

# AGING IN LATIN AMERICA AND THE CARIBBEAN

## SOCIAL PROTECTION AND QUALITY OF LIFE OF OLDER PERSONS

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# Foreword

It is a publicly recognized fact that Latin America and the Caribbean is aging at an unprecedented rate. Albeit at different paces, during the past decades, all countries in the region have witnessed key social and economic changes that led to declines in fertility and mortality. The resulting demographic transition has translated into longer life expectancy and an increase in the share of older people in the region, a trend that is expected to continue in the coming years. The rise in longevity has come with an overall improvement in older people's quality of life. Today, older people enjoy better health and are less likely to fall into poverty than twenty years ago.

This report argues that at least part of this improvement is the result of social protection policies in the areas of pensions, healthcare, and long-term care. The expansion of non-contributory pension benefits, coupled with efforts to achieve universal healthcare, and an incipient long-term care agenda, have contributed to making older persons' lives better.

Despite progress, the challenges that lie ahead for the region are enormous. Social protection policies for older people will face dire fiscal and social sustainability pressures in the coming decades. Moreover, recent gains have not reached everyone in the same way. There are differences across and within countries that cannot be justified, with women and those at the lower end of the socioeconomic spectrum being clearly disadvantaged when compared to others.

How to continue advancing along the path of better social protection coverage and quality while at the same time keeping fiscal pressures at bay? The answer of this report is that the only way is to take a holistic approach in the design of social protection policies that explicitly considers the interactions and synergies between pensions, healthcare, and long-term care. While there is no one-size-fits-all solution and each country will need to evaluate the viability of reforms given its specific social, economic, and fiscal context, the need for an integrated approach in all three areas of social protection is paramount.

By promoting social progress, strengthening of institutions and gender equality, this book is aligned with the Inter-American Development Bank's Vision 2025. It is our wish that the work presented here will become a useful tool for policy makers and academics in the areas of pensions, healthcare, and long-term care, as well as for the public in general as we – as a society – become more and more aware of the social benefits and challenges that come with an aging population.

We are convinced that the region can have a bright future, one with people living longer and healthier lives alongside a vigorous and productive economy whose benefits expand to all generations. We are also convinced that the path forward is through a holistic approach that addresses the diversity of aging experiences and links policies on pensions, health, and long-term care together.

**Benigno López Benítez**  
Vice President for Sectors and Knowledge  
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OF LIFE OF OLDER PERSONS



# Executive summary

**People in Latin America and the Caribbean are now living longer and in better health than at any other time in history, an extraordinary achievement for the region.** Average life expectancy at birth has risen from 29 years in 1900 to 75 years in 2021—a remarkable 46-year gain. Although the COVID-19 pandemic may temporarily disrupt these trends, projections suggest its impact will be short-lived and will not affect long-term demographic trends. In some countries, poverty among older people has virtually disappeared, and nations have implemented policies like non-contributory pensions and increased access to healthcare to improve older people's quality of life.

**Latin America and the Caribbean is the fastest-aging region in the world.** While it took 67 years for people over 65 to go from representing 10% to 20% of the total population of France, the same transition is expected to happen in less than half this time (29 years) in the average Latin American and Caribbean country. The transition will be even faster in some countries. In Chile, for example, this shift is expected to happen in only 25 years. By 2085, Latin America and the Caribbean will be the first region where one in three people will be over age 65. The Latin America and the Caribbean region will have fewer economic resources than high-income countries to address this population aging process.

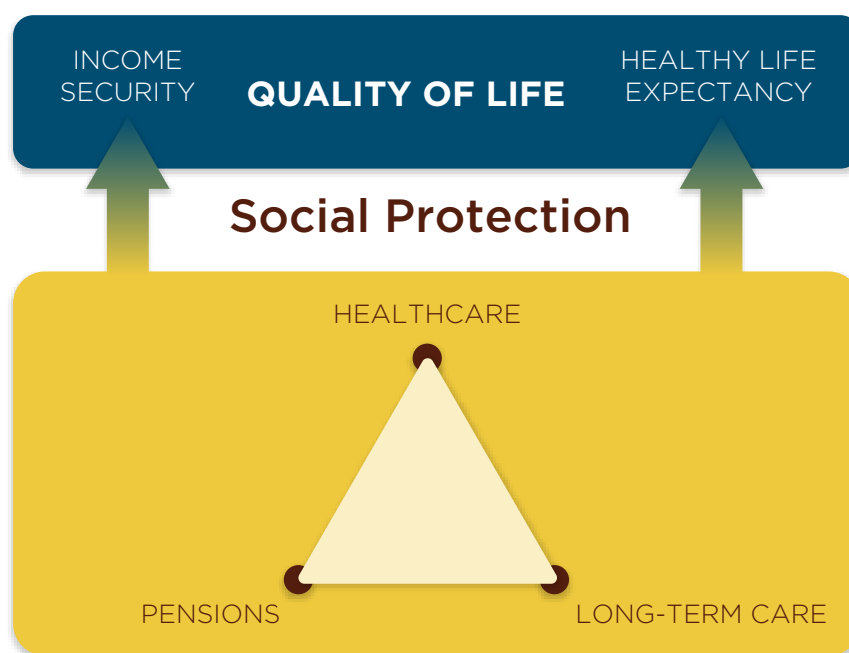
**Population aging will strain social protection systems that underpin older people's quality of life and will impose policy tradeoffs.** Population aging reduces pension systems' financial sustainability: years of retirement increase and the ratio between the contributory base and pensioners shrinks. It also exerts pressure on healthcare systems, as older people have higher per-capita healthcare expenditure. Furthermore, the trend increases the demand for long-term care services, as older individuals are more likely to lose functional ability and need help performing activities of daily living. Such challenges are even more worrying in Latin America and the Caribbean, where informal employment is widespread and social insurance and public services are scarce, fragmented and, in some cases, underfunded.

**In this report, we analyze the quality of life of older people in Latin America and the Caribbean, how it relates to social protection policies, and how these policies must adapt to population aging.** We measure older people's quality of life as a combination of healthy life expectancy and income security. In this report, we define social protection for older people as a combination of pensions, healthcare, and long-term care. These policies are directly related to older people's quality of life (Figure 1). Pensions reduce poverty among older people. Healthcare improves their health status and lowers the risk of poverty due to catastrophic medical expenses. Long-term care enhances the wellbeing of those who are care-dependent and their family caregivers. These positive

impacts of social protection are widely documented in the literature. For each type of policy, we assess the level of coverage, the quality of the benefits provided, and fiscal and social sustainability.

**Pensions, healthcare, and long-term care policies are deeply interconnected, both directly (the three benefits overlap as determinants of a person's budget limitations) and indirectly (through their positive effect on health and autonomy, and the consequent ability to extend people's working years).** For example, a pension's adequacy depends on how much an older person is expected to pay for out-of-pocket healthcare and long-term care. Similarly, long-term care services may lower overall healthcare expenditure by reducing avoidable hospitalizations. Healthcare and active aging interventions that improve health status will make pension reforms that raise the retirement age more feasible. They will also reduce the prevalence of functional dependence and, consequently, the need for long-term care services. Numerous other policies that are not the focus of this report also affect older people's quality of life. These include policies for urban spaces, environmental quality, citizen security, and discouraging discrimination toward older people.

**FIGURE 1.** KEY DIMENSIONS OF OLDER PEOPLE'S QUALITY OF LIFE AND SOCIAL PROTECTION



Source: Prepared by the authors.



## MESSAGE 1

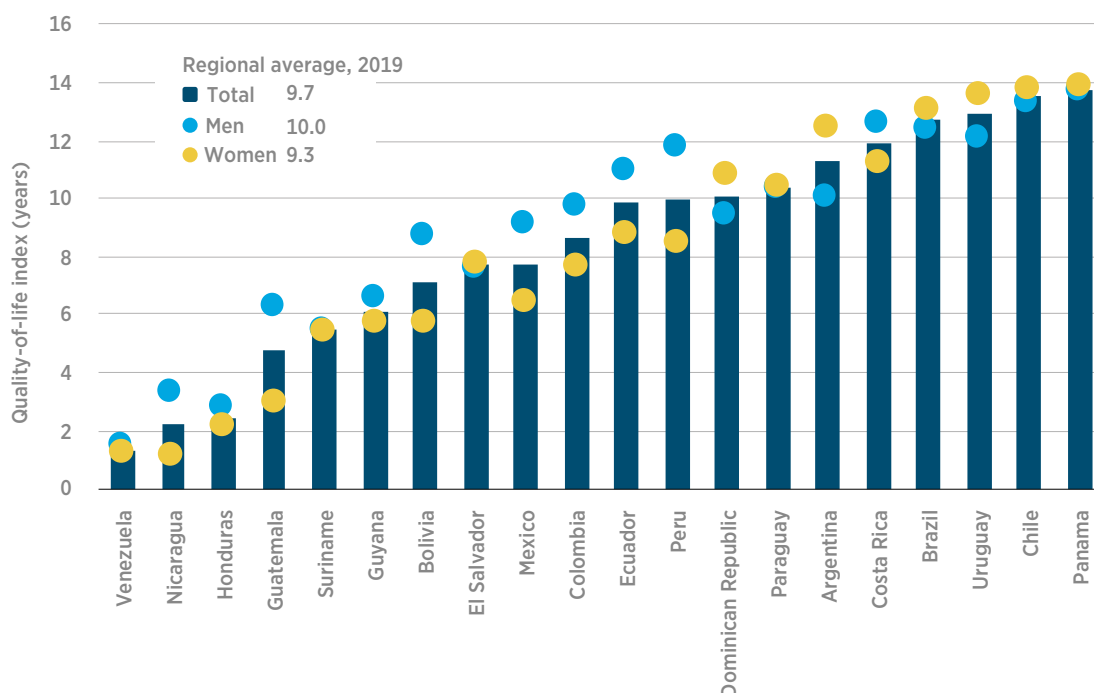
The quality of life of older people has improved substantially over the last two decades. However, there are still large differences both across and within countries.

**Our quality-of-life index measures the number of years a 65-year-old person can expect to live in good health and poverty-free. This index shows significant progress in the region over the last two decades.** The regional average rose from 7.1 years in 2000 to 9.7 years in 2019, a 37% increase. Around 86% of this gain can be attributed to lower rates of poverty among older people, particularly women.

**Despite progress, there are still large differences among countries.** In Panama, Chile, Uruguay, and Brazil, a 65-year-old can expect to live more than 12 healthy, poverty-free years, compared to less than five in Guatemala or Honduras (Figure 2). These large discrepancies can be explained by differences in both healthy life expectancy and poverty rates among countries.

**Differences also exist within countries, including those based on gender.** Though women live longer and healthier lives, on average, they tend to fare worse than men in our index because they are more likely to experience poverty after age 65 (measured by individual income). Despite recent gains, women's healthy, poverty-free life expectancy is still one year shorter than for men. There are also large socioeconomic discrepancies: low-income groups and ethnic minorities have shorter healthy life expectancies. These differences can be as high as 10 years, as was found between richer and poorer sections of Panama City (Bilal et al., 2019). Vulnerable groups are also more likely to experience functional dependence.

**FIGURE 2** QUALITY-OF-LIFE INDEX FOR OLDER PEOPLE, BY SEX, 2019



Sources: See Figure 2.1.

**Income security has improved over the last 20 years. This trend has primarily been driven by pension reforms, and more specifically by expanding non-contributory pensions.** In 2019, 21% of people over 65 were receiving a non-contributory pension, compared to 10% in 2000. This shift significantly reduced the share of older people with no income. In 2000, around 29% of people ages 50 to 80 had no income (16% of men and 41% of women). By 2019, this percentage had fallen to 18%, though major discrepancies between genders remained (10% for men, compared to 26% for women).

**Gains in healthy life expectancy have been small compared to other regions.** People in Latin America and the Caribbean who reach their 65th birthday can expect to live another 18.7 years, on average, while their health-adjusted life expectancy is 13.9 years, up from 13 in 2000. This 6.6% increase falls far short of the 9.8% growth experienced by OECD countries during the same period. Still, there are large differences among countries. For example, about 10% of Costa Ricans are over age 65, and 65-year-olds can expect to live 15.1 more years in good health. By contrast, only 5% of the Haitian population is over age 65, and the average 65-year-old can expect to live only 10.5 additional years in good health. Chronic health conditions are the main reason for the loss of healthy years, particularly among socioeconomically vulnerable groups.

**Diminishing functional ability also leads to loss of healthy years.** On average in countries in Latin America and the Caribbean, 14.4% of people over age 65 live in a situation of care dependence and need help performing at least one basic activity of daily living. In absolute numbers, this means almost 8 million older people in the region require long-term care services. According to current data, the prevalence of dependence on long-term care ranges from 5.3% in El Salvador to 25.5% in Mexico, although comparisons among countries are problematic because of differences in how surveys measure care dependence. Nevertheless, some findings are consistent. First, functional dependence rates rise steeply with age, typically reaching more than 20% for people over age 80. Second, women are more likely than men to experience functional dependence, and this gender gap increases with age. Third, there is a strong positive association between functional dependence and suffering from chronic health conditions. Finally, there is a negative correlation between the prevalence of functional dependence and socioeconomic status.

## MESSAGE 2

There are serious flaws in social protection policies that support older people's quality of life. Some pensions systems lack coverage or adequate benefits. In some cases, their design funnels pension spending to small subpopulations. Healthcare coverage is widespread, but quality remains low, and there are other barriers to effective coverage. Long-term care systems are virtually non-existent.

**As people age, pensions become their main source of income, so, to ensure income security, it is crucial to develop systems that offer high coverage and an adequate pension amount.** Pension coverage in the region has increased in recent decades but varies dramatically from country to country. On average, 69% of people over 65 receive a pension, a major increase from 20 years ago when the percentage was 46%. Only 42% of workers in the region—and less than 30% of the working-age population—contribute to pensions, so strategies to achieve high coverage have relied on expanding non-contributory benefits. Though their coverage has expanded, most pension systems provide low benefits. On average, pensions are 42% of the value of wages, with large variation across countries. The highest values are in El Salvador, Paraguay, Colombia, Uruguay, and Brazil, where pensions represent more than 50% of average wages. At the other end of the spectrum are Chile, Peru, and Bolivia, with pensions below 30% of average wages. In some countries, pension systems are designed to provide relatively generous benefits after working 20 years or more, which favors only a small portion of the population and skews public spending towards high-income workers.

**As the population ages, demand for healthcare increases, with a shift from maternal and child health and care for acute illness towards services focused on prevention and long-term management of chronic health conditions.** Most people in Latin America and the Caribbean have

access to healthcare services. Nineteen countries in the region score over 70 (on a scale from 1 to 100) on the World Health Organization's Index of Essential Services Coverage. Uruguay, Panama, and Brazil all score very close to the OECD average of 80. Only Guatemala and Haiti have scores under 60. However, there is evidence that older people in the region still face major barriers to both formal coverage and effective access to healthcare services. In addition, the quality of care is often poor and uneven, especially for managing chronic health conditions. We use the Healthcare Access and Quality index developed by the Institute for Health Metrics and Evaluation to assess healthcare quality. Overall, Latin American and Caribbean countries earn an average score of 62, well below the OECD average of 86, but somewhat higher than the global average of 54. Chile and Costa Rica have the highest scores, at 78 and 74, respectively. At the other end of the spectrum, Haiti and Bolivia have the lowest scores, at 32 and 49, respectively.

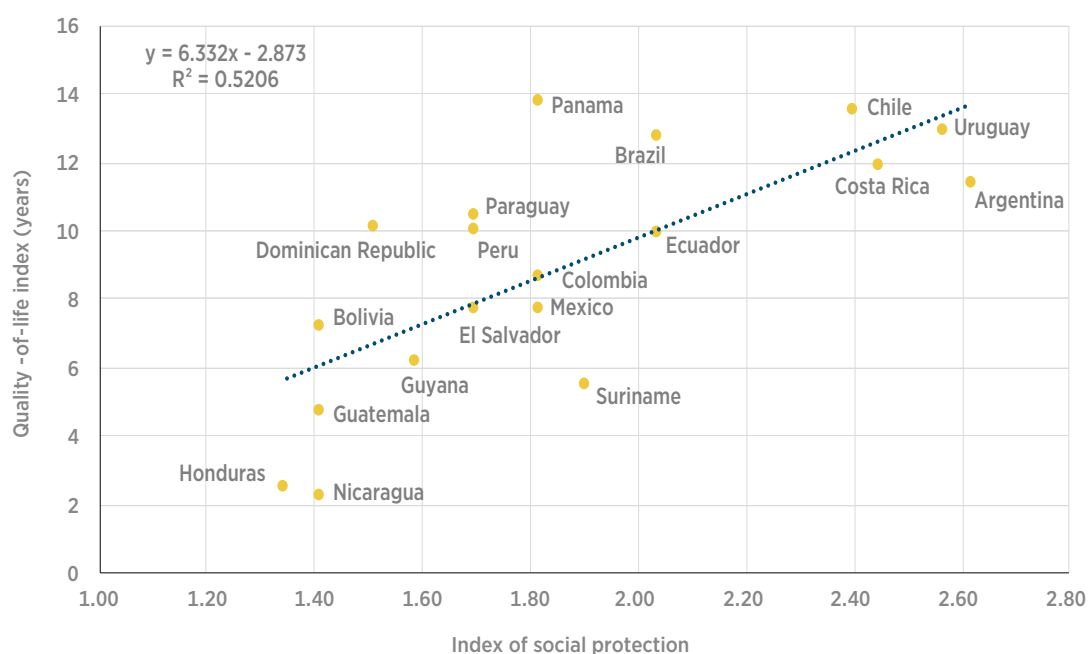
**Public long-term care services in Latin America and the Caribbean typically have low coverage and quality, and the bulk of care responsibilities fall to women in households.** Argentina and Costa Rica stand out as the countries with the highest coverage, with an estimated 20% of care-dependent older people receiving publicly funded services. When they can afford it, households pay out of pocket for private services to offset low public service coverage. The region's long-term care services, when they exist at all, are generally low quality because of a lack of standards and weak regulation and control mechanisms, among other factors. Human resource policies that focus on training and skill accreditation, as well as on improving caregivers' working conditions, are key for promoting quality, as care workers are the backbone of good services. Very few countries in the region (Argentina, Chile, and Uruguay) have mandatory human resource training or certification requirements, but even in those countries only a small share of the workforce meets the training requirements.

### MESSAGE 3

Countries with more developed pension, healthcare and long-term care systems score higher on the quality-of-life index for older people.

**Poverty-free healthy life expectancy at age 65 is six years longer in countries with high levels of social protection than in countries with low levels, as measured by an index that combines the coverage and quality of pensions, healthcare, and long-term care.** Argentina, Uruguay, Costa Rica and Chile have the highest levels of social protection in the region (Figure 3). Most countries perform best in the area of pensions, followed by healthcare (where coverage is usually higher than quality) and long-term care (where most countries perform poorly in both coverage and quality due to scarcely developed systems).

**FIGURE 3** CORRELATION BETWEEN OLDER PEOPLE'S QUALITY OF LIFE AND SOCIAL PROTECTION, 2019



Source and Notes: See Figure 3.11.

#### MESSAGE 4

Social protection policies for older people will face tremendous fiscal and social sustainability pressures in upcoming decades, exposing the need to balance public expenditure in a way that benefits different generations.

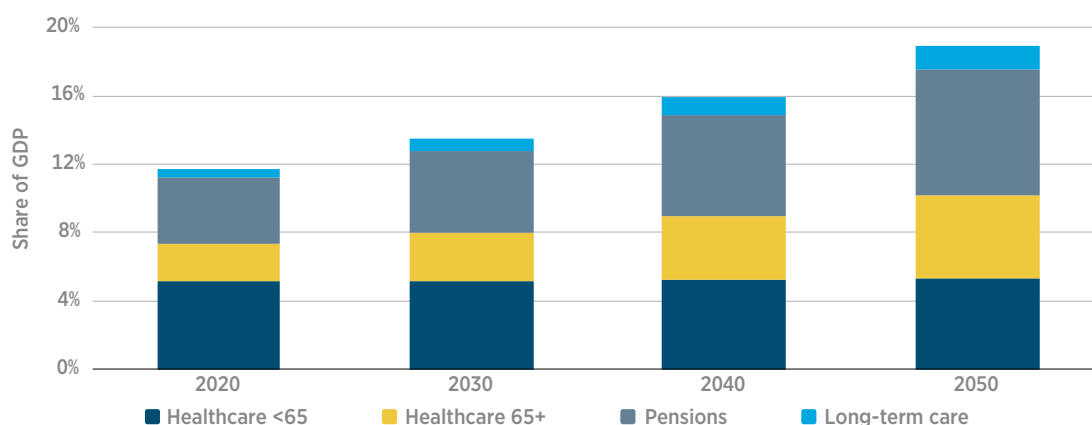
**Spending on social protection for older people is expected to increase rapidly due to population aging.** Overall expenditure on pensions, healthcare (both public and private, for all ages), and long-term care is estimated to increase from 11.7% of gross domestic product (GDP) in 2020 to 18.9% of GDP in 2050 (Figure 4). Around 48% of this growth will be driven by pensions, which are projected to rise from 3.9% of GDP in 2020 to 7.4% in 2050. Healthcare spending will rise from 7.4% to 10.2%. Most of this rise will be driven by healthcare spending on people over 65, which is projected to grow from 2.2% of GDP in 2020 to 4.8% in 2050, while spending on people under 65

will remain relatively constant at approximately 5% of GDP. Furthermore, the pressure to develop long-term care services is expected to intensify in the coming years, potentially exacerbating fiscal pressures. If social protection spending cannot be sustained, this may negatively affect older people's quality of life.

**The projected growth of social protection spending varies substantially from country to country.**

In some countries, like Brazil, Costa Rica, and Argentina, expenditure is expected to increase by more than 8% of GDP by 2050. Other countries, like Paraguay, Peru, or the Dominican Republic, will see increases in expenditure of less than 5% of GDP.

**FIGURE 4** TRENDS IN SPENDING ON PENSIONS, HEALTHCARE, AND LONG-TERM CARE AS SHARE OF GDP (%), 2020-2050



Source and Notes: See Figure 4.5.

**Increasing social protection spending for older people is not the only possible future scenario. Countries may choose to reduce pension benefits, adjust the quality of healthcare services, or limit the development of long-term care systems.**

This report's expenditure projections assume that countries keep pensions benefits constant (relative to wages), adapt healthcare to technological and epidemiological trends, and expand long-term care services. However, these assumptions should not be taken for granted. Countries may lack the fiscal space or political consensus to follow this path. Pensions and healthcare expenditure may have to be adjusted significantly. For example, replacement rates in contributory systems would have to decrease by more than half, from 55% in 2020 to 24% in 2050, for expenditure as a percentage of GDP to remain constant. These adjustments may impact older people's quality of life and create social challenges. Tensions between fiscal and social sustainability will be a central force in policymaking.

**All reforms will need to weigh trade-offs between wellbeing and spending across generations.**

On average, poverty rates among children (0-17 years old) are 17 percentage points higher than among older people. In Argentina and Brazil, where poverty among older people has been nearly eradicated, children still face poverty rates of over 30%. Population aging may create pressures to reduce spending on younger groups, despite their higher poverty rates, to spend more on social protection for older people. Given current population trends, inaction will only deepen public spending's slant towards older people.

**MESSAGE 5**

The region needs substantial policy changes to address the challenge of population aging. These changes include reforming pensions and healthcare, as well as developing long-term care systems, all with a holistic approach in which the three policies are designed and implemented jointly to increase quality and efficiency.

**The challenges ahead will demand significant changes to individual systems (pensions, health, and long term-care). But the resulting social protection design will also have to ensure a holistic approach to increase spending quality and efficiency.**

Countries will need to reform healthcare and long-term care to increase coverage and quality, and make pension expenditure more equitable across socioeconomic groups, with the overarching objective of making overall social protection more sustainable. Policymakers should consider the synergies and trade-offs between the three areas. For instance, pension reforms meant to improve fiscal sustainability by reducing benefits that some groups receive are more likely to be accepted by society if they are accompanied by improved healthcare coverage and quality and long-term care benefits. Healthcare and long-term care reforms should also coordinate the services provided by the two sectors, which is shown to increase efficiency. Each country will have different starting points and challenges. This report provides guiding principles for such reforms (Table 1).

**The complexity of reforms varies among countries. The most complex scenario is in countries that need to increase coverage in all three areas of social protection, while simultaneously improving quality and containing costs.**

These are countries with high pension benefits that reach a very small share of the population, low healthcare coverage and quality, and no long-term care system. In contrast, reforms may be easier to implement in countries where coverage and quality are relatively better and current spending is more modest relative to national income and tax revenues.

**By analyzing social protection reforms for older people, this report makes important contributions to Vision 2025** (IDB, 2021b), the Inter-American Development Bank's vision for a sustainable and inclusive post-COVID-19 economic recovery. It discusses policies meant to: (i) promote social

progress, through better social protection systems; (ii) strengthen good governance and institutions, through spending efficiency and enhanced redistributive effects of tax and spending policies, as well as through fiscal sustainability that supports equitable economic growth; (iii) reinforce gender equality, as women make up the majority of older people and of caregivers for older people, and women typically have less access to pension resources.

**This report is organized as follows:** In Section 1, we analyze the speed of the demographic transition in the region's different countries. In Section 2, we assess older people's overall quality of life and rank countries based on a quality-of-life index. In Section 3, we analyze the coverage and quality of pensions, healthcare, and long-term care. We calculate a protection index for each of these areas and combine the three indexes to calculate an overall index for social protection coverage and quality in each country. Also in Section 3, we analyze the correlation between older people's quality of life and social protection. This report is the first to produce an overall social protection index for older people in several countries in Latin America and the Caribbean. In Section 4, we discuss the sustainability of current social protection policies. We first look at the sustainability of each area (pensions, healthcare, long-term care), and then assess the sustainability of total expenditure. We include a benchmarking exercise with high-income countries outside the region. Finally, in Section 5, we outline policy reforms needed to address rapid population aging, highlighting synergies and tradeoffs between pensions, healthcare, and long-term care.



**TABLE 1** KEY GUIDING PRINCIPLES FOR REFORM

	Pensions	Healthcare	Long-Term Care
<b>System-wide Reforms</b>	<p>Governance for quality</p> <p>Jointly design benefits</p> <p>Partially delink benefits from formal employment</p> <p>Coordinate health and long-term care services</p> <p>Develop institutions to inform and guide policy for aging populations</p> <p>Include gender considerations that close coverage and quality gaps</p>		
<b>Key Sector Reforms</b>	<p>Redefine pension objectives and parameters</p> <p>In some cases, increase non-contributory pensions and integrate systems</p> <p>Promote formal employment</p> <p>Stimulate voluntary savings</p> <p>Address gender discrepancies in pension coverage and adequacy</p>	<p>Improve financial equity</p> <p>Reorganize systems to address the new epidemiological profile</p> <p>Adopt a person- and community-centered approach</p> <p>Strengthen primary care</p> <p>Strengthen health education, prevention, and promotion</p> <p>Address gender gaps</p> <p>Strengthen human resources (in numbers and skills)</p>	<p>Develop the legal and financial framework</p> <p>Establish eligibility criteria, including mechanisms to assess functional dependence</p> <p>Define service mix</p> <p>Set and supervise quality standards</p> <p>Develop qualified human resources</p> <p>Promote preventive long-term care services</p> <p>Promote private sector enterprises</p> <p>Address gender gaps by improving working conditions, providing respite, encouraging division of responsibilities between genders</p>

**Source:** Prepared by the authors.



**AGING**  
IN LATIN AMERICA  
AND THE CARIBBEAN  
SOCIAL PROTECTION AND QUALITY  
OF LIFE OF OLDER PERSONS



# 1

## Latin America and the Caribbean is aging rapidly

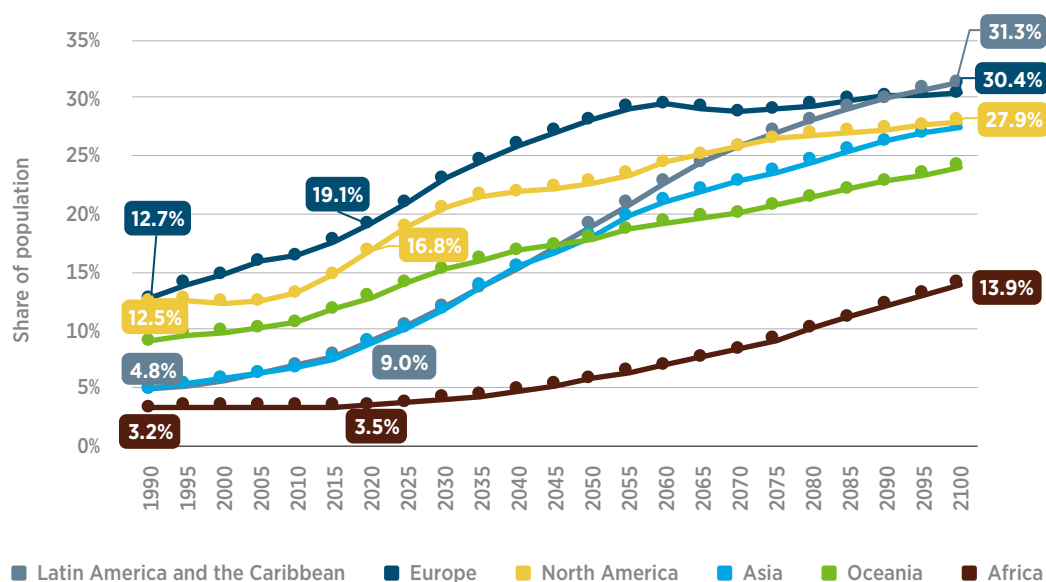
**Current generations are living longer and in better health than ever before, an extraordinary achievement.** In Latin America and the Caribbean, the average life expectancy at birth has risen from 29 years in 1900 to 75 years in 2021—a remarkable 46-year gain (UNPD, 2019). Social and economic progress is gradually moving all countries towards lower birth and mortality rates, resulting in a higher proportion of older people.

**Latin America and the Caribbean is aging faster than any other region of the world, so the population aging it has already experienced is not a good predictor of the challenges that lie ahead.** Between 1990 and 2020, the share of the population over age 65 in the region increased by 4.2 percentage points, from 4.8% to the current 9%. Today, the share of older people in the region is similar to the world average (9.3%), and substantially lower than that of high-income countries in Europe (19.1%) or North America (16.8%). However, population aging is happening faster in Latin America and the Caribbean than anywhere else. It took Europe 56 years for the share of the population older than 65 to grow from 10% to 20%. In Latin America and the Caribbean, this transition will happen in half that time (UNPD, 2019). By 2091, Latin America and the Caribbean and Europe will be the only regions in the world where 30% of the population is 65 or older (Figure 1.1).<sup>1</sup>

**The COVID-19 pandemic does not alter this demographic pattern.** Mortality from COVID-19 is highest among older people, and deaths in the region during 2020 were substantially higher than in previous years. The pandemic showed that older people's physical and mental health, as well as their social support networks, are vulnerable to the effects of crises. However, past evidence reveals that pandemics have only temporarily disrupted long-term trends in fertility and longevity, and projections suggest COVID-19 will have a similarly small impact (Wilson, Temple, and Charles-Edwards, 2021).

1. Based on data from World Population Prospects, United Nations, 2019, available at: <https://esa.un.org/unpd/wpp/Download/Probabilistic/Population/>

**FIGURE 1.1** PEOPLE AGED 65+ AS SHARE OF THE POPULATION (%), 1990-2100

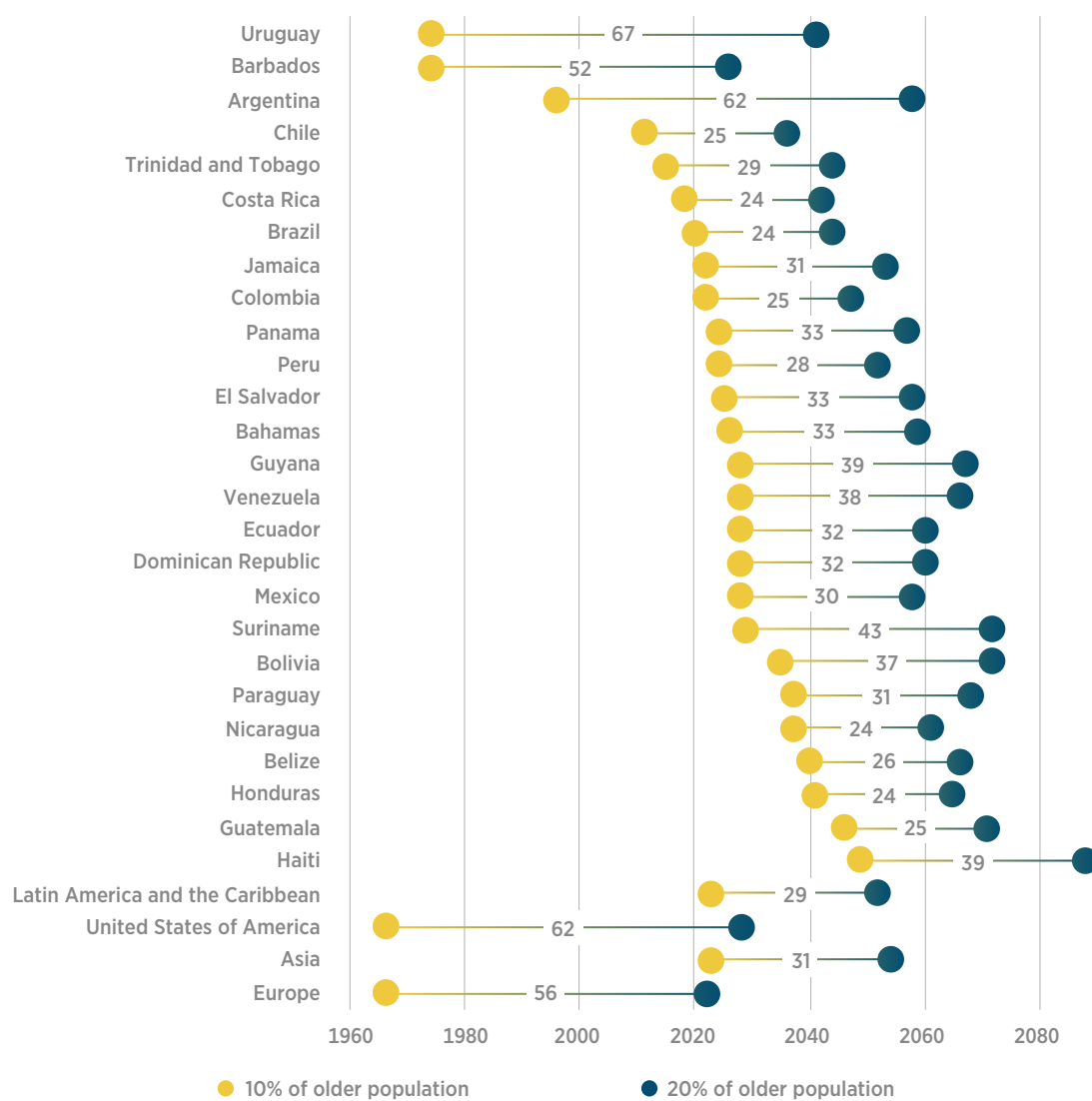


**Source:** Authors' calculations based on data from United Nations Population Prospects 2019, medium variant estimations.

**Notes:** Calculated using projections for Latin America and the Caribbean region computed by United Nations Population Prospects 2019, which includes the Caribbean, Central America, and South America. Annex 1.A lists all countries used in the United Nations Population Prospects projections.

**The status and speed of population aging varies widely between the countries in the region** (Figure 1.2). Some nations, like Barbados or Uruguay, already have a large share of older people. Their aging process started before that of other countries in the region and has been relatively slow. It will take 50 to 60 years for the share of people over age 65 to go from 10% to 20%. This timeline is similar to that of an average European country. Other countries in the region, like Brazil, Costa Rica, or Chile, have aged recently and at an accelerated rate. A third group, including Ecuador, the Dominican Republic, Mexico, and Suriname, still have a relatively young population, but one that will age soon and very rapidly. In general, population aging is happening most swiftly in countries where the demographic transition started later. These countries will have less time to adapt their societal and productive structure, as well as their public policies, to the new challenges posed by population aging.

**FIGURE 1.2** NUMBER OF YEARS IT WILL TAKE FOR THE SHARE OF THE POPULATION OLDER THAN 65 TO GROW FROM 10% TO 20%



Source and Notes: See Figure 1.1.



**The older population itself will get increasingly older as the share of people over age 80 increases.** Economic and social development, as well as progress made on diagnosing and managing chronic health conditions, have significantly extended life expectancy, although people often have sub-optimal health in these additional years (see Section 2.4). From 1990–1995, the average 65-year-old in Latin America could expect to live 16 additional years. From 2015–2020, this figure reached 18 years, and it is expected to increase to 21 years by 2050–2055 (UNPD, 2019). Life expectancy at age 80 is growing even more rapidly in relative terms, from seven years in 1990–1995 to nine years in 2015–2020. It is projected to reach 11 years in 2050–2055. As a result, people over age 80 make up an increasingly large share of the older population, which is expected to grow from a regional average of 21% in 2020 to 29% in 2050 and 43% in 2100 (UNPD, 2019).

**Women live longer than men.** It is a well-documented fact that women live longer than men virtually everywhere in the world. In Latin America and the Caribbean, life expectancy at birth is 78.5 years for women, as opposed to 72 years for men, a difference of more than 6 years (UNPD, 2019). This gender gap falls to 2.8 years at age 65, and to 1.4 years at age 80.

**Aging also has a socioeconomic dimension.** Life expectancy positively correlates to income and other socioeconomic measures like education (Wilkinson and Marmot, 2003). Data for the region is scarce, but a recent study based on a survey conducted in six large Latin American and Caribbean cities<sup>2</sup> confirms the socioeconomic gradient of longevity (Bilal et al., 2019).

**Fertility is declining and families will be smaller.** The fertility rate in Latin America and the Caribbean dropped from an average of 5.8 births per woman in 1950 to less than the value needed to keep population constant (2.1) in 2020. It is projected to further decline until reaching a steady-state value of 1.7.<sup>3</sup> This means the average person born in the 1940s (aged 80 today) has six children and approximately 24 grandchildren. Somebody born in the 1980s (aged 40 today) will have only 2 children and 4 grandchildren on average. Smaller family sizes mean that the network of close relatives that usually provide care to older people who need it is shrinking. In a context where formal long-term care systems are incipient, this shift could cause the share of older people with unmet care needs to grow.

**As the population ages, the potential labor force will soon start to decline.** During the last four decades, the region had the opportunity to reap the benefits of a demographic dividend. From 2000 to 2015, about 60% of the region's growth was due to an increase in the working-age population (20–64 years old), rather than increases in productivity (Alaimo et al., 2015). Aging will soon begin to deplete this dividend. The working-age population as a share of the region's total population

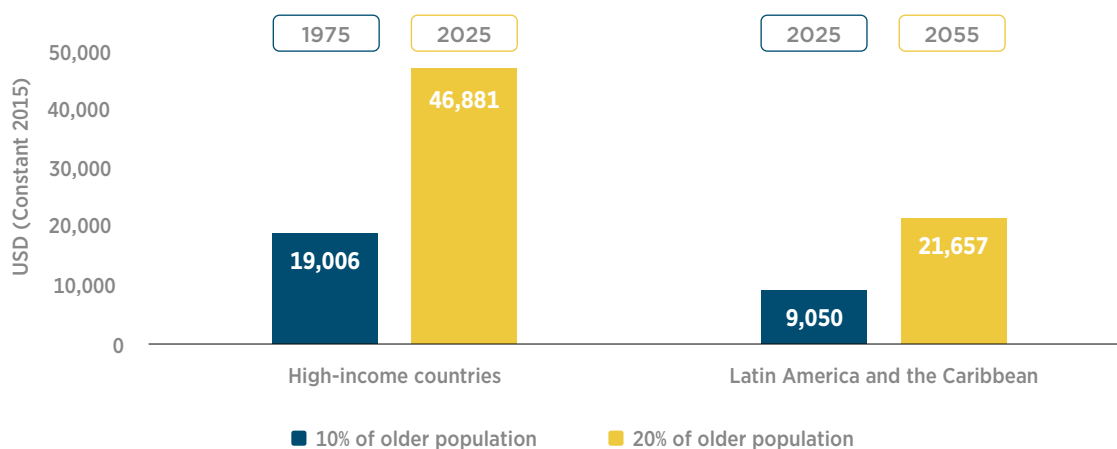
2. The cities included in the study were Buenos Aires, Argentina; Belo Horizonte, Brazil; Santiago, Chile; San José, Costa Rica; Mexico City, Mexico; and Panama City, Panama.

3. Based on data from World Population Prospects, United Nations, 2019, available at: <https://population.un.org/wpp/Download/Standard/Fertility/>

is expected to grow only marginally over the next decade, from 59.0% in 2020 to 59.5% in 2030. After that point, this age group is expected to shrink, and the older population will become the only age group to grow in relative terms (UNPD, 2019). On average, the ratio between people over age 65 and working-age individuals went from 9.9% in 1990 to 15.2% in 2020, and it is expected to reach 32.8% in 2050 and 48% in 2070. This means that while in 2020 there were approximately six people aged 20–64 for each older person, in 2070 there will be around two.

**As a result of these demographic trends, Latin America and the Caribbean will grow old before it achieves high income.** The region will face its aging process in a worse economic position relative to high-income countries. These countries had an average GDP per capita of 19,000 US dollars (2015 constant USD) when the percentage of the population over age 65 reached 10% in around 1975. When Latin America and the Caribbean reaches this milestone, just before 2025, its average GDP per capita will only be 9,000 USD. Barring dramatic shifts in demographic or economic trends, the region will reach the next population milestone (20% of the population over 65) with less than half of the GDP per capita of high-income countries (Figure 1.3).

**FIGURE 1.3** GDP PER CAPITA IN THE YEAR WHEN THE SHARE OF OLDER PEOPLE REACHES 10% AND 20% (2015 CONSTANT USD)



**Source:** Authors' calculations based on population data from World Population Prospects, United Nations, 2019, GDP data from the World Bank and growth estimates from the World Economic Outlook, International Monetary Fund, 2020.

**Notes:** Figures were calculated using aggregates for Latin America and the Caribbean from each institution's data. A list of all countries included in this region by United Nations Population Prospects 2019, the World Bank, and the International Monetary Fund can be found in Annex 1.A. The figure for 2025 is calculated based on the 2020 World Bank value with International Monetary Fund growth estimates. From 2026 onwards, a growth rate of 3% per year is applied for Latin America and the Caribbean.



**Aging will be a major driver of public policy in upcoming decades.** Countries will be pushed to implement policies that ensure the wellbeing of a growing older population, without compromising other development needs. More specifically, population aging will exert pressure on spending for pensions, healthcare, and long-term care. Currently, pensions and healthcare make up 35% of public spending in the region. Without reforms, Panadeiros and Pessino (2018) predict this percentage will grow to 80% by 2065, crowding out other social spending and investment. Countries in Latin America and the Caribbean will need to implement reforms that improve and ensure the sustainability of their social protection spending. Given population and spending trends, a key overarching objective will be to find efficiencies in each set of policies and complementarities between them.





# 2 Older people's quality of life is improving, but many countries still lag behind

## 2.1 A new index of older people's quality of life

**In this section, we analyze older people's quality of life.** To facilitate comparisons across and within countries, we created a simple index to measure the region's progress over the past few decades and highlight differences among countries. This index combines three dimensions: (i) longevity (a person is better off when living longer); (ii) health status (a person is better off when living in good health); and (iii) income (a person is better off when living poverty-free). We acknowledge that this is a simplified index that includes only a few of the important dimensions of quality of life for older people. We also perform a detailed analysis of labor market participation, burden of disease, prevalence of functional dependence, and ageist attitudes toward older people. However, these factors are not included in the quality-of-life index, either to avoid double counting (e.g., burden of disease and functional dependence are already reflected in the healthy life expectancy indicator) or because data is not available for all countries (as is the case for ageism). Due to lack of data, we do not analyze other domains of quality of life, such as life satisfaction or social inclusion and participation. Although limited, our index is replicable across countries and over time. It provides a useful starting point to build on as more data becomes available.

**We define our simple quality-of-life index as the number of years a 65-year-old person can expect to live in good health and poverty-free.** The formula for the index is:

$$(1) \quad QI_{65+,j} = (1 - P_{65+,j}) * HLE_{65+,j}$$

Where:  $QI_{65+,j}$  is the quality-of-life index for people over age 65 in country  $j$ ;  $P_{65+,j}$  is the percentage of people over age 65 years in country  $j$  whose income is below the international poverty line of 5 USD per day, purchasing power parity (2011), based on data from national household surveys;  $(1 - P_{65+,j})$  is the percentage of the population living poverty-free; and  $HLE_{65+,j}$  is the healthy life expectancy at age 65 in country  $j$ . The indicator is expressed in years and is published by the Institute for Health Metrics and Evaluation.

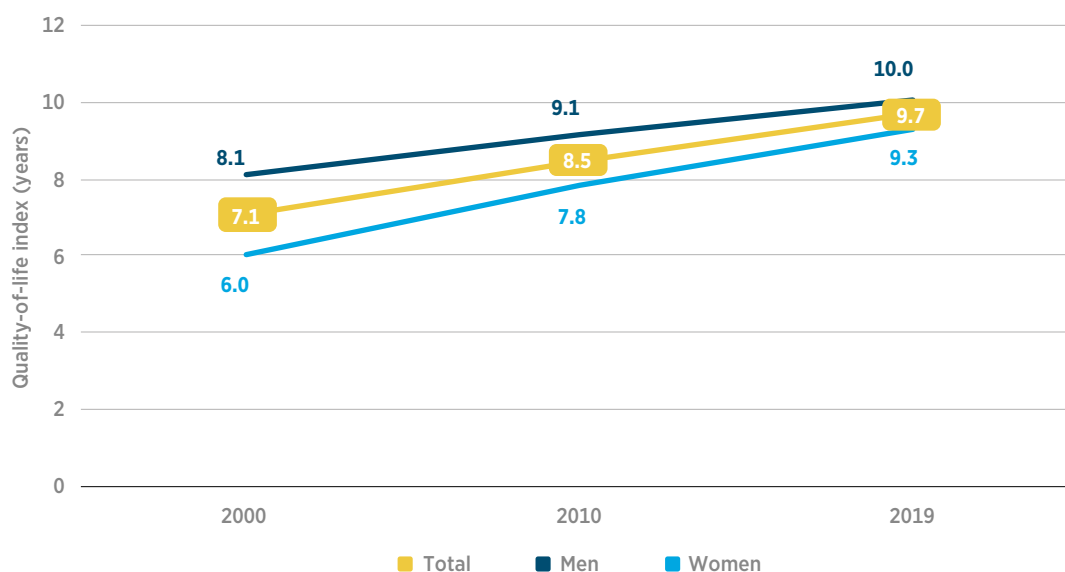
## 2.2 Trends in older people's quality of life and variations among countries

**Over the last two decades, Latin America and the Caribbean has made important gains in the quality of life for older people.** According to our index, older people in the region live longer with better health and less poverty than 20 years ago. In 2000, the average 65-year-old person could expect to live 7.1 years in good health and poverty-free. In 2019, this indicator had increased by 37% to 9.7 years (Figure 2.1). Around 86% of this gain is attributable to a drop in poverty rates among older people (from 48% to 34%).<sup>4</sup> Improvements in healthy life expectancy at age 65 over the same period have been, in comparison, more modest, from 13.3 in 2000 to 13.9 in 2019 (Figure 2.2). Gains in healthy life expectancy at older ages have been more pronounced in high-income countries, where the indicator increased by more than one year in the same period, from 13.6 to 14.9.

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4. Poverty is usually measured at the household level through per-capita household income. Under this approach, all household members are either poor or not. In recent years, some authors have questioned the homogeneity of wellbeing within a household and shown, for example, that poor and undernourished women and children are often also found in non-poor households (Brown, Ravallion, and van de Walle et al., 2017). Following the same line of thought, in this report we measure poverty among older people by comparing individual income with an international poverty line of 5 USD per day, after purchasing power adjustment. This allows us to look at older people's income irrespective of household composition and meaningfully analyze gender differences in poverty among older people.

**FIGURE 2.1** QUALITY-OF-LIFE INDEX FOR OLDER PEOPLE IN LATIN AMERICA AND THE CARIBBEAN BY SEX, 2000-2019

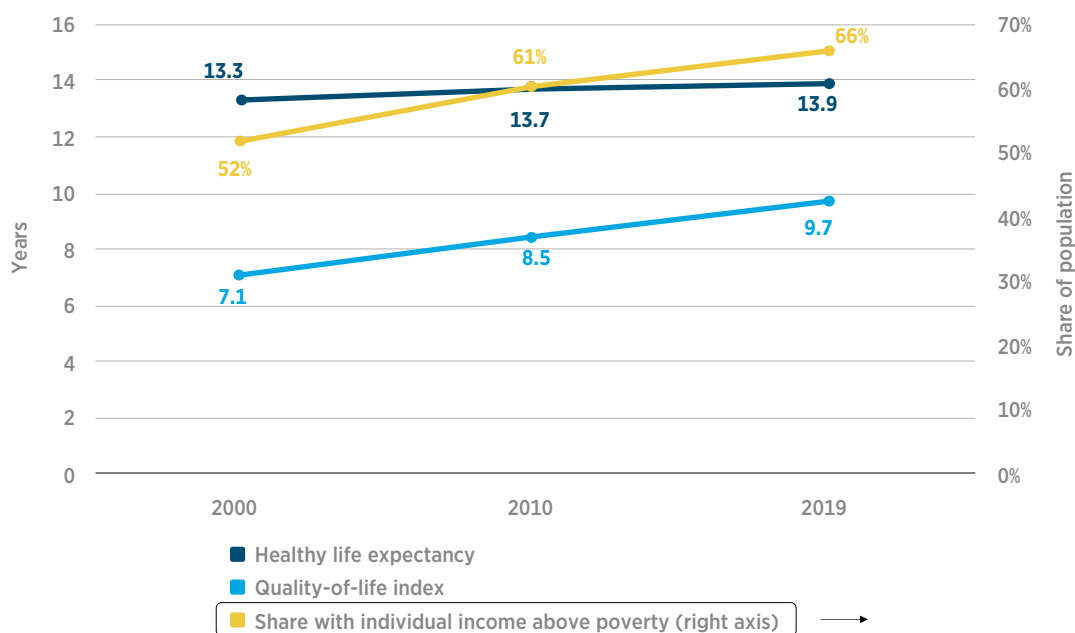


**Source:** Authors' calculations based on (i) data on health-adjusted life expectancy from the Institute for Health Metrics and Evaluation, Global Burden of Disease Results Tool; (ii) data on poverty among older people from the Inter-American Development Bank's harmonized household surveys.

**Notes:** Regional average includes data from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Panama, Peru, Paraguay, El Salvador, and Uruguay. The following countries were not included in the regional average as no household survey is available for 2019: Belize (2007), Haiti (2012), Jamaica (2014), Nicaragua (2014), The Bahamas (2014), Trinidad and Tobago (2015), Barbados (2016), Guyana (2017), and Suriname (2017). Venezuela is excluded from the average because its exponential increase in poverty since 2015 (up to 95.1% in 2019) would significantly affect the regional average in 2019. The regional average is the unweighted average of country values. Healthy life expectancy at age 65 is the calculation for people aged 65–69. The poverty rate is the share of individuals whose daily individual income is below the line of 5 USD (purchasing power parity, 2011).

**A significant part of the trend was driven by improvements in the quality of life of women.** It is well known that on average women live longer, healthier lives than men. In 2000, a 65-year-old woman was expected to live 1.45 healthy years more than a man of the same age (14.03 compared to 12.58). However, women are also more likely to experience poverty when older because they have less access to and lower levels of pensions and other sources of income. In 2000, only 42% of women in Latin America and the Caribbean had an individual income above the poverty line (compared to 64% of men). Consequently, in 2000, women in the region could expect to live 6 healthy, poverty-free years, as opposed to 8.1 years for men, with a remarkable two-year gap. By 2019, this gap had narrowed to less than a year: women could expect to live 9.3 healthy, poverty-free years, compared to 10 for men (Figure 2.1). This improvement for women was driven both by an increased gap in healthy life expectancy (which reached 1.6 years) and by a dramatic rise in the share of women with income levels above the poverty line (from 42% to 59%).

**FIGURE 2.2** QUALITY-OF-LIFE INDEX AND ITS COMPONENTS FOR OLDER PEOPLE IN LATIN AMERICA AND THE CARIBBEAN, 2000-2019

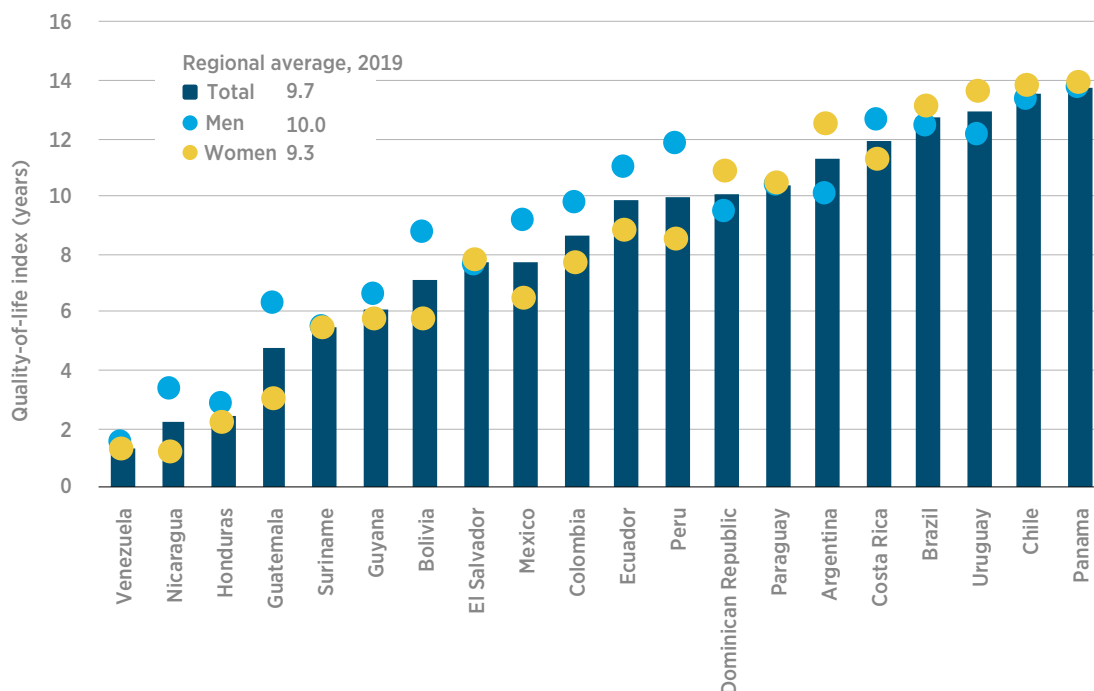


Source and Notes: See Figure 2.1.

**Despite improvements in Latin America and the Caribbean as a whole, older people's quality of life continues to vary widely among countries, with differences of up to seven years.** In countries like Panama, Chile, Uruguay, and Brazil, a 65-year-old can expect to live more than 12 healthy, poverty-free years, compared to less than five in Guatemala or Honduras (Figure 2.3). These large differences are explained by discrepancies in both healthy life expectancy and poverty rates. There is a five-year gap in healthy life expectancy between Colombia and Honduras (which have the highest and lowest values in our sample). Similarly, while poverty rates among older people (based on individual income) are below 15% in countries like Brazil or Uruguay, other countries still have rates above 60%.

**Gender differences are largest in countries with the lowest quality of life, mostly due to differences in earnings from labor or pension eligibility,** which impact poverty rates among older people. In countries with high pension coverage, like Argentina, Brazil, Uruguay, or Chile, longer healthy life expectancy translates to higher quality of life for women. In contrast, older women have lower quality of life than older men in countries with low pension coverage.

**FIGURE 2.3** QUALITY-OF-LIFE INDEX FOR OLDER PEOPLE, BY SEX, 2019



Sources: See Figure 2.1.

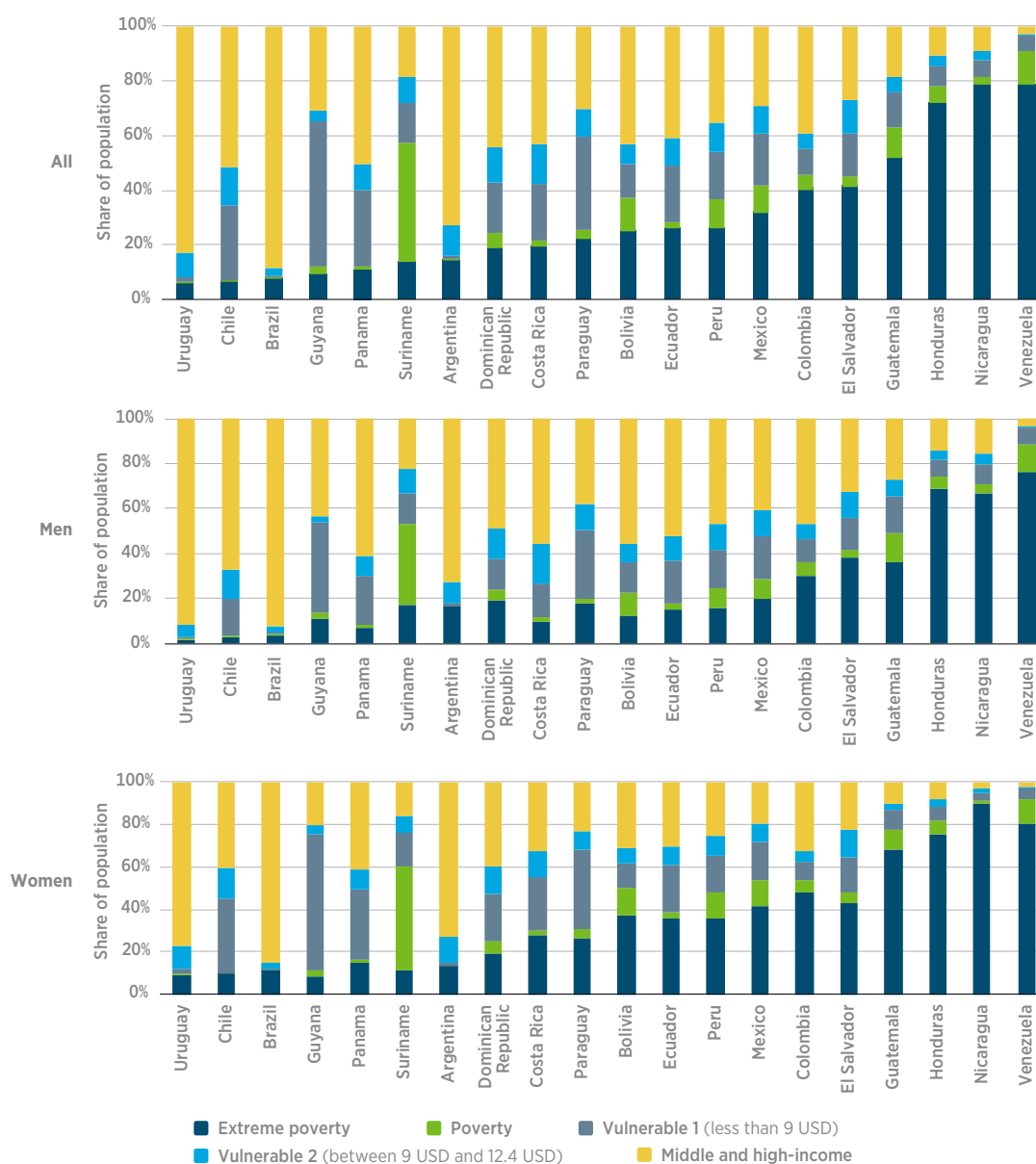
The main conclusion regarding the quality of life of older people in the region—that is, that it has improved significantly over the past twenty years—is robust to different measures of poverty, although both the ranking of countries and trends in the quality-of-life gender gap vary based on the methodological premises used. Annex 1.B shows how the index changes when using household income instead of individual income as a poverty indicator, as well as the effects of using different thresholds to define individual poverty. It also discusses the different ways to measure life expectancy and healthy life expectancy (Box B.1 and Box B.2).

## 2.3 Income security

**For older people, income security is essential to guaranteeing a life without material deprivation, and it hinges on their ability to actively participate in the labor market, as well as on policies for pensions and other transfers.** As people age, their participation in the labor market decreases, and pensions and other transfers become their main source of income. By age 80, most people's income originates either from pensions or other non-labor sources. This dramatic shift from labor to non-labor income is largely shaped by the labor market opportunities available to older people, their willingness and ability to continue working, and the design and coverage of pension systems.

**Over the last two decades, the standard of living for older people in the region improved significantly, with many joining the middle or upper class.** The share of older people in these groups (defined as those with income above 12.4 USD per day) increased from 29% to 42%. The change was slightly larger among women, at 14 percentage points (from 21% to 35%), compared to 12 percentage points among men (from 38% to 50%). However, differences among countries remain large. Whereas more than 80% of older people in Uruguay can be considered middle-class based on their individual income, this figure is under 20% in Guatemala and Honduras (see the top color of each bar in Figure 2.4). Within each country, there is a strong correlation between education and poverty among older people. For instance, people over 80 with low levels of education have poverty rates of around 35%, compared to 19% for highly educated people. This gradient is particularly steep in Bolivia, Colombia, Mexico, and El Salvador.

**FIGURE 2.4** SHARE OF PEOPLE OVER 65, BY INCOME CATEGORY AND SEX (%), 2019



**Source:** Authors' calculations with information from the Inter-American Development Bank's Harmonized Household Surveys.

**Notes:** Income categories used in the graph are based on per-day individual income: extreme poverty (less than 3.1 USD); poverty (between 3.1 USD and 5.0 USD); vulnerable 1 (between 5.0 USD and 9.0 USD); vulnerable 2 (between 9 USD and 12.4 USD); and middle- and high-income combined in the same bar (over 12.4 USD). Data for Guyana and Suriname is from 2017. Countries with data from 2016 and before are excluded: Belize (2007), Haiti (2012), Jamaica (2014), The Bahamas (2014), Trinidad and Tobago (2015), Barbados (2016).

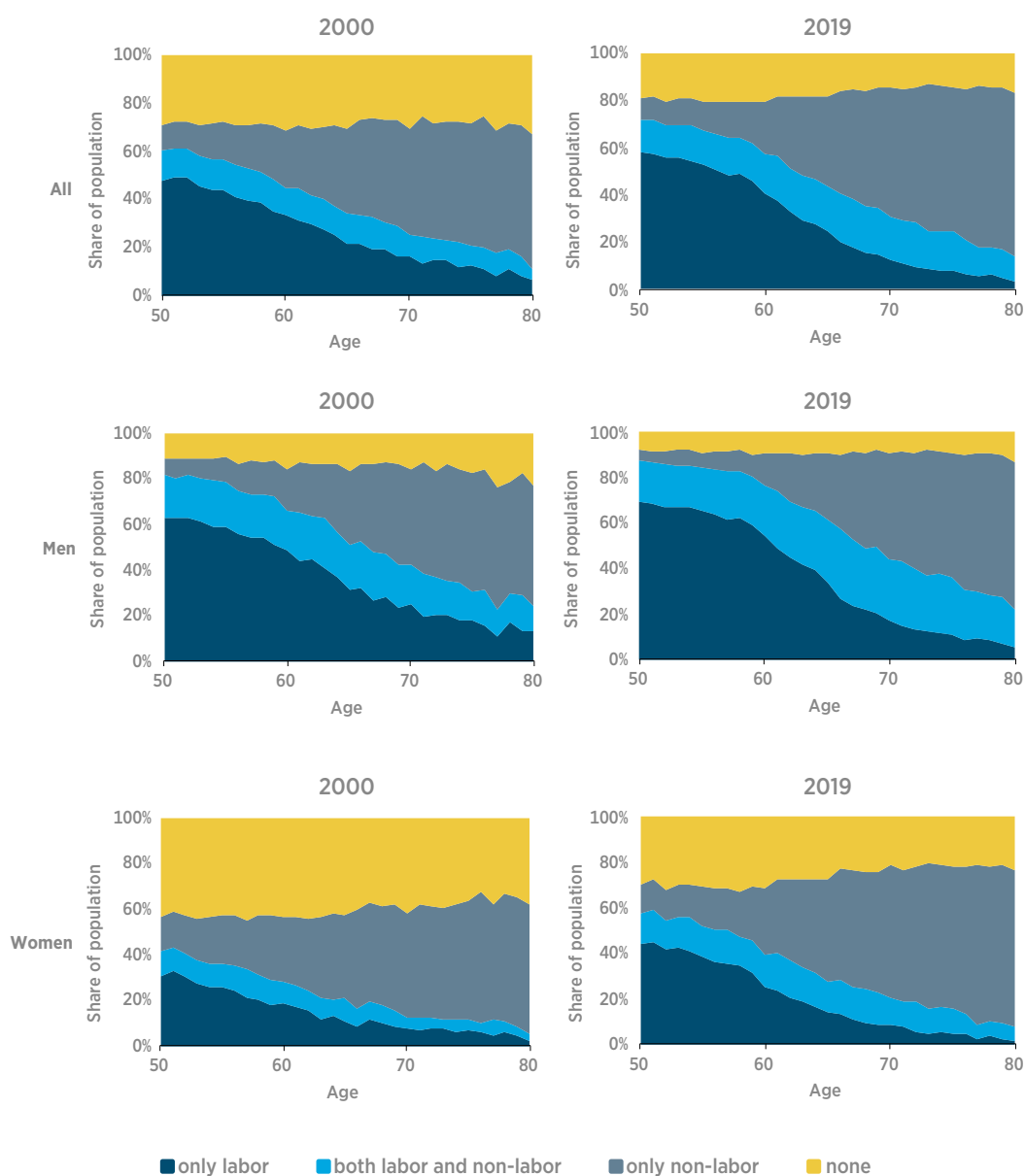


**The improvements in income security over the last 20 years were mainly driven by changes in pension systems, and to a lesser extent by increased employment among older people** (Figure 2.5). In 2000, around 29% of people aged 50–80 earned no income (16% of men and 41% of women). By 2019, this figure had fallen to 18%, with significant but smaller differences between genders (10% for men and 26% for women). The expansion of non-contributory pensions significantly reduced the number of older people with no income, particularly at advanced ages (Bosch, Melguizo, and Pagés, 2013). In parallel, labor supply increased by around 10 percentage points in the 50–64 age group and by 5 percentage points among individuals over age 65. Again, this increase in labor supply was mainly driven by more women joining the workforce.





**FIGURE 2.5** SHARE OF OLDER PEOPLE BY TYPE OF INCOME (%), AGE AND SEX, 2000 AND 2019



**Source:** Authors' calculations based on data from the Inter-American Development Bank's Harmonized Household Surveys from Latin America and the Caribbean.

**Notes:** Data used for regional average includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Honduras, Mexico, Panama, Peru, Paraguay, El Salvador, and Uruguay. See Figure 2.1 for the reasons for excluding certain countries from the regional average.

**Labor force participation among older people (including individuals over the legal retirement age) is substantially higher in Latin America and the Caribbean than in other regions of the world.** In 2019, 35.8% of people aged 65–79, and 10.9% of people over 80, were economically active (Table 2.1). For comparison, in the 28 countries of the European Union, 7% of people over age 80 are economically active. In Latin America and the Caribbean, more older men participate in the labor force than older women. In 2019, about 50% of men aged 65–79 were working, compared to 23.8% of women in the same age group. Older people with low levels of education are also more likely to work.

**The relatively high labor force participation of older people, particularly among less educated workers, is closely related to gaps in pension systems.** Oliveri (2016) documented the negative relationship between the share of older people who receive pensions and labor participation among older workers in 18 Latin American countries. For example, in Guatemala, a country with limited pension benefits, 45.2% of people aged 65–79 are economically active (70.4% for men in this age group), versus 17.4% in Uruguay (24.6% of men), where pensions have wider coverage and are more adequate.

**Most labor force participation among older people in Latin America and the Caribbean is informal and compensates for a lack of other sources of income, rather than being an active aging choice.** After age 65, more than 8 out of 10 employed individuals work in the informal sector (a figure that has not changed over the last two decades), which suggests how marginal and low-quality employment is in this age group. This reality has policy implications. Countries with older populations increase retirement age to make their pension systems more sustainable. The aim is to both reduce pension spending (by shortening how long people receive benefits) and boost revenues (by extending how long workers contribute to the system). The high level of informal employment among older people in the region implies that this policy might be less effective, because informal workers do not contribute to the pension system.

**TABLE 2.1** LABOR FORCE PARTICIPATION AND SHARE OF FORMAL EMPLOYMENT  
(IN PARENTHESIS) FOR POPULATION OVER 65, BY SEX AND AGE GROUP (%), 2019

Country	65-79 years			80+ years		
	All	Men	Women	All	Men	Women
Argentina	21.3(17)	30.4(17)	14.3(17)	3.4(19.9)	6.5(14)	2(29.3)
Bolivia	55(11.1)	61.8(15.4)	48.8(6.1)	23.3(2.4)	31.9(3.9)	16.4(0)
Brazil	19(6.5)	28.4(10)	11.5(3.8)	3.5(0.5)	6.5(0.8)	1.5(0.2)
Chile	25.9(33)	39.4(37.4)	15.2(23.9)	4.6(21.8)	7.8(22.6)	2.7(20.5)
Colombia	33.9(1.7)	48.5(2.6)	21.7(1)	6.2(0)	11(0)	2.7(0)
Costa Rica	17.6(29.5)	28.6(33.2)	8.4(19.1)	3.4(34.7)	7.7(35.9)	0.2(--)
Dominican Republic	38.1(27.2)	54.6(26.7)	23.5(28.2)	8.2(13.2)	16.1(12.6)	3(15.2)
Ecuador	46.7(18.4)	58.4(20.3)	35.3(15.4)	17.4(5.6)	22.7(6.8)	13(3.8)
Guatemala	45.2(4.3)	70.4(5.4)	19.4(0.3)	16.1(1.6)	26.9(1.8)	4.5(0)
Mexico	38.6(6.7)	53.9(8.4)	25.4(3.5)	15.1(1.7)	21.5(2.5)	10.1(0.3)
Nicaragua	40.2(3.8)	62.8(3.6)	20.5(4.3)	16.8(0)	29(0)	5.3(0)
Panama	34.4(14.5)	47.9(15.1)	21.8(13.5)	9.8(1)	16(1.4)	5.2(0)
Peru	57.4(3.4)	68.7(5.1)	47.2(1.8)	22.9(0)	29.5(0.1)	17.7(0)
Paraguay	47.6(2.8)	60.1(2.7)	34.7(3.1)	10.4(0)	17.2(0)	5.7(0)
El Salvador	34.9(11.4)	51.4(15.7)	21.9(3.3)	11.2(4.5)	19(6.2)	5.5(0)
Uruguay	17.4(7.4)	24.6(11.2)	12(4.7)	2.3(0.7)	4.1(1.4)	1.4(0.3)
<b>Regional average</b>	<b>35.8(12.4)</b>	<b>49.4(14.4)</b>	<b>23.8(9.3)</b>	<b>10.9(7.7)</b>	<b>17.1(7.7)</b>	<b>6.1(7.7)</b>

Source: Authors' calculations based on data from the Inter-American Development Bank's Harmonized Household Surveys.

## 2.4 Health status

**Good health is an essential determinant of older people's quality of life.** People value health as an end in itself and as a main element of good quality of life. In addition, good health contributes to economic growth through increased labor supply and productivity, greater return on other human capital investments (such as education), and improved fiscal sustainability (Bloom, Khoury, and Subbaraman, 2018; Jamison et al., 2013; Rosendo Silva, Simões, and Sousa Andrade, 2018; Weil, 2014, Plaut et al., 2017, Goodchild, Nargis, and D'Espaignet, 2018; Pichon-Riviere et al., 2020).

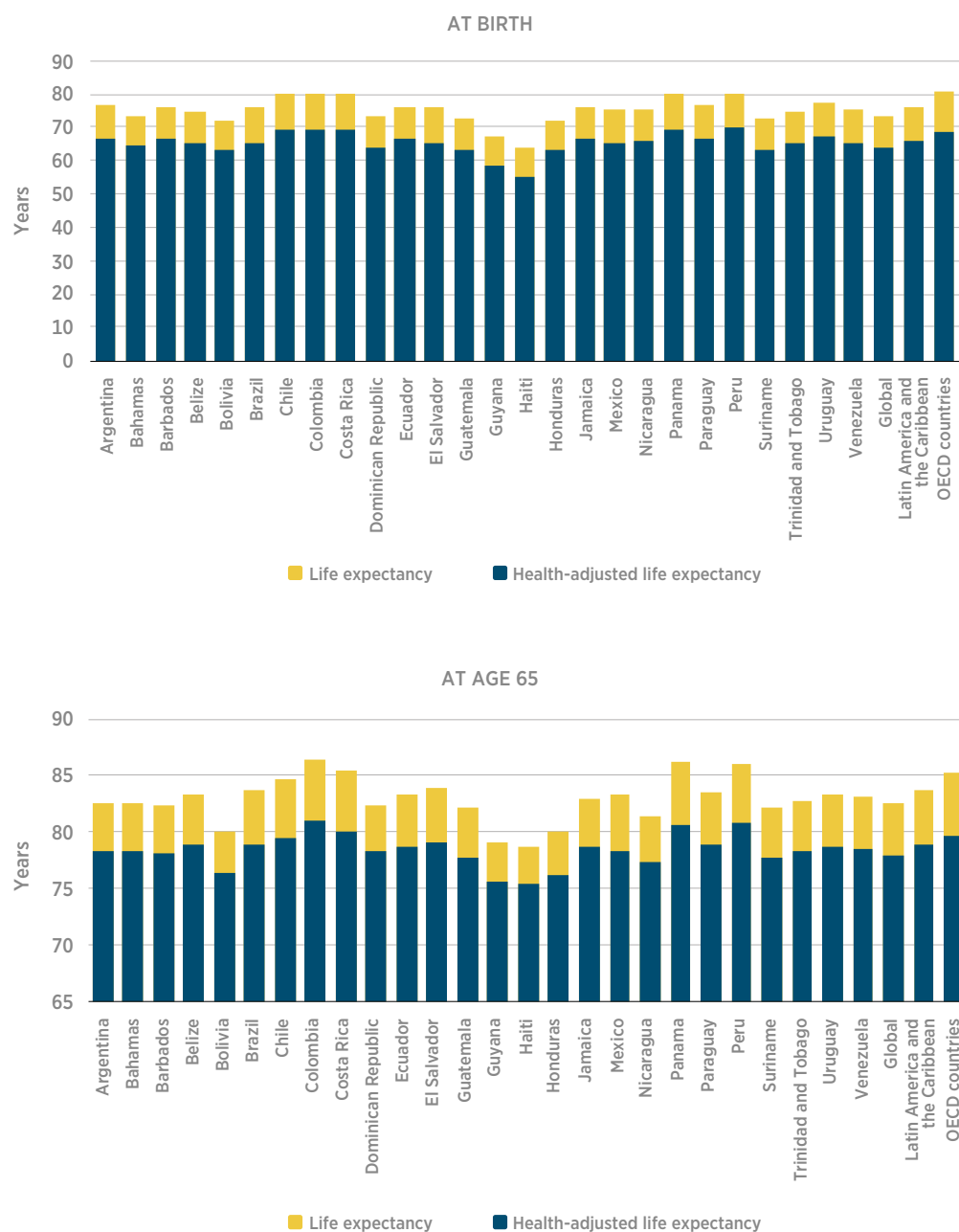
**People in Latin America and the Caribbean are living longer lives than ever before, but not necessarily healthier lives.** As noted earlier, longer lives are among the greatest achievements of countries in the region in the last century. However, the health of the region's older people still lags behind that of those living in wealthier countries, and it is below the OECD average. It also varies considerably among countries. The region has been able to reduce the prevalence of many health problems, particularly maternal and neonatal conditions and infections, but the prevalence among all ages of other conditions—especially diabetes, hypertension, and cancer—is offsetting those gains. Without serious efforts to address risk factors like unhealthy diets, sedentarism, excessive alcohol consumption, and tobacco smoking, the share of older people living with chronic health conditions will increase.

**On average, people in Latin America and the Caribbean spend 10.3 years of their lives with some kind of impairment or disease.** In 2019, average life expectancy at birth was 76 years in the region, with a gain of 3.5 years since 2000. However, health-adjusted life expectancy<sup>5</sup>—a measure of how many years people can expect to live in full health—was 65.7 years. By comparison, in OECD countries people can expect to live 80.6 years, of which 68.9 will be in good health. In general, both life expectancy and health-adjusted life expectancy are higher for women than men: women can expect to live 6.1 years longer than men and to have 3.3 additional years in good health (Figure 2.6, upper panel).

**In Latin America and the Caribbean, people who reach their 65th birthday can expect to live another 18.7 years, of which an average of 13.9 will be in good health** (Figure 2.6, lower panel). The difference between the two numbers is the average number of years that older people live with various health impairments. This statistic varies widely among countries. At one extreme, 65-year-old Costa Ricans can expect to live an additional 20.4 years, of which 15.1 years will be in good health and 5.3 will be in poor health. At the other extreme, Haitians who are 65 years old can expect to live 13.8 more years: 10.4 in good health and 3.4 in poor health. These statistics show how successfully reducing mortality and improving health can both extend healthy life expectancy but also result in additional years lived with illness.

5. Health-adjusted life expectancy is the number of years a person is expected to live in full health—that is, subtracting years lived with a disease or disability. It is calculated by multiplying each year of life by a factor that reflects the number of years of full health lost due to a given health condition. The disability weight of each condition varies by sex and age group and takes into account comorbidities. Sullivan's method is the most common way to make this calculation and is used by the Institute for Health Metrics and Evaluation. See Appendix 1 to GBD 2017 DALYs HALE and Collaborators, available at [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)32335-3/fulltext#sec1](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32335-3/fulltext#sec1)

**FIGURE 2.6** LIFE EXPECTANCY AND HEALTH-ADJUSTED LIFE EXPECTANCY (YEARS), 2019



**Source:** Authors' calculations based on the Institute for Health Metrics and Evaluation's Global Burden of Disease Results Tool, accessed August 2021.

**Note:** Life expectancy and healthy life expectancy at age 65 reflect the calculation for people aged 65 to 69 years.

**Differences within countries can also be very large.** For example, in Panama City, women living in areas with higher socioeconomic levels live an average of 10 years longer than those in the poorest areas. For men, this difference is 8 years. In San Jose, Costa Rica, the difference is less than one year (Bilal et al., 2019). Racial and ethnic inequities are also associated with different health outcomes. For example, afro-descendant people in Brazil live about six years less on average than white people (Paixão, et al., 2010).

**The COVID-19 pandemic has affected older people in the region, but its longer-term impact on life expectancy and healthy life expectancy is still unknown.** In the first year of the pandemic, deaths in the region rose by about 20% compared to a typical year.<sup>6</sup> More than three-quarters of these excess deaths were people over age 50. Consequently, life expectancy projections fell by 2 to 10 years, depending on the country (Mena and Casali, 2020), to levels not seen since 2000. Life expectancy at birth declined more for men than for women. For example, life expectancy in Chile dropped an estimated 1.6 years for men, compared to 0.9 years for women (Islam et al., 2021). Thus, the immediate impact on the health of older people in the region has been enormous. Going forward, however, life expectancy will likely rebound, as it has after past epidemics (Harper, 2021; UNFPA, 2020). Nevertheless, the COVID-19 pandemic has several characteristics that suggest it could have longer negative effects on quality of life for older people. First, the virus has shown significant capacity to evolve strains that evade immune responses from vaccination. This could mean the illness will continue to threaten older people. Second, a significant number of people who survived the disease have symptoms of long COVID, which can be debilitating and could curtail life expectancy for older people in the future (Harper, 2021).

## 2.4.1 Main causes of poor health

**Despite the current COVID-19 pandemic and continuing outbreaks of infectious diseases, non-communicable diseases remain the largest cause of poor health in the region.** Since 1990, chronic health conditions have accounted for at least 80% of deaths and disease in the region for people over 65—ranging from almost 80% in Peru and Guatemala to more than 90% in 11 countries, including Nicaragua, Trinidad and Tobago, and Jamaica. Population aging is driving up demand for services to treat chronic conditions. As older cohorts grow, more people will experience these illnesses and need the associated healthcare services, unless the rates and severity of disease are reduced. In fact, between 2006 and 2016, it is estimated that population aging contributed 15% of the increase in burden of disease (Gakidou et al., 2017).

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6. See the [The Economist's](https://www.economist.com/graphic-detail/coronavirus-excess-deaths-tracker) "Excess Deaths Tracker" at <https://www.economist.com/graphic-detail/coronavirus-excess-deaths-tracker>



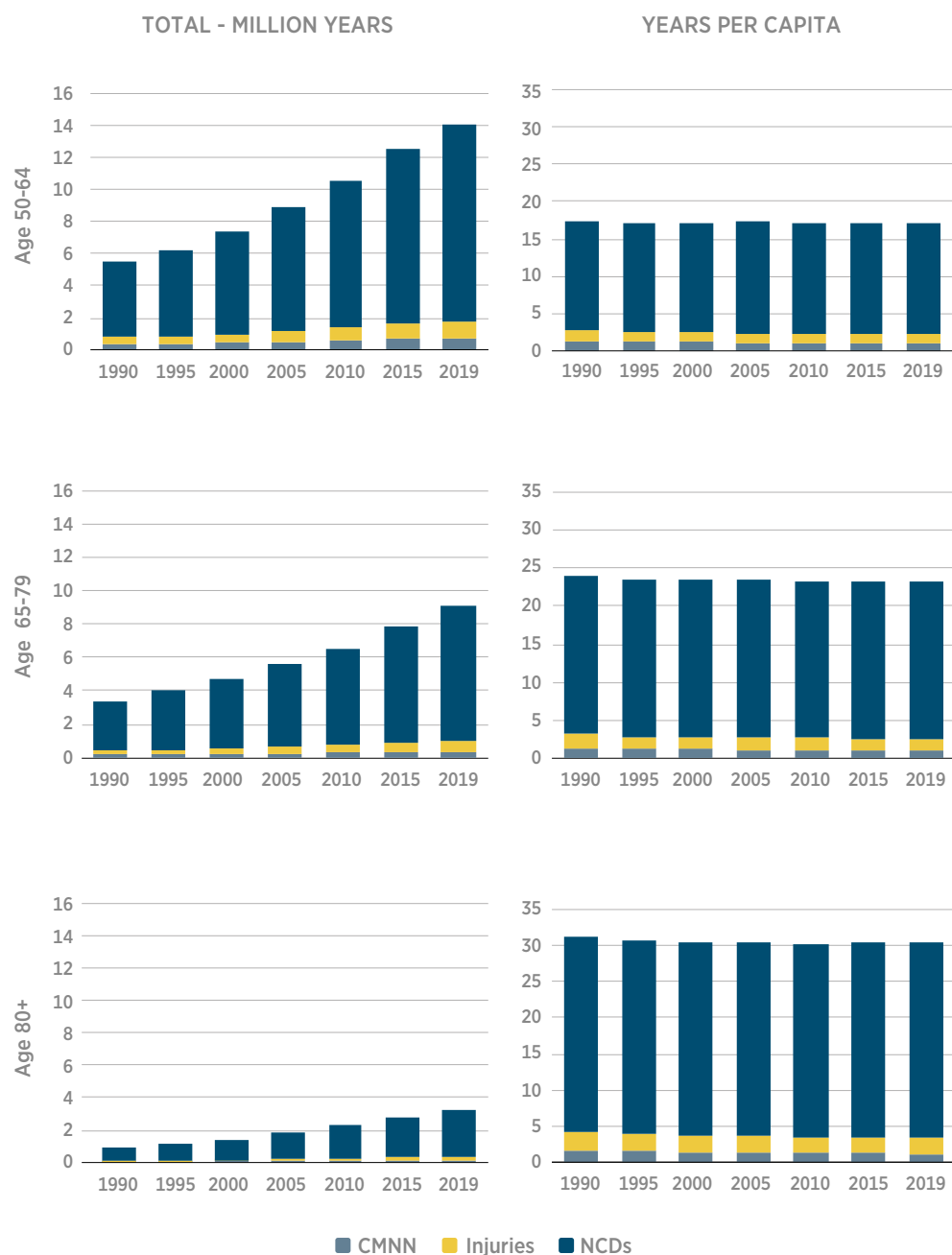
**Although the number of people living with illnesses has increased due to population growth and aging, the overall prevalence of disease among older people has not changed significantly.**

In Latin America and the Caribbean, the number of years people aged 50–79 live with disability<sup>7</sup> has doubled since 1990, and it has tripled for people over age 80 (Figure 2.7). Most of this growth is due to the increasing number of older people. Certain illnesses like diabetes, hypertension, and cancer have become more common over time, while other conditions—particularly those associated with infectious diseases and injuries—have declined. For example, the number of years people over age 50 lived with diabetes and kidney conditions or musculoskeletal and neurological disorders has increased by 5.1% since 2010, while chronic respiratory conditions, mental health disorders, and sensory organ diseases have declined by 3.6% over the same period. Trends in the OECD are similar, although these countries are further along in the demographic transition. In OECD countries, the number of years lived with disability has grown by a factor of 1.6 since 1990 for people between 50 and 79 years old and doubled for people aged 80 or older. However, as in Latin America and the Caribbean, this increase is largely due to population growth in these older cohorts. The overall prevalence of illness in OECD countries has also remained roughly constant since 1990 and at comparable levels to Latin America and the Caribbean.

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7. Based on years lived with disability computed by the Institute for Health Metrics and Evaluation's Global Burden of Disease study. The Global Burden of Disease study uses disability-adjusted life years, which are the sum of years of life lost due to premature mortality and years lived with disability. While in the study's lexicon disability refers to any short- or long-term health loss other than death, the IDB promotes the social model of disability recognized by the UN Convention on the Rights of People with Disabilities as explained in the IDB's Diversity Action Plan. The IDB therefore defines disability not as a medical condition but as the result of an interaction between people with impairments and the external barriers that limit their effective participation in society. For the purposes of this report, disability-adjusted life years and years lived with disability are used to measure the burden of disease, but the rest of the text avoids using the term disability to refer to poor health or loss of capacities due to aging and use other terms like morbidity, illness, and disease instead.

**FIGURE 2.7** YEARS LIVED WITH DISABILITY BY CAUSE, POPULATION OVER 50, 1990–2019

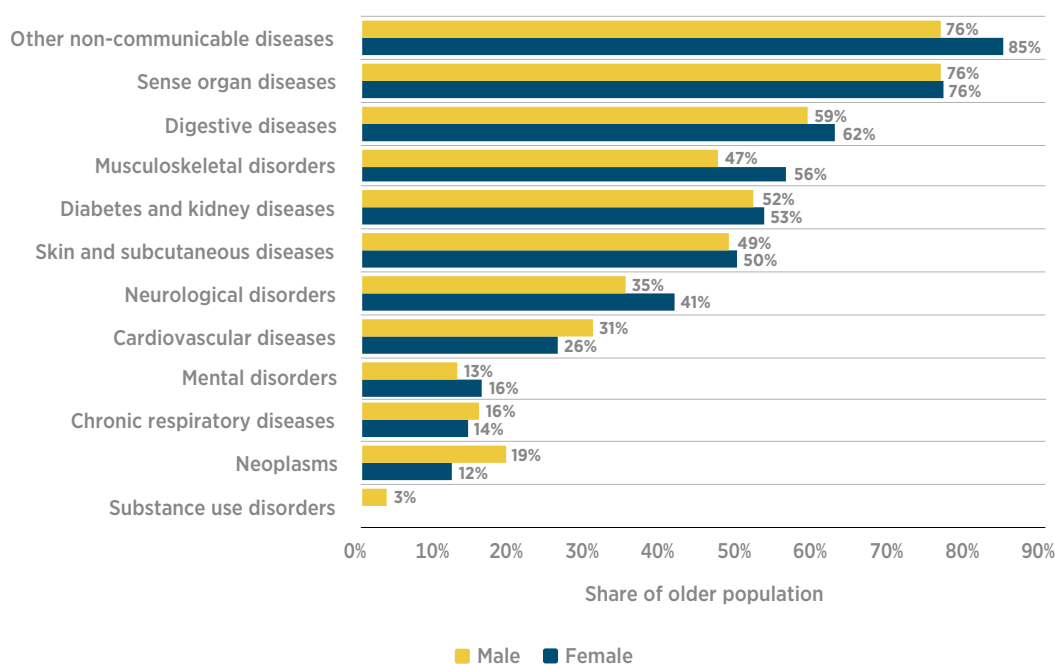


**Source:** Authors' calculations based on the Institute for Health Metrics and Evaluation's Global Burden of Disease Results Tool, accessed December 2020.

**Notes:** Total number of years lived with disability was calculated using the total population in each age group. CMNN refers to communicable, maternal, neonatal and nutritional diseases, and NCDs to non-communicable diseases.

**In 2019, sensory organ diseases (for example, blindness and vision loss) and digestive conditions (for example, cirrhosis, appendicitis, pancreatitis, and gallbladder and biliary disease) were the most common chronic conditions.** They accounted for 21% of all conditions affecting people over 65, with no significant differences between sexes. However, even though men are most affected by conditions with high mortality rates, such as cardiovascular diseases and neoplasms, women are more likely to experience conditions that can be very debilitating but have lower mortality rates, such as musculoskeletal, mental, or neurological disorders (Figure 2.8). These conditions, combined with mental disorders, diabetes, and kidney disease, accounted for more than 50% of all years lived with disability in the region. The prevalence of diabetes and kidney conditions and neoplasms increased the most since 2010. By contrast, the prevalence of sensory organ diseases, mental disorders, and digestive conditions has been declining. Even the prevalence of cardiovascular conditions fell marginally. The pandemic may cause some of these improving trends—particularly for mental disorders and cardiovascular conditions—to reverse directions. The region needs improved screening and better reporting systems to have greater certainty about these trends and monitor and respond to negative shifts as they occur.

**FIGURE 2.8** DISEASE PREVALENCE IN PEOPLE OVER 65, BY DISEASE AND SEX, 2019 (%)



**Source:** Authors' calculations based on the Institute for Health Metrics and Evaluation's Global Burden of Disease Results Tool, accessed December 2020.

**General trends aside, the relative importance of these illnesses varies among countries.** Sensory organ diseases are the most prevalent cause of poor health for older people in all countries in the region, yet they are particularly prevalent in Guatemala and El Salvador, with 82 cases per 100 people over age 65. This rate is significantly higher than in countries like Argentina (59%) and Uruguay (59%). Diabetes and kidney conditions are much more common in Mexico (66%) and Costa Rica (63%) than in the Dominican Republic (41%) and Uruguay (41%).

**Despite affecting fewer people, mental disorders are more debilitating than other conditions.**

In 2019 around 14% of people over 65 in the region suffered from mental disorders (i.e., anxiety, attention-deficit, bipolar conduct, depressive and eating disorders, schizophrenia, and idiopathic developmental intellectual disability). These disorders account for 9% of the years lived with disabilities due to all chronic health conditions in the region (Annex 1.D, Table D.1). However, the debilitating effects of mental health conditions are so severe compared to those of other conditions that they represent the largest single contributor to poor health for this population (measured in years lived with disability). For every 100 people over age 65, mental health conditions are responsible for 14 years lived with disability, a rate twice as high as that of diabetes and over three times higher than that of neoplasms. The COVID-19 pandemic has exacerbated this problem for older people in several ways. It has increased anxiety, since COVID-19 is more common, severe, and lethal for older people. It has also led to severe social dislocation wherever physical mobility has been restricted, services have been constrained, and social isolation has increased (United Nations, 2020).

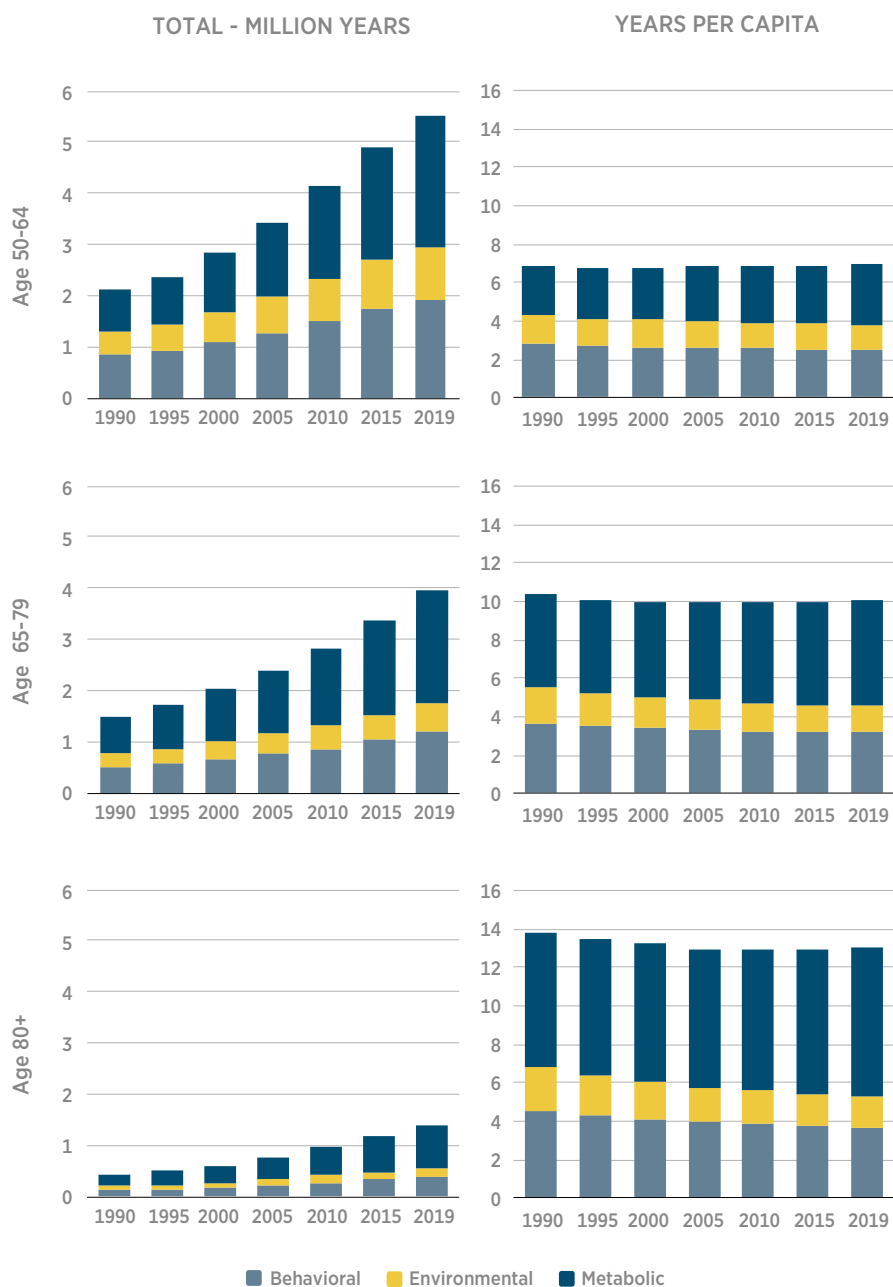
## 2.4.2 Health risk factors

**Poor health in older people is often the result of avoidable risk factors, some of which are increasing.** While it is difficult to address genetic risk factors that contribute to poor health, environmental and behavioral risk factors (like unhealthy diet, physical inactivity, tobacco consumption, and excess alcohol consumption) are more malleable (WHO, 2018). Societies can change economic, political, and cultural practices that contribute to these environmental and behavioral risks. Individuals can also take action to reduce many of the risks they face. The earlier a person reduces these risks, the healthier they will be during old age. Even changes between the ages of 50 and 64 can significantly improve health among people over age 65. The number of years people in the region live with illnesses and deteriorating capacities have increased largely because of population growth and greater longevity (left-hand in Figure 2.9). At the same time, the share of the population suffering from conditions related to metabolic risk<sup>8</sup> have increased since 1990: by 21% for people aged 50–64; 14% for those aged 65–79; and 11% for people over 80 (right-hand in Figure 2.9). Behavioral and environmental risks<sup>9</sup> have stayed relatively stable, except among people over age 80. The share of this older group suffering from conditions related to behavioral and environmental risks has fallen by 18% and 31%, respectively, over this period.

8. Metabolic risk corresponds to years lived with disability attributable to high fasting plasma glucose, high LDL cholesterol, high systolic blood pressure, high body-mass index, low bone mineral density, and kidney dysfunction.

9. Behavioral factors include child and maternal malnutrition, tobacco, and dietary risks. Environmental risks include unsafe water, poor sanitation and handwashing, air pollution, non-optimal temperature, and occupational risks.

**FIGURE 2.9** YEARS LIVED WITH DISABILITY, BY RISK FACTOR,  
IN THE POPULATION OVER 50, 1990–2019



**Source:** Authors' calculations based on the Institute for Health Metrics and Evaluation's Global Burden of Disease Results Tool, accessed December 2020.

**Note:** This figure presents the total number of years lived with disability in millions and the total number of years lived with disability per capita using the total population in that age group.

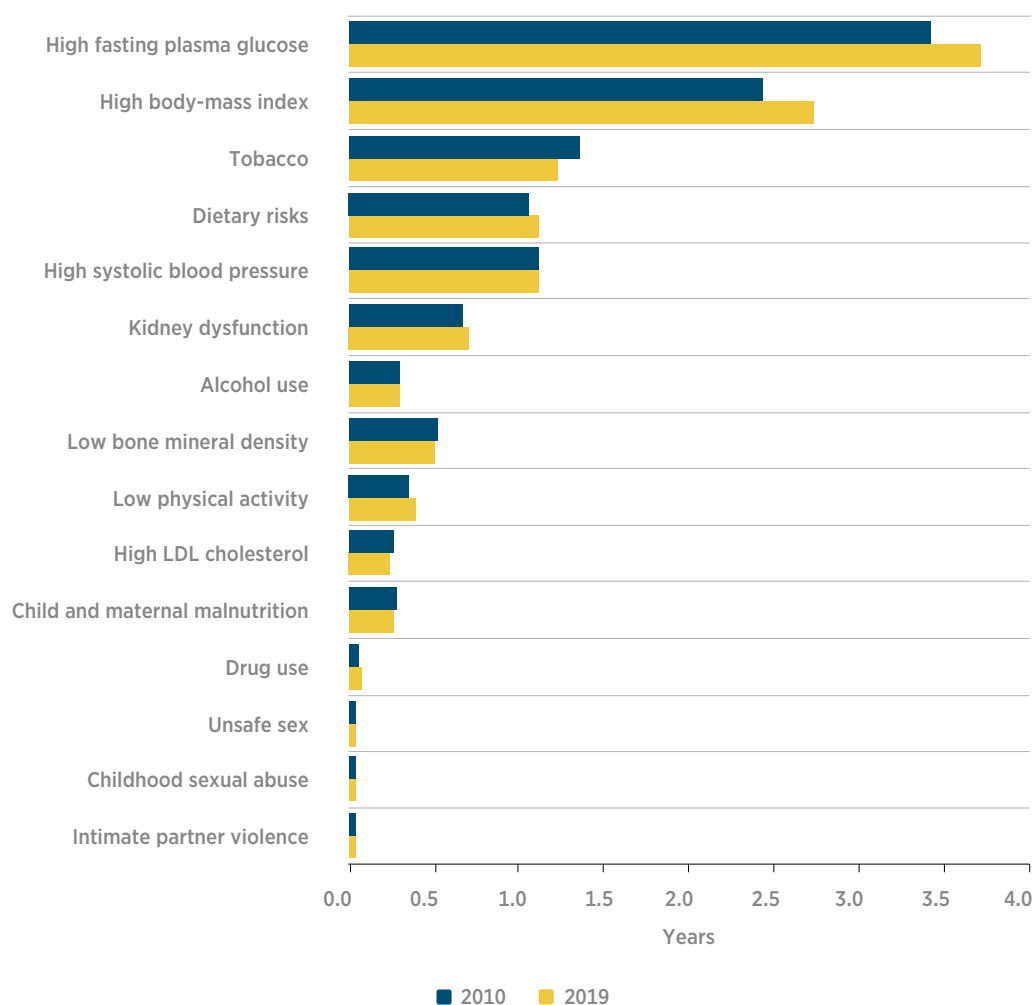


**Dietary risks, tobacco consumption, high body-mass index, and high fasting plasma glucose are the most prevalent risk factors among individuals over 50, accounting for at least 70% of years lived with disability in the region in 2019.** All these risks, except tobacco, have increased in the last 10 years (Figure 2.10). Even though tobacco consumption has declined, it remains the third highest risk factor for poor health and premature death after high fasting plasma glucose and high body-mass index. Unless all these risk factors are substantially reduced, the number of people living in poor health will continue to grow.

**Health risk patterns vary significantly between men and women: women generally suffer from fewer behavioral risks than men but experience similar metabolic risks.** Overall, women have fewer behavioral risks because men are more likely to smoke, have poor diets, and use drugs. However, women are disproportionately affected by unsafe sex, low physical activity, and, even for those over 50, the long-term effects of childhood sexual abuse and child and maternal malnutrition. Overall metabolic risks are similar between men and women, although women show a somewhat higher burden from low bone density and obesity, and this difference increases with age (Figure 2.11).

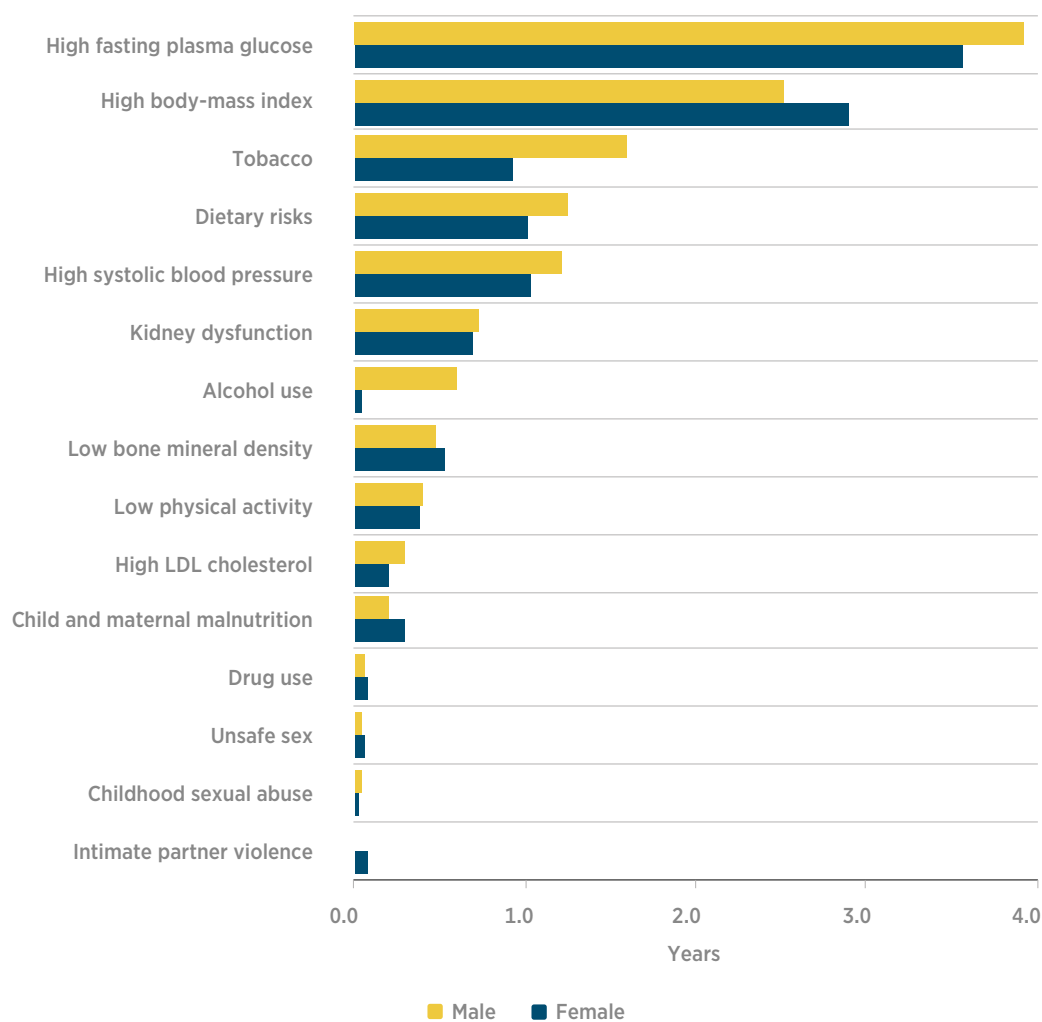


**FIGURE 2.10** YEARS LIVED WITH DISABILITY (PER 100 PEOPLE) AMONG THE POPULATION OVER 65, BY HEALTH RISKS, 2010 AND 2019



**Source:** Authors' calculations based on the Global Burden of Disease Results Tool of the Institute for Health Metrics and Evaluation, accessed December 2020.

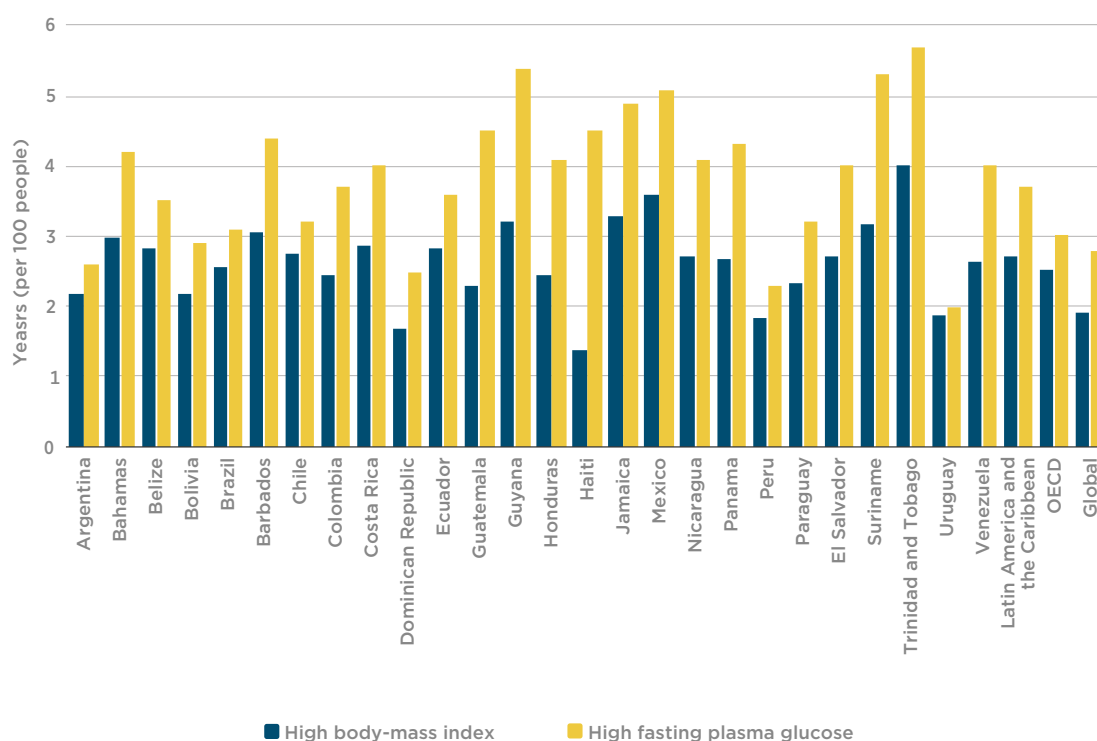
**FIGURE 2.11** YEARS LIVED WITH DISABILITY (PER 100 PEOPLE) AMONG THE POPULATION OVER 65, BY SEX AND HEALTH RISKS, 2019



**Source:** Authors' calculations based on the Global Burden of Disease Results Tool of the Institute for Health Metrics and Evaluation, accessed December 2020.

**Dietary risks, which contribute to cardiovascular conditions, diabetes, and hypertension, are high throughout the region but vary greatly among countries** (Figure 2.12). High fasting plasma glucose and high body-mass are the most common risk factors for older people in all countries in the region. However, the prevalence of poor health among older people due to high fasting plasma in Trinidad and Tobago and Guyana is almost double of that in Uruguay, Peru, and the Dominican Republic. High body mass index is much more common in Trinidad and Tobago and Mexico than in Haiti.

**FIGURE 2.12** BURDEN OF SELECTED RISK FACTORS FOR PEOPLE OVER 65, 2019  
(YEARS LIVED WITH DISABILITY PER 100 PEOPLE)



**Source:** Authors' calculations based on the Institute for Health Metrics and Evaluation's Global Burden of Disease Results Tool, accessed December 2020.

Very few countries have survey data on health and risk factors, but studies in Argentina (2018) and Brazil (2013) show substantial room for improvement in older people's health behaviors. In these two examples, more than 20% of people aged 50–64 years old smoked, and older people ate fewer fruits and vegetables than recommended by the World Health Organization (WHO, 2020b). On the bright side, more than half the people in these age groups did physical activity, which includes high- or low-intensity activity like walking 10 minutes per day (Annex 1.D, Table D.2).

**Health risks, and the associated behavioral factors, are more prevalent in lower socioeconomic groups.** People who are poorer, marginalized, and vulnerable tend to live fewer years on average and are more prone to poor health in old age (Di Cesare et al., 2013; Stevens et al., 2008). This gap is partly due to behavioral differences, which result from a combination of individual, social and environmental factors. In most countries, lower income populations have higher rates of tobacco and alcohol consumption and poorer diets than their better-off counterparts. Some evidence from Latin America and the Caribbean indicates that obesity is more prevalent among groups with less wealth and education, and among rural populations (Jiwani et al., 2019). In addition, lower income populations are more likely to be exposed to indoor and outdoor air pollution (Campbell-Lendrum and Prüss-Ustün, 2019) and to contaminated water and other channels of infectious and chronic diseases (Corburn and Sverdluk, 2018).

## 2.5 Functional ability and care dependence

**The ability to live independently is a key determinant of older people's quality of life.** Aging is often associated with increased risk of losing functional ability due to declining sensory or cognitive functions. In some cases, this decline is driven by the progression of chronic health conditions (WHO, 2015). Usually, older people first lose the ability to independently perform instrumental activities of daily living like buying groceries, cooking a hot meal, managing their health, managing money, and going outside. These activities are highly complex and usually involve social interaction. Reduced ability to perform these activities is a predictor of further physical and/or cognitive decline (Jekel et al., 2015; Roehr et al., 2019). As functional ability deteriorates further, older people may then lose the ability to independently complete some basic activities of daily living, like eating, bathing, dressing, or using the toilet. These basic activities are essential to lead an independent life (Box 2.2).

## BOX 2.2 KEY CONCEPTS AND DEFINITIONS RELATED TO FUNCTIONAL ABILITY AND LONG-TERM CARE

**Functional ability:** people’s ability to do the things and activities they value. This ability is determined by individuals’ *intrinsic capacity* (that is, all their mental and physical capacities), the environment where they live, and the interaction between these two factors (WHO, 2015, p. 28).

**Functional impairment or dependence:** the actual outcome of an assessment of functional ability, which indicates whether a person may need help and support to carry out daily activities (functional impairment or dependence) or not (functional independence). Functional dependence can be classified in different levels (mild, moderate, severe). It does not necessarily mean care dependence, because changes to the environment could potentially allow functional ability to be restored without the need for care and support from others (WHO, 2015).

**Care dependence:** a situation where an individual’s functional ability is diminished to the extent that they are unable to perform activities of daily living without help from others and their ability cannot be restored by changing the environment or using assistive devices (WHO, 2015).

**Long-term care:** the activities for guaranteeing that individuals in a situation of care dependence (or are at risk of developing care dependence) can “*maintain a level of functional ability consistent with their basic rights, fundamental freedoms, and human dignity*” (WHO 2015, p. 127).

**In the Latin American and Caribbean countries an average of 14.4% of people over 65 are care-dependent.** This means that in 2020, almost 8 million older people require help to perform at least one basic activity of daily living.<sup>10</sup> These estimates are made by Aranco, Ibarraran, and Stampini (2022), who compute the share of functionally dependent older people for 26 countries in the region. In ten countries (Argentina, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, El Salvador, Mexico, Paraguay, and Uruguay), the rate is calculated directly from household surveys. In the remaining 16 countries, where no micro data is available, the rate is estimated as a function of older people’s demographic and epidemiological profile.

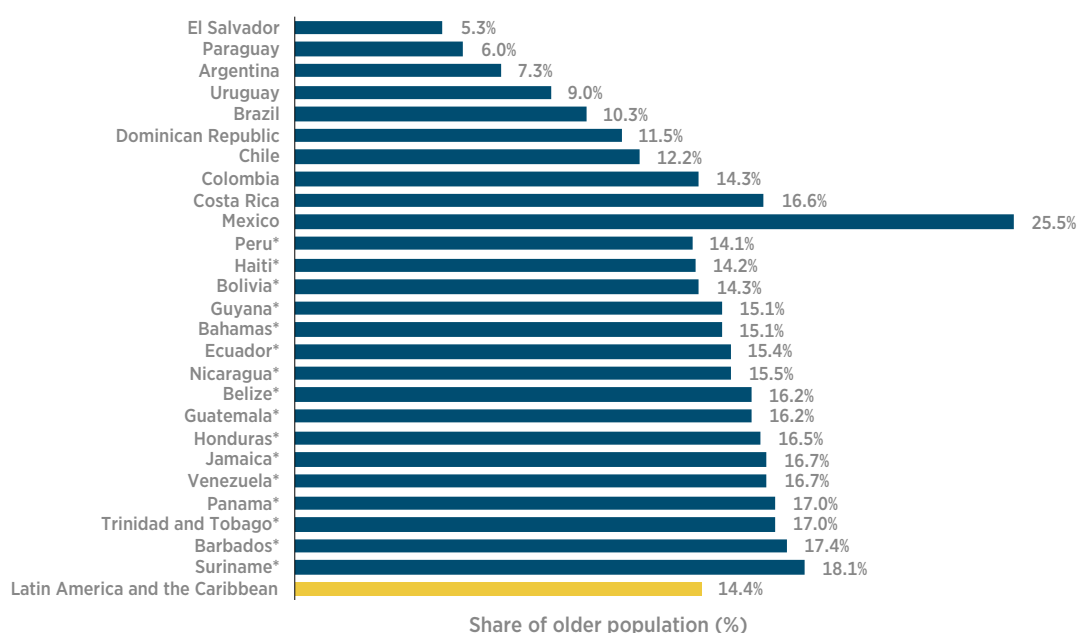
The rate of functional dependence varies greatly among countries, from a minimum of 5.3% in El Salvador to a maximum of 25.5% in Mexico (Figure 2.13). At least three factors may contribute to this heterogeneity: (i) genuine differences among countries in older people’s degree of functional dependence; (ii) cultural differences that influence how people rate their degree of functional dependence; (iii) differences in survey design and implementation (Aranco et al., 2018). This last point is particularly important and should be kept in mind when comparing countries. In countries where household surveys are available, the number of activities surveys include to evaluate respondents’

10. To maximize comparability across countries, in this report care dependence is defined as difficulty performing at least one basic activity of daily living.



functional dependence range from three in Costa Rica to six or more in Brazil, Mexico, and Uruguay. Participants' response options also vary from a dichotomous yes/no answer to a numeric rating on a scale of one to three (or more).

**FIGURE 2.13** PREVALENCE OF CARE DEPENDENCE AMONG PEOPLE OVER 65 (%), 2012-2018 (MOST RECENT YEAR AVAILABLE)



**Source:** Authors' calculations based on figures in Aranco, Ibarrarán, and Stampini (2022).

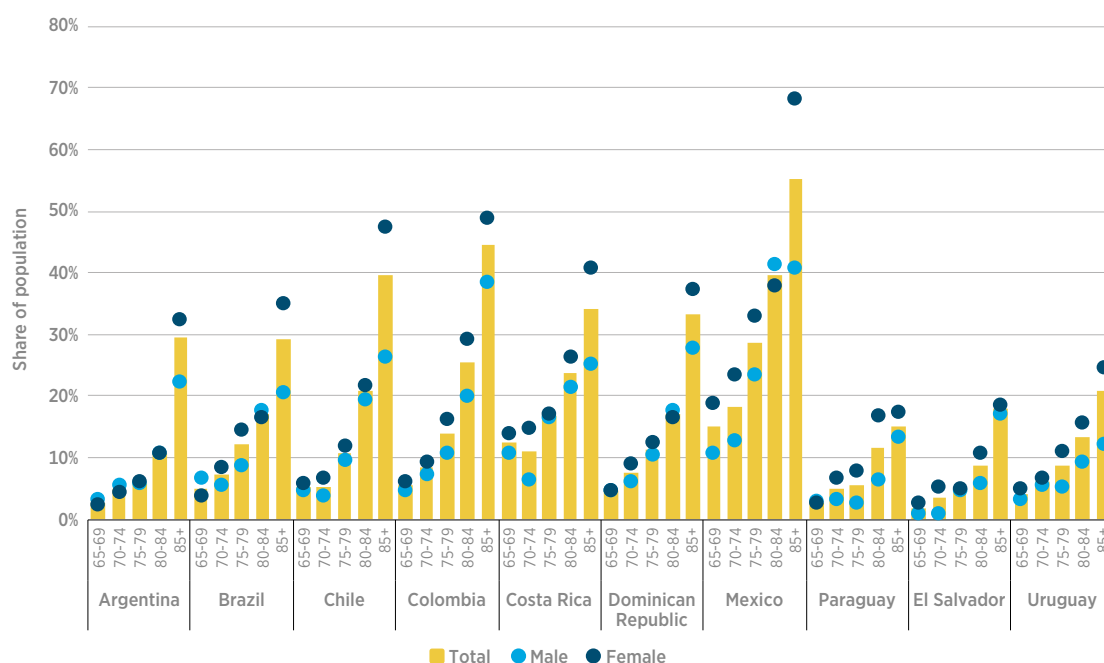
**Notes:** The figure shows the percentage of people over age 65 with difficulty with at least one basic activity of daily living. For countries marked with an asterisk (\*), household survey data on functional dependence is unavailable. Estimates for these countries are based on their demographic and epidemiological profile (see Aranco, Ibarrarán, and Stampini (2022) for details). The Dominican Republic has data only for people with at least one physical or mental limitation; people with no limitations are assumed to be functionally independent.

**Despite this heterogeneity, some findings are consistent across the different countries. First, the prevalence of functional dependence rises sharply with age, typically reaching values around 20% or more among people over age 80** (Figure 2.14). The severity of functional dependence also increases with age, as people have difficulty performing a higher number of activities. For example, care-dependent people aged 65–79 in Mexico need help with an average of 2.2 basic activities of daily living, while those over 80 need help with 2.6 on average. These figures are 1.5 and 1.9, respectively, in Costa Rica, and 2.8 and 3.4 in Brazil.<sup>11</sup>

11. Authors' calculations based on data from Estudio Nacional de Salud y Envejecimiento (ENASEM) in Mexico (2018); Encuesta Nacional de Discapacidad (ENADIS) in Costa Rica (2018); Estudo Longitudinal da Saude dos Idosos (ELSI) in Brazil (2018).

**Second, women are more likely than men to experience functional dependence, and this gender gap increases with age** (Figure 2.14). One possible explanation for these gender differences could be that, as seen in Section 2.4, women live longer than men but suffer from more debilitating conditions. This means women are more likely to need long-term care than men of the same age.

**FIGURE 2.14** PREVALENCE OF CARE DEPENDENCE AMONG PEOPLE OVER 65 (%), BY SEX AND AGE, 2012-2018 (MOST RECENT YEAR AVAILABLE)



**Source:** Authors' calculations based on data from Encuesta Longitudinal de Protección Social (ELPS) in Chile (2015), El Salvador (2013), Paraguay (2015), and Uruguay (2013); Estudio Nacional de Salud y Envejecimiento (ENASEM) in Mexico (2018); Encuesta Nacional de Discapacidad (ENADIS) in Costa Rica (2018); Estudo Longitudinal da Saude dos Idosos (ELSI) in Brazil (2018); Encuesta Nacional de Calidad de Vida del Adulto Mayor (ENCAVIAM) in Argentina (2012); Encuesta Nacional de Hogares de Propósitos Múltiples (ENHOGAR) in the Dominican Republic (2013); and Encuesta Nacional de Salud, Bienestar, y Envejecimiento (SABE) in Colombia (2018).

**Third, there is a strong positive association between functional dependence and the presence of chronic conditions** (Table 2.2). This association works in both directions. On one hand, the onset of a chronic condition can lead to functional dependence in the medium- and long-term. For example, González-González et al. (2019) find that in Mexico, older people with hypertension, arthritis, diabetes, and stroke are more likely to become care-dependent in the future. On the other hand, functional dependence can lead to the onset of chronic health conditions due to lack of physical

activity, nutritional deficiencies, and the development of symptoms of depression (Maresova et al., 2019). Thus, the rising number of people with chronic conditions in Latin America and the Caribbean (see Section 2.4) could lead to an increase in future care needs if no preventive actions are taken.

**TABLE 2.2** PREVALENCE OF CARE DEPENDENCE AMONG PEOPLE OVER 65 (%), BY PRESENCE OF CHRONIC HEALTH CONDITIONS, 2013-2018 (MOST RECENT YEAR AVAILABLE)

Number of chronic health conditions	Brazil	Chile	Costa Rica	Dominican Republic	Mexico	Paraguay	El Salvador	Uruguay
None	7.0%	6.9%	4.4%	23.2%	16.3%	5.1%	1.9%	5.0%
1 or more	10.7%	13.8%	19.1%	32.6%	30.1%	8.8%	7.1%	11.1%

**Sources:** Authors' calculations based on data from the *Encuesta Longitudinal de Protección Social* (ELPS) in Chile (2015), El Salvador (2013), Paraguay (2015), and Uruguay (2013); *Estudio Nacional de Salud y Envejecimiento* (ENASEM) in Mexico (2018); *Encuesta Nacional de Hogares de Propósitos Múltiples* (ENHOGAR) in the Dominican Republic (2013); *Encuesta Nacional de Discapacidad* (ENADIS) in Costa Rica (2018); and *Estudo Longitudinal da Saude dos Idosos* (ELSI) in Brazil (2018).

**Notes:** Information on chronic health conditions is self-reported in these surveys and must be interpreted with caution.

**Finally, there is a negative correlation between prevalence of functional dependence and socio-economic status** (Table 2.3). At least two factors are at play in this association. First, socioeconomically vulnerable people are more likely to develop chronic health conditions, which in turn increases the odds of experiencing functional dependence. Second, vulnerable individuals have less access to care services, which may end up intensifying long-term care needs.

**TABLE 2.3** PREVALENCE OF CARE DEPENDENCE AMONG PEOPLE OVER 65 (%), BY LEVEL OF EDUCATION, 2012-2018 (MOST RECENT YEAR AVAILABLE)

Education level	Argentina	Chile	El Salvador	Paraguay	Uruguay
No education	11.2%	22.1%	6.8%	9.8%	15.3%
Primary level	6.9%	14.2%	3.6%	6.3%	10.2%
Secondary level	6.1%	7.7%	8.0%	3.3%	6.8%
Tertiary level	2.9%	7.8%	n/a	n/a	5.1%

**Source:** Authors' calculations based on data from the *Encuesta Longitudinal de Protección Social* (ELPS) in Chile (2015), El Salvador (2013), Paraguay (2015), and Uruguay (2013), and *Encuesta Nacional de Calidad de Vida del Adulto Mayor* (ENCAVIAM) in Argentina (2012).

## 2.6 Ageism as another key factor influencing older people's quality of life

Older people's quality of life has many dimensions beyond those discussed so far in this report. These include their housing and urban environment, their sense of purpose, the ability to maintain meaningful social interactions, and their ability to live in harmony and peace, among others (Van Leeuwen et al., 2019). In this section, we analyze attitudes towards older people and older people's experiences of ageism in the region. Ageist attitudes affect wellbeing in general, as well as access to social protection benefits like healthcare and pensions.

**Ageism is a form of discrimination in which age is used to categorize people in ways that lead to harm, disadvantage, or injustice** (WHO, 2021a). It is caused by negative age-related views embedded in our everyday thinking and social interactions and affects how we see and treat others. The cost of ageism in the United States has been estimated at 850 billion USD in 2018 (or 4% of GDP) (Accius and Suh, 2020). One third of this GDP loss is from women being forced to retire sooner than they would prefer due to age-related discrimination (Accius and Suh, 2020).

**Ageism is widespread across individuals, communities, policies, and institutions worldwide** (Officer and de la Fuente-Núñez, 2018). It affects people of all ages, not exclusively older people. For example, ageism can be seen in policies that support age-based healthcare rationing, practices that limit the opportunities of specific age groups to help make decisions in the workplace, or in patronizing behavior during interactions with specific age groups (WHO, 2021a). Involuntary retirement due to age bias, reduced opportunities for growth for older employees, and age cutoffs in the job market are all common forms of ageism in the workplace and frequently pose an obstacle to working longer.

**In addition, people draw on their culture's age stereotypes, which can result in self-directed ageism** (WHO, 2021a). As we age, we internalize stereotypical views about what it means to get older. This "internalized ageism" can affect what we think we can or should do as we become older, often resulting in self-exclusion from continued engagement with life opportunities and growth in later life (e.g., disengagement from new learning activities, or voluntary retirement).

**Perceived ageism—by oneself or others—can affect all dimensions of a persons' quality of life**, including health, self-esteem, willingness and possibilities to participate in social or economically productive activities, and the quality of healthcare received (Nelson, 2016, Bodner and Cohen-Fridel, 2010). A recent meta-analysis of studies from 45 countries (including five in Latin America: Argentina, Brazil, Colombia, Mexico, and Uruguay) shows that ageism negatively impacts older people's physical, mental, and cognitive health (Chang et al., 2020). The study also associates ageism towards older people with a higher probability of being denied access to healthcare services, limited work

opportunities, and poor social networks, among other negative consequences (Chang et al., 2020). The constant stress and low self-esteem that can result from ageism has psychological effects that could lead to chronic conditions and impaired functional ability (Ober Allen, 2016).

**Data on ageism is scarce, but the World Values Surveys (n.d.) provide an opportunity to assess age discrimination in the region.** Officer et al. (2020) analyze data from nine questions included in the sixth wave of this survey.<sup>12</sup> They classify countries as having high, moderate, or low levels of ageist attitudes.<sup>13</sup> Of the 57 countries studied globally, 34 (59.6%) were classified as having moderate or high ageism.

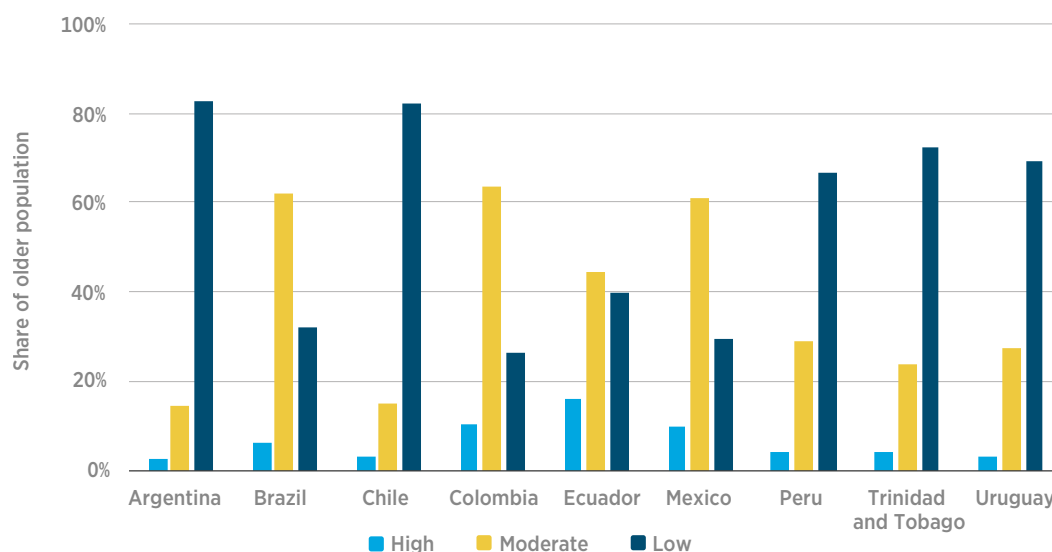
**In Latin America and the Caribbean, most countries were classified as having overall low levels of ageist attitudes, except Brazil, Colombia, Mexico, and Ecuador which were considered to have moderate levels** (Figure 2.15). The proportion of people showing high levels of ageist attitudes was low for all countries in the region, with the highest percentage found in Ecuador and Colombia (16% and 10%, respectively). For comparison, other countries outside the region with moderate ageist attitudes include Morocco, Libya, Pakistan, and Kazakhstan. Most countries with high levels of ageist attitudes are in Africa and South Asia (Officer et al., 2020). The proportions of people reporting high, moderate, or low ageist attitudes did not vary significantly between men and women in any country in the region.

**Data on older people experiencing ageism is rare in the region.** In Costa Rica, the only country for which we found such data, 56.8% of individuals in the 65–79 age group and 46.2% of people over age 80 reported experiencing ageism (Table 2.4). These figures vary by sex and setting. Women aged 65–79 experienced ageism most frequently (66.4%). Higher social exposure in this age group may partly explain this finding, as older groups might be more socially isolated and therefore less likely to report experiencing ageism outside their home. Indeed, ageism within families and neighborhoods was most commonly reported by people over age 80, whereas ageist experiences at health centers and on public transportation were most frequent among people aged 65–79.

12. The 6th wave of the World Values Surveys was conducted in 57 countries, with a minimum of 1200 participants per country, over the period 2010–2014. Further details on methods and sampling are described in World Values Survey. Round Six—Country-Pooled Datafile Version, available at <http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp>. We are deeply grateful to Jotheeswaran Amuthavalli Thiyagarajan and Vânia de la Fuente Núñez for providing us with the data used in their study stratified by sex and country (Officer et al., 2020).

13. The survey includes nine questions on ageist attitudes: two about “how acceptable most people in their country would find it if (1) a suitably qualified 30-year-old was appointed as their boss, and (2) a suitably qualified 70-year-old was appointed as their boss” (scored using 10-point Likert scales, from “completely unacceptable” to “completely acceptable”); three questions about whether “most people in their country viewed those aged over 70 as (3) friendly, (4) competent, and (5) with respect” (5-point Likert scale from “not at all likely to be viewed that way” to “very likely to be viewed that way”); four questions about whether they thought that (6) “older people are a burden on society,” (7) “older people get more than their fair share from the government,” (8) “companies that employ young people perform better than those that employ people of different ages,” and (9) “old people have too much political influence” (4-point Likert scale from “strongly agree” to “strongly disagree”) (Officer et al., 2020, p.2).

**FIGURE 2.15** PROPORTION OF RESPONDENTS (%), BY LEVEL OF REPORTED AGEIST ATTITUDES, 2010-2014



Source: Authors' calculations based on 2010-2014 World Values Surveys data provided by Officer and colleagues (Officer et al., 2020).

**TABLE 2.4** SHARE OF OLDER PEOPLE THAT EXPERIENCED AGEISM IN COSTA RICA (%), BY SEX AND AGE, 2018

	Men			Women			Total		
	50-64	65-79	80+	50-64	65-79	80+	50-64	65-79	80+
Person experienced ageism	29.3%	47.3%	34.0%	30.5%	66.4%	57.5%	29.9%	56.8%	46.2%
Place they experienced ageism (conditional on experiencing it)									
Family	2.0%	10.9%	24.4%	15.7%	32.3%	52.5%	9.2%	23.4%	42.6%
Health center	7.9%	18.0%	0.0%	22.8%	24.8%	31.1%	15.7%	22.0%	20.2%
Neighborhood	31.6%	10.7%	19.2%	29.5%	33.1%	48.6%	30.5%	23.8%	38.3%
Public transportation	10.9%	46.7%	56.4%	19.3%	44.1%	10.5%	15.3%	45.1%	26.6%

Source: Encuesta Nacional sobre Discapacidad (ENADIS), 2018.

More research is needed to understand ageism in the region, particularly experienced ageism, and how it varies between settings and groups of people. Countries may include measures of attitudes towards older people and experienced ageism in national surveys. National and subnational campaigns could help change perceptions, attitudes, and behaviors towards older people, helping enhance their quality of life.





**AGING**  
IN LATIN AMERICA  
AND THE CARIBBEAN  
SOCIAL PROTECTION AND QUALITY  
OF LIFE OF OLDER PERSONS



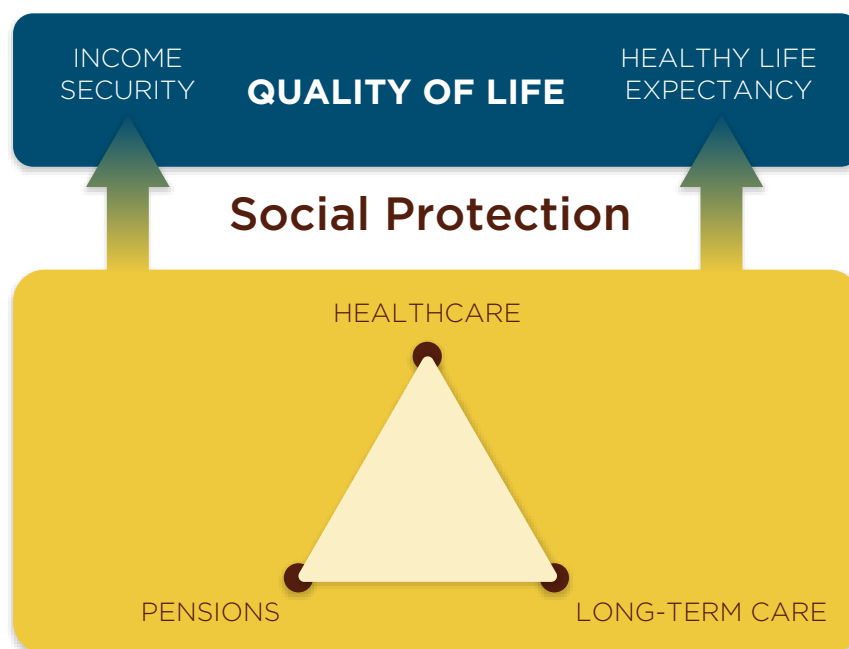
# 3

## Social protection is associated with higher quality of life

**Section 2 highlighted three facts.** First, quality of life for older people in Latin America and the Caribbean has improved substantially over the past two decades. Second, despite this progress, older people still face significant challenges due to income vulnerability, chronic health conditions, and functional dependence. Third, the level and trajectory of older people's quality of life varies widely among countries, which suggests that the most successful cases can be used to guide future policy reforms.

**This report's main hypothesis is that social protection policies are a crucial determinant of older people's quality of life** (Figure 3.1). Pensions provide income support to older people and reduce their risk of falling into poverty. Healthcare extends healthy life expectancy by preventing and managing acute and chronic health conditions. Long-term care helps maintain or improve functional ability, thereby also helping extend healthy life expectancy. In addition, pensions, healthcare, and long-term care both overlap and complement each other in their contribution to older people's quality of life. Investing in one can have major effects on the other two, and such strong links require a holistic approach to making and implementing policy.

**FIGURE 3.1** KEY DIMENSIONS OF OLDER PEOPLE'S QUALITY OF LIFE AND SOCIAL PROTECTION



Source: Prepared by the authors.

**Publicly funded healthcare and long-term care services are important components of income security for older people because they reduce out-of-pocket expenditure, relieving pressure on pension systems.** Out-of-pocket expenditure on health and long-term care represents a significant share of older people's income (particularly among socioeconomically disadvantaged individuals) and can in some cases reach catastrophic proportions, increasing risk of impoverishment (Bango and Cossani, 2021). In Paraguay, for example, average yearly out-of-pocket expenditure on health in households with older people equates to the value of 19 days of food consumption (Giménez et al., 2019). In Mexico, older people with some degree of functional dependence spend over 50% of pension income on out-of-pocket healthcare costs (Salinas-Rodríguez et al., 2020). Given this evidence, healthcare and long-term care services that reduce out-of-pocket spending can be seen as an indirect way to increase older people's disposable income instead of raising pensions. Furthermore, functional dependence is an expensive risk to insure (Barr, 2010). The same could be said of catastrophic healthcare expenditures. For these reasons, it is more efficient to develop good health and long-term care systems than to provide all potential users with a pension high enough to cover the cost of services in case they need them.

**Investments in health and active aging that extend people’s healthy and productive years increase older people’s productivity and workforce participation.** Heijdra and Reijnders (2012) suggest that economic longevity (which allows individuals to stay in the labor market longer, increasing their human and physical capital) can counterbalance the challenges population aging poses for economic growth by boosting savings and stimulating the accumulation of human capital. It may also reduce pressures on pension, healthcare, and long-term care systems (Bloom et al., 2015). A study in the United Kingdom identified poor health, negative impacts of work on health, and ageism as perceived barriers to extending people’s work life (Edge et al., 2020). Evidence suggests this mechanism could be at play in Latin America and the Caribbean. In Uruguay, for example, 30% of people with no chronic health conditions work past age 60 (the current legal retirement age), but only 17% of people with chronic health conditions do.<sup>14</sup>

**Investments in long-term care systems increase labor participation, especially for women, which helps pension systems by increasing social security contributions.** Data from four Latin American and Caribbean countries shows that caring for older family members is associated with lower employment among women, as well as in the number of hours worked for women who do stay employed (Stampini et al., 2020). This reduced employment at various stages of women’s lives later translates to lower contributory pension coverage, increasing the need for non-contributory pension programs. In contrast, developing the care economy has the potential to generate millions of high-quality formal jobs for both women and men. In the Republic of Korea, the long-term care sector has created a half million jobs in the first ten years of implementation, making up almost 2% of total employment in the country (Cafagna et al., 2019). In Uruguay, data from 2019 shows that the long-term care system employed 4,500 people and had a shortage of 5,600 care workers. Together, these two figures represent 3% of all informal employment in the country. This suggests that Uruguay could decrease informal employment by one percentage point by formally employing about ten thousand people in the long-term care system.<sup>15</sup> The long-term care economy has the potential to generate approximately four million jobs in Argentina, Brazil, Mexico, and Peru alone by 2030.<sup>16</sup> If the appropriate policies are in place, these jobs can help make the region’s pension systems more sustainable.

**Investment in long-term care leads to savings in healthcare.** Evidence shows that the lack of a long-term care system negatively affects healthcare expenditure, as the healthcare sector ends up paying for avoidable hospitalizations and providing long-term services that would be more efficiently supplied by the social sector. Studies find that: (i) low investment in long-term care results in costlier hospital care because of, for example, more and longer hospitalizations or more visits to the emergency room (Hofmarcher, Oxley, and Rusticelli, 2007; Bodenheimer, 2008; Mur-Veeman

14. Authors’ calculations based on data from the 2013 *Encuesta Longitudinal de Protección Social* (ELPS).

15. Authors’ calculations based on the following National Statistics Institute data (accessed at <https://www.ine.gub.uy/>, November 2020): 1,582,917 individuals in the workforce; informality rate of 25%.

16. Authors’ calculations based on International Labour Office (2018). Table A.5.2., p.428, “High Road” scenario.

and Govers, 2011; Costa-Font, Jimenez-Martin, and Vilaplana, 2018); (ii) home care reduces doctors' visits, hospitalizations, and the duration of hospital stays (Forder, Gousia, and Saloniki, 2019); and (iii) preventive long-term care services reduce healthcare costs (Nishi et al., 2020). For example, a study in the United States shows that long-term care insurance leads to 14% lower medical costs at the end of life (Holland, Evered, and Center, 2014). Although data for the region is scarce, a study in Brazil finds that about 30% of older people's hospitalizations could be treated or prevented through long-term care or ambulatory care (de Souza and Peixoto, 2017). Similarly, a solid healthcare system that promotes prevention, early diagnosis, and management of chronic health conditions mitigates the loss of functional ability among older people, leading to less need for long-term care.

In this section, we assess the current state of social protection policies in each country in Latin America and the Caribbean. For each policy area, we analyze two dimensions: *coverage* (that is, the percentage of older people who benefit from it) and *quality* (the definition of which varies for each policy). We find large discrepancies in social protection coverage and quality among countries, as well as a need for reforms common to all of them.

## 3.1 Pensions

**As people age, pensions become their main source of income, so high coverage and adequate levels of these benefits are crucial for income security.** There is a wide variety of pension arrangements in the region. There are three types of contributory systems: most countries rely on traditional defined-benefit systems, where the pension amount is determined by a formula; nine countries have defined-contribution systems, where the pension amount is proportional to the savings in an individual account; and three countries combine both systems (see Box 3.1 for definitions). In addition, due in part to large historical coverage gaps in contributory pension systems, the region has developed non-contributory arrangements that provide benefits to people who do not qualify for a contributory pension.

### 3.1.1 Pension coverage

**Pension coverage has increased in recent decades, yet it varies dramatically among countries. On average, 69% of people over 65 receive a pension, a major increase from 46%, 20 years ago.** Approximately 48% are covered by contributory systems. The remaining 21% are covered through non-contributory transfers. By 2019, a few countries in the region had reached almost universal pension coverage. In Bolivia, Suriname, Brazil, Guyana, Chile, and Uruguay, more than 85% of older people were receiving a pension. At the other end of the spectrum, pension coverage was under 20% in Guatemala, El Salvador, and Honduras (Figure 3.2, upper panel).<sup>17 18</sup>

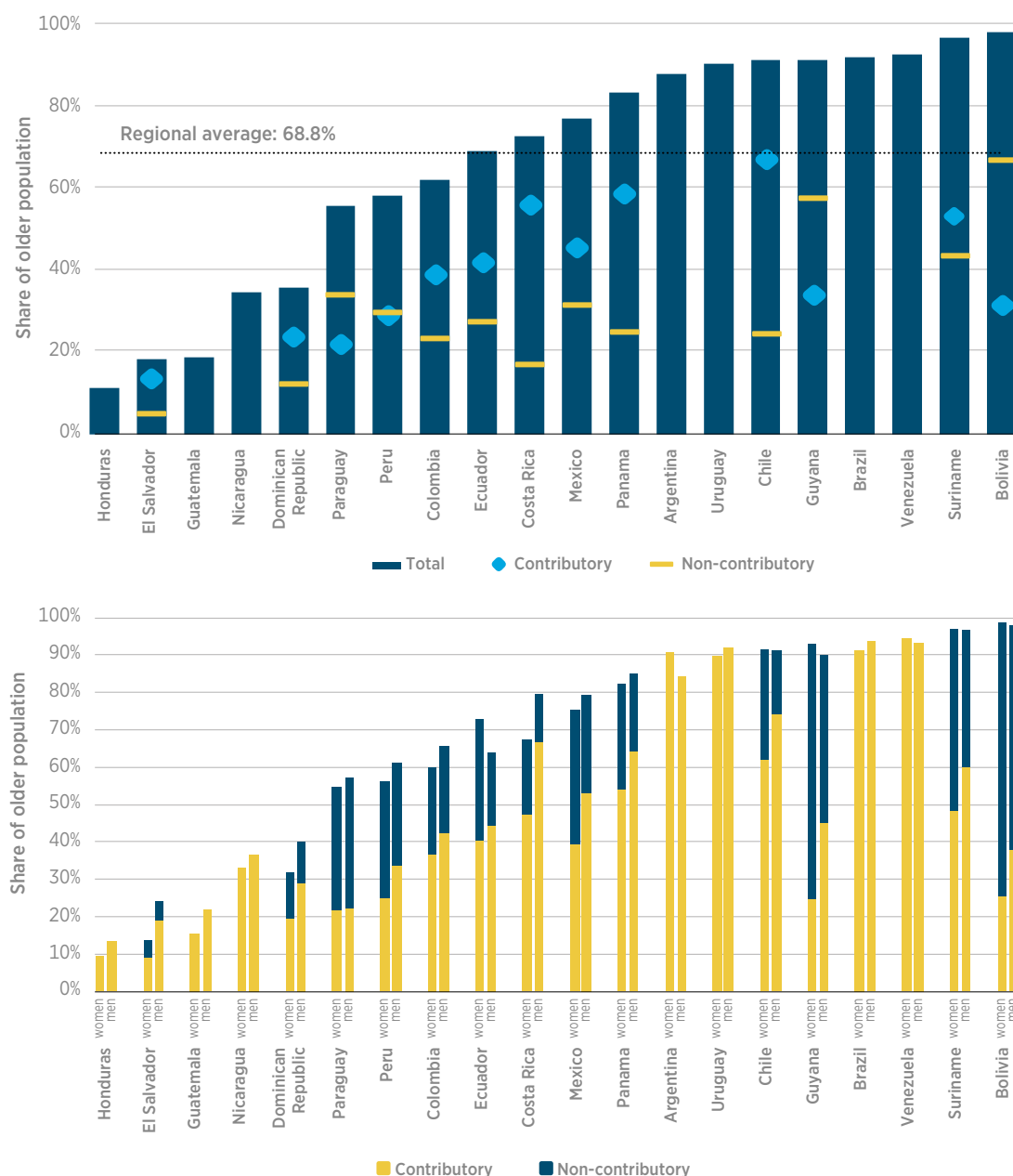
**A slightly higher share of men receive pensions than women (70% versus 68%) but a higher proportion of those pensions come from the contributory system** (Figure 3.2, lower panel). In countries like Argentina, Ecuador, Guyana, and Suriname, the share of women receiving pensions is higher than that of men. However, around 73% of men's pensions are generated through the contributory system, versus 62% for women. As we see below, this has important implications for the value of pensions.<sup>19</sup> This difference is particularly salient in countries like Chile, Bolivia, Suriname, Costa Rica, Mexico, and Guyana, where the gap in contributory pension coverage between men and women is over 10 percentage points.

17. Authors' calculations based on data from the Inter-American Development Bank's Harmonized Household Surveys.

18. Mexico issued a decree in 2020 that makes receiving non-contributory pensions a constitutional right for older people.

19. Data on Argentina, Brazil and Uruguay does not distinguish between contributory and non-contributory coverage. For these three high-coverage countries, all coverage is considered contributory, which may artificially inflate the share of women with access to contributory pensions.

**FIGURE 3.2** PENSION COVERAGE AMONG PEOPLE OVER 65 (%), 2019



**Source:** Authors' calculations based on data from the Inter-American Development Bank's Harmonized Household Surveys.

**Notes:** We cannot distinguish between contributory and non-contributory coverage in Brazil, Nicaragua, Uruguay, Venezuela, and Argentina. Bosch, Melguizo, and Pagés (2013) estimate that at least 20% of pensions in these countries could be considered non-contributory. The regional value is computed as an unweighted average. Data for Nicaragua is not included in the regional average since the latest available figure is from 2012.



### BOX 3.1 KEY PENSION SYSTEM CONCEPTS AND DEFINITIONS

Bosch, Melguizo and Pages (2013, p. 23) provide key definitions of pension system types and how they are funded.

#### Types of pension systems

**Defined-benefit systems.** In these systems, people receive pensions according to a rule tied to their contribution history as employees. The benefits rule may be based on the employee's last salary payment or on their contributions over a longer period (e.g., the last five or ten years).

**Defined-contribution system.** In this system, pension amounts are determined by the value of the assets people accumulate over their working life. The benefits may be withdrawn all at once, scheduled for programmed withdrawals, or used to purchase an annuity that provides monthly income for the rest of a person's life.

**Non-contributory pension.** Under this system, pension amounts are not determined by any contribution made by individuals. The pension may be granted universally, like in Bolivia, or be more targeted, with requirements like having a certain level of income or not collecting a contributory pension at all. Normally the government sets the pension level and adjusts it over time.

#### Funding

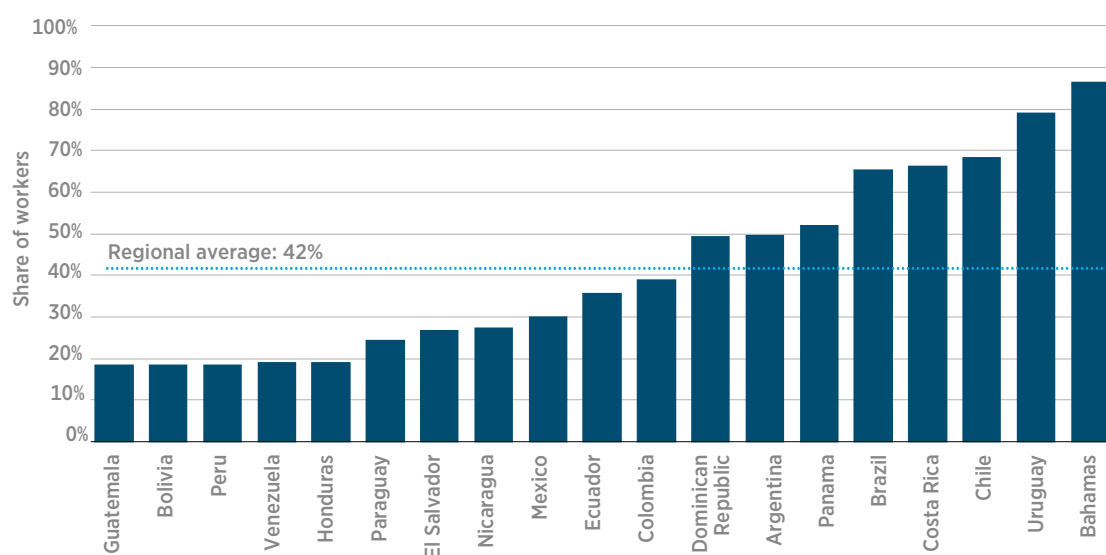
**Fully funded.** The assets accumulated through the pension plan are used to pay pension benefits.

**Partially funded.** Both accumulated assets and current contributions from workers or general taxes collected by the government are used to pay the benefits.

**Unfunded.** Contributions or general taxes collected by the government are used to pay pension benefits. Partially funded or unfunded systems are typically called pay-as-you-go systems.

**Strategies to achieve high coverage have relied on expanding non-contributory benefits.** Today, only 42% of the region’s workers—and less than 30% of the working-age population—contribute to pension plans (Figure 3.3). Even in the region’s best-performing countries, like The Bahamas, Chile, or Uruguay, a large share of the working-age population will not qualify for a contributory pension (Bosch, Melguizo, and Pagés, 2013). This situation has barely changed over the last 20 years. Unsurprisingly, most countries had to implement non-contributory pensions to close coverage gaps. Perhaps the best-known cases are Bolivia and Guyana, two of the poorest countries in the region, which achieved universal pension coverage through their *Renta Dignidad* and the *Old Age* non-contributory pension programs, respectively (for the case of Bolivia, see Box 3.2). Although these non-contributory pensions have helped alleviate coverage gaps, they do not always provide adequate income security, as we explain further in the next subsection.

**FIGURE 3.3** WORKERS WHO CONTRIBUTE TO PENSION PLANS (%), 2019



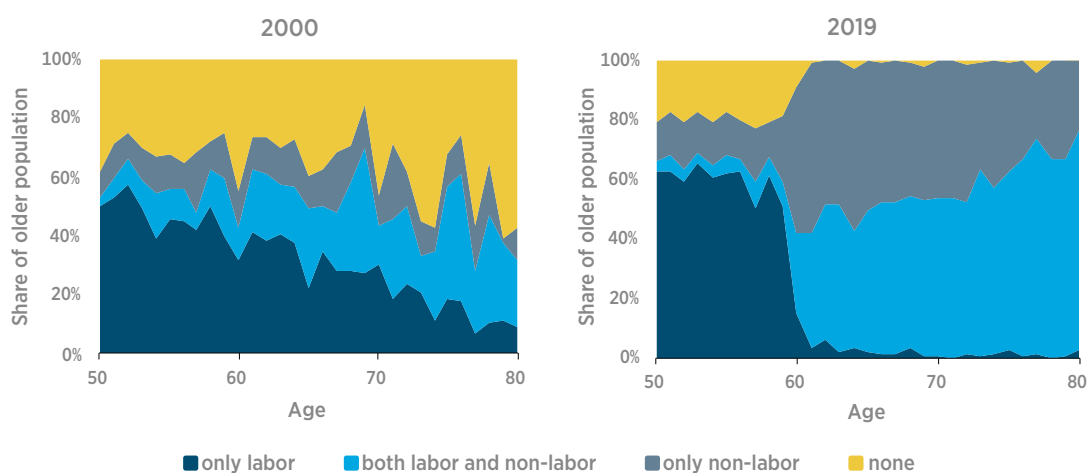
**Source:** Authors’ elaboration based on data from the Inter-American Development Bank’s Labor Markets and Social Security Information System.

**Notes:** Percentages are calculated by dividing employed workers who contribute to social security by the employed population. The regional value is computed as an unweighted average.

### BOX 3.2 EXPANDING NON-CONTRIBUTORY PENSIONS IN BOLIVIA

In Bolivia, a significant proportion of older people had no income in 2000 (yellow area in the left-hand panel of Figure B3.2). This percentage increased with age, and 60% of people over age 80 had no income. Over the past two decades, the government expanded non-contributory pension coverage through the *Renta Dignidad* program, which reached 97.2% in 2019. As a result, in 2019 nearly no one over age 60 had no income (Figure B3.2, right-hand panel). The growth of the light blue area reflects the expansion of non-contributory pensions. However, given the pension's relatively small value, a large share of older people combines the pension with labor income (dark blue area).

**FIGURE B3.2** TRENDS IN INCOME COMPOSITION IN BOLIVIA, BY AGE, 2000 AND 2019



**Source:** Authors' calculations based on data from the Inter-American Development Bank's Harmonized Household Surveys.

### 3.1.2 Pension quality: adequacy

**A central objective of the pension system is to provide an adequate level of income at older ages, once people have retired.** Usually, adequacy is analyzed using a ratio of the pension's value to the value of pre-retirement income (or an average of lifetime income). This ratio is known as the replacement rate. This report relies on household survey data to estimate an aggregate empirical replacement rate, defined as the ratio between the average value of all pensions (including contributory and non-contributory) and the average salary of workers aged 50–64 (formal or informal).<sup>20</sup>

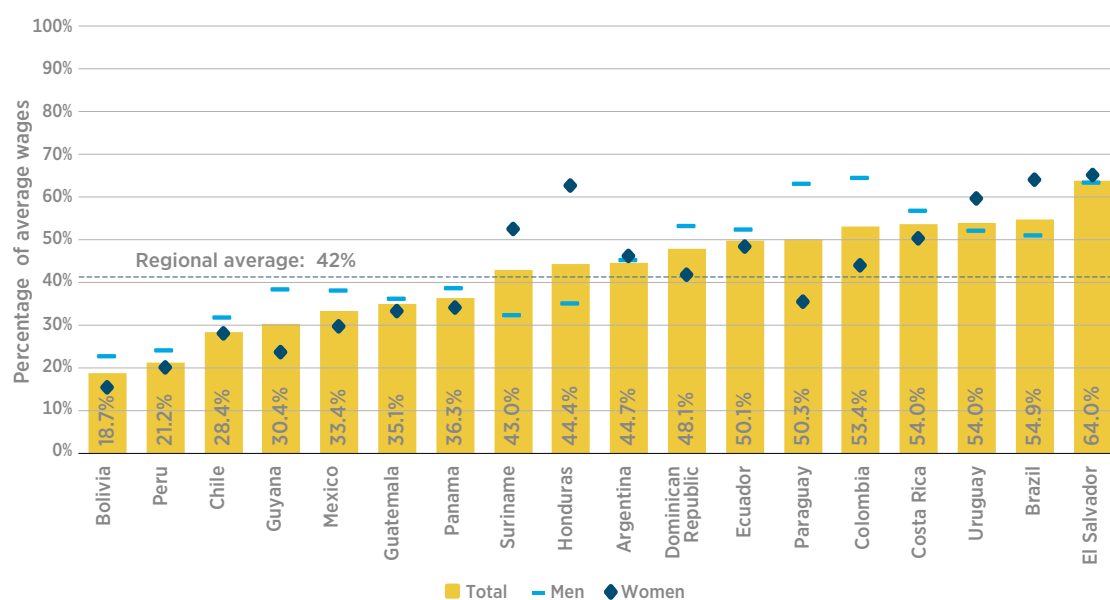
**On average, pensions amount to 42% of wages, with large variations among countries.** El Salvador, Paraguay, Colombia, Uruguay, and Brazil have the highest values, with pensions above 50% of average wages. At the other extreme are Chile, Peru, and Bolivia, with pensions below 30% of average wages (Figure 3.4). These figures reflect both contributory and non-contributory benefits, which are quantitatively very different.

**Part of the differences in replacement rates among countries stems from how benefits are determined in the contributory system.** In general, defined-benefit systems are designed to provide a relatively high replacement rate, whereas defined-contribution systems tend to provide low replacement rates (Box 3.3). The region's contributory systems provide an average replacement rate of 56%. The contributory systems of countries with defined-benefit systems have high replacement rates. This is the case of Paraguay (98%), Colombia (85%), and Ecuador (72%). In contrast, countries with defined-contribution systems have much lower contributory system replacement rates. This is the case of Peru (33%) and Chile (35%).

---

20. Replacement rate can be defined in different ways. It can be calculated at the individual level (a person's pension as a percentage of their previous wage) or at the aggregate level, which is the method used in this report. The reference wage can be a person's last wage payment or their average salary in the years prior to retirement.

**FIGURE 3.4** AVERAGE REPLACEMENT RATE FROM CONTRIBUTORY AND NON-CONTRIBUTORY PENSIONS (%)



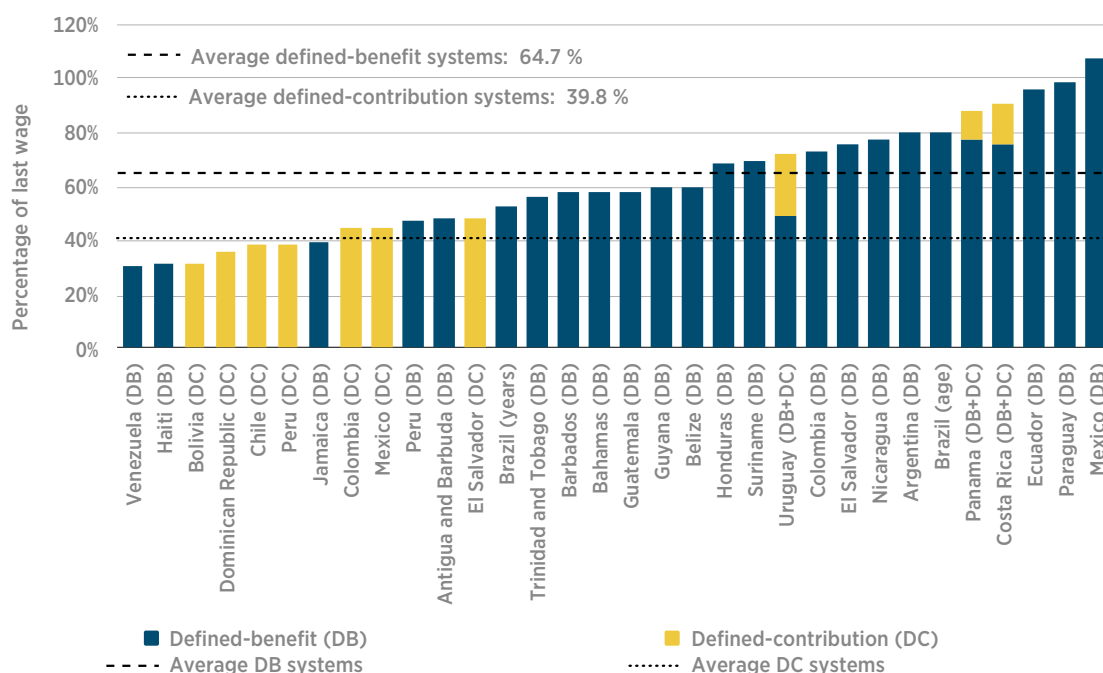
**Source:** Authors' calculation based on Inter-American Development Bank's Harmonized Household Surveys.

**Notes:** The regional value is computed as an unweighted average.

### BOX 3.3 THEORETICAL REPLACEMENT RATES

Theoretical replacement rates show what systems are designed to do for people who contribute their entire life. Altamirano et al. (2018) estimated theoretical replacement rates for 26 countries in Latin America and the Caribbean. According to their calculations, traditional, public, defined-benefit systems are generous by international standards. The average pension promised in Latin America and the Caribbean relative to the last wage payment is 65%, compared to 49% in the OECD (OECD, 2019) (Figure B3.3). In contrast, pensions in defined-contribution systems are low, with replacement rates of under 40%. Due to relatively low contribution rates, a steady decline in asset returns (assumed to be 3.5% in real terms), and low minimum retirement ages, these systems will deliver pensions well below citizens expectations, challenging their social sustainability.

**FIGURE B 3.3** THEORETICAL REPLACEMENT RATES OF PENSION SYSTEMS (FOR WORKERS WHO CONTRIBUTE THEIR ENTIRE WORKING LIFE (%))



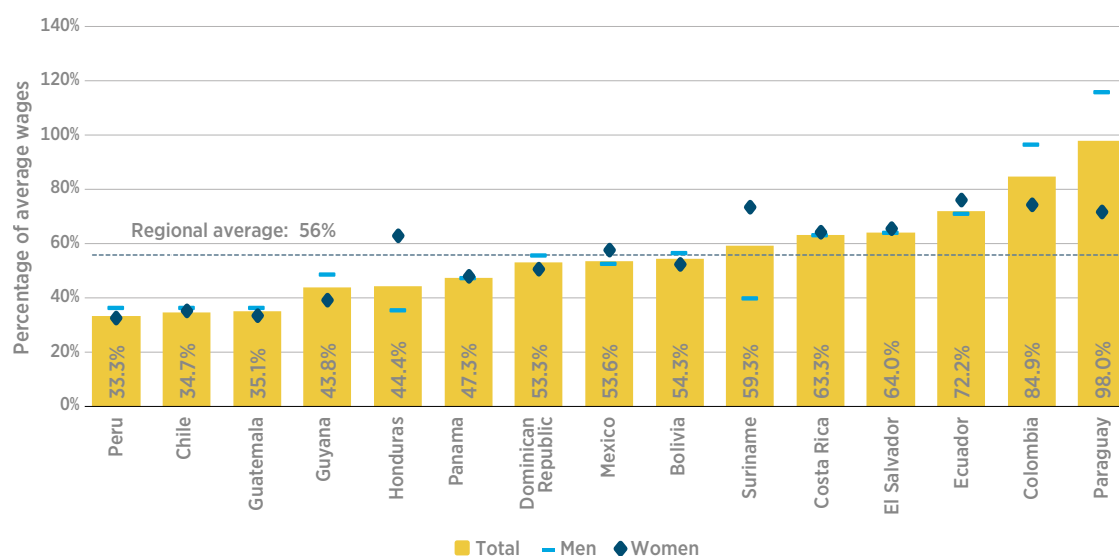
Source: Altamirano et al (2018).

Notes: DB = defined-benefit; DC = defined-contribution. The average for defined-contribution systems excludes the defined-contribution component of mixed systems. Contribution density is the percentage of social security contributions the worker made, relative to the total number of months worked during the working life. The data for this figure assumes a contribution density of 100% in all cases. In Brazil, pension eligibility is reached either when the person has a certain number of years of contributions or when he reaches a certain age; the theoretical replacement rate for these two options is showed separately (as "years" and "age", respectively).

**For people who qualify for contributory pensions, gender differences in replacement rates are relatively narrow in most countries.** Although women generally receive lower contributory pensions (10% lower on average), the replacement rate is similar to that of men because they also tend to have lower wages. However, the gender gap is still significant in a few countries. In Paraguay, the average contributory pension replacement rate is 44 percentage points higher for men than for women, and in Colombia the gap is 21 percentage points. By contrast, in Suriname the average contributory pension replacement rate is 34 percentage points higher for women than men, and 28 percentage points higher for women in Honduras (Figure 3.5 ). In addition, there are large gender gaps in the percentage of pensions that are contributory, which affects overall adequacy.

**The other crucial factor that explains discrepancies in pension adequacy among countries is the relative importance (both coverage and value) of non-contributory pensions.** Countries that rely mostly on non-contributory benefits have lower overall adequacy. The empirical replacement rate of non-contributory pensions is, on average, only 11% of wages, much lower than the 56% of contributory pensions (Figure 3.6). The highest non-contributory replacement rates are found in Suriname and Guyana, while the lowest are found in the Dominican Republic and Colombia.

**FIGURE 3.5** AVERAGE REPLACEMENT RATE FROM CONTRIBUTORY PENSIONS (%)

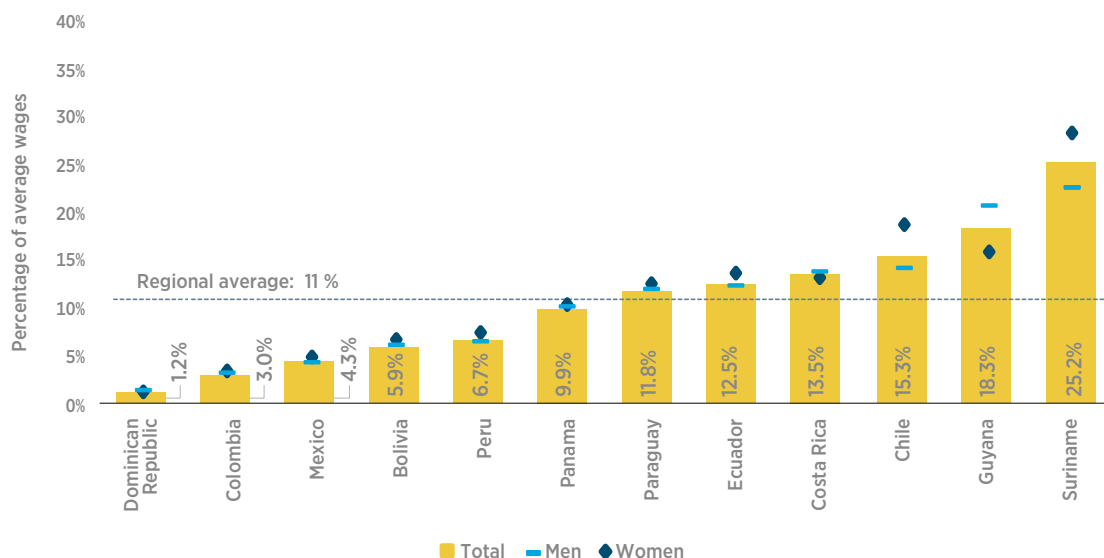


**Source:** Authors' calculations based on Inter-American Development Bank's Harmonized Household Surveys.

**Note:** The regional value is computed as an unweighted average.



**FIGURE 3.6** AVERAGE REPLACEMENT RATE FROM NON-CONTRIBUTORY PENSIONS (%)

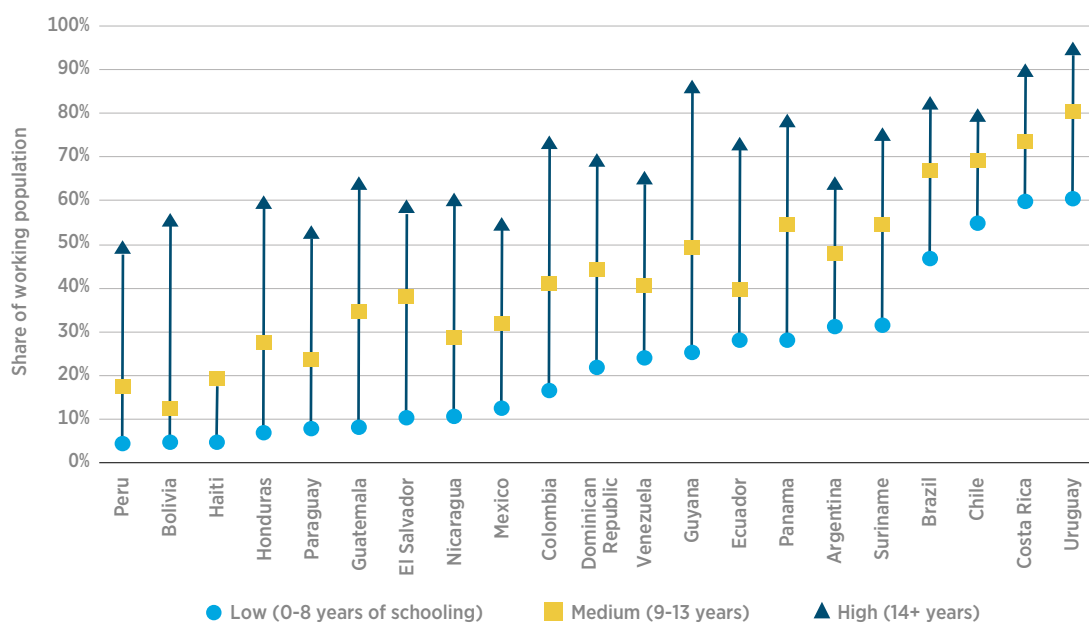


**Source:** Authors' calculations based on Inter-American Development Bank's Harmonized Household Surveys.

**Note:** The regional value is computed as an unweighted average.

**Equity in pension spending remains a challenge, particularly in generous defined-benefit systems.** Contributory pension systems have well-known features that lead to regressive spending. For instance, it is well understood that in every country in the region workers with less education spend less time working formal jobs (and therefore contributing to pensions) than highly educated workers (Figure 3.7). This feature of the labor market, combined with relatively long vesting periods (i.e. the number of years of contributions needed to qualify for benefits), leave many workers without a contributory pension, despite having contributed at least some years to the formal system. Furthermore, in defined-benefit systems, benefits calculated based on the last few years of salary tend to benefit high-income workers with steeper wage paths. This implies large subsidies for the few individuals who manage to obtain a contributory pension. Altamirano et al. (2018) estimates that those subsidies amount to an average of 75,000 USD per person at present value upon retirement, and can reach 300,000 USD in some countries. These subsidies will tend to accrue to high-income workers, although non-contributory pensions can at least partly offset this regressive feature of the pension systems.

**FIGURE 3.7** FORMAL EMPLOYMENT RATES (%), BY LEVEL OF EDUCATION, 2018



**Source:** Authors' elaboration based on data from the Inter-American Development Bank's Labor Markets and Social Security Information System.



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## 3.2 Healthcare

**As populations age, healthcare needs tend to increase, and the types of services needed shift from treatment of acute conditions to long-term prevention and management of chronic health conditions** (WHO, 2015). Rising rates of chronic health conditions, multi-morbidity, frailty, and loss of functional ability are all characteristic of aging societies, and healthcare systems need to adapt to them. The region has made major progress towards this change in approach, albeit to varying degrees in different countries. However, there is still much to be done.

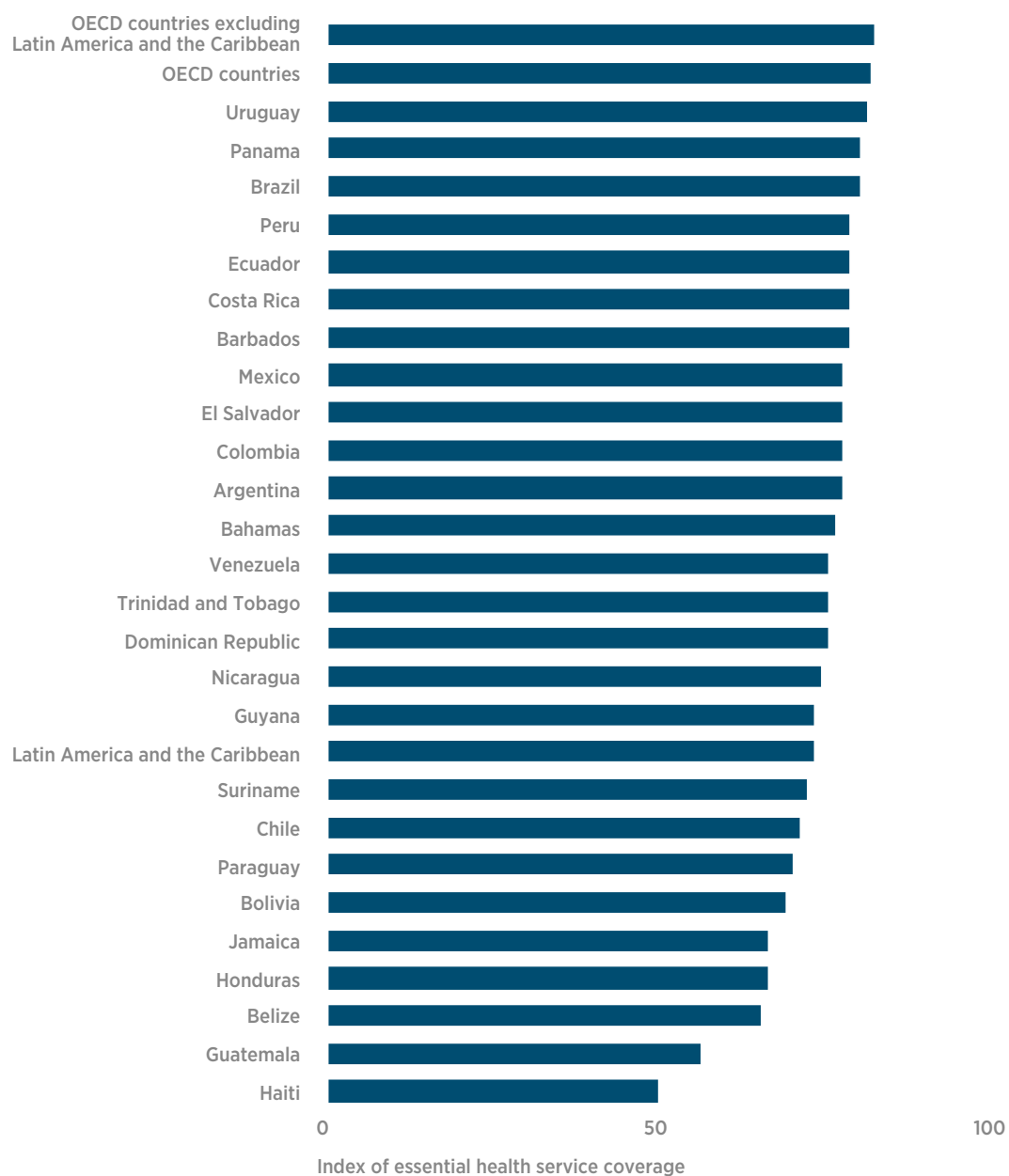
**In this section, we analyze both access to and quality of healthcare services in the region.** Wherever possible, we share evidence focused on older people, but in many cases age-specific data is limited. Population-based indicators are still useful because a person's health status is not built at a particular moment in time. Rather, it results from many factors and decisions over an entire lifetime. Therefore, the characteristics of the healthcare systems that people access during all stages of life, from childhood on, are important determinants of health during old age (Blas et al., 2010).

### 3.2.1 Healthcare access and coverage

**Most people in Latin America and the Caribbean have access to healthcare services,** as summarized in the World Health Organization Index of Essential Services Coverage. The index ranges from 0 to 100 and combines 14 indicators of service coverage, including services for maternal and child health, infectious diseases, and chronic health conditions, along with measures of access and capacity. Nineteen countries in the region score 70 or higher, with Uruguay, Panama, and Brazil scoring very close to the OECD average of 80. Only Guatemala and Haiti score under 60 (Figure 3.8).

**The region's relatively good performance is the result of years of efforts by countries to increase coverage and access.** One reason for the wave of healthcare reforms in the early 2000s was to address important coverage gaps caused by institutionally and financially fragmented systems (Atun et al., 2015). For example, in 2007 Uruguay implemented a reform that extended healthcare coverage to all contributory pension recipients (before the reform, coverage for this group was restricted to low-income sectors). In 2006, Bolivia created Health Insurance for Older Adults (SSPAM), which covers everyone over age 60 who has no other health insurance (Pavón-León et al., 2017). Since 2010, most reforms have been incremental, seeking to expand coverage or improve equity and quality through existing institutions rather than enacting significant new initiatives or making large policy shifts.

**FIGURE 3.8** UNIVERSAL HEALTH COVERAGE INDEX OF ESSENTIAL HEALTH SERVICE COVERAGE, 2017



Source: World Health Organization's. Universal Health Coverage Service Coverage Index 2017. Accessed in November 19, 2021.

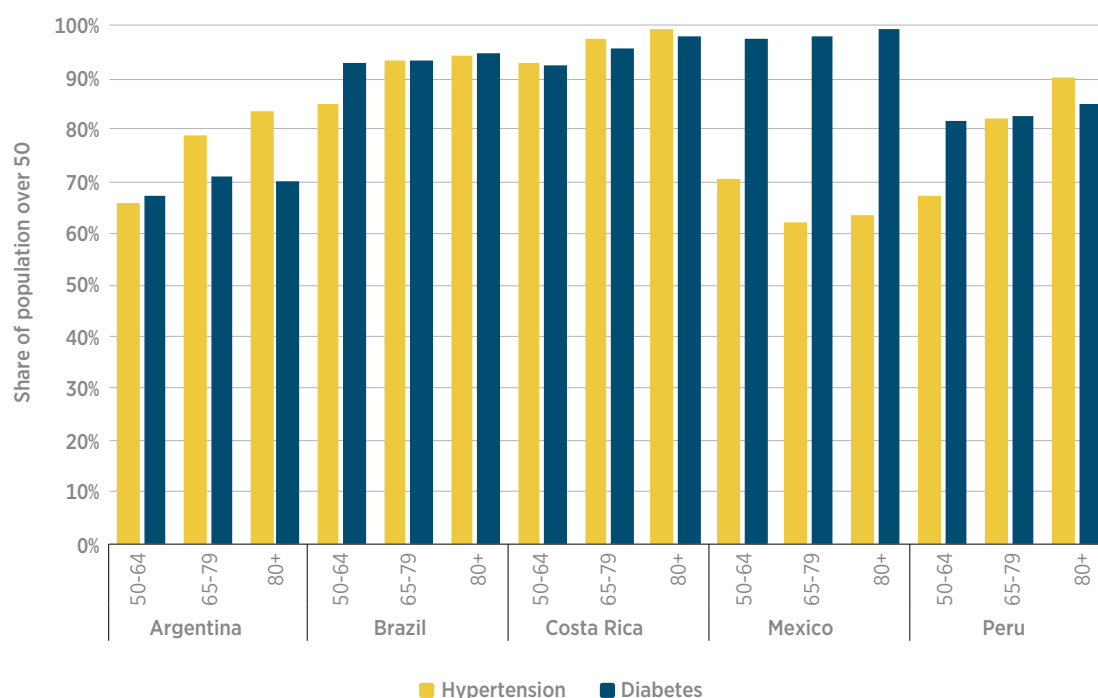
**Besides expanding coverage, many countries have moved to make healthcare more affordable for older people through free or subsidized consultations or medications.** The OECD (2019) finds that 15 out of 16 Latin American and Caribbean countries included in its analysis introduced special provisions to improve healthcare access for high-risk groups, including older people and people with chronic health conditions (Lorenzoni et al., 2019).

**According to available data, a relatively high share of people receive treatment once they have a diagnosis.** Data specifically on older people's access to care is scarce and only available for a few countries through household surveys. Among the five countries for which such data is available, Brazil and Costa Rica lead with respect to diagnosing and treating hypertension and diabetes among older people (Figure 3.9). In Argentina, access to care for hypertension is somewhat higher than for diabetes. In contrast, Mexico appears to provide good access to treatment for people with diabetes, but much lower rates for those with hypertension. In some cases, people at the higher end of the age distribution rank better than relatively younger people. This is the case, for example, for the share receiving hypertension treatment in Argentina and Peru.

**Gender differences in access to treatment for hypertension and diabetes vary from country to country** (Annex 1.D, Table D.3). In Argentina, Brazil, and Costa Rica, there are no significant differences in treatment shares between men and women. However, in Peru, access to treatment for people aged 50–64 with diabetes and hypertension is at least 10 percentage points higher for women than for men. In Mexico, by contrast, men appear to have better access to treatment for hypertension.



**FIGURE 3.9** POPULATION OVER 50 WITH A DIAGNOSIS OF HYPERTENSION AND DIABETES RECEIVING TREATMENT (%), BY AGE, 2018



**Source:** Authors' calculations based on health surveys. Encuesta Nacional de Factores de Riesgo in Argentina (2018), Brazilian Longitudinal Study of Aging in Brazil (2016), Estudio Nacional sobre Discapacidad in Costa Rica (2018), Encuesta Nacional de Salud y Nutrición in México (2018), and Encuesta Demográfica y de Salud Familiar in Peru (2018).

**Notes:** Results should be interpreted with caution as the definition of accessibility to treatments varies between each condition and each country. Someone is considered to have access to treatment to control hypertension, diabetes, and cholesterol if they self-reported receiving treatment the week before the survey. We calculated percentages based on the total number of individuals in the age group who self-reported having hypertension or diabetes or had physical measurements indicating these conditions (see Annex 1.D for details).

**Despite progress, there is evidence that people in the region still face significant barriers to both formal coverage and effective access to healthcare services.** A recent regional analysis including Chile, Colombia, El Salvador, Guatemala, Mexico, Paraguay, Peru and Uruguay provides an up-to-date snapshot of this situation. Peru has the highest share of people facing access barriers, at 66%. Chile and Uruguay are positive exceptions, with only 7% and 5% of the population, respectively, reporting barriers in timely access to healthcare services (Báscolo, Houghton, and Del Riego, 2018).

**Coverage eligibility rules are the first layer in determining access to healthcare services.** Fragmented healthcare systems, where multiple subsystems with different funding sources co-exist, are still prevalent in the region (Dmytraczenko and Almeida, 2015). Only a few countries in the region have achieved nominal universal coverage (or affiliation), either through a unified public system (e.g., Brazil, Jamaica), through multiple programs that provide access to the services of a single national insurer (e.g., Costa Rica), or through multiple insurers in a regulated universal system (e.g., Chile, Colombia, Uruguay). In the rest of the region, eligibility is fragmented and primarily determined by employment or pension status.

**Fragmented healthcare services pose coverage and accessibility challenges.** Formal employees, government employees, and the military are usually eligible for their own services. The rest of the population either pays for private coverage or is covered by public services managed by a national ministry or by state and local governments. For older people, access can be limited to those with a formal pension or with enough personal wealth to pay out-of-pocket for services. Such divisions would not be problematic if quality of care were comparable across providers, continuity of care could be assured, and schemes for paying for care did not lead to impoverishment or inequities. However, countries with fragmented health systems generally face all these problems.

**Even in countries where nominal coverage is universal, actual access may be constrained.** Factors that impede timely access to care when needed, particularly among the poorest groups, include distance from healthcare facilities (particular in rural and remote areas), wait times, cultural barriers (such as lack of trust in physicians or language barriers), lack of medicines or staff, and inability to afford services or medicines (Báscolo, Houghton, and Del Riego, 2018). For example, cultural barriers are significant in Chile and Peru, as they prevent 24% and 18% of the population, respectively, from seeking medical assistance when needed. Availability of medicines and healthcare staff are significant barriers in El Salvador, affecting 20% of the population. These factors are even more limiting for older people. Survey data shows that almost 45% of people over age 80 in El Salvador report not having been able to get a medical consultation when needed due to inability to get an appointment, a lack of medical staff, or a lack of medicines at their healthcare institution.<sup>21</sup>

**Limited coverage and access leads to high out-of-pocket spending.** In well-functioning healthcare systems, out-of-pocket spending makes up a small share of healthcare costs and is mostly for elective or nonessential services. In poorly functioning healthcare systems, out-of-pocket spending is high, inequitable, and inefficient. It typically signals poor quality in government-funded healthcare services, leading people—both rich and poor—to seek private providers or to self-medicate. Data from 2017 shows that out-of-pocket expenditure was 33% of total health expenditure in Latin America and the Caribbean, compared to 22% in OECD countries (IDB, 2021a).

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21. Authors' calculation based on data from the Encuesta de Hogares de Propósitos Múltiples from El Salvador, 2018.



**This high level of out-of-pocket spending also prevents people from using healthcare services when needed.** In Guatemala, one of the lowest ranked countries in the World Health Organization's Universal Health Coverage index, 25.4% of the population cites economic barriers as a reason for not seeking medical care (Dansereau, 2019). Around 22% of older people in Mexico and 10% in Brazil report medical expenses that are higher than 25% of their yearly household income, the threshold for catastrophic expenditures (Macinko et al., 2020). High out-of-pocket spending also indicates systemic failure, as taxes or insurance contributions are unable to cover affordable, integrated healthcare that includes prevention and chronic disease management.

**These barriers disproportionately affect vulnerable groups, including older people, creating coverage and access inequalities within countries.** Limited mobility, vision, and hearing are more prevalent among older people, so their access can be hampered by infrastructure, transportation, and communication barriers. For example, about a third of people living with disabilities in Chile reported difficulties in accessing healthcare services, compared to only one-fifth of people without disabilities (SENADIS, 2016).

### 3.2.2 Quality of healthcare services

**The World Health Organization defines quality of care as the degree to which health services increase the likelihood of desired outcomes.** Healthcare services are considered good quality if they are timely, equitable, integrated, and efficient.<sup>22</sup> These characteristics should be present at all stages of care (prevention, acute, chronic, and palliative care) and are shaped by the system's design and organization, its inputs (such as professionals, technologies, medicines, or infrastructure), and the existence of standards, guidelines, and measurements, among other factors (OECD, 2017).

**Evidence from Latin America and the Caribbean shows that although most people can get access to healthcare services, quality of care is often poor and uneven, especially for managing chronic health conditions.** Poor-quality healthcare in the region has become a bigger problem than lack of access. Kruk et al. (2018a) estimate that nearly 70% of deaths that could have been avoided in the region were attributable to unskilled staff, inadequate surgical facilities, or improperly managed chronic health conditions, not lack of access. And although the likelihood that people with a treatable health condition can get access to the healthcare services they need and effectively recover has risen dramatically since 1990, quality of services for the most preventable and treatable causes of poor health remains unequal among countries.

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22. See World Health Organization, Health Topics, available at: [https://www.who.int/health-topics/quality-of-care#tab=tab\\_1](https://www.who.int/health-topics/quality-of-care#tab=tab_1)

**We assess healthcare quality using the Healthcare Access and Quality index developed by the Institute for Health Metrics and Evaluation.**<sup>23</sup> This summary indicator measures how much a country reduces amenable mortality<sup>24</sup> for 32 preventable or treatable conditions relative to the best-performing countries. Its value ranges from 0 to 100. It therefore reflects how well the health system performs in reaching the people who need access and providing good quality care in terms of impact.

**Quality of care varies significantly among countries.**<sup>25</sup> Chile and Costa Rica have the highest Health Quality and Access index scores, at 78 and 74, respectively (Figure 3.10). At the other end of the spectrum, Haiti and Bolivia have the lowest scores, at 32 and 49, respectively. Overall, Latin American and Caribbean countries have an average score of 62, which is well below the OECD average of 86, but somewhat higher than the global average of 54.

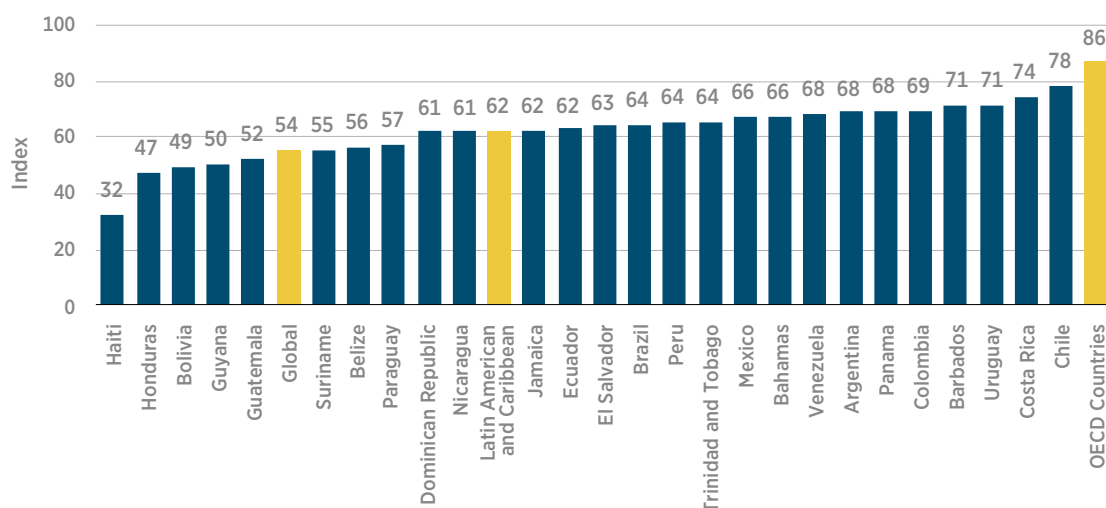
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23. The Healthcare Access and Quality index is a measure of effective personal healthcare access and quality calculated for 195 countries using Global Burden of Disease data. For the calculation, 32 conditions are selected based on Nolte and McKee's list of causes of death which can be prevented with good quality healthcare services ([GBD, 2016](#)).

24. Amenable mortality is death that can be avoided in the presence of high-quality personal healthcare services. To be considered amenable mortality, effective interventions must exist for the disease.

25. The Healthcare Access and Quality Index is a national average that depends on accurate cause-of-death reporting and good estimates of disease and health risk prevalence for a particular subset of conditions. Thus, like other indices, it is not without its flaws. Nevertheless, we chose to use it because other indices—such as those available from the World Bank and World Health Organization—rely on data for fewer conditions, most of which are related to child and maternal health. The Healthcare Access and Quality Index, with its inclusion of conditions like hypertension, diabetes, and neoplasms, is more appropriate for a report on aging. Researchers have demonstrated that the Healthcare Access and Quality Index is a robust measure by assessing its overall correlation with other factors known to be related to healthcare access and quality. However, readers should keep in mind that the index's accuracy varies from country to country and it requires corroborating information if it is to be used for country-specific analysis.

**FIGURE 3.10** HEALTHCARE ACCESS AND QUALITY INDEX, 2016



**Source:** Healthcare Access and Quality Index of the Institute for Health Metrics and Evaluation from the study Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016, accessed in December 2020.

**Note:** The OECD statistic does not include Latin American and Caribbean countries.

**Although these scores reflect a wide range of conditions and services, the main conclusions are the same if only the conditions most prevalent during old age are considered.** In fact, out of the

32 conditions the Healthcare Access and Quality Index measures, 11 are disproportionately found among older people.<sup>26</sup> Some, such as cerebrovascular disease, kidney and heart conditions, and lower respiratory infections, are highly prevalent among this group. Chile, Costa Rica, and Uruguay have the best healthcare quality for preventing and treating these 11 conditions in the region. Other countries like Haiti, Honduras, and Guyana perform poorly for all the conditions that are most prevalent among older populations, especially cerebrovascular and hypertensive heart conditions. For some conditions, like chronic kidney disease, healthcare access and quality are very low in all

26. The Healthcare Access and Quality index is composed of 32 conditions. If we split the population at age 50, we can calculate the ratio of disability-adjusted life years from each condition for people under and over this age threshold. This calculation identifies 11 conditions as disproportionately common among older people: cerebrovascular disease; chronic respiratory conditions; diabetes mellitus; epilepsy; gallbladder and biliary conditions; hypertensive heart disease; inguinal, femoral, and abdominal hernia; ischemic heart condition; lower respiratory infections; non-melanoma skin cancer; and peptic ulcer conditions.

countries except Uruguay and Chile. By contrast, access and quality for epilepsy treatment is relatively high in all countries.

**Low healthcare quality is mainly due to inadequate physical and human resources and poor infrastructure, as well as organizational limitations and the absence of strong mechanisms to integrate care throughout the different stages of a person's life cycle.** Although the number of medical professionals and healthcare facilities in the region has increased far more rapidly than the population in the last 50 years (Savedoff, 2008), a recent OECD/World Bank (2020) report shows that the average Latin American or Caribbean country has considerably fewer physical and human resources than the average OECD country, according to all available data. For instance, there are 8.8 nurses per 1,000 people in the OECD, but only 2.2 in Latin American and Caribbean countries. For doctors, the figures are 3.5 in the OECD and 2.0 in Latin American and Caribbean countries. The supply of geriatricians and gerontologists is also very limited. A recent survey covering 16 countries in the region found that only 35% of the 308 participating medical schools have an undergraduate geriatric program and that there are only 36 graduate programs, located in 12 countries (López and Reyes-Ortiz, 2015). Projections show that by 2040, demand for doctors and nurses in the region will increase by a factor of 1.4 and 1.6, respectively, largely as a result of population aging (Robles et al., 2019).

**The situation is even more critical for older people, as healthcare systems have only recently started to adapt to the new epidemiological profile caused by population aging.** This new profile entails more prevalent chronic health conditions, cognitive problems, and multi-morbidity. A key to managing this new epidemiological profile is an integrated, person- and community-centered approach that strengthens primary care and its links to secondary and tertiary care (WHO, 2015). Countries also need human resources with the appropriate mix of skills and training to meet the needs of an older population (WHO, 2015).

**In the region, 14 of 26 countries have multi-sector policies, strategies, or programs to address the higher prevalence of chronic health conditions with an integrated approach,** according to the World Health Organization's Global Health Observatory.<sup>27</sup> Interestingly, the three countries that score the lowest on the Healthcare Access and Quality Index—Haiti, Honduras, and Bolivia—do not have such a strategy in place, while the best performers—including Barbados, Uruguay, Costa Rica, and Chile—do (see Figure 3.10).

**Despite some progress, the most common conditions among older people in the region—hypertension, diabetes, and musculoskeletal disorders—are not treated adequately.** For instance, a recent survey in Argentina, Brazil, Chile, Colombia, Mexico, and Uruguay shows that a large share

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27. See <https://www.who.int/data/gho/data/indicators/indicator-details/GHO/existence-of-an-operational-multisectoral-national-ncd-policy-strategy-or-action-plan-that-integrates-several-ncds-and-their-risk-factors>, last accessed January, 6th, 2021.

of people with chronic health conditions receiving primary and secondary care are unsatisfied with the integration and continuity of care across the two levels (Ollé-Espluga et al., 2022). The exceptions seem to be Uruguay and, to a lesser extent, Argentina (Ollé-Espluga et al., 2022). This lack of continuity can lead to suboptimal health outcomes, as in the case of diabetes in Mexico (Dobova et al., 2020).

**Lack of access and high costs also keep patients from following the correct treatment, even when it is prescribed.** For example, in a small survey in Peru, only 71% of patients with hypertension obtained the medications they needed to control their condition (Tenorio Mucha, 2019). Inadequate access and poor quality of care lead not only to inadequate treatment, but also to underdiagnosis. Recent data shows that around 40% of people with hypertension in Argentina, Brazil, Chile, Colombia, and Mexico go undiagnosed.<sup>28</sup> Estimates for Uruguay show that around 50% of people aged 25 to 64 with diabetes are either unaware of their condition or—when aware—not being treated for it (Ministerio de Salud Pública Uruguay, 2013).



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28. See <https://www.savallnet.com.py/mundo-medico/noticias/promueven-control-de-presion-arterial.html>

### 3.3 Long-term care

**Most people experiencing functional dependence will need long-term care to help them perform common daily activities.** This care is provided, with or without payment, by family, the government, the market, or communities. Although the private sector supplies the majority of long-term care services, governments play a fundamental role in setting up the sector's institutional framework and implementing financing schemes that guarantee access for vulnerable people. In a well-functioning system, governments are also responsible for establishing and monitoring quality standards for service providers, ensuring their compliance, and guaranteeing the quality of the sector's human resources (Cafagna et al., 2019).

**The need for long-term care has only recently gained prominence in the region's political agenda.** Although the primary objective of long-term care is to enhance older people's quality of life, the policy agenda has been strongly supported by movements that aim to reduce gender inequalities by recognizing, reducing, and redistributing care duties that fall mostly to women within families.<sup>29</sup> Several countries have care systems designed for four groups: young children, people experiencing functional dependence, people with disabilities, and people who provide care.

**At the moment, Uruguay is the only country in the region with a national-level long-term care system.** The *Sistema Nacional Integrado de Cuidados* (SNIC) was launched in 2015. However, as described later in this section, its coverage is still limited and it faces lingering institutional and quality-related challenges. In 2017, Chile launched *Chile Cuida*, a long-term care program that operates in 22 out of the countries' 346 municipalities. It did not achieve its original plan to gradually expand the program to the entire country by 2021 (Barraza, 2017). Very recently, Costa Rica approved a 10-year-plan to design and implement a national long-term care system, while countries like Argentina, Colombia, the Dominican Republic, Paraguay, Panama and Peru, are also discussing similar plans. In most countries long-term care services are provided by a myriad of institutions, usually in a fragmented and uncoordinated way. In this section, we assess the coverage and quality of existing long-term care services.

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29. In the words of American philosopher Carol Gilligan, "Within a patriarchal framework, care is a feminine ethic. Within a democratic framework, care is a human ethic" (<https://archive.chs.harvard.edu/CHS/article/display/4025>).

### 3.3.1 Coverage of long-term care services

**Public long-term care services in the region are characterized by low levels of coverage.** We define coverage as the ratio between the number of people over age 65 who receive publicly funded long-term care services and the number of people in the same age group living in a situation of care dependence.

The way we calculate the coverage rate of long-term care services has certain limitations. We estimated the denominator based on the prevalence rates presented in Section 2.5. Quantitative data on the number of people receiving long-term care is only available in a small number of countries. Also, in most cases (except Uruguay), this data is not disaggregated by level of care dependence. Therefore, although the denominator of our ratio is the number of older people experiencing functional dependence, the number of beneficiaries in the numerator may include some younger people and/or people with no functional dependence.<sup>30</sup> Consequently, our analysis somewhat overestimates coverage (and represents an upper bound of the real value).

**Argentina and Costa Rica stand out as having the highest coverage in the region. In these two countries, an estimated 20% of older people with functional dependence receive publicly funded long-term care services.**<sup>31</sup> In Costa Rica, the government subsidizes 144 non-governmental organizations that provide home care, day care, and residential services to 18,000 older people experiencing functional dependence (Medellin et al., 2019, Jara-Maleš and Chaverri-Carbajal, 2020). Argentina shows high coverage rates in large part because it delivers a cash subsidy to older people experiencing care dependence so they can hire a caregiver. It provides the subsidy to about 130,000 people, or almost 40% of adults over age 65 who are experiencing care dependence. The subsidy covers about half the cost of full-time service (Oliveri, 2020). Since 2013, beneficiaries are not required to submit a receipt proving the money has been used to hire a caregiver. Instead, a social worker visits the house of the older person who needs long-term care and support (usually once a year) to verify the service (Oliveri, 2020). Because of this imperfect verification, in our estimates, we assume that half the beneficiaries may be using the benefit for purposes other than those intended by the program, so coverage is 20%. Even after this adjustment, Argentina still has one of the region's highest levels of coverage. The country also provides direct services like residential and day care, but coverage is much more limited (Oliveri, 2020).

**Next in the ranking is Barbados, where approximately 15% of older people experiencing functional dependence receive at least one public-sector service.** The government runs a home care program that provides long-term care services. In 2015 this program covered 1,000 beneficiaries

30. Another limitation of our coverage estimates is that data on the number of older people receiving services (numerator) and data on the number of older persons with care dependence (denominator) may refer to different years since the sources are different. However, the years are close, so this error is likely to be negligible.

31. Authors' calculations based on information from Oliveri (2020) and Medellin et al. (2019).



(ECLAC, 2017). The country also has other long-term care services, like rehabilitation centers and geriatric hospitals for older people who need long-term care and support, but there is no information on how many people these services benefit (ECLAC, 2017). According to responses by country stakeholders in a survey conducted for this report (See Annex 1.E for details), coverage levels are also relatively high in The Bahamas, although we found no data on the number of beneficiaries.

**Uruguay, Chile and Ecuador are next, with coverage at 11%, 7% and 6%, respectively.**<sup>32</sup> There is no information available for the remaining countries. We assume very low coverage in all countries without data, as this is the most common situation in the region. We assume that lack of data reflects incipient services and institutions.

**In Uruguay, the government provides a combination of residential, day care, home care and telecare services to about 4,200 individuals.** As part of the national long-term care system, it subsidizes the hiring of home care assistants for about 2,200 people over age 80, and a teleassistance service for about 1,300 people over age 70 (SNIC, 2020). It also provides free day care services to about 100 individuals and runs a number of residential facilities and a geriatric hospital that offer long-term care services to almost 600 older people (Aranco and Sorio, 2019). Assuming all these services benefit people over 65 with difficulties performing at least one basic activity of daily living, coverage is 11%.

**Chile also offers a combination of residential, day care, and home care services to about 21,000 individuals.** Together, the services of Chile Cuida cover 1,800 people of all ages; there is no data of users broken down by age. An innovation in the region, *Chile Cuida* municipalities also offer a series of additional tailored services that include transportation, meals-on-wheels and physiotherapy. In the municipalities that are not part of *Chile Cuida*, more than 19,000 older people receive long-term care services offered by both the Ministry of Health and the Ministry of Social Development (Molina et al., 2020).

**There is a recent trend toward home care, in response to older people's worldwide preference for aging in place in their own homes and communities** (Aranco and Ibarrarán, 2020). Residential services remain important for persons who, in addition to having severe functional dependence, also have multiple chronic health conditions and lack the family and community support that can complement government-provided long-term care. Day care centers and telecare are important complements to home care services (Benedetti, Acuña, and Fabiani, 2022). As described above, the mix of services provided varies greatly from country to country.

**While in some cases the government provides long-term care services directly, in others it offers financial support, either to the individuals or private service providers.** Cash transfers to

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32. Authors' calculations based on information from Aranco and Sorio (2019), Forttes (2020), and Molina et al. (2020).

individuals experiencing functional dependence are only included in the calculation of coverage levels when they are linked to the purchase of long-term care services and there are mechanisms to verify that this requirement is met.

**In many countries, local or national governments transfer funds to non-profit organizations so they can provide long-term care services.** In Uruguay, for instance, the government subsidizes residential long-term care services for 600 vulnerable older people (an estimated 1% of care-dependent people over age 65) provided by non-profit long-term care institutions. In Chile, residential long-term care is also co-financed by the state, but non-profits actually provide the care. Additionally, residential long-term care facilities administered by non-profit organizations can apply for public funding by submitting a care plan for residents for approval (Molina et al., 2020). Almost 6,000 people (an estimated 13% of those over 65 who require long-term care and support) receive services subsidized in this way (Cunil-Grau and Leyton, 2018).

**Eligibility is typically based on age and the assessed severity of functional dependence.** In most cases, individual or household income level is also considered in conjunction with these criteria. The age threshold for access to public long-term care services is usually 60 or 65. Experts consider it good practice to focus on the level of functional dependence rather than age when determining eligibility. This is Chile's approach, and Costa Rica and Colombia plan to follow suit. In Uruguay, access is currently restricted by age as well as dependence level: people under age 30 or over age 80 are eligible for home care services; people over age 65 are eligible for day care services, while people over 70 can have access to teleassistance services.

**To assess level of care dependence, so far only Uruguay has a unified, formal, nationwide evaluation mechanism.** The type of services available to each individual varies based on the evaluation's results: home services are available to people with severe functional dependence, while people with mild and moderate functional dependence can access day care or teleassistance services. Chile applies a single evaluation mechanism in the 22 municipalities where Chile Cuida operates. In other countries, guidelines tend to be applied with some variability, if they exist at all. It is also common to see different institutions using different evaluation criteria. For example, in Costa Rica, institutions in the social and health sectors use different assessment methods.<sup>33</sup>

**Public long-term care services in the region are mostly focused on the socioeconomically vulnerable population.** An exception is Uruguay, where access is universal and household income is used to set the copayment. However, even in this case, almost 90% of users are from low-income households and are therefore exempt from copayments (Aranco and Sorio, 2019).

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33. For a discussion of care need assessment mechanisms, see Oliveira, Moncada and Terra (2022).

### *The role of private care: out-of-pocket services and non-governmental institutions*

**In addition to the services provided or funded by the government, part of the population often pays for long-term care services out of pocket. Information on the coverage and cost of these services is scarce.** Where available, it shows high costs compared to the average older person's income. For example, in Uruguay, data for 2015 shows that the monthly cost of a residential care setting that meets basic quality standards is higher than the average contributory pension (Aranco and Sorio, 2019). In Mexico, less than 9% of older people can afford high-quality residential care (López-Ortega and Aranco, 2019).

**In many countries, non-profit institutions play an important role in delivering long-term care services, particularly for socioeconomically vulnerable people.** Data on the coverage of these services, while scarce, points to their importance. For example, in Bogotá, Colombia, more than 30% of long-term care residential settings are not-for-profit (data from 2013; Flórez, Martínez, and Aranco, 2019). In Mexico, the figure is 20% (data from 2015; López-Ortega and Aranco, 2019). In Uruguay, 7% of residential care facilities are run by non-governmental institutions, and they house 15% of residential service users (data from 2015; Aranco and Sorio, 2019). Some of these institutions receive subsidies from the government; this is the case in Chile, Costa Rica, Ecuador, and Uruguay (Aranco and Sorio, 2019, Forttes, 2020, Medellín et al., 2019, Molina et al., 2020)

**Due to the low coverage of services that are either publicly funded or provided by non-profit organizations, as well as most older people's limited capacity to pay for services out of pocket, the bulk of long-term care falls to families, particularly women in families.** Stampini et al. (2020) show that women with long-term care responsibilities end up reducing both their labor market participation and number of hours worked (when they do remain employed). In many cases, they end up with a double burden of work, combining care and paid work, to the detriment of their physical and emotional health. This situation is not socially sustainable, particularly in a context of increased female labor participation and reduced family size. We discuss the implications of this trend in greater detail in Section 4.3.

### 3.3.2 Quality of long-term care services

**Although most long-term care services are provided by the private sector, in a well-functioning system, the public sector has the responsibility to regulate and oversee the quality of those services.** This includes authorizing, regulating, and supervising service providers, as well as implementing strategies to train and certify human resources (Cafagna et al., 2019). Overall, guaranteeing the quality of long-term care services remains a challenge for countries in the region.

**Data on the quality of long-term care services in the region is scarce and incomplete.** Our assessment relies on analysis of existing literature, public information about programs, and 36 interviews with stakeholders from 12 countries for this report. Interviewees were representatives from the government, civil society, and the gerontology sector. Annex 1.E provides details on the characteristics of the respondents, the countries covered, and the criteria used to cross-validate responses.

**We use six basic criteria that are necessary, and a proxy for, long-term care service quality.** Three focus on residential care services: (i) the country has set national quality standards for residential long-term care services; (ii) a large proportion of facilities have official authorization (a proxy for compliance with quality standards); and (iii) the country has a national registry of long-term care facilities. One criterion focuses on home care services: (iv) there are quality control mechanisms for home care services. The remaining two criteria apply to both residential and home care, as they pertain to the quality of the human resources that work in the sector: (v) the country has set training requirements for caregivers; and (vi) a high proportion of care workers are formally employed. Table 3.1 shows the level of compliance, by country, for each of these criteria. As discussed below, most countries with available data fall short on most quality criteria, with the exception of quality standards for residential care settings.

**Although it varies from country to country, the quality of long-term care services in the region is low.** Argentina, The Bahamas, Barbados, Chile, and Uruguay meet the highest number of conditions, at only three each. At the other extreme, Belize and the Dominican Republic meet none of the criteria.

**As discussed below, the residential care sector generally performs better on quality than the home care sector.** In fact, the relatively good performance of The Bahamas and Barbados is entirely attributable to the high quality of their residential long-term care. Only two countries (Argentina and Chile) have quality control mechanisms for home care services. This is a red flag, particularly since these services are becoming increasingly important globally. Another red flag is the low levels of training and formalization of the human resources working in the sector. Argentina, Chile, and Uruguay are the only countries with training and certification requirements, and these rules apply only to caregivers officially registered as part of the policy/system, which comprise a small share of the sector's labor force.

**TABLE 3.1** CRITERIA FOR LONG-TERM CARE SERVICE QUALITY

	Residential care			Home care	Both residential and home care	
	Quality standards for residential care settings	Share of facilities with official authorization	National registry of institutions	Quality control mechanisms for home care	Human resources training/certification requirements	Level of formalization of care workers
<b>Argentina</b>	Yes <sup>(a)</sup>	Low	No	Yes <sup>(b)</sup>	Yes <sup>(d)</sup>	Low
<b>The Bahamas</b>	Yes	High	Yes	No	No	Low
<b>Barbados</b>	Yes	High	Yes	No	No	Low
<b>Belize</b>	No	Low	No	No	No	Low
<b>Brazil</b>	Yes	Low	No	No	No	Low
<b>Chile</b>	Yes	Low	No	Yes <sup>(c)</sup>	Yes <sup>(d)</sup>	Low
<b>Colombia</b>	Yes	Low	No	No	No	Low
<b>Costa Rica</b>	Yes	Low	No	No	Yes <sup>(d)</sup>	Low
<b>Ecuador</b>	Yes	Low	No	No	No	Low
<b>Jamaica</b>	Yes	Low	No	No	No	Low
<b>Mexico</b>	No	Low	Yes	No	No	Low
<b>Peru</b>	Yes	Low	No	No	No	Low
<b>Dominican Republic</b>	No	Low	No	No	No	Low
<b>Uruguay</b>	Yes	Low	Yes	No	Yes <sup>(d)</sup>	Low

**Source:** Authors' calculations based on information from Aranco and Sorio (2019), Flórez, Martínez, and Aranco (2019), López-Ortega and Aranco (2019), Medellín et al. (2019), Molina et al. (2020), Oliveri (2020), Forttes (2020), Redondo (2021), and interviews with experts (See Annex 1.E for details).

**Notes:** (a) Quality standards are only in place for the residential care facilities of Argentina's National Institute of Social Services for Retirees and Pensioners (PAMI), which make up the largest share of facilities in the country. (b) Quality controls are carried out once a year and are based on how beneficiary wellbeing has changed since the previous evaluation. This applies only for caregivers hired with PAMI cash transfers. (c) Only for *Chile Cuida*. (d) Only for services provided in the context of a national policy.

**As shown in Table 3.1, most countries have quality standards for residential care services that set minimum requirements for infrastructure, staff ratios and staff training, but compliance is usually low due to weak oversight.** Consequently, a large share of long-term care institutions operates without legal authorization (except in Barbados and The Bahamas), raising doubts about the quality of the care they provide. In Uruguay, data from 2019 shows that only 2% of residential long-term care facilities operating in the country were legally authorized to do so, and an additional 10% were in the process of applying for authorization (Aranco and Sorio, 2019). We can only estimate this figure for Barbados, The Bahamas, Mexico, and Uruguay because none of the other countries have national service provider registries.

**It is even more complex to ensure the quality of home care services, which rarely have quality control mechanisms.** The fact that these services are provided in a private setting makes it difficult to oversee them and enforce quality standards. Even in countries where home care services are part of public-sector programs, quality standards are not commonly defined and providers are not often inspected. We were only able to find evidence of the existence and implementation of such mechanisms in Argentina and Chile. Argentina evaluates the wellbeing of PAMI home care subsidy beneficiaries once a year. Chile has guidelines for ensuring the quality of the service (which define the tasks that the caregiver is supposed to perform, the number of older people each worker can assist, and other aspects). Also, each beneficiary of the Chilean program receives an evaluation visit every 3 months and must complete a satisfaction survey twice per year (Molina et al., 2020). However, this supervision mechanism is only applied in the municipalities where *Chile Cuida* operates, so it covers just a fraction of the home care services provided in the country.

**Along with quality standards, human resource policies are another key determinant of quality of long-term care, as care workers are the backbone of good services.** Human resource policies include training, adequate compensation, access to social security, good working conditions, and career development opportunities (OECD, 2020b).

**Very few countries in the region (Argentina, Chile, and Uruguay) have mandatory training or certification requirements.** As a result, few care workers in either residential or home care settings have adequate training and skills. Research on Colombia, for example, shows that only 30% of staff in residential long-term care settings has received training (Flórez, Martínez, and Aranco, 2019). This figure is less than 3% in Mexico (Flórez, Martínez, and Aranco, 2019; López-Ortega and Aranco, 2019). The situation could be even worse for home care, as evidence shows that these workers are often recruited as domestic employees, and care responsibilities are seen as just another task among many. In Uruguay, for example, around 16% of domestic workers say they have to care for an older person experiencing care dependence as part of their everyday tasks.<sup>34</sup>

**Furthermore, even in countries that do have human resource training requirements, only a small share of the workforce meets them.** In Uruguay, for example, there is a long wait list to complete the official training required by the SNIC. Data from 2017 shows that out of 18,000 people who applied for the training program, only 1,000 were able to actually enroll. This situation meant that the initial plan of having all home care workers properly trained or certified by the system by 2017 had to be postponed more than once. In Argentina, Oliveri (2020) estimates that as little as 3% of caregivers have proper training.

**Formal employment among care workers is also very low.** Although data on this aspect is scarce, certain illustrative statistics do exist. For example, in Uruguay—which has one of the region’s high-

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34. Authors’ calculations based on data from Uruguay’s Encuesta Longitudinal de Protección Social (2013).

est rates of formal employment—data shows that in 2014, 44% of workers caring for people experiencing functional dependence were not contributing to the social protection system (Aranco and Sorio, 2019). One of the objectives of the national policy that the country put in place in 2015 was to increase the level of formal employment in the sector; however, the system’s small scale has made progress slow. In Mexico, data from 2021 shows that almost 80% of care and domestic workers are informal workers.<sup>35</sup>

**Finally, family care, the traditional caregiving arrangement in the region, is also characterized by low levels of training and specific knowledge.** Although not included in Table 3.1, a discussion of quality in the context of long-term care would not be complete without considering the role of family caregivers. Indeed, most care work falls to unpaid family members, who usually have little to no knowledge of best practices for caring for a person with functional dependence. Although support groups for family caregivers exist in most countries as part of non-profit associations (e.g., Alzheimer’s associations), only in Chile does the government offer basic training and support to family caregivers, as part of *Chile Cuida*.



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35. See <https://datamexico.org/es/profile/occupation/trabajadores-en-cuidados-personales-y-del-hogar#informalidad> , last accessed January 7, 2022.

## 3.4 Overall assessment of social protection in the region

**In this section, we synthesize the evidence on pensions, healthcare, and long-term care to assess the overall social protection for older people.** First, we explain how we convert the figures presented in Sections 3.1 to 3.3 into categorical ratings (very low, low, high, very high) for coverage and quality. We then present our methodology for constructing a social protection index. Finally, we discuss the results, highlighting the countries that have achieved the highest levels of protection.

### 3.4.1 Categorical ratings for coverage and quality

**Table 3.2 presents the measures of coverage and quality defined earlier in this section for each area of social protection.** For pensions, coverage is the percentage of people over 65 that receives a contributory or non-contributory benefit; quality is measured by the empirical replacement rate, i.e., the ratio between the average value of all pensions (including contributory and non-contributory) and the average salary of workers aged 50–64 (formal or informal). For healthcare, coverage is assessed using the Index of Essential Health Service Coverage (for all ages), while quality is measured using the Healthcare Access and Quality Index (for all ages). For long-term care, coverage is the ratio of the number of people over 65 who receive publicly funded long-term care services to the number of people in the same age group living in a situation of care dependence, while quality is measured by the number of quality criteria that each country's long-term care services meet.

**Each figure for coverage or quality is transformed into a qualitative rating (very low, low, high, very high) according to thresholds specific to each area (pension, healthcare, long-term care) and dimension (coverage and quality).** The selected thresholds, while arbitrary, take into account the level of development of each policy in the region, as well as international standards, rather than an ideal-world desideratum. For example, while coverage of under 75% is considered relatively low for pensions and healthcare, it is considered very high for long-term care. This reflects the limited development of long-term care services in Latin America and the Caribbean, as well as the fact that even in high-income countries, families continue to provide a large part of care.



Pensions are considered high quality if they provide an empirical replacement rate of 40% or more, while for healthcare, the threshold is a value of 75% or more in the Healthcare Access and Quality Index. In the case of long-term care, quality is assessed as high if at least 4 criteria (more than half) are met. Table 3.2 summarizes the classification criteria for each area and dimension.<sup>36</sup>

**TABLE 3.2 CLASSIFICATION CRITERIA FOR COVERAGE AND QUALITY INDICES FOR PENSIONS, HEALTHCARE, AND LONG-TERM CARE**

Social protection area	Dimension	Measure	Year	Source	Classification thresholds			
					Very low	Low	High	Very high
Pensions	Coverage	% of people aged 65+ that receive a pension (contributory or non-contributory)	2019	Household surveys	<50%	50%–75%	75%–90%	>90%
	Quality	Empirical replacement rate	2019	Household surveys	<20%	20%–40%	40%–60%	>60%
Healthcare	Coverage	Index of Essential Health Service Coverage (all ages)	2017	WHO	<50%	50%–75%	75%–90%	>90%
	Quality	Healthcare Access and Quality Index (all ages)	2016	IHME	<50%	50%–75%	75%–90%	>90%
Long-term care	Coverage	% of people aged 65+ with care dependence who receive publicly funded services	(b)	(b)	<5% (or n/a)	5%–15%	15%–30%	>30%
	Quality	Number of quality criteria met (a)	(b)	(b)	0-1 (or n/a)	2-3	4-5	6

**Source:** Prepared by the authors.

**Notes:** Household surveys refers to Inter-American Development Bank's Harmonized Household Surveys; WHO refers to World Health Organization, Universal Health Coverage Service Coverage Index 2017; IHME refers to authors' calculations based on the Healthcare Access and Quality Index of the Institute for Health Metrics and Evaluation from the study Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016, accessed December 2020. (a) Of the 6 criteria included in Table 3.1. (b) Year and source of information varies by country.

36. The use of thresholds to classify outcomes or policy development is common in the literature. For example, the Multidimensional Poverty Index developed by the United Nations classifies households as severely poor, poor, or vulnerable based on the number of deprivations they experience (out of a total of ten indicators that comprise three dimensions of poverty: health, education, and standards of living) (Oxford and United Nations, 2021). The rating scales and country scores of the World Bank's Country Policy and Institutional Assessments also use thresholds (World Bank, 2017). Similarly, the OECD Employment Protection Legislation assigns a value of 0 to 6 to rate the strictness of worker protection legislation (OECD, 2020a). We developed our index along the same lines.

### 3.4.2 Social protection index

**For each social protection area, we calculate a protection index that combines the coverage and quality ratings.** We assign a number to the following categories: 1 is very low, 2 low, 3 high, and 4 very high. We combine coverage (C) and quality (Q) using a geometric mean to produce the protection index (P). Although it is a simple method, several well-known indexes (such as the Human Development Index developed by the United Nations or the Universal Healthcare Coverage developed by the World Health Organization) use a geometric mean to aggregate dimensions because of the method's good properties. The geometric mean assumes some degree of substitutability and complementarity between the components of the index by penalizing very low levels in any of them.

For example, imagine a country with high coverage score (3) and a very-low quality score (1). The simple mean is 2, or low protection. In contrast, the geometric mean is 1.7, which is below the threshold for the low rating. This method was chosen because protection cannot be achieved effectively with either coverage without quality, or quality without coverage. Both dimensions are fundamental and synergistic.

The formula for the index is:

$$(2) \quad P_{i,j} = (C_{i,j} * Q_{i,j})^{\frac{1}{2}}, \text{ i=p, h, l}$$

where *i* represents pensions (p), healthcare (h), or long-term care (l), and *j* represents the countries in the region.  $P_{i,j}$  can take nine different values, which range from 1 (very low) to 4 (very high). Values up to 2 can be considered low; values of 3 and above are high; values between 2 and 3 can be interpreted as intermediate. Intermediate ratings may be due to high coverage with low quality, or low coverage with high quality.

**We then combine the three indexes (for pensions, healthcare, and long-term care) for an overall social protection index for the older population.** As the areas of social protection are also fundamental and synergistic, we use a geometric mean to calculate the social protection index, as follows:

$$(3) \quad SP_j = (P_{p,j} * P_{h,j} * P_{l,j})^{\frac{1}{3}}$$

**The index  $SP_j$  ranges from 1 to 4.** As with the P indexes, values up to 2 can be considered low, values of 3 and above are high, and values between 2 and 3 can be interpreted as intermediate.

### 3.4.3 Which countries have achieved the highest levels of social protection?

**Argentina, Uruguay, Costa Rica, and Chile have the highest levels of social protection in the region.** Pensions have the highest scores: 2.53 for coverage and 2.58 for quality. Next is healthcare, where coverage scores higher than quality (2.38 and 1.88, respectively). Long-term care scores much lower on both coverage (1.42) and quality (1.23) (Table 3.3).

**Brazil, Suriname, and Uruguay achieve high pension protection ( $P_p=3.46$ )—with very high coverage and high levels of quality—followed by Argentina ( $P_p=3.0$ ), where both coverage and quality are high.** Pension coverage is the only social protection dimension in which some countries in the region score very high. At the same time, pensions is also the only area in which some countries score higher on quality than on coverage. For example, El Salvador has very low coverage and very high quality. The situation is similar in Honduras and the Dominican Republic.<sup>37</sup>

**Argentina, Barbados, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama, Peru, El Salvador, and Uruguay achieve intermediate-level healthcare protection ( $P_h=2.45$ ), with high coverage hampered by low quality (except in Chile, where coverage is relatively low and quality relatively high).** No country in the region scores high on healthcare protection. In general, coverage is higher than quality in all countries, and only Chile achieves high quality. Most countries fall into the “low” category in both dimensions, with some countries in Central America and the Caribbean even performing below this threshold.

**Argentina, The Bahamas, Barbados, and Costa Rica achieve intermediate-level long-term care protection ( $P_l=2.45$ ), with high coverage and low quality.** As with healthcare, no country in the region scores high, due to the fact that quality is low (or very low) in all cases. Furthermore, 19 out of 26 countries score very low on both long-term care coverage and quality.

37. This index's scores only reflect the coverage and quality of social protection, not necessary to its overall fiscal sustainability (see Section 4 for a detailed discussion of this aspect). If systems are not sustainable, they will ultimately be forced to reduce either coverage or quality.

**TABLE 3.3** SOCIAL PROTECTION INDEX FOR OLDER PEOPLE IN LATIN AMERICAN AND CARIBBEAN COUNTRIES (LATEST YEAR AVAILABLE)

Country	Social protection index	Pension coverage	Categorical rating	Pension quality	Categorical rating	Pension index	Healthcare coverage	Categorical rating	Healthcare quality	Categorical rating	Healthcare index	Long-term care coverage	Categorical rating	Long-term care quality	Categorical rating	Long-term care index
Argentina	2.62	88.2%	3	44.7%	3	3.00	76	3	68	2	2.45	20%	3	3 <sup>(a)</sup>	2	2.45
The Bahamas							75	2	66	2	2.00	n.a <sup>(a)</sup>	3	3	2	2.45
Barbados							77	3	71	2	2.45	15% <sup>(a)</sup>	3	3 <sup>(a)</sup>	2	2.45
Belize							64	2	56	2	2.00	-0 <sup>(a)</sup>	1	0 <sup>(a)</sup>	1	1.00
Bolivia	1.41	98.3%	4	18.7%	1	2.00	68	2	49	1	1.41	n.a <sup>(b)</sup>	1	n.a	1	1.00
Brazil	2.04	92.3%	4	54.9%	3	3.46	79	3	64	2	2.45	-0 <sup>(a)</sup>	1	1 <sup>(a)</sup>	1	1.00
Chile	2.40	91.5%	4	28.4%	2	2.83	70	2	78	3	2.45	7%	2	3 <sup>(a)</sup>	2	2.00
Colombia	1.82	62.2%	2	53.4%	3	2.45	76	3	69	2	2.45	n.a <sup>(a)</sup>	1	1 <sup>(a)</sup>	1	1.00
Costa Rica	2.45	73.0%	2	54.0%	3	2.45	77	3	74	2	2.45	20%	3	2 <sup>(a)</sup>	2	2.45
Dominican Republic	1.51	35.9%	1	48.1%	3	1.73	74	2	61	2	2.00	-0 <sup>(a)</sup>	1	0 <sup>(a)</sup>	1	1.00
Ecuador	2.04	69.4%	2	50.1%	3	2.45	77	3	62	2	2.45	6%	2	1 <sup>(a)</sup>	1	1.41
Guatemala	1.41	18.7%	1	35.1%	2	1.41	55	2	52	2	2.00	n.a <sup>(b)</sup>	1	n.a	1	1.00
Guyana	1.59	91.6%	4	30.4%	2	2.83	72	2	50	1	1.41	n.a <sup>(b)</sup>	1	n.a	1	1.00
Haiti							49	1	32	1	1.00	n.a <sup>(b)</sup>	1	n.a	1	1.00
Honduras	1.35	11.2%	1	44.4%	3	1.73	65	2	47	1	1.41	n.a <sup>(b)</sup>	1	n.a	1	1.00
Jamaica							65	2	62	2	2.00	-0 <sup>(a)</sup>	1	1 <sup>(a)</sup>	1	1.00
Mexico	1.82	77.2%	3	33.4%	2	2.45	76	3	66	2	2.45	-0 <sup>(a)</sup>	1	1 <sup>(a)</sup>	1	1.00
Nicaragua	1.41	34.8%	1	38.3%	2	1.41	73	2	61	2	2.00	n.a <sup>(b)</sup>	1	n.a	1	1.00
Panama	1.82	83.6%	3	36.3%	2	2.45	79	3	68	2	2.45	n.a <sup>(b)</sup>	1	n.a	1	1.00
Peru	1.70	58.5%	2	21.2%	2	2.00	77	3	64	2	2.45	-0 <sup>(a)</sup>	1	1 <sup>(a)</sup>	1	1.00
Paraguay	1.70	55.9%	2	50.3%	3	2.45	69	2	57	2	2.00	n.a <sup>(b)</sup>	1	n.a	1	1.00
El Salvador	1.70	18.3%	1	64.0%	4	2.00	76	3	63	2	2.45	n.a <sup>(b)</sup>	1	n.a	1	1.00
Suriname	1.91	96.9%	4	43.0%	3	3.46	71	2	55	2	2.00	n.a <sup>(b)</sup>	1	n.a	1	1.00
Trinidad and Tobago							74	2	64	2	2.00	n.a <sup>(b)</sup>	1	n.a	1	1.00
Uruguay	2.57	90.7%	4	54.0%	3	3.46	80	3	71	2	2.45	11%	2	3 <sup>(a)</sup>	2	2.00
Venezuela							74	2	68	2	2.00	n.a <sup>(b)</sup>	1	n.a	1	1.00
Latin America and the Caribbean	1.86	65.7%	2.53	42.2%	2.58	2.42	71.8	2.38	61.5	1.88	2.10	5.36%	1.42	0.88	1.23	1.32

Source: Authors' calculations based on multiple sources (see annexes 1.C, 1.D, and 1.E for details).

Notes: Empty cells for pensions indicate lack of data. This lack of data also prevents the calculation of the overall social protection index. (a) based on qualitative information collected through a survey of long-term care policymakers and field experts (including public sector representatives, gerontologists, and representatives of associations of older people). (b) no data available: very low coverage/quality assumed.

## 3.5 Relationship between quality of life and social protection: policies matter

**There is ample and robust evidence that good policies for increasing the coverage and quality of pensions, healthcare, and long-term care improve older people's quality of life.** Pension systems have been shown to play an important role in alleviating poverty among older people in many countries in the region, through both contributory and non-contributory benefits (Galiani, Gertler, and Bando, 2016; Lustig, Pessino, and Scott, 2013; Gasparini et al., 2007). Gasparini et al. (2007) find that pensions reduce poverty rates among older people by approximately 40 percentage points in Brazil and Argentina, and by 20 percentage points in Chile and Uruguay. Pensions also have positive impacts on geriatric depression (Bando, Galiani, and Gertler., 2020, Galiani, Gertler, and Bando, 2016), and on older people's health status (Hessel et al., 2018).

**Strong and well-functioning healthcare systems also contribute to older people's quality of life by both improving their health status and reducing out-of-pocket medical expenses.** In a study on 22 Latin American countries, Pinto et al. (2018) estimate that improving healthcare systems' efficiency could increase life expectancy at birth by approximately three years. Evidence from Brazil, Colombia, and Costa Rica shows that strengthening primary care or integrating healthcare delivery improves health outcomes throughout the course of someone's life (Rosero-Bixby, 2004; Macinko, Harris, and Rocha, 2017; Alcaldía de Bogotá, 2019). Higher funding for public healthcare can lead to better outcomes by improving access to essential services, particularly among the most vulnerable (Bokhari et al., 2007; Moreno-Serra and Smith, 2015; Xu et al., 2018). Some evidence points to outsized effects of public funding on health outcomes among older people (Asiskovitch, 2010). Finally, funding for public healthcare decreases the probability of catastrophic medical expenses (Xu et al., 2018).

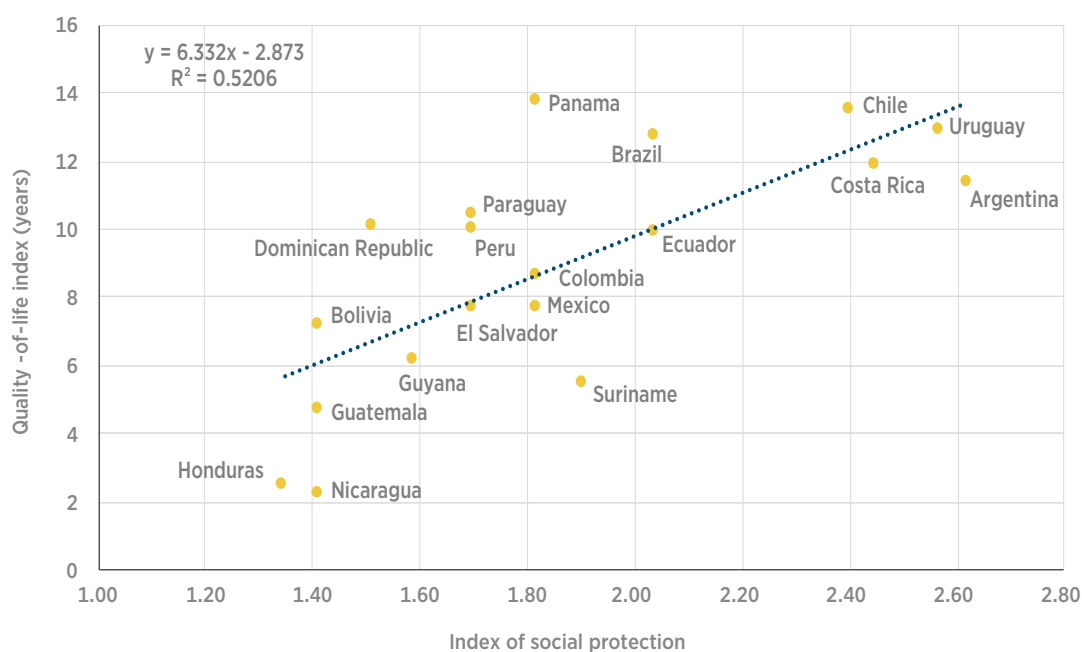
**Long-term care services improve older people's wellbeing and life satisfaction** (Aranco and Ibararán, 2019). Community-based long-term care was shown to significantly improve older people's quality of life in England (Forder, Gousia, and Saloniki, 2019). Services provided at day care centers in Chile, including physical and mental exercises, significantly improved physical and cognitive outcomes (Valenzuela et al., 2021). Barnay and Juin (2016) found that formal long-term care improves older people's mental health indicators. The provision of long-term care also positively impacts the quality of life of family caregivers, who are often older people themselves, with benefits for health, employment, and financial wellbeing (Van den Berg and Ferrer-I-Carbonell, 2007).

**Figure 3.11 presents the correlation between the quality-of-life index (introduced in Section 2.1) and the categorical social protection index (discussed in Section 3.4) in Latin American and Caribbean countries.** On average, countries that score higher on the social protection index have a higher poverty-free healthy life expectancy at age 65. This correlation is very much in line with the

findings of rigorous studies that show a causal effect of social protection on older people's quality of life. This provides a motivation for countries with lower levels of social protection to analyze the experience of countries with higher levels of protection and implement reforms to increase the wellbeing of their aging populations.

**Social protection reforms for an aging population must be customized to the specific characteristics of each country and preserve financial sustainability.** Financial sustainability is key to ensuring that the benefits of social protection reforms extend to the next generation of older people, a challenge we analyze in Section 4. Additionally, each country will need to implement a different set of reforms based on the characteristics of its older population (e.g., asset accumulation, health status, functional dependence) and its current social protection arrangements, something we discuss at length in Section 5.

**FIGURE 3.11** CORRELATION BETWEEN OLDER PEOPLE'S QUALITY OF LIFE AND SOCIAL PROTECTION, 2019



**Sources and Notes:** For the countries included and details of the quality-of-life calculation, see Figure 2.1. For the social protection index, see Table 3.3.





**AGING**  
IN LATIN AMERICA  
AND THE CARIBBEAN  
SOCIAL PROTECTION AND QUALITY  
OF LIFE OF OLDER PERSONS



# 4

## Population aging will strain the sustainability of social protection for older people

**Population aging will exert pressure on the fiscal and social sustainability of systems designed to protect older people.** Sustainability is countries' capacity to both finance transfers and services for older people (fiscal sustainability) as well as to provide services that reduce pressure on families and communities (social sustainability). Higher numbers of older people will dramatically and almost automatically increase pension expenditure. The trend will also increase demand for healthcare and long-term care services, but in these cases the impact on expenditure can be reduced by improving efficiency and adjusting levels of service.

**Together with demographics, economic growth and technological change will play a key role in determining future healthcare expenditure.** Economic growth has been consistently associated with greater health expenditure for a variety of reasons, including increased demand for healthcare services and upward pressure on medical input prices and professional salaries. New technologies—ranging from novel medical procedures to diagnostic tests, drugs, vaccines, and prosthetics—have also been associated with rising healthcare expenditure, even though some may be cost-saving. Many of these technologies improve the quality of healthcare services and a person's quality of life. Some can reduce costs by replacing more expensive technologies (e.g., laparoscopic surgery is cheaper and less risky in many cases than more invasive surgical techniques) or by preventing the need for costly treatments (e.g., managing diabetes can eliminate the need for amputation and prosthetics). However, empirical studies show that, overall, new medical technologies lead to higher health expenditures because they tend to be cost-increasing or lead to increases in utilization.

**Furthermore, high informal employment rates in the region have been a structural impediment to funding social insurance systems through employer-employee contributions.** Technological trends like the rapid expansion of the platform-based economy could prolong this trend. Atypical employment (including in the gig economy) threatens formal employment rates, compromising social protection funding schemes based on employer and employee contributions. Platform-based technologies, like Uber or Rappi, are reshaping the employer-employee relationship, and labor regulations should evolve accordingly. The share of employment in these platforms in Latin America



and the Caribbean is still low but is expected to grow rapidly. The region experienced an 875% increase in downloads from on-demand platforms from 2015 (3,006 downloads per 1,000 inhabitants) to 2019 (29,322 downloads) (SensorTower, 2020). If social insurance systems do not adapt their design and funding to this reality, coverage could further erode.

**The COVID-19 pandemic has led to serious fiscal constraints throughout the region.** Countries in Latin America and the Caribbean have less room to invest in healthcare and long-term care in response to population aging. Older people are likely to suffer disproportionately from tighter budgets for the provision of care. This will make improving the efficiency of social protection an absolute priority.

**In this section, we discuss the forces affecting the fiscal and social sustainability of pensions, healthcare, and long-term care.** We conclude by benchmarking current expenditure relative to countries outside the region and with a projection of overall social protection expenditure until 2050.

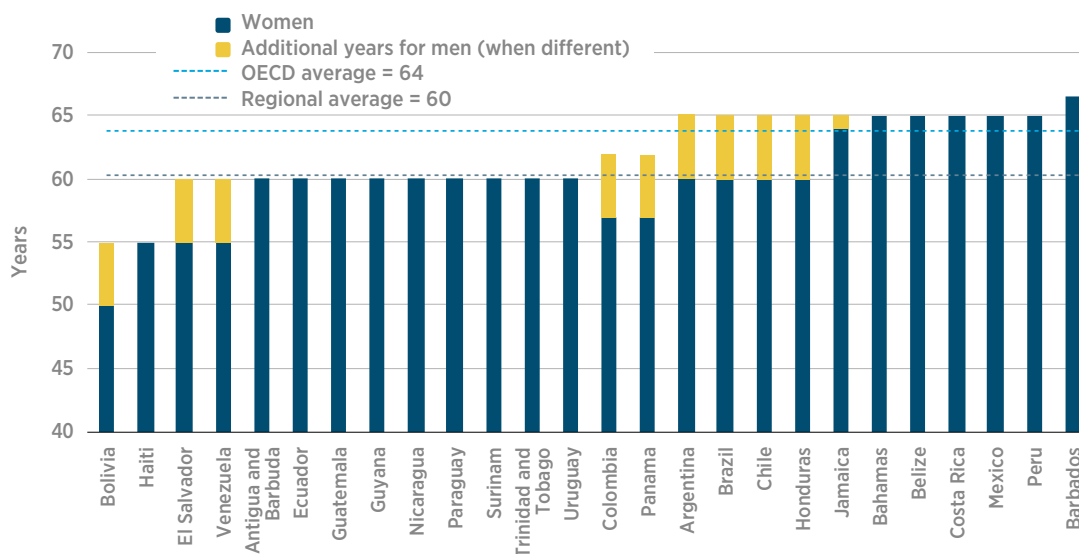


## 4.1 Sustainability of pensions: the underlying pressures

**How pension systems adapt to demographic changes is related to how benefits are determined and funded.** In Latin America and the Caribbean, most countries have a defined-benefit system, where pensions are determined by a pre-established formula and normally financed through worker and employer contributions and, in some cases, general tax revenue. Furthermore, most countries have developed non-contributory pensions funded with general tax revenue. If no changes are made, and for a given coverage and pension level, defined-benefit systems and non-contributory pensions will see increased pension spending and absorb a higher share of GDP as the number of older people increases. On the other hand, countries with defined-contribution systems, where pensions are the result of the capital accumulated in an individual account, will see the value of pensions decrease over time as longer life expectancy extends the number of years people spend in retirement.

**Traditional, publicly managed, defined-benefit systems are generous by international standards and lead to large fiscal imbalances. If no changes are made to these systems, expenditure will rise.** As seen in Section 3.1, the average pension promised in Latin America and the Caribbean relative to the last wage (replacement rate) is 65%, compared to 49% in the OECD (OECD, 2019) (Box 3.3). Furthermore, the average minimum retirement age in the region is 60, as opposed to 64 in the OECD (Figure 4.1). Despite promising more generous benefits, these systems have an average contribution rate of 11.4% of wages, compared to 18.4% in the OECD (Figure 4.2). If the parameters and the share of adults qualifying for pensions stay the same, changes in pension expenditure will be entirely a product of population shifts. This means expenditure as a share of GDP will grow to two or three times current levels. Given labor market and demographic trends, revenues from contributory systems are likely to remain stable over the next decades.

**FIGURE 4.1** LEGAL MINIMUM RETIREMENT AGES FOR PUBLIC SOCIAL SECURITY SYSTEMS, 2019



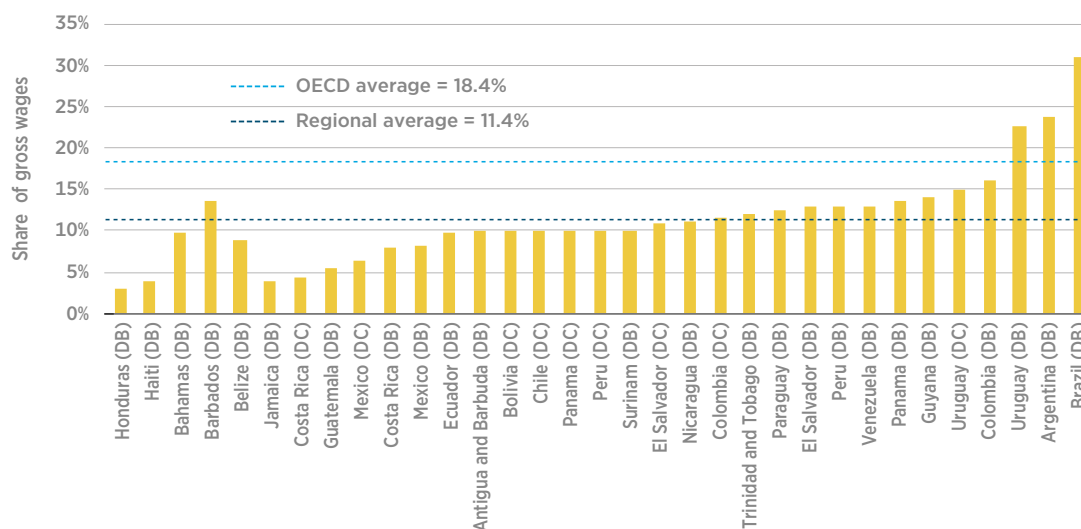
**Sources:** Social Security Administration, Social Security Programs Throughout the World: The Americas, 2019; Pensions at a Glance 2019. Altamirano et al., 2018.

**Notes:** These statistics reflect people retiring in 2019. OECD average excludes Latin American and Caribbean countries.

**Similar forces are at play for non-contributory benefits.** If countries aim to maintain similar commitments in terms of coverage and level of benefits relative to GDP per capita, spending on non-contributory pensions will rise along with population aging. If benefits remain constant as a proportion of GDP per capita, spending on non-contributory benefits (as a share of GDP) will closely track growth in the share of the population that is over 65 (Bosch, Melguizo, and Pages, 2013). As Figure 1.1 shows, the relative size of this demographic group will double from 2020 to 2050, and so will spending on non-contributory pensions as a percentage of GDP.

**Additional pressures will develop in defined-contribution systems.** Unlike defined-benefit schemes, defined contribution plans will adjust to population aging by decreasing the value of pensions. Assuming a constant retirement age, an increase in longevity will reduce the pension amount workers can fund directly from their individual accounts. Altamirano et al. (2018) estimate that the theoretical replacement rates of these systems will decrease on average from 39.8% in 2015 to 38.7% in 2050, and to 37.8% in 2100. This drop will be more pronounced for high-income workers, who rely less on minimum pensions. For instance, for workers earning 3 times the minimum wage, replacement rates will fall from 26% in 2015 to 21% in 2100. Fiscal pressures will also emerge. The existence of minimum pensions funded with general tax revenue could entail increasing fiscal costs as countries age, pensions are reduced, and a higher proportion of workers qualify for minimum pensions (Cont and Pessino, 2022).

**FIGURE 4.2** MANDATORY PENSION CONTRIBUTION RATES FOR THE AVERAGE WORKER  
(% OF GROSS WAGES)



**Sources:** Social Security Administration, Social Security Programs Throughout the World: The Americas, 2019; Pensions at a Glance 2019. Altamirano et al., 2018.

**Notes:** DC stands for defined-contribution systems; DB for defined-benefit systems. These statistics are for active formal employees in 2018. In defined-contribution systems, the contribution rate reflects capitalizable contributions. In most cases, these rates also fund disability/invalidity and survivor's pensions.



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## 4.2 Healthcare sustainability

**The sustainability of healthcare services can be increased mainly by improving population health and achieving greater (financial, managerial, and technical) efficiency.** Quality universal health coverage comes at a cost. For example, public and private health spending is 9.5% of GDP in the OECD (excluding Latin American and Caribbean countries) (OECD, 2021),<sup>38</sup> which has substantially better access to quality healthcare than Latin America and the Caribbean where, by contrast, average public and private health expenditure is 7.4% of GDP (Rao et al., 2022).<sup>39</sup> But additional resources only make a difference to people's health if they are spent effectively and, in this regard, the region's health systems do not perform well. Unless money is spent well, funding can increase without generating substantial improvements in health (Pinto et al., 2018).

**Countries differ in both the amounts and the sources of their healthcare spending.** The public sector accounts for about half of all healthcare spending in the region, while 30% is out-of-pocket, and the remaining 20% is through private (for-profit or non-profit) insurers. By comparison, publicly financed healthcare accounts for more than 80% of spending in countries like Canada, South Korea, Japan, the United Kingdom, and most of Europe. High public involvement appears to be a necessary, though not a sufficient, condition for making healthcare services more efficient and implementing coherent national health coverage plans. Within Latin America and the Caribbean, high shares of public health spending can be found in countries as diverse as Bolivia (72% of total health expenditure), Colombia (77%), Suriname (75%), Costa Rica (74%), and Uruguay (72%). In other countries, government health spending represents a much smaller share of total health expenditure, accounting for only 35% in Guatemala and 13% in Haiti (Figure 4.3).

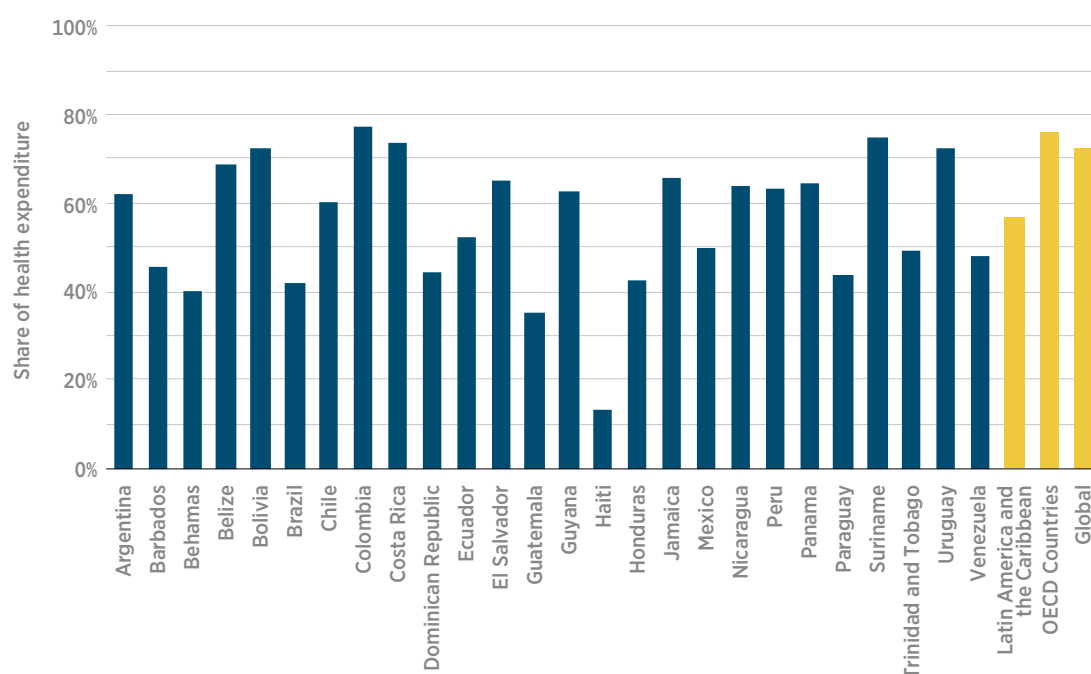
**Health spending per person increases with age, but a greater portion of overall health spending still goes to younger people.** Average health spending for people under 50 is 213 USD per person in Peru, compared to 532 USD at age 50–64, 1,185 USD at age 65–79, and 1,691 USD over age 80. This pattern repeats in other countries in the region (Figure 4.4) and is commonly observed in the broader literature (Karlsson, Iversen, and Øien, 2016). But because older groups are still less numerous, only 28% of all health spending is for people over age 65 in Mexico; 21% in Costa Rica and Trinidad and Tobago; 25% in Colombia; 28% in Brazil; and 31% in Peru. In OECD countries,

38. OECD countries do not include Latin American and Caribbean countries that are members of the OECD.

39. In this report, we have chosen to use total health expenditure (both public and private) as an indicator of fiscal sustainability to improve comparability and ensure macroeconomic relevance. Firstly, total health expenditure is more comparable across countries than public health spending due to significant variations in institutions that fund health. For example, legally required non-governmental health insurance expenditures, if regulated and integrated well, are indistinguishable from public government programs administered by private organizations and funded by mandated taxes (which are called “premiums”). Secondly, the private portion of total health expenditure effectively reduces the share of national income available for taxation (and therefore limits fiscal space). Countries with more efficient public health spending can drive down private health expenditures and expand their potential revenue base. By contrast, those with inefficient public health spending fail to provide the services demanded by citizens, who then resort to purchasing them through private insurers or from private providers. Thus, total health expenditure best captures the combination of direct public budgetary expenditures and inefficiencies that affect fiscal space.

per-capita spending is much higher for older groups, but the population of those countries is older. While the average share of all health spending dedicated to people over age 65 in Latin America and the Caribbean<sup>40</sup> is 27%, this percentage is 36% in the Czech Republic, 39% in Korea, and 38% in the Netherlands.<sup>41</sup>

**FIGURE 4.3** PUBLIC HEALTH SPENDING AS A SHARE OF TOTAL HEALTH EXPENDITURE, 2018 (%)



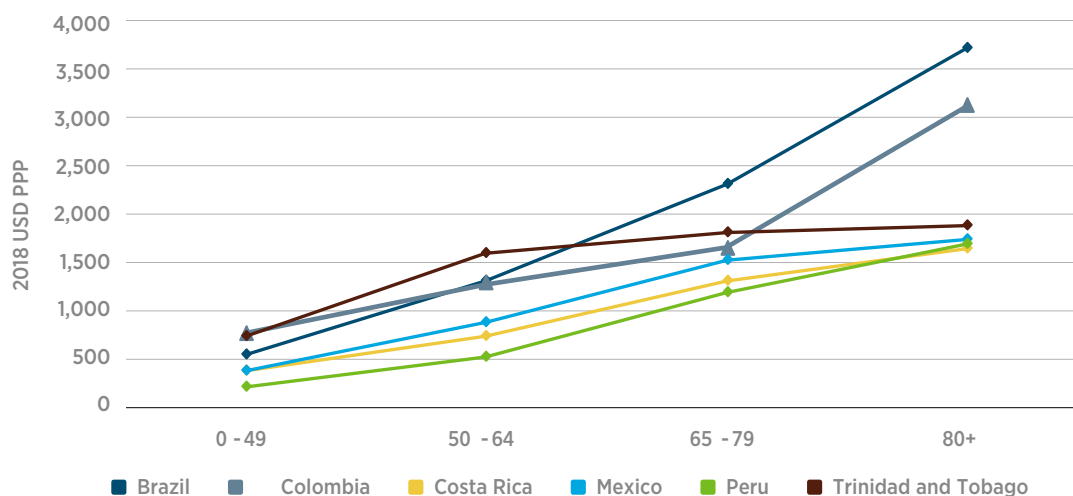
**Source:** Authors' calculations based on the World Health Organization's Global Health Expenditure Database. Accessed in December 2020.

**Notes:** Total health expenditure presented in this figure is equivalent to "Current Health Expenditure" in the World Health Organization's database and does not include gross capital formation.

40. This average is based on the 24 countries in the region for which estimates are available in Rao et al. (2022).

41. Authors' calculations from data available at <https://stats.oecd.org/>

**FIGURE 4.4** PER-CAPITA HEALTH SPENDING BY AGE  
(2018 USD, PURCHASING POWER PARITY)



**Source:** Calculations based on data on medical expenditure that falls within the main International Statistical Classification of Diseases and Related Health Problems 10 (ICD-10) chapters.

**Notes:** The data was collected by Johns Hopkins University Bloomberg School of Public Health.

**Many factors that drive up spending on healthcare services are not easily influenced by governments and are related instead to rising income, expanding healthcare services, input prices, changing technologies, and population aging** (Fan and Savedoff, 2014; Pinto et al., 2018). Between now and 2050, per-capita health spending in the region is projected to grow 3.2% annually in real terms in Latin American countries, and 2.4% annually in the Caribbean (Rao et al., 2022).<sup>42</sup> The highest growth, of over 4% annually, is expected in the Dominican Republic, Panama, Peru, and Trinidad and Tobago, while growth rates of 2% or less are projected for Argentina, Guyana, Jamaica, and Mexico. Overall, health spending is expected to be 175% higher in 2050 than today as a result of four factors: economic growth and technological change; increasing disease prevalence; population aging; and population growth.

**Economic growth and technological change are the most significant factors, followed by disease prevalence, population aging, and population growth.** Based on these projections, health spending (both private and public) will increase by a factor of 2.8 between recent years and 2050 in Latin American and Caribbean countries. Health expenditure as a share of GDP will rise from its

42. Health expenditure projections are all based on Rao et al. (2022), unless stated otherwise.

current regional average of 7.4% in 2020 to 10.2% by 2050. Economic growth and technology will have the largest effect on health expenditure—on average, this factor alone will nearly double total health expenditure. However, countries will continue to show wide disparities, with health spending projected to be below 8% of GDP in Bolivia, Guyana, Peru, and Suriname, but over 12% of GDP in Argentina, Brazil, Chile, and Nicaragua. The ultimate effects of the COVID-19 pandemic on health spending are not yet clear due to delays in government reporting. Health spending may decline because of the economic crisis (Gheorge et al., 2020), but this trend is likely to be short-lived.

**Countries' ability to sustain higher levels of health spending depends on their fiscal capacity and political commitment.** OECD countries can sustain health spending well above the levels observed in Latin America and the Caribbean due to a combination of more effective domestic revenue mobilization and budget allocation choices. The International Monetary Fund estimates that the health spending of countries in Latin America and the Caribbean will converge toward the levels found in today's wealthier economies, assuming similar political and fiscal policies are adopted (Figliuoli et al., 2018). While health spending as a share of GDP is the clearest indicator of the effort required to finance health spending, ultimately the overall fiscal policies (revenue and expenditure) will determine whether this level of spending is sustainable.





## 4.3 Sustainability of long-term care

**Public spending on long-term care services in Latin American and Caribbean countries is very low.** Since the sector is scarcely developed and fragmented, it is difficult to estimate the cost of all long-term care services provided in a country. Molina et al. (2020) find that the cost of several selected public services for care-dependent older people in Chile amounted to 0.02% of GDP in 2019. In Uruguay, public services for care-dependent people (including younger beneficiaries) cost 0.04% of GDP in 2017 (Aranco and Sorio, 2019). In contrast, countries outside the region with consolidated care systems invest approximately 1.2% of GDP in long-term care.<sup>43</sup> However, this estimate includes both social and health services related to long-term care<sup>44</sup> (OECD, 2017; European Commission, 2018; Mueller, Bourke, and Morgan, 2020).

**Low expenditure in Latin America and the Caribbean reflects poorly developed long-term care systems and low coverage for the target population.** Fabiani et al. (2022) estimate that providing long-term care services to 50% of functionally dependent older people in 16 countries in the region would require 0.5% of GDP on average, with large variation among countries. The estimates assume a package of services that include home care, residential care, day centers, and telecare. These basic simulations assume human resources to be the main component of the cost of long-term care services and provide a ballpark of how much it would cost to implement such services.<sup>45</sup>

**Because governments in the region are spending little on long-term care services, these services do not threaten the social protection system's fiscal sustainability. However, there are legitimate doubts about their social sustainability.** Under the current arrangement, women within families take on most of the long-term care responsibilities. Data from household surveys shows that more than 75% of older people who require support for activities of daily living get help from unpaid family members (98.6% in Mexico, 93% in Brazil, 84.8% in Costa Rica, 79.1% in Argentina, and 76.4% in Uruguay).<sup>46</sup>

**Most family support is provided by women, which negatively impacts their labor market outcomes.** Data from Chile, Colombia, Costa Rica, and Mexico shows that women make up 63% to 84% of unpaid caregivers and are responsible for 72% to 88% of the time devoted to care of older

43. Authors' own estimate based on total OECD country expenditure on long-term care of 1.5% of GDP, 79% of which is publicly funded (data reported in Mueller, Bourke and Morgan, 2020). OECD estimates do not include data on Chile, Mexico, New Zealand, and Turkey due to lack of availability.

44. Health services include assistance with basic activities of daily living, as well as tasks related to medical and nursing care, such as wound dressing, medicine administration, palliative care, medical diagnosis related to a long-term care condition, rehabilitation activities, etc. Social long-term care services include assistance with instrumental activities of daily living (Mueller, Bourke and Morgan, 2020).

45. For a more detailed description, see Fabiani et al. (2022).

46. Authors' calculations based on data from Encuesta Longitudinal de Protección Social (ELPS) in Uruguay (2013), Estudio Nacional de Salud y Envejecimiento (ENASEM) in Mexico (2018), Encuesta Nacional de Discapacidad (ENADIS) in Costa Rica (2018), Estudo Longitudinal da Saude dos Idosos (ELSI) in Brazil (2018), and Encuesta Nacional de Calidad de Vida del Adulto Mayor (ENCAVIAM) in Argentina (2012).

family members (Stampini et al., 2020). This responsibility is associated with a significant reduction in both labor market participation and in the number of hours worked for those who remain employed (Stampini et al., 2022). The need to accommodate caregiving responsibilities also explains why women are overrepresented in the informal labor market, usually in arrangements that allow for more flexibility (World Bank, 2020; Gasparini and Marchionni, 2015). Overall, these caregiving trends mean women earn less than men during their working years and are also less likely to have access to contributory pensions, as seen in Section 3.1.

**Besides their impact on women’s financial independence, care responsibilities have well-documented consequences for unpaid caregivers’ physical, mental, and emotional health.** Long-term care duties are associated with an increase in depressive symptoms (Coe and van Houtven, 2009), as well as increased use of antidepressants, tranquilizers, painkillers, and gastrointestinal agents. A meta-analysis found caregiving to have both positive and negative effects on caregivers, yet negative effects were more prominent among lower income individuals (Pinquart and Sörensen, 2003).

**With shrinking family sizes and increasing female labor force participation, it is becoming less possible to rely on family care alone.** For example, data from the Mexican Health and Aging Study shows that about one in four people with difficulties performing three or more basic activities of daily living receive no support (González-González et al., 2019).

**In summary, current long-term care arrangements are financially sustainable but create social challenges.** They leave a large proportion of care-dependent people without the care they need. They also place the bulk of care responsibilities on unpaid family members, mostly women, hindering their participation in the workforce.



## 4.4 Current and future social protection spending

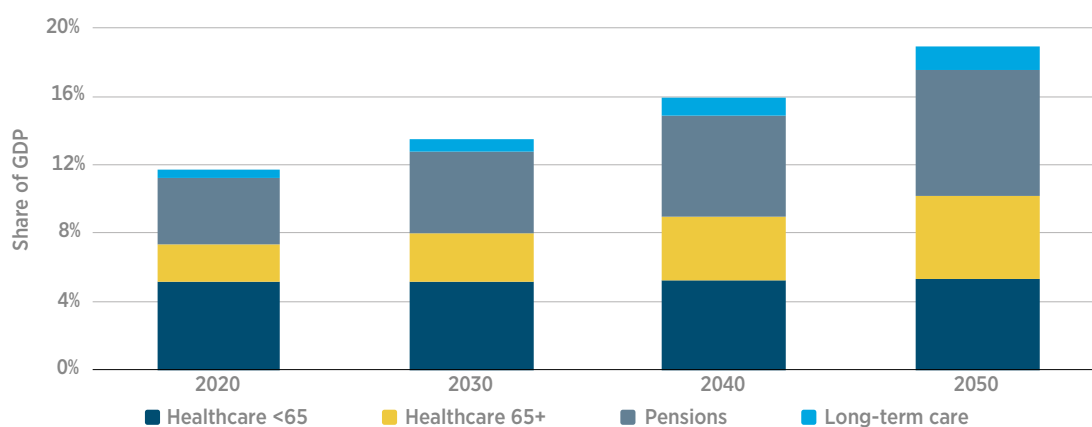
**In this section, we project the impact that aging, epidemiological change, technological change, and the potential development of long-term care systems will have on social protection spending in Latin America and the Caribbean.** The projections cover spending on pensions, healthcare (both public and private), and long-term care. For pensions, we take the same approach as the International Monetary Fund (2018) and project the trajectory of pension spending given current population trends, leaving overall coverage (share of pension recipients) and generosity (replacement rates of contributory and non-contributory systems) at current levels (see Annex 1.C for details). For health spending, our estimates are based on Rao et al. (2022), who project the rise in public and private health spending based on population growth, aging, disease prevalence and associated risk factors, and economic growth and technological change. The spending projections for long-term care assume that countries in the region will eventually develop care systems covering up to 50% of care-dependent older people (see Fabiani et al., 2022). There is no way to know if countries will expand long-term care services to this level, but we use this assumption in order to demonstrate the fiscal implications of making significant progress toward a stronger safety net. The projected trends may not materialize if countries reform pension or healthcare benefits in response to population aging, or if policy action alters predicted epidemiological trends. The purpose of these estimates is to highlight the main stressors of social protection spending under current institutional arrangements and demographic and epidemiological trends.

**Overall expenditure on pensions, healthcare (both public and private, and for all ages), and long-term care is estimated to increase from 11.7% of GDP in 2020 to 18.9% of GDP in 2050.** Around 48% of this growth will be driven by pensions, which are set to rise from 3.9% of GDP in 2020 to 7.4% in 2050. Healthcare spending will increase from 7.4 to 10.2% (accounting for 37% of the overall increase). Most of this rise will be attributable to healthcare spending for people over 65, which is projected to grow from 2.2% of GDP in 2020 to 4.8% in 2050. Meanwhile, spending on people under 65 will remain relatively constant at approximately 5% of GDP (Figure 4.5). Furthermore, the pressure to develop long-term care services is expected to intensify. By 2050, the number of care-dependent older people is estimated to reach 23 million, almost three times more than today (Aranco, Ibarraran, and Stampini, 2022). If the region were to develop long-term care systems with broad coverage, the cost would be significant. We estimate that long-term care for 50% of care-dependent people in 2050 would cost almost 1.4% of GDP, on average (Fabiani et al., 2022).<sup>47</sup>

47. See Fabiani et al. (2022). A 50% coverage rate would mean publicly funded long-term care is provided to about 8% of people over 65. By comparison, the share of the over-65 population that receives home or residential care in OECD countries is 11% (OECD, 2021).

**Both current spending levels and future fiscal pressures vary widely among countries.** In Brazil, Costa Rica, and Argentina, which are already at the upper end of pension and healthcare expenditure in the region, spending is projected to increase by more than 8% of GDP by 2050. Paraguay, Peru, or the Dominican Republic will see spending rise less than 5% of GDP. On average, countries spending more today will see higher increases in spending in the future (Figure 4.6). This is particularly true for countries with high pension coverage and benefits. However, political and financial decisions about the quality and coverage of transfers and services will eventually determine the final spending trajectory.

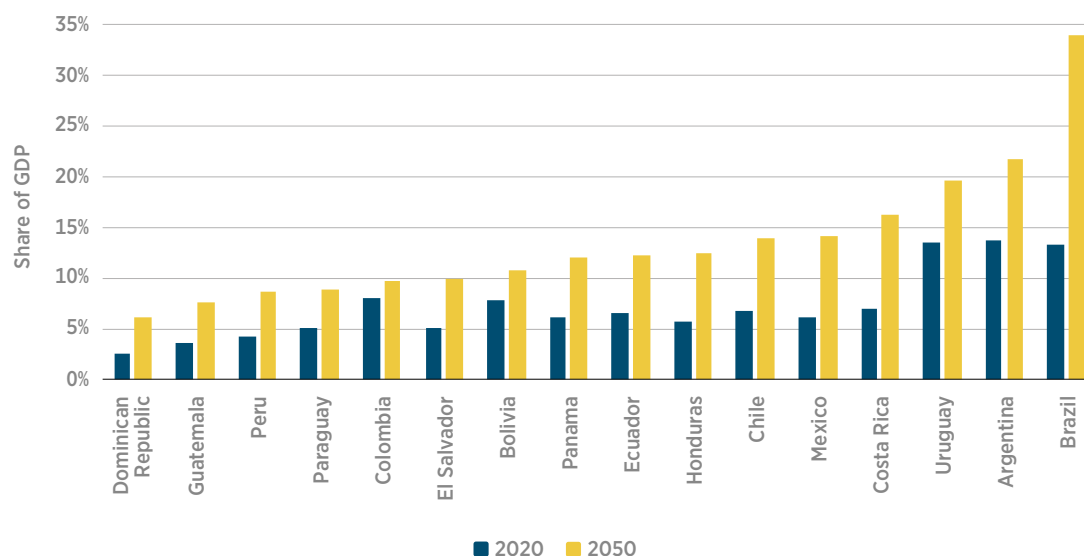
**FIGURE 4.5** TRENDS IN SPENDING ON PENSIONS, HEALTHCARE, AND LONG-TERM CARE AS SHARE OF GDP (%), 2020-2050



**Source:** Authors' calculations based on Inter-American Development Bank's Labor Markets and Social Security Information System; International Monetary Fund, World Economic Outlook Database; OECD, Data Pension and Health Spending; Rao et al. (2022).

**Notes:** "Health <65" refers to health expenditure on population younger than 65; "Health 65+" refers to health expenditure on population aged 65 or more. Due to data availability, the regional value shown in the figure is the unweighted average of Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, and Uruguay. For country data, see Annex 1.F.

**FIGURE 4.6** CURRENT AND FUTURE SPENDING ON PENSIONS, HEALTHCARE, AND LONG-TERM CARE FOR PEOPLE OVER 65, AS A SHARE OF GDP (%), 2020 AND 2050

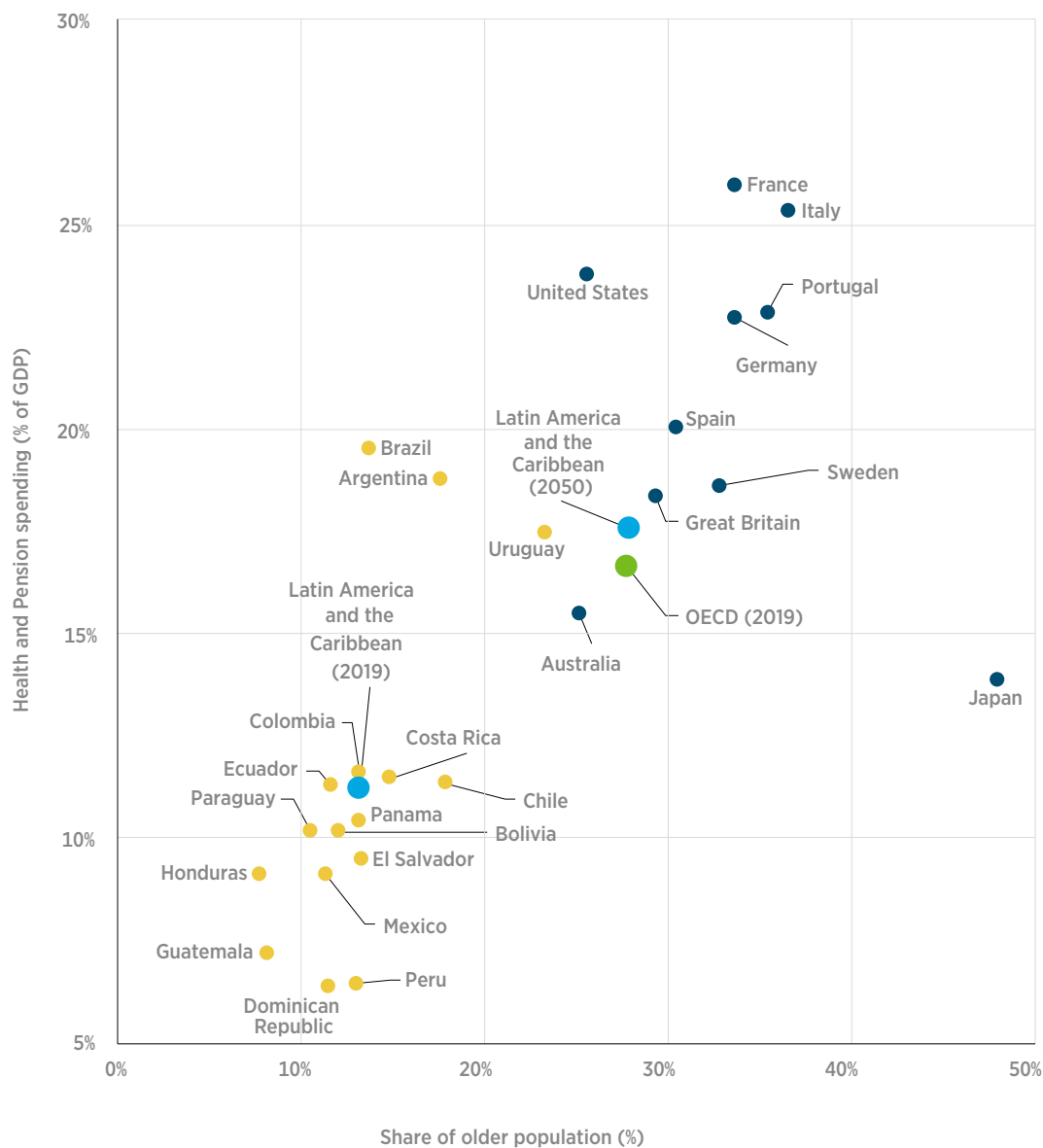


**Source:** Calculations based on data from the Inter-American Development Bank's Labor Markets and Social Security Information System; International Monetary Fund, World Economic Outlook Database; OECD, Data Pension and Health Spending; Rao et al. (2022); Fabiani et al. (2022).

**If current trends continue, some Latin American and Caribbean countries are on a path to surpass OECD levels of spending as their population ages, but with lower coverage and quality levels.**

If we benchmark pension and healthcare expenditure against current levels of population aging for countries in Latin America and the Caribbean and the OECD countries (Figure 4.7), we find that Latin American and Caribbean countries are currently younger and spend substantially less than OECD countries on healthcare and pensions (11.4% versus 19%). Yet even today Brazil, Argentina, and Uruguay are spending as much as Greece and Spain, as a percentage of GDP, despite having a younger population. We also project average spending in Latin America and the Caribbean for 2050. We plot current levels of spending in pensions and health (public and private) against population aging for countries in the region and compare it to current OECD spending (excluding Latin America and the Caribbean). Our projections indicate that by 2050, the older population in Latin America and the Caribbean will match the proportions of today's OECD. Its spending will be slightly lower than today's OECD level (17.5% of GDP versus 19%), with lower levels of coverage and quality in some services, and with less ability to fund them. The average pre-COVID-19 tax revenue to GDP ratio in Latin America and the Caribbean was 22.4%, compared to 34.2% in OECD countries (OECD, 2019).

**FIGURE 4.7** CORRELATION BETWEEN SHARE OF OLDER PEOPLE (% OF POPULATION) AND PENSION AND HEALTHCARE SPENDING (% OF GDP) IN LATIN AMERICAN AND CARIBBEAN AND HIGH-INCOME COUNTRIES, 2019



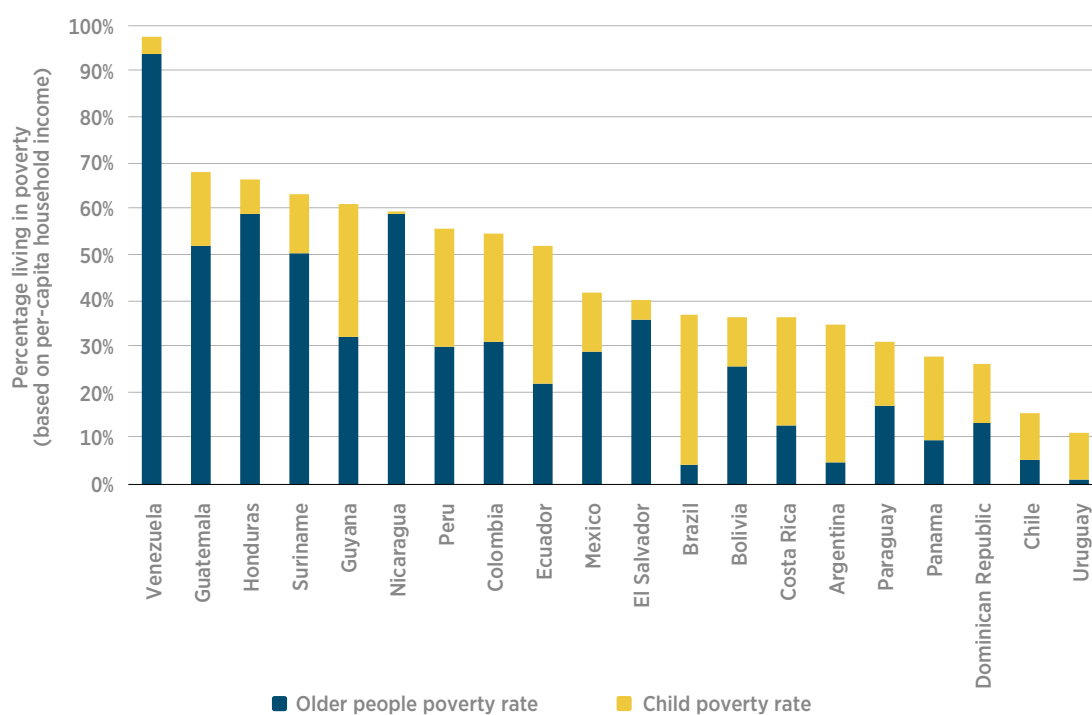
**Sources:** For information about health and pension spending in Latin American and Caribbean countries, see Figure 4.5. Information on the percentage of the population over age 65 is from the World Population Prospects, United Nations, 2019.

**Notes:** Spending in 2050 is only projected for Latin America and the Caribbean. The regional value is the unweighted average of the 16 Latin American countries included in the graph.

**To contain the increase in social protection spending, countries in Latin America and the Caribbean could decide to reduce pension benefits, adjust the quality of healthcare services, or limit the development of long-term care systems.** The spending projections presented so far in this section assume that countries will keep pension benefits constant (relative to wages), adapt healthcare to technological and epidemiological trends, and expand long-term care services. This may not happen. For example, countries may reduce average contributory pension replacement rates from 55% to 24% to keep pension expenditure at the current percentage of GDP. However, these adjustments may reduce older people's quality of life and cause social problems. Tensions between fiscal and social sustainability will be a central force in policymaking.

**Furthermore, all reforms will need to weigh trade-offs between wellbeing and spending across generations.** On average, poverty rates among children (0–17 years old) are 17 percentage points higher than among older people (Figure 4.8). In Argentina and Brazil, where poverty among older people has been nearly eradicated, children still face poverty rates of over 30%. Population aging may create pressures to reduce spending on younger groups, despite their higher poverty rates, to increase spending on social protection for older people. According to our estimates, per-capita health spending is 4.2 times higher for people over 65 than for those under 65. This ratio is forecast to grow to 5.2 by 2050. Without reforms, pension systems are on course to absorb a growing share of public spending to finance benefits for higher-income workers, leaving little room for spending on younger groups (Izquierdo, Pessino, and Vuletin, 2018).

**FIGURE 4.8** POVERTY RATE AMONG PEOPLE OVER 65,  
AND AMONG CHILDREN UNDER 18 (%), 2019



Source: Authors' calculations with data from the Inter-American Development Bank's Harmonized Household Surveys.





# AGING IN LATIN AMERICA AND THE CARIBBEAN

SOCIAL PROTECTION AND QUALITY  
OF LIFE OF OLDER PERSONS



  
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# 5

## Aging societies in Latin America and the Caribbean need extensive social protection reforms

**Despite progress, all countries in the region have gaps in their social protection systems for older people.** The analysis in Section 3 shows that while some countries need to improve both coverage and quality in all three areas, others need to focus mostly on the quality of benefits provided, since they have mostly achieved coverage, particularly in the area of pensions and healthcare (for example, Uruguay). Because of accelerated population aging, all countries need social protection reforms.

**The pension situation is highly heterogeneous.** At one end are countries like Bolivia that provide almost universal coverage with relatively low benefits. At the other end, Paraguay and El Salvador provide high-quality pension benefits to a small share of the population. Other countries like Argentina, Uruguay, and Brazil have achieved almost universal coverage with adequate benefits but with quickly ballooning fiscal spending.

**In the case of healthcare services, quality remains a challenge in almost all countries in the region.** Although formal coverage is almost universal in many countries, effective coverage is hampered by barriers to access like economic costs, distance to centers, lack of human and physical resources, and cultural factors.

**Long-term care is the most incipient area of social protection, in both coverage and quality.** A large share of functionally dependent older people relies on family networks to receive the support they need. Even publicly provided care services, in countries that have them, are usually limited to the socioeconomically vulnerable population. Moreover, countries in the region have much work to be done in the area of defining and following quality standards.

**Countries will have to confront these challenges in their social protection systems amidst fiscal pressures created by an accelerated demographic transition.** Most countries will have to increase coverage and improve quality even as the rising number of older people drives up demand for spending on pensions, healthcare, and long-term care.

In the sections below, we first review system-wide reforms, followed by reforms to increase coverage and quality in each social protection area. Table 5.1 presents a summary of the recommended reforms.

**TABLE 5.1** KEY GUIDING PRINCIPLES FOR REFORM

	Pensions	Healthcare	Long-Term Care
<b>System-wide Reforms</b>	Governance for quality Jointly design benefits Partially delink benefits from formal employment Coordinate health and long-term care services Develop institutions to inform and guide policy for aging populations Include gender considerations that close coverage and quality gaps		
<b>Key Sector Reforms</b>	Redefine pension objectives and parameters In some cases, increase non-contributory pensions and integrate systems Promote formal employment Stimulate voluntary savings Address gender discrepancies in pension coverage and adequacy	Improve financial equity Reorganize systems to address the new epidemiological profile Adopt a person- and community-centered approach Strengthen primary care Strengthen health education, prevention, and promotion Address gender gaps Strengthen human resources (in numbers and skills)	Develop the legal and financial framework Establish eligibility criteria, including mechanisms to assess functional dependence Define service mix Set and supervise quality standards Develop qualified human resources Promote preventive long-term care services Promote private sector enterprises Address gender gaps by improving working conditions, providing respite, encouraging division of responsibilities between genders

Source: Prepared by the authors.

## 5.1 System-wide considerations

**Social protection reforms that aim to improve older people's wellbeing must center on quality.** Overall, private expenditure on healthcare has remained stubbornly high compared to OECD countries, often because of the low quality of public or publicly-funded services (Kruk et al., 2018b). Improving older people's wellbeing will therefore require reforms to improve the quality of services through systemic investments in human resource skills, integrated care management, and effective regulations.

**Planned reforms need to take the interactions between pensions, healthcare, and long-term care into consideration.** Policies in the three areas of social protection should take a holistic approach that accounts for interactions, synergies, and trade-offs between the three fields. Pensions, healthcare, and long-term care both complement and overlap with each other in the effort to provide a minimum protection floor for older people. The recent recommendations issued by Uruguay's Social Security Commission explicitly states the need to consider the pension reform within a broader context of social and cultural changes driven by population aging. It thus recommends coordinating and integrating reforms in all areas (CESS Uruguay, 2021). Another example is the Chilean pension reform proposal, under discussion since 2015, which includes a functional dependence insurance for people over 65 that is funded by increasing employers' contributions.<sup>48</sup> This insurance is an efficient way to provide coverage for anyone who ends up needing care. The proposal includes subsidies for those not covered by the insurance.

**In this context, it becomes crucial to spend more efficiently. Countries can gain efficiency by considering joint reforms that combine elements of pension, healthcare, and long-term care agendas.** They need to implement reforms that increase healthcare and long-term care coverage and quality in order to curb pension expenditure and make overall social protection more sustainable. For instance, pension reforms that focus on enhancing fiscal sustainability by reducing benefits for some population groups are more likely to be socially and politically accepted if accompanied by better coverage and quality of healthcare and long-term care benefits. Similarly, reforms that give older people better access to quality health and long-term care services may alleviate some of the pressure to raise pensions by covering items that make up a large share of older peoples' budgets. Investing in a strong long-term care system can also help contain healthcare costs and therefore loosen overall budget constraints.

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48. See: <https://www.previsionsocial.gob.cl/sps/autoridades-explican-alcances-del-nuevo-subsidio-y-seguro-de-dependencia-contenidos-en-la-reforma-a-las-pensiones/>

**Given the level of informal work in the region, access to some services and benefits needs to be delinked (completely or partially) from formal employment.** Some risks that social protection systems aim to cover are not linked to employment status, so access to their benefits should not be tied to that status either. Perhaps the clearest example is healthcare: the risk of falling ill is not connected to employment status. Historically, Europe's health systems began as an employment-linked benefit, and most European countries still have payroll tax health insurance (France, Germany, the Netherlands, and Switzerland, among others). However, they have gradually reduced their reliance on payroll taxes, and general revenues have become the most important source of healthcare funding. Today, Europe has systems that ensure access to healthcare regardless of employment status. By contrast, to access high-quality healthcare in the region, people typically have to either be in the formal labor market or have a family member with a formal job who contributes to the system. Delinking healthcare access from employment status in Latin American and Caribbean countries has proven more difficult than in Europe because of large informal sectors and, in some cases, tax evasion. Consequently, countries that have most successfully combined their contributing and non-contributing populations into a single national healthcare system—such as Costa Rica, Colombia, and Uruguay—have had to increase public funding from general revenues and find ways to operate more efficiently to contain costs. The other path to universal health coverage that delinks access from employment status relies on public provision. This is the approach of the national health services in English-speaking Caribbean countries, though these systems also require substantial public spending and improvements in efficiency.

**Pension funding could rely more on general taxation, but certain functions of the pension system must still be based on employment or recurrent income.** As described in this report, the region has made substantial progress on reducing poverty by expanding non-contributory pillars, which essentially delink pension benefits from employment status. This will remain the most direct avenue to reducing coverage gaps. However, recurrent savings or contributions are needed to achieve pensions that can smooth older people's consumption. Countries will need policies to ensure sustained contributions, whether mandatory or voluntary, over the course of workers' active lives (see Section 5.2).

**In choosing a long-term care funding mechanism, countries need to balance the objectives of universal coverage and financial sustainability.** Although some high-income countries have opted to finance long-term care using the same mechanism as healthcare, this is not necessarily the best option in Latin America and the Caribbean. For example, although people widely accept the concepts of universal coverage and free services at the point of delivery in the case of healthcare, this is not always the case for long-term care, so most countries could consider including copayments (see Box 5.1 for an in-depth discussion).

**Healthcare and long-term care reforms must also coordinate the services provided by the two sectors to both make spending more efficient and produce better health and functional ability outcomes for older people.** Evidence shows that well-coordinated long-term care and healthcare systems reduce hospital admissions, emergency room visits, and average hospital stay length. A well-coordinated approach to care also speeds up the process of referring older people to a different level of care when needed.

**Reforms in each area should take a gender perspective into account.** Despite recent progress, the quality of life of older women still trails that of their male counterparts. Closing gender gaps should be a guiding principle of reforms in all areas of social protection.

**Regardless of the design and maturity of their social protection system, countries need to create institutions to better adapt their pension, health, and long-term care systems to demographic changes.** Social protection system reforms are politically and socially complex. One way that more aged countries have managed to adapt is to create institutions that steer social protection systems as economic, demographic, or technological trends change.

**For example, some countries are implementing self-correcting mechanisms to counteract imbalances in their pension systems.** These types of mechanisms have been generically called sustainability factors or adjustment rules. Sometimes sustainability factors do not necessarily correct the imbalances themselves, but rather draw attention to them and correct them over time through legislation before it is too late (Bosch et al., 2020 and Pesinno and Ter-Minassian, 2021). However, these institutions do not always work; adjustments directed by sustainability factors might not be socially acceptable. For example, in Spain, the two adjustment mechanisms introduced in 2013 to make pension systems fiscally sustainable (the sustainability factor and the pension revalorization rule) have been suspended because the rules lacked social and political acceptance (Arce, 2020).

**In the healthcare sector, countries have periodically undertaken nationwide reviews that take population aging into account;** or even multinational reviews like the recent Pan-European Commission on Health and Sustainable Development. Countries have also established institutions to monitor the cost and quality of healthcare for the purposes of guiding public policy. Prominent examples include health technology assessment institutions like the National Institute for Health and Care Excellence in the United Kingdom and the Health Intervention and Technology Assessment Program in Thailand. These institutions conduct analyses of the reasonability (and cost-effectiveness) of adopting new drugs and medical technologies to inform policy.

## 5.2 Guiding principles for pension reforms

**Providing guiding principles for pension reforms in Latin America and the Caribbean is challenging given the variety of systems and current statuses for coverage, adequacy, and fiscal sustainability.** However, certain key actions are general enough to provide guidance and highlight where changes are needed.

**It is essential for all countries to redefine pension objectives to establish new parameters and make systems more equitable.** This overhaul should take existing complementary policies in health and long-term care into account. Section 3 documented how some pension systems are designed to be generous, while others will deliver inadequate benefits under current parameters and demographic trends. However, there is little discussion in the region about what is an adequate benefit. One of this report's central policy recommendations is to make pension system objectives explicit. One way to do so is to establish a target pension level. This level should be determined based on the pension system's current conditions and on the status of complementary policies that are central to the coverage and quality of healthcare and long term-care. This exercise will help countries define key pension parameters and determine how much funding is needed. It will also shed light on inequities in pension systems and remove or modify key design elements that contribute to inequities (such as long vesting periods or pension formulas that disproportionately benefit high-income workers).

**To improve pension coverage, particularly in the near future, some countries have to expand non-contributory programs. Likewise, contributory and non-contributory benefits could be better integrated in most countries.** There are key design features that should be incorporated into new and existing non-contributory schemes. Non-contributory programs need to be properly integrated with contributory programs to provide adequate coverage and avoid disincentivizing formal employment or savings. The gold standard for designing non-contributory and solidarity pillars of pension systems is a universal or semi-universal anti-poverty subsidized benefit that progressively decreases as citizens accumulate savings or contributions. This design balances the need for widespread coverage, progressivity, and incentive alignment. Universal non-contributory programs, which are funded with general revenues and provide benefits to all workers, regardless of their employment status (for example, the universal pension in Bolivia), do not alter workers' decisions to contribute. On the other hand, programs that grant benefits only if a worker is informal or does not reach retirement in the contributory system can incentivize informal employment (Bosch, Melguizo, and Pages, 2013).

**To make long-term improvements to pension systems, countries in the region need to expand the mandate of social insurance beyond salaried workers—including self-employed, domestic workers, and the growing cohort of gig economy workers— and create more formal jobs.** Although some pension benefits should be delinked from employment status, further contributions

and financial resources will certainly be needed to provide adequate pensions for the population. To extend social insurance beyond high-paying, salaried jobs and cover nonstandard work (people who are self-employed, as well as commission, contract, gig economy and domestic workers), social insurance enrollment should aim to protect all forms of employment (Bosch, Melguizo, and Pagés, 2013). In many countries, workers in nonstandard occupations are not required to contribute to social security. This creates incentives for employers to hire workers in these categories because it saves them the cost of social insurance (Levy, 2008). Alaimo, Chaves, and Soler (2019) suggest that although regulations must recognize the differences between nonstandard work (including the gig economy) and traditional work, they should minimize the possibility of arbitration between these categories as much as possible. Brazil and Uruguay have already regulated and classified these workers as self-employed, and in both countries, self-employed workers must make social security contributions, albeit in special contributory regimes.

**To increase coverage, countries need to better enforce regulations on pensions and formal employment.** Expanding the social insurance mandate to all workers is a first step toward creating more formal, protected jobs. But without strict enforcement, achieving nearly universal pension coverage will be difficult. There is strong evidence that better enforcement will increase worker and company participation in social security. Enforcement can be particularly effective for large firms that employ informal workers (Bosch et al., 2020). However, attempting harsher punishments for informal employment may result in more formal employment but could also lead to higher unemployment (Almeida and Carneiro, 2012; Amengual, Coslovsky, and Yang, 2017; Kanbur and Ronconi, 2016). To minimize this downside, countries can combine enhanced oversight with other pro-formalization measures. Furthermore, enforcing formal employment laws has the potential to significantly increase revenues. If all workers in the region earning more than the minimum wage could become formal employees, contributions to social insurance would increase by 0.9% of GDP. The exact percentage for each country varies based on informal labor rates, minimum wage compliance, and contribution rates.

**Countries can create modern voluntary savings schemes to increase pension coverage and levels by applying concepts from behavioral economics and leveraging new information technologies.** Behavioral economics offers innovative strategies to increase coverage for self-employed workers and voluntary contributions. A large proportion of workers (the self-employed, commission agents, unpaid workers in family businesses, domestic and platform-economy workers) have no employment relationship that allows them to make automatic social security contributions. Behavioral economics suggests that the absence of automatic contribution mechanisms—like those in place for wage earners—may be a main cause of low coverage and lack of pension savings among these groups (Choi, et al., 2004; Madrian and Shea, 2001). In developed countries, automatic-deposit mechanisms have proven much more effective at building voluntary pension savings than tax incentives, which barely generate any new savings (Carroll et al., 2009; Chetty et al., 2014; Benartzi, Beshears, and Milkman, 2017). Countries need to innovate to automate social security system payments by these



groups (e.g., via direct debit, tax returns, or water or electricity bills). The IDB Retirement Savings Laboratory found that digital, on-demand platforms provide a great opportunity to implement automatic saving debits. In Peru, drivers for the ride-hailing app Cabify were invited to voluntarily save part of their earnings, and 18% of them signed up for an automatic debit system (Bernal et al., 2021). When automated mechanisms of this kind are not feasible, other instruments can be used, like simplified contribution methods or SMS text reminders. Evidence shows that these nudges are easy to scale up and can be a very cost-effective way to increase voluntary retirement savings. However, they have a smaller impact on savings than automatic deposits (Karlan et al., 2010). In Colombia, low-income, self-employed workers received text messages inviting them to save. After 15 months of receiving text messages, workers increased their savings by 15.87 USD for every dollar invested in text messages (Azuara et al., 2021).

**Closing gender gaps in pension coverage and adequacy should be a guiding principle of reforms.** The gender discrepancies in the quality-of-life index are due to a major gap between the share of men and women who receive pensions in old age. One policy step toward closing this gap is to expand non-contributory pensions in countries where women lag behind. These tend to be countries where overall coverage is low. However, long-term solutions must focus on how to increase formal job creation for women, including policies that promote flexible work arrangements for both men and women, labor regulations that encourage greater parity between maternity and paternity leave, and investments to promote childcare and long-term care policies for older people to encourage female employment.

## 5.3 Guiding principles for healthcare reforms

**Section 3 argues that many countries have progressed towards universal healthcare coverage and improved access among older people, but service quality remains poor and unequal.** Addressing older people's health needs therefore requires action on many levels, including equitable financing, a transformation of healthcare service management, and programs focused on older people's specific needs.

**Countries need financially equitable healthcare systems, meaning people can receive services without large out-of-pocket expenditures.** While no healthcare system has achieved equity, different countries have made progress. For example, Colombia and Costa Rica have reduced out-of-pocket spending to 15% and 22% of total health spending, respectively. These figures are comparable to levels found in Western Europe.

**Countries need healthcare services that are organized to provide the right care to the right people at the right time, with models that address the full range of population health issues.** Such systems can improve quality of life for older people by promoting healthy living at all ages, preventing health problems, detecting and managing chronic conditions when they do emerge, and providing timely treatment for correctible and curable conditions.

**Healthcare services need to address the epidemiological profile of today's population.** Most of the region's healthcare systems developed around curative care. Later, they made strides on infectious diseases and maternal and child health. But it has proven difficult to reorient systems toward today's most prominent health conditions and the needs of increasingly older populations. To make this transformation, systems will need to focus more on health promotion and chronic disease management and allocate resources to the illnesses and debilities experienced by older people. It also requires recruiting and training health professionals for the technical, communication, and social skills involved in caring for older people.

**The guiding principle for improving older people's health and healthcare is to adopt a person- and community-centered approach that emphasizes primary care and its links to other healthcare levels and social services** (WHO, 2015). The current medical mindset of a single healthcare provider treating a single patient cannot adequately address the healthcare needs of people with cancers, mental disorders, hypertension, diabetes, or often a combination of many ailments. Rather, teams of health professionals need to engage with the community so that health promotion, prevention, screening, and disease management are all given adequate time and resources. Furthermore, healthcare institutions need to reorganize themselves to efficiently serve the population through better communication and coordination of care. The COVID-19 pandemic has also revealed how important it is to properly fund public health functions to detect and control the infectious diseases that are most fatal and debilitating for older people.

**Strong primary care is the cornerstone of accessible, high-quality, and equitable healthcare.**

Programs with a strong focus on primary care in the United States, Europe, and Latin America have been associated with many positive health outcomes, including fewer avoidable hospitalizations and longer life expectancy (Barkley et al., 2016; Bastos et al., 2017; Pesec et al., 2017; Valentijn et al., 2013). Disparities in mortality across income and racial groups also tend to be lower where primary healthcare services are more widely available (Hone et al., 2017).

**Countries in Latin America and the Caribbean are beginning to enlist primary care in preventing and managing chronic health conditions** (Atun et al., 2015).

The common feature of this approach involves organizing interdisciplinary teams to monitor community health and proactively reach out to those who could benefit from healthcare, among other efforts. Until recently, much of this primary-level community work has focused on maternal and child health, but more countries are now incorporating services for older people.<sup>49</sup> Some of these initiatives involve promoting physical mobility and health education, creating inter-professional teams specialized in serving a defined population of older people, increasing the number of geriatricians, and developing digital health platforms to connect the medical workforce with long-term residential care settings (Ministry of Health Chile, 2021; Ministry of Health Costa Rica, 2018; Ministry of Women, Family and Human Rights Brazil, 2021).

**Good primary care can also be cost-effective.** Studies show that systems with strong primary care can achieve better health outcomes among people with chronic health conditions and increase preventive healthcare services (Almeida et al., 2018; Kaselitz, Rana, and Heisler, 2017). Where primary care is good, people are less likely to experience medical-related financial difficulties as demonstrated in a study that included Brazil, Colombia, El Salvador, Jamaica, Mexico, and Panama (Macinko et al., 2019).

**Encouraging and teaching people to manage their own health is also part of an effective health strategy.**

By self-managing chronic health conditions, older people can improve their functional ability and wellbeing. Indeed, programs that encourage self-management have shown that older people's health and wellbeing goes up when they gain confidence in their ability to live well, even with chronic conditions (Morsch et al., 2021). A self-management program for chronic disease in Mexico, for example, led to improvements in health behaviors (e.g., physical activity), health outcomes (e.g., adherence to health visits), and overall self-management behaviors (e.g., treatment adherence, disease knowledge) (de Córdova et al., 2017).

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49. Costa Rica's Equipos Básicos de Atención Integral en Salud.

**Investments in prevention can have large positive health impacts, even in older populations.**

Changes in behavior late in life can still benefit health. For example, by increasing their physical activity, older people can slow the development of osteoporosis, improve their functional ability, and enhance their cognitive levels (McMillan et al., 2017; Taylor, 2014). Data for Colombia also shows that strategies to reduce high blood pressure and other cardiovascular risk factors (like sedentary lifestyle) are tied to health improvements (Gómez et al., 2021). Even smoking cessation as late as age 64 can result in longer lives (Jha et al., 2013).

**Many countries in the region already recognize the important role health promotion plays in ensuring healthy aging.**

For example, Chile and Uruguay have passed labeling laws to warn consumers about the salt, fat, and sugar contents of processed foods (IDB, 2021a; World Bank Independent Evaluation Group, 2018). In Uruguay, local governments have created free outdoor gyms for all citizens (World Bank Independent Evaluation Group, 2018). Countries have introduced tobacco taxes and adopted many of the World Health Organization's recommended policies to reduce smoking (WHO, 2021b). Mexico has added a soda tax to reduce sugar consumption (Sánchez-Romero et al., 2020).

**Promoting older people's health is multidimensional and includes a sense of social belonging.**

Policies that address community services, the environment, housing, and social, cultural, and productive activities can give older people a place and a role in society, which can be a key part of healthy aging. Yet achieving this goal requires coordination between many sectors, including healthcare, education, social welfare, pensions, and others involved in creating age-friendly contexts.

**It is essential to recognize gender differences and address them appropriately.**

Although healthcare systems tend to be biased against women's healthcare needs, they have also served men's healthcare needs poorly (Chrisler, Barney, and Palatino, 2016; FitzGerald and Hurst, 2017; Kruk et al., 2018a). Men and women tend to reach old age with different kinds of past trauma, forms of substance abuse, mental health conditions, and physical debilities. They differ in how they engage friends and family, in their level of social connection, and in how open they are to self-care. It will be impossible to improve healthcare for older people without acknowledging these differences and training healthcare managers and workers to recognize and mitigate their own biases (Marcelin et al., 2019).

**Reorienting healthcare systems will change how human resources are recruited, trained, and deployed.**

Integrated healthcare services that address today's health problems require a wider range of professionally trained personnel with greater emphasis on primary care and more capacity for communication and teamwork, regardless of the age group they serve. However, as discussed in Section 3.2, countries in the region generally do not have enough or the right kind of health professionals to meet older people's needs. They will need to train and deploy professionals who can understand the physical, mental, cultural, social, and familial aspects of aging. They also need to

be able to evaluate physical, psychological, and nutritional conditions and treat age-specific health problems (e.g., frailty, sarcopenia, osteoporosis, osteoarthritis). But quickly identifying problems is only useful if there is also follow-up by professionals who can coordinate care for complex diseases and mental disorders such as depression, dementia, addictions, neglect, and abuse. Finally, social and health personnel must have communication skills consistent with the values and culture of older people and work well with complementary social and healthcare services (WHO, 2015).

**Better healthcare is likely to be more financially sustainable.** As explained in Section 4, healthcare spending is projected to rise due to a combination of economic, technological, demographic, and epidemiological factors. In most countries, moving toward universal healthcare without enormous increases in health spending will require a combination of health promotion, disease prevention, and policies to contain economic and technological cost pressures.

**Successful health sector reforms will benefit older people, but countries also need specific policies.** While better healthcare access, equity, and quality will benefit everyone in the region, the epidemiological and social needs of older people still deserve special attention. In particular, countries will need to reorient healthcare systems toward the kinds of health promotion, community outreach, primary care, integration with other levels of care, and coordination with other kinds of social services that serve older people. Health sector reforms that achieve this transformation are going to provide better care and at more reasonable cost than those that continue to follow the less effective approaches of the past.

## 5.4 Guiding principles for long-term care reforms

**A growing challenge that draws increasing attention in the region is promoting older people's functional ability through preventive services and long-term care.** Due to social and gender norms, in the past, women within families have provided most of the care for older people. In 2020, the COVID-19 pandemic further increased women's care duties and highlighted the insufficiency and fragility of long-term care services worldwide. Latin America and the Caribbean was no exception.

**Section 3 explained why all countries in the region need to expand both the coverage and quality of their long-term care services.** Multiple stakeholders support this agenda, including ministries of social development, ministries of women, gender equality organizations, and organizations of older people. The private sector is also showing increasing interest in developing long-term care services and in the business opportunities of the care economy. The experience of countries further along in the demographic transition shows it is necessary to design, implement, and expand long-term care systems gradually.

**Although long-term care services exist in the region, many countries have yet to design and implement an institutional framework to organize and integrate them into a coordinated system.** Usually, a care law defines the institutions in charge of designing, implementing, and evaluating the sector's policies; issuing regulations; establishing the eligibility criteria for publicly funded or subsidized services; and setting and overseeing quality criteria. Funding mechanisms may also be defined in the care law (see a discussion of options in Box 5.1). Building the institutional and financing framework is an iterative process that involves multiple stakeholders at central and local governments (which typically end up playing an important role in service delivery), as well as within the private sector and civil society.

### BOX 5.1 OPTIONS FOR FUNDING LONG-TERM CARE

**Social insurance and general taxation are the main sources of funding for long-term care systems. These sources are complemented by out-of-pocket spending and private insurance.** Under a social insurance funding model, people make mandatory contributions, generally through payroll taxes. Funds are allocated exclusively for long-term care, and only care-dependent people receive benefits. Some countries that use this financing scheme (e.g., Germany, South Korea, and the Netherlands) rely on the same method to fund their healthcare systems (OECD, 2013). This method is usually supplemented with general tax revenue to fund services for people who have not contributed to the system. Germany introduced a payroll tax in the 1990s to finance a social insurance plan for long-term care. The tax rate has gradually increased from 1% to 2.55% today. Since 2004, pensioners are also required to make contributions, and people without children contribute a higher percentage of their salary (2.85%) (Colombo et al., 2011; Federal Ministry of Health Germany, 2017). In South Korea, which launched its system in 2008, people were initially required to contribute 0.21% of their salary. The percentage has increased to 0.55% in 2019 (National Health Insurance Service Korea, 2019).

A funding model based on general taxation does not require a specific fund for long-term care and has a broader tax base. However, not having a specific fund can mean the resources available to the system are less predictable or are prone to changes in government priorities. The Nordic countries (Norway, Sweden, Denmark, and Finland) are classic examples of funding based on general taxation.

To complement funding, most systems rely on out-of-pocket payments from users and their families. In some cases, care recipients pay in proportion to their income or wealth, as in France, where people who receive the personalized independence allowance (*allocation personnalisée d'autonomie*) for hiring home care services must pay for a percentage of the total cost of their care plan unless they earn less than €800 per month. This percentage can be as much as 90% of the plan for those who earn over €2,945 per month (2018 values) (Le Bihan, 2018). South Korea requires beneficiaries to cover 20% of the cost of residential care and 15% of the cost of home care, unless they are living in poverty (Caruso Bloeck, Galiani, and Ibarrarán, 2017; National Health Insurance Service Korea, 2019).

Private insurance is another funding mechanism, though it normally represents a very small portion of total expenditure on long-term care. It accounts for less than 2% of the total in OECD countries, except for Belgium (10%) and Japan (4%) (Costa-i-Font, Courbage, and Swartz, 2015).

**To implement a system, countries need to define and deploy an instrument to assess people's level of functional and care dependence.** This is a key part of determining who qualifies for publicly funded services. The assessment tool is typically a questionnaire that evaluates the person's ability to independently perform a set of basic and instrumental activities of daily living, as well as cognitive capacities.<sup>50</sup> This information is used to generate a score that reflects the level of functional and care dependence. The questionnaires also collect socioeconomic information, which in some cases is used to restrict eligibility to the poor or vulnerable (through a means test) or to people who cannot rely on any family help (because they live alone, for instance). In the United States, for example, long-term care services are partly funded through Medicaid, a public program exclusively for low-income people (Medellín et al., 2018). Many countries use information on income or wealth to decide recipients' copayment. France, for example, uses a sliding, income-based scale to calculate transfers. High-income people receive only 10% of the maximum benefit possible for their level of care dependence.

**Countries also need to select the type of services to be provided to people with different levels of care dependence.** Care plans typically offer a mix of residential care, home care, day care, and telecare. Systems can also offer respite services for family caregivers. Residential care is recommended for severely care-dependent people, especially if they need constant attention and have limited family support. In contrast, day care and telecare services are usually used for people experiencing mild functional impairment and/or to supplement other services. Each country should choose the services they provide based on the profile of the population requiring long-term care, as well as on cultural factors and financial considerations. However, there is a worldwide movement towards home care services, which satisfy people's widespread preference for aging in their own home and community. Countries should focus efforts on developing professional-quality care within people's homes.

**Countries also need to decide whether to deliver services in-kind or through cash transfers tied to the condition of implementing a certain care plan.** France and Scotland take the latter approach, while Japan and South Korea offer mainly in-kind services. Funding typically excludes services provided by family members (e.g., in Uruguay). In France, family members (except for spouses or partners) are only allowed to provide care services if they have training (Medellín et al., 2018).

**Some countries provide unconditional cash transfers to care-dependent people or their families. However, this mechanism does not allow for quality oversight and does not foster redistribution of care between genders.** This type of benefit, implemented for example in Spain and Italy, recognizes the high prevalence of unpaid family care, allows beneficiaries to manage the resources freely, and has lower administrative costs. However, it does not ensure that people who

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50. Germany, South Korea, and Japan adapted their tools for measuring care dependence to incorporate or strengthen questions about cognitive impairment (Medellín et al., 2018; Campbell, Ikegami, and Gibson, 2010; Jeon and Kwon, 2017).



need long-term care receive it, and it perpetuates women's traditional role as caregivers within families (Campbell, Ikegami, and Gibson, 2010). Therefore, it is not considered a good practice for long-term care delivery.

**The role of family care can be recognized through labor reforms that facilitate temporary leaves or workload reductions instead of through unconditional transfers** (Addati, Cattaneo, and Pozzan, 2022). For example, in Germany, workers caring for a functionally dependent person are entitled to six months paid leave or to up to 24 months of part-time work (European Commission, 2017). Pension credits and labor flexibility legislation to compensate for time spent caring for children are somewhat common (e.g., Uruguay and Chile). Similar arrangements do not yet exist for long-term care, but some countries are starting to consider them. For example, a bill was introduced in Colombia in 2019 to subsidize the pension and healthcare contributions of people caring for older family members experiencing care dependence. In Costa Rica, workers can take unpaid leave to care for terminally ill family members.<sup>51</sup> Labor, pension, health, and long-term care institutions need to coordinate closely to design and implement these policy reforms.

**Another milestone in the process of building a long-term care system is defining quality standards and monitoring their implementation.** These standards include infrastructure specifications, staff ratios, and minimum training requirements for obtaining licenses and accreditations. Compliance is monitored through inspections and reports, and there are typically penalties for failing to meet the standards (or rewards for achieving them). It is harder to regulate home care than residential care. In Spain's Basque Country, home care quality monitoring focuses on making sure that care is effective and appropriate, that work conditions are suitable, and that care is provided safely (Leturia et al., 2015).

**Qualified human resources are a fundamental part of quality.** Human resource policies include professional training, the recognition of care work, and the promotion of caregivers' physical and mental health. The aim is to improve the interaction between service users and caregivers, as a key determinant of service quality (Malley, Trukeschitz, and Trigg, 2015). An analysis of OECD countries found that improving working conditions, including pay, formality, safety, professional autonomy, and recognition, helps enhance the quality of care (Colombo and Muir, 2016). The sector needs care managers who analyze the situation of each user and prepare and monitor care plans, in co-operation with social and healthcare services.

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51. Law 7756 of Costa Rica. See [http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm\\_texto\\_completo.aspx?param1=NRTC&nValor1=1&nValor2=39795&strTipM=TC](http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=39795&strTipM=TC)

**Governments can approve the content of training programs, establish and oversee minimum certification requirements for caregivers, and facilitate access to training.** Training methods and duration vary widely among countries (Colombo et al., 2011). For example, Japan requires a caregiver certification (*Kaigo Fukushi Shi*) that is periodically reviewed by a national professional association (The Japan Association of Certified Care Workers, n.d.; Lanfang, Zaaba, and Umamoto, 2012). Certification applicants must prove they have received in-person training at one of the training centers or that they have practical experience at care facilities.

**Countries need to integrate long-term care services with healthcare to ensure quality and make healthcare expenditure more sustainable.** This allows information to flow more effectively and medical and social institutions to make smoother inter-system referrals for a person-centered approach to care that considers each person's health status, level of independence, and context, and assigns the most efficient combination of services/treatments in each case (WHO, 2015). Here again care managers are key to achieving integration by designing care plans for people experiencing care dependence in coordination with healthcare providers. Japan, Korea, Germany, Denmark, and the United Kingdom all take this approach (Cafagna et al., 2019; Colombo et al., 2011). Countries can set up information systems to allow them to jointly consider health and long-term care needs. Box 5.2 presents the experience of Belo Horizonte, Brazil, in implementing an integrated health and social care model.

**Funding mechanisms can also incentivize coordination.** For example, as part of the Affordable Care Act in the United States, social health management organizations have been developed to encourage coordination between long-term care programs provided by Medicare and health programs. This means bundling reimbursements for healthcare and long-term care services, through cost-sharing in provider reimbursements or equivalent contracts. Spain and the United Kingdom, for example, have adopted similar mechanisms as part of their national health service reform.

**Integration with healthcare services should also include preventive services for recovering functional ability or reducing further loss.** According to Curry (2006), preventive long-term care services encompass “a continuum of support services that range from relatively formal intermediate care services provided by health and social care professionals” (e.g., day care services, rehabilitation services, home-visit care for care prevention) “to so-called ‘low-level’ interventions that could include befriending schemes, the fitting of a handrail, or help with shopping” (p.7). These services can prevent the onset of new long-term care needs and reduce overall levels of existing needs (e.g., mild or moderate mobility impairment).

**Preventive long-term care services may help decrease the number of older people living with functional dependence, as well as reduce the level of need for health and long-term care services over time, including hospital or residential care** (Curry, 2006). There is little quantitative information on the efficiency and effectiveness of long-term care services focused on prevention (Curry, 2006; OECD, 2011; Duan-Porter et al., 2020), particularly in Latin America and the Caribbean. However, international evidence shows that preventive long-term care services that are community-based, multicomponent, and multidisciplinary can be a low-hanging fruit and good place to start (Hattori et al., 2019).

**For best results, these services should be integrated with other prevention and health promotion interventions** implemented by the health sector (e.g., primary and secondary prevention of chronic illnesses) and other government sectors, such as infrastructure and transportation (e.g. age-friendly cities, adequate housing), social development, and pensions (Golinowska and Sowa-Kofta, 2017). Countries should include marginalized groups when implementing these services. Preventive long-term care services should be provided equitably to avoid further widening health and wellbeing gaps among older people.

**By developing the long-term care sector, countries can foster a new a business ecosystem that includes incentives for new entrepreneurial initiatives.** The long-term care economy has the potential to generate approximately four million jobs in Argentina, Brazil, Mexico, and Peru alone by 2030<sup>52</sup>, so it can be an important driver of post-pandemic economic recovery. This development is part of the silver economy—the goods and services demanded by an aging population (Okumura et al., 2020; Jiménez et al., 2021).

**Finally, because it is usually women who provide care, whether informally or formally, developing and implementing a long-term care system can have significant gender impacts.** First, public-sector care services could take some pressure off family caregivers, giving them time to participate in labor or leisure activities, to the benefit of their physical and emotional health and, potentially, their income security. Second, creating job and training opportunities within the sector has the potential to improve caregivers' career prospects. This impacts not only their current working conditions, but also their income security when they are older, as they contribute to the pension system. Third, by recognizing and valuing the work of caregivers—either paid or unpaid—a long-term care system has the potential to encourage a more equitable division of care responsibilities between genders. Box 5.2 describes Colombia's *Manzanas de Cuidado* initiative as a local example of how to empower women and promote a more egalitarian division of care responsibilities between genders.

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52. Authors' calculations based on International Labour Office (2018). Table A.5.2., p.428, "High Road" scenario.

### **BOX 5.2** INNOVATIVE LONG-TERM CARE EXPERIENCES IN THE REGION: THE CASES OF BELO HORIZONTE AND BOGOTÁ

In 2011, the city of Belo Horizonte, in Brazil, launched the “*Programa Cuidado Maior*” (Older Persons Care Program), a pilot initiative with a social-, health- and community-based approach to care for older people in disadvantaged settings. The backbone of the intervention is community care workers, who receive basic training and provide 10 to 40 hours of home care services per week for a basic wage (Lloyd-Sherlock, Giacomini, and Sempé, 2022). They are responsible for assisting older people with their daily activities, working with families to design a care plan, and reporting back to local health and social centers on a monthly basis (ibid.).

As of 2018, the program had served 1,980 individuals, or around 6% of older people experiencing difficulties with basic activities of daily living in the city (de Souza Aredes et al., 2021). Qualitative evaluations of the program show positive impacts in terms of family support, self-care, and preventing hospitalizations and institutionalizations (de Souza Aredes et al., 2021). A recent quantitative analysis found that the program increased the ratio of planned-to-unplanned hospital visits and the proportion of visits for rehabilitation purposes (as opposed to other reasons) (Lloyd-Sherlock, Giacomini, and Sempé, 2022).

Another initiative worth highlighting is *Manzanas de Cuidado* (Localities of Care) in Bogotá, Colombia. The program provides care services to give traditional family caretakers time to complete secondary education or take an entrepreneurship course. The initiative also uses courses and workshops to promote men’s involvement in care activities.

Seven localities currently participate in the program, with more served by mobile units. In 2021, the program served 10,416 people of all ages, including older people; 3,246 caregivers participated in workshops, including 1,255 men; more than 4,000 women completed training that better equipped them to find jobs; and 88 caregivers were able to finish their formal education. Moreover, the mobile units served 3,254 people in remote areas.<sup>53</sup>

53. See <https://bogota.gov.co/mi-ciudad/mujer/sistema-distrital-de-cuidado-beneficiados-con-manzanas-del-cuidado>



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**AGING**  
IN LATIN AMERICA  
AND THE CARIBBEAN  
SOCIAL PROTECTION AND QUALITY  
OF LIFE OF OLDER PERSONS



# Annex 1

## Methodology and data

### A. Population trends and GDP growth: data

In Section 1, we use three data sources: United Nations Population Prospects 2019; World Bank; and International Monetary Fund.

Population data is from the United Nations Population Prospects 2019 for the Latin America and the Caribbean region. For this region, the United Nations includes Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bonaire, Sint Eustatius and Saba, British Virgin Islands, Cayman Islands, Cuba, Curaçao, Dominica, the Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Montserrat, Puerto Rico, Saint Barthelemy, Saint Kitts and Nevis, Saint Lucia, Saint Martin (French part), Saint Vincent and the Grenadines, Sint Maarten (Dutch part), Trinidad and Tobago, Turks and Caicos Islands, United States Virgin Islands, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Falkland Islands (Malvinas), French Guiana, Guyana, Paraguay, Peru, Suriname, Uruguay, and Venezuela.

For the latest available data on GDP per capita, we consulted the aggregate for Latin America and the Caribbean in the World Bank database. For this region, the World Bank includes Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia, Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Curacao, Dominica, the Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Martin (French part), Saint Vincent and the Grenadines, Sint Martin (Dutch Part), Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruguay, Venezuela, and Virgin Islands.

In the aggregate of high-income countries, the World Bank includes: Andorra, Antigua and Barbuda, Aruba, Australia, Austria, The Bahamas, Bahrain, Barbados, Belgium, Bermuda, British Virgin Islands, Brunei Darussalam, Canada, Cayman Islands, Channel Islands, Chile, Croatia, Curaçao, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, French Polynesia, Germany, Gibraltar, Greece, Greenland, Guam, Hong Kong SAR, China, Hungary, Iceland, Ireland, Isle of Man, Israel, H30, Italy, Japan, Korea, Rep. ,Kuwait, Latvia, Liechtenstein, Lithuania, Luxembourg, Macao SAR, China, Malta, Monaco, Nauru, Netherlands, New Caledonia, New Zealand, Northern Mariana Islands, Norway, Oman, Palau, Poland, Portugal, Puerto Rico, Qatar, San Marino, Saudi Arabia, Seychelles, Singapore,

Sint Maarten (Dutch part), Slovak Republic, Slovenia, Spain, St. Kitts and Nevis, St. Martin (French part), Sweden, Switzerland, Taiwan, China, Trinidad and Tobago, Turks and Caicos Islands, United Arab Emirates, United Kingdom, United States, Uruguay and US Virgin Islands.

GDP growth data is from the International Monetary Fund's aggregate for Latin America and the Caribbean. For this region, the International Monetary Fund includes Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia, Brazil, Colombia, Costa Rica, Dominica, the Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, and Venezuela.

## B. Quality of life: data and methodology

We used two types of data sources to compute the quality-of-life index: (1) a set of Inter-American Development Bank's harmonized household surveys from Latin America and the Caribbean, and (2) country-level health data from the Institute for Health Metrics and Evaluation's Global Burden of Disease Results Tool.

To calculate the share of poverty-free people over age 65, we use the latest available individual income data from the household surveys in Table B.1. The last column indicates whether we included that country in the regional average calculations for Section 2.

**TABLE B.1** HOUSEHOLD AND LABOR SURVEYS USED TO CALCULATE THE QUALITY-OF-LIFE INDEX

Country	Source	Year	Included in regional average
<b>Argentina</b>	Encuesta Permanente de Hogares (EPH)	2019	Yes
<b>Bolivia</b>	Encuesta de Hogares	2019	Yes
<b>Brazil</b>	National Household Sample Survey (PNAD)	2019	Yes
<b>Chile</b>	Encuesta de Caracterización Socioeconómica Nacional (CASEN)	2017	Yes
<b>Colombia</b>	Gran Encuesta Integrada de Hogares (GEIH)	2019	Yes
<b>Costa Rica</b>	Encuesta Nacional de Hogares (ENAH)	2019	Yes
<b>Dominican Republic</b>	Encuesta Nacional de Fuerza de Trabajo (ENFT)	2019	Yes
<b>Ecuador</b>	Encuesta Nacional de Empleo, Desempleo y Subempleo (ENEMDU)	2019	Yes
<b>Guatemala</b>	Encuesta Nacional de Empleo e Ingresos (ENEI)	2019	Yes
<b>Guyana</b>	Labor Force Survey (LFS)	2019	No
<b>Honduras</b>	Encuesta Permanente de Hogares de Propósitos Múltiples (EPHMP)	2019	Yes
<b>Mexico</b>	Encuesta Nacional de Ingresos y Gasto de Hogares (ENIGH)	2018	Yes
<b>Nicaragua</b>	National Household Survey on Living Standards Measurement (EMNV)	2014	No
<b>Panama</b>	Encuesta Hogares de Propósitos Múltiples (EHPM)	2019	Yes
<b>Paraguay</b>	Encuesta Permanente de Hogares Continua (EPHC)	2019	Yes
<b>Peru</b>	Encuesta Nacional de Hogares (ENAH)	2017	Yes
<b>El Salvador</b>	Encuesta Hogares de Propósitos Múltiples (EHPM)	2019	Yes
<b>Suriname</b>	Encuesta de condiciones de vida (Surinam)	2017	No
<b>Uruguay</b>	Encuesta Continua de Hogares (ECH)	2019	Yes
<b>Venezuela</b>	National Survey of Living Conditions (ENCOVI)	2019	No

We computed poverty rates using the international poverty line of 5 USD per day (2011 purchasing power parity). To check the robustness of the results, we also calculated: (i) the index using per-capita household income instead of individual income; (ii) the index using the middle-class income threshold of 12.4 USD per day (2011 purchasing power parity). Box B.1 contains the results of this robustness analysis.

Data on life expectancy and healthy life expectancy at age 65 is based on the calculation for people aged 65–69. In this report, we use data on healthy life expectancy at age 65 expressed in years published by the Institute for Health Metrics and Evaluation (instead of the World Health Organization or United Nations, because the Institute’s projections also considers the effect of socioeconomic and epidemiological variables—see Box B.2 for a more detailed explanation).



Table B.2 shows the values, by country and by sex, for each variable used to calculate the quality-of-life index, along with the result of the index.

**TABLE B.2** POVERTY RATES, HEALTHY LIFE EXPECTANCY, AND QUALITY-OF-LIFE INDEX, BY COUNTRY, 2019

Country	Poverty rate at 65+						Healthy life expectancy at 65 (C)			Quality-of-life index (1-A)*C		
	Individual income (A)			Per-capita household income (B)			Total	Men	Women	Total	Men	Women
	Total	Men	Women	Total	Men	Women						
Argentina	0.15	0.17	0.14	0.05	0.05	0.04	13.3	12	14.4	11.3	10	12.5
Bahamas							13.5	12.5	14.4			
Belize							13.4	12.9	13.9			
Bolivia	0.37	0.23	0.5	0.2	0.2	0.2	11.4	11.2	11.6	7.2	8.6	5.8
Brazil	0.08	0.04	0.11	0.04	0.04	0.04	13.9	12.8	14.8	12.8	12.4	13.1
Barbados							13.6	13.4	13.8			
Chile	0.07	0.03	0.1	0.04	0.04	0.04	14.6	13.7	15.3	13.5	13.3	13.8
Colombia	0.46	0.36	0.54	0.27	0.29	0.25	15.9	15.2	16.6	8.6	9.7	7.7
Costa Rica	0.22	0.11	0.3	0.1	0.11	0.09	15.1	14.1	16	11.9	12.5	11.3
Dominican Republic	0.25	0.24	0.25	0.13	0.14	0.13	13.4	12.4	14.4	10.1	9.4	10.8
Ecuador	0.28	0.17	0.38	0.18	0.19	0.17	13.8	13.3	14.3	9.9	11	8.8
Guatemala	0.63	0.49	0.77	0.52	0.53	0.51	12.7	12.3	13.2	4.7	6.3	3
Guyana	0.12	0.13	0.11	0.32	0.29	0.34	10.6	9.7	11.4	9.3	8.4	10.1
Honduras	0.78	0.74	0.82	0.59	0.6	0.57	11.2	10.8	11.6	2.5	2.8	2.1
Haiti							10.1	10.1	10.1			
Jamaica							13.8	12.7	14.9			
Mexico	0.42	0.28	0.53	0.26	0.26	0.26	13.3	12.7	13.8	7.7	9.1	6.4
Nicaragua	0.82	0.71	0.91	0.59	0.61	0.57	12.2	11.1	13.3	2.2	3.2	1.1
Panama	0.12	0.08	0.16	0.09	0.1	0.09	15.7	14.8	16.6	13.7	13.6	13.9
Peru	0.37	0.24	0.48	0.19	0.19	0.2	15.9	15.5	16.2	10	11.7	8.5
Paraguay	0.26	0.2	0.31	0.21	0.23	0.19	14	12.9	15	10.4	10.3	10.4
El Salvador	0.45	0.42	0.48	0.27	0.29	0.25	14.1	13	15	7.7	7.6	7.7
Surinam	0.57	0.53	0.6	0.5	0.49	0.51	12.7	11.6	13.7	5.4	5.5	5.4
Trinidad and Tobago							13.5	12.5	14.5			
Uruguay	0.06	0.02	0.1	0.01	0.01	0.01	13.8	12.3	15	12.9	12	13.6
Venezuela	0.91	0.89	0.92	0.94	0.93	0.94	13.6	12.4	14.7	1.3	1.4	1.2

**Source:** Authors' calculations based on (i) data on health-adjusted life expectancy from the Institute for Health Metrics and Evaluation, Global Burden of Disease Results Tool; (ii) data on poverty among older people from Inter-American Development Bank's Harmonized Household Surveys.

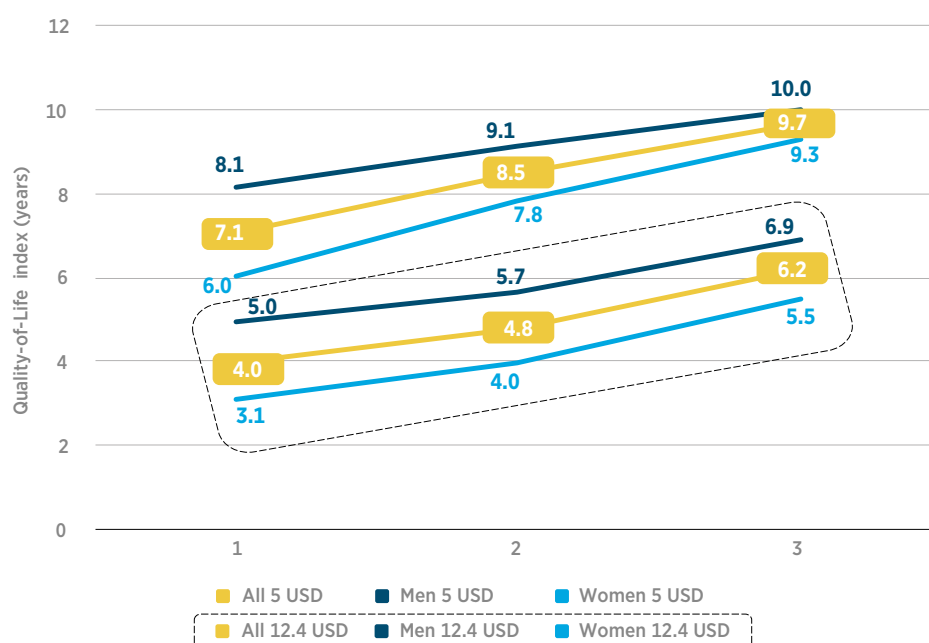
**Notes:** Healthy life expectancy at age 65 is the calculation for people aged 65–69. The poverty rate is the share of individuals whose daily individual income is below 5 USD (2011 purchasing power parity). Countries with data from 2016 and before are excluded: Belize (2007), Haiti (2012), Jamaica (2014), The Bahamas (2014), Trinidad and Tobago (2015), and Barbados (2016).

### BOX B.1 QUALITY-OF-LIFE INDEX USING DIFFERENT INCOME MEASURES AND POVERTY THRESHOLDS

The quality-of-life index can be computed using different definitions of income and poverty thresholds. Figure B.1.A shows that regional trends are robust to the use of different poverty thresholds (5 USD, purchasing power parity, or 12.4 USD, purchasing power parity, per capita per day). In both cases, the region shows significant progress over the last two decades.

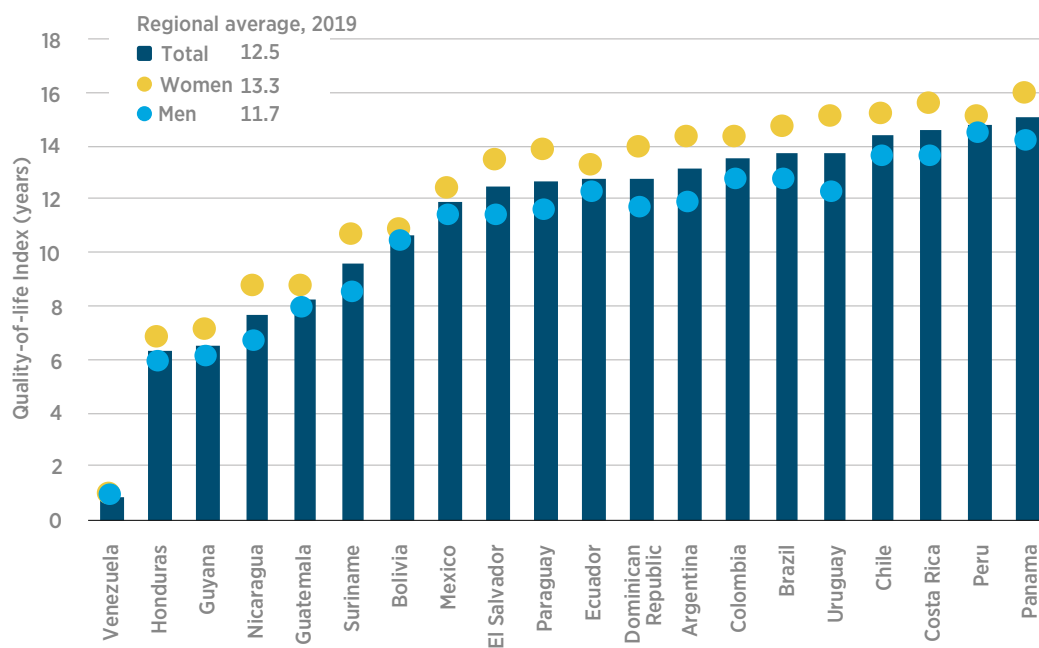
When per-capita household income is used instead of individual income (compare Figure B.1.B below with Figure 2.3 in the main text), women fare substantially better because they have lower individual income during old age than men, and income pooling within the household reduces this gap. We focus on individual income in this report because we believe it better reflects the gender differences (in agency, financial independence, and wellbeing) that need to be addressed by social protection policies.

**FIGURE B.1.A** COMPARISON OF QUALITY-OF-LIFE INDEX WITH DIFFERENT INDIVIDUAL INCOME THRESHOLDS, 2019



Sources: See Figure 2.1.

**FIGURE B.1.B.** QUALITY-OF-LIFE INDEX USING PER-CAPITA HOUSEHOLD INCOME (POVERTY LINE 5 USD PER DAY)



Sources: See Figure 2.1.

## **BOX B.2** DIFFERENCES IN LIFE EXPECTANCY ESTIMATES BETWEEN THE UNITED NATIONS, THE WORLD HEALTH ORGANIZATION, AND THE INSTITUTE FOR HEALTH METRICS AND EVALUATION

Estimates of life expectancy are ubiquitous in public health analyses and reporting systems. The leading producers of these statistics—the United Nations, the World Health Organization, and the Institute for Health Metrics and Evaluation—use different data sources and approaches to correct for outdated death registration information and missing data.

The World Health Organization calculates age-specific mortality rates using death records and census data. In order to guarantee consistency between United Nations and World Health Organization life tables, the latter also uses the population estimates from World Population Prospects 2019 produced by the United Nations Population Division; deaths and registration data reported to the World Health Organization by the member states; infant and under-5 mortality rates developed by the Inter-agency Group for Child Mortality Estimation<sup>54</sup>; United Nations AIDS/World Health Organization estimates of HIV mortality for countries with high HIV prevalence; and mortality estimates from the 2019 Global Burden of Diseases study. The World Health Organization uses estimates from the United Nations AIDS/World Health Organization and Global Burden of Diseases on mortality when current vital records data is not available. Only 77 out of 198 countries have a vital records system with data spanning at least 22 years since 1990. For countries without complete vital records, the World Health Organization uses the United Nations Inter-Agency Group for Child Mortality Estimation estimates for children under 15 years old, and the model life table produced by the Global Burden of Diseases study for adults (WHO, 2020c).

Similarly, the United Nations relies on civil registries and population counts from censuses to calculate age-specific mortality rates. For countries with incomplete age category data, it estimates mortality using data from sub-national vital records systems, censuses, or demographic and household surveys. In addition, it uses population estimates and projections to adjust these estimates (UN, 2007; UN, 2013).

The Institute for Health Metrics and Evaluation also compiles data from national vital records systems, censuses, and household and demographic surveys. However, unlike the United Nations and the World Health Organization, the Institute for Health Metrics and Evaluation makes its population estimates using census and population registry data.

54. The Inter-agency Group for Child Mortality Estimation is composed of members of WHO, UNICEF, UNPD, World Bank and academic groups.

It estimates the mortality rates for each age-sex group using a combination of linear mixed-effect models and other methods to capture the associated level of social, economic, and demographic conditions (i.e., per-capita income, average years of schooling, and total fertility rate in females under age 25) with mortality trends (Wang et al., 2020).

In this report, we use data on healthy life expectancy at age 65 expressed in years published by the Institute for Health Metrics and Evaluation because its projections rely on socioeconomic and epidemiological variables that are key to living in good health, a primary component of our measure of quality of life. However, there are noteworthy discrepancies between the Institute for Health Metrics and Evaluation, the World Health Organization, and the United Nations data for life expectancy at birth. In 2019, the Institute for Health Metrics and Evaluation's estimates were 2.9 year less to 3.8 year more than the United Nations numbers for the countries in the region. The average difference is 1.4 years, and 5 countries have a difference greater than two years. The World Health Organization estimates have similar discrepancies to the United Nations, ranging from 4.0 years less to 3.5 years more, with an average difference of 1.5 years and 4 countries with a difference greater than two years.

## C. Pensions: data and methodology

### Coverage and quality

Data for calculating pension coverage and replacement rates comes from the household survey databases presented in Section B of this annex. We define coverage as the percentage of adults over age 65 who receive some type of pension, whether contributory or non-contributory.

Replacement rates (RR), our quality indicator, are defined as the ratio between the average value of pensions among retirees aged 65 to 69 (P) to the average wage earned by workers aged 50–64 ( $I_{50-64}$ ), as a proxy for pre-retirement income. The equation is:

$$RR = \frac{P}{I_{50-64}}$$

### Pension sustainability

We project pension expenditure (PE) as a percentage of GDP for each country up to year 2050. According to Figliuoli et al. (2018), pension expenditure is a product of four indicators: the old-age dependency ratio (DR), defined as the ratio of the population older than 64 to the population aged 15–64;<sup>55</sup> the eligibility rate (ER), measured as the ratio of pensioners to all adults over 65; the replacement rate (RR); and the inverse of the employment rate (IER), defined as the ratio of the working-age population to the employed. With this definition in mind, and following Clements et al. (2016), the change in pension expenditure as a percentage of GDP from year t-1 to year t can be expressed as:

$$PE(\%GDP)_t = PE(\%GDP)_{t-1} * \left( \frac{DR_t}{DR_{t-1}} \right) * \left( \frac{ER_t}{ER_{t-1}} \right) * \left( \frac{RR_t}{RR_{t-1}} \right) * \left( \frac{IER_t}{IER_{t-1}} \right)$$

We are primarily interested in the impact of demographics on pension expenditures, so in our basic estimates we assume that the eligibility rate, replacement rates, and the inverse of employment rate do not change over time, such that changes in pension expenditures are mainly driven by changes in the old-age dependency ratio.

55. Estimates of old-age dependency ratio were taken from the 2019 World Population Prospects, United Nations.

## D. Healthcare: data and methodology

### Health status

Using data from the Institute for Health Metrics and Evaluation's Global Burden of Disease Results Tool, we calculated the life expectancy and health-adjusted life expectancy of people over age 65. We also calculated years lived with disability, and disease prevalence in people over age 65, by cause and risk factors, and by country.

In addition, three countries in the region have surveys that can be used to calculate the share of individuals who smoke, engage in physical activity, and meet the minimum number of servings of fruits and vegetables per day established by the World Health Organization: the *Encuesta Nacional de Factores de Riesgo* in Argentina (2018); the *Brazilian Longitudinal Study of Aging* in Brazil (2016), and the *Estudio Nacional sobre Discapacidad* in Costa Rica (2018). To report the health risk behavior statistics in Section 2.4.2., we created a dichotomous variable based on self-reported answers. We calculate the percentage of people who currently smoke daily out of all people who currently smoke. The percentage engaging in physical activity includes both high- and low-intensity activities, including walking 10 minutes a day.



## Additional tables, Section 2.4

**TABLE D.1** DISEASE PREVALENCE (PER 100,000 PEOPLE) IN PEOPLE OVER 65, BY CAUSE, 2010 – 2019

	Prevalence			Years lived with disability			Years lived with disability/ prevalence		
	2010	2019	%Δ	2010	2019	%Δ	2010	2019	%Δ
Cardiovascular diseases	28,530	28,051	-1.7	1,572	1,530	-2.6	5,509	5,455	-1.0
Chronic respiratory diseases	15,074	14,711	-2.4	619	653	5.4	4,109	4,436	8.0
Diabetes and kidney diseases	49,665	52,348	5.4	3,272	3,573	9.2	6,589	6,826	3.6
Digestive diseases	60,817	60,765	-0.1	614	587	-4.3	1,009	966	-4.3
Mental disorders	14,690	14,304	-2.6	1,973	1,917	-2.9	13,433	13,398	-0.3
Musculoskeletal disorders	51,020	51,932	1.8	4,325	4,439	2.6	8,477	8,549	0.8
Neoplasms	15,328	15,143	-1.2	383	402	5.0	2,499	2,655	6.3
Neurological disorders	37,586	38,304	1.9	1,583	1,640	3.6	4,212	4,281	1.6
Other non-communicable diseases	80,651	80,742	0.1	2,270	2,284	0.6	2,814	2,829	0.5
Sense organ diseases	78,323	76,331	-2.5	4,374	4,132	-5.5	5,585	5,413	-3.1
Skin and subcutaneous diseases	48,784	49,058	0.6	611	613	0.4	1,253	1,250	-0.2
Substance use disorders	2,035	2,001	-1.7	229	228	-0.6	11,248	11,374	1.1
<b>Total non-communicable diseases</b>	<b>99,932</b>	<b>99,930</b>	<b>0.0</b>	<b>21,825</b>	<b>21,998</b>	<b>0.8</b>	<b>21,840</b>	<b>22,013</b>	<b>0.8</b>

**Source:** Authors' calculations based on data from the Institute for Health Metrics and Evaluation's Global Burden of Disease Results Tool, accessed in December 2020.

**TABLE D.2** RISK FACTORS BY COUNTRY AND AGE GROUP (%)

	% currently smoke	% currently smoke daily	% currently drink	Mean number of servings per day		% engaging in physical activity
				Fruit	Vegetables	
Argentina						
50-60	23.7	82.8	13.1	4.6	1.4	55.8
60-70	18.3	83.2	11	4.6	1.4	63.6
70-80	9.5	86.8	10.4	4.7	1.4	70.7
80+	3.3	79.6	7.6	4.8	1.3	78.5
Brazil						
50-60	21.4	-	-	1.47	3.72	26.3
60-70	16	-	-	1.53	3.66	25.8
70-80	9.9	-	-	1.45	3.42	19.6
80+	5	-	-	1.49	3.35	10.5
Costa Rica						
50-60	8.7	-	29.6	-	-	19.4
60-70	7.8	-	33.4	-	-	19.3
70-80	-	-	-	-	-	-
80+	-	-	-	-	-	-

**Source:** Authors' calculations based on Encuesta Nacional de Factores de Riesgo in Argentina (2018), Brazilian Longitudinal Study of Aging in Brazil (2016), and Estudio Nacional sobre Discapacidad in Costa Rica (2018).

**Note:** Results should be interpreted with caution as each country has a different definition of alcohol and tobacco consumption, dietary habits, and physical activity.

## Healthcare access and quality

Using data from the World Health Organization and the Institute for Health Metrics and Evaluation, we constructed the Universal Health Coverage index for 2017 and the Healthcare Access and Quality index for each country in the region. None of these sources disaggregates the data by age groups. The Healthcare Access and Quality index measures healthcare access and quality in 195 countries for 32 conditions. To calculate the index, the authors first selected 32 conditions based on Nolte and McKee's (2003) list of causes of death that can be prevented with quality healthcare. Second, they calculated risk-standardized death rates for non-cancer causes and mortality-to-incidence ratios for cancers to remove the joint effect of behavioral and environmental risk. Third, they age-standardized the deaths rates and scored them from 0 to 100 for different locations. Finally, they used principal component analysis to calculate the Healthcare Access and Quality index (Fullman et al., 2018). This index therefore reflects how well the health system performs in reaching people who need access and providing quality care (in terms of impact).

In addition, five countries in the region have surveys with information on access to treatments for hypertension and diabetes for people over age 65: the *Encuesta Nacional de Factores de Riesgo* in Argentina (2018), the *Brazilian Longitudinal Study of Aging* in Brazil (2016), the *Estudio Nacional sobre Discapacidad* in Costa Rica (2018), the *Encuesta Nacional de Salud y Nutrición* in Mexico (2018), and the *Encuesta Demográfica y de Salud Familiar* in Peru (2018). Each survey formulates the questions differently. Argentina, Brazil, and Mexico are the only countries where the survey includes anthropometric and biochemical measurements. To report the information in Figure 3.9, we first identified individuals with hypertension and diabetes in the survey. People are classified as having hypertension if their systolic pressure is over 140 mmHg and/or their diastolic pressure is over 90 mmHg and/or if they report being treated for high blood pressure. People are classified as having diabetes if they report levels of blood glucose of over 126 mg/dl and/or report being treated for diabetes. For Costa Rica and Peru we identified individuals based on self-reported answers. Then, we created a dichotomous variable that indicates whether a person with hypertension and diabetes was receiving treatment prior to the survey, including medications and insulin for diabetic patients.

*Additional Table, Section 3.2*

**TABLE D.3** SHARE OF PEOPLE OVER 65 DIAGNOSED WITH HYPERTENSION AND DIABETES RECEIVING TREATMENT, BY SEX (%)

	Age group	Hypertension		Diabetes	
		Men	Women	Men	Women
<b>Argentina</b>	50-64	65.2	66.7	67.5	66.6
	65-79	77.5	80.4	71.4	71.0
	80+	82.1	84.4	65.2	74.0
<b>Brazil</b>	50-64	79.5	89.6	93.2	92.9
	65-79	90.0	95.4	93.0	93.8
	80+	88.2	97.2	92.8	95.4
<b>Costa Rica</b>	50-64	89.7	95.6	89.6	95.1
	65-79	96.3	98.3	95.0	96.2
	80+	99.1	99.8	95.5	99.0
<b>Mexico</b>	50-64	69.3	71.5	97.2	97.6
	65-79	66.2	59.6	98.0	98.4
	80+	73.7	57.8	98.7	99.0
<b>Peru</b>	50-64	62.5	69.9	70.6	89.8
	65-79	84.1	80.9	82.5	82.8
	80+	87.8	91.6	96.4	67.1

**Source:** Authors' calculations based on Encuesta Nacional de Factores de Riesgo in Argentina (2018), the Brazilian Longitudinal Study of Aging in Brazil (2016), Estudio Nacional sobre Discapacidad in Costa Rica (2018), Encuesta Nacional de Salud y Nutrición in México (2018), and Encuesta Demográfica y de Salud Familiar in Perú (2018).

**Notes:** Results should be interpreted with caution as each country has a different definition of accessibility to treatments for each condition. People are considered to have access to treatment to control hypertension, diabetes, and cholesterol if they self-reported receiving treatment the week before the survey. Percentages were calculated based on the total number of people in each age group that self-reported having hypertension or diabetes or that have physical measures indicating those conditions.

## Healthcare sustainability

Our health spending projections for the region are based on Rao et al. (2022) and use trends in population growth, aging, disease prevalence and associated risks factors, and economic growth and technology.<sup>56</sup> We projected current health expenditure (CHE)<sup>57</sup> at the age group (*j*), disease group (*k*), and year (*t*) level using the equation:

$$CHE_t = \sum_j^1 \sum_k^1 S_{tj} * p_{tjk} * \phi_{tjk} * CHE_{t-1jk}$$

Where  $S_{tj}$  is the relative change in population size based on United Nations' population projection data;  $p_{tjk}$  is the relative change in prevalence of disease *k* based on the Global Burden of Disease data from the Institute for Health Metrics and Evaluation;  $\phi_{tjk}$  is calculated as the sum of the contribution of economic growth to health expenditure and the residual factor<sup>58</sup> (i.e., medical prices, new technologies, medical service use intensity, health service coverage). For 2020, this latter factor was set to zero for all countries to account for the impact of COVID-19 and negative economic growth.  $CHE_{t-1jk}$  is the current health expenditure (over the previous year) for disease *k* in age group *j*. Current health expenditure data by age and disease group was compiled for seven countries: Costa Rica, Peru, Mexico, Argentina, Colombia, Trinidad and Tobago, and Brazil. Data sources varied among countries and included health expenditures reported to the World Health Organization's National Health Accounts, household surveys (e.g., the National Health and Nutrition Survey in Mexico, and National Household Survey in Peru), and administrative data (e.g., inpatient and outpatient expenditure from DATASUS and SIASUS in Brazil). To extrapolate current health expenditure at the age and disease level to the other 19 countries in the region, Rao et al. (2022) grouped countries by per-capita health expenditure and used the seven countries with primary data as reference expenditure profiles for the rest of the group. These country groupings were only used to estimate the distribution of current health expenditure across age and disease groups. Other factors, like GDP and population growth, were specific to each country.

56. Economic growth and technology refers to a range of factors that lead to higher health spending but which are difficult to disaggregate, including the discovery of new treatments and technologies, rising input prices, increasing salaries for medical professionals, changes in productivity and changes in financial intermediation.

57. Current health expenditure includes all national spending on health except gross capital formation. It is equivalent to what is commonly described as total health expenditures in most health system analyses.

58. The residual factor is estimated as total health expenditure growth minus the contributions of demographic change, disease prevalence, and economic growth.

## E. Long-term care: data and methodology

### Prevalence of functional dependence

The data on functional dependence in Section 2.5 is from Aranco et al. (2022), which estimates the prevalence of care dependence in 26 Latin American and Caribbean countries. For countries with survey data on care dependence, prevalence is the percentage of people over age 65 who say they have difficulty (or need help) with at least one basic activity of daily living. For countries without survey data, prevalence is predicted as a function of the age, sex, and epidemiological profile of the older population, using coefficients estimated from other countries' survey data (for details, see Aranco et al., 2022).

### Long-term care coverage and quality

#### *Data sources*

The region has very limited data on long-term care coverage and quality. For Section 3.3, we relied on a combination of official information (in the few cases it was available), reports and articles from reliable sources, and a series of case studies on Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, the Dominican Republic, Jamaica, Mexico, and Uruguay (Oliveri, 2020; Aranco et al., 2022; Molina et al., 2020; Flórez et al., 2019; Medellín et al., 2019; Forttes, 2020; Redondo, 2021; Ashby-Mitchell et al., 2022; López-Ortega and Aranco, 2019; Aranco and Sorio, 2019).

We complemented this information with 42 interviews, covering 17 countries, with stakeholders from government, geriatrics or gerontology, and civil society. When the responses of respondents in one country differed, we used the most prevalent response. Whenever possible, we checked the answers provided by the stakeholders against official data and published information. Countries where only one response was available were considered missing values. We made the same assumption for countries where only two conflicting responses were available and no other source of information was found. After these adjustments, we used data from 36 interviews, representing 12 countries. Table E.1 provides a summary of the number of interviews by country and interviewees' area of expertise.

**TABLE E.1** STAKEHOLDER INTERVIEWS: NUMBER OF RESPONSES BY COUNTRY

Country	# respondents in geriatrics	# respondents from the government	# respondents from civil societies organization	Total
Argentina	2	2		4
Bahamas	1	1	1	3
Barbados	1		1	2
Belize	1	1	1	3
Brazil	1	2	1	4
Chile	1	2	1	4
Colombia	1	1	2	4
Costa Rica		1	1	2
Guyana		1		1
Jamaica	1		1	2
Mexico	1	1		2
Peru	1	2		3
Uruguay	1		1	2
<b>Total</b>	14	16	12	42

**Source:** Prepared by the authors based on interviews conducted between January 2021 and June 2021.

### *Estimating coverage rates*

Following the definition stated in Section 3.3, we defined the coverage rate of public long-term care services as:

$$[5] \text{ LTC coverage rate} = \frac{\text{Number of care dependent 65+ receiving public services}}{\text{Number of care dependent 65+}}$$

where the numerator represents the number of care dependent people over age 65 who receive publicly funded long-term care services and the denominator is the number of people in the same age group living in a situation of care dependence (difficulty performing at least one basic activity of daily living).

Due to data availability, however, a number of assumptions are required to compute this ratio. First, data on the number of people receiving publicly funded government services classified by age and level of dependence is not readily available. This is partly because many countries do not have clear rules for who is eligible for benefits (as explained in Section 3.3). With the exception of Uruguay, countries either had no data at all or only had aggregate data on number of users, without further

information about their demographic or care dependence characteristics. To calculate equation [5], we assume all users are over 65 and care-dependent. We are aware this is not always the case (some users could be younger and have milder levels of dependence). As a result, the coverage rate calculated using this formula is an over-estimate (since the “real” numerator is smaller).

The second assumption is about the timing of the data. The data on the number of older people receiving services (numerator) and the number of older people with care dependence (denominator) usually come from different years because they are from different sources. The underlying assumption is that neither the numerator nor the denominator change substantially in a short period of time.

For eight countries (The Bahamas, Belize, Brazil, Colombia, Jamaica, Mexico, Peru, and the Dominican Republic), we based our assessment of coverage on a combination of qualitative information in public reports and documents and information provided by people who took the survey. For 12 countries (Bolivia, Guatemala, Guyana, Haiti, Honduras, Nicaragua, Panama, Paraguay, El Salvador, Suriname, Trinidad and Tobago, and Venezuela), we were not able to collect any reliable information regarding coverage. We assume coverage was very low—under the 5% threshold.

### *Assessing quality levels*

We analyze the quality of long-term care by assessing the extent to which each country’s services meet certain basic criteria for quality of care, specified in Table 3.1. The assessment is qualitative, based on information from publicly available documents and answers from country stakeholders. We were able to complete this information for 14 countries. For countries with no available information, we assume quality is very low.

## Long-term care sustainability

Fabiani et al. (2022) estimate the theoretical cost of different long-term care service systems for 17 countries in Latin America and the Caribbean. Assuming a coverage level of 50%, the cost in 2020 ranges from 0.3% of GDP in Argentina to 1% in Bolivia. To project fiscal sustainability through 2050, the authors use the estimates of adults with functional dependence by Aranco et al. (2022). In this study, the prevalence of care dependence among those over 65 is driven by both the increase in the number of older people and the projected changes in the age and sex structure of the older population. Unitary costs of services (for example the hourly rate of a professional caregiver) are assumed to remain constant in real terms.



## F. Current and future social protection spending

**TABLE F.1** CURRENT AND FUTURE SPENDING ON PENSIONS, HEALTHCARE (PRIVATE AND PUBLIC), AND LONG-TERM CARE, BY COUNTRY, AS SHARE OF GDP (%)

Country	Pensions				Health				Long Term Care (LTC)			
	2020	2030	2040	2050	2020	2030	2040	2050	2020	2030	2040	2050
Argentina	9,5	10,6	12,1	15	9,2	9,9	11	12,3	0,3	0,4	0,5	0,6
Bahamas	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	6,1	6,9	7,7	8,4	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>
Barbados	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	6,8	7,8	8,8	9,9	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>
Belize	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	6,2	7,4	9,1	11,4	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>
Bolivia	3,9	4,1	4,4	4,8	6,3	6,6	7,1	7,8	1,0	1,5	2,0	2,5
Brazil	9,8	14,2	19,2	26,2	9,7	10,9	12,4	13,9	0,4	0,6	0,9	1,2
Chile	2	2,8	3,7	4,4	9,3	10,3	11,7	13	0,5	0,6	0,9	1,2
Colombia	4,7	4,1	3,7	3,4	7,5	8	8,7	9,4	0,5	0,8	1,3	1,7
Costa Rica	4	6	7,9	10,2	7,4	7,9	8,7	9,6	0,6	1,0	1,4	1,8
Dominican Republic	0,6	0,8	1,1	1,3	5,7	6,6	7,9	9,6	0,2	0,3	0,5	0,7
Ecuador	2,9	3,5	4,2	4,9	8,3	9	10,2	11,6	0,6	1,0	1,5	1,9
El Salvador	2,2	2,7	3,3	4,1	7,3	8,1	9,2	10,8	0,3	0,3	0,5	0,6
Guatemala	0,8	0,9	1,1	1,2	6,3	7,4	9	11,4	0,6	0,9	1,3	1,9
Guyana	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	4,7	4	3,4	2,8	0,3	0,6	0,8	0,9
Honduras	1,9	2,5	3,4	4,9	7,2	7,9	9,1	10,7	0,8	1,3	2,0	3,0
Jamaica	0,9	1,3	1,6	2,1	5,7	6,7	8	9,5	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>
Mexico	3,6	4,8	6,9	9,3	5,6	6,3	7,3	8,3	0,5	0,8	1,2	1,6
Nicaragua	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	8,9	10,1	12,1	14,8	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>
Panama	3	4	5,3	6,5	7,4	7,7	8,4	9,1	0,46	0,76	1,08	1,42
Paraguay	3	3,5	4,2	5,2	7,1	7,4	7,9	8,6	0,2	0,3	0,4	0,5
Peru	1,4	1,9	2,5	3,3	5	5,4	6,1	6,9	0,5	0,8	1,2	1,5
Suriname	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	7	7	7,1	7,2	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>
Trinidad and Tobago	4,5	6,2	7,1	9,5	6	7	8,5	10,2	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>	n.a <sup>(a)</sup>
Uruguay	8,8	10	11,4	13,1	8,7	8,8	9,3	10	0,4	0,5	0,5	0,6
Regional average	3,9	4,8	5,9	7,4	7,4	8,0	9,0	10,2	0,5	0,7	1,0	1,4

**Source:** Authors' calculations based on data from the Inter-American Development Bank's Labor Markets and Social Security Information System; International Monetary Fund, World Economic Outlook Database; OECD, Data Pension and Health Spending; World Health Organization, Global health estimates; United Nations 2019; and national statistical institutes.

**Notes:** (a) means no data is available. The regional value is computed as an unweighted average of the 16 Latin American countries shown in the table.



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