

# Funding Options for Long-Term Care Services in Latin America and the Caribbean

Social Protection and Health  
Division

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# Funding Options for Long-Term Care Services in Latin America and the Caribbean

Beatrice Fabiani<sup>i</sup>, Joan Costa-Font<sup>ii</sup>, Natalia Aranco<sup>i</sup>, Marco Stampini<sup>i</sup> and Pablo Ibarrarán<sup>1</sup>

## Abstract<sup>1</sup>

Across Latin America and the Caribbean, demographic and social changes have led many countries to place long-term care on their social policy agendas. But to implement these policies, countries must overcome major obstacles that include estimating service costs and defining funding sources to ensure financial viability and sustainability. The lack of data on potential demand, underdeveloped services, and a fragmented existing supply make it difficult to produce these estimates. This publication helps fill this information gap by estimating the potential cost of four long-term care service packages with various levels of coverage (low, medium, high and full) for 17 countries in the region. It also assesses the feasibility of the different funding mechanisms in order to identify their main advantages and disadvantages, based on each country's context.

**Key words:** long-term care, population aging, Latin America and the Caribbean, social insurance, public finance.

**JEL:** H5, I18, J14, J18, O54

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## 1. Introduction

Designing long-term care policies has become increasingly important on social policy agendas in Latin America and the Caribbean. Several countries have approved—or are working to approve—legislative frameworks for care systems for older people experiencing care dependence.<sup>2</sup> But to implement these systems, countries must overcome major obstacles like the analysis of their cost and financial sustainability. In other words, they need to find answer to questions like: How many resources are required to establish a long-term care system? Which funding mechanisms could ensure a budget that guarantees the system's feasibility and sustainability over time?

This study presents a critical discussion of the feasibility of different mechanisms for funding long-term care systems in the region. First, we estimate the potential cost of providing four different packages of services, with low, medium, high and full coverage levels for 17 countries. We then analyze the feasibility of different public funding alternatives (with a particular focus on social insurance and general taxation options), highlighting the advantages and disadvantages of each mechanism.

We start from the assumption that in order to fund long-term care services, there must typically be an agreement (either implicit or explicit) between the State, the market, and family units. This agreement shapes the degree of public intervention in each country, and the economic burden on families (Costa-Font and Zigante, 2020). However, it is possible to broadly differentiate between agreements that focus on cost sharing by promoting the practice of hiring services on the market or in the community, and those that encourage informal care through cash transfers (*ibid.*). The latter approach, while potentially cheaper, tends to perpetuate the gender-based division of unpaid work, and it also fails to guarantee the quality of care provided (Cafagna et al., 2019; Costa-Font et al., 2018). It also may lead to inefficiencies if part of the aid is not spent on long-term care services (Costa-Font and Vilaplana, 2017). For these reasons, this publication focuses on formal care services financed by the State, either directly or indirectly (through vouchers or targeted transfers specifically for obtaining services on the market).

This report is organized as follows. In the next section, we first present certain general concepts and then analyze the available data on current long-term care spending in Latin America and the Caribbean. We then compare this data with some member countries of the Organization for Economic Co-operation and Development (OECD), where care services are, in general, more developed. In section 3, we present different funding scenarios for 17 countries in the region, along with a projection of these needs through 2050. Section 4 discusses the feasibility of various funding options in each country, with their main advantages and disadvantages. In section 5, we discuss some cost-control mechanisms, including co-funding by users of the services. Then, in section 6, we discuss the limitations of our estimates and we conclude with social policy recommendations.

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<sup>2</sup> Although several countries also include children and even adolescents who require support for daily living, in this publication we refer mainly to older people experiencing care dependence.

## **2. Current spending on long-term care in Latin American and Caribbean countries compared to OECD countries**

According to the OECD definition (2020a), long-term care expenditures usually include a health component and a social component. The health component includes certain medical and nursing care (such as medication administration, wound care, rehabilitation activities, etc.), as well as assistance with basic activities of daily living, such as eating or bathing. The social component includes assistance with instrumental activities of daily living, such as shopping or cooking.

The data available in Latin America and the Caribbean cannot be disaggregated into these two components, making comparison among countries difficult. In this publication, when we estimate funding needs (section 3), we are only referring to the assistance in basic activities of daily living, which provides a conservative estimate of funding needs.

Although the country data on current spending on long-term care services are incomplete, some specific estimates are known. For example, the OECD estimates that in 2018, Chile and Mexico spent about 0.1% of GDP on long-term care;<sup>3</sup> these estimates include spending by both the public sector and households (OECD, 2020b). In Uruguay, public spending on services for people experiencing care dependence amounted to 0.04% of GDP in 2017. The figure for this country includes coverage for people under age 30 with disabilities and young children, apart from older people experiencing care dependence (Cafagna et al., 2019). In general, these spending levels correspond to low levels of coverage and quality (Arando et al., 2022).

These figures are significantly lower than those reported by several OECD countries, which spent an average of 1.5% of GDP on long-term care funding in 2018. This percentage is equivalent to USD 750 per user (OECD, 2020a). Among the OECD countries able to separate data between social and health components, health-related spending accounted for 70% of the total. The average masks very heterogeneous realities, with expenditures ranging from 3.9% of GDP in the Netherlands to 2.1% in Germany, 0.9% in Italy and Portugal, and 0.01% in Bulgaria (EC, 2021). The main difference lies in the formality of care and the public resources allocated to it. For example, in Scandinavian countries and the Netherlands, a high percentage of care services is formal, and the public budget covers a large part of the services through home care. In contrast, public spending is lower in countries where family units assume the cost of services, either informally or through market mechanisms. In these contexts, public subsidy tends to take the form of cash benefits (Rodrigues et al., 2013).

## **3. Funding needs in Latin America and the Caribbean**

### **Existing estimates**

There are two general approaches to estimating the cost of a long-term care system. On the one hand, de la Maisonneuve and Oliveira Martins (2013, 2015) use a top-down, or macro, approach, estimating the cost of the care system based on national accounts in OECD countries. On the other hand, different authors (Matus-López and Cid Pedraza, 2014; Matus-López, 2017; Matus-López,

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<sup>3</sup> It is important to clarify that, among the OECD countries, Chile and Mexico did not report official information on long-term care spending, and that these data provide estimated values. In both cases, this information is considered an underestimate of the total cost of the system.

2018; González-González et al., 2019) take a bottom-up, or micro, approach, where the estimate is based on observing the cost of services and applying the observed values to programmed levels of coverage. We use the latter approach in this study.

In Chile, Matus-López and Cid Pedraza (2014) estimate the annual cost of a home care model that covers 20% of people over age 65 with moderate and severe care needs. The model includes different combinations of hours and types of care, and its estimated cost represents 0.45% of GDP in 2012. Due to population aging, the cost would have been 30% higher in 2020, reaching 0.58% of GDP.

In Mexico, González-González et al. (2019) estimate that in 2013 a long-term care system would have cost between 0.13% and 0.34% of GDP, depending on the level of coverage. For Uruguay, Matus-López (2017) provides estimates for different scenarios under its existing model. He concludes that, if implemented to cover 60% of people with severe care needs, the system would cost 0.19% of GDP (at 2017 values).

For Costa Rica's estimates, which are used as a reference point in this publication, Matus-López (2018) uses a model that delivers the following services: (i) home care (80 hours per month with coverage for 80% of people with severe care needs); (ii) day centers (covering 10% of people with moderate and severe care needs); (iii) telecare (for 50% of people with moderate care needs); and (iv) residential care (assuming everyone currently served by residential care facilities is formally incorporated into the system). Under these assumptions, he estimates a system cost of 0.35% of GDP in 2018 (with a variation margin of between 0.28% and 0.43%).

The National Long-Term Care Policy 2021-2031 of Costa Rica considers the implementation of a basic care model with a coverage of 55.9% of the total number of people with dependency and 88.7% of people with severe and moderate dependency. The estimated cost of the system, which includes home care, residential care, day centers, and telecare, is 0.48% of GDP in 2018 (IMAS, 2021).

In seven countries in the region (Argentina, Chile, Costa Rica, El Salvador, Mexico, Paraguay and Uruguay), Medellín (2020) estimates that a full-coverage, long-term care system for people over age 60 experiencing care dependence would cost between 0.5 and 1.0% of GDP.

## **Our estimates**

In this section, we estimate the potential cost of different service packages for 17 countries in the region, based on updated estimates of the prevalence of functional dependency (Table 1). We define the target population as people over age 65 who have difficulty or need help with at least one basic activity of daily living, as estimated by Aranco, Ibarrarán and Stampini (2022).<sup>4</sup> We considered four coverage scenarios: low (35%), medium (50%), high (70%) and full (100%). The range of services is composed of residential care facilities, home care, day centers, and telecare. Table I.1 in Annex I presents the different combinations of services for each coverage scenario.

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<sup>4</sup> This is consistent with the definition of functional dependence adopted, for example, by WHO (2004) and Aranco et al. (2018).

For residential care facilities and day centers, we took the cost values provided by Matus-López (2018) for Costa Rica as our starting point, and adjusted them for each country based on differences in labor costs. For example, the cost of day centers in Argentina is calculated as the cost of day centers in Costa Rica multiplied by the ratio of the average monthly wage in Argentina to the monthly wage in Costa Rica. This methodology assumes that human resources are the main component of the cost of these services, as opposed to infrastructure or other operating costs.<sup>5</sup>

For home care, we assume beneficiaries receive 8 hours of assistance per day. The cost of the service would therefore be equivalent to the average monthly salary of home caregivers in each country. Unfortunately, we do not have data on caregiver labor costs by country, so we used the average wage in the economy. For the cost of telecare, we use the values provided by Benedetti et al. (2022).

The cost of the long-term care system is the sum of the total cost of residential care facilities, home care, day centers and telecare, based on the different service packages and coverage in each scenario. We also added 20% for other administrative and operating costs.<sup>6</sup> Annex I presents the detailed methodology used to calculate the costs of each service and the total funding needs for each country.

The average expenditure needed to implement a low-coverage system is approximately 0.27% of GDP (Table 1). Table 1 shows a high degree of heterogeneity among countries. In the low-coverage scenario, spending varies from 0.11% of GDP in Paraguay to 0.56% of GDP in Bolivia. This variability is due to differences in the prevalence of functional dependence and how it is measured (which determines the number of service users), labor costs (the main component of the unit cost of services), and GDP. In Bolivia, for example, the combination of high labor costs relative to GDP, high rates of care dependence, and a relatively lower GDP means care services are comparatively more expensive than in other countries.

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<sup>5</sup> Alternatively, labor costs also represent a useful adjustment factor for infrastructure and operating costs.

<sup>6</sup> This percentage represents the cost of administrative personnel and supplies, information technology, and other general expenses.

**Table 1. Cost of a long-term care system (% GDP), 2019**

Country	Low coverage (35%)	Medium coverage (50%)	High coverage (70%)	Full coverage (100%)
Argentina	0.16	0.29	0.46	0.71
Bolivia	0.56	1.02	1.63	2.54
Brazil	0.21	0.38	0.61	0.95
Chile (2017)	0.25	0.45	0.71	1.11
Colombia	0.30	0.54	0.87	1.35
Costa Rica	0.33	0.61	0.97	1.51
Ecuador	0.34	0.62	0.99	1.55
El Salvador	0.14	0.25	0.40	0.62
Guatemala	0.32	0.58	0.92	1.44
Guyana	0.19	0.34	0.55	0.85
Honduras	0.45	0.80	1.28	1.99
Mexico (2018)	0.30	0.54	0.86	1.34
Panama	0.25	0.46	0.73	1.14
Paraguay	0.11	0.21	0.33	0.52
Peru	0.29	0.52	0.83	1.30
Dominican Republic	0.13	0.23	0.37	0.57
Uruguay	0.22	0.40	0.64	1.01
<i>Unweighted average</i>	0.27	0.48	0.77	1.21

**Source:** Authors' compilation.

**Note:** Estimates are for 2019, except in the cases of Mexico (2018) and Chile (2017), due to the lack of updated data on the number of employed persons contributing to social security, a variable required for the calculation. The data used to generate the estimates come from the IDB (2022) and the World Bank (2022).

### Long-term funding needs

When considering the different options for funding care services, in this publication we focus on services with a cost that is *sustainable over time*, especially in a context where total care spending is likely to increase in the future, due to both demographic and non-demographic factors (de la Maisonneuve and Oliveira Martins, 2015). A key demographic factor is the number of care-dependent people in the population. Changes in this aspect depend on potential gains in longevity (in particular, after age 75) and the extent to which these gains translate to years lived in good health. The latter, in turn, will depend (at least in part) on countries' health spending. Meanwhile, non-demographic aspects are tied to variations in income, changes in the cost of caregiver labor (relative to the cost of other jobs),<sup>7</sup> and changes in the informal supply of care, especially in response to female labor participation (*ibid.*). In this study, we take a simplified approach and consider only the effects of the increase in the population of older people and the

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<sup>7</sup> The Baumol effect posits that the productivity of certain services (especially health, education and transportation) stagnates due to structural factors. These sectors compete with other areas (e.g., manufacturing) in which productivity increases over time, which leads both sectors to become more expensive in relative terms.

prevalence of functional dependence in this group, based on data from Aranco, Ibarrarán and Stampini (2022). We keep the unit cost of services constant, in real terms.

Table 2 shows the projections to 2050 for the different coverage scenarios. On average, we estimate that a system covering 70% of the population over age 65 who are experiencing care dependence will cost 2.21% of GDP in 2050. This is an increase of over 1.5 percentage points of GDP from 2020. To compare this figure to other regions, the European Union estimates its average system cost will be 3% of GDP in 2070 (EC, 2018).

**Table 2. Long-term projections of system cost (% GDP), 2050**

Country	Low coverage (35%)	Medium coverage (50%)	High coverage (70%)	Full coverage (100%)
Argentina	0.32	0.58	0.92	1.44
Bolivia	1.37	2.48	3.96	6.17
Brazil	0.63	1.15	1.83	2.85
Chile (2017)	0.67	1.22	1.94	3.04
Colombia	0.96	1.72	2.75	4.29
Costa Rica	1.00	1.81	2.90	4.52
Ecuador	1.07	1.93	3.08	4.81
El Salvador	0.32	0.58	0.93	1.45
Guatemala	1.07	1.93	3.07	4.79
Guyana	0.48	0.87	1.38	2.15
Honduras	1.64	2.96	4.72	7.35
Mexico (2018)	0.88	1.59	2.54	3.96
Panama	0.78	1.42	2.26	3.54
Paraguay	0.30	0.54	0.86	1.34
Peru	0.85	1.54	2.46	3.84
Dominican Republic	0.37	0.66	1.05	1.64
Uruguay	0.34	0.62	1.00	1.55
<i>Unweighted average</i>	0.77	1.39	2.21	3.45

**Source:** Authors' compilation.

#### 4. Traditional funding options

Funding can occur before the *need for care arises (ex-ante)*. This is the case for insurance, savings and prevention systems. Alternatively, funding can occur *after the need for care arises*, to address the need for care (*ex-post*). This is the case in systems funded by general taxation (Costa-Font et al., 2015).

In countries with *ex-ante* funding models, insurance models cover only part of the population, both under social insurance models (as in Germany, Japan or Korea) and under private insurance models (Singapore or the United States). In the first case, only those who pay social security contributions (i.e., formal workers) are covered, so these systems have to be supplemented with some type of *ex-post* funding for the non-covered population. Models based on private insurance tend to be supplemented with funding for those who cannot afford private insurance (like Medicaid

in the United States). Systems centered on savings and self-financing via private pensions and reverse mortgages represent another *ex-ante* model.

Among general taxation models (*ex-post*), a distinction can be made between models designed to be universal (Netherlands, Spain, Scotland, Scandinavian countries) and models with some type of cost-containment mechanism, such as means testing (Italy or the United Kingdom), partial benefits or co-payments (France), or exclusive coverage of catastrophic risks (recently proposed in the United Kingdom). System designs could also be sorted according to whether they are funded by national, regional or local taxes, but in this publication, we assume that jurisdictional differences are not relevant in aggregate terms.

Below, we analyze how feasible it is for Latin American and Caribbean countries to fund different service packages under the world's three most common modalities: social insurance (*ex-ante*), taxation (*ex-post*), and a combination of both. We then present other options that are less proven globally but that are worth analyzing for Latin America and the Caribbean. In section 5, we expand the analysis with the most widely used cost-containment mechanisms around the world.

### **Social insurance**

In this section we discuss the feasibility of implementing a system financed through specific social security contributions. In these systems, the social security contribution rates of the formally employed population should increase to ensure access to services in case of need. In other words, a system with full coverage would be created for this population (last column in Table 1). The social security system offers the advantage of generating a right for users experiencing care dependence who contributed during their working life. A taxation system does not provide this benefit.

Under the assumption that the prevalence of care dependence has no association with individual employment status (formal or informal), the cost of a system focused only on people with formal employment is the percentage of GDP presented in the full coverage column in Table 1, multiplied by the percentage of the working age population that is formally employed. For example, if 30% of the adult population in Argentina is formally employed<sup>8</sup> and a system costs 0.71% of GDP, it is necessary to collect an additional 0.22% of GDP through social insurance. This publication considers funding to be based on a pay-as-you-go system and not on individual capitalization, and therefore population aging (and the consequent increase in the number of care-dependent people) could introduce financial sustainability issues, which should be considered in future projections. It should also be noted that our estimates are based on individual coverage for each worker, without calculating extensions to spouses or other dependents.<sup>9</sup>

Feasibility depends on the size of these contributions, which determines, on the one hand, what percentage of the population is covered under this funding scheme and, on the other, the

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<sup>8</sup> This figure was calculated using the number of employed persons contributing to social security (as a % of the employed population) and the employment rate, defined as the percentage between the total number of employed persons and the working age population (IDB, 2022).

<sup>9</sup> Extension to household members, such as spouses, would result in higher coverage but also higher costs. Our assumption helps us to think about the gender and social implications of tying the social insurance of certain individuals to their family or marital status. The equity of these arrangements is questioned, especially in contexts where gender gaps in labor participation are still significant, and formal and stable marital unions are becoming less common.

magnitude of the revenue increase required to finance the system. If the system ends up covering only a small part of the population, it will have limited relevance, or the funding must be supplemented through other sources (e.g., general taxation, as we will discuss in the section on the mixed approach). On the other hand, if the required revenue increase is high, it may be politically difficult to implement.

In this analysis, we assume that implementing the funding approach is politically viable only if the required revenue increase remains under 5% (relative to current social security revenue in each country). Assuming fixed (non-progressive) contribution rates and no deductions, this percentage corresponds to the necessary increase in existing contribution rates. In other words, increasing contribution rates by 5% is equivalent to an increase in total revenue of 5%. The 5% threshold is arbitrary, and the analysis could easily be replicated using different and/or country-specific values. However, it is a simple criterion to apply and provides interesting indications of feasibility in each country.

Table 3 presents estimates of the cost of social insurance for the region and the resources needed to finance a system using this mechanism. Given the characteristics of social insurance, everyone who contributes to the system is entitled to use its services, so the coverage scenario used is 100% of the formally employed population. Based on the above example, funds collected for social security in Argentina are currently equivalent to 5.7% of GDP. The 0.22% of GDP needed to finance the system represents 3.8% of current funds collected, which is below the hypothetical political viability threshold of 5%. Based on this threshold, only four of the 17 countries considered—Argentina, Brazil, El Salvador and Paraguay—can adopt a mechanism financed via social insurance.

The amount of funds collected from social security contributions varies widely throughout the region (from 0.1% in the Dominican Republic to 8.5% in Brazil). This, *a priori*, could be due to differences in contribution rates or differences in the percentage of the population that contributes (formal employees), or a combination of both. However, if the contributor base is smaller (due to informal employment rates), the proportion of people covered by this mechanism will also be lower.

Again, social insurance only covers those who contribute to social security, so it is more relevant in countries with a high percentage of formally employed people. For example, in Honduras or Guatemala, a system with this funding approach would cover only 11% of the population, while in Uruguay coverage would reach 52% (Table 3, column 2).

In addition, low levels of labor participation and employment formality among women mean that a system based on social insurance creates significant gender differences in access. For example, in Guatemala, this type of system would cover half as many women as men (Table 4). Although gender gaps in access to formal social protection have decreased in recent years (ILO 2018), they remain a particularly significant problem in countries such as Chile, Costa Rica and El Salvador, as illustrated in Table 4.<sup>10</sup>

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<sup>10</sup> These data were calculated based on information from the Inter-American Development Bank's Labor Markets and Social Security Information System (<https://www.iadb.org/en/sector/social-investment/sims/home>) on employed men and women contributing to social security (as a % of the employed population) and the employment rate for men and women.

In this context, governments will have to consider other funding mechanisms to cover those who have not worked in the formal sector and to close gender gaps. They will also have to implement policies that encourage female employment and formal employment in general.

**Table 3. Feasibility of funding through social insurance**

Countries	Formally employed people of working age (%)	System cost for formal employees (%GDP)	Social security tax revenues (%GDP) (a)	% Increase in social security revenue needed to fund the system
Argentina	30.35	0.22	5.7	3.79
Bolivia	15.29	0.39	6.2	6.27
Brazil	40.11	0.38	8.5	4.46
Chile (2017)	43.62	0.49	1.5	32.37
Colombia	26.10	0.35	1.9	18.59
Costa Rica	42.47	0.64	8.1	7.92
Ecuador	26.29	0.41	5.5	7.39
El Salvador	16.97	0.11	2.7	3.91
Guatemala	11.55	0.17	2.2	7.56
Guyana	20.12	0.17	2.2	7.79
Honduras	11.46	0.23	3.4	6.72
Mexico (2018)	21.59	0.29	2.2	13.18
Panama	34.51	0.40	5.8	6.81
Paraguay	17.98	0.09	3.7	2.51
Peru	16.23	0.21	2.0	10.55
Dominican Republic	29.40	0.17	0.1	168.00
Uruguay	51.92	0.52	7.7	6.79
<i>Unweighted average</i>	26.82	0.31	4.1	18.51

**Source:** Authors' compilation based on data from IDB (2022), OECD et al. (2021); OECD et al. (2019).

**Note:** Cells are highlighted in green when the mechanism is viable in that country. (a) This includes "compulsory payments to public administrations that grant a right to receive a future social benefit (contingent)", such as unemployment and accident insurance, retirement, disability, and survivors' pensions, or health coverage. Contributions to private insurance plans, or other types of plans that do not involve general government contributions, are not included (OECD et al. 2019, p. 318).

**Table 4. Formal employment for men and women (% of employees), 2019**

Countries	Women	Men	Difference (percentage points)
Argentina	26.19	34.73	8.54
Bolivia	11.49	19.33	7.84
Brazil	34.76	45.86	11.09
Chile (2017)	35.68	52.43	16.75
Colombia	21.29	31.10	9.81
Costa Rica	30.88	54.89	24.01
Ecuador	21.72	31.03	9.30
El Salvador	11.30	23.62	12.33
Guatemala	7.51	16.15	8.64
Guyana	19.16	21.18	2.02
Honduras	9.60	13.61	4.01
Mexico (2018)	16.20	27.49	11.28
Panama	28.84	40.54	11.70
Paraguay	14.74	21.28	6.54
Peru	12.46	20.32	7.86
Dominican Republic	26.82	32.14	5.32
Uruguay	47.46	56.49	9.03
<i>Unweighted average</i>	21.61	30.82	9.77

**Source:** Authors' compilation based on IDB data (2022).

### General taxation

As an alternative to a social insurance approach, countries may decide to finance a long-term care system by allocating part of their budget from general tax revenue. If they cannot save costs by making the existing expenditure structure more efficient, they may decide to raise general taxation rates to obtain additional revenue. As in the previous section, we assume this route is politically viable if it does not require a tax hike of more than 5% of the current level. Again, assuming fixed (non-progressive) tax rates and no deductions, this is equivalent to a revenue increase of up to 5% of current levels.

Unlike insurance systems, general taxation can potentially finance services for the entire population, including those working in the informal sector (although some countries set eligibility restrictions based on age, level of care dependence, or income level of the care-dependent person as a way to contain costs). This type of mechanism can limit the gender bias of systems financed through social insurance. Table 5 shows tax revenues net of social security for 2019.<sup>11</sup> As with revenues from social security contributions, there is a high degree of variability among countries in the region, from a minimum of 8.3% of GDP in Panama to a maximum of 24.6% of GDP in Brazil. In countries such as Panama or Paraguay, where total tax revenues are lower, it might be politically easier to raise taxes. At the same time, the percentage increase in revenues

<sup>11</sup> Total revenue net of social security was calculated by adding up tax revenues from the main tax items, which include income and profits, payroll, property, goods and services, and others, excluding revenues received from social security contributions (OECD et al., 2021; OECD et al., 2019).

needed to finance a long-term care system will be higher in those same countries, which will make the reform more difficult from a political standpoint.

**Table 5. Tax revenues net of social security, by category (% GDP), 2019**

Countries	Tax revenues on main items					Total income (net of social security)
	Income and profits	Payroll	Property	Goods and services	Others	
Argentina	5.1	0.0	2.6	15.0	0.2	22.9
Bolivia	4.0	0.0	0.2	12.1	2.2	18.5
Brazil	7.4	0.6	1.5	14.2	0.9	24.6
Chile (2017)	7.0	0.0	1.1	11.0	-0.4	18.7
Colombia	6.4	0.3	1.8	8.5	0.9	17.9
Costa Rica	4.9	1.4	0.4	8.2	0.5	15.4
Ecuador	4.3	0.0	0.3	10.0	0.0	14.6
El Salvador	7.0	0.1	0.2	10.5	0.3	18.1
Guatemala	3.7	0.2	0.2	6.8	0.0	10.9
Guyana	8.8	0.0	0.5	11.6	0.2	21.1
Honduras	5.6	0.2	0.6	11.3	0.8	18.5
Mexico (2018)	7.1	0.4	0.3	5.8	0.2	13.8
Panama	3.7	0.2	0.3	4.1	0.0	8.3
Paraguay	2.5	0.0	0.2	7.4	0.1	10.2
Peru	6.1	0.0	0.4	7.8	0.3	14.6
Dominican Republic	4.3	0.1	0.6	8.5	0.0	13.5
Uruguay	7.6	0.0	2.2	11.4	0.2	21.4
<i>Unweighted average</i>						
LAC	5.6	0.2	0.8	9.7	0.4	16.6
OECD	11.3	0.5	1.8	10.8	0.2	24.6

**Source:** OECD et al. (2021); OECD et al. (2019).

**Note:** LAC = Latin America and the Caribbean.

Tax revenues in Latin America and the Caribbean are primarily collected at the central or federal level, accounting for more than two-thirds of total public-sector revenues. This is only slightly higher than OECD country figures, where such revenues account for 60% of the total (OECD et al., 2021).

To estimate how much the tax burden should increase to raise the tax revenues needed to finance the system, we use the information on costs presented in Table 1 and the tax revenues net of social security presented in Table 5. For example, if the estimated cost of the system is 0.16% of GDP in Argentina, tax revenues should increase by 0.69% (0.16% divided by 22.9%, which represents total tax revenues net of social security).

Assuming a low-coverage scenario (35%), the last column of Table 6 shows that funding a system through a general tax hike is viable in all countries considered (in all cases, tax revenues would increase by less than 5%). However, in a high-coverage scenario (70%), this funding option is feasible in only nine countries (Argentina, Brazil, Chile, Colombia, Dominican Republic, El Salvador, Guyana, Paraguay and Uruguay). In the medium-coverage scenario (50%), this

funding mechanism is viable in five additional countries (Costa Rica, Ecuador, Honduras, Mexico and Peru). Annex II presents the calculations for the medium- and high-coverage scenarios.

**Table 6. Feasibility of funding through general taxation - Low coverage (35%)**

Countries	Cost of system (% GDP)	Tax revenues on main items (net of social security) (%GDP)	% Increase in tax revenues (net of social security)
Argentina	0.16	22.90	0.69
Bolivia	0.56	18.50	3.05
Brazil	0.21	24.60	0.85
Chile (2017)	0.25	18.70	1.32
Colombia	0.30	17.90	1.68
Costa Rica	0.33	15.40	2.17
Ecuador	0.34	14.60	2.35
El Salvador	0.14	18.10	0.77
Guatemala	0.32	10.90	2.94
Guyana	0.19	21.10	0.90
Honduras	0.45	18.50	2.41
Mexico (2018)	0.30	13.80	2.17
Panama	0.25	8.30	3.05
Paraguay	0.11	10.20	1.13
Peru	0.29	14.60	1.98
Dominican Republic	0.13	13.50	0.95
Uruguay	0.22	21.40	1.04
<i>Unweighted average</i>			
LAC	0.27	16.65	1.73
OECD	1.5	24.6	6.10

**Source:** Authors' compilation based on data from IDB (2022), OECD et al. (2021); OECD et al. (2019).

**Note:** LAC = Latin America and the Caribbean.

Cells are highlighted in green when the mechanism is viable in that country.

### **Mixed funding: social insurance and general taxation**

Governments in the region may also adopt a mixed funding system that includes social insurance and general taxation. In this case, the formally employed population would be covered by a social insurance system, while the rest of the population would be covered by general taxation. Table 7 presents the calculations of the feasibility, costs and coverage of a mixed system. In these calculations, the part subsidized through general taxation follows the low coverage (35%) scenario.

For example, in Colombia, the component funded through social insurance represents 0.35% of GDP, offering full coverage to the 26.1% of the population that is formally employed (Table 3). In contrast, the component subsidized through general taxation would cost 0.22% of GDP, providing coverage to another 35% of the total population of care-dependent people, in this case those not part of the system with formal employment (Table 6). The system would cost 0.58% of GDP, with coverage for 51.96% of older people experiencing care dependence (Table 7).

Assuming the system is politically feasible only if tax revenue collection—for both social security contributions and general taxes—increases by less than 5% relative to the current situation, only four of the 17 countries considered would be able to adopt the mixed funding approach. These four are Argentina, Brazil, El Salvador and Paraguay. This is the same result as the previous section on the social insurance. In other words, the mixed approach is feasible only in countries where social insurance is viable.

In addition to its limited feasibility in the region, this funding approach replicates a long-standing problem with social protection systems in contexts of high labor informality. The problem is that it leads to inequality, due to significant differences in coverage depending on employment status. Although countries could set restrictions to limit coverage in the part of the system funded through social insurance (for example, by establishing an age limit or a higher level of care dependence for accessing benefits), social insurance systems by their very nature tend to establish higher levels of coverage when this funding method is applied.

**Table 7. Feasibility of mixed funding**

Countries	Cost of social insurance component (% GDP)	Social security contribution (% GDP) (a)	% increase in social security revenue	Cost of component subsidized through general taxation, with low coverage (% GDP)	Tax revenues on main items (net of social security) (% GDP)	% increase in tax revenues (net of social security)	Total system cost (% GDP)	Coverage for care-dependent older people (%)
Argentina	0.22	5.7	3.79	0.11	22.90	0.48	0.33	54.73
Bolivia	0.39	6.2	6.27	0.48	18.50	2.59	0.87	44.94
Brazil	0.38	8.5	4.46	0.13	24.60	0.51	0.50	61.07
Chile (2017)	0.49	1.5	32.37	0.14	18.70	0.74	0.62	63.35
Colombia	0.35	1.9	18.59	0.22	17.90	1.25	0.58	51.96
Costa Rica	0.64	8.1	7.92	0.19	15.40	1.25	0.83	62.61
Ecuador	0.41	5.5	7.39	0.25	14.60	1.73	0.66	52.09
El Salvador	0.11	2.7	3.91	0.12	18.10	0.64	0.22	46.03
Guatemala	0.17	2.2	7.56	0.28	10.90	2.60	0.45	42.50
Guyana	0.17	2.2	7.79	0.15	21.10	0.72	0.32	48.08
Honduras	0.23	3.4	6.72	0.39	18.50	2.13	0.62	42.45
Mexico (2018)	0.29	2.2	13.18	0.23	13.80	1.70	0.53	49.03
Panama	0.40	5.8	6.81	0.17	8.30	2.00	0.56	57.43
Paraguay	0.09	3.7	2.51	0.09	10.20	0.92	0.19	46.68
Peru	0.21	2.0	10.55	0.24	14.60	1.66	0.45	45.55
Dominican Republic	0.17	0.1	168.00	0.09	13.50	0.67	0.26	54.11
Uruguay	0.52	7.7	6.79	0.11	21.40	0.50	0.63	68.75
<i>Unweighted average</i>	0.31	4.08	18.51	0.20	16.65	1.30	0.51	52.43

**Source:** Authors' compilation based on data from IDB (2022), OECD et al. (2021); OECD et al. (2019).

**Note:** Cells are highlighted in green when the mechanism is viable in that country. (a) This includes "compulsory payments to public administrations that grant a right to receive a future social benefit (contingent)", such as unemployment and accident insurance, retirement, disability, and survivors' pensions; or health coverage. Contributions to private insurance plans, or other types of plans that do not involve general government contributions, are not included (OECD et al. 2019, p. 318).

Table 8 summarizes the discussion up to this point and shows the feasibility of the various approaches to funding a long-term care system in different countries in Latin America and the Caribbean.

**Table 8. Summary of the feasibility of funding approaches**

Funding approach	Coverage level	Countries where it is feasible
Social insurance	Full coverage for people with formal employment (100%)	Argentina, Brazil, El Salvador, Paraguay
General taxation	Low coverage (35%)	Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Mexico, Panama, Paraguay, Peru, Uruguay, Uruguay
	Medium coverage (50%)	Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guyana, Honduras, Mexico, Paraguay, Peru, Uruguay, Uruguay
	High coverage (70%)	Argentina, Brazil, Chile, Colombia, Dominican Republic, El Salvador, Guyana, Paraguay, Uruguay, Paraguay, Uruguay
Mixed funding	Full coverage for people with formal employment (100%) + Coverage of 35% of the rest of the population	Argentina, Brazil, El Salvador, Paraguay

**Source:** Authors' compilation.

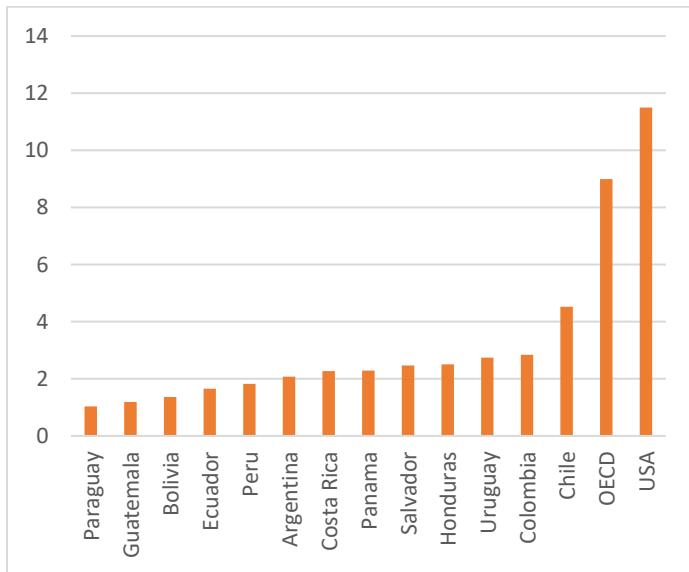
### Other funding options

The mechanisms presented above show that governments can choose between different funding sources when designing their long-term care systems. However, these options are not feasible for all countries and do not necessarily cover the entire population with long-term care needs. This section presents other mechanisms countries can consider to expand service coverage.

#### *Private insurance*

Private insurance is another option for funding long-term care. However, insurance has limited market penetration in Latin American and Caribbean countries compared to OECD countries. As shown in Figure 1, in the United States, insurance spending was 11% of GDP in 2019 and is 9% in OECD countries. In contrast, average insurance spending in Latin America and the Caribbean was only 2.2% of GDP (OECD 2021). This lower development suggests that private insurance would play a more secondary role, as a supplement to a different general system.

**Figure 1. Insurance spending (% GDP), 2019**



**Source:** OECD (2021).

Other factors intrinsic to long-term care services hinder the development of the private insurance market in this sector. The availability of insurance contracts to part of the population is limited by adverse selection and the moral hazard associated with asymmetric information (Akaichi et al., 2020). On one hand, adverse selection means potential clients may conceal relevant information from insurers about personal, health, or family characteristics that affect their need for care (Barr, 2010). On the other, moral hazard occurs when insured individuals change their behavior once they are covered and decide not to adopt preventive behavior because they will not bear the related costs (*ibid*). Moral hazard affects both public and private insurance. In addition, it is difficult to estimate the future costs that the insurer will have to face, since increased life expectancy may prolong the number of years a person is functionally dependent. This would significantly increase costs for insurers if the event that triggers the insurance actually occurs (Bloech et al., 2017).

On the demand side, evidence shows that purchasing private insurance for long-term care is positively associated with income level, as well as with risk visibility and other behavioral biases (Bongang and Costa-Font, 2020). For example, the amount of attention care receives in societal debate may affect insurance purchases. Lower- and middle-income families are unlikely to be able to access this market.

In the United States, where the insurance market in general is more developed, about 5% of the population over age 40 was covered by private long-term care insurance in 2011 (Colombo et al., 2011). Hence, private insurance covers only 11.6% of total long-term care costs, and the public sector, through Medicaid, pays for 62.2% of care spending (O'Shaughnessy, 2014).

The scarce development of the private insurance market in Latin America and the Caribbean, as well as the limited relevance of private insurance in countries with more developed insurance

markets, underscore the limitations to using this mechanism to solve the problem of long-term care funding.

#### *Reverse mortgages*

Reverse mortgages<sup>12</sup> are another alternative that has yet to be fully developed both globally and regionally. This option uses people's homes—which are older people's main asset and source of wealth—to finance long-term care expenses. This financial product began to be used in the 1960s in countries such as the United States, the United Kingdom, Sweden, France, Ireland and Spain. Among Latin American and Caribbean countries, reverse mortgages are regulated in Mexico and Colombia.

Some authors argue that these instruments conflict with bequest motives, as housing is often the main bequest from parents to children. Costa-Font et al. (2010), for example, examine evidence from Spain and find that reverse mortgages interfere with bequest motives and demand for them is primarily influenced by homeowner education and income levels, rather than the value of the house.

The role of education is consistent with the evidence provided in Hanewald et al. (2020), which shows that the main reason for these instruments' lack of popularity is that people do not understand how they work. In a pilot study done in China, the authors show that if the product is made more comprehensible, demand for it increases markedly, whether people use it to finance greater liquidity in retirement or to pay potential health and care expenses.

#### *Pension insurance*

Another alternative for funding care needs is to extend pension models to cover long-term care. This design entails a cash payment or compensation in addition to the pension for retirees with certain levels of care needs. These payments are intended to supplement the necessary care with family resources and private insurance (Vidal-Melia et al., 2020). Other approaches include a design that allows retirees to defer a certain fraction of their pension income to pay for their future care needs (Chen, 2003). Tanaka (2016), for example, proposed a redesign of the Japanese social security system that involves a pension increase based on the level of care each person needs. However, these systems are typically designed to provide funding through a cash transfer, not through a long-term care system.

### **5. Cost-sharing mechanisms**

In tax-funded systems, the cost of covering the entire population with functional dependence can be high, so different mechanisms have been created to limit demand. In addition to eligibility criteria based on beneficiaries' level of care dependence (needs tests) or age, many countries use cost-containment mechanisms. These strategies involve cost sharing between the State and the users, and they are not always easy to implement and monitor. The most commonly used mechanisms for this purpose are discussed below.

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<sup>12</sup> A reverse mortgage is a home equity loan for older people that provides liquidity while still allowing the owner to use his or her home until the time of death.

## **Co-payments**

Under this financing instrument, people receiving services contribute to their cost via direct (out-of-pocket) payments. If co-payment levels are defined based on the income of people or families, this approach can be used to help achieve equity in access to services.

The use of co-payments for long-term care is common throughout the world. Most Scandinavian countries take this approach. In a study on Spain, del Pozo-Rubio et al. (2017) show that beneficiaries of long-term care services help finance more than half the cost of benefits through out-of-pocket expenses. This study found significant variations from the mean according to the degree of care dependence and the autonomous community where the beneficiaries live.

In Latin America, Costa Rica and Uruguay use a combination of general taxation and co-payments. Costa Rica in particular couples general taxation from the central and regional governments with co-payments based on income, wealth and type of service (Chaverri and Matus-López, 2021) in a way similar to Spain's System for Autonomy and Long-Term Care. In Uruguay, where most funding for long-term care comes from general taxation by the central government, there are also co-payments that vary based on the average household income of the person experiencing care dependence. Contributions range from 100% for households with the highest income to 0% for the most vulnerable. In practice, only 14% of service users make some type of co-payment (Arango and Sorio 2018).

## **Exclusive coverage for catastrophic expenses**

In health, spending is defined as catastrophic when a household must reduce its basic spending for a period of time to cover the costs of benefits (Xu et al., 2003). The literature proposes different spending thresholds, ranging from 5% to 20% of total household income (Wyszewianski, 1986; Berki, 1986), up to 30% (Knau et. al, 2006) or 40% (Xu et. al., 2003). The risk of incurring catastrophic expenses is usually higher for low-income families with uninsured older people, those with limited insurance coverage with high co-payments, or families with members who have chronic diseases or who have been hospitalized (ECLAC, 2008).

For care-dependent people, del Pozo-Rubio et al. (2019) estimate that in Spain out-of-pocket expenses to finance care services increase the probability of falling into poverty by 18.9%. Data for the United States show that almost one-sixth of people with long-term care needs incur catastrophic expenses to meet them (Stevenson et al., 2010).

In the United Kingdom, the recent reform in 2022 establishes that families must spend GBP 86,000 before they are entitled to public coverage. In practice, this means that state coverage kicks in only when expenditure becomes catastrophic. This mechanism reduces the fiscal responsibility of the public sector and leaves the primary responsibility for paying for long-term care to families. It could be used with different thresholds for various levels of household income to make the system more equitable.

## **Means test**

Means testing is a way of limiting system coverage to lower-income families only. This mechanism can be used to decide whether people are eligible for public system benefits, to determine the

level of co-payment for services (e.g., distinct levels of co-payments depending on income level), or to set the coverage threshold for catastrophic expenses. It is commonly used around the world, including in the United Kingdom (excluding Scotland) and in the United States, where Medicaid targets low-income people. Also, in most countries in Latin America and the Caribbean, long-term care services target the socio-economically vulnerable, and eligibility is based on means testing (Bloech et al., 2017; Aranco et al., 2022).

### **Estate recovery systems**

In some parts of the United States and in France, there are mechanisms for the State to recover the costs of care for a specific person at the time of their death. This recovery works by transferring the deceased person's estate (usually their home) to the State. However, the experience of the United States with Medicaid suggests that the current estate recovery programs only succeed in recovering a small proportion of the expense incurred, while the administrative cost is very high (Wiener, 1996).

## **6. Conclusions and future research topics**

In this publication, we analyzed the funding needs of the countries of the region and the main mechanisms that could be used to fund a long-term care system. To our knowledge, this is the first study of its kind to include a significant number of countries in the region. It therefore provides useful input for policy makers.

The analysis shows that the cost of funding a long-term care system represents, on average, 0.27% of GDP in a low-coverage scenario, and that this figure will increase to 0.77% of GDP in 2050. Different demographic and non-demographic factors explain the future increase in the cost of the system. This study only takes into account the demographic effects of an increase in both the number of older people and the prevalence of functional dependence.

*A priori*, all countries have room to start implementing a system based on general taxation, while the applicability and relevance of social insurance is limited to a few countries. Alternatively, countries can choose between other funding mechanisms, such as pension insurance, or cost-sharing mechanisms, either through co-payments, coverage exclusively for catastrophic expenses, and/or means testing.

We need to take certain limitations into account when analyzing this study's estimates. First, we assume a homogeneous package of services for older people experiencing functional dependence, without distinguishing between levels of dependence. Future research could differentiate the supply of services according to levels of functional dependence. When designing policies, governments can implement various levels of coverage and define distinct types of services for different populations, based on criteria such as level of dependence, age, or level of socioeconomic vulnerability. In other words, each country should tailor its services to its population and, ideally, provide a personalized, person-centered care plan. This plan could consider the needs of both the person experiencing care dependence and his or her social and family context. Furthermore, our calculations assume that system beneficiaries receive only one of the four types of service we include in the study. In reality, countries may be able to offer a combination of different benefits (such as day centers and telecare) for the same person when designing the most effective package of services. The use of an average package makes it easier

to compare countries. However, each country will likely require specific studies on differentiated and tailored service packages before deciding on a funding approach.

Second, the estimates for the cost of residential care facilities and day centers are based on the values provided by Matus-López (2018) for Costa Rica. We used the average monthly wage of formal employees in each country as an adjustment factor to calculate the cost in that country. This method rests on two underlying assumptions. The first is that the cost of human resources is the main component of changes in cost across countries. Second, the difference between the costs of different services in each country replicates the situation observed in Costa Rica. Our estimates are reliable if rent, infrastructure maintenance, medical and cleaning supplies, food and electricity, and other similar items represent a small part of the total cost of services, or if the change in these costs between countries mirrors the differences in the cost of labor. As with the average service package, our procedure facilitates comparisons between countries. The choice to use this approach can also be explained by the lack of detailed and comparable information on the costs of services in each country. However, in the future, countries will need to conduct more in-depth studies that gather specific and systematic information on the costs of services at the local level.

Third, due to a lack of better data, the methodology assumes that the cost of human resources in the sector — for residential care facilities, day centers and home care — is the average wage of all formal workers in the country. It would be preferable to use the average salary for the care sector, or of a similar sector in terms of functions and training (e.g., nursing). However, this information is not currently available.

Fourth, we based our analysis of the feasibility of funding through social insurance on the amount of social security contributions collected by the public sector. For countries that have privately managed, defined-contribution pension systems (like Chile or the Dominican Republic), it would be possible to raise personal contribution rates and have the increase go directly to workers' accounts to finance future care needs. Therefore, our estimates of the political feasibility of social insurance-based reforms are neither precise nor easily comparable with those of other countries, and we did not find information that would allow us to address this bias satisfactorily.

Fifth, this analysis assumes social security contributions are based on the pay-as-you-go system. This assumption is a simplification, because today's employees are not care-dependent and will need services in the future. A dynamic model that encompasses multiple generations is needed.

Sixth, the analysis estimates the revenue increase needed to implement the system. If rates of general taxation or social security contributions are fixed (non-progressive) and there are no deductions, this percentage is equivalent to the necessary rate increase. However, in reality there are deductions, withholdings, and subsidies that make it so only part of the increase in taxes or social security contributions translates to an increase in revenue. In addition, if rates (tax or contributions) increase, people are likely to alter their work and investment decisions. A more exhaustive analysis should consider the tax, production and labor structure of each country, as well as people's behavioral responses to higher rates.

Seventh, we did not have the data to calculate how other funding mechanisms, such as private insurance or co-payments, contribute to the system. These mechanisms could alleviate the fiscal burden on the public sector, increasing the feasibility of reforms. More detailed country-level

studies could consider these mechanisms and their interaction with social insurance and general taxation approaches.

Eighth, our estimates do not take into account the investment countries should make to ensure the quality of services, particularly in the area of human resources. Regional evidence indicates that very few countries (Argentina, Chile, and Uruguay) establish mandatory training requirements for personnel working in the sector and that when such requirements do exist, compliance is low (Aranco et al., 2022). To have quality services, countries must invest in training. Among other things, this entails developing curricula, training trainers, and providing the infrastructure needed to deliver the courses. In future studies, these costs should be estimated and added to the total funding needs.

On the other hand, our estimates do not include the possible positive externalities that developing a long-term care system would create. Funding for long-term care generates two externalities: a macroeconomic impact on labor markets and an impact on public spending (Villalobos Dítrans, 2018) that can reduce the net cost of the system. Implementing a care system generates new jobs and increases labor participation; this is the externalities in labor markets. This dynamic is especially relevant for women, as unpaid family caregivers can opt for paid jobs on the market (Costa-Font and Vilaplana, 2022). In addition, care services could become an important driver of a country's economic and productive development through what is often referred to as the "silver economy." In other words, they could generate new jobs and investment opportunities for the population as a whole within the sector (Okumura et al., 2020; Jimenez et al., 2021).

With regard to externalities in public spending, although the literature presents different arguments, implementing a long-term care system could be a way to allocate resources more efficiently. This type of system can offer cost-efficient alternatives for meeting the population's needs, reducing spending on social security (for example on transfers or non-contributory pensions) and on the health system (Villalobos Dítrans, 2018). For example, Matus-López (2022) estimates that implementing a long-term care system in Chile could save the health sector the equivalent of about 10% of the cost of the care system by reducing long hospital stays.

In conclusion, the analysis simulates how much a long-term care system would cost in the countries of the region and sets an arbitrary limit on how much tax rates can be increased before reforms are no longer politically feasible. Despite its limitations, the study stands as an important way to encourage discussion of how to fund long-term care systems. Each country can advance these policies progressively according to its political and socioeconomic context. Consequently, they may decide to accept rate increases that are higher—or lower—than those considered politically feasible in our analysis.

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## Annexes

### **Annex I – Method for calculating the region's funding needs**

This annex lays out the method used to calculate the cost of a package of long-term care services for 17 countries in the region. It is based on four different coverage scenarios: low (35%), medium (50%), high (70%), and full (100%).

Demand estimates assume that long-term care services are for people over age 65 experiencing care dependence (difficulty with at least one basic activity of daily living). We use the estimates of Aranco, Ibarrarán, and Stampini (2022) for the size of this population.

On the supply side, we create different hypothetical packages of services for each scenario. These packages are a mix of four types of services:

- *Residential care facilities*: temporary or permanent housing in facilities for people experiencing severe care dependence;
- *Home care*: assistance from an in-home caregiver to help people experiencing care dependence with daily activities;
- *Day centers*: service provided at facilities without housing for people experiencing mild or no care dependence;
- *Telecare*: remote service designed to provide immediate assistance to people experiencing care dependence.

The following table shows the coverage and service packages used for each scenario:

**Table I.1. Coverage and services of the long-term care system**

	Residential care facilities	Home care	Day centers	Telecare
Coverage 35%	5%	10%	10%	10%
Coverage 50%	5%	25%	10%	10%
Coverage 70%	5%	45%	10%	10%
Coverage 100%	5%	75%	10%	10%

**Source:** Prepared by the authors.

As is evident from Table I.1, the method assumes home care to be the main service that varies between different scenarios. Tables I.2 and I.5 list the number of people covered by the system under the different coverage levels. The assumption is that beneficiaries will only receive one type of service.

**Table I.2. Number of system users in the low-coverage scenario (35%)**

Countries	Care-dependent population over 65	Residential care facilities (5%)	Home care (10%)	Day centers (10%)	Telecare (10%)	Total
Argentina	398,809	19,940	39,881	39,881	39,881	139,583
Bolivia	125,160	6,258	12,516	12,516	12,516	43,806
Brazil	2,131,503	106,575	213,150	213,150	213,150	746,026
Chile	282,587	14,129	28,259	28,259	28,259	98,905
Colombia	625,305	31,265	62,530	62,530	62,530	218,857
Costa Rica	85,451	4,273	8,545	8,545	8,545	29,908
Ecuador	206,329	10,316	20,633	20,633	20,633	72,215
El Salvador	29,728	1,486	2,973	2,973	2,973	10,405
Guatemala	146,134	7,307	14,613	14,613	14,613	51,147
Guyana	8,329	416	833	833	833	2,915
Honduras	81,266	4,063	8,127	8,127	8,127	28,443
Mexico	2,471,381	123,569	247,138	247,138	247,138	864,983
Panama	62,688	3,134	6,269	6,269	6,269	21,941
Paraguay	28,643	1,432	2,864	2,864	2,864	10,025
Peru	404,409	20,220	40,441	40,441	40,441	141,543
Dominican Republic	90,273	4,514	9,027	9,027	9,027	31,595
Uruguay	50,038	2,502	5,004	5,004	5,004	17,513
<b>TOTAL</b>	<b>7,228,032</b>	<b>361,402</b>	<b>722,803</b>	<b>722,803</b>	<b>722,803</b>	<b>2,529,811</b>

**Source:** Prepared by the authors.

**Table I.3. Number of system users in the medium-coverage scenario (50%)**

Countries	Care-dependent population over 65	Residential care facilities (5%)	Home care (25%)	Day centers (10%)	Telecare (10%)	Total
Argentina	398,809	19,940	99,702	39,881	39,881	199,404
Bolivia	125,160	6,258	31,290	12,516	12,516	62,580
Brazil	2,131,503	106,575	532,876	213,150	213,150	1,065,751
Chile	282,587	14,129	70,647	28,259	28,259	141,293
Colombia	625,305	31,265	156,326	62,530	62,530	312,652
Costa Rica	85,451	4,273	21,363	8,545	8,545	42,726
Ecuador	206,329	10,316	51,582	20,633	20,633	103,164
El Salvador	29,728	1,486	7,432	2,973	2,973	14,864
Guatemala	146,134	7,307	36,534	14,613	14,613	73,067
Guyana	8,329	416	2,082	833	833	4,165
Honduras	81,266	4,063	20,316	8,127	8,127	40,633
Mexico	2,471,381	123,569	617,845	247,138	247,138	1,235,691
Panama	62,688	3,134	15,672	6,269	6,269	31,344
Paraguay	28,643	1,432	7,161	2,864	2,864	14,321
Peru	404,409	20,220	101,102	40,441	40,441	202,204
Dominican Republic	90,273	4,514	22,568	9,027	9,027	45,136
Uruguay	50,038	2,502	12,510	5,004	5,004	25,019
<b>TOTAL</b>	<b>7,228,032</b>	<b>361,402</b>	<b>1,807,008</b>	<b>722,803</b>	<b>722,803</b>	<b>3,614,016</b>

**Source:** Prepared by the authors.

**Table I.4. Number of system users in the high-coverage scenario (70%)**

Countries	Care-dependent population over 65	Residential care facilities (5%)	Home care (45%)	Day centers (10%)	Telecare (10%)	Total
Argentina	398,809	19,940	179,464	39,881	39,881	279,166
Bolivia	125,160	6,258	56,322	12,516	12,516	87,612
Brazil	2,131,503	106,575	959,176	213,150	213,150	1,492,052
Chile	282,587	14,129	127,164	28,259	28,259	197,811
Colombia	625,305	31,265	281,387	62,530	62,530	437,713
Costa Rica	85,451	4,273	38,453	8,545	8,545	59,816
Ecuador	206,329	10,316	92,848	20,633	20,633	144,430
El Salvador	29,728	1,486	13,378	2,973	2,973	20,810
Guatemala	146,134	7,307	65,760	14,613	14,613	102,294
Guyana	8,329	416	3,748	833	833	5,830
Honduras	81,266	4,063	36,570	8,127	8,127	56,886
Mexico	2,471,381	123,569	1,112,121	247,138	247,138	1,729,967
Panama	62,688	3,134	28,210	6,269	6,269	43,882
Paraguay	28,643	1,432	12,889	2,864	2,864	20,050
Peru	404,409	20,220	181,984	40,441	40,441	283,086
Dominican Republic	90,273	4,514	40,623	9,027	9,027	63,191
Uruguay	50,038	2,502	22,517	5,004	5,004	35,027
<b>TOTAL</b>	<b>7,228,032</b>	<b>361,402</b>	<b>3,252,614</b>	<b>722,803</b>	<b>722,803</b>	<b>5,059,622</b>

**Source:** Prepared by the authors.

**Table I.5. Number of system users in the full-coverage scenario (100%)**

Countries	Care-dependent population over 65	Residential care facilities (5%)	Home care (75%)	Day centers (10%)	Telecare (10%)	Total
Argentina	398,809	19,940	299,107	39,881	39,881	398,809
Bolivia	125,160	6,258	93,870	12,516	12,516	125,160
Brazil	2,131,503	106,575	1,598,627	213,150	213,150	2,131,503
Chile	282,587	14,129	211,940	28,259	28,259	282,587
Colombia	625,305	31,265	468,979	62,530	62,530	625,305
Costa Rica	85,451	4,273	64,088	8,545	8,545	85,451
Ecuador	206,329	10,316	154,746	20,633	20,633	206,329
El Salvador	29,728	1,486	22,296	2,973	2,973	29,728
Guatemala	146,134	7,307	109,601	14,613	14,613	146,134
Guyana	8,329	416	6,247	833	833	8,329
Honduras	81,266	4,063	60,949	8,127	8,127	81,266
Mexico	2,471,381	123,569	1,853,536	247,138	247,138	2,471,381
Panama	62,688	3,134	47,016	6,269	6,269	62,688
Paraguay	28,643	1,432	21,482	2,864	2,864	28,643
Peru	404,409	20,220	303,306	40,441	40,441	404,409
Dominican Republic	90,273	4,514	67,704	9,027	9,027	90,273
Uruguay	50,038	2,502	37,529	5,004	5,004	50,038
<b>TOTAL</b>	<b>7,228,032</b>	<b>361,402</b>	<b>5,421,024</b>	<b>722,803</b>	<b>722,803</b>	<b>7,228,032</b>

**Source:** Prepared by the authors.

The cost of the long-term care system is the sum of the total cost of residential care facilities, home care, day centers, and telecare under the different service packages and coverage levels in each scenario. The cost of residential care facilities and day centers is calculated based on reference values of USD 1,127 and USD 210 per month. These values were estimated by Matus-López (2018) for Costa Rica and were then adjusted for each country based on the average salary of formal employees.<sup>13</sup> Human resources are considered the primary component of the cost of these services, as opposed to infrastructure or other operational costs, and system beneficiaries are assumed to receive eight hours of home care per day, so the cost of this service is considered to be the average salary of formal employees in that country. Finally, according to Benedetti et al. (2022), the average cost of telecare in the region is USD 25 per month. An administrative cost of 20% was also added to each service. Table I.6 lists the per-user cost of the services for each country, in dollars. Tables I.7 and I.10 share the total cost of the system in each country and scenario, in dollars and as a percentage of GDP, for 2019.

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<sup>13</sup> According to the IDB Labor Markets and Social Security Information System, the average salary of formal employees is the average monthly monetary wage income from their primary activity over the last month. Monetary wage income is all monetary income received by the worker. The indicator is stated in local currency at current value. Average salaries in local currency were adjusted using the 2019 exchange rate based on World Bank data (2022).

**Table I.6. Per-user cost of care services (in dollars)**

Countries	Monthly monetary wage income – local currency	Monthly monetary wage income – USD	Residential care facility			Home care		Day centers			Telecare		GDP (millions)
	Monthly cost	Annual cost	Annual cost, including administrative costs	Annual cost	Annual cost, including administrative costs	Monthly cost	Annual cost	Annual cost, including administrative costs	Annual cost	Annual cost, including administrative costs	Annual cost	Annual cost, including administrative costs	
Argentina	32,285	671	802	9,620	11,544	8,046	9,656	149	1,793	2,151	300	360	451,932
Bolivia	4,768	690	825	9,899	11,879	8,280	9,936	154	1,845	2,214	300	360	40,895
Brazil	2,729	692	827	9,926	11,911	8,302	9,963	154	1,850	2,219	300	360	1,877,824
Chile (2017)	588,971	908	1,085	13,023	15,628	10,893	13,071	202	2,427	2,912	300	360	277,035
Colombia	1,906,992	581	695	8,339	10,007	6,975	8,370	129	1,554	1,865	300	360	323,430
Costa Rica	553,621	943	1,127	13,524	16,229	11,312	13,574	210	2,520	3,024	300	360	64,073
Ecuador	673	673	805	9,655	11,586	8,076	9,691	150	1,799	2,159	300	360	108,108
El Salvador	467	467	558	6,700	8,040	5,604	6,725	104	1,248	1,498	300	360	26,897
Guatemala	4,855	631	754	9,050	10,860	7,569	9,083	141	1,686	2,024	300	360	77,020
Guyana	91,471	439	524	6,294	7,553	5,265	6,317	98	1,173	1,407	300	360	5,174
Honduras	12,427	507	606	7,274	8,729	6,085	7,301	113	1,355	1,627	300	360	24,916
Mexico (2018)	10,617	552	660	7,915	9,498	6,620	7,944	123	1,475	1,770	300	360	1,222,408
Panama	1,018	1,018	1,217	14,605	17,526	12,216	14,659	227	2,721	3,266	300	360	66,984
Paraguay	3,536,582	567	678	8,130	9,756	6,800	8,160	126	1,515	1,818	300	360	37,907
Peru	2,035	610	729	8,748	10,498	7,317	8,781	136	1,630	1,956	300	360	228,471
Dominican Republic	23,950	467	558	6,699	8,038	5,603	6,723	104	1,248	1,498	300	360	88,941
Uruguay	36,141	1,025	1,226	14,707	17,648	12,301	14,762	228	2,740	3,289	300	360	61,231

**Source:** Prepared by the authors based on data from the IDB (2022) and World Bank (2022).

**Note:** GDP was measured at prices current in 2019.

**Table I.7. Number of users and system cost in low-coverage scenario (35%)**

Countries	Residential care facilities (5%)		Home care (10%)		Day centers (10%)		Telecare (10%)		System cost	
	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Total cost of services (USD)	Cost as % of GDP
Argentina	19,940	230,190,951	39,881	385,079,925	39,881	85,785,448	39,881	14,357,121	715,413,445	0.16
Bolivia	6,258	74,339,892	12,516	124,361,101	12,516	27,704,308	12,516	4,505,742	230,911,044	0.56
Brazil	106,575	1,269,405,933	213,150	2,123,553,244	213,150	473,070,534	213,150	76,734,100	3,942,763,812	0.21
Chile (2017)	14,129	220,806,798	28,259	369,381,440	28,259	82,288,248	28,259	10,173,131	682,649,616	0.25
Colombia	31,265	312,864,759	62,530	523,382,597	62,530	116,595,562	62,530	22,510,978	975,353,897	0.30
Costa Rica	4,273	69,338,618	8,545	115,994,611	8,545	25,840,479	8,545	3,076,247	214,249,955	0.33
Ecuador	10,316	119,529,317	20,633	199,957,210	20,633	44,545,087	20,633	7,427,831	371,459,446	0.34
El Salvador	1,486	11,950,594	2,973	19,991,811	2,973	4,453,638	2,973	1,070,225	37,466,269	0.14
Guatemala	7,307	79,348,187	14,613	132,739,336	14,613	29,570,753	14,613	5,260,837	246,919,113	0.32
Guyana	416	3,145,386	833	5,261,827	833	1,172,194	833	299,847	9,879,253	0.19
Honduras	4,063	35,469,629	8,127	59,336,137	8,127	13,218,495	8,127	2,925,569	110,949,831	0.45
Mexico (2018)	123,569	1,173,649,254	247,138	1,963,364,607	247,138	437,384,815	247,138	88,969,717	3,663,368,394	0.30
Panama	3,134	54,932,995	6,269	91,895,851	6,269	20,471,923	6,269	2,256,774	169,557,544	0.25
Paraguay	1,432	13,972,198	2,864	23,373,694	2,864	5,207,030	2,864	1,031,142	43,584,065	0.11
Peru	20,220	212,272,578	40,441	355,104,786	40,441	79,107,793	40,441	14,558,710	661,043,867	0.29
Dominican Republic	4,514	36,281,675	9,027	60,694,586	9,027	13,521,121	9,027	3,249,812	113,747,194	0.13
Uruguay	2,502	44,154,481	5,004	73,864,782	5,004	16,455,086	5,004	1,801,369	136,275,718	0.22
<i>Unweighted average</i>	21,259	233,038,426	42,518	389,843,385	42,518	86,846,618	42,518	15,306,421	725,034,850	0.27

**Source:** Prepared by the authors based on data from the IDB (2022) and World Bank (2022).

**Table I.8. Number of users and system cost in medium-coverage scenario (50%)**

Countries	Residential care facilities (5%)		Home care (25%)		Day centers (10%)		Telecare (10%)		System cost	
	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Total cost of services (USD)	Cost as % of GDP
Argentina	19,940	230,190,951	99,702	962,699,812	39,881	85,785,448	39,881	14,357,121	1,293,033,332	0.29
Bolivia	6,258	74,339,892	31,290	310,902,753	12,516	27,704,308	12,516	4,505,742	417,452,696	1.02
Brazil	106,575	1,269,405,933	532,876	5,308,883,110	213,150	473,070,534	213,150	76,734,100	7,128,093,678	0.38
Chile (2017)	14,129	220,806,798	70,647	923,453,600	28,259	82,288,248	28,259	10,173,131	1,236,721,776	0.45
Colombia	31,265	312,864,759	156,326	1,308,456,493	62,530	116,595,562	62,530	22,510,978	1,760,427,793	0.54
Costa Rica	4,273	69,338,618	21,363	289,986,527	8,545	25,840,479	8,545	3,076,247	388,241,871	0.61
Ecuador	10,316	119,529,317	51,582	499,893,026	20,633	44,545,087	20,633	7,427,831	671,395,261	0.62
El Salvador	1,486	11,950,594	7,432	49,979,528	2,973	4,453,638	2,973	1,070,225	67,453,985	0.25
Guatemala	7,307	79,348,187	36,534	331,848,339	14,613	29,570,753	14,613	5,260,837	446,028,117	0.58
Guyana	416	3,145,386	2,082	13,154,568	833	1,172,194	833	299,847	17,771,994	0.34
Honduras	4,063	35,469,629	20,316	148,340,344	8,127	13,218,495	8,127	2,925,569	199,954,037	0.80
Mexico (2018)	123,569	1,173,649,254	617,845	4,908,411,518	247,138	437,384,815	247,138	88,969,717	6,608,415,304	0.54
Panama	3,134	54,932,995	15,672	229,739,628	6,269	20,471,923	6,269	2,256,774	307,401,320	0.46
Paraguay	1,432	13,972,198	7,161	58,434,236	2,864	5,207,030	2,864	1,031,142	78,644,606	0.21
Peru	20,220	212,272,578	101,102	887,761,965	40,441	79,107,793	40,441	14,558,710	1,193,701,046	0.52
Dominican Republic	4,514	36,281,675	22,568	151,736,466	9,027	13,521,121	9,027	3,249,812	204,789,073	0.23
Uruguay	2,502	44,154,481	12,510	184,661,955	5,004	16,455,086	5,004	1,801,369	247,072,891	0.40
<i>Unweighted average</i>	21,259	233,038,426	106,295	974,608,463	42,518	86,846,618	42,518	15,306,421	1,309,799,928	0.48

**Source:** Prepared by the authors based on data from the IDB (2022) and World Bank (2022).

**Table I.9. Number of users and system cost in high-coverage scenario (70%)**

Countries	Residential care facilities (5%)		Home care (45%)		Day centers (10%)		Telecare (10%)		System cost	
	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Total cost of services (USD)	Cost as % of GDP
Argentina	19,940	230,190,951	179,464	1,732,859,662	39,881	85,785,448	39,881	14,357,121	2,063,193,182	0.46
Bolivia	6,258	74,339,892	56,322	559,624,955	12,516	27,704,308	12,516	4,505,742	666,174,898	1.63
Brazil	106,575	1,269,405,933	959,176	9,555,989,598	213,150	473,070,534	213,150	76,734,100	11,375,200,166	0.61
Chile (2017)	14,129	220,806,798	127,164	1,662,216,480	28,259	82,288,248	28,259	10,173,131	1,975,484,656	0.71
Colombia	31,265	312,864,759	281,387	2,355,221,688	62,530	116,595,562	62,530	22,510,978	2,807,192,987	0.87
Costa Rica	4,273	69,338,618	38,453	521,975,749	8,545	25,840,479	8,545	3,076,247	620,231,093	0.97
Ecuador	10,316	119,529,317	92,848	899,807,447	20,633	44,545,087	20,633	7,427,831	1,071,309,682	0.99
El Salvador	1,486	11,950,594	13,378	89,963,150	2,973	4,453,638	2,973	1,070,225	107,437,608	0.40
Guatemala	7,307	79,348,187	65,760	597,327,010	14,613	29,570,753	14,613	5,260,837	711,506,788	0.92
Guyana	416	3,145,386	3,748	23,678,222	833	1,172,194	833	299,847	28,295,649	0.55
Honduras	4,063	35,469,629	36,570	267,012,618	8,127	13,218,495	8,127	2,925,569	318,626,312	1.28
Mexico (2018)	123,569	1,173,649,254	1,112,121	8,835,140,732	247,138	437,384,815	247,138	88,969,717	10,535,144,518	0.86
Panama	3,134	54,932,995	28,210	413,531,330	6,269	20,471,923	6,269	2,256,774	491,193,023	0.73
Paraguay	1,432	13,972,198	12,889	105,181,625	2,864	5,207,030	2,864	1,031,142	125,391,995	0.33
Peru	20,220	212,272,578	181,984	1,597,971,536	40,441	79,107,793	40,441	14,558,710	1,903,910,618	0.83
Dominican Republic	4,514	36,281,675	40,623	273,125,638	9,027	13,521,121	9,027	3,249,812	326,178,246	0.37
Uruguay	2,502	44,154,481	22,517	332,391,518	5,004	16,455,086	5,004	1,801,369	394,802,454	0.64
<i>Unweighted average</i>	21,259	233,038,426	191,330	1,754,295,233	42,518	86,846,618	42,518	15,306,421	2,089,486,699	0.77

**Source:** Prepared by the authors based on data from the IDB (2022) and World Bank (2022).

**Table I.10. Number of users and system cost in full-coverage scenario (100%)**

Countries	Residential care facilities (5%)		Home care (75%)		Day centers (10%)		Telecare (10%)		System cost	
	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Users	Total annual cost (USD)	Total cost of services (USD)	Cost as % of GDP
Argentina	19,940	230,190,951	299,107	2,888,099,436	39,881	85,785,448	39,881	14,357,121	3,218,432,956	0.71
Bolivia	6,258	74,339,892	93,870	932,708,259	12,516	27,704,308	12,516	4,505,742	1,039,258,202	2.54
Brazil	106,575	1,269,405,933	1,598,627	15,926,649,330	213,150	473,070,534	213,150	76,734,100	17,745,859,898	0.95
Chile (2017)	14,129	220,806,798	211,940	2,770,360,800	28,259	82,288,248	28,259	10,173,131	3,083,628,977	1.11
Colombia	31,265	312,864,759	468,979	3,925,369,480	62,530	116,595,562	62,530	22,510,978	4,377,340,779	1.35
Costa Rica	4,273	69,338,618	64,088	869,959,581	8,545	25,840,479	8,545	3,076,247	968,214,926	1.51
Ecuador	10,316	119,529,317	154,746	1,499,679,078	20,633	44,545,087	20,633	7,427,831	1,671,181,313	1.55
El Salvador	1,486	11,950,594	22,296	149,938,583	2,973	4,453,638	2,973	1,070,225	167,413,041	0.62
Guatemala	7,307	79,348,187	109,601	995,545,017	14,613	29,570,753	14,613	5,260,837	1,109,724,795	1.44
Guyana	416	3,145,386	6,247	39,463,704	833	1,172,194	833	299,847	44,081,130	0.85
Honduras	4,063	35,469,629	60,949	445,021,031	8,127	13,218,495	8,127	2,925,569	496,634,724	1.99
Mexico (2018)	123,569	1,173,649,254	1,853,536	14,725,234,553	247,138	437,384,815	247,138	88,969,717	16,425,238,339	1.34
Panama	3,134	54,932,995	47,016	689,218,884	6,269	20,471,923	6,269	2,256,774	766,880,576	1.14
Paraguay	1,432	13,972,198	21,482	175,302,708	2,864	5,207,030	2,864	1,031,142	195,513,078	0.52
Peru	20,220	212,272,578	303,306	2,663,285,894	40,441	79,107,793	40,441	14,558,710	2,969,224,975	1.30
Dominican Republic	4,514	36,281,675	67,704	455,209,397	9,027	13,521,121	9,027	3,249,812	508,262,005	0.57
Uruguay	2,502	44,154,481	37,529	553,985,864	5,004	16,455,086	5,004	1,801,369	616,396,800	1.01
<i>Unweighted average</i>	21,259	233,038,426	318,884	2,923,825,388	42,518	86,846,618	42,518	15,306,421	3,259,016,854	1.21

**Source:** Prepared by the authors based on data from the IDB (2022) and World Bank (2022).

Annex II – Analysis of the viability of a general taxation funding scheme for different coverage scenarios

**Table II.1 Viability of funding through general taxation – Medium coverage (50%)**

Countries	System cost (percent of GDP)	Tax revenue from main items (net of social security) (percent of GDP)	% increase in tax revenue (net of social security)
Argentina	0.29	22.90	1.25
Bolivia	1.02	18.50	5.52
Brazil	0.38	24.60	1.54
Chile (2017)	0.45	18.70	2.39
Colombia	0.54	17.90	3.04
Costa Rica	0.61	15.40	3.93
Ecuador	0.62	14.60	4.25
El Salvador	0.25	18.10	1.39
Guatemala	0.58	10.90	5.31
Guyana	0.34	21.10	1.63
Honduras	0.80	18.50	4.34
Mexico (2018)	0.54	13.80	3.92
Panama	0.46	8.30	5.53
Paraguay	0.21	10.20	2.03
Peru	0.52	14.60	3.58
Dominican Republic	0.23	13.50	1.71
Uruguay	0.40	21.40	1.89
<i>Unweighted average</i>			
LAC	0.48	16.65	3.13
OECD	1.5	24.6	6.10

**Source:** Prepared by the authors based on data from the IDB (2022), OECD et al. (2021); OECD et al. (2019).

**Note:** LAC = Latin America and the Caribbean.

Cells are highlighted in green when the mechanism is viable in that country.

**Table II.2 Viability of funding through general taxation – High coverage (70%)**

Countries	System cost (percent of GDP)	Tax revenue from main items (net of social security) (percent of GDP)	% increase in tax revenue (net of social security)
Argentina	0.46	22.90	1.99
Bolivia	1.63	18.50	8.81
Brazil	0.61	24.60	2.46
Chile (2017)	0.71	18.70	3.81
Colombia	0.87	17.90	4.85
Costa Rica	0.97	15.40	6.29
Ecuador	0.99	14.60	6.79
El Salvador	0.40	18.10	2.21
Guatemala	0.92	10.90	8.48
Guyana	0.55	21.10	2.59
Honduras	1.28	18.50	6.91
Mexico (2018)	0.86	13.80	6.25
Panama	0.73	8.30	8.83
Paraguay	0.33	10.20	3.24
Peru	0.83	14.60	5.71
Dominican Republic	0.37	13.50	2.72
Uruguay	0.64	21.40	3.01
<i>Unweighted average</i>			
LAC	0.77	16.65	5.00
OECD	1.5	24.6	6.10

**Source:** Prepared by the authors based on data from the IDB (2022), OECD et al. (2021); OECD et al. (2019).

**Note:** LAC = Latin America and the Caribbean

Cells are highlighted in green when the mechanism is viable in that country.