of part of UNICEF's support, and its financial assistance to vaccination brigades.

5. **Coherence: The activities supported by UNICEF are more effective with early and strong coordination with other international development agencies.** The most effective activities occurred when UNICEF partnered with other development partners to jointly support the host country government, as in Salvador (with PAHO) and in Guyana (with the World Bank). This extensive collaboration happened in a minority of countries. In other situations, little or no coordination resulted in two international partners duplicating the same activity (e.g. with PAHO for the procurement of CCE in Nicaragua) with the resulting lack of efficiency. For future health emergencies and programs, LACRO could ensure that all country offices develop earlier and stronger collaboration links with these organizations, being PAHO the most important partner for UNICEF. One topic for future collaboration among international development organizations –and also with civil society– can be a strong and united advocacy to the host country government for equitable services to remote and

indigenous populations. Findings from a recent implementation research study funded by Gavi in Guyana and Bolivia[29] illustrated the importance of establishing multi-level, intersectoral collaboration of international and civil society organizations to jointly advocate for more equity in the provision of immunization and health services.

8. KEY RECOMMENDATIONS

The following are key recommendations for UNICEF LACRO. They are built upon the recommendations formulated to COs as documented in the respective CO reports (Bolivia, Guatemala, Paraguay) and findings from desk reviews (El Salvador, Guyana, Haiti, Nicaragua). All six recommendations were validated in a workshop held with UNICEF LACRO and UNICEF CO Focal Point staff for the RTA on November 22, 2022.

R1: Develop a regional strategy and action plan to strengthen regular immunization systems and services in the context of PHC in LAC countries, including a resource mobilization plan and timeframe.

This regional strategy should build upon and leverage: (i) the activities that were more effectively supported by UNICEF during the COVID-19 vaccine roll out in LAC; and (ii) UNICEF's global experience in responding to emergencies in health and other sectors.

Activities that were more effectively supported by UNICEF during the COVID-19 vaccine roll out in LAC include:

a. The procurement and distribution of CCE and related supplies.
b. The design and implementation of risk communication activities, informed by the results of local research, in close coordination with host country governments and using a variety of communication channels (social and mass media, community outreach, U-report).
c. The funding of community outreach and education activities, with the participation of local NGOs, community and youth groups.
d. The financial support to immunization services that served remote and indigenous populations, e.g., outreach vaccination teams or brigades.
e. The implementation and/or funding of capacity strengthening of government health staff on key topics related to the above, e.g., operation and maintenance of the cold chain, immunization logistics, and RCCE.

Despite the external and internal implementation challenges described in this report, UNICEF's more effective support to these activities represents an enormous opportunity for institutional growth in countries with little or no previous UNICEF health programming. This opportunity for growth is beginning to become a reality as UNICEF continues and expands its engagement in PHC and immunization programs with country governments (e.g., El Salvador, Guatemala, Nicaragua, Bolivia). Within a short time period, additional governments will most likely seek UNICEF's support for a similar reason.

[29] Chan IL, Mowson R, Alonso JP, Roberti J, Contreras M, Velandia-González M. Promoting immunization equity in Latin America and the Caribbean: Case studies, lessons learned, and their implication for COVID-19 vaccine equity. Vaccine. 2022 Mar 18; 40(13): 1977–1986.

These UNICEF-supported activities are also crucial for the strengthening of regular immunization programs and PHC services. Procured CCE will need replacement equipment and spare parts, and training of existing and new government staff on its operation and maintenance. Risk communications and community engagement are key components to promote population demand, address vaccine hesitancy, restore trust in public health services, and achieve high immunization coverage, either for the COVID-19 vaccine or the regular immunization program.

Moreover, other international development agencies seldom have equivalent capacities on these topics as UNICEF, e.g., risk communication and community engagement, global procurement of CCE are not comparative advantages of PAHO.

In addition, UNICEF's regional strategy to support PHC and regular immunization services should also include components that have been proven relevant, effective and coherent for this goal around the world in health and other sectors. These additional components of the regional strategy are:

f. Advocating for greater investment in PHC services, including routine immunization services.
g. Testing and using innovations to accelerate progress in strengthening routine immunization services for children.
h. Building health system resilience by supporting the implementation of best practices for PHC.

UNICEF should adopt a phased approach to implementing this regional strategy. Building upon the successes of the core activities should be the initial focus. As the first phase is successfully implemented, UNICEF can support additional interventions informed by its growing experience and the opportunities of additional interventions occurring in the countries.

Rationale for mobilizing resources in support of this regional strategy. While resource mobilization is primarily the responsibility of COs, LACRO needs to support these endeavors at the regional level. LACRO also needs to mobilize resources for strengthening its role in immunization.

UNICEF's justification to seek funding for this regional strategy is straightforward: UNICEF has been more effective in supporting these crucial activities for COVID-19 vaccination which are also important for regular immunizations and for PHC. Moreover, few international development organizations have the skills or capacities for these crucial activities. While the effectiveness of UNICEF's support to these activities was only observed in a limited number of countries, they are enough to become the proof of concept. Additional donor funding would scale up this proof of concept.

See Table 6 for a detailed list of key actions, timeframe, and staff responsible for the implementation of recommendation R1.

Table 6. Key actions, timeframe, and staff responsible for implementation of recommendation R1

Key Actions	Timeframe	Staff Responsible
• Develop regional strategy to strengthen regular immunization systems and services in the context of PHC, with inputs from COs, and including the following key aspects: ○ Planning based on national contexts, including catch up activities and strengthening systems ○ Integration COVID-19 and routine immunization ○ Zero-dose children and targeting of groups most left behind ○ Governance ○ Human resources ○ Supplies (cold chain, other where relevant) ○ SBC/RCCE ○ Gender aspects	December 2022-May 2023	LACRO Survive & Thrive (through consultant)
• Develop a regional resource mobilization plan for the implementation of the strategy.	June 2023	LACRO PPD & PFP
• Set up a timeframe for the launching and implementation of the strategy.	May 2023 onwards	LACRO S&T
• Country Offices design national action plans based on the regional strategy, national plans and existing CPDs and other plans.	June-August 2023	Country Offices (all with priority for zero-dose countries, which might have a different timeline)

The following are **operational recommendations** (R2-R6) to support the implementation of the regional strategy (R1) within the same timeframe of 6-12 months.

R2: Strengthen its regional capacity for cold chain procurement and management.

Recruit staff with expertise in cold chain procurement and management. The new staff will focus on providing technical support and guidance to CO teams on these core topics – including building capacities of government health staff – and on coordinating multi-country efforts (e.g., procurement of CCE with UNICEF Supply Chain unit in Copenhagen, best practices, lessons learned from all LAC countries supporting CCE). The new staff can also lead the production of standard operating procedures and guidelines, can provide training to CO staff and can also create learning hubs, products and services for UNICEF staff and their country-based counterparts. See Table 7 for a detailed list of key actions, timeframe, and staff responsible for the implementation of recommendation R2.

Table 7. Key actions, timeframe, and staff responsible for implementation of recommendation R2

Key Actions	Timeframe	Staff Responsible
• Recruit a regional cold chain specialist. • Develop a plan for capacity strengthening of UNICEF CO staff on CCE.	6-12 months	LACRO Supplies/ Operations with support from LACRO Survive & Thrive

Key Actions	Timeframe	Staff Responsible
• In coordination with COs, develop a plan for capacity strengthening of country government staff in charge of the cold chain management, including managers (national level) and technical specialists (sub-national level). • LACRO to support CO recruitment of CCE specialists where needed.		Country Offices

R3: Strengthen its own communication and advocacy efforts to support COs' ability to execute effective advocacy for more equitable PHC services ensuring that marginalized/minority groups are specifically targeted.

Illustrative topics of LACRO's support to COs for enhanced advocacy efforts could include:

- Design and implementation of an advocacy plan for COs. The initial step includes technical support for a comprehensive stakeholder analysis, which will allow UNICEF COs to identify target groups as well as allies and opponents to select action messages for improved PHC services.
- Elaboration of action messages that focus on the negative impact of health inequities for the overall development and health of young children. These LACRO-produced messages can be adapted to the realities and specific contexts of program countries.
- LACRO staff providing ongoing monitoring and mentoring to CO staff on their advocacy efforts for scaling up PHC services so that the right balance of actions is achieved.

See Table 8 for a detailed list of key actions, timeframe, and staff responsible for the implementation of recommendation R3.

Table 8. Key actions, timeframe, and staff responsible for implementation of recommendation R3

Key Actions	Timeframe	Staff Responsible
• LACRO to regionalize global key messages that COs can adapt and use based on their context so that it saves them time in the implementation. • LACRO to provide mentoring to UNICEF COs to address bottlenecks and gaps in advocacy for equitable PHC services. • LACRO to support COs to develop their own capacity strengthening plans with commensurate HR/staffing resources for advocacy to enhance equitable PHC services at national level, specifically focusing on marginalized/minority groups. • LACRO to help COs identify key stakeholders and their roles/capacities, including PAHO and other partners, at national level to coordinate advocacy for better equitable PHC services in LAC.	12 months	LACRO Survive & Thrive Team / MCH Specialist LACRO SBC Team LACRO Communications / Advocacy Team

R4: Support COs in assessing the relevance and feasibility of scaling up technological innovations for PHC, with immunization services being an entry point.

Some of these technological innovations include a geospatial information system in Nicaragua and the adaptation of the existing e-registry of COVID-19 vaccinations to include additional health information in El Salvador. These innovations need to become part of governments' national digital transformation including governance and policies for their effective implementation. If LACRO's assessment proves that these technological innovations are relevant and feasible for its future support to PHC and routine immunization strengthening, they could become unique and important UNICEF components of its regional strategy. See Table 9 for a detailed list of key actions, timeframe, and staff responsible for the implementation of recommendation R4.

Table 9. Key actions, timeframe, and staff responsible for implementation of recommendation R4

Key Actions	Timeframe	Staff Responsible
• In coordination with UNICEF CO and PAHO, LACRO will support the regional mapping of planned and deployed digital health tools and technologies in the region. • In coordination with UNICEF COs identify additional global and regional digital solutions, both internal and external to UNICEF, for the improved provision of primary health care services in LAC, with a first focus on immunization services. • Develop a menu of applicable digital solutions for LACRO CO to use and adapt for primary health care and immunization activities. • Assess identified digital solutions considering their potential to be applied for other goal areas, enabling multi-sectoral interventions. • Provide technical assistance to UNICEF COs in the deployment and scale up of digital solutions to facilitate improved primary health outcomes and the provision of routine immunization services	12 months	LACRO R4D / Business Analysts

R5: Strengthen its regional collaboration and coordination with PAHO's HQ in support of PHC and regular immunization services.

This coordination can also serve to jointly plan, test and scale up technical and service delivery innovations, and to jointly advocate to governments for equitable population access to regular immunization and PHC services. See Table 10 for a detailed list of key actions, timeframe, and staff responsible for the implementation of recommendation R5.

Table 10. Key actions, timeframe, and staff responsible for implementation of recommendation R5

Key Actions	Timeframe	Staff Responsible
• This coordination can facilitate the testing and scaling up technical and service delivery innovations, and to jointly advocate to governments for equitable population access to regular immunization and PHC services. • Increase communication between UNICEF and PAHO to coordinate further. • Stronger coordination and support from regional level should facilitate the coordination between UNICEF and PAHO at CO level. • Leverage ongoing work/added value of UNICEF for vaccination (i.e., RCCE, C4D, CCE) to facilitate further coordination with PAHO. • Increase access to technical workshops organized by PAHO.	Dec. 2022 – May 2023	LACRO Survive & Thrive / MCH Specialist LACRO R4D Team LACRO RCCE Specialist LACRO Epidemiology / Data Analyst (to recruit) UNICEF HQ Health

R6: Increase its technical support to COs for strengthening existing PHC and regular immunization services, with an emphasis on countries with large numbers of zero-dose children, and/or inadequate coverage of childhood vaccination.

Increased technical support from LACRO to COs should entail:

- How to adapt UNICEF's existing expertise (either in health or in other sectors) to the needs of regular immunization programs and PHC.
- Analyze the future effectiveness of the CO's support to the government-proposed activities. As this evaluation demonstrates, UNICEF's contributions are more effective if they address a felt need that was identified through a formal planning process, if the overall scope of the supported activity is conducive to impact and if the implementation agency has the capacity to make good use of UNICEF's contributions towards a successful result. Rapid assessments made by small teams of LACRO and country staff, informed by state-of-the-art global and regional knowledge, review of prior experience and consultation with other stakeholders (e.g., PAHO) could be valuable for these inputs of this analysis.
- Resource mobilization guidance to the COs which seek additional resources to implement their activities of the regional strategy.
- Guidance for an early and strong collaboration of COs with the in-country PAHO teams and other international development, civil society and private sector organizations to advocate to the host country government for the equitable delivery of regular immunization services and PHC, and to coordinate the efficient use of their mobilized resources.
- Technical assistance to design and implement an internal monitoring/tracking system that will allow the verification of the receipt of the UNICEF-supported goods and services to their intended beneficiaries.

See Table 11 for a detailed list of key actions, timeframe, and staff responsible for the implementation of recommendation R6.

Table 11. Key actions, timeframe, and staff responsible for implementation of recommendation R6

Key Actions	Timeframe	Staff Responsible
• Develop more opportunities to facilitate learning from other COs (i.e., regional workshops). • Document and share lessons learned (positive and challenging ones) on the support that UNICEF has delivered for COVID-19 roll out in LAC. • Increased capacity of LACRO on cold chain (link to R2): more workshops on cold chain for CO staff. • Create a talent pool with Spanish skills for CC technical support. • Coordinate with COs for financial support to continue the work on routine immunization, including support to COs for local resource mobilization. • Guidance for an early and strong collaboration of COs with the in-country PAHO teams and other international development, civil society and private sector organizations to advocate to the host country government for the equitable delivery of regular immunization services and PHC, and to coordinate the efficient use of their mobilized resources. • Technical assistance to design and implement an internal monitoring/tracking system that will allow the verification of the receipt of the UNICEF-supported goods and services to their intended beneficiaries.	Dec. 2022 – May 2023	LACRO Survive & Thrive CO Representatives Bi-directional dialogue between LACRO and COs