COVID-19 Report

ECLAC-PAHO

14 October 2021

The prolongation of the health crisis and its impact on health, the economy and social development

Foreword

The protracted coronavirus disease pandemic (COVID-19) has claimed nearly 1.5 million lives in Latin America and the Caribbean and has generated more than 44 million confirmed cases since its emergence in the region in February 2020. The region accounts for nearly 20% of confirmed cases of COVID-19 and about 30% of deaths worldwide, despite having only 8.4% of the world's population. The conditions of vulnerability that characterize the Latin America and the Caribbean region have made it particularly susceptible to the effects of the pandemic. This unprecedented crisis has highlighted the central importance of the health and well-being of individuals and communities for economic performance and social development. This report showcases how the historical weaknesses of health systems, and the structural inequalities that characterize the region, have made it difficult to control the pandemic.

In this second joint report, the Economic Commission for Latin America and the Caribbean (ECLAC) and the Pan American Health Organization (PAHO), provide an update on the evolution of the pandemic and its implications for health, society and the economy; define potential scenarios for control and evolution in the short term; and further elaborate on the recommended long-term lines of action to strengthen the State's capacity to respond to the population's health needs and their determinants, in the context of a transformative recovery.

Although some positive signs of economic recovery can be discerned, and it may be observed that health systems have responded in different ways in an effort to control the pandemic, the persistence of structural inequity in health throughout the region cannot be ignored. Moreover, in a context in which the COVID-19 pandemic has not yet been controlled, social challenges persist in terms of poverty and extreme poverty, inequality, inequity in access to health care, education and nutrition, among other categories. This shows that an economic bounce-back alone will not be sufficient to make the recovery transformative, fostering equality and environmental sustainability.

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From the health standpoint, the interruption of essential health services that are unrelated to COVID-19 is a cause for concern, since it undermines guaranteed access to health for the population. There are also shortcomings in the progress of vaccination coverage in several Latin American and Caribbean countries. The unequal distribution and global asymmetry between developed and developing countries means that, as of September 2021, barely 30% of the region's population had been fully vaccinated.

It is thus all the more important to ensure the provision of essential health services in the midst of a prolonged pandemic, where mass vaccination is one of the main challenges countries must overcome in order to bring the pandemic under control, supported by social protection and public health measures. This report highlights the need to strengthen coordination, regional integration and international cooperation mechanisms. It also underscores the need for a transformation of health systems based on primary health care, with universal health as the guiding principle. It calls for the strengthening of health authorities' institutional capacities, forging a resilient health system that is capable of responding to current and future challenges. To achieve this, it is essential to increase public spending on health, both equitably and efficiently, making the first level of care a strategic priority.

Lastly, our two institutions reaffirm the urgent need to control the pandemic through a comprehensive approach; and they recognize that it is time to roll out an institutional agenda that makes it possible to resume the path towards the Goals agreed upon as part of the 2030 Agenda for Sustainable Development, leaving no one behind.

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Introduction[1]

- More than a year and a half has passed since the first case of coronavirus disease (COVID-19) was detected in Latin America and the Caribbean, triggering a health crisis that has led to a steady deterioration of the social development process. Since the pandemic began, the region has witnessed more than 44 million cases of COVID-19 and nearly 1.4 million deaths from the disease. Its impact has thus been far out of proportion to the region's size, given that, with only 8.4% of the world's population (United Nations, 2019), the Latin American and Caribbean region accounts for nearly 20% of all cases of COVID-19 in the world and 30% of all the deaths that it has caused (WHO, 2021a).
- In 2020, the health crisis sparked the most serious economic contraction of the past 120 years in Latin America and the Caribbean, which also saw the worst economic performance of all the developing regions. Even before the pandemic hit, the region was already troubled by sluggish growth and, although the economy is expected to expand by 5.9% for 2021, this will not be enough for it to regain the GDP levels of 2019 (ECLAC, 2021a). In the labour market, both employment and the labour force participation rate are at record lows, and unemployment, poverty and inequality have reached peak levels. It is estimated that 2020 pushed 22 million more people into poverty, with a significant impact on children. The loss of jobs —and thus of income— has pushed up poverty rates and heightened income inequality. The situation of vulnerable persons, such as informal workers, women and youth, indigenous people, persons of African descent, migrants and persons with disabilities has worsened. The effect of all this on young people's schooling raises the risk of a lost generation in terms of education. The crisis has also led to the closure of a large number of small and medium-sized enterprises (SMEs) and to the destruction of human capital and jobs. These factors are exacerbating the heterogeneity of the region's production sector, which is compounded by low levels of investment (ECLAC, 2021a).
- Thus, in addition to giving rise to an alarming public health situation in the countries of Latin America and the Caribbean, the pandemic has also revealed the weaknesses of the economic, social and environmental aspects of the region's development model. The multiple and profound impacts that the health crisis has had and continues to have, despite the economic recovery, underscore the region's vulnerability.
- The countries of Latin America and the Caribbean are characterized by structural conditions of inequality, inequity, vulnerability and social exclusion that are combined with and perpetuated by informal and precarious forms of employment, weak social protection systems and poorly integrated production structures with a limited capacity to maintain sustainable levels of growth. These conditions are reflected in the institutional structure of the region's health systems and have been exacerbated by the pandemic. With underfunded, segmented and fragmented health systems (ECLAC/PAHO, 2020) and weak, inadequate social protection systems, the basic needs of a significant proportion of the region's population are not being met.
- The COVID-19 pandemic has highlighted the need for comprehensive policies and the importance of recognizing the interdependence of health care, the economy, social development and the environment (ECLAC/PAHO, 2020), and its prolongation has served to cement the central role of State action. The role that the State has played during this protracted crisis has been fundamental in containing and mitigating its profound repercussions and the erosion of social and economic development. The extensive fiscal measures announced and implemented by the countries of the region have proven to be a key economic policy tool in mounting a response to the crisis. This determined fiscal effort, which led to a significant increase in public spending in 2020, has succeeded in at least sustaining expenditure on health care and in strengthening social protection programmes associated with the emergency. To deal with the situation, the countries of the region have adopted social protection measures aimed at maintaining consumption levels and guaranteeing basic living conditions. Universal social protection schemes have thus played a key role during the emergency and should remain in operation (ECLAC, 2021b).

[1] This document is based on the information available up to 31 August in the case of ECLAC and 10 September in the case of PAHO unless otherwise indicated.

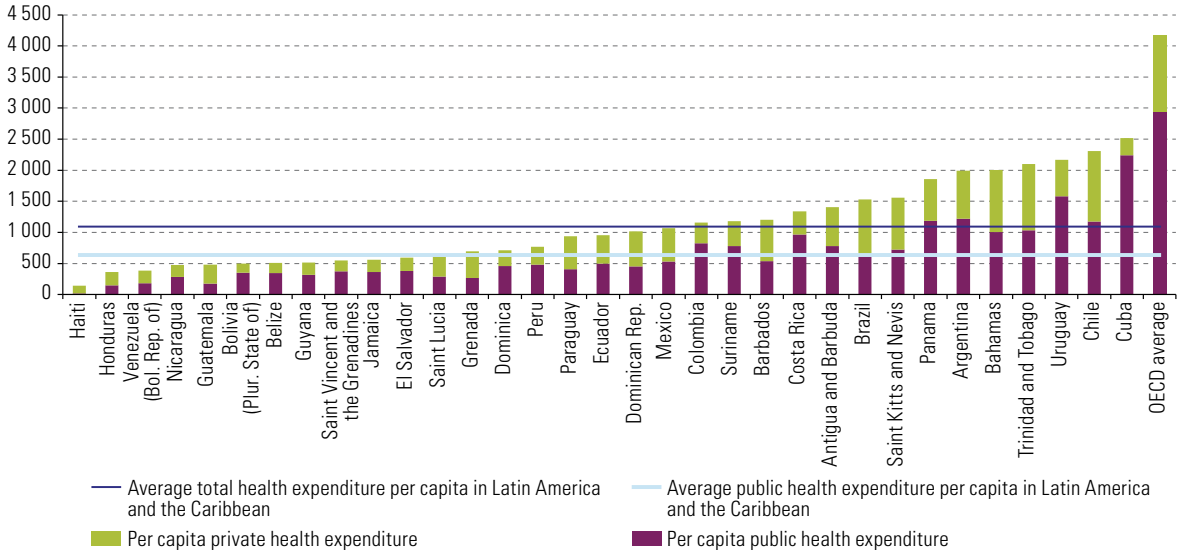
- Along with the need to reinforce the State's investment role, the persistence of the crisis has also highlighted the need to overhaul the region's health systems and to address their structural weaknesses, including their underfunding, which is manifested in low per capita levels of health expenditure and shortages of human resources, the difficulties and inefficiencies caused by their fragmentation and the inequities between different population groups that they reproduce.
- The prospects for overcoming the crisis remain unclear for a number of reasons, including the extremely low vaccination levels in many countries and the difficulty of maintaining social and public health measures at adequate levels. The unequal distribution of vaccines, both globally and regionally, is a manifestation, on the one hand, of the marked asymmetry that continues to exist between developed and developing countries and, on the other, of the fragmentation of the Latin American and Caribbean region in this respect. The disparities that exist in the region have also been reflected in the uneven deployment of national vaccination plans and the wide gaps that are evident between one country and the next. All this attests to the need to strengthen health-related regional integration and cooperation mechanisms.
- The COVID-19 vaccines are a health intervention that benefits everyone, and governments should therefore adopt an integrated, collective approach to financing the immunization drive. Government ministries responsible for finance, health, foreign affairs and other areas, multilateral development banks, international donors and other key actors must coordinate their efforts to determine what sources of funding can be used for the implementation of immunization plans and what requirements are needed to ensure an efficient and transparent investment of those resources.
- Given the heavy toll that the COVID-19 pandemic has taken in terms of health and well-being and its repercussions on the economy and social development, vaccination should be viewed as a global public good in the form of an essential health intervention which reduces mortality and the severity of cases of the disease. It will also facilitate the reopening and reactivation of the economy. The road to economic recovery is thus marked by uncertainties arising from a number of specific factors, such as the uneven progress of vaccination campaigns, and from structural conditions, such as the economic and social problems that predate the pandemic.
- Following this introduction, the report analyses the region's main historical weaknesses and gives an overview of current progress in vaccination processes, the public health measures taken by the countries and the demographic evolution of the pandemic. This is followed by a section on the main economic and social impacts of the pandemic in Latin America and the Caribbean, showing up the vulnerability of the population in different dimensions of this scenario, as well as the centrality of social protection and the role of the State during the protracted health crisis and the need to increase public investment in the health sector. Next is an analysis of possible scenarios in which the pandemic could be brought under control in the short term, considering factors that are under the control of the countries and a set of contextual conditions that directly impact this area. Lastly, the report concludes with a series of recommendations that emphasize the importance of a comprehensive approach to controlling the health crisis in the short term and progressing towards sustainable economic recovery with equality and universal health care with resilient health systems.

I. A protracted health crisis and weak health systems

- The fragility of the region's health systems even before the pandemic was an outgrowth of their underfunding, fragmentation and segmentation (ECLAC/PAHO, 2020). The Latin American and Caribbean countries' levels of public health spending are typically below the regionally agreed threshold of 6% of GDP, and their per capita health expenditure is well below that of other regions with more robust health systems, such as the countries of the Organisation for Economic Co-operation and Development (OECD). In 2018, total per capita health expenditure by the countries of Latin America and the Caribbean averaged US$ 1,094 (in purchasing power parity), of which US$ 637 corresponded to public expenditure (see figure 1). Both averages are about one fourth of the corresponding OECD average. In addition, there are large differences in these indicators across the region. While countries such as Cuba and Uruguay have total per capita health expenditure levels well above US$ 2,000 and a share of public expenditure close to that of OECD countries (above 70%), other countries, such as the Bolivarian Republic of Venezuela, Haiti and Honduras have per capita levels of spending on health well below US$ 500, with a public share of less than 50%.

Figure 1 | Latin America and the Caribbean (33 countries) and Organisation for Economic Co-operation and Development (OECD): total, public and private expenditure in health per capita, 2018

(International dollars (PPP))



Source: World Health Organization (WHO), Global Health Expenditure Database [online] http://apps.who.int/nha/database/Home/Index/en/.

- The low level of public spending on health goes hand in hand with high out-of-pocket expenses in the countries of the region, which is a major source of structural inequality in access to health services (ECLAC/PAHO, 2020). The need to incur out-of-pocket expenses in order to obtain prompt and equitable access to health care increases the risk of impoverishment, especially for people in vulnerable situations, who, on average, are in poorer health and in need of more health care.
- One of the implications of the shortfalls in public investment in the region's health systems is a relative shortage of human resources in the health professions. As a regional average, there are 20 physicians for every 10,000 inhabitants in the region, which is far below the average of 35 per 10,000 in OECD countries and the recommendations of the World Health Organization (WHO).[2] In addition, the supply of available beds is also very limited (ECLAC/PAHO, 2020).

A. COVID-19 and the health sector's response

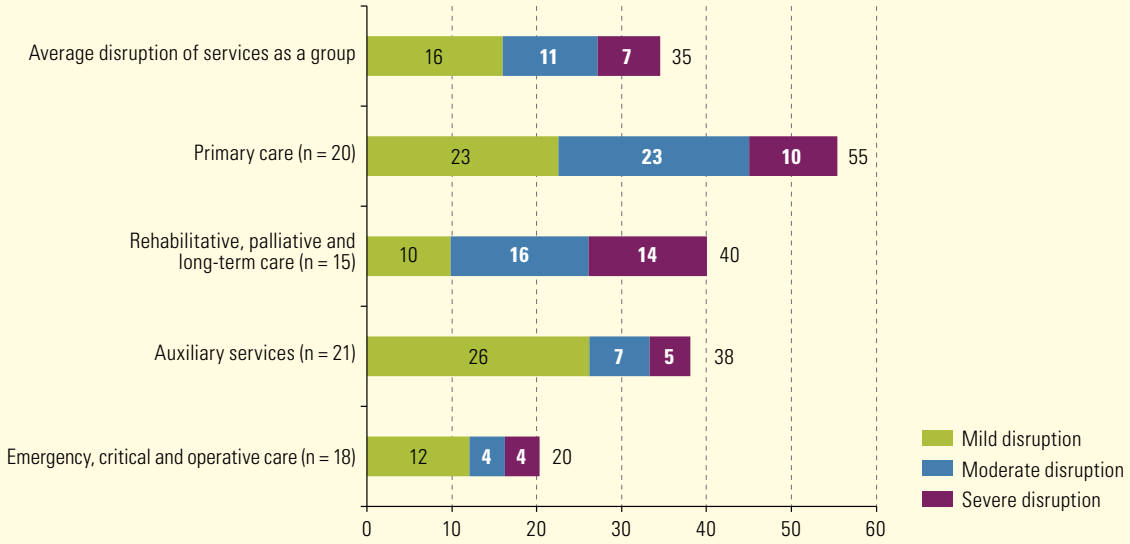
- The need for additional resources to cope with the health crisis created by the pandemic has prompted the reorganization of the countries' health services. In many cases, at different points in time during the pandemic, resources for attending to non-COVID-19 health issues have been shifted to care for persons suffering from COVID-19. Thus, because of the saturation of health services as a consequence of the pandemic, part of the population has lacked access to health services. Figure 2 shows that, according to information provided by the countries of the region, 35% of the countries have experienced some disruption in the provision of comprehensive health services in 2021, and this figure rises to 55% in the case of countries reporting disruptions in primary health care services (with 33% reporting moderate or severe disruptions) (WHO, 2021a).[3]
- The increased disruption of essential primary health services has a variety of serious implications for access to health services and guarantees for the right to health. This is of particular concern because primary care is the type of service that is closest to the community and the type that is most often available in remote areas and rural areas in general. This makes it the first and almost only point of contact with the health system for the members of certain population groups. The first level of care is a fundamental pillar of a primary health-care strategy and the locus of a key part of the health services that are directly involved in controlling the pandemic, such as testing, tracing and quarantining, and, more recently, the roll-out of national COVID-19 vaccination campaigns. However, as noted by ECLAC/PAHO (2020), it is also the level of care that lags furthest behind in terms of the allocation of resources within the health system and generally receives an insufficient percentage of total health spending.

[2] WHO recommends at least 30 doctors per 10,000 population and at least 23 doctors, nurses and midwives per 10,000 population to provide a reasonable level of maternal and child health care.

[3] Disruption levels are as follows: mild (5% to 25%); moderate (26% to 50%); and severe (more than 50%).

Figure 2 | Latin America and the Caribbean (25 countries and territories):[a] average extent of disruptions in the provision of essential health-care services, by type of delivery, 2021

(Percentages of countries)



Source: Pan American Health Organization (PAHO), on the basis of World Health Organization (WHO), *Second round of the national pulse survey on continuity of essential health services during the COVID-19 pandemic: January-March 2021. Interim report 22 April 2021*, Geneva, 2021.

[a] The countries and territories included are: Bahamas, Belize, Bermuda, Bolivia (Plurinational State of), Brazil, Cayman Islands, Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Vincent and the Grenadines, Suriname and Uruguay.

- The structural heterogeneity and inequity existing in the region are reflected in increases in the percentage of essential health services that are disrupted or suspended as the countries' income levels fall. According to data collected by WHO (2021), the median percentage of discontinued services for low- and lower-middle-income countries was 67%, while among high-income countries, the median was 34%.
- Along with dealing with this displacement effect, the countries have had to mount a major effort to meet the clinical needs of COVID-19 patients in time, especially given the shortage of hospital beds in the region. Accordingly, much of the material efforts made at the most critical junctures during this emergency have been directed towards expanding hospital treatment capacity and, in particular, intensive care capacity. The available information for 16 countries in Latin America and the Caribbean indicates that the region added 63,222 intensive care unit (ICU) beds between March 2020 and July 2021, for a 103% increase in capacity. This increase has been unevenly distributed, however; while some countries, such as Mexico and the Bolivarian Republic of Venezuela, more than quadrupled their number of ICU beds during this period, the increase was more modest in others, including Argentina, Ecuador, Honduras and Panama.
- While in some countries in the region, this effort raised the number of ICU beds above 12 per 100,000 population (the pre-pandemic average for OECD countries), by 31 July 2021 the average total ICU bed occupancy rate in the region was 75%, and such countries as the Bolivarian Republic of Venezuela, Chile, Colombia, Honduras, Paraguay, Peru and the Plurinational State of Bolivia had occupancy rates of above 85%, which indicates that, at that point in time, even these efforts were not enough to avert the possibility of a saturation of intensive care services.
- The remarkable effort involved in achieving this increase in the number of ICU beds notwithstanding, there are two aspects of the situation that need to be considered. First, no information is available about how many of these ICU beds are pre-existing hospital beds that were reconverted for use in ICUs and how many are actually new beds; this is an important consideration in a region where underinvestment in hospital capacity was already a problem before the pandemic in many countries. Second, along with the availability of ICU beds, intensive care requires specially trained human resources, both in nursing and critical care medicine, which cannot be increased as quickly as supplies of equipment can. This can result in serious constraints and challenges, especially given the region's long-standing human resource shortages in this field, and the quality of such care may therefore have suffered.

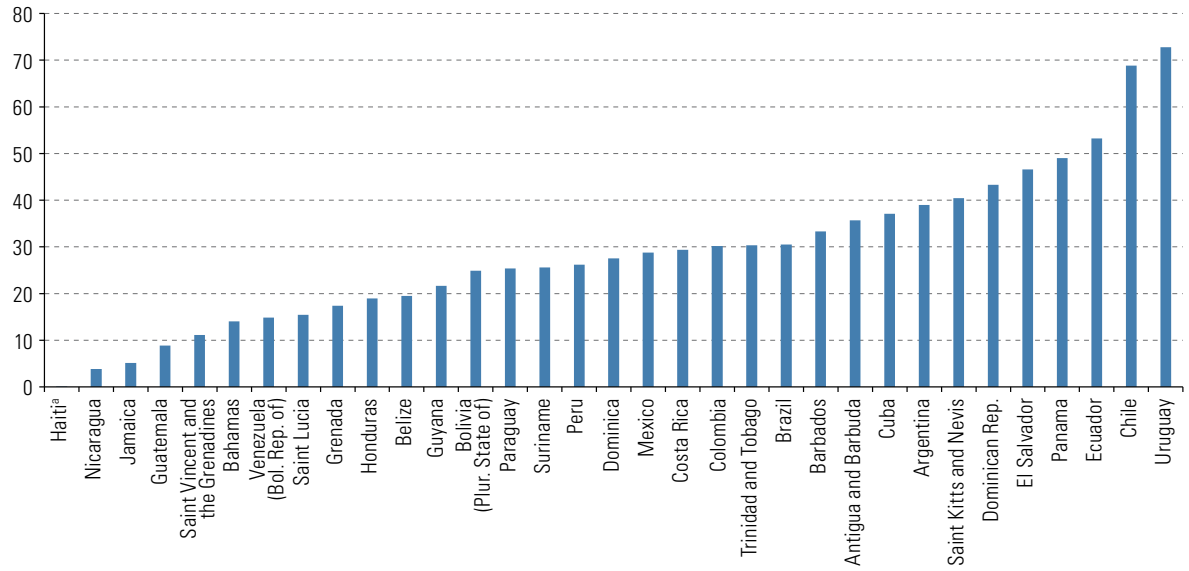
- It is therefore evident that the saturation of the health-care system in the countries of the region, whose knock-on effects include shifts in care from one area to another and the disruption of essential services, stems from the structural underfunding of health systems and the shortages of infrastructure and human resources in the field of health care in the region. This underscores the urgency of increasing public investment in health, particularly at the primary care level and in the training, hiring and retention of personnel and interprofessional health teams to support comprehensive service delivery, so that the region's health-care systems will be able to respond to crises and will be better prepared to cope with health-related disasters that may occur in the future.

B. Vaccines and access to essential health services

- Together with the structural weaknesses of the region's health systems that hinder their ability to deal with the pandemic, the prolongation of the health crisis is closely related to the slow and uneven progress of vaccination campaigns in the region. On average, 30% of the population of Latin America and the Caribbean is fully vaccinated. Countries such as Chile and Uruguay are close to 70%, but most countries still fall short of the original minimum coverage target of 20% (see figure 3).

Figure 3 | Latin America and the Caribbean (33 countries): population with completed COVID-19 vaccination schedule, September 2021

(Percentages)



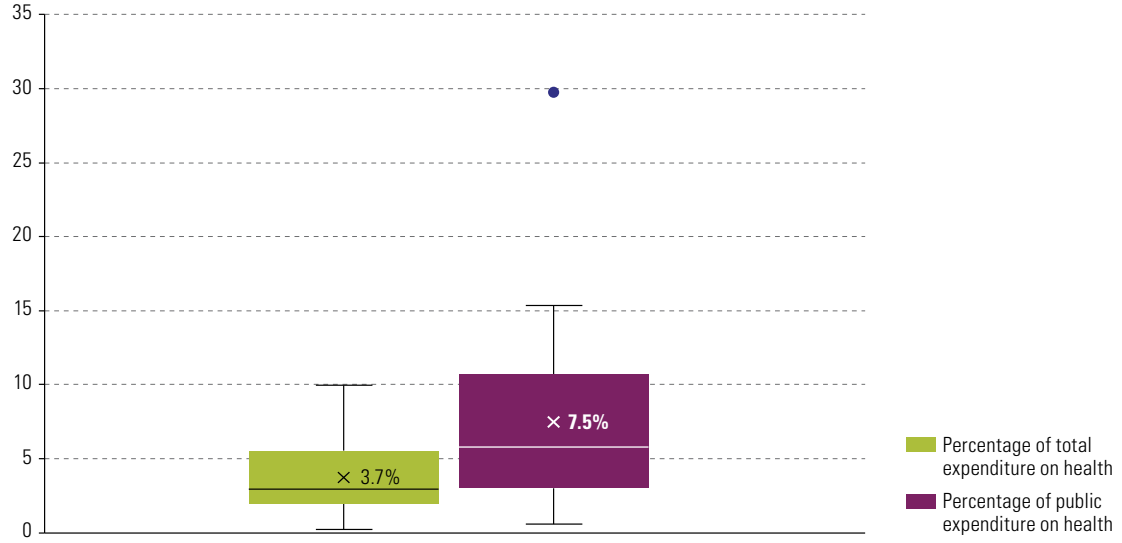
Source: Pan American Health Organization (PAHO), "COVID-19 Vaccination in the Americas", figures updated to 10 September 2021 [online] https://ais.paho.org/imm/IM_DosisAdmin-Vacunacion.asp.

[a] The percentage for Haiti is 0.12%.

- The main difficulty encountered by Latin American and Caribbean countries in their efforts to expand immunization coverage has had to do with a lack of sufficient vaccines. This shortage is associated, on the one hand, with the region's heavy reliance on imports of both medicines and the raw materials involved in the development of health technologies and, on the other, with the fact that the vast majority of high-income countries have been hoarding the relatively scarce supply of COVID-19 vaccines. This vulnerability became critical when unilateral supply disruptions were imposed by several international suppliers during the first half of 2020. For example, in a WHO survey of 122 countries, 20% indicated that the depletion of stocks or their inability to obtain medicines were among the main causes of interruptions in health services for the treatment of chronic noncommunicable diseases (WHO, 2020b). According to a study conducted by the Pan American Health Organization (PAHO) in Latin America and the Caribbean, the United States and Canada in August 2020, at least 11 countries had less than a three-month supply of antiretroviral drugs, putting them in a critical situation as they strove to administer those drugs to the people who need them and to meet the goals of their HIV/AIDS prevention and control programmes (PAHO, 2020). This has given rise to a global asymmetry in vaccine supplies that heightens the inequalities that already existed between different countries before the pandemic.

- In addition to the concentration of vaccine supplies in developed countries, there have been a number of specific events, such as the interruption of exports of vaccines produced by the Serological Institute of India, which have resulted in a smaller supply of vaccines being available than had been promised and expected. This has had a particularly adverse impact on the COVAX Facility's ability to provide global access to COVID-19 vaccines in 2021. As a result, the COVAX Facility has been unable to meet its dose distribution commitments at the global level or in the region, in particular. As of September 2021, of the total of 4.45 billion doses administered in 217 countries and territories, the COVAX Facility had distributed 190.1 million doses to 138 participants, or 4.3% of the total number of doses.
- In line with the needs of the countries of Latin America and the Caribbean, PAHO plans to work in parallel with the COVAX Facility by drawing on the PAHO Revolving Fund for Access to Vaccines to begin purchasing COVID-19 vaccines to help supplement the supply for its member States. The PAHO Revolving Fund is a cooperation mechanism for the joint procurement of vaccines, syringes and related supplies for participating member States that has been in operation for over 40 years. During the pandemic, the Revolving Fund has been serving as one of the procurement channels for the COVAX Facility for its member States in the region, which work together as a unified bloc. The Revolving Fund will continue to work towards achieving the initial target coverage of having 20% of the population vaccinated and then surpassing that threshold. To date, approximately 20 countries have expressed interest in taking part in this mechanism (PAHO, 2021a).
- Another difficulty that countries face in accessing vaccines has to do with their price, which varies widely for the countries for which information is available. According to data compiled by the United Nations Children's Fund (UNICEF, 2021), the prices paid by three Latin American countries and the United States differ sharply, even for the same product. For a dose of the Moderna vaccine, for example, the United States pays US$ 15, while Argentina has paid US$ 22.50 (50% more). The scarcity of information on this topic reflects the confidential nature of the bilateral purchase agreements, which limits countries' ability to obtain pricing information and to negotiate the price to be paid.
- Apart from the question of gaining access to a supply of the vaccine, countries should not underestimate the level of resources needed at the local level to carry out national COVID-19 vaccination campaigns. They also need to have the corresponding installed capacity, mainly at the primary care level, and the other supplies required in order to administer the vaccine. According to the national plans for the deployment of COVID-19 vaccination campaigns submitted by 18 countries and territories in Latin America and the Caribbean to the PAHO COVID-19 Partners Platform, the per-dose cost of administering the vaccine, without considering the cost of the necessary human resources and of maintaining the required ultra cold chain storage facilities, amounts to US$ 2.89 for coverage averaging 53% of the population. This varies widely across countries, however, with the estimated cost going as high as US$ 7 per dose (the current cost of doses acquired through the COVAX Facility).
- If all the components of the national roll-out and vaccination plans (doses, human resources, ultra cold chain and other inputs) are taken into account, the total estimated cost of implementing these plans comes to, on average, 3.7% of the health expenditure of the countries that submitted plans in 2018, or 7.5% of public expenditure in health for the same year, with significant differences across countries. In some cases, the total estimated cost of implementing the plan amounts to almost one third of the country's annual public expenditure in health, while in five cases it is more than 10% (see figure 4). This situation can be expected to create major bottlenecks in countries whose public sectors were already spending too little on health and that now find themselves in a very difficult fiscal situation.
- The supply of COVID-19 vaccines for Latin America and the Caribbean is expected to increase significantly between September and November 2021 (see section IV). If this does occur, it will call for a major effort on the part of the countries to deploy those doses, which will play a pivotal role in bringing the health crisis under control and beginning to regain the ground lost in terms of social development.

Figure 4 | Latin America and the Caribbean (18 countries):[a] total cost of vaccination plans
(Percentages of health expenditure)

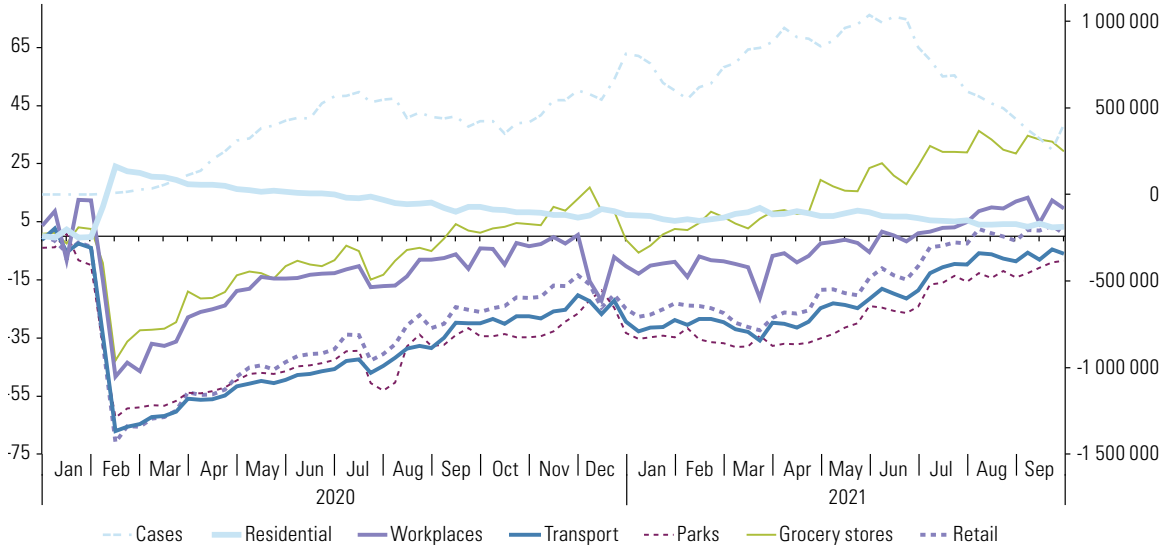


Source: Pan American Health Organization (PAHO), on the basis of national vaccination plans.
[a] The countries included are: Antigua and Barbuda, Barbados, Belize, Bolivia (Plurinational State of), Dominica, El Salvador, Grenada, Guyana, Honduras, Haiti, Jamaica, Nicaragua, Panama, Paraguay, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago.

C. Public health measures

- Public health measures to contain the spread of the virus have focused mainly on quarantines and, more generally, restrictions on the movements of the population. These measures have had varying success in terms of both effective mobility and curbing the spread of the virus. The data show that the situation has been very changeable over the course of the pandemic and has differed a great deal across countries. In some cases, the measures that have been announced do not match up with the information on the actual mobility of the population that has been obtained in various ways. The most effective method for gathering such information is the monitoring of people's movements by tracking their mobile telephone signals. Figure 5 graphs effective population mobility for the countries of Latin America and the Caribbean as a whole and shows that, while movements associated with transport and work facilities is still 20% below pre-pandemic levels (though well above the more than 60% decline observed in April 2020), movements associated with shopping at pharmacies and grocery stores have already returned to levels similar to the baseline.

Figure 5 | Latin America and the Caribbean (27 countries and territories):[a] effective mobility of the population and confirmed cases of COVID-19, by epidemiological week



Source: Pan American Health Organization (PAHO), on the basis of information from Google Mobility, "COVID-19 Community Mobility Reports" [online] <https://www.google.com/covid19/mobility/.
[a] The countires and territories included are: Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Trinidad and Tobago, Uruguay and Venezuela (Bolivarian Republic of).

- The main health measures put in place in the countries were related to physical distancing and mobility restrictions. Although the emphasis of governments and capacities to enforce these measures varied, in general they had a significant impact in the early stages and at times of rising cases. Accordingly, mobility has been returning to an almost normal or pre-pandemic state.

D. The health demographics of the virus: changes in risk groups

- The COVID-19 pandemic has resulted in the saturation of many health-care systems, not only due to the initial strain of the virus, but also to the exacerbation of the situation with the emergence of new variants that are more contagious and can increase the risk of hospitalization and severe illness. Along with other factors, the emergence of new variants of the virus has generated new waves of the pandemic in 2021 that, for some countries, have proved even more fatal than the initial wave. Figure 6 clearly depicts this trend in Argentina, the Bolivarian Republic of Venezuela, Brazil, Colombia, Costa Rica, Cuba, Peru and Uruguay.

Figure 6 | Latin America (18 countries): number of reported deaths from COVID-19, by month of processing with over 1,000 deaths, 1 March 2020–30 June and 31 August 2021

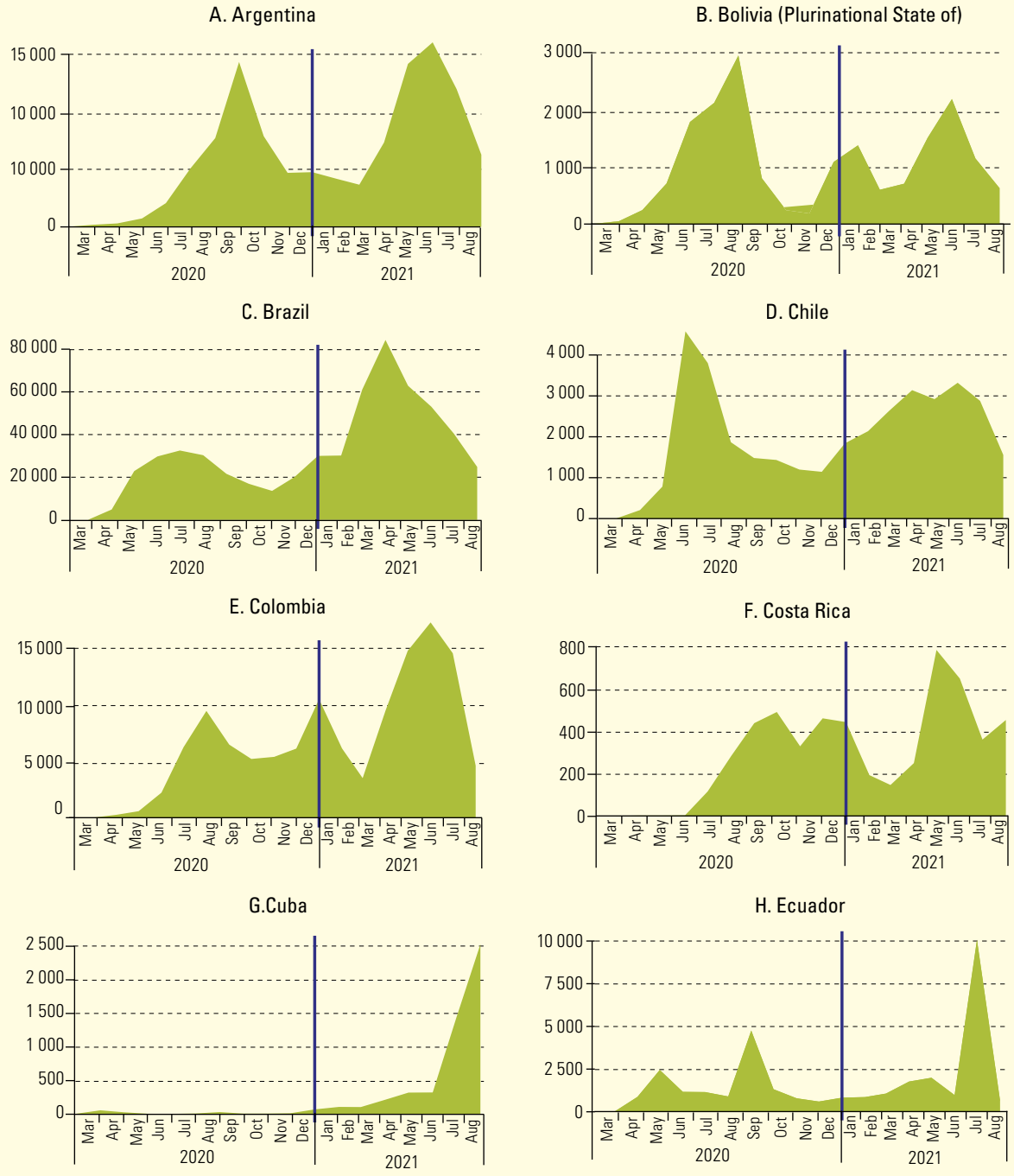
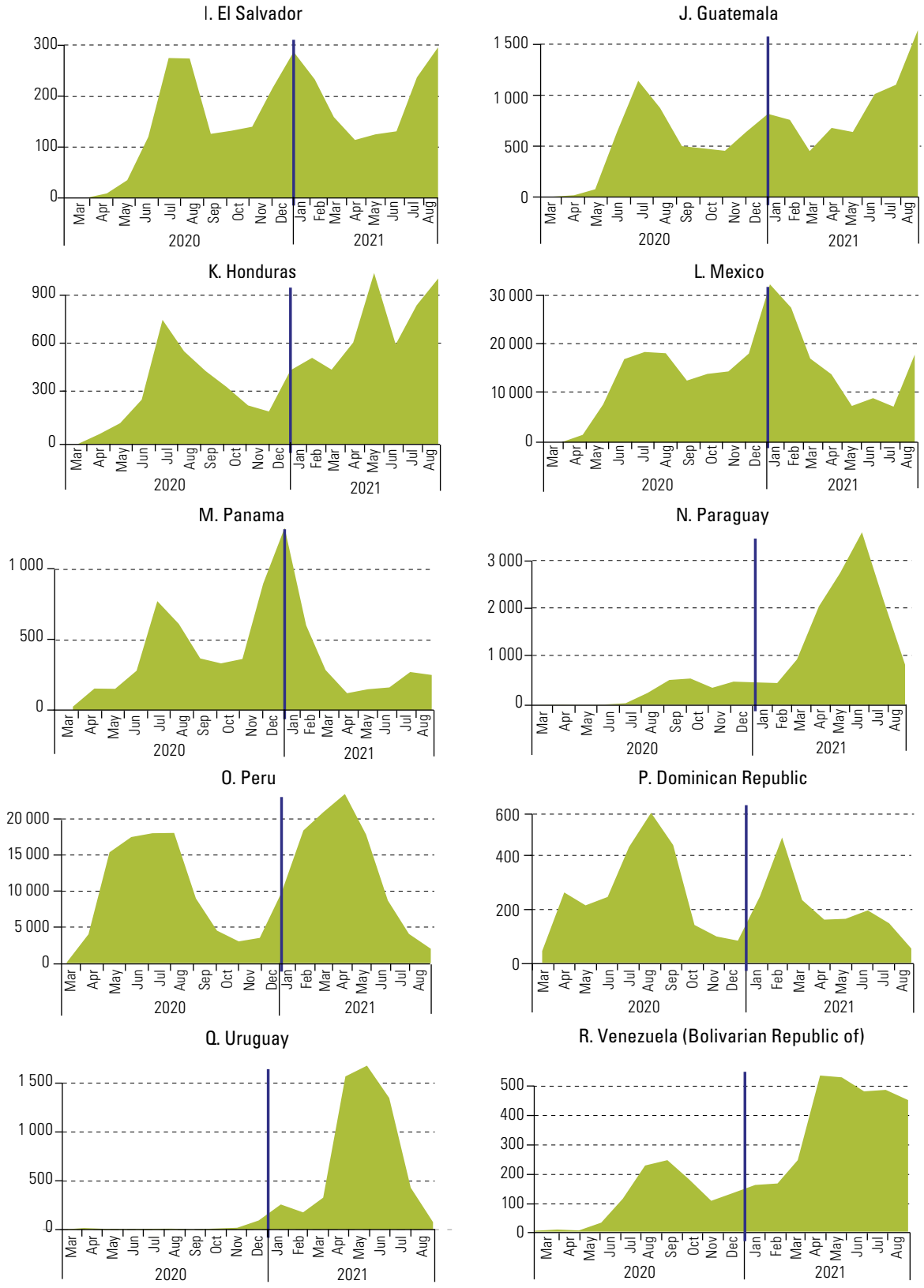


Figure 6 (concluded)



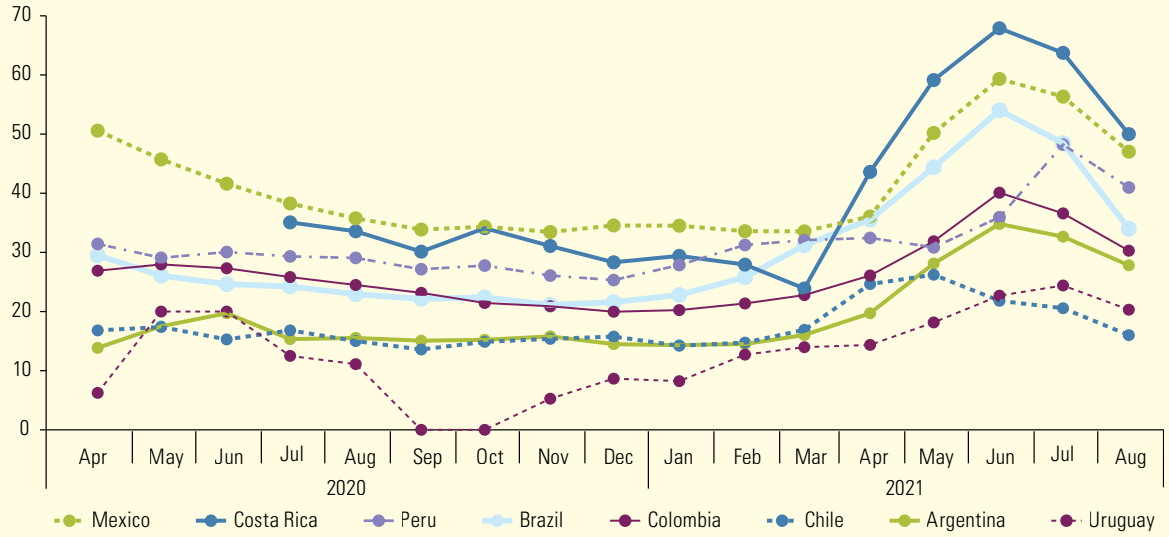
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of World Health Organization (WHO), *Second round of the national pulse survey on continuity of essential health services during the COVID-19 pandemic: January–March 2021. Interim report 22 April 2021*, Geneva, 2021.

Note: The use of different scales for different countries is necessary because of the large differences in absolute numbers of deaths from COVID-19 reported by countries whose populations vary greatly in size. These graphs therefore cannot be used for cross-country comparisons. The same scale is used throughout for each country, however, so that the relative sizes of the different waves of the virus can be seen.

- During the new wave of the disease in 2021, the increased transmissibility and consequent rise in severe cases resulted in deaths among individuals who were not originally considered at risk of dying, since they did not have co-morbidities or pre-existing chronic diseases (Hanlon and others, 2020; Nepomuceno and others, 2020), nor were they in the age group initially thought to be at risk (Meyerowitz and Merone, 2020). Figure 7 shows the proportion of those deaths occurring among persons under 60 years of age. In 2020, this indicator was stable in the different countries, although it varied from one to another —ranging from less than 10% of deaths in Uruguay and around 15% in Argentina and Chile, to roughly 30% in Brazil, Colombia, Costa Rica and Peru. In Mexico, the proportion was as high as 50%. In the first six months of 2021, however, these mortality rates rose sharply, and by the end of June 2021 they had reached approximately 20% in Chile, 35% in Argentina and Peru, nearly 40% in Colombia and over 50% in Brazil, Costa Rica and Mexico. This pattern may have been generated not only by the emergence of new variants, but also by the fact that older people were vaccinated before younger ones. Consequently, experts have called for increased vaccination rates in developing countries (Cohen, 2021) and vaccination at younger ages.

Figure 7 | Latin America (8 countries): proportion of COVID-19 deaths reported in persons under age 60, 1 April 2020–31 August 2021

(Percentages)

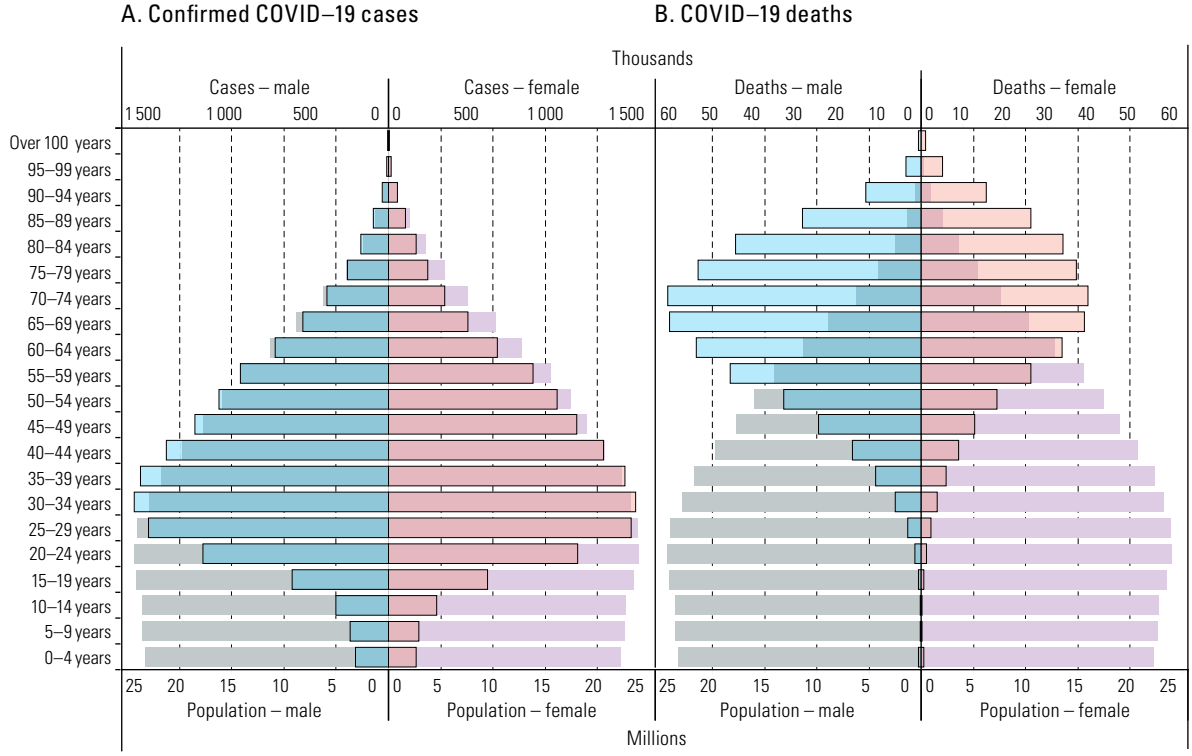


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official data on COVID-19 by age from the Ministry of Health, National Directorate of Epidemiology and Health Situation Analysis, "COVID-19. Casos registrados en la República Argentina" [online] http://datos.salud.gob.ar/dataset/covid-19-casos-registrados-en-la-republica-argentina; Ministry of Health, "Banco de Dados de Síndrome Respiratória Aguda Grave – incluindo dados de COVID-19. Vigilância de Síndrome Respiratória Aguda Grave (SRAG 2021)", 2020; Ministry of Health, Health Statistics and Information Department, "Defunciones por causa de muerte 2016-2021" online] https://deis.minsal.cl/; Secretaría de Salud, "Información referente a casos COVID-19 en México" [online] https://datos.gob.mx/busca/dataset/informacion-referente-a-casos-covid-19-en-mexico; Ministry of Health of Peru, "Datos Abiertos de COVID-19" [online] https://www.datosabiertos.gob.pe/group/datos-abiertos-de-covid-19; Ministry of Public Health, "Grupo Uruguayo Interdisciplinario de Análisis de Datos de COVID-19" [online] https://guiad-covid.github.io/#publications.

Note: For Costa Rica refers to persons aged up to 64.

- Figure 8 displays the population age pyramid for Latin America and the Caribbean, overlaid with COVID-19 cases, both male and female, and COVID-19 deaths, also by gender. Although all age groups have been affected in terms of cases, figure 8.A shows that case rates are similar between men and women, but more concentrated in the 25–39 age group. In terms of mortality, figure 8.B reveals that men have been more susceptible than women, and that the largest number of deaths occur in the 65–74 year age bracket.

Figure 8 | Latin America and the Caribbean (19 countries):[a] confirmed COVID-19 cases and deaths, by sex and age group, 2021



Source: Pan American Health Organization (PAHO).
Note: The horizontal bars with black borders represent confirmed COVID-19 cases and reported deaths.

- Despite the vulnerability associated with age, functional limitations and multiple chronic diseases, shortcomings in the way health systems and services have responded to population ageing at all levels of care need to be better understood. This is particularly true of long-term care services —that is, those provided to older adults and persons in situations of dependency. Prior to the COVID-19 pandemic, it was estimated that up to half of older people did not have access to essential health services in some developing countries (United Nations, 2020); and at least 142 million older adults worldwide were unable to meet their basic needs (WHO, 2020e). During the COVID-19 pandemic, the services most affected were primary care and rehabilitation, along with palliative and long-term care. This had serious consequences for the most vulnerable population groups, including older adults and persons with chronic diseases and disability (WHO, 2021a). In many countries, more than 40% of COVID-19-related deaths during 2020 occurred in long-term care facilities, with the proportion rising to 80% in some high-income countries (WHO, 2020e). Research indicates that long-term care facilities in Latin America and the Caribbean encountered difficulties in procuring personal protective equipment, and they suffered from limited capacity to test for COVID-19 (Wachholz and others, 2020).

II. The economic and social landscape during a prolonged health crisis

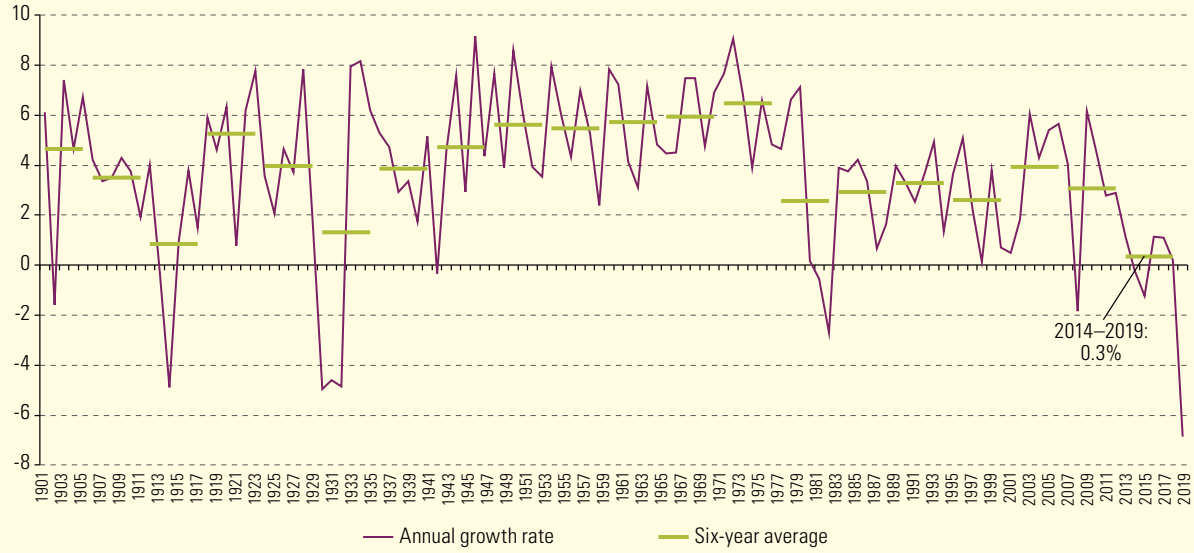
A. The economic impact of the pandemic and measures to counter it

1. The pre-pandemic situation in Latin America and the Caribbean and growth projections

- In 2020, Latin America and the Caribbean witnessed the worst economic contraction since 1900, with GDP falling by 6.8%, and turned in the worst performance of any developing region (ECLAC, 2021a). Growth had already been sluggish before the crisis, with the economy growing by

an average annual rate of 0.3% in the six years between 2014 and 2019. This was one of the weakest six-year periods in terms of growth since records began to be kept, comparable only to those that spanned the First World War and the Great Depression (see figure 9).

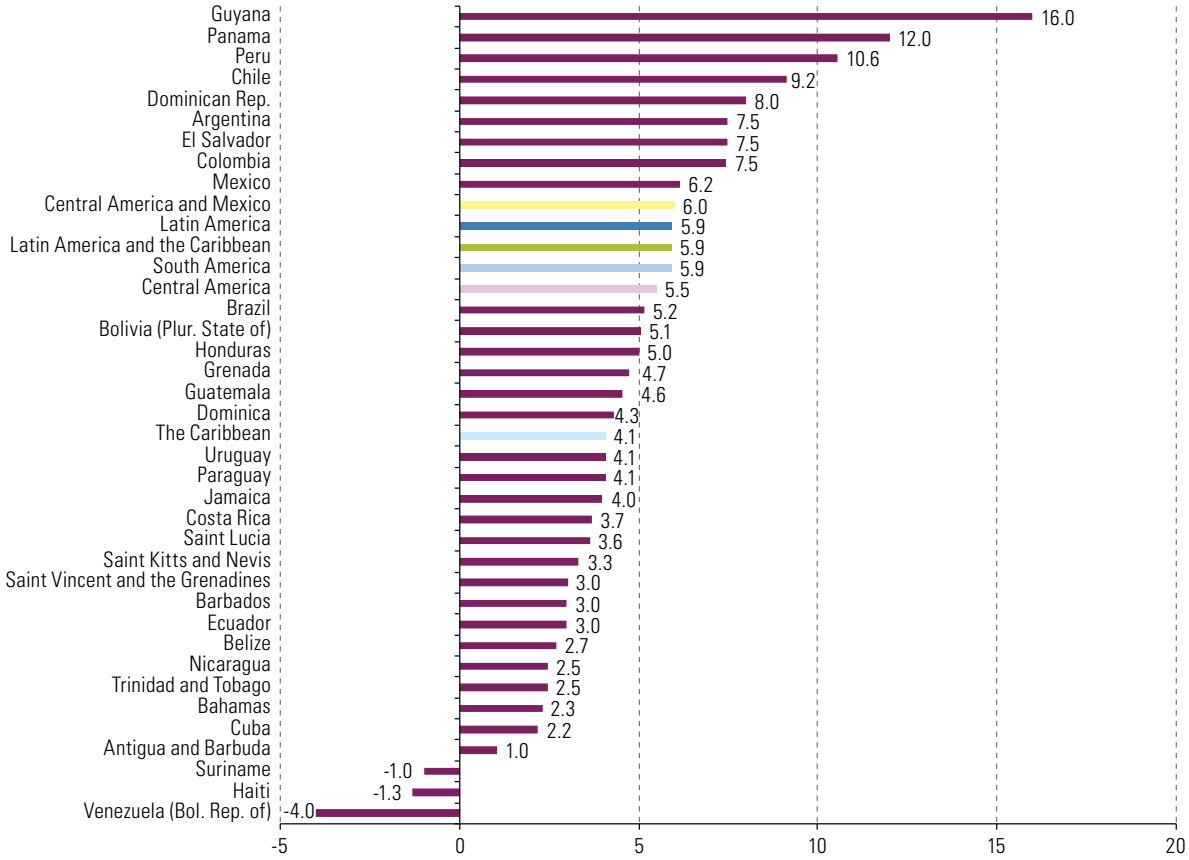
Figure 9 | Latin America and the Caribbean: annual GDP growth rates and six-year averages, 1901–2019
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of J. Bolt and J. van Zanden, "Maddison style estimates of the evolution of the world economy. A new 2020 update", Maddison Project Database 2020 and official figures.

- The region's near-zero growth in the five years prior to the crisis, coupled with the sharp contraction in 2020, resulted in a record drop in employment and an unprecedented rise in unemployment, along with sharp increases in poverty and inequality, all of which has further exacerbated the region's structural problems (ECLAC, 2021a). The crisis has also heightened the heterogeneity of the region's production sector, leading to the closure of a large number of SMEs and the destruction of human capital and jobs. Investment has also performed poorly.
- A growth rate of 5.9% is expected for 2021, and an average rate of 2.9% is projected for the region in 2022 (see figure 10).
- Although the region's growth performance so far in 2021 has been buoyed by the improvement in external conditions, the increasing openness of its economies and the easing of physical distancing measures, the main reason for the upswing is the very low basis of comparison provided by the sharp downturn in 2020. The expected growth rate for 2021 will not, however, be enough for the region as a whole to regain its pre-crisis GDP levels; in fact, only 6 of the 33 countries will be able to do so. In 2022, the expected average growth rate of 2.9% is likely to enable another 8 countries to return to their 2019 levels.
- The strength and steadiness of growth from 2021 onward will be subject to the uncertainties arising from uneven progress in vaccinating the population and the success that the individual countries have in reversing the structural problems underlying the slow growth path that the region was following prior to the pandemic.

Figure 10 | Latin America and the Caribbean (33 countries): projected GDP growth rate, 2021
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

2. Fiscal efforts to mitigate the pandemic's impact on social conditions and production

- In 2020, fiscal policy proved to be a key economic tool for coping with the crisis triggered by the pandemic. The countries of the region unveiled hefty fiscal packages representing, on average, 4.6% of GDP. These efforts drove public spending up to record levels in Latin America, as it climbed from 21.4% of GDP in 2019 to 24.7% of GDP in 2020.
- These measures focused on strengthening public health systems, supporting families by providing them with cash transfers and shoring up the production structure with liquidity measures (in addition to government loan guarantees amounting to 2.5% of GDP). While these measures mitigated the adverse effects of the pandemic, the existing structural gaps widened, including those manifested in inequality, poverty, gender disparities, informality, limited fiscal space, low productivity and the fragmented nature of social protection and health systems.
- As the pandemic stretched into 2021, a number of Latin American countries announced new emergency fiscal packages involving outlays equivalent to 2.2% of GDP. The countries of the region have also expressed the intention to boost public investment as a means of reactivating their economies and creating jobs, which has led to higher capital expenditures in several countries.

3. The impact of the health crisis on the labour market

- The crisis caused by the COVID-19 pandemic has had a much stronger impact on the labour market than previous crises have in terms of job losses, reductions in the labour force participation rate and higher unemployment.
- Employment levels among women and the most vulnerable groups have been the hardest hit. Between 2019 and 2020, the number of employed persons fell by almost 25 million, some 13 million

of whom were women. The result was a female unemployment rate of 11.9% in 2020, up from 9.3% in 2019, and a male unemployment rate of 9.3%, up from 6.9%. The female labour force participation rate fell from 51% in 2019 to 46.9% in 2020 (a level similar to what it had been in 2002), while the male participation rate dropped from 74.7% to 69.6%.

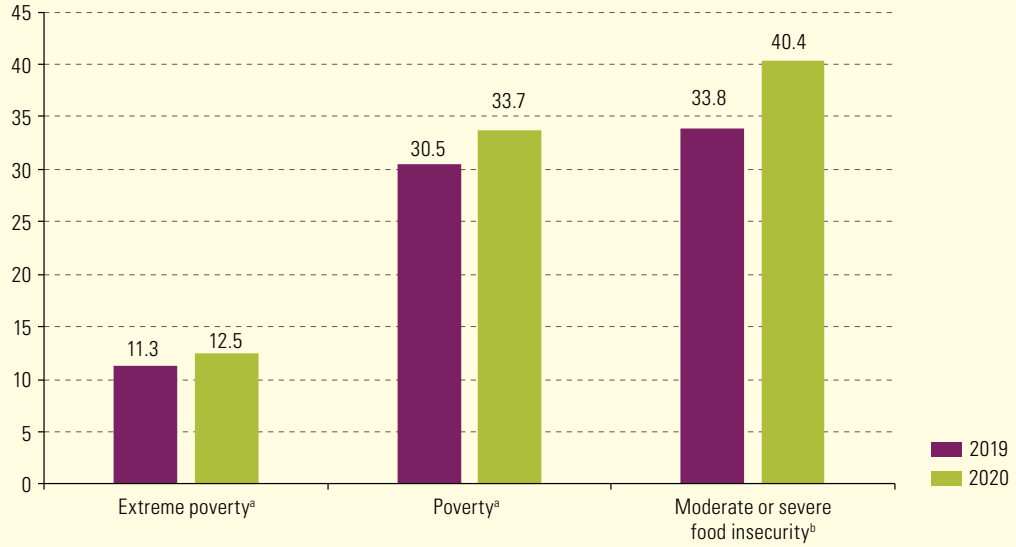
- As of the first quarter of 2021, the region had only managed to recover 58% of the total number of jobs lost during the crisis. For 2021 overall, the labour participation rate is projected to rise by 3.4 percentage points, from 57.7% in 2020 to 61.1%, with a larger increase for men than for women (ECLAC, 2021c).
- Given the combination of a sluggish increase in employment levels with higher participation rates, the unemployment rate is expected to rise from its 2020 level of 10.5% to 11% for 2021 overall. As in the case of participation rates, women appear to be faring worse, with their unemployment rate outpacing the male unemployment rate by three percentage points (12.7% versus 9.7%) (ECLAC, 2021a).

B. Still no signs of a recovery from the social crisis

1. Poverty and inequality have deepened

- The particularly adverse impacts that the crisis has had on lower-income groups in the Latin American and Caribbean population reflect the social inequality matrix of the region, which is built around such structural factors as socioeconomic stratum or social class, gender, stage in the life cycle, ethnicity or race, and geographic circumstances, along with other aspects such as disability or migration status. These inequalities accumulate, deepen and interact, giving rise to multiple forms of discrimination that lead to differences in people's ability to exercise their rights (ECLAC, 2020).
- According to estimates computed by the Economic Commission for Latin America and the Caribbean (ECLAC, 2021c), the extreme poverty rate in Latin America came to 12.5% in 2020, while the poverty rate was 33.7% (see figure 11). This means that 78 million people (8 million more than in 2019) were living in extreme poverty and 209 million people (22 million more than in 2019) were living in poverty. Moderate or severe food insecurity, which is closely linked to extreme poverty, also increased in Latin America and the Caribbean in 2020, affecting 40.4% of the population, up from 33.8% in 2019 (Torero, 2021).

Figure 11 | Latin America and the Caribbean: incidence of extreme poverty, poverty and food insecurity, 2019 and 2020
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of Household Survey Data Bank (BADEHOG) and M. Torero, "Presentation" at the third Hemispheric Meeting of Ministers of Agriculture of the Americas, Lima, Food and Agriculture Organization of the United Nations (FAO), 15 April.

[a] The countries included are: Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia and Uruguay. The data for 2020 are projections that incorporate the effect of emergency transfer programmes.

[b] Refers to Latin America and the Caribbean.

- The loss of labour income occasioned by job losses is the first factor to consider when assessing the impacts in terms of income inequality. According to ECLAC projections (2021c), the increase in the percentage of people in the bottom income quintile who ceased to receive labour income in 2020 and the decrease in labour income seen during the pandemic, which is also disproportionately greater in the first quintile, have generated an increase in total per capita income inequality that has pushed up the region's average Gini index by 5.6% over its 2019 level. The emergency transfers made by the region's governments, whose distribution tends to be progressive, are estimated to have brought this increase down to 2.9%.
- While the crisis has affected the entire workforce, the situation of informal workers, and especially of women and young people, indigenous people, people of African descent and migrants among others, is the result of the confluence of multiple inequalities that produce a nucleus of vulnerability. Many women who lost their jobs in 2020 have not returned to the labour market in search of work because of the overload of household care demands in a context of school closures and a lack of care services (ECLAC, 2021b).

2. The impact on education: the risk of a lost generation needs to be urgently addressed

- Students in most of the countries of Latin America and the Caribbean have had no in-person classes for more than a year or have had their classes interrupted for long periods of time (ECLAC, 2021c). With schools being closed for an average of more than one academic year, this is one of the regions that has had the longest period of complete or partial school closures in the world. This will have serious implications for children, adolescents and young people which will surface in the medium term in the form of significant learning gaps and higher dropout rates. It will also be felt in other areas related to the well-being of this population, such as food and nutrition, mental health and the risk of different forms of violence.
- Before the pandemic, poverty and especially extreme poverty were most prevalent among the youngest members of the population, particularly children and adolescents up to the age of 14. The child poverty rate in 2020 is estimated at 51.3% of the child population, or more than 91 million children and adolescents (ECLAC, 2021b). People in this age group are at greater risk of food insecurity, violence and physical abuse, and child labour.
- The education system plays a very important role in protecting children's rights, particularly for those living in poverty, as schools perform protective and monitoring functions that go far beyond the scope of academic pursuits. Educational centres also provide opportunities for socialization, help to shield children from violence and support health care, among other factors that influence the well-being of children and adolescents and the protection of their rights. Prolonged lockdowns and the difficulty of maintaining contact with the education system through remote connections are an additional source of vulnerability and exposure to risks for this population. Any situation that undermines schools' ability to function is of concern to society at large and should be addressed when designing integrated social policies to counter the crisis and bolster a recovery. Thus, in the face of these new adversities, there is a greater need than ever to invest in children, adolescents and young people.
- Schools are also the most important institutional channel of support for caregiving tasks, which, because of the traditional sexual division of labour in Latin American and Caribbean societies, are primarily shouldered by women. The transfer of schooling to the home environment has therefore not only prevented many women from seeking paid employment but has also added to the caregiving and support tasks that they were already performing in the household.

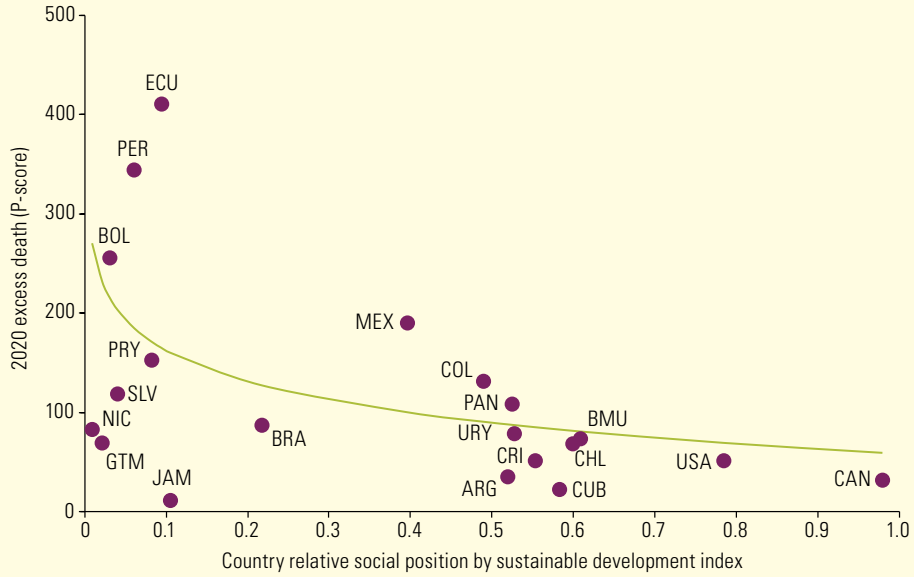
C. Vulnerability heightens the risk of infection and death from COVID-19

- Socioeconomically disadvantaged population groups are at greater risk of infection and death from COVID-19 (Wachtler and others, 2020). This reflects both their lesser ability to protect against infection and a higher incidence of co-morbidities, which are associated with more severe illness and higher mortality among less privileged population groups.
- People living in poverty, who suffer from greater job insecurity, live in overcrowded conditions, have difficulties in accessing water and sanitation, and face greater challenges in protecting

themselves against the virus. In addition to difficulties in terms of prevention, inequalities in access both to testing and to health services can have a significant influence on how the disease is treated and on survival rates.

- There is a correlation between excess mortality and the proportion of the population living in overcrowded conditions, such that the areas with the highest rate of overcrowding are those most affected by the COVID-19 pandemic. This pattern extends to other indicators of housing vulnerability, such as access to water or sanitation, or to indicators of social vulnerability, such as access to education for children and young people, or household income (ECLAC, 2021b).
- Similarly, data for 20 countries of Latin America and the Caribbean on excess mortality from all causes reported in the biennium 2020–2021 compared to 2015–2019, show that the countries with the worst relative position in terms of the sustainable development index, which includes measures of income, education and water and sanitation, suffered higher levels of excess mortality from all causes in 2020 (see figure 12).

Figure 12 | Latin America and the Caribbean (18 countries and territories): mortality reported from all causes, by sustainable development index, 2015–2019 and 2020–2021



Source: Pan American Health Organization (PAHO), on the basis of the Our World in Data [online] www.ourworldindata.org.

- Socioeconomic vulnerability is highly correlated with the severity of COVID-19 infection and mortality. In the city of São Paulo, for example, it was found that low-income areas were the most affected (Bermudi and others, 2021); that most excess deaths occurred in public hospitals and among the Afrodescendent, Asian and indigenous populations; and that 19.1% of COVID-19 deaths among people on the waiting list for intensive care unit (ICU) beds occurred in public hospitals, compared to 1% in private facilities (Werneck and others, 2021). In Santiago, Chile, it was found that one additional year of education was associated with a mortality rate that was 9% lower before the pandemic and 13.8% lower during it (Bilal, Alfaro and Vives, 2021); and that a 5% increase in the housing overcrowding rate is associated with a mortality rate that was 22% higher before the pandemic and 32% higher during the health crisis (Bilal, Alfaro and Vives, 2021). Moreover, the most vulnerable population groups have been less able to reduce mobility and have adhered less strictly to social isolation rules, because of the economic constraints they face (Mena and others, 2021).
- In the city of Buenos Aires, despite the fact that slum dwellers account for 7% of the population, they have contributed 40% of all cases; and the risk of death in these neighbourhoods has been significantly higher despite their younger age structure (Macchia and others, 2021). In Peru, the country with the region's highest reported COVID-19 death rate, in which there are high levels of informality and household equipment deficits (only 40% of people have a refrigerator), most of the population does their daily shopping in crowded public markets (Taylor and others, 2021). This contributed to the ineffectiveness of quarantines and the greater impact suffered by the most

vulnerable groups. Similar results were found in an analysis of the indigenous population and rural areas of Colombia (Cifuentes and others, 2021). Data for 2020 from Brazil, Chile, Colombia, Mexico and Peru showed a significant mortality impact among indigenous peoples which was well above national averages in some geographical areas (ECLAC and others, 2020).

- Individual risk factors, which are associated with greater severity of the disease but are distributed unevenly throughout society, include cardiovascular disease, lung infections (such as chronic bronchitis), liver disease, diabetes, cancer and compromised immune systems (Wachtler and others, 2020). Smoking and obesity, which are also more prevalent among socioeconomically vulnerable groups, are now being mentioned as additional potential risk factors for COVID-19 (Vardavas and Nikitara, 2020; Sattar, McInnes and McMurray, 2020). Some 22% of the population of Latin America and the Caribbean, equivalent to 145 million people, are subject to increased risk of severe COVID-19, owing to 14 underlying conditions (PAHO, 2021a). The fact that nearly 104 million of these people are of working age (15–64 years old) gives an insight into the magnitude of the economic impact in the region.

D. The central role of social protection in confronting heightened vulnerability

- The crisis generated by the pandemic has underscored the vulnerability of much of the middle-income population, which generally has low rates of contribution to contributory social protection and very low coverage of the non-contributory modality (ECLAC, 2021b). In 2020, an estimated 491 million Latin Americans (79.4% of the population) were living on incomes of up to three times the poverty line (ECLAC, 2021c), and were highly vulnerable to circumstances such as unemployment or dwindling labour income.
- To address these high levels of poverty and vulnerability, the region's countries have adopted non-contributory social protection measures with the aim of maintaining consumption and underpinning basic living conditions. From the onset of the pandemic until the end of June 2021, 33 countries in Latin America and the Caribbean adopted a total of 430 non-contributory social protection measures, including cash and in-kind transfers, while also guaranteeing the delivery of basic services. Between March 2020 and June 2021, 105 million Latin American and Caribbean households received emergency transfers, supporting approximately 395 million people or 59.6% of the region's population. In 2020, the measures in question, as announced, amounted to US$ 86.214 billion across the region, or US$ 78 per capita (ECLAC, 2021c).
- In the first six months of 2021, emergency transfers, or their extension, were announced in the region for a total value of US$ 21.3 billion. If this level of spending is maintained in the second half of 2021, annual expenditure for the year would represent around 50% of the amount spent on emergency transfers in 2020.
- In terms of contributory social protection, the eight Latin American and three Caribbean countries that have unemployment insurance (ECLAC, 2020) have made adjustments to deal with the crisis, as follows: the requirements for access to insurance (for example, the number of previous contributions needed) have been made more flexible; insurance coverage has been extended to groups of workers who were previously excluded (such as domestic employees); the duration of benefits has been extended and amounts increased, and additional programmes have been created.
- The impacts of the crisis on the labour market have also undermined contributions to pension systems: the number of contributors in 11 Latin American countries fell by 5.3% between the fourth quarters of 2019 and 2020. The reduction appears to have been greater among female than male contributors (ECLAC, 2021b).
- Maintaining emergency transfers is crucial, since the benefits of economic recovery alone will be insufficient to address the health and social crisis. ECLAC (2021b) has estimated that the continuation of 50% of the transfers implemented in 2020 would mitigate the increase in extreme poverty and poverty by 1.7 percentage points in 2021. However, this effort would not be sufficient to halt the spread of extreme poverty in Latin America (see figure 13).

Figure 13 | Latin America (18 countries):[a] poverty and extreme poverty, 2019, 2020 and 2021[b]
(Percentages)

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of the Household Survey Data Bank (BADEHOG).
[a] The countries included are: Argentina, the Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.
[b] The values shown for 2020 and 2021 are projections. The income distribution in 2021 is assumed unchanged relative to 2020, and all income streams are assumed to maintain a constant structure and share.

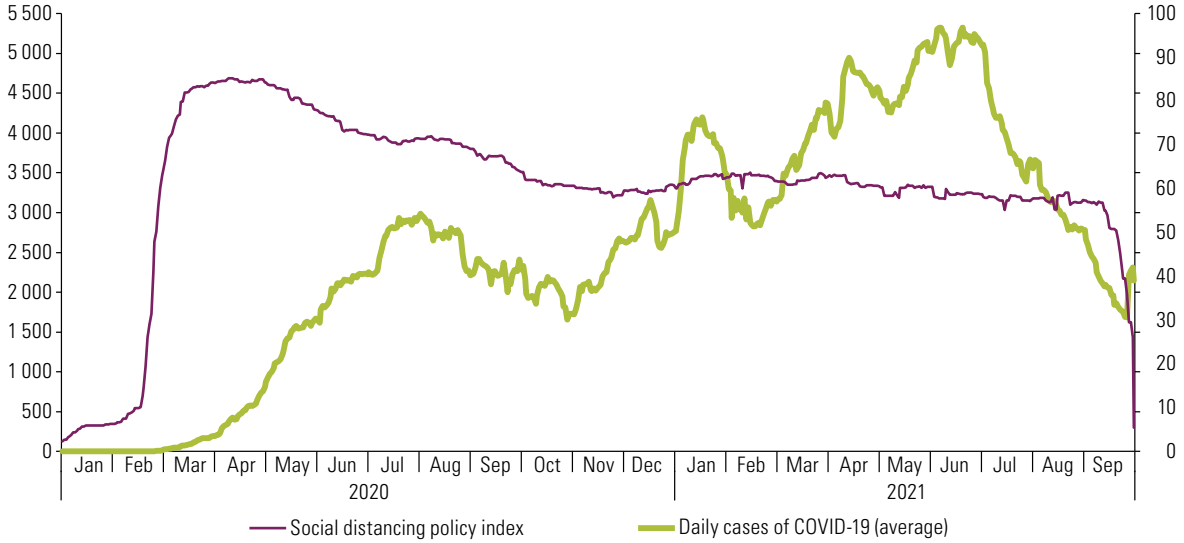
- Universal social protection is becoming crucial, and the coverage and sufficiency of the benefits of emergency programmes need to be increased. Pension systems also need to be strengthened through reforms prioritizing coverage, sufficiency, financial sustainability and solidarity. It is also essential to move towards universal, comprehensive and sustainable social protection systems, in the context of care societies that guarantee levels of well-being for the population, without overburdening women's unpaid work.

E. The essential role of the State during the pandemic

- The State has played a crucial role in responding to the challenges of the pandemic; and it must continue to do so in forging a new direction for public policy, to build more egalitarian, inclusive and resilient societies by implementing universal, redistributive and solidarity-based policies, under a rights approach.
- It is hoped that the crisis will help forge consensus around the push for a transformative recovery and the construction of a new development pattern —a recovery that includes progressive structural change, an expansion of social protection and progress towards welfare states (ECLAC, 2021b). This, in turn, will consolidate the three dimensions of sustainable development: social, environmental and economic (ECLAC, 2020). In this situation, social policies play a transformative role, with health and social protection systems forming a fundamental component of public action to mitigate shortages and meet the needs of the population amid a health and economic crisis, and also in the reconstruction process (ECLAC, 2020).

- The protracted nature of the health crisis has confirmed the central role of State action in controlling the crisis and achieving transformative recovery with equality. The role played by the State, together with the policies and measures implemented, has been essential for controlling the economic crisis and mitigating the impact of the pandemic on fundamental dimensions of social development (ECLAC, 2021b).
- It should also be noted that the pandemic hit the region just when some countries were going through a period of social unrest, which involved a wave of mass protests driven by growing inequalities and corruption scandals, among other issues (ECLAC, 2021c; OECD, 2020). During the pandemic, new challenges also arose in managing the operational and communication aspects of the crisis at all levels of government (OECD, 2020).
- Strengthening the capacities of the State during the pandemic has been crucial for bolstering interaction and agreements between government and civil society in formulating and implementing strategies to cope with the situation. Dialogue and social participation, supported by coordination mechanisms, have been needed to maintain an integrated approach. Individual countries have responded to this requirement in different ways.
- Participation by social actors and State agencies from different institutional sectors would facilitate a territorial approach that takes account of specific population needs. This could range from the creation of national response committees to the deployment of community action at the first level of care, based on the strategy for containing and overcoming the crisis (ECLAC/PAHO, 2020). Adequate intersectoral coordination has also been essential, to exploit synergy and ensure consistency among public policies, along with interaction and flexibility to adapt responses to each local reality, combining social, economic and health policies with a territorial approach.
- In this context, the adoption of policies that promote physical distancing[4] and communication in confronting the crisis form part[5] of the mitigation, lockdown and control measures adopted by governments to cope with the pandemic (Hallas and others, 2021). The implementation of measures has been heterogeneous among the countries of the region, varying substantially according to daily case rates; and specific patterns have emerged in certain countries and country groups. Nonetheless, in general (on average) they have decoupled in peak periods of the crisis (see figure 14).

Figure 14 | Latin America and the Caribbean (28 countries):[a] index of government public health measures during the COVID-19 pandemic and reported daily cases of COVID-19, 25 January 2020–21 September 2021



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the University of Oxford for the index and from the World Health Organization (WHO), for daily COVID-19 pandemic data.

[a] The countries included are: Argentina, Aruba, Bahamas, Barbados, Belize, the Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, Dominica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, the Plurinational State of Bolivia, Suriname, Trinidad and Tobago and Uruguay.

[4] Physical distancing policies include home-based quarantines, the closure of schools and workplaces, the cancellation of public events, limits on the size of gatherings, restriction of public transportation and international travel, and public information campaigns on health and public health measures.

[5] The qualifier "part" is used here because the implementation of measures depends on other factors, such as the size of the informal sector, access to emergency transfer programmes (and the conditions prevailing in each country), access to social support networks and access to the Internet.

- The State must not only implement measures of this type, but also check that they are being enforced satisfactorily. Although no indicator currently exists to adequately measure how rigorously the restrictions are being observed, their effectiveness can be inferred from an increase or a reduction in mobility in response to the measures announced.
- The imbalance in the measures may stem from a multitude of reasons, ranging from inapplicability owing to social conditions and limited enforceability of policies, to pressure to reopen the economy or possible errors in the assessment of the epidemiological conditions and poor decision-making in some cases, including failings with regard to communication and denialism. Coupled with these are the already-mentioned issues in the roll-out of vaccination campaigns. If anything, this is indicative, to a large extent, of institutional weaknesses and resource needs.

F. Institutional strengthening and public investment in health

- The challenges posed by the COVID-19 pandemic further revealed the institutional weaknesses that exist in the health sector and, in particular, the challenges it faces in addressing the specific social and economic conditions prevailing in each country in the region. Responding to health emergencies with a comprehensive and integrated approach and stronger public health requires improving the design and implementation of policies set in an improved legislative and regulatory framework. Any comprehensive response will need to be linked to public health actions framed by efforts to strengthen health security and health systems; and improved intersectoral collaboration will be needed to address the social determinants of health and to protect and promote the right to health. These conditions have justified the need for an agenda to strengthen state institutions in the health sector.
- An analysis focusing on essential public health functions makes it possible to explain both the scope and the type of response provided by the State through a wide range of interventions. The latter target not only health systems, but also the factors and social determinants of the population's health status. This analysis revealed a number of problems in the effective implementation of certain critical interventions, and the challenges involved in strengthening the corresponding institutional capacities (see diagram 1).

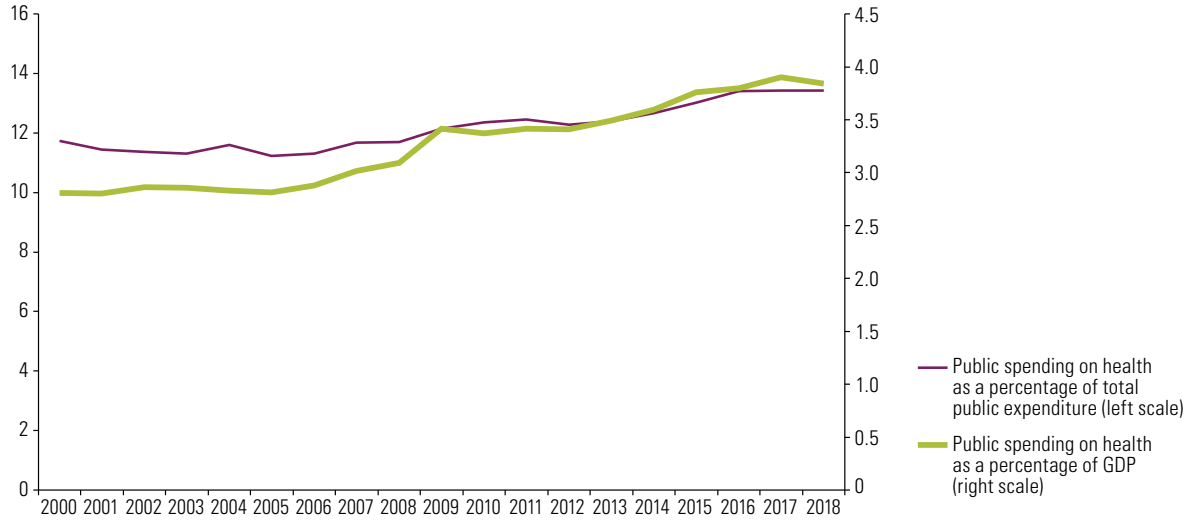
Diagram 1 | Latin America: problems in implementing the policy cycle of essential public health functions in the midst of the COVID-19 pandemic

Stage	Interventions to cope with COVID	Examples of countries	Challenges to strengthen capacities
Evaluation	• Delays in the notification of cases • Limited testing capacities • Inadequate isolation • Lack of mortality data • Lack of preventive measures	Brazil, Chile, Ecuador, Mexico, the Plurinational State of Bolivia and Uruguay	Health surveillance and analysis of health determinants (structural, supervision and performance capacities)
Policy development	• Strict measures resulting in unemployment and informality • Lack of sectoral and intersectoral coordination	Brazil, Colombia and Mexico	Weakness in social protection schemes and institutional fragmentation of the health sector (formal capacities, supervision and structure)
Resource allocation	• Informal and precarious jobs that cannot be performed remotely • Insufficient medical resources • Scarcity of financial resources	Brazil, Chile and Honduras	Insufficient resources (human, financial and technological) to cover public health priorities (formal capacities, structure and performance)
Access	• Lockdowns and poverty: access barriers to essential services (medical care and food aid)	All countries	Weakness in management structures and in the coordination of health services and public policies (structural and performance capacities)

Source: E. Báscolo and others, "Contributions of the new essential public health functions framework to address the COVID-19 pandemic", *Pan American Journal of Public Health*, forthcoming.

- This institutional strengthening agenda requires a strategy to boost public investment, in order to overcome structural vulnerabilities in financing. However, low levels of public investment in health have predominated in the region (except in a few countries); and this also correlates with high levels of compensatory out-of-pocket spending, and heightened risk of slipping into poverty or suffering financial catastrophe during a pandemic. The rate of growth of public spending in health in Latin America and the Caribbean was slow in 2000–2018 (an increase of 1 percentage point of GDP in almost 20 years), even when measured by an indicator of the fiscal prioritization of health (public spending on health as a percentage of total public expenditure), which rose by 2 percentage points on average (see figure 15).[6]

Figure 15 | Latin America and the Caribbean (33 countries): public expenditure on health, 2000–2018
(Percentages of GDP and of total public expenditure)



Source: World Health Organization (WHO), "Global Health Expenditure Database", 2020 [online] https://apps.who.int/nha/database/Select/Indicators/en.

- There are two structural manifestations of the low level of public financing: (i) an inadequate level of investment in human resources for health, whether in hiring, decent working conditions, training or continuing education; and (ii) a failure to prioritize the first level of care, which became a critical factor in reducing the effectiveness of various public health actions, such as testing strategies, case monitoring, the continuity of essential services and the progress of vaccination campaigns. One of the key challenges is the need for financing that guarantees a timely response to effects generated by the pandemic, ensuring provision of and access to all public health interventions, while also maintaining conditions of access to essential health services. In this context, it is important not to underestimate the importance of financing for vaccination plans (beyond the costs of purchasing the doses), in a context in which optimal conditions of access to vaccines will need to be sustainably guaranteed for the entire population, both this year and in the years ahead.

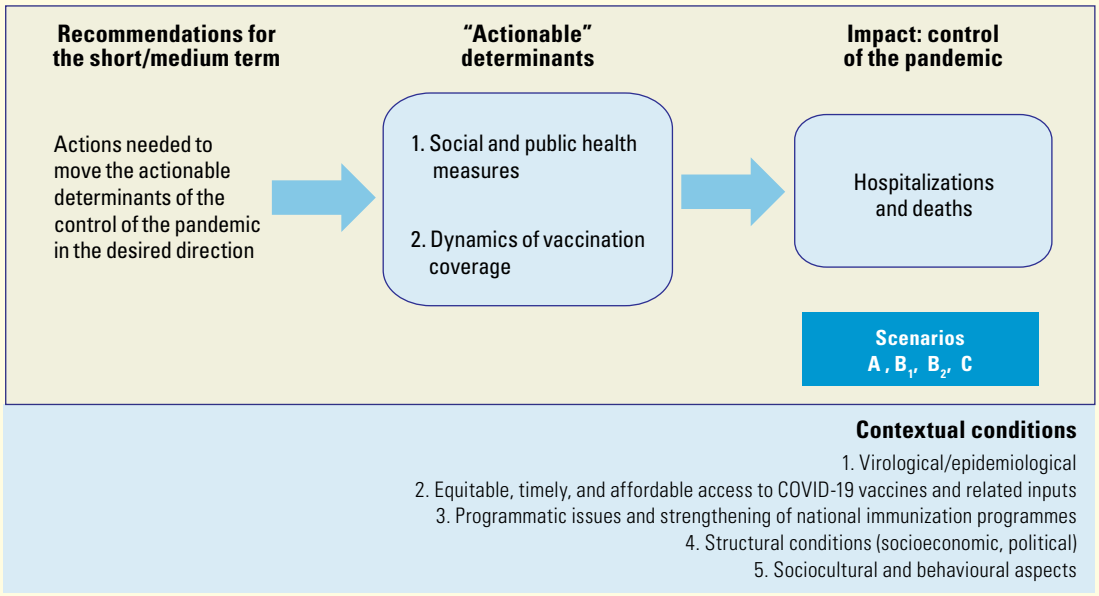
III. Possible pandemic control scenarios in the short term

- The course of the COVID-19 pandemic in Latin America and the Caribbean remains highly uncertain. An analytical projection of possible short-term scenarios (six to nine months) may shed light on the critical areas that need to be addressed to control the pandemic. In addition, given the uncertainty surrounding the efficacy of COVID-19 vaccines in preventing transmission of the SARS-CoV-2 virus as variants evolve, the short-term goal continues to be to reduce the number of hospitalizations and deaths.
- The possible scenarios presented in this section are a schematic representation of the situation in the region's countries. Two actionable factors —factors over which the countries have a high degree of control— have been chosen to define the future scenarios: (i) the implementation of social and public health measures; and (ii) the dynamics of vaccination coverage. The COVID-19 pandemic and the analysis of the determinants of vaccination rates[7] have highlighted the need to assess the dynamics of coverage.

[6] Public health expenditure corresponds to general government current expenditure on health.
[7] Measured by the proportion of a target population group that has been fully vaccinated, which varies according to the type of vaccine.

- It is important to keep in mind that both the implementation of social and public health measures and the dynamics of vaccination coverage depend on the following: (i) the virological and epidemiological context; (ii) equitable, timely and affordable access to COVID-19 vaccines and related supplies; (iii) capacity to effectively implement national immunization programmes; (iv) structural conditions (socioeconomic, political), including capacities to implement social protection measures; and (v) the sociocultural and behavioural features of the population (see diagram 2).

Diagram 2 | Logical framework for defining possible short-term pandemic control scenarios



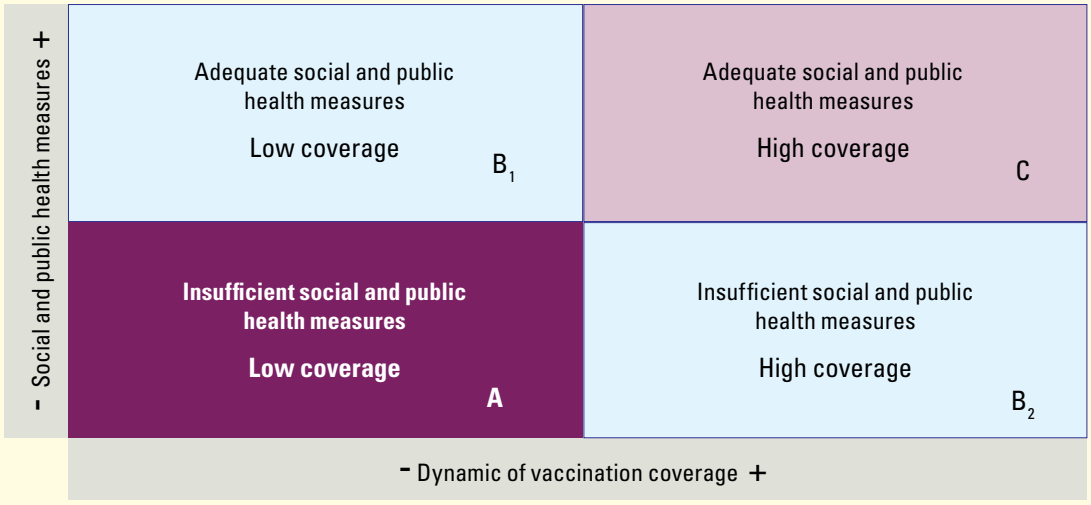
Source: Pan American Health Organization (PAHO).

- While recognizing the region's efforts to develop vaccine production capabilities, these will not increase the availability of vaccines in the short term. Accordingly, the potential effects of this process are not included in this analysis of possible scenarios, but will be considered as long-term recommendations in section IV.

A. Possible pandemic control scenarios

- Based on the two actionable factors referenced above, three epidemiological scenarios can be envisaged for COVID-19 in the short run (see diagram 3).

Diagram 3 | Possible short-term COVID-19 epidemiological scenarios (six to nine months)



Source: Pan American Health Organization (PAHO).

Scenario A:

- This scenario corresponds to countries in which the implementation of social and public health measures is insufficient, and vaccination coverage is low. As a result, high rates of community transmission are likely to continue, resulting in sustained rates of hospitalization and death.

Scenario B:

- This scenario represents an epidemiological situation in which the two actionable factors mentioned above could bring about a change in the case rate.
  - **Scenario B_1:** In countries that maintain adequate levels of implementation of social and public health measures but have low vaccination coverage rates, periodic increases in cases could occur, leading to hospitalizations and deaths.
  - **Scenario B_2**: In some countries that could achieve high vaccination coverage, with consistent levels over time, but where implementation of public health and social measures is insufficient, significant increases in case rates are likely to occur periodically.
- Countries in these two scenarios could regress periodically to scenario A, switching from one scenario to the other according to the situation.

Scenario C:

- This is the desired scenario—adequate implementation of social and public health measures and high vaccination coverage, leading to a situation in which hospitalization and deaths decline over time. Ultimately, the transition from scenario A to scenario B or C will depend largely on the contextual conditions affecting the implementation of social and public health measures and the dynamics of vaccination coverage.
- As an initial approach to examining where the region's countries are in the different epidemiological scenarios presented, a cluster analysis was performed, and subgroups were created on the basis of the current values of indicators used as proxies for the two actionable factors and the context.[8] As a result of this analysis, considering 29 countries that have information available, two countries are located in scenario A, nine belong to scenario B_1, 11 correspond to scenario B_2 and seven are in scenario C.

B. Contextual conditions affecting epidemiological scenarios

1. Virological/epidemiological conditions

- The scenarios described above make several assumptions about the efficacy of the vaccines and their impact on the desired outcomes (such as reductions in the number of patients with severe COVID-19 and in the number of deaths). A first assumption is that the vaccines remain highly effective against currently circulating variants;[9] a second is that vaccine efficacy does not decline significantly over time and specifically in the six-to-nine-month period covered by these scenarios (Khoury and others, 2021).
- Although data on all possible combinations of WHO emergency-use vaccines and variants of concern are not yet available, current studies show that vaccines remain highly effective in preventing cases of severe COVID-19 disease or death (WHO Weekly Update 54, 24 August 2021). However, the emergence of a new variant that is less susceptible to vaccine-induced immunity cannot be ruled out. Moreover, to date there is only a limited amount of conclusive evidence

[8] Population mobility index as an indirect indicator of the implementation of social and public health measures; current vaccination levels as an indirect indicator of the dynamics of vaccination coverage; and human development index as an indirect indicator of contextual conditions. A cluster analysis was performed to classify the countries in the scenarios described. This is a data reduction tool that creates subgroups or clusters of countries through the analysis of variables. The mobility data used are updated daily on the website "COVID-19 Community Mobility Reports" [online] https://www.google.com/covid19/mobility/?hl=en-GB; the vaccination coverage data come from PAHO; and the human development index (HDI) was obtained from the United Nations Development Programme (UNDP), "Global Human Development Indicators" [en línea] http://hdr.undp.org/en/countries. The Google mobility index was used as a proxy for social and public health measures, while recognizing its limitations in terms of not including the use of masks and handwashing. Twenty-nine countries in the region were found with Google mobility data. All mobility variables, except for residence, were aggregated to provide a single index. The percentage change in mobility was obtained by comparing the average mobility during the first three weeks of the pandemic with that of the latest three weeks (as of 10 September 2021).

[9] WHO threshold of 50% efficacy on population basis (WHO, 2020d).

to suggest that booster doses will be needed to maintain high levels of protection and prevent cases of severe COVID-19 and death amongst the population at large (WHO Interim Statement on booster doses of COVID-19 vaccine, 10 August 2021). The World Health Organization therefore recommends focusing on increasing global vaccination coverage with the primary vaccine series. However, the potential for declining immunity is being monitored, particularly in the context of widely circulating variants of concern.

- The combination of these two potentially interrelated conditions (variants of concern and diminished immunity) could hinder efforts to achieve high vaccination coverage, as defined in scenarios B_2 and C.
- As of 27 September 2021, all the countries and territories of Latin America and the Caribbean, as well as the United States and Canada, had all detected variants of concern: 49 had detected the alpha variant, 25 had detected the beta variant, 39 had detected the gamma variant, and 52 had detected the delta variant. Although the latter had been identified in most countries by that date, it had not yet become the predominant variant in most of the region (except in Mexico, the United States and Canada). However, this could evolve over time and have implications in terms of increased transmissibility.

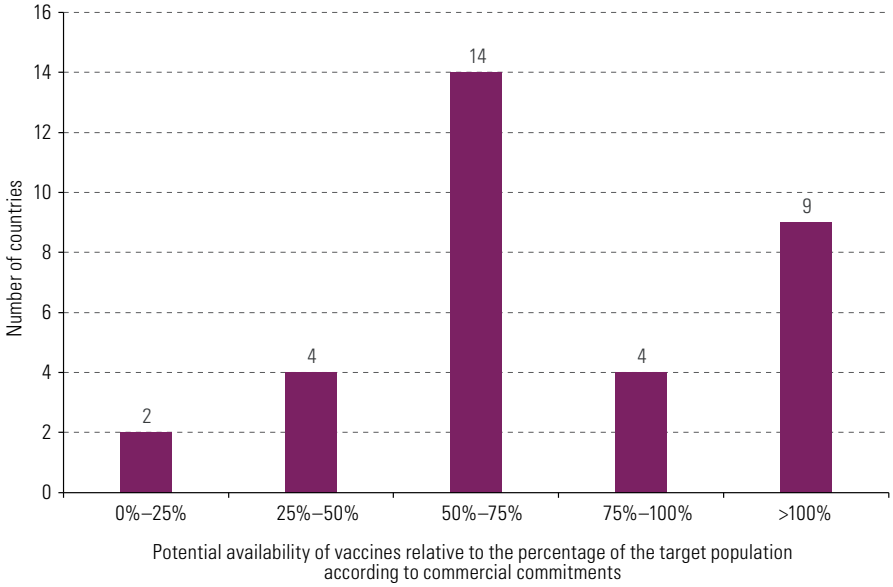
2. Equitable, timely and affordable access to COVID-19 vaccines and related supplies

- Access to vaccines is an important variable that directly impacts vaccination coverage dynamics. Experience in 2021 with newly developed COVID-19 vaccine products showed that substantial investments for production or to secure supply agreements do not necessarily generate balanced and sustainable market access dynamics. In a context of limited COVID-19 vaccine production capacity, particularly during the early stages of the pandemic, the following principles had to be applied to ensure equity and fairness in access to vaccines globally:
  - Vaccination of vulnerable population groups: to prevent deaths and hospitalizations, and then gradually expand access to the wider population to control and prevent transmission of the disease. Available quantities distributed equitably among the countries is crucial to this principle.
  - Safety, quality and efficacy proven: through population-based clinical studies in accordance with international standards, overseen by national regulatory authorities that have the necessary regulatory capacities for emergency use authorization, including good manufacturing practices. All populations retain the right to access COVID-19 vaccines that are safe and of proven quality and efficacy.
  - Cost: ideally based on principles of affordability and equity, with flat prices giving marginal returns on production costs. For a typical country in the region, the initial cost burden of vaccinating the total population against COVID-19 is estimated to be 12–18 times the annual national immunization budget.[10] To procure the vaccine for those considered most at risk (20% of the total population), countries in the region need to invest three to four times their current annual immunization budgets in the COVAX Facility.
- At the end of the third quarter of 2021, the world continues to witness significant inequity between countries in terms of access to COVID-19 vaccines. In Latin America and the Caribbean, the majority of doses were delivered through national bilateral agreements (based on fiscal capacity), while doses delivered through the COVAX Facility (based on global cooperation and equity principles) supplied about 10% of the total. Based on the number of doses that are expected to be delivered through the COVAX Facility by late 2021 and the unofficial mapping of bilateral agreements, donations and other access routes, it is possible to estimate the availability of vaccines to cover the target population in each country, assuming that all these commitments are met (see figure 16).[11]

[10] Based on weighted average cost per dose, with two doses per course (assumption made by the COVAX Facility during the commitment agreement process that took place between the first and third quarters of 2020).

[11] This is based on the WHO-recommended regimens (one, two or three doses per person) for each product excluding boosters, and assuming the existence of capacity for programmatic implementation and the population's willingness to accept the vaccines.

Figure 16 | Latin America and the Caribbean (33 countries): countries with potential vaccine availability by end-2021 according to commercial commitments



Source: Pan American Health Organization (PAHO).

- If all established commercial commitments and agreements are fulfilled, two countries would have sufficient doses to vaccinate up to 25% of their target population, and nine would have enough to cover more than 100% of theirs.[12]
- However, experiences in 2021 showed that market-driven dynamics, based on national financial and negotiation capacities, seriously undermined the supply to global mechanisms such as the COVAX facility. As of the end of the third quarter of 2021, countries that had secured large volumes of vaccines are donating doses in large numbers to other countries in need, either through direct negotiation with suppliers, or through the COVAX Facility. While such donations are encouraged, complications persist in the planning of shipments and supply logistics, and also in ensuring equitable access for the neediest countries.
- The dynamics of access to COVID-19 vaccines in 2022 will depend primarily on how efficiently and equitably demand and supply can be matched. Only through concentrated efforts, and with the active participation of vaccine manufacturers and their commitment to equity principles, will Latin American and Caribbean countries have the opportunity to move from lower coverage scenarios (A and B_1) to higher ones (scenarios C and B_2).
- Another approach would be to use the ECLAC methodology to estimate how to make progress in vaccination processes (ECLAC, 2021d) by considering the following: (i) approval by the country's health authority of vaccines that have been or will be purchased; (ii) the capacity of manufacturing laboratories to fulfil delivery schedules; and (iii) organizational capacity for vaccination roll-out, as reflected in logistical capacity for the procurement and transportation of doses.[13] On this basis and in a scenario of uncertainty, it is possible to calculate probabilities for the different countries and the different conditions identified. Using this approach, three country groupings can be estimated: a first group of 11 countries could be ready to fully vaccinate 70% of their population between the end of 2021 and mid-2022; a second group of 7 countries would be ready by the end of 2022; and a third group of 15 would be ready only in 2023.
- Vaccination coverage is expected to vary considerably in 2022, depending on the availability of different products with varying levels of efficacy, the capacities of countries to ensure the availability of these products and global market dynamics.

[12] This projection is based on the successful and timely delivery of mapped bilateral agreements that have been, together with some domestic production efforts. The mapped bilateral agreements are not official information and their delivery timelines could be delayed with variations.

[13] $\sum_{j=1}^{n} Vaccines_{ij} = \sum_{j=1}^{n} (Vaccines\ purchased + Potential\ vaccine\ purchase)_{ij} * \Pr(Demand_{ij}) * \Pr(Supply_{ij})$ where i refers to the country contracting the vaccines and j is the producer of the doses.

- In such circumstances, it is difficult to make a precise quantitative analysis of coverage levels in each country in 2022. Nonetheless, there are important lessons learned that could guide countries in expanding coverage. These include: (i) strengthening programme planning and mapping epidemiologically dynamic target groups in relation to vaccine availability; (ii) continuously improving supply chains and immunization operations to strengthen delivery capacities; and (iii) investing in access strategies with solidarity and demand pooling while also cultivating partnerships.
- While the efforts of individual countries, in many cases competing with each other, affected the equity of vaccine access in 2021, Latin American and Caribbean countries should focus on broader alternatives for collaboration across the region in 2022 (ECLAC, 2021e). Further strengthening of the COVAX Facility is needed to accelerate vaccine delivery in the region. Potential donor countries need to act collectively in their decision-making and donating to the region. Collaboration with donor countries should extend beyond the dynamics of donations, to include joint planning of demand, vaccine stockpile management and related logistical coordination. Countries in the region, which have different financial capacities and levels of access, should increase and consolidate regional collaboration and leadership to support regional and complementary procurement of vaccines from the COVAX Facility, including through the PAHO Revolving Fund, which is focusing on regional strategies to increase access options for PAHO Member States in the short term.

3. Capacity for effective implementation of national immunization programmes

- Timely access to COVID-19 vaccines is one of the determinants of the dynamics of vaccination coverage. Others include the following: (i) country preparedness for vaccine introduction and deployment, including regulatory capacity; (ii) planning and budgeting for immunization programmes; (iii) planning of demand and prioritization of target groups; (iv) harmonization of national regulatory processes; (v) strengthening of the supply chain and cold chain; (vi) epidemiological surveillance of suspected vaccine-adverse events (VAEs); (vii) training, programme management and supporting supervision; (viii) service delivery; (ix) monitoring and evaluation; (x) social mobilization and communications; and (xi) evidence-based decision making as needed by national immunization programmes. Some of these key elements are described below.
    - Vaccination planning and deployment. Countries should develop a national vaccination plan. This would be a document to guide the overall allocation of resources for a successful vaccination campaign, by ensuring resources are available at all levels of operation (for example, personal protective equipment, vaccine supply, storage and transportation within a continuous cold chain system, human resources, security and other requirements). An essential feature of this document is that it establishes who should receive the COVID-19 vaccine as a priority. Countries are encouraged to follow the roadmap of the WHO Strategic Advisory Group of Experts on Immunization (SAGE) for prioritizing uses of COVID-19 vaccines (WHO, 2021b). This identifies vaccination-priority populations based on the epidemiological setting and vaccine supply scenarios.
    - Financing the COVID-19 vaccination programme. In order to prepare for the distribution of licensed COVID-19 vaccines, countries must commit funds to develop programmatic infrastructure including the cold chain, secure human resources, and purchase doses. Governments should consider the challenges faced by expanded programmes of immunization, such as lack of funds, human resources, logistical infrastructure, transportation and social communication to reach certain remote areas. They should also ensure that additional funds are available to scale-up the vaccination programme once more doses of COVID-19 vaccines become available in 2022.
    - Cold chain and supply chain. Countries must secure vaccine cold-chain storage operations, and plan and estimate the quantity of vaccine needed to ensure that the appropriate number of doses are available at all levels, and can be stored at the correct temperatures. An additional challenge in the context of COVID-19 is that each currently licensed vaccine has specific cold chain requirements and special storage and preparation needs. For example, vaccines with an ultra-low-temperature cold-chain profile pose several challenges, owing to the lack of capacity existing in countries' health and immunization systems. In addition, health workers have to be trained to handle all vaccination requirements. Special attention should be paid to expiration dates, which differ according to vaccine type and storage conditions.

- Vaccine safety. Countries need the capacity to monitor possible adverse events attributable to vaccination or immunization, which is essential in the current vaccination context. In addition, governments should participate in the passive and active surveillance systems put in place by PAHO and WHO to detect and refine the safety findings on newly licensed COVID-19 vaccines.
- Vaccine data management systems. Adequate health information systems for documentation and data management are needed to track progress, identify challenges, and provide evidence-based information for informed decision-making. Robust data systems, with unique personal identifiers, could form a database to identify and certify vaccinated individuals, while supporting research on vaccine effectiveness. This represents an opportunity for the modernization and digitalization of immunization programmes.

4. Structural conditions

- Assuming that the current analysis is projected for the next six to nine months, and that countries differ greatly in terms of several structural characteristics, there are some contextual elements that do not change but have a major impact on both social and public health measures and vaccination coverage rates.
- With regard to the effectiveness of social and public health measures, there are cultural, geographic, demographic and socioeconomic determinants that could make the application of certain levels of measures more feasible —or even necessary— in some contexts and not in others. For example, less densely populated areas may be less prone to contagion through social interactions than more densely populated areas, and therefore require less stringent mobility restrictions. Countries with higher levels of poverty and social exclusion may be unable to implement physical distancing measures or handwashing practices as effectively as wealthier and more inclusive ones. They may also be less able to implement and maintain emergency social protection measures, which have proven a key element in fulfilling social and public health measures in the short term.
- In terms of the current vaccination coverage dynamics, there are global determinants which are fixed in the short and medium terms, such as worldwide vaccine production capacity. In addition, the bilateral bargaining power of individual countries —largely determined by their income— is given and will not necessarily change during the period under consideration. Accordingly, these structural conditions or country characteristics are not considered actionable, but contextual and only modifiable in the long run. Lastly, these contextual elements vary both within and between countries. Before developing good practices or formulating generic recommendations, it should be borne in mind that policies are not implemented in a vacuum, so there is no one-size-fits-all approach to progress in the coming months.

5. Sociocultural and behavioural issues

- It is essential to communicate accurate information about COVID-19 vaccines. Vaccination roll-out has raised issues of acceptability, regardless of proven benefits. The concerns of those who have not yet been vaccinated must be addressed urgently, by providing adequate and accessible information on the benefits of vaccines, and on their safety.
- Widespread education on COVID-19 and the vaccination campaign policies should also be prioritized. This should include collaborating directly with health workers, as actors who foster trust in vaccination among their communities. Actions could include responding to concerns and possible doubts, forming and strengthening interpersonal communication, and providing the necessary resources. In addition, partnerships with community leaders (for example, religious leaders) are key to building trust and serving as an information bridge to the public; and they can help promote vaccination by improving acceptability.
- Training journalists and working with them can help address the information overload and halt the spread of misinformation, by providing the public with reliable online data from verified sources. These efforts could also include collaboration with fact-checking organizations and civil society partners.

IV. Controlling the health crisis is the key to a sustainable and equitable economic recovery process

- More than a year and a half since the onset of the pandemic, the regional panorama shows that the health crisis has still not been brought under control; and the feasibility of moving towards a transformative recovery under these conditions is questionable. Even though an economic recovery can be discerned in 2021, the characteristics that this recovery has adopted show that it is not prioritizing either equality or environmental sustainability, and that social development setbacks are not being reversed. This reaffirms the need to control the health crisis, primarily with a comprehensive approach, to generate conditions that enable countries to move towards a recovery that will produce more inclusive and sustainable societies, and bring them closer to attaining the Sustainable Development Goals (SDGs). The following set of recommendations are in line with the above:

A. The intersectoral approach needs to be built into health policies

- The pandemic has highlighted the need to formulate a public health agenda with a comprehensive and integrated approach, which recognizes the interdependence of the health, social, economic and environmental dimensions and addresses the social determinants of health in order to reduce inequities. It is therefore necessary to strengthen coordination between health systems and policies and social protection systems and measures. This will enable them to work together to contain the social crisis and its impact on the unequal distribution of the social determinants of health, by helping to implement public health measures and guarantee a floor of well-being in this regard, in addition to promoting equal access to health services.
- The health sector should be viewed as a component of the social protection system. The pandemic has made clear that the consequences of the health crisis cannot be addressed by the health system alone, and that a universal, comprehensive and sustainable social protection system is needed. This approach will make it possible to consider the factors that have been associated with greater vulnerability to the health crisis, such as informality, poverty and overcrowding.
- Coordination between strategic sectors, such as health, science, technology and industry, also needs to be strengthened. This will require a road map that identifies priorities in national policies for scientific and technological development.

B. Health systems need to be transformed, taking into account the centrality of primary health care, equity in health care, financial sustainability and the role of the State

- An agenda for strengthening the pandemic response requires a strategy for greater public investment in health, including short- and medium-term priorities that guarantee the financial sustainability of an agenda for strengthening institutional capacities within the State.
- In the short term, there is a need to increase health spending in real terms, particularly in the public component, to meet the new needs generated by the pandemic and also strengthen the provision of other essential health services. To achieve this, additional pandemic-related resources must not entail reallocation within the health sector, as occurred in the initial phases of the pandemic when the emergency was greatest. They must not, therefore, imply the postponement of non-COVID-19 services.
- Foundations must also be laid for a transformation of the health system, with a focus on primary health care that meets the specific and different needs of people, by increasing public health expenditure, consolidating its financial sustainability, and prioritizing the allocation of resources to the first level of care. It is also necessary to strengthen the organization of health care services and generate adequate responses to the problems of fragmentation and segmentation. This will make it possible to restore and strengthen access to essential health services by reconstructing the health services network, so that the majority of health needs can be resolved at the first level. Sustained efforts will be needed to close coverage gaps and ensure equitable access to health care, with financial protection, supported by the broadest possible funding for the health sector.

- It is essential to strengthen the capacity of health service networks to expand access, prioritising investment in the first level of care, to expand access, to support the delivery of comprehensive, quality health services (both for individuals and populations) and to improve the adaptability, responsiveness and resilience of health systems. Whether a basic level of preventive and routine health services, including those related to priority programmes, can be maintained and specific services can be scaled up in the event of a public health emergency will depend on the response capacity of the entire network, including the first level of care and specialised services (PAHO, 2021c). In the short term, this will require additional resources to guarantee access to vaccines and strengthen the first level of care, taking account of organizational and management factors, as well as communication to speed up deployment of the remaining vaccination.
- Health system governance must be strengthened by improving management and coordination in order to leverage the capacity of all subsystems and sectors (public and private). This calls for increased management capacity of health networks. In turn, continued improvements in the delivery of quality health services will require the establishment of mechanisms to coordinate care along the continuum of health services based on patients' needs (PAHO, 2021c).
- The health system must be made ready, in a resilient and sustainable manner, to cope while the crisis persists, redoubling efforts to respond to increased demand. To this end, financing for essential public health functions must be comprehensively strengthened to reinforce capacity to respond to the full range of public health interventions. Countries should therefore focus more on medium-term strategic planning than on how to finance the crisis, recognizing that the disease as such will not be eradicated in the near future.
- Countries also need to systematically explore potential new sources of public financing for health which, by definition, do not compromise other areas of public spending or the sustainability of the public sector's financial position in terms of debt. This requires elements of structural change which, in the long run, will prepare health systems to respond more effectively to future pandemics or health crises.
- It is essential to progress an agenda to strengthen State institutions, with a view to guaranteeing the population's right to health. This means reinforcing the capacities of health authorities at different institutional levels and in conjunction with other institutional sectors and social actors. It includes revising and improving regulatory and legislative frameworks that potentially influence the risk factors and determinants of health. In a complementary manner, the competencies of the State structures and agencies responsible for performing essential public health functions, as well as those that could add value to digital health interventions, need to be endowed with trained human resources, adequate infrastructure and technological support, and sufficient and sustainable financing. Lastly, these capacities must be complemented with accountability mechanisms that legitimize stronger and greater interaction between civil society and the functions of the State.

C. Mass vaccination processes must be accelerated to control the health crisis

- It is essential to complete the mass vaccination process successfully, by supporting the vaccination plan with robust support at the primary care level. This entails setting up mechanisms to make vaccines rapidly available, and strengthen the capacities of both health services and communications in promoting acceptance and follow-up of the vaccinated population.
- As regards the financing of national COVID-19 vaccination plans, the countries need to be aware of the costs involved, both of the required doses of the vaccine and of the other inputs needed for implementation. Should vaccine availability for the region increase considerably, the countries would then have the capacity to absorb and rapidly implement their plans.
- Although, in the short term, most countries have used extrabudgetary funding lines or programmes to implement their vaccination plans given their unpredictable nature, in the medium term, financial, material and human resources should be channelled by strengthening expanded vaccination programmes that are included in regular budgets. The creation of parallel mechanisms should be avoided; and the likelihood that COVID-19 vaccination campaigns will become recurrent, at least in the next few years, should be considered.

- The global asymmetry and regional fragmentation affecting vaccine procurement demonstrates the urgent need to strengthen regional coordination and integration mechanisms, as well as international cooperation. Considering the difficulties that the COVAX Facility has had in meeting its commitments thus far, mainly for non-operational reasons, it seems reasonable for the region's countries to rely on the regional vaccine procurement mechanism of the PAHO Revolving Fund in the medium term (six to nine months). Having been created to meet the needs of countries in the region, this fund should certainly be able to respond more quickly to their needs. This reformulation of the vaccine access strategy should take place without prejudice to fulfilment of the commitments already agreed upon with the COVAX Facility. It should therefore be designed to provide access to vaccines in addition to those that have already been secured through this mechanism.
- For better results, and to optimize the matching of supply to demand, collaboration with donor countries should not only focus on donation dynamics, but also include joint demand planning, supplier stock management and logistical coordination. Countries with different levels of financial capacity and access should participate collectively in regional coordination rather than acting separately. Historical experience and the current COVID-19 pandemic have shown that it is possible to set up and manage this.
- Accurate information on COVID-19 vaccines needs to be disseminated. The roll-out of vaccination programmes reveals the presence of hesitancy, regardless of the proven benefits. Concerns need to be addressed urgently, by providing adequate information to potential recipients on the benefits of safe and effective vaccines. Widespread education on COVID-19 and vaccination campaign policies should also be prioritized.
- In order to reach the entire population, with no one left behind, vaccination campaigns need to adopt a universalist approach that is sensitive to differences. In addition to fulfilling the principle of universality, countries should implement specific actions aimed at overcoming the barriers to vaccine access faced by individuals living in situations of inequality and exclusion, such as indigenous people or persons with disability. Among other things, this will require information on vaccines and the vaccination process to be provided in an accessible and culturally relevant form.

D. Regionwide technological progress needs to be achieved for health and sustainable development

- Although the pandemic has highlighted the vulnerability of the region's health status, it provides an opportunity to deploy production and technological capacities, and to reformulate strategies and policies aimed at strengthening local systems for the production of vaccines and essential medicines, for consumption within the region itself. It also opens up broader spaces for national public policy initiatives to be complemented and harnessed with regional actions. These initiatives are being made reality through concrete actions, such as the *Plan for self-sufficiency in health matters in Latin America and the Caribbean: lines of action and proposals* (ECLAC, 2021e) and the Regional Platform to Advance the Manufacturing of COVID-19 Vaccines and other Health Technologies in the Americas (PAHO, 2021b, 2021d). The following points fall within this sphere of action.
- Promoting increased regional and local production can reduce reliance on imports from outside the region. It may also strengthen national health security and preparedness for other international health emergencies in the future; stimulate national capacities for innovation and technology transfer; generate demand for skilled labour and stimulate development of the knowledge-based economy (WHO, 2011). Production capacities in the health manufacturing industry will need to be strengthened, with a comprehensive policy approach to facilitate access and strengthen preparedness for future public health emergencies.
- An intersectoral approach is needed, combining the efforts of the public, business and academic sectors, in the framework of health, industrial and scientific-technological policies targeting this mission. This should also harmonize and coordinate public policies and programmes, while safeguarding sectoral competencies and jurisdictional autonomy, between the national health, science and technology, and production systems, among others.

- Comprehensive policies are another essential instrument for achieving collaboration between the public and private sectors, making medicines and other health technologies more widely available, and promoting access to these inputs, together with sustainable economic development.
- In the public health sphere, policies to improve development and production capacity should prioritize products that respond to national and regional health needs.
- In the economic dimension, policies should promote industrial development, job creation and economic development in the countries, analysing the local situation and the tools available to improve competitiveness and macroeconomic conditions, with a view to fostering investment.
- In the technological domain, capacity considerations should focus on characterizing the existing technological base for developing and producing a given type of health product or technology. They should also consider opportunities for developing new capacities to address health needs in a competitive and sustainable manner.
- Given the region's great heterogeneity in terms of the existing technological base, and the development of capacities for innovation and the production of medicines and other health technologies, possible lines of action have been identified in the area of development of capacity-building programmes for innovation in the health industry and strengthening regulatory capacity to monitor the safety, quality and efficacy of medicines and other health technologies.
- Regional and international cooperation must be strengthened to facilitate information exchange, the procurement and distribution of critical inputs, and the preparation of recommendations on regulatory and ethical issues, and on appropriate and safe use. These measures would make it possible to exploit complementarities, while sharing knowledge, fostering regulatory convergence and capitalizing on integration mechanisms to facilitate access to the regional market.
- Intraregional trade should be encouraged by forming a minimum base of local suppliers operating in the region who can guarantee compliance with quality, safety and timeliness standards, as well as affordability.
- Lastly, the countries of the region need to strengthen coordination for the public procurement of medicines, vaccines and medical devices —for example, through the PAHO Revolving Fund— in order to obtain more competitive prices and better access to essential products.

E. More expeditious digital transformation of the health sector is needed

- The COVID-19 pandemic has accentuated the need for the rapid adoption of digital public health solutions, and the vast majority of countries are already working in this regard to strengthen access to health services and contact with populations, improve health information, and increase the availability of evidence and data for decision-making and policy formulation. There is an urgent need to accelerate the digital transformation of the health sector, specifically to ensure equitable access to health benefits for all population groups, especially those in vulnerable situations. Half of the world's population has no Internet access and, consequently, no access to health, education and many other services that might be available to them through a safe, ethical, regulated and sustainable digital transformation. Bridging the digital divide must therefore also be a priority in the context of public health and the social determinants of health (PAHO, 2021c).

F. The State needs to maintain expansionary fiscal policies and boost public investment to foster a transformative recovery

- Expansionary fiscal policies must be maintained, to continue mitigating the effects of the pandemic and advance a transformative recovery with equality. In addition to maintaining emergency social transfers, it is essential to boost labour incomes, promote pro-employment policies and support production sectors that are at risk of bankruptcy (ECLAC, 2021a).
- At the same time, it is essential to increase investment rates and reverse the long-standing decline in this area. A transformative recovery requires increased investment in a group of dynamic sectors, to make it possible to generate quality jobs, promote innovation, diversify exports, implement actions to adapt to and mitigate the effects of climate change, and deploy regional cooperation

initiatives (ECLAC, 2021a). In the current context, public investment measures that would have a positive impact on health, such as investment to universalize drinking water, sanitation and electricity services and, of course, investment in the public health system, would be very important.

G. Regional integration and international health collaboration need to be strengthened

- The current situation has demonstrated the indispensable need for collaboration between the actors and institutions that define the normative framework and the support needed for technical cooperation. These operate through regional integration and international collaboration, especially in the case of factors that have an impact on the COVID-19 pandemic response. This interaction should incorporate a variety of actors, such as the United Nations agencies, the multilateral development banks and organizations involved in financing and resource management, as well as in the support provided to countries through technical cooperation.
- A multisectoral and interdisciplinary approach should be used, involving actors not previously considered crucial to health interventions, such as those in the telecommunications and technology development sectors. During the pandemic, initiatives to provide financial support, technical cooperation and the adoption of international standards for locally applicable digital solutions were shown to be fragmented both nationally and internationally. The roles to be played by cooperation partners in their interaction with the countries were poorly defined. In this regard, there is a need to strengthen coordination among partners in terms of financial support for the entire COVID-19 response at the country level. In addition, closer dialogue should be encouraged between the countries' Ministries of Health, Finance or Economy, and Foreign Affairs on the management of resources, both national and international, to combat the pandemic.

H. Welfare states need to be consolidated with universal, redistributive and solidarity-based policies under a rights approach

- In the midst of the pandemic, universal, comprehensive and sustainable social protection is more important than ever. In addition to expanding and maintaining the coverage of emergency social protection programmes, it is crucial to strengthen pension systems, through pension reform processes, either ongoing or new. These should prioritize cross-cutting criteria such as increased coverage, the adequacy of benefits, financial sustainability and social solidarity.
- In the short term, the continuation of emergency transfers is of utmost importance for containing the rise in inequality and the increase in poverty and extreme poverty caused by the pandemic. As the benefits of economic recovery alone will be insufficient to continue coping with the protracted health and social crisis, it is crucial that governments maintain these social protection programmes (ECLAC, 2021b).
- In the medium and long terms, universal, comprehensive and sustainable social protection systems need to be constructed, framed by care societies that guarantee levels of well-being for the population, without relying exclusively on women's unpaid work (ECLAC, 2021b).
- These social protection mechanisms must be linked to health systems, so that they can jointly address the unequal distribution of the social determinants of health and the structural axes of the region's social inequality matrix. Given the fundamental role played by social protection in overcoming poverty and reducing inequality, these systems serve as a State tool with capacity to influence the social determinants of health (ECLAC, 2021c). It is therefore essential to strengthen the links between health systems with universal coverage and access, and universal, comprehensive and sustainable social protection systems that make it possible to build more egalitarian, inclusive and crisis-resilient societies (Etienne and others, 2020).
- In view of the profound impact that the protracted health crisis has had on the education and well-being of children and adolescents, organizing a safe and gradual return to school, in wide-ranging coordination with the health sector, is crucial. Returning to school is very important, especially for the most disadvantaged sectors. At the same time, the need to invest in the well-being of children, adolescents and young people must be prioritized, so as to guarantee their development in a world full of adversities, some new and some older.

- Policies for transformative recovery must recognize the interdependence of the health, social, economic and environmental dimensions and form part of a strategy for structural change based on a big investment push for economic, social and environmental sustainability (ECLAC, 2021b). This makes it essential to mesh health, economic and social policies, together with cross-cutting consideration of gender, territory, ethnic-racial status, life cycle, disability and migration status, among other structural axes of inequality. The associated unequal distribution of the social determinants of health also needs to be considered, to ensure recovery leads to more inclusive and sustainable societies, and brings countries closer to achieving the sustainable development goals. The prolongation of the health crisis has exposed and deepened the region's historical gaps; and it has underscored the urgency of strengthening the welfare state and implementing universal, redistributive and solidarity-based policies with a rights approach, to ensure that no one is left behind (ECLAC, 2020b). The welfare state must be geared towards guaranteeing that people can exercise their rights, and consolidating sustainable development.

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