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FISCAL SPACE FOR HEALTH IN LATIN AMERICA AND THE CARIBBEAN



PAHO

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Fiscal Space for Health in Latin America and the Caribbean

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PREFACE

The Strategy for Universal Access to Health and Universal Health Coverage, approved in October 2014 by the 53rd Directing Council of the Pan American Health Organization (PAHO), represents a summary of best practices in the construction and strengthening of health systems throughout the world. This initiative is a milestone that builds on the principles of the Constitution of the World Health Organization (WHO) of 1948, which declares health a fundamental human right, and the Declaration of Alma-Ata of 1978 and its call to achieve health for all. However, given the limited capacity of health systems in the Americas to meet the health needs of their populations, universal access to health and universal coverage are a goal that has yet to be achieved.

In recent decades, the Region's governments have redoubled efforts to expand health coverage through policies to achieve universal coverage. The Strategy establishes the following four interdependent strategic lines that must be addressed holistically when attempting to strengthen or transform the health systems of the Region:

1. Expanding equitable access to comprehensive, quality, people- and community-centered health services.
2. Strengthening stewardship and governance.
3. Increasing and improving financing, with equity and efficiency, and advancing toward the elimination of direct payments that constitutes a barrier to access at the point of service.
4. Strengthening intersectoral coordination to address social determinants of health.

Universal access to health and universal health coverage (Universal Health) means that all people and communities can make use of comprehensive, quality health services when they need to, throughout the life course. Meeting these two objectives requires the design and implementation of policies and activities with an intersectoral approach to address the social determinants of health and promote the commitment of society as a whole. Furthermore, when promoting health and well-being, the emphasis should be on groups in vulnerable situations.

Universal coverage and access are the foundations of an equitable and efficient health system. Coverage is based on guaranteed access to services and implies that the mechanisms for organizing and financing health services are sufficient to provide coverage for the entire population. Access to health, in turn, implies addressing the social and environmental determinants of health to enable individuals to develop their full potential and ensure sustainable human development.

Without universal access, universal coverage is an unattainable goal. It requires the elimination of existing barriers to health service access, whether geographical, cultural, linguistic, or financial, stemming from the lack of services and interventions or from stigma and discrimination. This means that factors related to health system financing are key to progress toward meeting these goals.

Eliminating out-of-pocket expenditure that impoverishes or exposes individuals and households to catastrophic expenditures and replacing it with pooled prepayment mechanisms collectively financed through taxes and fiscal revenues, social security contributions, or other mechanisms, is one of the specific financing interventions necessary for increasing access to quality health services and improving health indicators. However, it is also essential for fighting poverty and inequity, boosting

productivity, contributing to economic growth, and attaining higher levels of human development and social well-being.

Countries that have made the most progress toward universal coverage have public expenditure in health of at least 6% of their gross domestic product (GDP). While not sufficient in itself, greater health expenditure is a prerequisite for combating inequities and advancing toward universal coverage and access. Another prerequisite is higher-quality expenditure aimed at reducing health system inefficiencies. Finally, public expenditure in health should also be sustainable and fiscally responsible.

The concept of fiscal space for health refers to the ability of governments to provide additional budgetary resources for the health system without affecting the financial position of the public sector or supplanting other socially necessary expenditures. Any analysis of fiscal space, therefore, will attempt to identify the prospects for increasing health expenditure in the short and medium term to address a series of clearly established health needs.

Political commitment to advancing toward universal health must be accompanied by a consequent fiscal commitment. It should also be recognized, however, that health is not necessarily the only priority, since other social sectors (education, infrastructure, housing, security, etc.) are also important. Thus, it is essential to engage in wide-reaching social dialogue that involves government (treasury or finance ministries and other political entities at the highest level) and society as a whole, including academia, scientific societies, trade unions and associations of health professionals, nongovernmental organizations, and civil society.

For an extensive social dialogue of this type to have the desired results, it must be grounded in detailed, transparent information on the positive impact of greater public expenditure in health on the expansion of coverage and access.

These efforts are under way at a critical time in the Region of the Americas, particularly in the countries of Latin America and the Caribbean, which are engaged in a singular health system reform process. For the first time in history, these countries have formalized their intention of increasing public expenditure in health and putting themselves firmly on the path to real and effective access to health care through the universal health strategy. Without achieving basic well-being at this level, it will be impossible to improve social cohesion and social development in the countries of the Region.

This publication brings together and summarizes PAHO's studies on fiscal space for universal health in the Americas and draws on the contributions of the regional forum held in Washington, D.C. on 7-8 December 2015. With this publication, whose target audience is the technical personnel responsible for policy development, decision-makers, and authorities, PAHO hopes to contribute to the analysis and discussion of health financing policies on the path toward universal health.

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This publication was authored by economists Mauricio Matus-López, PAHO International Consultant and Professor at Pablo de Olavide University (Spain), and Camilo Cid-Pedraza, PAHO Regional Advisor on health economics and financing (Washington, D.C.).

It is based on the following PAHO documents on fiscal space for universal health in the Americas:

- Báscolo, E., Lagos F., Gómez L., Yavich N., and Moscoso N. 2015. Estudio espacio fiscal para el aumento de la prioridad de salud en el gasto público en países seleccionados y la sustentabilidad de la oferta de servicios en el marco del acceso universal a la salud y la cobertura universal en salud. Washington D.C.: Pan American Health Organization.
- Matus-López, M. and Prieto, L., 2015. Espacio fiscal para salud en Perú. Lima: Organización Panamericana de la Salud. [An updated summary is published in: Matus-López, M., Prieto, L. and Cid, C. 2016. Evaluación del espacio fiscal para la salud en Perú. *Revista Panamericana de la Salud*, 40(1): 64-69.]
- Matus-López, M. and Valdés, W. 2016. Espacio fiscal para salud en Bolivia. Santa Cruz: Pan American Health Organization. [An updated summary is published in: Matus-López, M., Cansino, D., Cid, C. and Valdés, W. 2018. Evaluación del espacio fiscal para salud en Bolivia. *Revista Panamericana de la Salud*, 42, e4. <https://doi.org/10.26633/RPSP.2018.4>.]
- Prieto, L. and Montañez V. 2016. Espacio fiscal para salud en Honduras. Washington, DC: Pan American Health Organization. [An updated summary published in: Prieto, L., Montañez, V. and Cid, C. 2018. Espacio fiscal para salud en Honduras. *Revista Panamericana de la Salud*, 42, e8. <https://doi.org/10.26633/RPSP.2018.8>]

It also draws on contributions from the forum held by PAHO in Washington, DC, summarized in the following publications:

- PAHO. 2015. Fiscal space for increasing health priority in public spending in the Americas Region. Working document, Washington, D.C., December 2015.
- PAHO. 2015. Regional forum. Universal health: An indispensable investment for sustainable human development. Report. 7-8 December 2015. PAHO/WHO Headquarters. Washington, D.C.

The preparation of this publication was supervised by Amalia Del Riego, Chief of the Health Services and Access Unit and James Fitzgerald, Director of the Department of Health Systems and Services.

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This publication aims to provide a comprehensive overview that will stimulate and promote new debates and analyses that will contribute to the discussion on health financing policies on the path toward universal health in the Region.



EXECUTIVE SUMMARY

Motivation

The Strategy for Universal Access to Health and Universal Health Coverage (Universal Health), approved in October 2014 by the 53rd Directing Council of the Pan American Health Organization (PAHO), defined universal access to health and universal health coverage as a situation in which all people and communities have access to comprehensive, quality health services when they need them, throughout the life course and without exposure to financial difficulties, in order to achieve health and well-being.

Universal access and coverage are the foundation of an equitable and efficient health system. In order to increase access to the quality health services needed to impact health indicators, attaining higher levels of human development and social well-being, the mechanisms for organizing and financing health services should be sufficient to cover the entire population, eliminating the ability to pay as an access barrier to health services and protecting individuals from financial risk. Thus, current financing mechanisms must be replaced with new resources under pooled prepayment systems collectively financed through taxes and fiscal revenues, social security contributions, or other mechanisms.

Countries that have made the most progress toward universal coverage have public expenditure in health equivalent to at least 6% of their gross domestic product (GDP), which is the percentage established in PAHO's universal health strategy as the benchmark for countries. However, while higher expenditure is a prerequisite, it is not enough to combat inequities and advance toward universal health. In addition to greater resources, the quality of the expenditure must be improved, reducing health system inefficiencies. Moreover, public expenditure in health should be sustainably increased in a fiscally responsible manner.

In sum, the goal is to understand the need to increase fiscal space for health as a prerequisite, but within the framework of efforts to transform the health system. These changes should foster equitable and efficient expenditures and create or strengthen comprehensive integrated health systems with a first level of care capable of solving health problems and coordinating networks, based on a primary health care approach that offers not only curative care but also health promotion and disease prevention services.

Concepts

The political commitment to advancing toward universal health must be accompanied by a firm fiscal commitment. The concept of fiscal space for health refers to the ability of governments to allocate additional budgetary resources to the health system without jeopardizing the financial position of the public sector or supplanting other socially necessary expenditures.

Fiscal space for health focuses on the capacity and feasibility of these additional sources of financing but does not address all issues and factors related to health expenditure. In cases where the path toward health system transformation has already been defined or is being defined, fiscal space assessments can be critically important, effectively addressing the issue of whether the interventions can be sustainably financed. The volume of resources needed to advance effectively toward universal health will depend on the cost of care, infrastructure, and domestic prices, and efforts may differ from country to country.

The region's economy has stagnated in recent years, and there is uncertainty about the path forward. Moreover, countries do not always follow the recommendation to introduce a countercyclical fiscal policy, and governments are under heavy pressure to contain public expenditures. In this context, if there is no return to the previous economic growth trends that, in themselves, foster the growth of fiscal revenues, the tension between social priorities will hinder efforts to increase health budgets.

In addition, while there is a positive correlation—both directly and indirectly—between economic growth and government revenues, this correlation is neither linear nor proportional. Thus, it is hard to predict public expenditure through growth projections alone, which is a limitation in some of the methods used to quantify fiscal space.

Methodology

A fiscal space assessment consists basically of a study on potential additional sources of resources for the health system and evaluating them in terms of amount and feasibility. In this context, improving the fiscal space is not a matter of simply obtaining more revenue through taxes or other means; the distribution of the expenditure and organizational improvements that lead to greater equity are equally important for achieving universal health.

This publication compiles information from several studies on fiscal space conducted by PAHO over the past three years (specifically, a regional study of 13 countries and three

individual country studies on Bolivia, Honduras, and Peru), with the purpose of comparing and examining their results using a single analytical framework. Furthermore, it expands and updates the information on country context to include all the countries of Latin America and the Caribbean (LAC), not just those that are specifically part of the studies analyzed. The end result is an overview of the current situation in this part of the Region of the Americas.

The studies analyzed contain a systematic review of the available literature and identify particular characteristics or conditions that should be met in the quest for fiscal space. They discuss four major aspects: sustainability, justification, additional resources, and political and social will.

The analysis is divided into three components. The first discusses the justification for new resources for health. The second focuses on five potential sources of fiscal space: resources from economic growth, budget reallocation, increased revenue collection, more efficient public expenditure, and external sources. Finally, the third component evaluates the political and social feasibility of the sources of financing. In most cases, feasibility depends on the action of the political authorities and social dialogue. These issues are in constant change and depend on the legitimacy, transparency, and degree of democracy in the political system.

Results

Economic growth is the most studied source of fiscal space. As fiscal revenues increase, the economic resources available for health increase, provided that the distribution of public expenditure is maintained in each sector.

In the study of 13 countries, covering the period 2002-2012, it was found that in most cases, public expenditure in health grew more than GDP in both percentage and per capita terms, with Ecuador and Paraguay having the highest growth.

The results of the study on Peru indicate that in an optimistic scenario (high elasticity of public expenditure in health with respect to GDP), this expenditure could increase to 4.23% of GDP in 2020, while in a pessimistic scenario (low elasticity) it could decrease. In the updated report containing more recent data obtained since the initial study, a positive trend is observed, and the real value of public expenditure in health for 2014 (3.3% of GDP) is higher than the value indicated in the optimistic scenario.

In the study on Bolivia, the expected economic growth is associated with greater resources for health. In the best-case scenario, public expenditure in health would reach 5.3% of GDP in 2021, and in the worst-case scenario, 4.8%. With respect to Honduras, the social contributions resulting from economic growth are favorable and a likely source of fiscal space, since the elasticities observed are positive in the neutral and optimistic scenarios; however, the overall impact of these scenarios is moderate.

Although the reprioritization of health as a component of total public expenditure in the countries appears to be an important source of fiscal space (given the low fiscal priority of health in the region), the generally inflexible structure of public expenditure reduces its feasibility.

The study on Honduras shows that the growth of international assistance has reduced the share of health expenditure in the government budget. At the same time, other sectors, such as defense and security, are given higher priority, leaving little margin for the reprioritization of health.

In the case of Peru, health sector financing is more of a problem in terms of the total volume of government revenues collected, rather than in the prioritization of health or the functional distribution of revenues.

In Bolivia, however, moderately high public revenues are observed, but with low fiscal priority for health (11.8%), generating potential gains in fiscal space but with the risk of creating financing problems in other areas such as education or poverty reduction programs.

In the studies on which this publication is based, taxes are the most developed source of fiscal space and opportunities. The evidence for Peru favors the gradual expansion of the income-based tax burden (direct taxes) but does not exclude the possibility of increasing taxes on the exploitation of natural resources. The mix of reforms that increases revenues and shifts the balance toward direct taxes will depend on social and political preferences.

In Bolivia, as in Peru, there appears to be margin for increasing revenues through direct taxes, but less through consumption (indirect) taxes. The country study estimates that a fiscal space equivalent to 0.4 percentage points of GDP would result from reducing the tax gap (income and benefits) by one-quarter with respect to the countries of the region.

In Honduras, tax reform increased direct tax revenues by 0.5 points of GDP, and indirect tax revenues by 2.2 points. The country study concludes that, given the recent implementation of the latest reform, there is very little reason to believe that further efforts will be made in this regard.

Another possible source of fiscal space is to reduce the size of the informal economy. The impact of this on the capacity for revenue collection (if the current allocation of resources to health in total public expenditure is maintained) would be between 0.15% and 0.47% of GDP, on average, in the countries examined in the regional study. As in the calculations of increased tax rates, this spread is defined by different high- and low-impact scenarios.

An increase in health-specific taxes, such as those on tobacco and alcohol consumption, is another potential source of fiscal space. Tobacco taxes appear to be feasible in Bolivia and Peru but would have a low impact on fiscal space in terms of GDP. Nevertheless, it is important to include potential future savings derived from an expected reduction in the use of health services and a reduction in premature mortality (elements not included in the study). These additional resources could also be channeled to the health sector on a priority basis.

Peru, in turn, is among the countries with the highest alcohol consumption in the continent. In 2013, it raised the selective tax on beer, wine, and liquor consumption, based on alcohol content, ending any discussion in this regard for the time being. Likewise, the latest tax reform in Honduras had the same implications for the tax on alcohol. The recent hike in the tax from 15% to 18% precluded the possibility of considering fiscal space from new taxes on alcohol in the short term.

The bulk of tax expenditure (reductions in fiscal revenues related to exemptions, reimbursements, deductions, etc.) in Honduras is in almost equal proportion related to sales taxes (29.5% of the total) and import duties (28.2% of the total). A small amount of political will to reduce these could increase revenue collection by more than one point of GDP. The study on Peru estimates a fiscal space of approximately 0.48 percentage points of GDP and indicates that a 10% reduction in tax expenditures linked to the export industry, for example, could create a margin of fiscal space ranging from 0.07% to 0.1% of GDP.

External sources of financing are generally not recommended as a source of fiscal space, due to their volatility and fragmentation. In Honduras, they are associated with a trade-off between external assistance and the country's own resources and the prioritization of other sectors, to which general tax revenues are diverted, as a result of the increase in external assistance to the health sector. Rather than increasing the budget, the new resources have diverted existing funds to other sectors.

Efficiency is a particular source of fiscal space. Quantification of the efficiency of health expenditure is complicated and is a broad area of research beyond the scope of this study of fiscal space. However, in the studies analyzed, the efficiency of health expenditure in terms of life expectancy and healthy life years is positive for Peru. One of the studies puts Peru among the five most efficient developing countries out of 80 studied between 2001 and 2010. Considering this and the diminishing marginal returns of expenditure, 5% gains in expenditure efficiency have been estimated, which for Peru would represent fiscal space equivalent to 0.16% of GDP for 2014.

In terms of efficiency in health, Bolivia ranks 28th out of 45 medium- to low- income countries considered in one study, putting it behind the other Latin American countries. Another study estimates that, all other conditions being equal, a 5% improvement in the efficiency of public expenditure in health could create a similar amount of fiscal space in public expenditure in health, which would be equivalent to approximately 0.1% of GDP.

In these last two cases, PAHO's studies note the need to improve payment mechanisms and the distribution of public expenditure in health and, especially, to eliminate the inefficiencies and inequities of health insurance mechanisms established as sealed compartments without pooling mechanisms. The fragmentation of the different public and private insurance mechanisms makes it hard to take advantage of the efficiency of economies of scale and the gains obtained by risk-pooling and, at the same time, increases asymmetric information and fosters selection of the beneficiary population based on its risk of illness.

The political and social feasibility analysis is less developed in terms of methodology. The tools are useful in some cases and provide valuable information, but they do not address the risks or satisfy the prerequisites for transforming theory into action. However, the methods used in the studies considered here are improving, and common features in the political analysis of the cases can be identified, such as the preference for expanding the tax base and the general willingness to raise taxes on goods considered harmful to health.

Conclusions

The creation of new revenue through greater fiscal pressure not only contributes resources, but is positively correlated with better health indicators, as the scientific literature demonstrates. Along with the tax collection rates, the structure of the tax system is key to increasing equity. Systems primarily based on indirect taxes (which is the case in most countries in the region) tend to be more regressive, since they impose a greater burden on the poorest households. The opposite is true in countries where direct taxes, mainly on income or inheritance, have greater weight.

Furthermore, increasing the efficiency of tax collection prevents tax evasion and avoidance and promotes formal economies. Here, it is worth calling attention to tax expenditures, such as granting special reductions or exemptions to tax regulations. Many of these exemptions were created at specific times for specific purposes but were never revisited.



Promoting an increase in fiscal space requires broader social dialogue in which all stakeholders are involved. These decisions, which involve the states, tend to be political in nature and are supported largely with technical arguments. There are various ways of encouraging this type of dialogue, for which technical analyses are fundamental.

In short, the assessments of fiscal space that PAHO has been conducting show that while the countries generally have the potential to create fiscal space for health, economic growth is not enough to generate the additional resources needed to meet financing needs.

There is an inevitable need to collect more fiscal resources in a better way. In most cases, it is advisable to review tax expenditures to identify exemptions that are unfair or do not benefit the countries. There are also arguments and space for raising specific health taxes (chiefly on alcohol and tobacco); although the resulting revenues may be low in these cases, the anticipated savings for the system may be high. These efforts should be accompanied by measures to boost efficiency, promoting the principles established in the Strategy for Universal Access to Health and Universal Health Coverage. From a political standpoint, borrowing and donations are not a viable source for governments in the medium and long term.

Political conditions in the countries are no less important than economic growth, and often determine it. Both the strategy of advancing health systems toward universal health and the discussion of fiscal space for health are more the product of political decisions than technical ones. In fact, in countries with more developed democracies, the social allocation of resources is more efficient and health is considered a priority. However, good decisions cannot be made without the available technical evidence.

Finally, the limitations of this study give rise to different points of view and the need to continue implementing a research agenda that can broaden the analysis of fiscal space. This involves not only geography (subregions and countries), but also aspects not addressed in this publication that could offer additional potential sources of fiscal space, such as efficient tax collection, differential rates for different sectors of the economy, and the social efficiency of fiscal space from the standpoint of universal health and the Sustainable Development Goals for 2030.



INTRODUCTION

The purpose of this publication is to analyze and disseminate the findings of several studies of fiscal space conducted by the Pan American Health Organization/World Health Organization (PAHO/WHO) in the Region of the Americas, specifically for Latin America and the Caribbean (LAC).

The first of these studies is a regional analysis of 13 countries: Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guyana, Honduras, Jamaica, Nicaragua, Paraguay, and Peru (Báscolo et al., 2015). The other works consist of studies for specific countries and reports from discussions or events on the topic organized by PAHO. One of them is a study of the sources of fiscal space for health in Peru (Matus-López and Prieto, 2015), whose main results were also published as an article in the *Pan American Journal of Public Health* (Matus-López, Prieto, and Cid, 2016). Another addresses the situation of fiscal space for health in Honduras (Prieto and Montañez, 2016). The final study is an assessment of fiscal space for health in Bolivia (Matus-López and Valdés, 2016). Like the assessment for Peru, an updated summary of these latter two studies is being published as part of a special series in the *Pan American Journal of Public Health* on financing and fiscal space for universal health (Matus-López et al., 2017; Prieto, Montañez, and Cid, 2017).

Furthermore, this publication echoes two PAHO documents that emerged from the regional forum “Universal health: An indispensable investment for sustainable human development,” held in Washington, D.C. in December 2015: the forum’s concept paper (PAHO, 2015a) and the report summarizing the meeting (PAHO, 2016).

The information provided by these documents is part of the same line of research and analytical framework; as much as possible, it adds to, expands on, and updates the

comparative contexts. The end result is an overview of the current situation in LAC that is useful in three ways. First, it offers readers unfamiliar with these matters a conceptual approach to fiscal space applied to the analysis of real cases. Second, it provides researchers and politicians with a description of the methodologies used to date, with accompanying comments on issues where improvements or further studies are needed. Third, it offers policymakers a simple understanding of the complexity of the concept of fiscal space and the alternatives available for increasing it to advance toward universal health.

In order to meet these objectives, this publication is divided into four chapters. The first provides a theoretical framework based on the concepts of fiscal space employed in the scientific and institutional literature. This framework determines the methodological guidelines for the subsequent analyses.

The second chapter analyzes the study contexts for LAC in terms of macroeconomics, health expenditure, and the organization of the health systems.

The third chapter delves fully into the methodological application of the assessment of fiscal space for health. It analyzes the results of quantifying the following sources of fiscal space in its components and reflects on:

- a) Economic growth
- b) Reprioritizing health
- c) Increasing tax revenues
- d) Improving the efficiency of health expenditures
- e) External sources of financing

The fourth chapter adds a description of how studies have approached the analysis of political feasibility and social dialogue.

The publication ends with the general conclusions of this review. These highlight the methodological and conceptual lessons learned and propose lines of action to expand studies in this area and delve further into the topic to provide more robust and useful knowledge for advocacy and social dialogue on increasing government resources for health.

As the pages that follow will show, fiscal space for health is a broad topic, whose study involves economic, institutional, health, and political analyses of different countries. This poses a real challenge for researchers, due to the need to take a multidisciplinary approach to each aspect considered. This challenge also is a constraint, since the breadth of the issues does not lend itself to an in-depth examination of each. A multitude of variables and complexities related to each source of new resources is often left out of the studies. This breadth, however, is precisely what gives added value to the studies on fiscal space for health in LAC: they are sufficiently cross-cutting and panoramic to offer a broader perspective on the possibilities of increasing resources for health.

A second constraint is the enormous variety and quantity of information that these studies require, which makes it hard to ensure that they are as up-to-date as would be desirable. The production of information tends to lag behind the speed of events. On the positive side, this review highlights the need to drive more frequent generation of information. Based on the information, good decisions be made.

Overall, the effort involved in this publication has been worthwhile. We hope its findings will prove useful at a critical time in the Region, especially for the decision-makers and stakeholders involved in transforming health systems toward universal health. The countries are in a singular process of health system reform and, for the first time in history, have formalized their intention to increase public expenditure in health and move firmly along the path to real and effective access to health care for their citizens. Without this basic achievement in well-being, it will be impossible to advance toward the social cohesion and development of the peoples of the Region of the Americas.

CHAPTER 1



THEORETICAL FRAMEWORK

1.1. Definition of fiscal space for health

There is a certain intuitive consensus on the meaning of fiscal space and fiscal space for health. Nevertheless, when it comes to defining these terms, different nuances and even different interpretations appear.

The most-cited works, considered by nearly all experts as the origin of the concept, are those of Heller (2005a, 2005b), conducted within the framework of the assistance programs of the International Monetary Fund (IMF), focused on poor countries, with their sights on meeting the Millennium Development Goals (MDGs). However, the concept has evolved through the work of this author and many others who took up this line of fiscal policy study. Thus, more than a decade later, a more complete theoretical and methodological framework has been developed. New interpretations have emerged, and the study has been expanded to include middle-income and even developed countries.

This section reviews the contributions of the principal authors and the conceptual definitions of fiscal space for health that serve as the foundation for the quantification methods applied and the results obtained.

Origin of the concept

As stated above, the cornerstone of the studies on fiscal space for health is the paper by Peter Heller, Director of the IMF's Fiscal Affairs Department, published in the institution's Policy Discussion Papers series in 2005. In that paper, Heller approached the concept of fiscal space generically, offering a definition that is cited in almost every study that followed:

Fiscal space is defined as “the availability of budgetary room to provide resources for a desired purpose without any prejudice to the sustainability of a government’s financial position” (Heller, 2005a, 3).

Next, he proposed three sources for the creation of fiscal space: (1) tax measures; (2) the reprioritization of health expenditure in government budgets; and (3) increased external assistance for health financing. These sources were touched on very briefly in his first paper in 2005, with a discussion focused on how IMF programs could foster the generation of these resources.

That same year, Heller returned to the subject (Heller, 2005b, 1). On that occasion he added a second condition to the first definition: in addition to maintaining the sustainability of a government’s finances, fiscal space should maintain “the stability of the economy.” In the article, Heller added four additional sources for the creation of fiscal space: boosting administrative efficiency, increasing borrowing, monetary expansion, and sound macroeconomic policies.

However, it was not until the following year that Heller applied the concept of fiscal space for health to specific situations (Heller, 2006). He did so again as part of the efforts to meet the MDGs, based on the experiences of Malawi, Tanzania, and Zambia. To do so, he revisited the first definition, which stresses the sustainability of governments’ financial position, and added a new requirement: the resources must be additional to the existing ones.¹ Furthermore, concerning the sources, he modified the interpretation of “sound macroeconomic policies,” which he approached as a requirement rather than a source of fiscal space.

Years later, Tandon and Cashin (2010) expanded, modeled, and applied the studies on fiscal space more extensively to include lower middle–and low–income countries. Adjusting the traditional definition of fiscal space for health, they added the requirement that prioritizing one sector should not jeopardize other essential sectors:

“Fiscal space specifically for health refers to the ability of governments to increase spending for the sector without jeopardizing the government’s long-term solvency or crowding out expenditure in other sectors needed to achieve other development objectives (such as some of the other non-health MDGs)” (Tandon and Cashin, 2010, 11).

The majority of researchers who work in this field have employed these definitions with different nuances, although not exclusively. There are other, broader interpretations, mainly of generic fiscal space, such as those discussed below.

¹ “Fiscal space can be defined as the capacity of government to provide additional budgetary resources for a desired purpose without any prejudice to the sustainability of its financial position” (Heller, 2006, 75).

Evolution of the concept and other interpretations

Among these other interpretations, one worth noting is employed by two economists from the Economic Commission for Latin America and the Caribbean (ECLAC), linking fiscal space with economic crisis. These authors approached fiscal space as a tool for dealing with external shocks (Jiménez and Fanelli, 2009), subsequently expanding this interpretation to countercyclical economic policy as a whole (Fanelli and Jiménez, 2010). In both cases, the requirement of additional resources is absent from the concept, emphasizing the first definition of Heller. Thus, the option of reducing government revenues to promote consumption without jeopardizing public finances is considered part of fiscal space, a form of saving or budget margin that can be redirected for other uses or returned to the contributors.

Another interesting variation is the one relating expenditure to debt. The IMF and the World Bank (WB) made this connection early on. Starting with Heller's initial definition, they interpret fiscal solvency as a government's "present and future ability to service its debt" (IMF and WB, 2006, 14).

The work of Ostry et al. (2010) on developing countries continues in this line, defining fiscal space in these countries as "the difference between the current level of public debt and the debt limit implied by the country's historical record of fiscal adjustment" (Ostry et al., 2010, 6).

They suggest that the historical analysis of debt and fiscal expenditure can thus yield the maximum debt-to-GDP ratio that a country can allow itself without jeopardizing its economy. The approach in this case considers debt the principal source of additional resource creation.

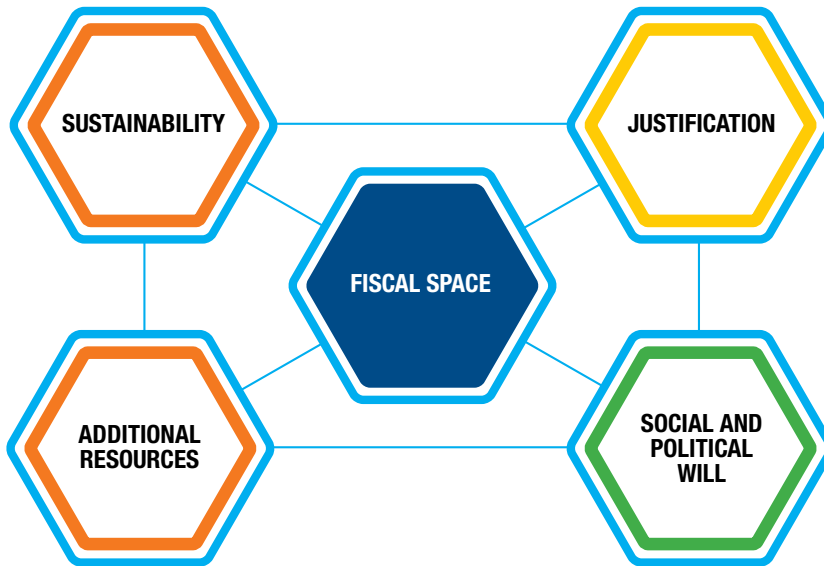
This interpretation is also employed by Marcel (2014) in his study of fiscal space in the countries of the Organization for Economic Co-operation and Development (OECD), although he adds a number of new elements. Here, within the framework of the responses to the great recession triggered by the financial crisis of 2008, he reorients the concept from the expansion of expenditure to compensation for austerity policies. That is, fiscal space "is no longer sought as headroom to spend, but rather as a buffer to reduce the pain from fiscal consolidation" (Marcel, 2014, 9).

However, these interpretations, though interesting, are not applicable to studies of fiscal space for health. In the studies examined in this publication, they are mentioned in the theoretical frameworks, but ultimately, the definitions of Heller (2006) and Tandon and Cashin (2010) are used. This is because in these other interpretations, the term fiscal space is more a tool for fiscal solvency, closely linked with debt. They do not review the sources of revenue that make it possible to finance a particular social health objective, but estimate the margins of fiscal response with the current structures in the context of budget constraints.

1.2. Properties of fiscal space

The studies on fiscal space for health review the existing literature to identify specific characteristics of this concept or conditions governing its application, identifying four features that must be present to obtain greater fiscal space for health: sustainability, justification, additional resources, social and political will (Figure 1).

Figure 1. Properties of fiscal space



Source: PAHO, based on Matus-López and Valdés (2016).

First, the studies recognize the basic requirement that the *creation* of fiscal space not jeopardize the sustainability of public finances or the economy. This requirement is explicit in all definitions of fiscal space, but allows room for different interpretations in its application. The most common is the use of international benchmarks. This involves using the health expenditure thresholds of countries with similar development levels and stable growth rates as a reference. The underlying logic is that if other countries with similar incomes allocate a certain percentage of their GDP to health and they are not hit by crises, the rest of the countries with that income level could, in principle, match that effort.

This criterion was applied in the paper by William and Hay (2005). According to these authors, low-income countries establish public expenditure in health targets of at least 2.5% of GDP, which is the result of applying the average government revenues of these countries (just under 15% of GDP) and the average proportion of public expenditure allocated to health (around 15% of the budget).

The second requirement is a *justification* that supports the need for more resources. That is, fiscal space is created not only because it is feasible to do so, but because one or more predetermined objectives demand it. Examples include financing for a specific health program, achieving effective universal access to health services, increasing public expenditure on health services to a minimum threshold, or implementing a specific roadmap toward universal health.

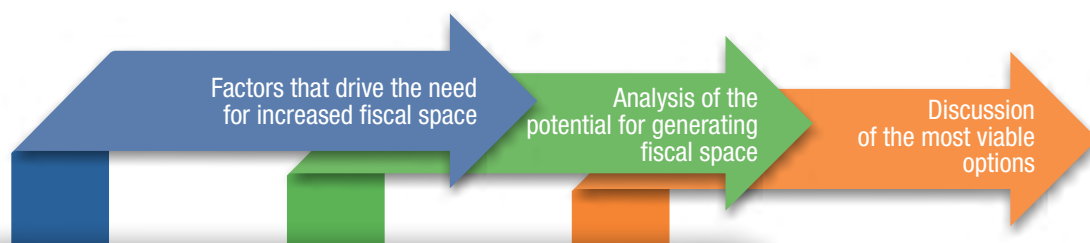
The third requirement is that *additional resources* must be available. Strictly speaking, this assumption is one of the most exclusionary, and thus, nearly all the studies are flexible in its interpretation. For example, redistributing the government's budget between health and education does not imply new resources or the contraction of public expenditure due to greater efficiency. However, both liberate resources that were not available before and, in a certain sense, are additional resources that can be used. Thus, this characteristic is defined by the fact that they are fiscal resources that were not available at the time of the analysis and would not have been generated had there been no intervention (Tandon and Cashin, 2010).

Finally, the studies emphasize the need for *political and social feasibility* for its application. As Gupta and Mondal (2013) point out, universal coverage is a decision that is more political and legal than technical in nature, and that political decision requires social support for the associated efforts (Durán-Valverde and Pacheco, 2012).

1.3. Analytical framework: components of a study on fiscal space

Just as Heller is the main author linking health and fiscal space, World Bank economists Tandon and Cashin (2010) were the first to propose a more complete analytical framework when applying it to specific cases. Specifically, these authors proposed an analysis of three components (Figure 2).

Figure 2. Components of the analysis of fiscal space for health



Source: PAHO, based on Tandon and Cashin (2010).

The first component refers to the reasons why new resources for health are needed. They can be related to program financing, the need to reach a certain level of expenditure, the need to ensure universal coverage, etc. Any of these should have the social and political backing to make it a priority. The most common example is the expenditure associated with the Millennium Development Goals (MDGs), in discussions of which the initial concepts first emerged.

The second component is the examination of potential sources of fiscal space. In this publication, these sources are discussed in the second chapter. There are basically five potential sources: resources from economic growth, the reallocation of a larger share of the budget to health, increases in revenue collection and its efficiency, more efficient public expenditure in health, and external sources.

Finally, the widest variety of approaches is found in the analysis of the political and social feasibility of the sources. This is a complex task that in the majority of cases is based on opinions, political positions, and social dialogue. These are issues in constant flux that depend on the legitimacy, transparency, and depth of democracy in the political system. In methodological terms, this last component highlights the need for a political economy analysis.

1.3.1. Component 1: Justification

The statement of the reasons driving the creation of fiscal space for health can be implicit or explicit. In the first case, the description of the countries' health situation, coverage problems, inequities in access to health services and in health outcomes, or the lack of health infrastructure reveal the need for greater resources for the sector. However, there are also explicit arguments that offer an economic quantification of the expenditure associated with a specific objective. In this case, justifications for the creation of fiscal space for health can be classified in two ways: bottom-up and top-down.

Bottom-up

Bottom-up justification consists of identifying one or more specific health objectives and then estimating the cost of meeting them. This was the case, for example, in the Chilean government's 2004 reform of the explicit health guarantees. Here, health problems were selected and prioritized, their prevalence rates were estimated, and based on this, the costs associated with their treatment were calculated. This, together with other projects, was financed through higher revenue from economic growth, budgetary reallocation, and specific tax increases. Finally, the government opted to finance it mainly with resources from an increase in the value-added tax rate (Paraje and Infante, 2015).

Another example is the implementation of a children's vaccination program promoted in several countries in the region. Information on the number of individuals in the target population is available from censuses and registries, and the unit cost of the vaccines through market analyses. Finally, other associated costs should be added to the product of the two—for example, the cost of the program's management and implementation. The result is the total resources necessary and represents the starting point in the search for and quantification of fiscal space for health among the different sources (Portnoy et al., 2015).

The advantage of this approach is that it makes it possible to estimate approximately how much money is needed before analyzing the sources of funding. Even the uncertainty surrounding the differences between planning and the actual scenarios can be managed through specific analytics tools such as sensitivity analysis and phased implementation. The problem with this methodology, however, is that it is useful for specific interventions, but

less so for meeting broad objectives. A vaccination plan can be quantified, but estimating the resources needed to achieve universal health is not so easy.

In this latter case, the objective of achieving universal health, assumptions are needed, which if not valid, can radically alter the results. For example, an assumption that people without coverage will behave the same way as people with coverage, or that the average costs for the two groups will not vary significantly. In these cases, quantification becomes more complicated, and values reach much higher levels; thus, they are normally measured as percentages of GDP. In these analyses, the costs can be simulated as a general approximation, but they must be considered and validated on the basis of international benchmarks or similar experiences—that is, from the top-down.

Top-down

The majority of the studies on fiscal space for health employ a top-down approach, basically for two reasons. The first is that the analyses of coverage, inequalities, and health outcomes in Latin America confirm that the needs are far from being met. The volume of resources necessary for ensuring appropriate levels of access and care go beyond specific programs and calls for strengthening of the entire sector.

The second is that international comparisons make it possible to identify certain levels of fiscal effort in health that can feasibly be reached. These are obtained in two ways: by setting the averages of countries with similar incomes as targets (if the country studied has levels below this threshold) or by examining countries that have reached the desired level or target (William and Hay, 2005).

This top-down approach has guided the PAHO studies whose results are compiled in this publication. Although the individual study for each country indicates the particular needs in access and care, the fiscal space target is a fixed parameter for public expenditure in health equivalent to 6% of GDP, a value identified and accepted by PAHO Member States as a useful reference for advancing toward the ultimate goal of achieving universal access to health and universal health coverage (PAHO, 2014, 4).

1.3.2. Component 2: Sources

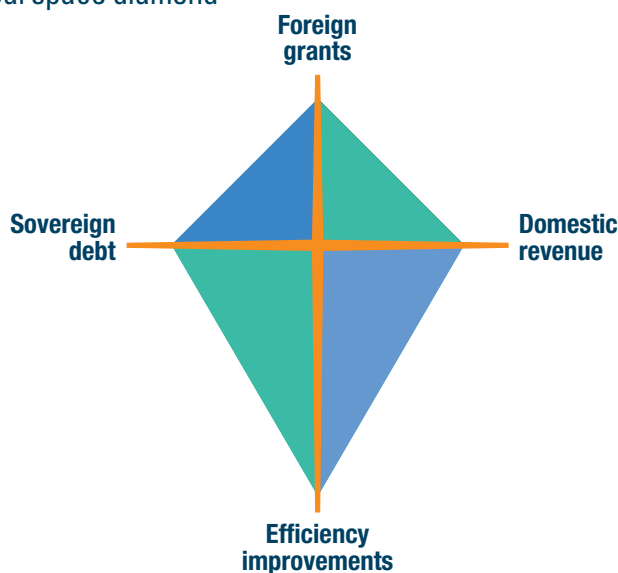
The second component of the theoretical framework is the analysis of the sources of fiscal space for health, which has varied depending on the author and criteria used. Nonetheless, there is a certain consensus when it comes to identifying them, and the greatest differences are observed in the way they are classified.

Initial proposals

As noted at the start of this chapter, sources for the creation of fiscal space for health have been proposed from the very beginning. Heller (2005a) started with the identification of three sources: a) tax measures, b) reprioritization of expenditure, and c) external grants. Subsequent studies, including some by Heller himself (2006), went on to identify and disaggregate new sources, including economic growth, sometimes as a source and sometimes as a prerequisite.

Along this same line, Okwero et al. (2010) proposed a fiscal space “diamond” that reflects four sources of fiscal space: foreign grants, domestic revenue, sovereign debt, and efficiency improvements (Figure 3). This classification is based on the fact that, as in Heller’s studies, fiscal space for health was considered mainly in the context of low-income countries. Thus, external resources represent two of the four vertices, which reflects the real inability of these economies to obtain the necessary resources on their own.

Figure 3. Fiscal space diamond



Source: PAHO, based on Okwero et al. (2010).

Finally, expanding the analysis beyond low-income countries, Tandon and Cashin (2010) propose a more disaggregated classification with less emphasis on foreign grants, which is the vision that has been developed most in the studies evaluating fiscal space for health. Specifically, they propose five types of sources: a) conducive macroeconomic conditions, b) reprioritization of health, c) increase in health sector-specific resources, d) health sector-specific grants and foreign aid, and e) increase in the efficiency of health expenditures.

Sources of fiscal space in PAHO studies

The PAHO studies that serve as the basis for this publication present various classifications based on Heller’s proposals (2006), but, taking advantage of the contributions of later authors, incorporate different contributions and disaggregation.

As shown in Table 1, there are certain sources on which all the studies agree: economic growth, the reprioritization of health expenditure in the overall budget, borrowing and external assistance, and efficiency improvements. The differences are found mainly in the way the studies address the analysis of resources from higher revenue collection. The country studies differ in their analysis of direct and indirect taxes and in the inclusion or absence of some relevant taxes for each case; however, their methodologies generally coincide. In contrast, the regional analysis, which examined 13 countries as a group,

employed a different methodology that allows comparison of the effects of increases on the rates of the principal taxes.

Table 1. Sources of fiscal space by author of the PAHO studies

Báscolo <i>et al.</i> (2015) (13 countries)	Matus-López and Prieto (2015) (Peru)	Prieto and Montañez (2016) (Honduras)	Matus-López and Valdés (2016) (Bolivia)
Conducive macroeconomic or stable growth conditions			
Reprioritization of health expenditure			
New tax revenues and social contributions for health			
Fiscal revenues with or without specific allocation	Tax increases	Direct taxes Indirect taxes	General taxes
a. Rate of the value-added, corporate income, or personal income taxes	Specific health taxes		
b. Taxes on the exploitation of natural resources	Social contributions in health		
c. Fight against tax evasion			
d. Compulsory contributions			
Earmarked fiscal revenues			
a. On large profitable companies			
b. On financial services and tourism	Reduction in tax expenditures	Taxes on natural resources	
c. On unhealthy goods			
d. Voluntary or solidarity contributions			
External assistance and borrowing			
Efficiency improvements			
Efficiency in public expenditure			Efficiency in expenditure and revenue collection (tax and public expenditure in health)

Thus, in one way or another, these studies address all the sources formally identified (PAHO, 2015a). Addressing the elements common to these works, this publication collectively analyzes five sources of fiscal space for health:

- a) Economic growth
- b) Reprioritization of expenditure
- c) New tax revenues
- d) Greater efficiency in health expenditure
- e) External resources

It should be noted that the resources obtained from each source are not all linked in the same way to their destination in health. Higher economic growth implies a direct increase in the health budget, as do the budgetary reprioritization of this sector and the gains obtained through greater efficiency in public expenditure in health. New tax revenues, however, involve a broader vision. The resources from higher revenue collection may or may not be channeled to the health sector. Therefore, when quantifying them, they must be fully evaluated but considered from the standpoint of the health sector's priority in the distribution of the resources obtained.

1.3.3. Component 3: Feasibility

The political and social feasibility of achieving greater fiscal space for health is related to the feasibility of taking the necessary steps to secure resources from sources that have been subject to a technical evaluation and where room for income or savings has been identified.

The implementation of these sources is not neutral in economic terms. An increase in specific health taxes will affect both the companies that produce the goods or services targeted by these taxes and the people who use them. Increases in social contributions, in turn, will affect employers and employees, depending on how they are implemented and on the elasticities of the relevant stakeholders with respect to these measures. Finally, consumption taxes will have a regressive impact on income distribution in the general population.

There will be more resistance to tax increases than to improving expenditure efficiency and there will be more intervention and lobbying pressure when the measures affect organized/powerful groups with individual or business interests than when unorganized/less powerful groups are affected.

Therefore, evaluating the feasibility of fiscal space for health begins with confirming the existence of a consensus on the need for additional resources, and, if so, identifying which sources can feasibly be tapped. Hence, transparency in the use of the resources and the social legitimacy of the institutions involved have a very important role in this task (Marcel, 2014).

The PAHO studies have proposed three different methodological approaches for evaluating political and social feasibility: the documentary method, interviews and surveys, and an analytical framework.

Documentary method

This analysis involves searching for official documentation on objectives, agreements, agendas, and consensus among political and social groups, as well as the explicit goals of the government (Matus-López and Prieto, 2015; Prieto and Montañez, 2016). These materials are analyzed in terms of the different sources of fiscal space, according to whether they make positive or negative mention of them or do not mention them at all. Finally, based on their interpretation of this information, the authors evaluate the acceptability of each source.

Interviews and surveys

This analysis consists of collecting information directly from interest groups for decision-making purposes. It is conducted through personal interviews of representatives of political parties, unions, nongovernmental organizations, social organizations, foundations, experts, and members of the public sector itself (Matus-López and Valdés, 2016).

Another option is to create an online survey for a group of relevant stakeholders to elicit their opinions on the viability of each of the available ways of creating fiscal space for health, using a scale ranging from highly feasible to impossible (Prieto and Montañez, 2016). Based on the responses, these models make it possible to assess which sources of fiscal space are the most or least viable.

Proposed analytical framework

This consists of analyzing three components from the standpoint of political economy, in terms of the potential measures for creating fiscal space (Báscolo et al., 2015). The first component is the development of new institutional frameworks, or innovations in institutional arrangements, understood as a set of formal and informal standards that govern the behavior of stakeholders in a given context. In the public health sector, this ranges from the organization of service production to the collection and generation of resources.

The second component is a stakeholder analysis, based on three aspects:

- a) the type of stakeholders involved, in terms of the sectors to which they belong;
- b) the relationships among them, based on the degree of cooperation and partnership; and
- c) their technical and political capacity to interpret challenges and exercise collective leadership.

Here, stakeholders should be understood as agents with an agenda—that is, a position on how to determine what the health system's response to the population's needs should be, as well as what resources (financial, political, or symbolic) should be mobilized to implement that agenda.

Finally, the third component is called disputes and conflicts and consists of characterizing these situations involving stakeholders in health issues. Here, the main conflicts are related to the system's limitations in meeting health needs, which creates tension among stakeholders and gives rise to situations with direct winners and losers, hindering consensus on higher objectives.

1.4. Study typology

To conclude this first chapter, several issues arising from the limitations of the fiscal space studies must be clarified, mainly those related to resources and the distribution of health expenditure.

1.4.1. Analysis of financing

One of the main criticisms of the analysis of fiscal space is that the object of health policies is to improve health, which does not necessarily imply an increase in financing. Here, two arguments must be considered: first, that comparative analysis of international realities shows a positive relationship between expenditure and health indicators; second, that the theoretical framework for fiscal space addresses sources of financing and not the management and execution of expenditure, which requires another type of analysis.

This analysis has certain limitations that are established in the very definition of the theoretical framework and that respond to the objectives proposed earlier; that is, they indicate what the analysis does not set out to do. It does not attempt to analyze the allocation of resources between levels of care or territories, but to provide a rough macroeconomic assessment of the potential for collecting or freeing resources that could be channeled to the health sector. How they are distributed requires a complementary analysis that is not addressed in the study of fiscal space per se.

Consequently, type of distribution, payment mechanisms, budgetary inflexibilities, bottlenecks, and other expenditure-related barriers are part of a subsequent or prior process, but a scientifically different one. Conceptually, the two types of studies—expenditure and financing—should be separate, so that they can be coordinated in a unified and complementary manner in their practical application.

All of this is clearly related to the justification of the need for new resources, and therein lies the confusion. For example, if the justification for increasing health expenditure comes from the objective of ensuring access by all people to the first level of care, it could be deemed that to arrive at the desired situation, expenditure should be increased by 3 percentage points of GDP. With the expenditure justified, the fiscal space for health is analyzed by source. It is then determined where that fiscal space lies and more or less in what dimension. The political and social viability of each of the sources identified is assessed and, based on the results, a recommendation is made on which of them to use. In the example, it may be enough to maintain the ratio of public expenditure in health to economic growth, but it may also be necessary to resort to other sources.

In short, revisiting the conceptual definition, the study of fiscal space for health analyzes the potential for obtaining greater public resources for health without jeopardizing the government's financial position or the stability of the economy. It discusses which of the options studied should be implemented and in what proportion.

1.4.2. Resource utilization

The execution of greater public expenditure in health is another, though clearly related, matter. For example, it may be that there are no constraints on the supply side of the health system, as well as enough physicians and nurses, but their geographical distribution prevents the initial objective from being met. In this regard, the study of fiscal space for health assesses only the availability of financial resources, taking the potential obstacles to execution, such as budget rigidities, into account. However, it does not examine whether the number of physicians can be increased, or quantify wage incentives to motivate health workers to transfer to regions with fewer services.

Furthermore, the study of fiscal space does not involve a distributive analysis of how much of a particular resource should be allocated to one region or another. For example, a territory may have an epidemiological profile that requires more health services or more specialized services involving greater investment and more specialized personnel. That analysis is beyond the scope of the study of fiscal space for health, although it may be conducted prior to, at the same time as, or subsequent to the analysis of the sources of financing.

In short, the study of fiscal space for health focuses on the capacity and feasibility of the sources of financing but does not address all questions and matters related to health expenditure. It is important to bear this in mind, because the opponents of increasing public expenditure often use these arguments to automatically dismiss the findings of studies in this field.

However, in cases where the path toward health system transformation already has been or is being defined, fiscal space studies can be critically important in planning the processes of change and can effectively answer the question of whether the interventions can be sustainably financed. At the same time, they permit an objective discussion of how to sustain progress toward universal health and, insofar as their findings are disseminated and made accessible to different groups of stakeholders and the population at large, they encourage social participation and increase democratization in health.

CHAPTER 2



ECONOMIC CONTEXT AND HEALTH SYSTEMS

Studies by PAHO on fiscal space for health have covered 13 countries in the Region: Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guyana, Honduras, Jamaica, Nicaragua, Paraguay, and Peru. Eight of them are South American countries, three are Central American, and two are Caribbean (Figure 4). While all of them were included in a single study (Báscolo et al., 2015), three were subsequently analyzed individually in separate studies: Peru (Matus-López and Prieto, 2015), Honduras (Prieto and Montañez, 2016), and Bolivia (Matus-López and Valdés, 2016).²

All of these works included an introduction or description of the country context in terms of recent macroeconomic developments, public finance, and the situation of their health system. This chapter revisits these analyses, updating them where possible and expanding on them where available information permits.

In the macroeconomic area, the studies of fiscal space for health examined recent trends in gross domestic product (GDP), level of GDP per capita, and, in some cases, socioeconomic outcomes in terms of poverty and unemployment. In public finance, the emphasis was on the trend in and magnitude of public expenditure in health. However, attention was also paid to the magnitude of total public expenditure and public social expenditure. Finally, with regard to health systems, the studies looked at the availability of human resources and infrastructure, the level of insurance and coverage, and the main health outcomes.

² Two studies of fiscal space were conducted during the preparation of this publication, one for Suriname and the other for Jamaica.

Figure 4. Countries included in PAHO studies on fiscal space for health, 2016

* Countries with individual studies.

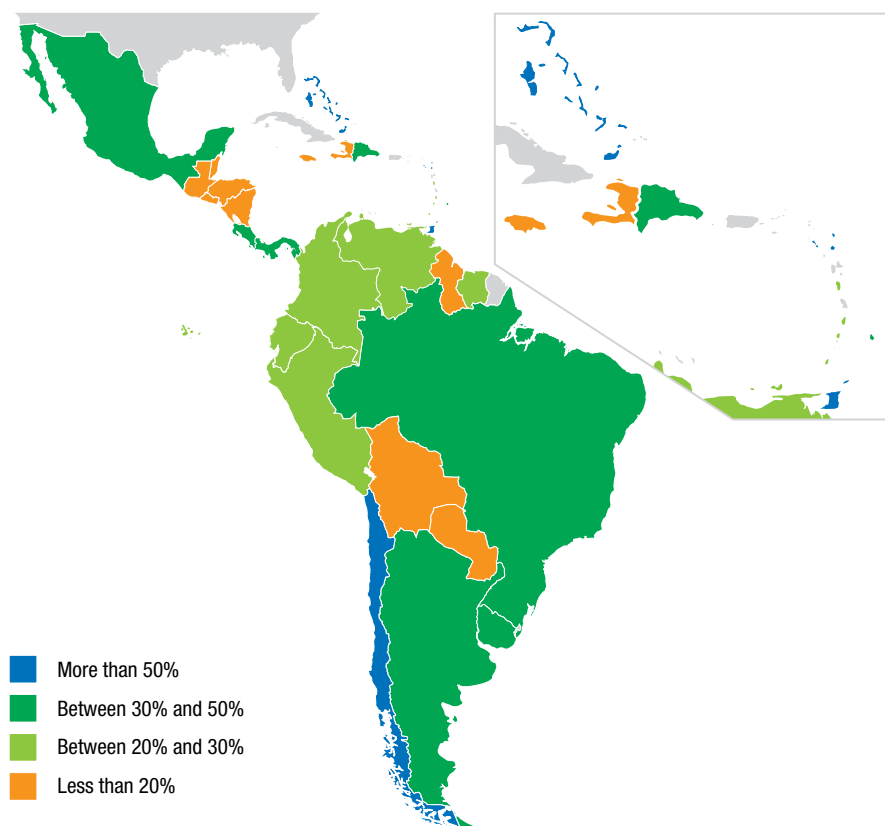
2.1. Macroeconomic analysis

2.1.1. Economic growth

LAC is a middle-income region. In 2016, its GDP per capita stood at US\$ 8,252, which, in terms of purchasing power (international dollars at purchasing power parity), is less than one-third of the GDP per capita of the advanced³ economies (IMF, 2017a). Moreover, the indicator varies widely from country to country, with five economies exceeding 50% of the GDP per capita of the advanced economies, and nine more falling below 20%. In addition, excluding Haiti, which has been grappling with an extraordinary social and humanitarian emergency, the highest GDP per capita in the region (Trinidad and Tobago) is six times the lowest (Honduras) (Figure 5).

3 According to the classification of the International Monetary Fund (IMF), the advanced economies include the 39 countries with greater development in three areas: GDP per capita, export diversification, and financial integration. This group consists of 23 countries in the European Union, plus the United States, Canada, Australia, Japan, and 12 others. For more information, visit: <https://www.imf.org/external/pubs/ft/weo/faq.htm#q4b>.

Figure 5. GDP per capita in LAC as a percentage of the GDP per capita of the advanced economies (in international dollars, PPP), 2016



Source: PAHO, based on IMF (2017a).

Comparing the sample of countries for which there are studies on fiscal space for health in the general context of LAC, it can be concluded that the selection has focused largely on countries with income below the regional average. Only three of the 13 study cases are above this threshold: Chile, Barbados, and Costa Rica.

On the flip side, most of the countries had growth rates above the average in the region. Thus, in 10 of the 13 countries analyzed, GDP growth in the period 2006-2016 was above the regional average, and only Brazil, Barbados, and Jamaica had lower growth rates. The studies therefore agree that most of the countries have enjoyed a lengthy period of economic growth. In some of them, it is even hard to identify another moment in history where political stability and economic growth have coincided for more than a decade.

In terms of GDP per capita, Peru, Chile, Costa Rica, and Colombia stood out, with high growth in the period 2002-2013. These countries were joined by Paraguay and Bolivia between 2006 and 2016.

However, this positive assessment was coupled with a discussion of the somewhat belated impact of the global economic crisis. Although this was one of the few recessions that hit the high-income countries harder than the middle-income countries, the sluggish recovery of the former was accompanied by a troubling slowdown of the latter (ECLAC, 2016).

In 2009, when the economic blow was heaviest, the average GDP of the advanced economies fell by 3.4%, but by only 1.8% in LAC. However, after 2010, the high-income countries resumed constant, though fluctuating, growth, from a low of 1.1% in 2012 to a high of 2.1% in 2015. In LAC, in contrast, each year saw less growth than the previous year, slowing from 4.1% in 2011 to an average of 1% in 2016 (IMF, 2017a). In fact, in 2017, the regional economy will continue its sluggish average growth of 1.2%—an outlook different from the growth of the previous two years (ECLAC, 2017).

In the individual countries with studies on fiscal space for health, the recession has had less of an impact. A slowdown has been observed, but growth continues. Bolivia maintained annual growth of 5% until 2014, when it began to slow, falling to 4.1% in 2016. Since the onset of the crisis, growth in Honduras has exceeded 4% only in 2012, a figure below its previous level. Finally, Peru went from annual growth rates of over 5% until 2013 to rates of below 3% the following year.

In short, regional results in the past decade have been positive, despite the stagnation of recent years. Nevertheless, there is uncertainty about the path going forward. The individual studies of fiscal space in Peru, Honduras, and Bolivia provide a more detailed picture of the governments' responses, which partially explain their less significant slowdown.

2.1.2. Fiscal and monetary policy

If anything characterizes the economic analyses of public finances in the past decade, it is the reflection of sure-footed conservative management of the debt and deficit. The studies on fiscal space for health highlight the effects of fiscal discipline in the majority of the countries evaluated, which enabled the governments to weather the crisis of 2009 with a reserve of fiscal resources and controlled public debt. Added to this was the debt forgiveness in 2005 and 2006 for the heavily indebted poor countries, whose financial burden had been a real obstacle to growth. Bolivia and Honduras were among the countries benefitting from this program (IMF, 2006).

The individual studies on Peru, Bolivia, and Honduras described in great detail their situations and differences and the policies implemented. To begin with, the countries started out with somewhat different situations. Honduras is the poorest country in the Americas, after Haiti, and Bolivia is only two positions above it. Peru, meanwhile, ranks 18th, with an average income 78% higher than that of Bolivia and more than double that of Honduras.

Moreover, their situations are not entirely comparable. Bolivia has a source of public resources in the oil and gas industry, which accounts for more than one-third of State revenue. This enabled it to maintain the growth of public expenditure, along with a fiscal surplus,

at least until 2013 (Matus-López and Valdés, 2016). Peru, in contrast, has had to impose strong fiscal discipline to maintain its fiscal surplus, which also ended in 2013 (Matus-López and Prieto, 2015). Honduras, in turn, is the most dependent of the three countries, since remittances from abroad alone account for more than 15% of GDP, with coffee and textile exports another important source of revenue (Prieto and Montañez, 2016).

Peru and Bolivia have adopted expansive fiscal and monetary policies, but with very different instruments and implications. Bolivia took advantage of its previous fiscal surplus to develop a countercyclical policy of expanding public expenditure, financed with prior major savings of international reserves. Part of this expenditure was used to build new hospitals. At the same time, it adopted a monetary expansion policy based on lending for production and lower interest rates. Peru, in turn, boosted aggregate demand through lower personal and corporate income taxes aimed at reviving consumption, which implied the need to control public expenditure. At the same time, it lowered interest rates to spur investment. Honduras, meanwhile, faced the crisis with a limited fiscal surplus and less healthy accounts, forcing it to increase the public debt and later introduce the fiscal consolidation measures pushed by the IMF. Notwithstanding, in all three cases, the result was a greater fiscal deficit in 2016: over 6.5% of GDP in Bolivia; 2% in Peru; and less than 1.5% in Honduras.

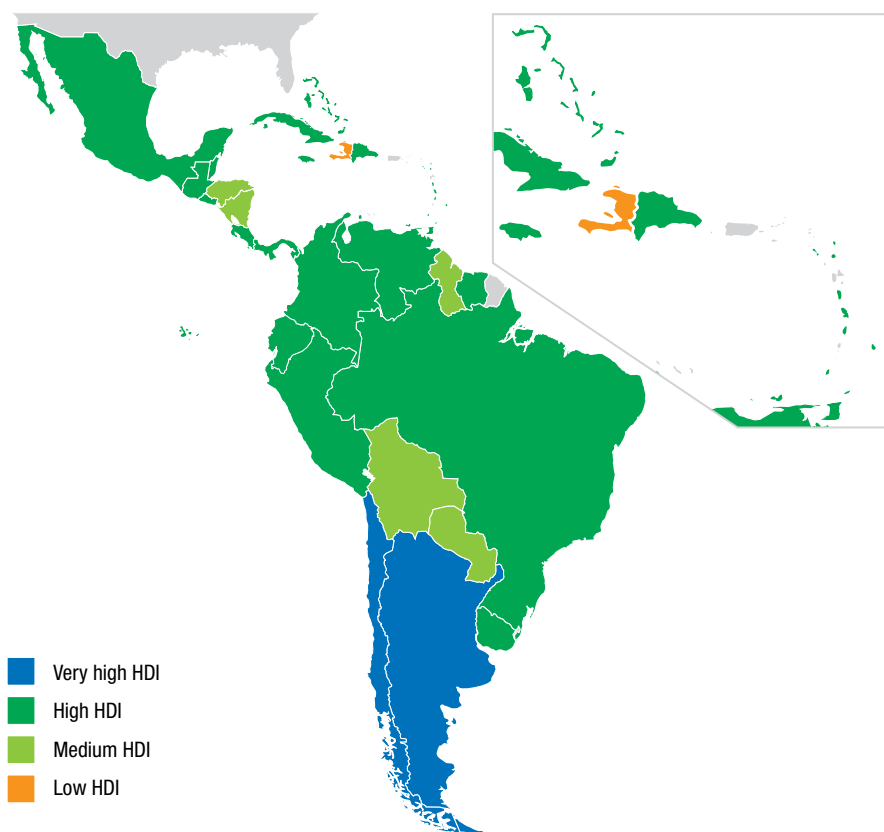
This situation reveals a political and fiscal problem when analyzing fiscal space for health, since countries do not always follow the recommendation to introduce a countercyclical fiscal policy, and public finances are under pressure to contain spending. If growth paths and higher revenues from economic activity do not recover, disputes among sectors over resource allocation will make efforts to increase the health budget much harder. This demonstrates the limitations of economic growth for increasing fiscal space and the need to search for sources less dependent on the economic cycle.

2.1.3. Socioeconomic conditions

In addition to economic growth, the studies analyzed other complementary variables that are broader indicators of the population's social well-being, among them the human development index (HDI), poverty rates, and employment and health indicators. In some cases, these analyses were conducted from the standpoint of the national situation and context, and in others, from the standpoint of the social determinants of health. The indicator most commonly used, therefore, is the HDI, in both its composite classification and the analysis of its components: health, education, and income. In some cases, the inequality-adjusted HDI (UNDP, 2016) is also evaluated.

The HDI classification is divided into four groups, ranging from very high to low. Almost all of South America has a high HDI, except for Bolivia, Paraguay, and Guyana, with a medium HDI, and Argentina and Chile, with a very high HDI. Central America is composed largely of countries with a medium HDI, such as Nicaragua and Honduras. The Caribbean exhibits wide variability, ranging from countries such as Cuba, with a high HDI, to Haiti, the only country in the hemisphere with a low HDI (Figure 6).

Figure 6. Human development index (HDI) group in Latin America and the Caribbean by country 2016



Source: PAHO, based on UNDP (2016).

Thus, generally speaking, with the exception of Haiti, the regional indicators are in the medium-to-high levels. This is due to the breadth of the scale, which at the bottom is affected by the levels in Africa and the conservative characteristics of the HDI's components, such as the literacy rate and life expectancy at birth.

Another indicator used along with the HDI in the sociodemographic analysis was the national poverty rate. This makes it possible to evaluate the trend in the proportion of poor individuals or households in each country but does not allow for international comparisons, because each country sets its poverty criteria in terms of a monetary threshold considered necessary for purchasing a market basket in each context; thus, the thresholds differ from country to country.

A second weakness of this indicator is that this monetary threshold is not adjusted according to economic growth—like the poverty rate of rich nations (calculated in proportion to average income)—but according to price levels. Thus, in an economy with relative control over inflation, adjustments to the monetary requirements for not being considered poor are unrelated to the trend in the economy.

Considering this, the trend in the national poverty indicator in Peru and Bolivia is clearly positive. Beyond the measurement bias, poverty rates have fallen significantly. In little more than a decade, Peru managed to reduce poverty by more than half, from 55% of the population to less than 25%. Bolivia, in turn, went from rates of above 60% to just under 40%.

This did not occur in Honduras. After a reduction in poverty rates from over 65% in 2003 to a little under 60% in 2007, where they remained until 2009, they again rose to 66.5% in 2012. Since then, a certain recovery has been observed, but the poverty rate is still above the levels achieved a decade ago.

Participation in the labor market is essential to bringing down poverty rates. The more wage earners, the higher the household income and the greater the opportunities for crossing the monetary threshold required for basic purchases. In this regard, the Peruvian and Bolivian labor markets were vibrant. In the former, activity rates were above 70% for nearly the entire decade, exceeding 74% in some years, while urban unemployment remained under 6% and even fell below 5% between 2012 and 2015. Bolivia, in turn, had activity rates of above 60% during the same period and urban unemployment rates that fell from 8% in 2006 to less than 4.5% beginning in 2009.

Once again, the outcomes for Honduras are not as encouraging. In the past decade, the activity rate has been below 55%, and unemployment has climbed to 7.3%. Thus, although the values indicate an upward trend, they appear to be insufficient to bridge the social gaps.

2.1.4. Economics and politics

In one way or another, sometimes tangentially and sometimes directly, the studies address the political situation of the countries examined. Normally, they quickly mention the favorable conditions of this millennium, with democratic regimes, the transition of authority through elections, etc. This condition is no less important than economic growth and is often a determinant of it. As Gupta and Mondal (2013) and Durán-Valverde and Pacheco (2012) point out, both universal coverage and the discussion of fiscal space for health involve a decision that is more political than technical in nature. That is because in countries with transparent democratic systems, the social allocation of resources is more efficient (Marcel, 2014), positioning health as a priority.

At the regional level, with few exceptions, democracy was strengthened, unlike the political situation in the second half of the last century. The individual studies assess this situation.

In Peru, power has been alternating among the different political factions, with voter participation at over 80%. These changes have occurred without radical changes in the country's economic model. Sound public finances have been maintained, while the foreign debt burden has been reduced.

Bolivia, in turn, is enjoying one of its longest periods of democratic stability: a single governing party and a single democratically elected president for the past 10 years, with voter participation at over 87%.

The political situation in Honduras, however, has been affected by the removal and exile of former president Manuel Zelaya in 2009 during a full-blown economic crisis and citizen disaffection that led to barely 61% voter participation in the most recent elections.

Thus, people in most of LAC countries are living better than they were at the end of the last century, although the regional situation varies widely and some countries have had better outcomes than others. Some have managed to maintain economic and political stability, enabling them to improve living conditions, especially for the poorest population. Others have been less economically and politically stable, coming to the close of the second decade of the millennium with few positive outcomes.

These latter countries are confronted with many social challenges in an economic context that is also complex. The economic slowdown of recent years has called the encouraging analyses of the last decade into question. The region seems to have gotten past the great recession of 2009, but almost 10 years since that tremendous shock, sluggish international growth has ended up hurting the Latin American countries. Fortunately, the growth projections for 2018 and beyond are positive, but they continue to assume that the advanced economies will not be hit with another recession.

2.2. Public finance and health expenditure

2.2.1. Fiscal deficit

LAC countries have historically had negative fiscal balances, but deficits were low in the five-year period preceding the crisis of 2009. Thus, average regional values during the period did not exceed 1.1% of GDP and even fell to 0.8% of GDP in 2008.

Unfortunately, the crisis again raised these fiscal deficits to over 3% of GDP. After a slight decline in 2010 and 2011, due in part to countercyclical economic policies, this indicator rose to 5% in 2014 and 7% in 2015, falling to 6.2% in 2016 (IMF, 2017a). The worst situations were observed in Argentina, Brazil, Costa Rica, Ecuador, and Venezuela. Chile, Colombia, and Honduras were less hard hit. Some countries even managed to keep the deficit below 2%, as was the case for Peru, Paraguay, and Guatemala.

Government budgets are based on growth projections. Thus, when the economy is hit with an unexpected crisis, there is little room to maneuver. In addition to having a certain response capacity, most of the time governments implement policies that either increase expenditure or cut taxes. This explains the behavior of the public deficit in the region. That is, the economic authorities actively responded during the first two or three years of the crisis, but more than five years later, State resources have begun to run out.

One of the greatest weaknesses of Latin American governments in maintaining expenditure levels is their limited taxation capacity. A comparative study by the OECD shows that fiscal revenues represent over 34% of GDP in the advanced economies, while the figure for LAC is only 21% (OECD, 2015a, 2017).

The governments of Brazil and Argentina are among those with the highest fiscal revenues, which exceed 30% of GDP. In more than half the countries, in contrast, the figure is under 20%. Among the countries included in the PAHO studies on fiscal space, the figure for Peru and Honduras is just over 18% of GDP. The figure for Bolivia, on the other hand, is 27% of GDP, thanks to the resources that the State receives from oil and gas production. Nevertheless, if this source is not counted, the country's fiscal revenues would be only about 19% of GDP (Matus-López and Valdés, 2016).

This situation implies a clear difficulty in meeting one of the prerequisites for fiscal space for health: increasing public expenditure without jeopardizing the State's financial position. It is relatively hard to maintain healthy accounts if the projected economic growth does not materialize.

This is the current situation of most State treasuries in LAC. Nevertheless, the growth projections are encouraging. According to the IMF (2017a), these countries will again reach annual growth rates of more than 2% beginning in 2018. Brazil will approach this threshold, and Argentina will reach 3% annually midway through the period 2015-2020. Peru, like Bolivia, will exceed 3.5%, and Honduras may also do so.

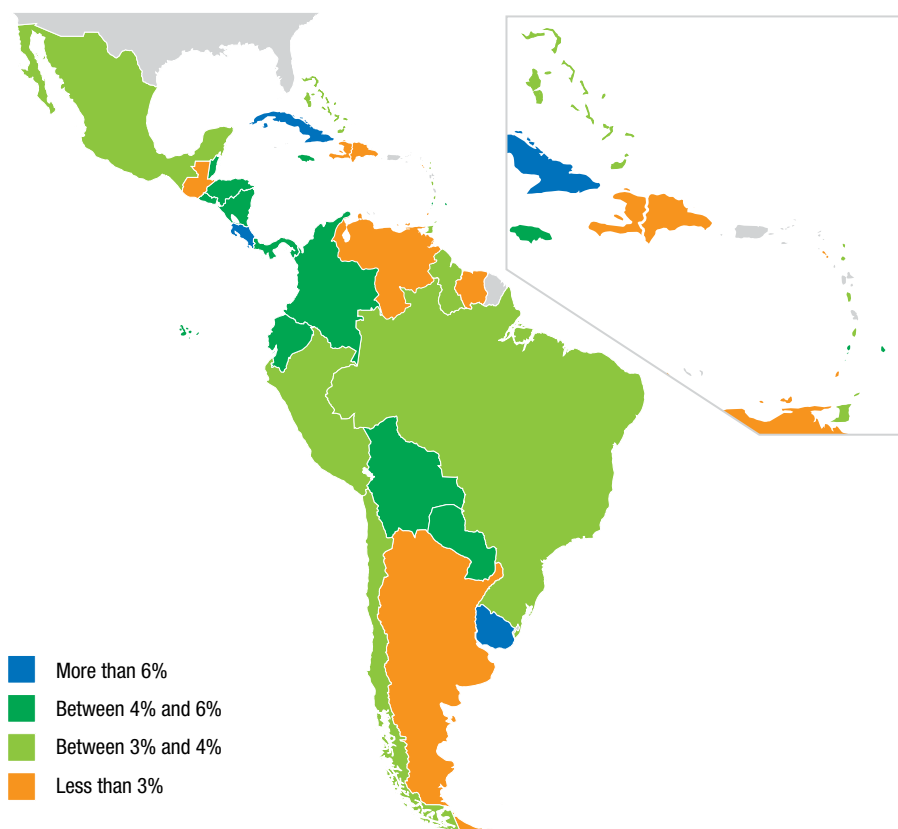
This is why the discussion of fiscal space for health is so important. If the projections at least partially materialize, public resources will increase, making this a critical time for prioritizing health needs.

2.2.2. Public health expenditure

Four of the countries studied—Paraguay, Costa Rica, Ecuador, and Nicaragua—have health expenditures (public and private) of over 9% of GDP. In contrast, three others—Peru, Jamaica, and Guyana—do not exceed 6% of GDP. These figures, however, represent total health expenditure, and the share of public and private health expenditure varies widely from country to country. In Paraguay, private expenditure accounts for 54.1% of total health expenditure, while in Colombia the figure is just 24.8%. Colombia, Bolivia, and Costa Rica are the countries in which public expenditure in health represents a high proportion of total health expenditure.

In terms of GDP, public expenditure in health exceeds PAHO's reference threshold of 6% of GDP in only a few cases, such as Costa Rica, Cuba, and Uruguay, followed by Colombia and Nicaragua, with over 5% of GDP. In the majority of the countries, however, this value is below 4% of GDP (Figure 7).

When interpreting this indicator, it is useful to bear in mind what is meant by “public expenditure in health.” This concept includes all the expenditure financed through public and compulsory sources, meaning, in addition to government budget expenditure, the health expenditure of parastate enterprises or the foreign grants they receive, along with compulsory contributions to the social security health system.

Figure 7. Public health expenditure as a percentage of GDP, 2014

Source: PAHO, based on WHO (2017a).

For example, in Chile, employees pay a compulsory 7% of their wages (with a ceiling) for health coverage. However, the subscriber can choose to opt out of the pooled public fund, represented by the National Health Fund (FONASA), and transfer these and other additional resources to private insurers, known as ISAPREs, which charge risk-adjusted premiums and tend to contract only private providers. These resources are not considered public expenditure in health in this type of study.

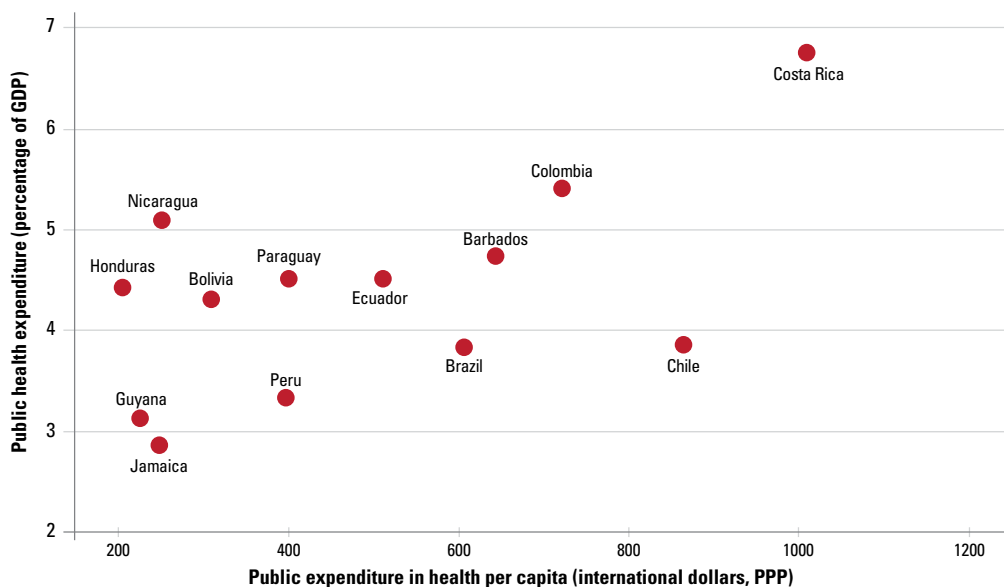
Something in between is seen in Peru and Honduras, where workers or businesses pay premiums to one or more public health insurance systems, and people with no income may or may not be covered by the public network. Thus, it is common to talk about two subsectors: the social security health sector and the public sector (Prieto and Montañez, 2016). For the analyses of fiscal space for health, the target of 6% of GDP represents the aggregate of all (compulsory) public sources of resources, those from social security and those from general taxes.

Finally, in cases like Costa Rica, Cuba, and Uruguay, where health systems receive a single type of public financing almost entirely or in very high proportions, identifying this expenditure is easier and more transparent.

2.2.3. Public expenditure in health per capita

As previously noted, there is relatively high variability in country income per capita levels. Hence, public expenditure in health of 5% of GDP in a rich country can imply greater expenditure per capita than 6% in another, poorer country (Graph 1).

Graph 1. Public expenditure in health as a percentage of GDP and public health expenditure per capita (international dollars, PPP), 2014



Source: WHO (2017a).

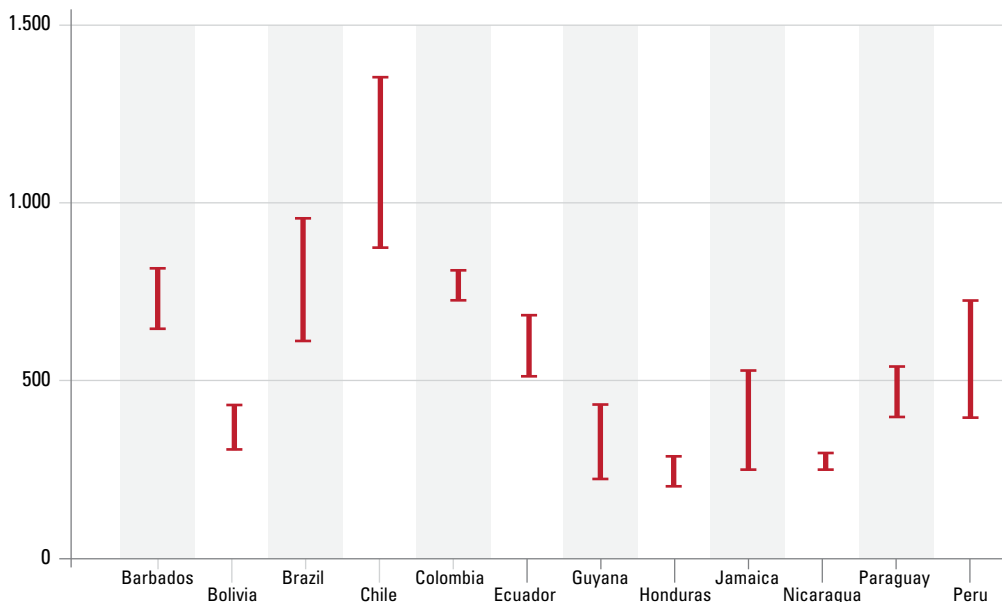
As the graph shows, Chile and Brazil have almost the same public expenditure in health in proportion to GDP: less than 4%. However, in per capita terms, this implies that Chile's expenditure is 42.6% higher than Brazil's. Furthermore, even though Honduras and Bolivia have far higher public expenditure in health than Chile in proportion to GDP (4.42% and 4.31%, respectively), their per capita health expenditure is respectively 77% and 64% lower than that country's.

This situation leads some experts to conclude that the target set for public expenditure in proportion to GDP may not be enough to bring in the resources necessary for universal access to health and universal health coverage (Savedoff, 2007). While this is true, PAHO's target of 6% has been established as the minimum reference level for advancing toward universal health and, moreover, has support in the international literature (Xu et al., 2010). Some countries will be nearer to that target and others farther from it, but all will undoubtedly move closer to it.

An illustrative exercise is one in which all countries in the Region are assumed to have public expenditure in health of 6% of GDP, which makes it possible to compare the implications in terms of resources per capita (Graph 2). The results indicate that this would cause Jamaica,

for example, to raise its per capita expenditure above the current level. Ecuador and Peru would be at almost the same level as Colombia is today. However, Bolivia would only increase its public expenditure in health per capita above the current level of Paraguay.

Graph 2. Public expenditure in health per capita in 2014 (lower threshold) and calculated as 6% of GDP (upper threshold) (international dollars, PPP)



PPP: purchasing power parity. Source: PAHO, based on WHO (2017).

This is an issue that must be considered when evaluating the target public expenditure in health of 6% of GDP established in PAHO’s framework (PAHO, 2014). In other words, the volume of resources necessary for effectively advancing toward universal health will depend on the cost of care, infrastructure, and domestic prices and, thus, may imply different efforts from country to country.

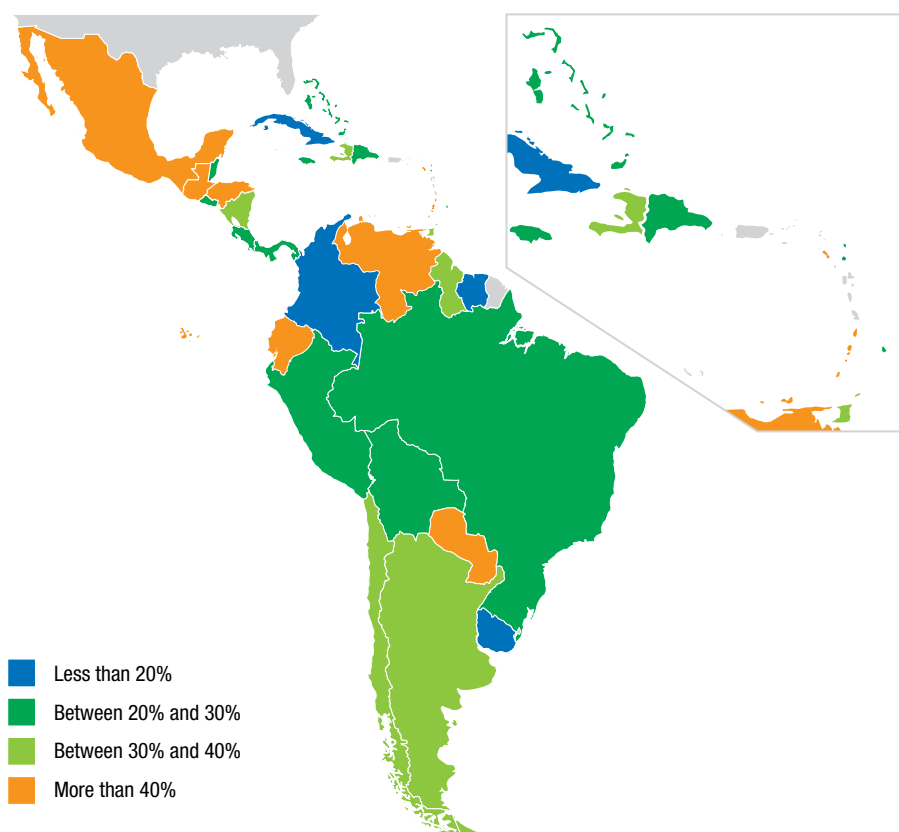
2.2.4. Out-of-pocket health expenditure

Out-of-pocket expenditure is the direct payment by households for health care at the point of service, which, together with the premiums paid to private insurance, is the main component of private expenditure.

This type of expenditure is one of the main determinants of inequity, since the care received is based on the ability to pay. This concept is directly related to the level of financial protection guaranteed to households. Thus, the term “catastrophic health expenditures” is used when households must devote a very high proportion of their budget to pay directly out of pocket for health services. The literature also contains references to “impoverishing expenditures,” referring to the situation in which this type of expenditure represents the difference between living above or below the poverty line in each context (Xu et al., 2003; van Doorslaer et al., 2006; Flores et al., 2008).

To illustrate, out-of-pocket expenditure averages 17.1% of total health expenditure in Europe. The figure in the Region of the Americas is 32% (PAHO, 2017), well above the 15%-20% commonly cited as the reference threshold for ensuring a desired level of financial protection for the population (Xu et al., 2010; WHO, 2010). Among the countries examined, Paraguay, Ecuador, and Honduras have the highest levels of out-of-pocket expenditure: 40%-50% of health expenditure. Moreover, in these first two countries, this expenditure is higher than public expenditure in health, and in the third, almost equal to it. Only Colombia has out-of-pocket expenditure below 20%, followed by Costa Rica and Uruguay. In the rest of the countries, this component exceeds one-quarter of all health expenditure (Figure 8).

Figure 8. Out-of-pocket health expenditure as a percentage of total health expenditure, 2014



Source: PAHO, based on WHO (2017a).

2.3. Organization of health systems

Health systems are major determinants of health outcomes. The correlation between preferences and structures is neither linear nor direct, though it is commonly argued that the degree of access and the weight of the public and private components stem from cultural issues. For example, in some countries, the population values the freedom to choose providers and insurers more than strengthening a hierarchical public health system.

In others, where solidarity plays a major cultural role in policy-making, pooled financing systems and an extensive public network are advocated. However, the truth is that most of the time, these stereotypes are born of the actual situation, not the desired one, and they are based on the reasoning that what people have is what they want.

As noted earlier, the relationship is neither linear nor direct. It is evident that in democratic systems, the decisions of the public institutions that build, reform, and maintain the health systems should be based on the political will of the people they represent. Nevertheless, the weaknesses of the political system, lack of resources, and inflexibilities in the historical legacy of the system result in decisions that are not always based on social preferences.

In this regard, historical legacy plays a key role in LAC. The countries in this region have a recent past characterized by scarce resources and, on occasion, lack of democratic stability. In recent decades, the legacy of these situations has caused the friction between reality and social preferences to trigger a succession of reforms in Latin America's health systems.

This fact is very important in the analysis of fiscal space for health, since structures must be able to adapt to meet the objective of universal health. In many countries, they must change in the medium or even long term. Thus, for the sake of analysis, the barriers created by these structures cannot be considered unalterable.

At the regional level, the description of the health systems was obtained through three analyses: human, natural, and financial resources for health; the level of service coverage; and health outcomes (Báscolo et al., 2015). The individual studies for Peru (Matus-López and Prieto, 2015), Bolivia (Matus-López and Valdés, 2016), and Honduras (Prieto and Montañez, 2016) examined the structure and organization of health systems in somewhat greater depth.

2.3.1. Human and material resources

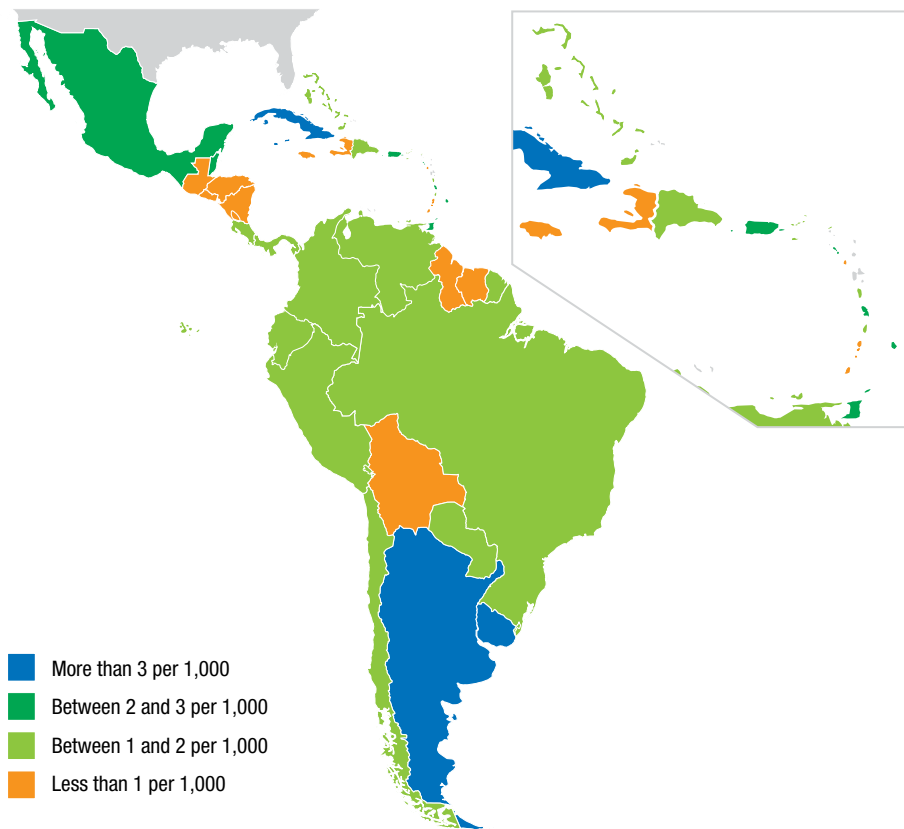
The general view is that the LAC countries have a shortage of physicians, nurses, and other health personnel. In advanced economies, the density of physicians is around 4 per 1,000 population. In LAC, in contrast, only Uruguay and Argentina approach these levels, while Cuba far exceeds them (Figure 9).

In the majority of LAC countries, the ratio is less than 2 physicians per 1,000 population, as in the case of Chile, Brazil, Ecuador, and Colombia. Further behind, with an indicator of less than 1, are Suriname, Nicaragua, and Guatemala, and at the bottom of the list, with values of less than 1 physician per 2,000 population, are Bolivia, Guyana, Honduras, and Haiti.

The study on Peru shows an increase in the number of physicians, which rose from 1.15 to 2.14 per 1,000 population between 2000 and 2013, an increase of over 80%. However, there are wide differences among the country's departments, with some territories having less than one physician per 2,000 population and others, such as the capital, having 3.8, or eight times more (Matus-López and Prieto, 2015). The trend also is positive in Bolivia, where the number of physicians has slowly increased from a historical 0.3 per 1,000 population to 0.47 in 2010 (Matus-López and Valdés, 2016).

In Honduras, the results continue to be positive, but less clearly so. Although aggregate data are not available, it would appear that the number of physicians in the public health system (SESAL) increased between 2009 and 2015. However, this implies a density of only 0.1 physician per 1,000 population (Prieto and Montañez, 2016), and although physicians working outside the system should be added to that figure, the results are unlikely to be much better.

Figure 9. Physicians per 1,000 population in Latin America and the Caribbean, 2014, or latest available year



The figure for physicians includes specialists, generalists, and residents. Source: PAHO, based on WHO (2017a).

With regard to infrastructure, the majority of the countries have few health facilities in proportion to the population. On average, the number is something over 3.5 facilities per 100,000 population, with marked differences in the quality, size, and type of facility.

The study of Peru identified more than 18,000 health centers, resulting in a density far higher than the regional average. Nevertheless, more than half of these facilities (52%) are in the private sector, and 6,000 of these private facilities are specialists' offices. Furthermore, almost 7,000 of the public facilities are understaffed health posts with limited infrastructure. The study on Honduras, in contrast, counts only facilities in the public health

service network (SESAL), with just 1,722 countrywide, more than 1,000 of which are poorly equipped rural health centers.

Thus, it is hard to compare statistics per capita, and the number of health professionals and facilities varies widely depending on what is considered. Even so, given the number of health professionals, it seems logical to conclude that there is a scarcity of infrastructure in terms of the population of each country.

2.3.2. Health insurance and coverage

A recent assessment shows major progress in health coverage in LAC, at least nominally (Dmytraczenko and Almeida, 2015). However, the coverage is offered through a complex network of public and private insurance that does not always guarantee effective access.

Insurance systems

A classic characteristic of LAC countries is the existence of multiple insurance programs alongside a high percentage of uninsured people. Moreover, segmentation in the public sector itself is common, with one network financed with premiums deducted from wages and access limited to subscribers and their beneficiaries, and another network financed primarily through general taxes for people with no employment income. The result is a segmented, fragmented, inefficient, and inherently inequitable system in terms of the objective of achieving universal access to health (PAHO, 2017).

This analysis finds that few countries have an integrated financing and insurance system (Atun et al., 2015; Bossert et al., 2014; Mesa-Lago, 2009; Cruces, 2006). According to these studies, only the health systems of Brazil and Costa Rica can be classified as integrated systems—the first one, through the Unified Health System (UHS), financed entirely with fiscal resources; and the latter, through a single pooled public fund resourced by social contributions and general taxes. Cuba, with its free, integrated, and unified health system, financed with fiscal resources, is also part of this group.

Using this same classification, Chile and Colombia are worth mentioning. Both have managed to provide equal access to care for certain health problems for public and private insurance beneficiaries. However, these systems are not fully integrated yet, and access to services beyond these benefits packages is unequal and depends on which insurance a person has.

Uruguay has consolidated access to an extensive package of services for specific health problems for virtually all beneficiary groups. These services are publicly financed with contributions and general taxes. Thus, in Uruguay, the Integrated National Health System offers a benefits package for both the noncontributory and contributory public networks.

Further behind with respect to integration are countries such as Argentina, Mexico, and Peru. This structure is confirmed in the specific study on Peru (Matus-López, 2016), where nearly two-thirds of the population is covered by two types of public insurance: contributory public insurance (EsSalud) and Comprehensive Health Insurance (SIS). The former, covering 25% of the population, is financed with social contributions, and the latter, covering 39%,

is financed mainly with fiscal contributions. Both have networks and facilities that do not complement one another, parallel primary health facilities, and cross- subsidization from one to the other. Moreover, even including other types of insurance (private, professional, etc.), nearly 22% of the Peruvian population does not indicate being covered by any type of health insurance.

Finally, the lowest levels of integration can be found in Guatemala, Bolivia, and Honduras. The study on Bolivia identified more than 20 public and private insurance providers; even so, more than 60% of the population is not affiliated with any of them. The different types of public insurance include professional insurance funds; university, police, and military insurance; and the National Health Fund (the most important). However, since the Bolivian model is based on premiums deducted from wages, the country's high degree of labor market informality excludes more than half the population from coverage (Matus- López and Valdés, 2016).

The fragmentation is repeated in Honduras. Nearly 20% of the population has access to contributory schemes; another 3%, to private insurance; a small part, to military insurance; and the rest, to the public health network (Prieto and Montañez, 2016). Nevertheless, it is estimated that only 40% of this last group actually has access to the network (Bermúdez-Madriz et al., 2011), in part because it does not guarantee a benefits plan.

Effective coverage

Attempts to measure real or effective coverage are complicated, since they begin with the need to know the potential demand or prevalence rate of a health problem to measure it against the care actually offered. Another less effective and more subjective option is to ask people, through national surveys, whether they had a health problem and were able to obtain the professional care they needed (Báscolo et al., 2015).

Among communicable diseases, tuberculosis (TB) vaccine coverage (for children under 1 year) can be measured against the incidence of this disease. Vaccination outcomes are positive, and over 90% of children in this age group are vaccinated in almost every country in LAC (it should be borne in mind that, in principle, vaccination is compulsory). Nevertheless, on analyzing TB incidence, the variations are found to be much wider: from less than 20 cases per 100,000 population in Chile and Costa Rica to almost 115 in Bolivia⁴ (WHO, 2017b).

Epidemiological profiles are closely related to effective coverage levels, revealing how difficult it is to measure these profiles. When the coverage for noncommunicable diseases is analyzed, the order changes. For similar levels of coverage, different results can be seen due to the inherent variability in epidemiology. For example, almost every country can test for diabetes, but the percentage of people with elevated blood glucose ranges from 6.6% in Bolivia to 11.4% in Chile⁵ (WHO, 2017a).

4 Figures for 2016 include TB incidence and patients with the human immunodeficiency virus (HIV).

5 A person is considered to have elevated blood glucose with values of ≥ 7 mmol/L or if he is receiving medication for this problem (crude estimate).

Overall, it is hard to determine real access. Statistics that attempt to measure it are based primarily on surveys in which interviewees are asked whether they have had a health problem and whether or not they have received professional care and why. The regional summaries show that almost 30% of the population in LAC did not seek care from the system for financial reasons, and another 21% for geographical reasons (PAHO, 2014).

The truth is that, all in all, the region still has a long way to go to ensure that nominal access becomes genuine access, and that, notwithstanding their different needs, each population has access at all times to the quality care it needs.

2.3.3. Health outcomes

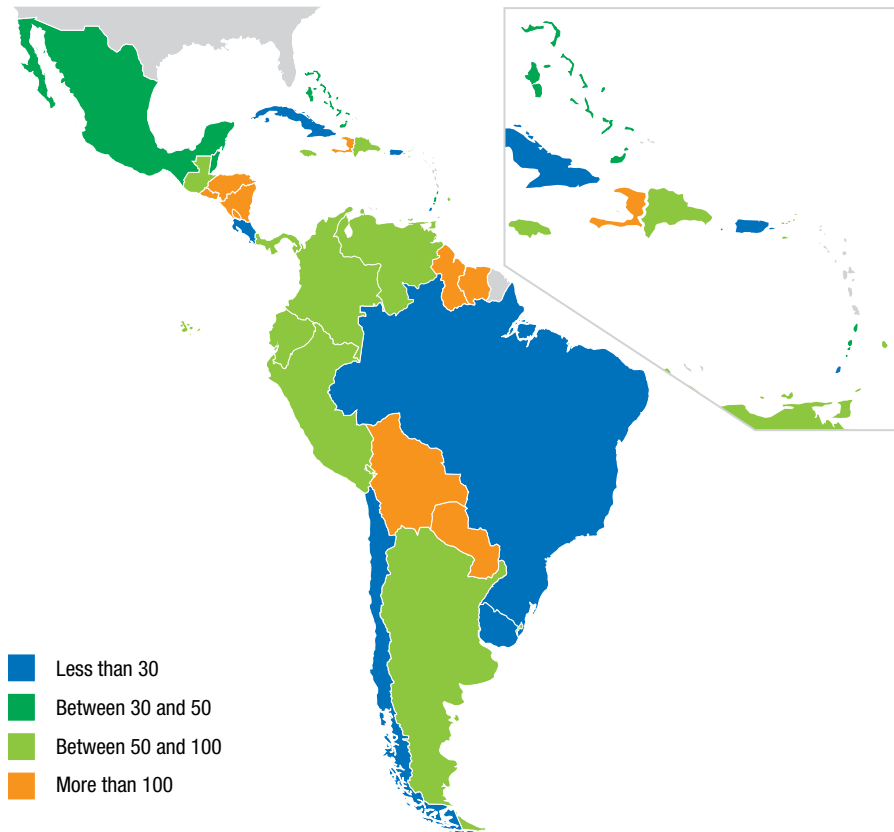
The indicator most commonly used in measuring health outcomes is life expectancy at birth. An increase in this indicator is associated with health, because it essentially implies that fewer children under 5 die than used to and that more live to old age, while adults who used to die in middle age will also live longer (Deaton, 2015). Although social determinants of health, such as income or educational level, are very important in explaining the value of this indicator, it is also true that access to health systems and the quality of care they provide are determinants of its trend.

All the studies of fiscal space for health examined life expectancy at birth, and the outcomes were characterized by two features: a positive trend in recent decades and high levels in many Latin American countries. Today, Chile has the longest life expectancy, 81.6 years, followed by Cuba and Costa Rica, with an average of over 79 years. Farther behind are the majority of the countries (10), with a life expectancy of 74-78 years. On the low end, with values below the lower threshold of that group, are the Dominican Republic, Honduras, Guatemala, and Bolivia (in that order), and at the bottom of the list is Haiti, grappling with a social emergency, where the average life expectancy at birth is 62.8 years (WHO, 2017a).

Other indicators showing positive outcomes are those related to maternal and child health. The infant mortality rate is around 30 per 1,000 live births only in Bolivia and Guyana (and is significantly higher in Haiti), while it is less than 10 per 1,000 live births in Cuba, Uruguay, Costa Rica, and Chile. Furthermore, maternal mortality per 100,000 live births is over 200 in Bolivia, Guyana, and Haiti, while the rate in Uruguay is similar to that of Europe. Chile, Costa Rica, Grenada, and Barbados have rates no higher than 30 (Figure 10).

Finally, consideration should be given to the different epidemiological profiles in the countries of the region in terms of the burden of communicable and noncommunicable diseases. Noncommunicable diseases are responsible for more than 75% of deaths in Chile, Argentina, Uruguay, Costa Rica, Nicaragua, Mexico, Cuba, and Jamaica, but 64%-75% of deaths in the rest of the countries (the majority). At the other extreme, once again, are the countries with worse health outcomes, in which communicable diseases are responsible for nearly 40% of deaths. This is the case in Bolivia, Honduras, Nicaragua, and Haiti.

Figure 10. Maternal mortality ratio in Latin America and the Caribbean, 2013, or latest available year



Source: PAHO, based on WHO (2017a).

There is a cluster of countries in which income levels and better outcomes coincide. The truth is that a large portion of the Latin American countries has not reached these levels of health development. The need for additional resources to increase access and real coverage and, in short, create fairer conditions of access to quality health care seems evident. Doing so would improve health indicators and reduce inequities in this area, leading to real progress toward universal health.

CHAPTER 3



SOURCES OF FISCAL SPACE

The classification of sources of fiscal space for health varies with the author and the criteria used to differentiate them. However, the studies significantly coincide in the identification of these sources, which can be divided into five major categories: 1) greater resources through higher economic growth, 2) greater prioritization of the health sector over other expenditure categories, 3) increased revenue collection through taxes and contributions, 4) external grants and borrowing, and 5) improved expenditure efficiency.

This chapter reviews the studies by PAHO—both the regional study and the individual studies for Bolivia, Honduras, and Peru—in terms of quantification of the sources of fiscal space.

3.1. Source I: Resources from economic growth

This is the most studied source for the creation of fiscal space. The reasoning behind this is that, if economic growth is maintained, fiscal revenues will increase and, in passing, if the distribution of public expenditure by sector is maintained, financial resources for health will increase.

This idea has sparked a discussion that already appears in the initial works of Heller: is economic growth a prerequisite or a source? The question arises because the very definition of fiscal space includes the requirement that the new resources not destabilize the economy. Although this is a conceptual issue, it affects quantification methods. Thus, if it is simply a prerequisite, its continuity should be assessed, but if it is a source, it can be quantified.

The truth is that the responses that the empirical studies seem to have yielded are dual and pragmatic: on the one hand, they recommend that the macroeconomic context of growth be analyzed, on the other, that, if growth materializes, the new resources generated for health be quantified.

3.1.1. Economic growth as a prerequisite

If growth is considered a prerequisite, the approach to fiscal space in the advanced economies is descriptive (Marcel, 2014). Here, quantification centers on determining the rich countries' debt capacity. To this end, through historical analysis, it determines the levels or thresholds at which excessive debt in the past obliged countries to introduce reforms and economic stabilization policies.

This can be calculated through quantitative analyses of debt, fiscal deficit, and economic growth. Nevertheless, it will always be up to the researchers whether to consider the particular characteristics of the historical moment and the country, such as external shocks, political events, changes in the production structure, increases or decreases in social capital, etc., and determine how much importance to give them. Thus, the economists' own interpretations can lead to a judgment about the relationship between the sources of fiscal space and economic destabilization (or imbalance in public finances)—especially when the effects of some measures may not be immediate.

The continuum is relative. Some economists believe that any public intervention destabilizes the markets and, therefore, that efforts to increase fiscal revenue create perverse investment incentives. The majority of health economists, however, believe that the very imperfections of the markets call for public intervention, precisely to maintain economic growth—this, not factoring in the political or ideological positions of the analysts themselves.

In the end, determining the point at which the collection of new resources through the sources of fiscal space generates imbalances is more a matter of interpretation than technique, conditioned by the particular characteristics of the country and the moment in time.

3.1.2. Economic growth as a source

Concerning growth as a source, the empirical studies are clearer than the theoretical studies. In one way or another, future projections based on past behavior confirm that an increase in the GDP is related to an increase in government revenues and, hence, all other things being equal, potentially greater resources for health.

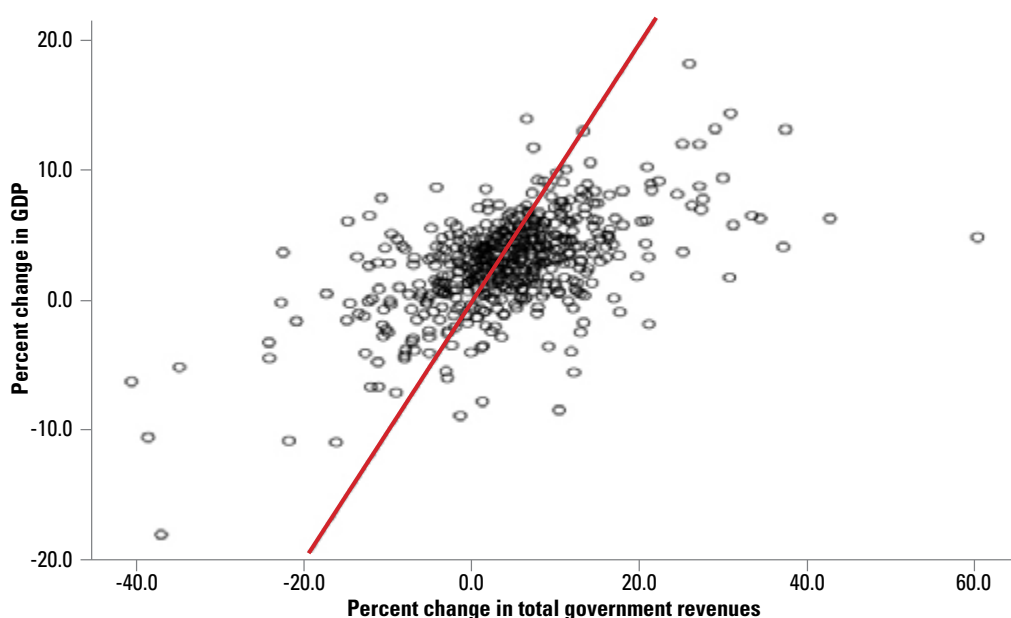
The reasoning is simple and is based on the measurement of GDP. Higher economic growth, measured as an increase in value added, consumption, or income, gives rise to higher revenues through income taxes, the social contributions of the working population, indirect taxes, etc. More production, more value creation, or more transactions have a direct and indirect impact on tax systems. Simply put, if the economy grows in real terms, government revenues should also increase, boosting the capacity of public expenditure to procure goods and services.

It is true that certain activities counted as economic growth may not be associated with increases in government revenues. However, it is highly unlikely that they have sufficient weight in a country's economy to significantly distort the relationship between economic growth and government revenues. Nonetheless, these types of activities draw attention to the need to consider that economic growth does not always translate into greater resources

for the State, and more specifically, that the growth in government revenues and, hence, total public expenditure, will not necessarily equal the growth in GDP. Each country's growth channels and tax structure, among other variables, will determine the relationship between these two components.

The historical evidence demonstrates this. Graph 3 presents the variation in GDP and government revenues for the 32 countries of LAC between 2001 and 2016. Each point reflects a year and a country, yielding 512 observations. This figure shows a positive correlation between the two variables, with the point cloud distributed from left to right and from bottom to top: the greater the increase in GDP, the greater the increase in government revenues. However, this relationship is far from being equivalent, and the variations in GDP are smaller than the variations in revenues. The GDP axis shows a small range of percentage variation (between -20 and 20], while the income axis shows a wide range (between -40 and 60).

Graph 3. Annual variation in total government revenues and gross domestic product (GDP) in Latin America and the Caribbean, 2001-2016



Source: World Bank (2017).

The diagonal line in the figure represents an identical variation in GDP and revenues in annual percentage terms. Although it crosses the point cloud, it stays more to the left, indicating that the majority of the observations represent wider variations in revenue than GDP; in other words, the variation in government revenues is wider.

Thus, economic growth directly and indirectly affects government revenues in a positive but nonlinear correlation. Therefore, predicting public expenditure using growth projections alone is not easy, constituting a limitation of the methods for quantifying fiscal space.

3.1.3. Public expenditure on health and economic growth

When fiscal space is analyzed specifically for the health sector, a new variable comes into play, which is the ratio between public expenditure in health and total public expenditure, commonly known as fiscal priority for health. That is, it represents the functional distribution of the latter and the relative importance of health in relation to this total expenditure, which, in turn, represents the fiscal capacity of the country. If this proportion holds steady and total public expenditure grows at least the same rate as GDP, resources for the sector will increase; furthermore, if the growth of this expenditure is greater than that of GDP, the public expenditure in health-to-GDP ratio will also increase.

Based on these concepts, the empirical studies determine what part of fiscal space is derived solely from economic growth. One of the first studies to use a quantitative estimate for health was published by Sharma (2015), whose methodology consists of three steps: determine the historical ratio between public expenditure in health and GDP, conduct a sensitivity analysis of this ratio, and plan public expenditure in health in different scenarios, based on future growth projections.

Historical public health expenditure-to-GDP ratio

First, public expenditure in health and GDP behavior are analyzed in real terms, over a period of at least a decade. This normally depends on the availability of long series of this expenditure. Using both series, public expenditure in health (PHE) and GDP, the elasticity of the former (ϵ) (that is, how much public expenditure in health varies in percentage terms when GDP varies by 1%) is calculated. The following formula is used:

$$\epsilon = \frac{\Delta PHE / PHE}{\Delta GDP / GDP} = \frac{(PHE_{t+1} - PHE_t) / PHE_t}{(GDP_{t+1} - GDP_t) / GDP_t}$$

Elasticity can take values from zero to infinity (in absolute value), depending on the behavior of the two variables.⁶ Therefore, the higher the value, the more elastic the relationship between the two variables (Figure 11).

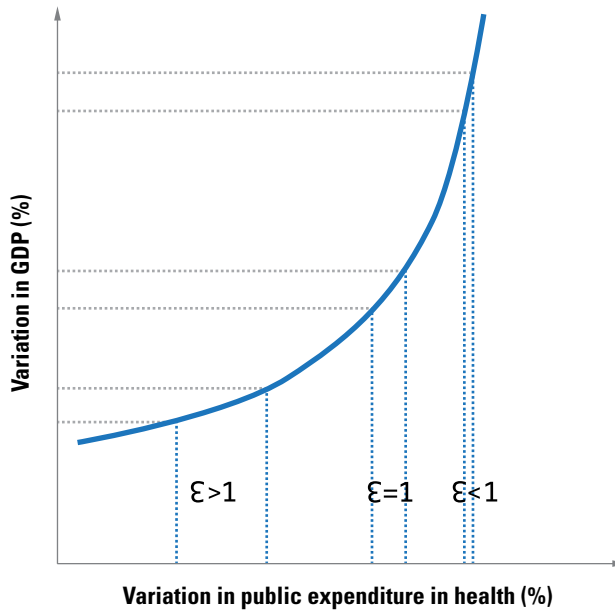
An elasticity of greater than 1 implies an increase or decrease in public expenditure in health proportionately greater than the increase or decrease in GDP; a value of less than 1, an increase or decrease in public expenditure in health proportionately less than the increase or decrease in GDP. An elasticity of 1, therefore, is an equal increase or decrease in the two variables in percentage terms.

Sensitivity analysis of elasticity

Once elasticity is calculated, the sensitivity of this parameter is analyzed to obtain at least two alternative scenarios of public expenditure in health as a percentage of GDP: one optimistic and one pessimistic.

⁶ By convention, elasticity is expressed as an absolute value. However, the calculation may be negative; for example, in this case, when GDP grows but health expenditure does not grow less but directly decreases.

Figure 11. Elasticity of public expenditure in health with respect to gross domestic product (GDP)



Source: authors' elaboration

At this point, different criteria can be used. One option is not to consider values that could be the result of unusual behavior in one or both variables and that, for one reason or another, are exceptionally high or low. These are normally related to external shocks—for example, an investment in infrastructure or the purchase of specialized equipment that will not happen again in the medium term. Taking this exceptional expenditure into consideration would substantially increase the variation in public expenditure in health and sever any relationship with the trend in GDP, and it would be wrong to assume that the increase is due to greater government resources from economic growth.

In fact, recovery from an economic crisis is normally swift. After a drop in GDP, the economy tends to rebound much faster than the growth prior to the crisis without a proportional increase in public expenditure in health, which will cause the indicator in question to fall. In other words, during the drop in GDP, to maintain the level of public expenditure in health with respect to GDP, the government may have resorted to other sources or reprioritized its total public expenditure.

A second option is to eliminate values that exceed the interquartile range or are more or less than one or two standard deviations, considered normal variation. In short, the decision is arbitrary and depends on the author of each study. However, the idea is to create alternative scenarios with a real foundation, based on explicit and uniform criteria in each study.

Expenditure projections

Based on each result of the sensitivity analysis (neutral, pessimistic, and optimistic), future scenarios are constructed. To this end, projections are made of public expenditure in health

with respect to the GDP growth estimates obtained from domestic sources, such as the national statistics institutes, ministries of finance, or central banks, or from international sources, such as the International Monetary Fund (IMF). Domestic sources tend to issue short-term projections (one or two years) and the IMF, longer-term projections (five years).

When the differences in the sources are considered significant, averages can be used in the coincident years. In cases where a projection of even longer than five years is desired, the average growth of the economy in recent years or the historical average can be used.

Finally, the incremental variations in public expenditure in health in the period in question must be calculated, based on the availability of future estimates of GDP, along with the increase in this expenditure as a percentage of GDP.

3.1.4. Economic growth and social contributions

A methodological issue that arises when quantifying fiscal space for health based on economic growth is whether the ratio between GDP and public expenditure in health should be evaluated separately, by type of revenue. This approach consists essentially of separating the health expenditure from general state revenues from the health expenditure financed with social contributions. This is important because the behavior of each type of expenditure with respect to GDP may be different and can have effects of different dimensions, especially in segmented health systems.

For example, economic growth that results in an increase in real wages may help finance the health of the beneficiaries of contributory insurance, but not provide resources for the rest of the public system. Furthermore, economic growth based on higher corporate profits may increase income tax revenues, with a positive impact on people who depend on the general public network but not those in the contributory system.

The regional study of 13 countries included a historical analysis of this type, by country and source (health expenditures financed with taxes and natural resources, and social security health expenditure). The results showed that, in the majority of cases, more than 50% of the growth in public expenditure in health depended on the increase in fiscal resources, even when compensating for drops in social contributions (Báscolo et al., 2015). This question was also considered and used to project fiscal space in the case of Honduras (Prieto and Montañez, 2016). The results show different behaviors by type of expenditure, as seen in the next section.

This methodological question leads to another question that is not normally addressed in the studies on fiscal space and that affects not only the source of fiscal space being described (economic growth) but naturally, all tax revenues. The question is: how should the increase in public expenditure in health to 6% of GDP be distributed in national health systems where public insurance is fragmented? Should priority be given to increasing noncontributory public expenditure?

There is evidence for an affirmative response, but some issues must be considered in this regard. First, it should not be forgotten that behind the specifically targeted level of public expenditure in health is the greater objective of securing universal access to health and universal health coverage. Furthermore, we find that these countries have a high percentage of people not covered by any type of insurance. Therefore, public expenditure in health may grow without an increase in coverage—for example, with an increase in the wages of workers in the formal sector who are already contributing to the social security health system.

These arguments are a reminder that the study of fiscal space consists of an examination of the sources of new resources—that is, a study that evaluates potential financing but does not answer all of these questions, which go much further. The distribution of expenditure and organizational improvements to promote greater equity are equally important for achieving universal health. It therefore makes sense to use this new type of knowledge to fuel a debate that belongs eminently in the political sphere—a contribution aimed at democratizing the debate by informing stakeholders and the lay public about the results.

3.1.5. Study results

Regional analysis

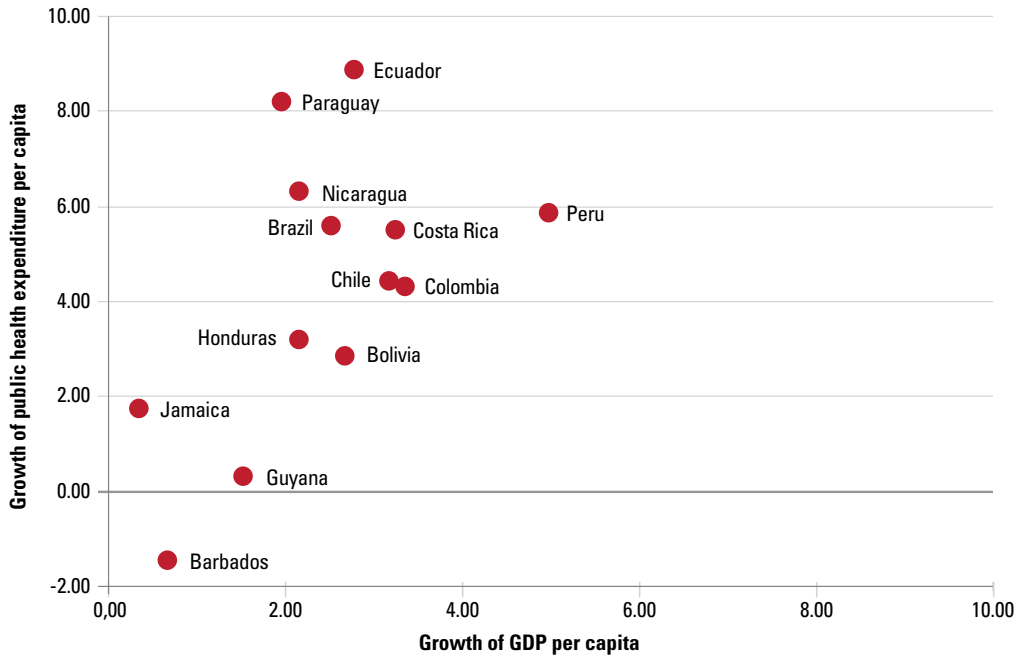
The study of the 13 LAC countries included a historical analysis of the ratio between GDP and public expenditure in health, measured in per capita terms. Two years were considered, 2002 and 2012, and the arc elasticity was calculated for each country. As seen in Graph 4, the results were positive in almost every case, with the exception of Barbados. In the majority of the countries, public expenditure in health grew more than GDP, in both percentage and per capita terms, with Ecuador and Paraguay displaying the greatest elasticity. This means that, in the countries studied, the increase in public expenditure in health per capita was greater than the increase in GDP per capita, to which the slowdown in population growth has contributed.

These data are not neutral, since they harbor a warning: in the coming decades, the population will have an older demographic profile, with a potentially higher demand for services and higher per capita costs (Saad, 2011). Thus, if economic growth continues, health expenditure per capita can be expected to grow at a higher rate than average income, although, given what was stated earlier, the per capita demand for health services may do the same. This does not mean, however, that public expenditure in health of 6% of GDP will be reached, but rather, that the available resources per capita may be greater.

Peru: variability in a growth environment

Economic conditions in Peru have been good over the past decade, with one of the highest average growth rates in South America: nearly 5% annually. Conditions are so good, in fact, that Peru was one of the few countries that did not experience negative growth during the crisis of 2009.

Graph 4. Average annual variation in public expenditure in health and GDP, both per capita, in selected countries. 2002-2012 (international dollars, PPP)



Source: *Báscolo et al. (2015)*.

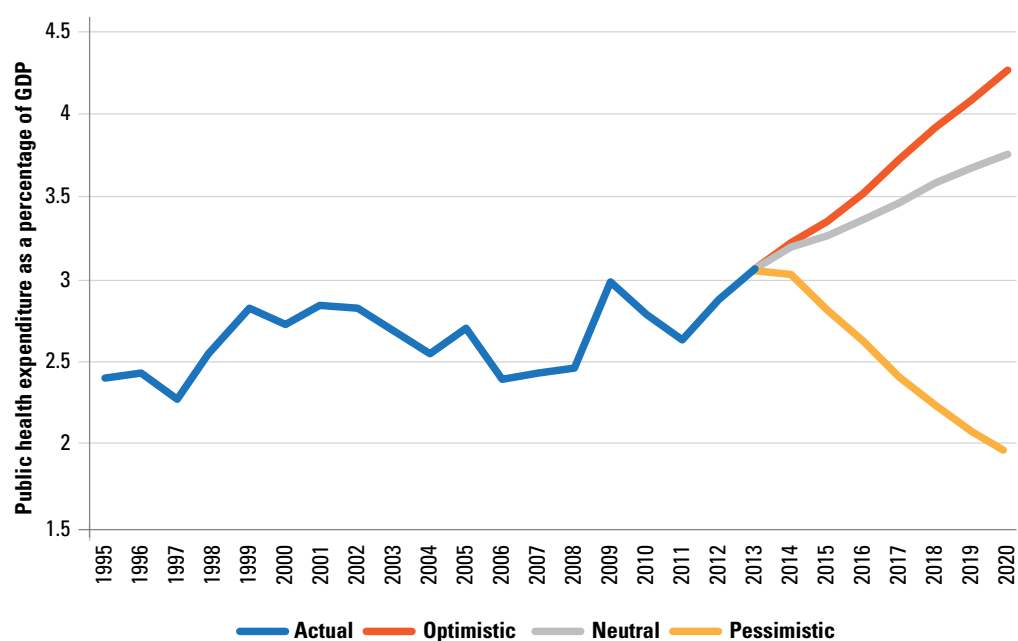
This conducive macroeconomic environment did not result in greater public expenditure in health, which has remained at just over 3% of GDP in three of the past 10 years. Analysis of the two variables (public expenditure in health and GDP) shows small real increases in the former and significant increases in the latter.

The behavior in 2009 was different. The growth of public expenditure in health overtook that of GDP by a large margin, with an elasticity of over 20 points. This is because the crisis that hit that year was violent and unexpected. It was not a deceleration, but an economic shock that spread around the world in less than six months and produced a lag between planning/budget and expenditure. The execution of public expenditure in health that year was based on the growth projections from the previous year, which were much higher than the growth that ultimately materialized. Thus, when GDP slowed, the ratio of public expenditure in health to GDP increased.

Taking these circumstances into account, three scenarios were projected. The first one, called the optimistic scenario, assumed that extraordinary positive effects (high elasticities) would be repeated over time. That is, that extraordinary efforts would be made in the future to increase public expenditure in health by more than the increase in GDP. In the pessimistic scenario, the two highest elasticity values were excluded. With this, it was assumed that the future behavior of public expenditure in health would be more or less the same as observed in recent years. Finally, there was a neutral scenario based on past behavior, which had been used in a previous study of fiscal space (USAID, 2014).

The elasticities produced by these three scenarios ranged from 0.54 in the pessimistic scenario to 2.06 in the optimistic scenario, with 1.62 in the neutral one (Matus-López and Prieto, 2015). This means that public expenditure in health as a percentage of GDP could increase in the two more positive scenarios, while it could decline (elasticity of less than 1) in the least positive (pessimistic) one. In terms of fiscal space, based on the expected growth for 2015-2020, these results mean that public expenditure in health could increase, at best, to 4.23% of GDP, or 3.73% of GDP in an intermediate scenario. However, the possibility that it may fall is not ruled out, as the pessimistic scenario shows (Graph 5).

Graph 5. Actual and projected public expenditure in health in Peru in the optimistic, neutral, and pessimistic scenarios, 1995-2020



Source: PAHO (2017a).

Interpretation of the results for Peru should be based on the range of the elasticity results, in which those in the optimistic scenario quadruple those in the pessimistic one. This rather wide range stems from two characteristics of the data series used in their calculation: the influence of forces exogenous to public expenditure in health and the variability of public expenditure in health from year to year.

Thus, it is rather unlikely that public expenditure in health as a percentage of GDP will fall, especially when the adjustment of the latest available post-study data reveals an upward trend and puts the real value of public expenditure in health for 2014 at 3.3% of GDP, higher than anticipated in the optimistic scenario. Notwithstanding, along with this positive assessment, it should be pointed out that if economic growth remained constant, as seen in the recent history of Peru (optimistic scenario), in seven years it would grow only a little over 1 percentage point, meaning that the country would still be a long way from meeting the target of 6%.

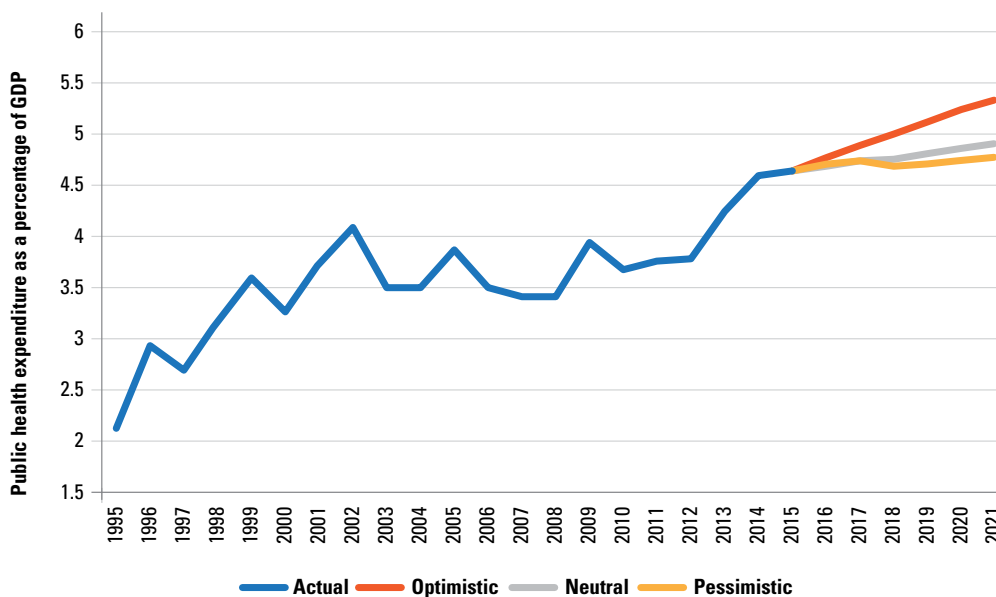
Bolivia: sustained expenditure growth

Bolivia is another country that has exhibited enormous economic vitality in the region. The political stability of the last decade was accompanied by annual economic growth that rose from less than 1% at the end of the last century to nearly 5% beginning in 2005. This enabled the country to boost its average income, increase education rates, reduce poverty levels, and increase health expenditure.

Since record-keeping began, the country's public expenditure in health has mainly ranged from 2% to 4% of GDP. However, in 2010 growth began to accelerate, reaching 4.57% of GDP in 2014. Thus, Bolivia is one of the few countries on a clear path toward reaching the target of 6% of GDP. This behavior is also reflected in the distribution of the variations in public expenditure in health and GDP. The two series form a point cloud with a clearly positive trend, except in 1999, when the variation in public expenditure in health was substantially greater than that of GDP, due to a rapid and unforeseen deceleration of the latter.

Using the same methodology as in the previous case, three possible scenarios were created: an optimistic scenario, based on the average elasticity for the period 2006-2014, which is a series with a clearly positive trend; a pessimistic scenario, in which the entire series was used, eliminating the three highest values; and an intermediate (neutral) scenario, in which the highest and lowest values were eliminated. The results were updated in a recent publication, using the latest available values for the series up to 2014 (Matus- López et al., 2017) and yielding the following elasticities: 1.63 in the optimistic scenario, 1.16 in the pessimistic scenario, and 1.25 in the neutral scenario. All favor growth of the public expenditure in health to GDP ratio (Graph 6).

Graph 6. Actual and projected public expenditure in health in Bolivia in the, optimistic neutral, and pessimistic scenarios, 1995-2021



Source: PAHO (2017a)

The results in terms of fiscal space were clearly positive for Bolivia. All the scenarios showed elasticities that were positive and greater than 1, conducive to an increase in public expenditure in health. This implies that the expected economic growth is likely to be associated with greater resources for health. If IMF (2017a) projections are accurate, this trend will persist until at least 2021. In the best-case scenario, public expenditure in health would reach 5.3% of GDP at the end of the period, and in the worst-case scenario, 4.8%; in the neutral scenario, it would reach 4.9%. All of these values would be on the path toward meeting the target of 6% of GDP.

Honduras: contributions and public expenditure

Honduras is a different case. The study employed the same methodology as in the two previous cases but differentiating between types of health expenditure: public–public expenditure (network financed with fiscal revenues) and public expenditure in the social security health system (network financed with contributions).

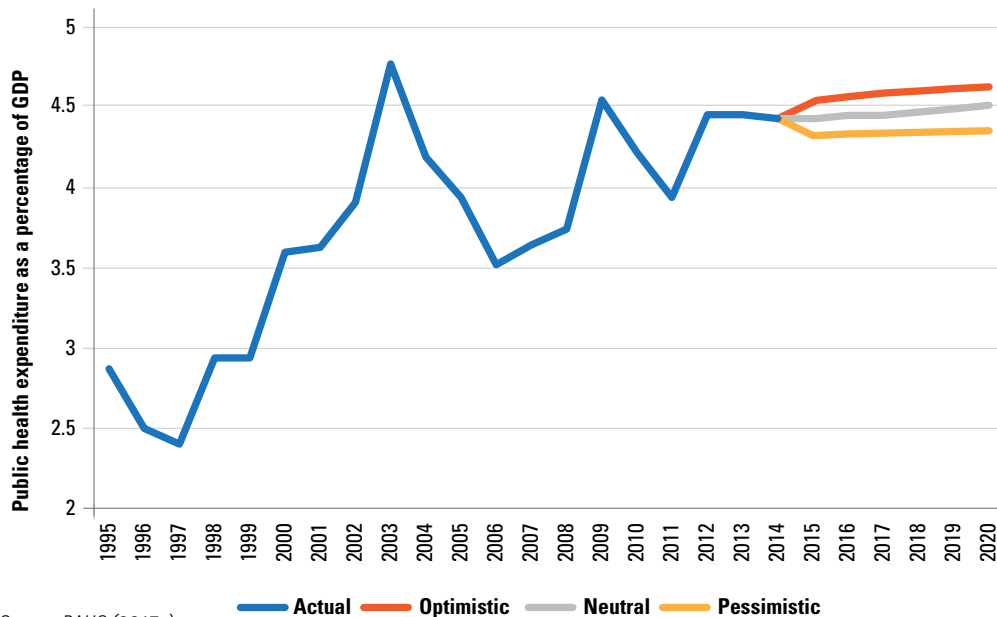
The first thing that emerges is that the values for aggregate public expenditure in health are below 3% of GDP until the end of the 1990s, trending upwards in most subsequent years to reach 4.4% of GDP in 2014. Some 24.7% of this expenditure corresponds to social security expenditure and the remainder, 75.3%, to public–public expenditure. What is interesting in this study is that when the variations in the two series are compared with GDP growth, behaviors of different magnitudes are identified.

In aggregate terms, public expenditure in health in Honduras shows an elasticity of 1.07 with respect to GDP. However, the elasticity of expenditure in the contributory system was 1.98, while that of the public–public expenditure fell below 1, to 0.89. In other words, this component of public expenditure in health is growing less than GDP and, as a result, is losing its relative weight over time.

As in the previous studies, three scenarios were estimated, but this time were applied not only to aggregate public expenditure in health but to each component of that expenditure. The scenarios were based on criteria that took the distribution into account. Thus, in the optimistic scenario, elasticities of less than one standard deviation below the average elasticity were eliminated; in the pessimistic scenario, elasticities that exceeded the average elasticity by more than one standard deviation were eliminated; and in the neutral scenario, both were eliminated.

The results for aggregate public expenditure in health showed an increase to 4.6% of GDP in the optimistic scenario and to 4.5% in the neutral scenario. However, the figure fell to 4.4% of GDP in the pessimistic scenario (Graph 7).

The analysis of the expenditure components indicates that the cause of the low levels and most of the negative behavior in the variations lies in public–public expenditure. In this component, the elasticity with GDP is greater than 1 only in the optimistic scenario (1.86). In the neutral scenario, it is less than 1 (0.96), and in the pessimistic scenario, it becomes negative (0.03) before applying the absolute value. In other words, in this last scenario, public expenditure in health falls even with rising GDP.

Graph 7. Actual and planned public expenditure in health in Honduras in the optimistic, neutral, and pessimistic scenarios, 1995-2020

Source: PAHO (2017a).

The results are decidedly more positive in the case of the social contribution system. The values are greater than 1 in the neutral and optimistic scenarios (1.34 and 2.57, respectively), and below 1, but not negative, in the pessimistic scenario (0.78).

To put it another way, in the optimistic scenarios, economic growth is a source of fiscal space in both components, but in the neutral one it provides additional resources in terms of GDP only through the social security health system; it does not generate fiscal space with public–public expenditure. In the pessimistic scenarios, not only does it not increase public expenditure in health with respect to GDP, but its public component from general taxes could decrease in absolute terms.

Expenditure on contributions can be expected to increase with economic growth. Whatever the characteristic of the growth, it is usually coupled to a greater or lesser degree with employment and wage growth, which is the basis for health contributions. This is not the case with public expenditure from general taxes, which is more subject to historical inertias, political will, and annual budget priorities.

3.2. Source II: Reprioritization of the health sector

Greater prioritization of health is defined as an increase in the proportion of resources allocated to the health sector in the government budget—that is, the percentage of public expenditure in health in total public expenditure. Since this is the baseline indicator, it should be noted that the components of public expenditure are not equally flexible. In fact, some budget lines, such as the debt service, are virtually rigid, and almost every sector has significant rigidities with respect to a potential budget cut, as will be seen further on.

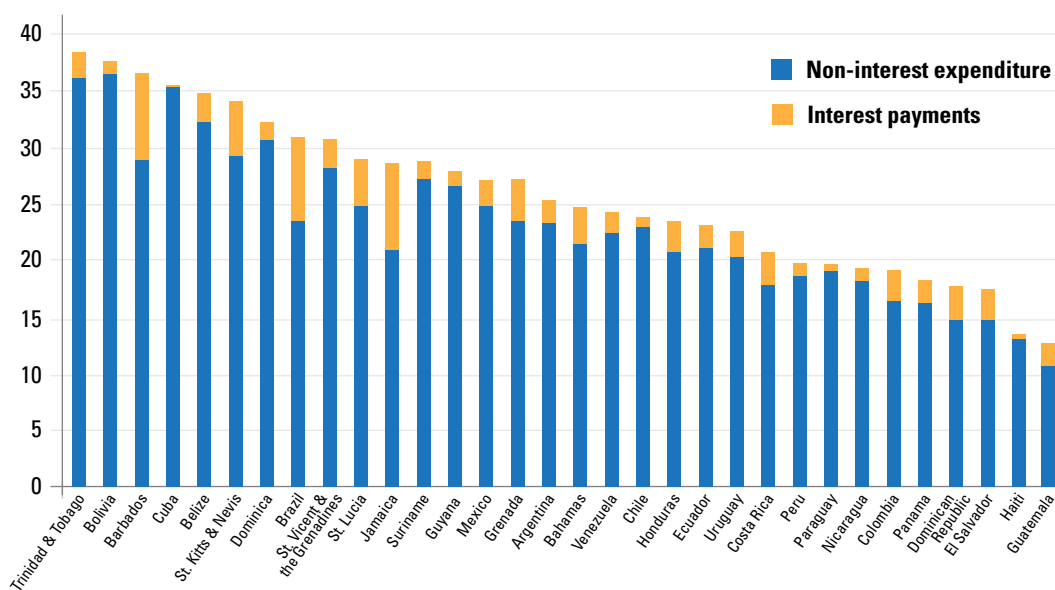
In relation to this, some authors advise using other expenditure indicators, such as expenditure without counting the debt service, or social public expenditure, the latter of which corresponds to recreational activities and environmental protection.

3.2.1. Public expenditure without debt

The weight of the debt service in the LAC countries has declined in recent decades. Better-managed government finances and debt forgiveness for the poorest countries are what is behind this trend.

In 2015, interest payments on the public debt in LAC represented 2.5% of GDP—or nearly 10% of total public expenditure—and were trending upward for two reasons: the debt in the Caribbean and the special situation of Brazil. In the Caribbean, the debt service averaged 3.3% of GDP, while Brazil, immersed in an acute political and financial crisis, increased its debt service obligations to 7.3% of GDP, a level reached by only two Caribbean countries: Jamaica (7.8%) and Barbados (7.5%). The values in the continental countries are fairly low, and all are below 3% of GDP. Colombia, Costa Rica, the Dominican Republic, and Honduras head the list with the highest interest payments; at the bottom of the list are Chile and Paraguay, with levels below 1% (Graph 8).

Graph 8. Public expenditure without debt service payments and public expenditure on debt interest payments, as percentages of GDP, in Latin America and the Caribbean, 2015



Source: PAHO, based on ECLAC (2016).

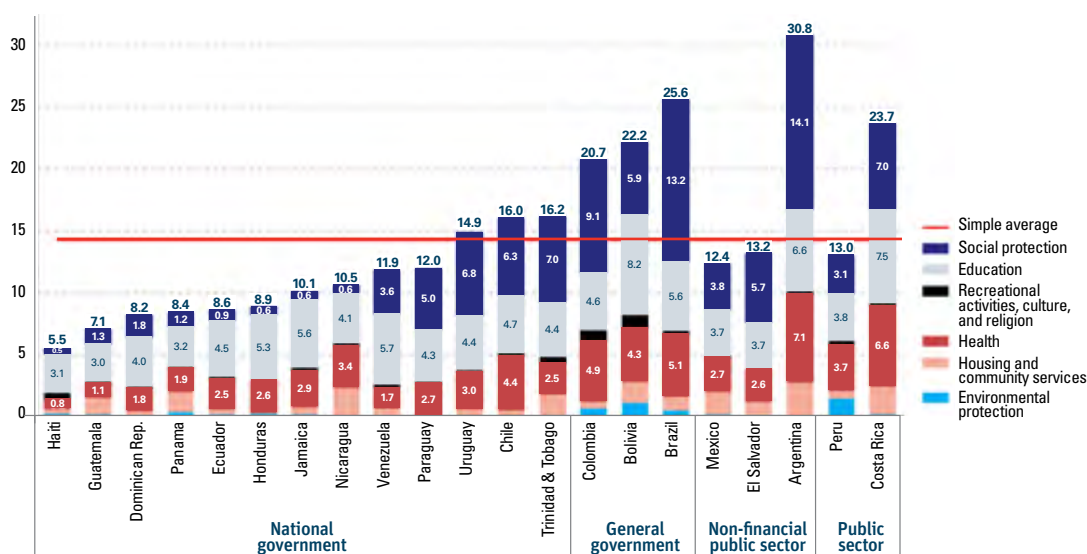
This situation leads most studies to use public expenditure in health in total public expenditure as an indicator of prioritization, without discounting debt service. The impact of disaggregating expenditure is only important in some countries, such as Brazil. In any case, it is not important in those countries on which individual studies on fiscal space have been conducted.

3.2.2. Social expenditure

At the start of the century, public sector social expenditure in LAC accounted for 45.2% of total public expenditure, equivalent to 11% of GDP. Fifteen years later, it had increased to 51.9% of total public expenditure, or 14.5% of GDP (ECLAC, 2017). Its main components are social protection expenditure (34.4% of social expenditure), followed by education (31.7%), health (23.4%), and housing (6.8%).

The variability of social expenditure from country to country is even greater than that of total public expenditure, reaching the highest values in Argentina (30.8% of GDP) and Brazil (25.6% of GDP), and the lowest in Haiti (5.5% of GDP) and Guatemala (7.1% of GDP) (Graph 9).

Graph 9. Distribution of public sector social expenditure by function in Latin America and the Caribbean, 2015, or nearest year (percentages of GDP)



Source: ECLAC (2017).

The distribution among components also differs between countries. Although in most of the countries, social protection is the main destination of resources, this is not the case in the poorest countries, where education is the most important sector.

Although social expenditure analyses are useful for gaining an overview of the level of priority assigned to health, social expenditure is not ordinarily used as an indicator for the study of fiscal space for health. That is because there is insufficient reason to directly exclude the components of expenditure that are not part of social expenditure. For example, the defense budget is excluded, but a decision could be made to decrease its proportional budgetary weight in favor of health expenditure.

3.2.3. Redistribution to the margins

As Heller (2005b) points out, it is very hard to redistribute expenditure, for two reasons. First, budget cuts are always a delicate matter in certain sectors. For example, deciding to cut spending on primary education in order to increase spending on specialized medical care is a complicated issue. Moreover, there may be greater social consensus around maintaining a basic level of health care and allocating any increases to greater investment in education. None of the studies is sufficiently clear on this, and social values play a key role in selecting the path taken.

Second, some 80%-95% of government budgets have inflexibilities (Cetrángolo and Jiménez, 2009), because most of the expenditure goes to payouts and employment in the public services. Thus, measures to reduce expenditure in one sector to the benefit of another directly affect workers in the sector harmed, which means these will be opposed by unions and social movements and are unlikely to be politically viable. For example, although health expenditure increases, it is unlikely to have an impact and enjoy social support if, in order to accomplish it, teachers are laid off and schools closed. Except in a national emergency, nothing of this sort is either possible or desirable.

When studying redistribution, two issues are considered. The first is that, if the health budget is to be increased, some sectors are socially more sensitive than others. It may be more acceptable to cut spending on defense than on education. To this end, an initial study should support the hypothesis that the country allocates proportionately fewer resources to health than others in the same region or with the same income level. Indicators customarily used for this purpose are the regional average, the average for countries with similar income per capita, or a discretionary standard. The studies of fiscal space commonly use 15% of total public expenditure as a proxy for the global average (15.5% in 2014) (WHO, 2017a).

The second issue is that it is more feasible to apply these redistributions to the margins of budgetary growth than to the historical numbers (Marcel, 2014); that is, to the annual marginal budget increases, rather than to the gross figures. In this case, an explicit or implicit reprioritization policy should be adopted, and pressure to increase expenditure in other sectors should be contained. For example, the fiscal priority of health can be increased in a context of greater fiscal space and “controlled” conflict, especially in a situation of economic expansion where all sectors increase their fiscal space, but health more so than the others.

3.2.4. Study results

The weight of health expenditure in government budgets—in other words, the fiscal priority of health—varies widely from country to country. It represents over one-fifth of the budget in Costa Rica and Uruguay and exceeds the reference threshold of 15% in countries such as Chile, Colombia, Cuba, Honduras, and Peru (Figure 12). However, in most of the countries of the region, health expenditure is below these figures and represents less than one-seventh of the total government budget. In Panama, Paraguay, Bolivia, Mexico, and Ecuador, the figure ranges from 10% to 15%. Finally, three countries end the list with less than 7% of the government budget allocated to health: Argentina (6.9%), Brazil (6.1%), and Venezuela (5.8%), these last two at levels approaching that of Haiti (6.1%).

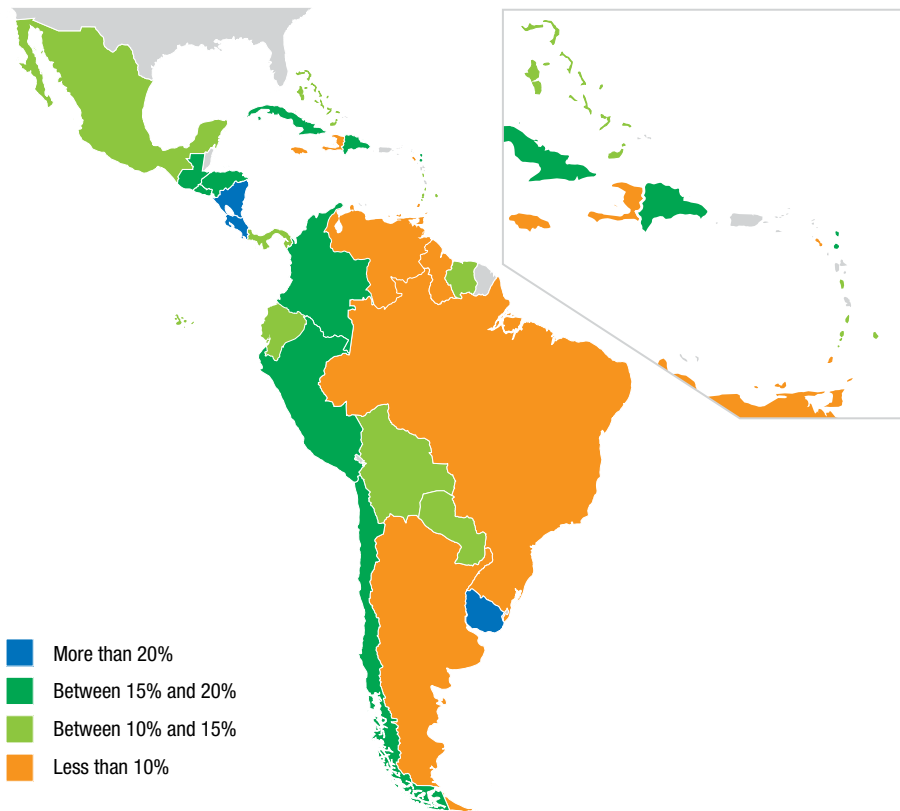
The study for Honduras is essentially descriptive. In comparison with the lower middle-income countries, Honduras has relative public expenditure in health values that are above average, at 15.4% of total expenditure in 2014. However, since 2003, the resources allocated to the health sector as a proportion of total public expenditure have been declining.

Two factors appear to be behind this negative trend: a trade-off between external aid and the country's own resources, and the prioritization of other sectors. Concerning the first point, the individual country analysis indicates that greater external aid for health has simply replaced funding from general taxes to this area. Thus, the new resources have not ended up increasing the budget but have diverted existing resources to other sectors.

Concerning the second point, priority has been given to spending on defense and internal security. The explanation is that fighting urban violence and crime has become the government's rallying point. The objective is for Honduras, which has an annual homicide rate of 90.4 per 1,000 population (United Nations, 2013), to no longer be the country with the greatest number of violent deaths in the hemisphere.

This is bad for health. At least in the medium term, there is little margin for reprioritizing expenditure in this sector to raise it above the expenditure already being made in others. It is therefore essential to at least maintain the proportional weight of the sector (Prieto and Montañez, 2016).

Figure 12. Public expenditure in health as a percentage of total public expenditure in Latin America and the Caribbean, 2014

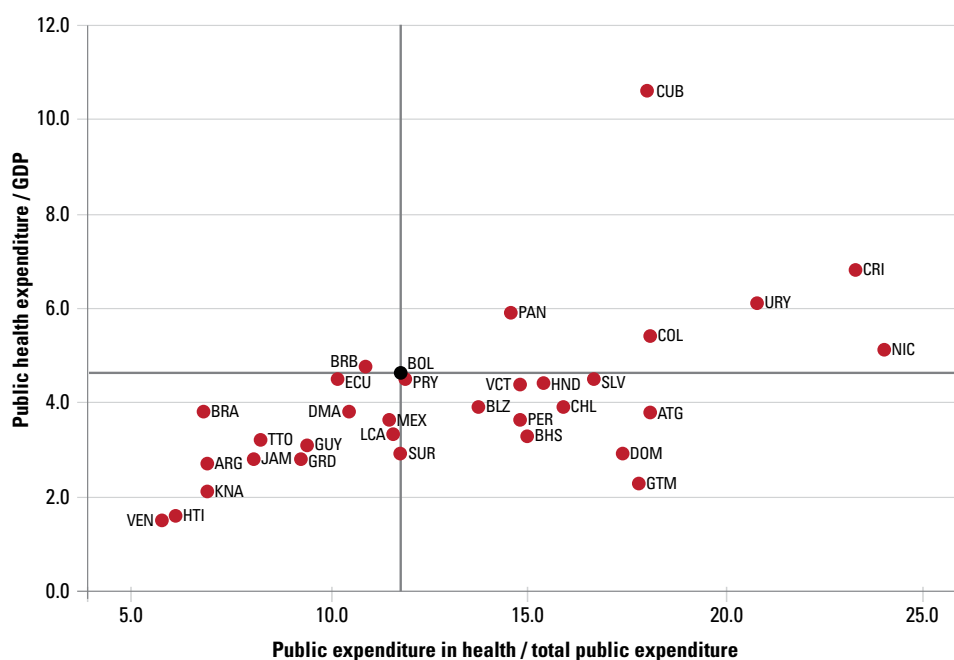


Source: PAHO, based on WHO (2017a).

In Peru, public expenditure in health represented 15% of total public expenditure in 2014, putting the country above both the regional average and the average of its fellow upper middle-income countries. These data seem to indicate that the sector's financing problem lies more in the amount of total government revenues than in the priority given to health—that is, more in the volume of revenues than in their functional distribution. As a result, at least in the medium term, there appears to be little margin for increasing public expenditure in health in terms of GDP. Although some points can be gained by giving the sector higher priority in annual revenue increases, it is the total revenues that can potentially bring public expenditure in health closer to the target of 6% of GDP.

The situation is somewhat different in Bolivia. This country has public expenditure in health of 11.8% of total public expenditure, putting it below most Latin American countries. Government revenues are moderately high, meaning that, in terms of GDP, public expenditure in health is higher than in other economies with similar incomes. However, in terms of total public expenditure, Bolivia is behind countries with relatively lower revenues, such as Peru or the Dominican Republic (Graph 10).

Graph 10. Public expenditure in health as a percentage of GDP and as a proportion of total public expenditure in Latin America and the Caribbean, 2014 (axis: Bolivia)



Source: PAHO, based on Matus-López and Werner, 2016; updated with WHO, 2017a.

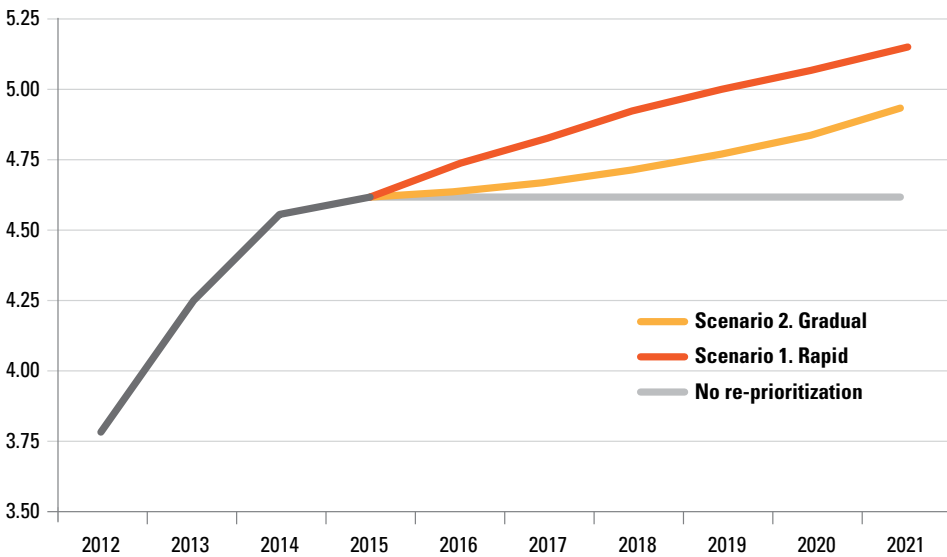
The problem of reprioritizing in Bolivia is that, as Heller notes (2006), in the low- and lower middle-income countries, increasing revenues for health by reprioritizing the sector can lead to problems financing other basic needs, such as education or poverty reduction programs. In fact, if education expenditure is analyzed, we find that Bolivia allocates 16.8% of its public expenditure to this sector, one of the highest percentages in the region

(WB, 2017). In other words, at least at this stage of development, the country has clearly prioritized spending on education over health expenditure, in relative terms.

Nevertheless, this behavior seems to be changing. Between 2015 and 2016, the government announced a national health investment plan, whose objective is to build 40 hospitals throughout the country at a total cost of US\$ 1.9 billion. Although expenditures less essential than health can always be cut, the margin in the government budget is limited; nevertheless, it seems feasible to assume that the announced investments will require greater current expenditure in the future to operate the hospitals.

In the study on fiscal space in Bolivia, a simulation was performed in which public expenditure in health as a proportion of total public expenditure was increased to 15.1%, the average for Latin America—that is, with an increased share of the higher revenues generated by economic growth. Two scenarios were simulated for this adjustment. In scenario 1, it was assumed that this percentage is applied to immediately increase total public expenditure, and in scenario 2, there is gradual and steady movement toward reaching this proportion by 2021 (Graph 11). The results showed that in the first scenario, if growth projections are met, public expenditure in health could increase by 0.6 points of GDP by 2021, and that in the second, it would increase by only 0.34% of GDP.

Graph 11. Trend in public expenditure in health as a percentage of GDP in Bolivia according to several reprioritization scenarios, 2015-2021



Source: PAHO, based on Matus-López and Werner (2016).

These data confirm the international evidence that this source for the creation of fiscal space is limited by its inflexible structure and the fact that, even limiting it to acting at the margins, the decision to reduce the weight of one sector to benefit another is politically and socially complicated.

3.3. Source III: Increase in tax revenues

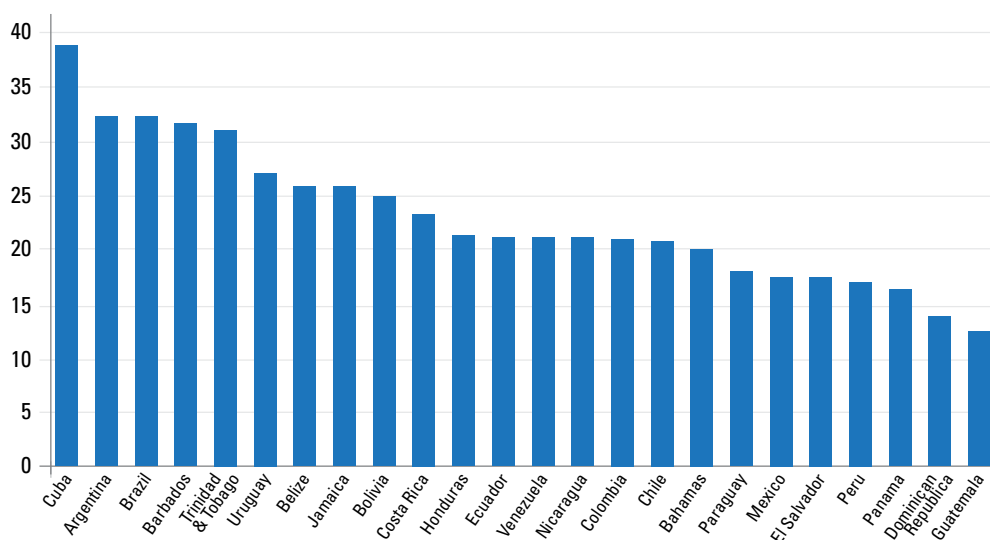
Increasing tax revenues is the most developed source in the studies conducted and, thus, the one to which more space will be dedicated in this chapter. This section analyzes total tax revenues from health-related taxes, social contributions, and tax expenditures, by type of tax. Each subsection presents the results for the countries, instead of a final summary as provided for the two previous sources.

3.3.1. Tax revenues

The first and most basic study of tax revenues in LAC comes to an unequivocal conclusion: the region has low tax revenues in proportion to its production. Thus, while average tax revenues in the countries of the Organisation for Economic Co-operation and Development (OECD) represented 33.8% of GDP in 2015, and 39.9% in the 28 countries of the European Union, the figure in LAC countries was 21.8% (OECD, 2017). On the positive side, however, it should be noted that the recent historical trend in the region has been upward, since in 1990, tax revenues represented just 15.8% of GDP (in the OECD, the figure was already over 32%).

As in all the country analyses, national differences in the region are significant. Although tax revenues represent around 25% of GDP in most of the countries, others approach the levels of the OECD countries (e.g., Brazil, Barbados, and Argentina). However, in the Dominican Republic and Guatemala, tax revenues are less than 15% of GDP (Graph 12).

Graph 12. Tax revenues as a percentage of GDP in Latin America and the Caribbean, 1990-2015



Source: PAHO, based on OECD (2017).

As the graph shows, two of the countries with individual studies, Peru and Honduras, have low tax revenues that hover around 18% of GDP. This situation is not as clear in the

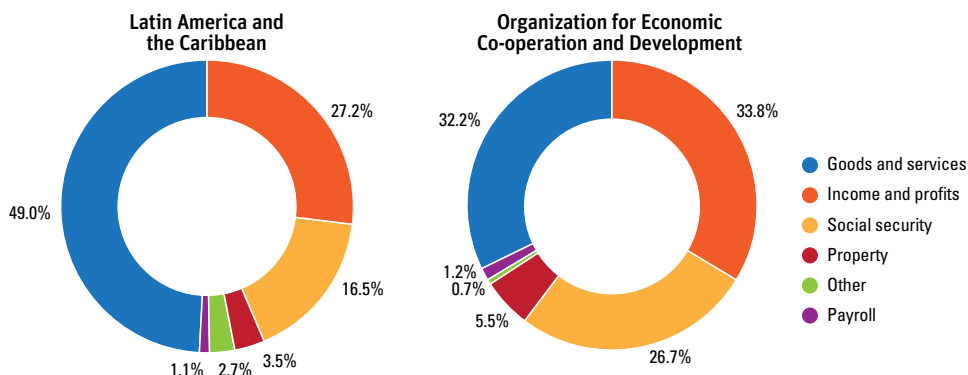
third case studied, Bolivia, whose tax revenues are equivalent to 25% of GDP and where, if taxes on the oil and gas sector are considered (see the discussion on this point further on), tax revenues approach 30% of GDP.

3.3.2. Fiscal revenues by type of tax

A comparison of fiscal revenues as a proportion of GDP, by type of tax, with the averages for the OECD countries, indicates where the highest and lowest tax revenues come from. The widest gaps are seen in taxes on income and profits, and in the revenues from social security contributions. In the first case, LAC countries have tax revenues equivalent to 6.2% of GDP, while the figure is 9.1% in OECD countries; in the second case, tax revenues represent 3.8% and 9.1% of GDP, respectively. Something similar is seen in the countries that tax wealth: 0.8% of GDP in the LAC countries and 1.9% in the OECD countries. Taxes on goods and services, in contrast, have somewhat more weight in LAC countries than in OECD countries: 11.2% and 11% of GDP, respectively. Payroll and other taxes complete the revenues.

While this study compares the relative weight of each type of tax in total tax revenues, the differences are more evident. LAC has a markedly more regressive tax structure. The tax burden falls mainly on the consumption of goods and services and less on income and profits. The former yielded 22% more revenues than the latter in 2015. In the OECD, in contrast, the revenue from taxes on goods and services was 18% lower than that from taxes on profits, income, and wealth (Graph 13).

Graph 13. Distribution of tax revenues (percentage) in LAC and OECD countries, 2015



Source: PAHO, based on OECD (2017).

Regional analysis

The regional analysis of 13 countries estimated the revenue increase derived from an increase in the rate of three taxes: value-added tax, tax on corporate earnings, and personal income tax. Information was available for 9 of the 13 countries, which were divided into three categories: a) countries with a high probability of raising the rates if they are below the regional average; b) countries with a low probability of raising the

rates if they are above the OECD average; and c) countries with a medium probability of increasing the rates if they have intermediate values with respect to the two previous groups. For all these countries, up to four scenarios were simulated in their category (Table 2).

Table 2. Scenarios with an increase in the tax rates in Latin America and the Caribbean

Scenario	Probability of an increase in tax rates		
	High	Medium	Low
1	100% of the gap between the current value of the tax rate and the average for LAC countries	100% of the gap between the current value of the tax rate and the average for OECD countries	1-point increase
2	50% of the gap between the current value of the tax rate and the average for LAC countries	50% of the gap between the current value of the tax rate and the average for OECD countries	2-point increase
3*	100% of the gap between the current value of the tax rate and the average for OECD countries	—	—
4*	50% of the gap between the current value of the tax rate and the average for OECD countries	—	—

* Only if the average tax rate in LAC countries is less than in OECD countries
Source: Báscolo et al. (2015).

The fiscal space was calculated as the variation in the rate of each tax, multiplied by its productivity, using the following formula:

$$\Delta R_T = \Delta t_T \cdot PR_T$$

where ΔR_T is the variation in the revenues (as a percentage of GDP) from tax T , Δt_T is the value of the increase in the rate of tax T , and PR_T is the productivity of tax T . This latter is defined as the quotient of the revenues (as a percentage of GDP) and the value of the tax rate.

In the case of the personal income tax, there are two rates (minimum and maximum). Thus, a hypothetical average value was defined (t_{med}), as follows:

$$t_{med} = t_{min} \left(\frac{I_{min}}{I_{max}} \right) + t_{max} \left(1 - \frac{I_{min}}{I_{max}} \right)$$

where t_{min} is the minimum marginal rate, t_{max} is the maximum marginal rate, I_{min} is the minimum income level to which the minimum rate is applied (as a percentage of GDP per capita), and I_{max} is the minimum income level to which the maximum rate is applied (as a percentage of GDP per capita).

Finally, it was assumed that the weight of public expenditure in health as a proportion of total public expenditure remains the same, so that there is no prioritization. The results for these scenarios show the ranges in which the fiscal space for health would move for each tax (Table 3).

Table 3. Fiscal space for health as a percentage of GDP, disaggregated by tax, 2010/2011

Countries	Value-added tax		Corporate income tax		Personal income tax		Total of the sum of the averages
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	
Bolivia	0.013	0.119	0.007	0.018	n/a	n/a	0.08
Brazil	0.024	0.061	0.009	0.018	0.001	0.078	0.10
Chile	0.087	0.183	0.023	0.136	0.004	0.009	0.22
Colombia	0.014	0.081	0.003	0.029	0.021	0.052	0.10
Costa Rica	0.029	0.265	0.005	0.024	0.005	0.029	0.18
Ecuador	0.015	0.194	0.014	0.088	0.000	0.000	0.16
Jamaica	0.003	0.042	0.004	0.031	0.002	0.027	0.05
Nicaragua	0.076	0.286	n/d	n/d	0.069	0.241	0.34
Peru	0.007	0.014	0.004	0.019	0.008	0.031	0.04
Average	0.030	0.138	0.009	0.045	0.014	0.058	0.15

Note: n/a = not available.
Source: Bascolo et al. (2015).

These results show that the highest impact of a combined tax increase would be in Nicaragua, creating a fiscal space for health of 0.34 points of GDP, followed by Chile with 0.22 points and Costa Rica with 0.18. The type of tax that offers a larger margin is, on average, the value-added tax, followed by the income tax. This phenomenon is reproduced in almost every country and scenario, with the exception of Peru, Colombia, and Brazil in one of their scenarios.

This is a common characteristic in the evaluation of taxes. Generally, revenue collection is simpler through the value-added tax and yields higher revenues. Income taxes yield lower amounts and tend to provoke greater tax evasion. However, the difference between one type of tax or another is not neutral for health. Direct (income) taxes seem to be more appropriate when evaluating the results in terms of health.

Different studies have yielded important findings in this regard (Moreno-Serra and Smith, 2012; Reeves et al., 2015). The first is that sufficient domestic revenues must be collected to achieve and maintain universal health coverage. The second is that direct taxes on profits and capital benefits seem to favor universal coverage while not jeopardizing health outcomes. Consumption taxes, in contrast, are associated with worse health outcomes.

In other words, progressive taxes seem to be consistent with the goal of achieving universal coverage without undermining its objective: improving people's health (Yates, 2015). Consequently, while financing through consumption taxes is more efficient and revenues may be higher, it can be counterproductive in terms of the health objectives to be met through tax increases.

The case of Peru

As was mentioned earlier in this analysis, tax revenues in Peru are below the average for LAC and considerably below the average for OECD countries. Moreover, it has the fourth lowest tax revenues in the region, ahead of only Panama, the Dominican Republic, and Guatemala (OECD, 2015a, 2017) (Table 4).

Table 4. Tax revenues as a percentage of GDP, by principal type of tax, in Peru, LAC countries, and OECD countries, 2015

	Income and profits	Goods and services	Social security	Wealth	Payroll	Other
LAC	6.2	11.2	3.8	0.8	0.2	0.6
OECD	11.5	11.0	9.1	1.9	0.4	0.2
Peru	6.2	8.2	2.1	0.4	0.0	0.2

Source: OECD (2017).

The general profile of Peru's tax structure is the same as the regional profile, with higher taxes on goods and services than on profits and income (SUNAT, 2015), but with a number of particular features. The first is that while the revenue from profit and income taxes is similar to the regional average, revenue from consumption taxes is lower. One of the explanations offered for this is that income taxes have a relatively narrow tax base (Arias, 2016). The second is that revenues from social contributions in Peru are less than one-quarter of those of the rich countries and even lower than the regional average.

However, the trend in revenue by type of tax shows a small increase in the weight of direct taxes (MEF, 2015). Thus, income tax revenue increased by 1.3% between 2010 and 2014, with a sharp drop (4.5 points) in the category that taxes business income and people who engage in business activities. Meanwhile, taxes in the third category, which taxes the income of salaried workers, rose from 8.8% to 10.4% of the total, while production and consumption taxes fell from 43.5% to 40.2% of total revenue.

Even so, from an international standpoint, the absolute levels continue to show an imbalance in the direction of indirect taxation, leaving somewhat more margin in direct taxation. Quantifying this margin is complicated, because it depends on a political decision and must be based on a technical impact assessment. Nevertheless, a conservative target could be to reduce the tax gap with the OECD countries by one-quarter over the next five

years. This would mean raising direct taxes to 8.3% of GDP, an effort that could create fiscal space of up to 1 point of GDP.

Which direct taxes to increase and in what proportion is also a difficult decision. As noted, the evidence in health makes the case for increasing the progressive tax burden on income (Moreno-Serra and Smith, 2012; Reeves et al., 2015; Yachts, 2015) and not ruling out the possibility of increasing taxes on income from natural resources (Durán-Valverde and Pacheco, 2012). The mix of reforms that increases revenues and shifts the balance toward direct taxes will depend on social and political preferences.

The case of Bolivia

The first issue that arises when reviewing the analysis of tax revenues in Bolivia is whether to include the revenues from taxes on the oil and gas sector. The last OECD study, referring to 2015, did not consider this type of income, while the one for the previous year did. As a result, tax revenues fell from 27.6% of GDP to 24.7% from one year to the next. The impact is significant, and when these resources are considered, the country ranks fourth in the region in terms of tax revenues as a percentage of GDP, behind only Brazil, Argentina, and Barbados (OECD, 2015a).

On the positive side, whether or not this revenue is considered, total revenue collection stood above the regional average and, moreover, is trending upward: the official data show that it has continued to grow (MEFP, 2016). In 2000, it was 6.9 billion bolivianos (\$b). In five years, it had nearly doubled to \$b 12.3 billion. From then on, the pace accelerated, with revenues quadrupling over the next 10 years to \$b 49.7 billion in 2014. There was a slight decline in 2015 due to the international slowdown, but even so, tax revenues stood at \$b 46.9 billion.⁷

Concerning their composition (excluding tax revenues from the oil and gas sector), Bolivia's has a pattern similar to that of the region, although with higher revenues (Table 5) and a higher proportion of taxes on goods and services than on income and profits. For each boliviano collected through the former, less than 50 cents are collected through the latter.

Table 5. Tax revenues as a percentage of GDP, by principal type of tax, in Bolivia, LAC countries, and OECD countries, 2015

	Income and profits	Goods and services	Social security	Wealth	Payroll	Other
LAC	6.2	11.2	3.8	0.8	0.2	0.6
OECD	11.5	11.0	9.1	1.9	0.4	0.2
Bolivia	7.5	15.2	2.0	1.0	0	0.0

Source: OECD (2017).

⁷ If the \$b 15.6 billion (according to national sources) in direct taxes on oil and gas estimated for that year is added to the \$b 49.7 billion in tax revenues in 2014 (also according to national sources), fiscal revenues increase to 26.4% of GDP, which is the figure provided by the OECD for that financial period.

Analysis of the official national sources offers more information on the distribution by type of tax. According to the MEFP (2016), total tax revenue depends primarily on the value-added taxes on goods and services, including both the domestic and external markets. Considered separately, they rank below the tax revenue from corporate profits (27.4%). The value-added tax on the domestic market represents 23.5% of the total, and on the external market, 22.3%. This is followed by revenue from the supplementary regime of the value-added tax, with 1% of the total. Finally, the transaction tax contributes 9.2%, and specific consumption taxes (ICE), 6.1%.

In an international comparison, there appears to be some margin for direct taxes but less for consumption taxes, as in the case of Peru. The country report estimates the fiscal space that would result from a one-quarter reduction in the gap with the countries of the region in terms of taxes on income and profits. The result would be 0.4 points of GDP.

The case of Honduras

The regional analysis identifies Honduras as a country with medium tax revenues equivalent to 21.2% of GDP in 2015, somewhat behind Bolivia and slightly below the average for LAC. Nevertheless, the trend has been upward. In 2011, fiscal revenues represented 17.5% of GDP and have since been growing.

As in the previous cases, the composition by type of tax reflects the profile of the region as a whole: taxes on goods and services at the level of the OECD countries, but almost half of total revenue obtained through taxes on income, profits, and wealth. Furthermore, social contributions are just one-third those of OECD countries. The level in these sources of revenue is low, even lower than the average for LAC (Table 6).

Nevertheless, these results are specific to the current situation. They are and will be affected in the immediate future by the consequences of a tax reform approved in 2013 that went into effect in 2014.

Table 6. Tax collection as a percentage of GDP, by principal type of tax, in LAC countries, OECD countries, and Honduras, 2015

	Income and profits	Goods and services	Social security	Wealth	Payroll	Other
LAC	6.2	11.2	3.8	0.8	0.2	0.6
OECD	11.5	11.0	9.1	1.9	0.4	0.2
Honduras	5.6	11.6	3.0	0.5	0.0	0.6

Source: OECD (2017).

This reform established a minimum tax of 1.5% of gross income, reestablished the solidarity contribution of 5% on high income, and levied a 10% tax on dividends and capital gains from real estate. Finally, it reduced tax expenditures and exemptions from import duties. With regard to indirect taxes, the reform raised the sales tax from 12%

to 15% and the tax on beer and other alcoholic beverages, cigarettes, and first-class air fares from 15% to 18%. It also raised the taxes on imports of petroleum and petroleum products.

The impact is not observed in the OECD data, in part because the results for 2015 are based on estimates. However, official Honduran and IMF statistics show a significant increase in tax revenues, which rose from 15.7% to 18.3% of GDP between 2013 and 2014 (IMF, 2016). Thus, the tax reform appears to have increased direct tax revenues by 0.5 points of GDP and indirect tax revenues, by 2.2 points, reinforcing the previous tax structure.

The study on Honduras concludes that the recent reform makes it very unlikely that a new effort will be made in this regard. Thus, it does not provide scenarios quantifying the fiscal space that this source could.

3.3.3. Reduction of the informal economy

One of the leading causes of low fiscal revenues in LAC is the size of the informal economy. Economic activity outside the legal framework does not bring in revenue from income, profit, and consumption taxes or social contributions.

According to IMF estimates, LAC, together with sub-Saharan Africa, are the two regions with the largest informal economy, representing over 40% of GDP in the period 1991-1999 and nearly that in 2009-2010 and 2010-2014. On the positive side, the trend has been downward, and in the latter period, the percentage fell below that figure. Nevertheless, progress has been slow, and for the first time, the informal economy in LAC is larger than in sub-Saharan Africa (IMF, 2017b).

One of the best-known estimates with national disaggregation describes the situation of 29 countries in the region in the early 2000s (Vuletin, 2008). At the time, the average size of the informal economy was 38.5% of GDP, with the highest values in Nicaragua and Paraguay, at over 60% of GDP, and Ecuador and Honduras, at over 50%. The countries least affected by this problem were the Bahamas, in the Caribbean, with 15.9% of GDP, and Mexico and Brazil in Latin America, with figures above 28%.

A more recent report provides an estimate for 162 countries between 1999 and 2007 (Schneider, Buehn, and Montenegro, 2010). Here, the informal economy in the majority of the countries in LAC was shrinking. The countries with the worst indicators in terms of the 2007 GDP were Bolivia (63.5%), Haiti (57.1%), Peru (53.7%), and Guatemala (47.9%), and those with the best, Chile (18.5%) and Costa Rica (24%).

This situation has been a drag on government finances for decades, creating perverse incentives in the economy. Despite knowing that indirect taxes heighten inequality, many governments increase them when more resources are needed. The reason is fairly simple: they are easier to collect and less subject to evasion. Because of the enormous number of transactions affected, a small increase in the rate translates into significant additional resources.

Using a technique similar to the one used in estimating the rates of taxes, the regional study on fiscal space estimated the impact of a reduction in the size of the informal economy on the capacity for revenue collection. The countries were divided into three groups according to the size of their informal economy (in terms of GDP) and the relative loss of government revenues derived from it: a) high losses, above the average for LAC; b) moderate losses, below the average for LAC countries, but above that of OECD countries; and c) low losses, below the average for OECD countries. Four scenarios were then developed for each group, as shown in Table 7.

Table 7. Alternative scenarios for the reduction of losses in government revenues associated with the informal economy

Scenario	Lost government revenues associated with the informal economy		
	High	Medium	Low
1	100% gap compared to the average for LAC countries	100% gap compared to the average for OECD countries	5% reduction in the informal economy
2	50% gap compared to the average for LAC countries	50% gap compared to the average for OECD countries	10% reduction in the informal economy
3	100% gap compared to the average for OECD countries	—	—
4	50% gap compared to the average for OECD countries	—	—

Source: Báscolo et al. (2015).

The results showed that, if the current distribution of resources for health in total public expenditure is maintained, a fiscal space for health of 0.15%–0.47% of GDP will be created, on average. This margin, as in the calculations involving an increase in tax rates, is defined by the high- and low-impact scenarios (Table 8).

Table 8. Maximum and minimum fiscal space for health from a reduction in the informal economy as a percentage of GDP, 2010/2011

	Bolivia	Brazil	Chile	Colombia	Costa Rica	Ecuador	Jamaica	Nicaragua	Peru	Average
Minimum	0.181	0.483	0.045	0.25	0.051	0.09	0.104	0.052	0.139	0.155
Maximum	0.679	0.951	0.089	0.51	0.102	0.179	0.203	0.929	0.624	0.474

Source: Báscolo et al. (2015).

3.3.4. Social security contributions

Social security contributions are compulsory payments to the State by workers and employers that give these workers (and their dependents or family members) the right to future social benefits such as unemployment insurance, accident insurance, pensions, and reimbursements for medical care (OECD, 2010, 2016).

Few studies include this source in their calculation of fiscal space for health, because in some countries, these funds finance health and in others, they do not. Countries that have used these resources to finance health—primarily the advanced economies—have opted for a single universal fund financed with general taxes, supplementing it in some cases with social contributions (MSSI, 2014).

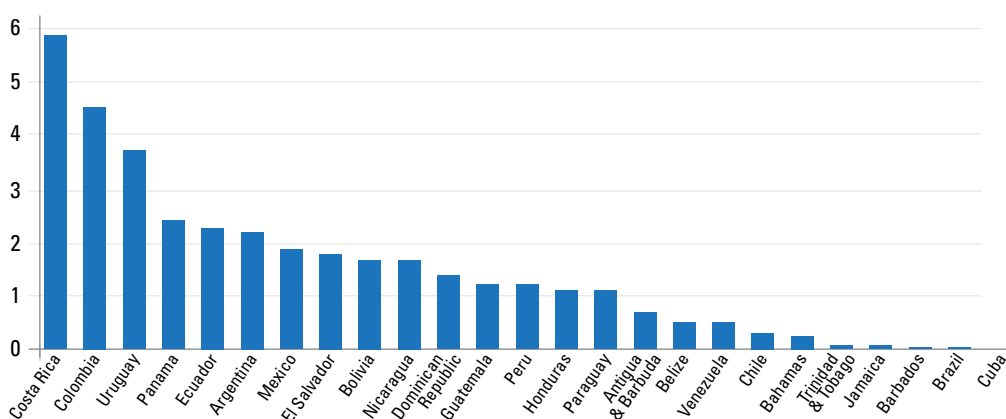
Segmentation and informality in Latin America and the Caribbean

The situation described above is not the norm in LAC. Insurance and financing are segmented in most of the countries' health systems. Their insurance systems are a combination of private insurance, public insurance financed with social contributions, and public insurance financed with general funds (public–public). That is, there is public insurance financed with general taxes, on the one hand, and other public and private insurance financed with social contributions, on the other.

This makes social contributions in LAC one of the most complex sources for the analysis of fiscal space. While segmentation in insurance financing creates fiscal space, it may not imply progress toward universal health. Without channels for pooling across types of insurance and cross-subsidies from the healthy to the sick, from the young to the old, and from the rich to the poor, an increase in the size of an insurance pool or fund does not necessarily increase health coverage or access to the health services.

The data from WHO show the small size of the social security funds allocated to health, associated with the limited capacity for obtaining revenue through social contributions. These funds average 1.44% of GDP, representing one-third of public expenditure in health in 2014 (Graph 14).

Graph 14. Social contributions to health as a percentage of GDP in Latin America and the Caribbean, 2014



Source: PAHO, based on WHO (2017).

On the high end of this distribution is Costa Rica, with social security funds allocated to health equivalent to 5.82% of GDP, followed by Colombia, with 4.51%, and Uruguay,

with 3.68%. Then come the majority of the countries, at under 2% of GDP, with more than one-third under 1%. Ending the list are Brazil and Cuba, where social security for health has been consolidated into a single pooled fund equal to advanced economies.

Thus, when analyzing this source of fiscal space, two points should be considered: the limited space in the majority of the countries, and the inequalities that give rise to segmented insurance systems.

The Peruvian case

There are two sources of health insurance statistics in Peru: health authority records and the national self-reporting household survey (ENAHO). Their results vary widely for two reasons: on the one hand, the biases of each method for collecting information (records and sample interviews, respectively); on the other, the fact that the government has created an automatic public insurance program, which increases the figures even when beneficiaries do not realize that they have insurance.

Thus, according to the official records, 29 million of the estimated Peruvian population of 31 million have some type of health insurance. However, when people are asked about insurance, only 23.8 million realize that they have it, putting the population without coverage at between 7% and 25%.

The other issue is that this coverage is highly segmented in insurance programs or pooled funds (Francke, 2013). There are more than 40 types of insurance in Peru, with two public insurance programs predominating (SUSALUD, 2017): Comprehensive Health Insurance (SIS), financed primarily with general taxes, and EsSalud, financed with contributions that employers make for their workers. According to the ENAHO survey, SIS covers nearly 14 million people, and EsSalud, more than 8 million. Meanwhile, EsSalud records show somewhat higher numbers: 16.4 million covered by SIS and 9.8 million by EsSalud.

Whatever the data used, there is low affiliation through social contributions. Peru has a population of over 31 million, 23 million of whom are of working age. The official statistics, moreover, indicate that 70% of this population is economically active and that almost 16 million are employed in the labor market (INE, 2017). However, only 60% of this group pays into EsSalud, and even adding all the other insurance, no more than 80% of the potential contributions is tapped. This simple assessment takes the discussion once again to a problem addressed in the previous sections: the informal labor market.

Although the historical trend is positive, Peru continues to report a very high rate of informal labor. If the entire employed population is considered, in 2012, a full 74.3% of the jobs were in the informal sector; in non-agricultural employment alone, the rate was 66.7% (INEI, 2014). These data coincide with the statistics of the International Labour Organization (ILO), which put informal non-agricultural employment in the country at 68.8% in 2013. This is one of the highest rates in the region and hits women particularly hard. Only Guatemala and Honduras had higher values (ILO, 2014, 2015).

Reducing informal labor is difficult, but absolutely necessary. To give the reader an idea of the volume of resources lost, it is estimated that reducing the informal sector by

two-thirds, excluding the agricultural sector, would create fiscal space of 1.5 points of GDP. This would cover half the gap that must be bridged to meet the public expenditure in health target of 6% of GDP.

More conservative scenarios were projected in the country study, based on the recent trend in informality. The data from recent years indicate that informal labor was decreasing at an average rate of 1.2% annually until 2012. A not too ambitious assumption is that this rate of reduction continued until 2014 and then increased—in one scenario, to 2.1% annually, and in another, to 3.5%. These scenarios would imply an additional cumulative result of 8.69%-13.98% in 2020. In terms of fiscal space, all other conditions remaining equal, this is equivalent to 0.17-0.28 additional points of GDP in fiscal revenues.

Even considering the constraint that contributory social security health insurance operates as compartmented pool, these scenarios imply the formalization of workers—that is, of people who are currently using SIS services and who are able to pay into the system, but do not do so. Thus, increasing fiscal space in this way could also reduce SIS expenditure, because fewer people would be covered by this insurance. This trade-off between the types of insurance was not considered in the country study.

It is clear that in order to achieve universal health, it is necessary to end the inequities created by this fragmentation. An increase in contributions should be considered as fiscal space for at least two reasons. First, the volume of resources it can generate is too high to ignore. Second, the international evidence points precisely to the need to expand the base of health financing (Titelman, Cetrángolo, and Acosta, 2015). It should be understood that health expenditure will inevitably increase in Peru and LAC due to the cost of care, medical technologies, and the demographic transition (Cotlear, 2011), and this can only be managed with a large solidarity-based financing model that efficiently distributes risk and incorporates pooled funds and possibly social contributions.

The Bolivian case

Bolivia's insurance system is also segmented, and in 2014, a number of public and private health insurance programs was identified. The most important of these is the National Health Fund, public insurance financed with employer contributions, covering more than 3 million Bolivians, or two-thirds of the insured population.

Despite the wide range of insurance programs, some 6 million people were not affiliated with any of them and relied on the services of the public–public health system for their health care. Once again, an analysis of labor market and enrollment statistics reveals the same problem as in Peru: a high proportion of the population working in the informal labor market, paying no premiums or contributions for health.

Although labor-market formality has been increasing, Bolivia continues to report a very high informality rate (Schneider, Buehn, and Montenegro, 2010). If the entire working population is considered, it is seen that around 75% of the jobs in 2013 were in the informal sector (Vargas and Garriga, 2015). These data coincide with ILO figures, which put informal non-agricultural employment in the country at 75.1% (ILO, 2016), the highest figure in the region.

The extent of informality is seen in other national indicators. According to Bolivia's National Statistics Institute, just 1.9 million people were formal salaried workers in 2014, in a labor market with a working-age population of over 8 million (INE, 2016). It is beyond belief that the rest of the working population was self-employed or entrepreneurs; instead, it is assumed that there is a high percentage of salaried workers in the informal market.

Once again, certain discretionary assumptions were used in the estimation of fiscal space. In economies with low levels of informality, salaried employee rates range between 60% and 80% of the working population (Eurostat, 2016). In Bolivia, the almost 2 million workers registered as salaried employees could, at best, represent 45%-50% of the non-agricultural working population. Thus, an effort that reduces informality by 10 percentage points could increase subscriber rates by 15.6%-24.4%. If the average contribution is maintained, this would imply additional revenues of 0.22%-0.34% of GDP.

The authorities have recently taken steps to create universal insurance by merging the various systems. A recent change allows people affiliated with the National Health Fund or another insurance program to unsubscribe and become part of the national public-public system, which is a pooled fund created with general taxes and contributions. As expected, this move has not been well received by the employees of the insurance funds, who have responded with a series of strikes and opposition to the reform.

The Honduran case

In Honduras, only 20% of the population has social security and 3% have private sector coverage. Virtually the entire responsibility for insurance coverage falls to the tax-financed public network.

The public social security administrator for health is the Honduran Social Security Institute (IHSS), which reports that it had 616,000 affiliates and 1.5 million beneficiaries in 2014. Its main source of financing is contributions, but it also receives funds from general taxes.

Once again, this low affiliation is the product of high levels of informal labor. According to the source used for the other two countries analyzed, Honduras has the third highest rate of informality among the 13 countries of the regional study, affecting 73.4% of all non-agricultural workers. As in the previous cases, this is the greatest stumbling block to progress in developing this source of fiscal space.

Under the social protection law, contributions are channeled to two systems: one for disability, old age, and death, which has now become the social insurance system (RPS); and the other for disease and maternity, which under the new law, is part of the health insurance system (SAS).

The two systems are tied to wages, and premiums are split between employers and workers, with a ceiling on contributions. Based on this structure, the country study simulated three comparative scenarios under the new legislative framework: one in which the ceiling increases proportionately over time; another in which worker formalization increases from 2.4% to 4.1% annually; and a third involving an increase in contributors that would make it possible to achieve fiscal space of 1% of GDP.

The results reveal that, given the current contributor base and informality, the main constraint to generating more resources in the country's social security system is the ceiling on contributions. The scenario in which this ceiling changes could create fiscal space for health of 2.7 points of GDP, while, at the pace considered, formalization would create fiscal space of just 0.24 points. In fact, to reach 1 point of GDP, the number of contributors would have to increase at a rate of 8.7% annually by 2020.

Nevertheless, the study emphasizes that boosting revenues through contributions benefits only the population covered by that system, unless the cross-impact on state contributions and the freeing-up of public sector resources are considered.

3.3.5. Specific health taxes

“Sin taxes” are specific taxes on products harmful to health (Tandon and Cashin, 2010; Gupta and Mondal, 2013; Sharma, 2015). The most widespread and accepted measures of this type are tobacco and alcohol taxes. However, taxes on products with a high sugar content, such as sugary beverages, are beginning to be levied.

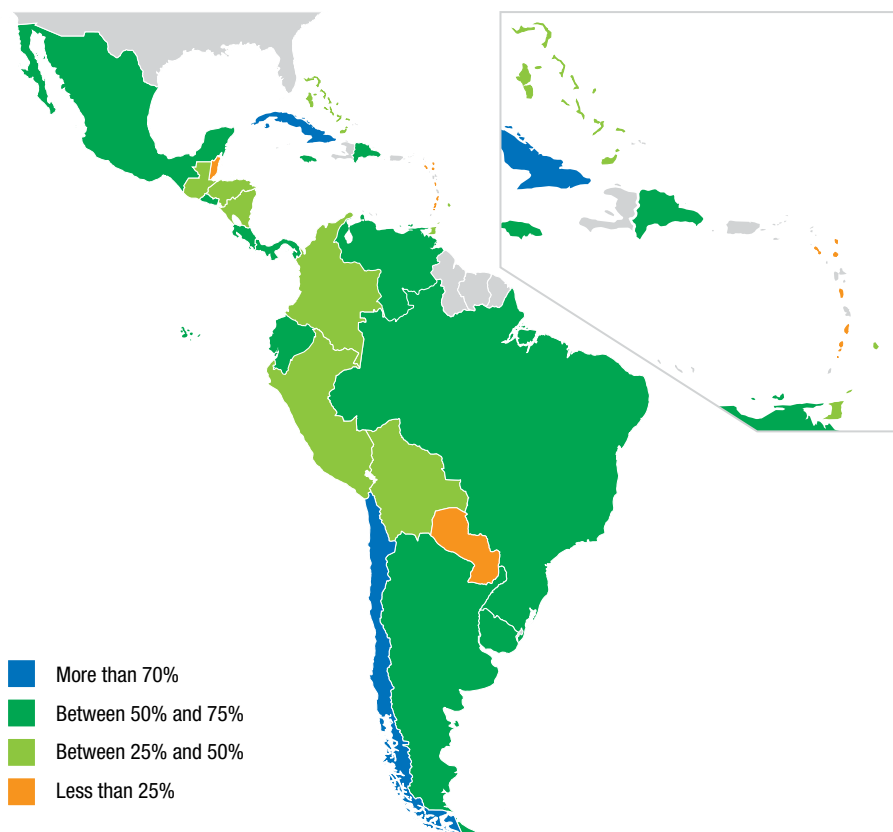
In terms of fiscal space for health, these taxes have two characteristics that make them important. The first is that the disincentive to consume these products improves people's health, resulting in future health care savings. For example, the systematic review of the studies that assess the impact of raising the tax on tobacco products confirms that it reduces consumption of these products, especially among youth (Hoffman and Tan, 2015). Moreover, each year, around 7 million people in the world die from smoking-related diseases, putting the annual cost in terms of health care and lost productivity at more than US\$ 1 billion globally (WHO, 2017c).

The second important feature of this type of tax is that, since these measures are closely linked with health objectives, health authorities can play a key role in increasing them and distributing the resources.

Tobacco taxes

Tobacco use in LAC is high, with high prevalence rates and significant growth among women. Despite the recent introduction of antismoking policies in most of the countries, tobacco tax rates continue to be among the lowest in the world. Only Chile and Cuba have tobacco tax rates in line with those of the advanced economies. Most of the continent has rates below 75% of the retail price, and some countries, below 50%. In some countries, mainly in the Caribbean, these taxes are no higher than 25% of the retail price (Figure 13) (PAHO, 2013).

Figure 13. Tobacco taxes as a percentage of the retail price in the Region of the Americas, 2014



Source: PAHO (2013).

Bolivia

Bolivia is among the countries with rates below 50% of the retail price. According to WHO (2015a) data, the tobacco tax accounts for just 42.9% of the price of the most popular brand, a far cry from 75%-85% in Europe and in several other countries in the region.

A pack of the country's most popular brand of cigarettes can be used for comparison. Priced at approximately US\$ 1.45, it is almost 60% cheaper than in Argentina and Uruguay and more than 75% cheaper than in Spain. In terms of purchasing power, the price is half that in Chile or Ecuador (WHO, 2015a).

Higher tax revenues, health care savings stemming from the lower consumption derived from this tax, and even productivity gains related to better living conditions can all be considered fiscal space. Conducting a simulation for these latter two benefits is difficult, but there are data that make it possible to quantify the cost of smoking to the economy and the health sector. First, it is estimated that each year, 2,555 people in Bolivia die from causes directly related to smoking, a figure that increases to 4,448 deaths annually if indirect

causes are factored in. Second, it is estimated that the cost of treatment for diseases related to smoking is \$b 1.4 billion annually, representing 0.8% of GDP and 13.5% of total health expenditure (IECS, 2014).

Furthermore, at the global level, raising the price of tobacco products has been shown to reduce their consumption. A tax that raises the price by 10% can reduce consumption by 2.3%-3.7% (Hoffman and Tan, 2015). Given the low price in Bolivia, the elasticity of tobacco use is significantly higher, and that same tax increase would reduce smoking by 8.5% (Alcaraz, 2006). It is worth noting that this calculation is the latest one available but is from a decade ago. It may be that elasticity has declined, given the country's economic growth and following the international evidence. In any case, the estimates based on this information indicated that a 5%, 10%, and 20% increase in the tax on the price of tobacco products would yield additional revenues of 12%, 22.6%, and 39.4%, respectively, or 0.013%-0.042% of GDP (Alcaraz, 2006).

Given these calculations, an increase in tobacco taxes in Bolivia appears to be feasible, but its impact on fiscal space in terms of GDP would be low. Nevertheless, it is important to factor in the potential future savings from the lower demand for care, less loss of human life, and the possibility of channeling these additional resources to health on a priority basis.

Peru

In Peru, the tax on the most popular brand of cigarettes represents 37.8% of the retail price, putting it even below Bolivia, one of the countries with the lowest rates in the region. In this case, a direct quantification linked to increases in the tax was performed, leaving the gains from future expenditure savings as a qualitative estimate.

To begin with, the price elasticity of tobacco products in the country is below that of Bolivia but above the global average (Hoffman and Tan, 2015). The domestic evidence shows that a 10% increase in the price of a pack of cigarettes would decrease demand by 6.9% (Sandoval, 2011). Furthermore, the revenue from the tobacco tax in 2013 was roughly S/. 326 million (COLAT, 2014). Thus, a tax increase that in five years raises the price of tobacco products to the average level in Latin America could create fiscal space of S/. 95.4 million.

Again, the figure is low in terms of GDP (0.02%), but, as in the previous case, the health benefits and reduction in future care should be considered, along with the possibility of channeling this fiscal space to health on a priority basis.

Honduras

Finally, in Honduras, the tax on a pack of the most popular brand of cigarettes was even lower than in Peru: 36.8% of the retail price. Apart from some Caribbean countries, only Guyana and Paraguay have lower rates.

Additional information shows that smoking is responsible for 1,546 deaths annually in the country and that the annual cost of treating smoking-related diseases is around L 1.2 billion, equivalent to about 0.28% of the country's GDP. This is a markedly higher figure

than the L 641 million collected from the tax on tobacco (IECS, 2014), even though the tax reform of 2014 raised the tax from 15% to 18%, with the expectation that revenues would increase by L 15-19 million (in relation to the elasticity of demand).

The country study on fiscal space did not estimate the revenues from this source, because the tax reform was too recent and, thus, new tax increases were not expected in the coming years.

Alcohol taxes

The second most widespread tax of this sort is the one on alcoholic beverages. Like tobacco, it has the dual benefit of revenues and cost savings related to future care for alcohol-related diseases.

WHO estimates that every year about 3.3 million deaths are caused by harmful alcohol consumption, which is responsible for more than 200 diseases and disorders (WHO, 2015b). Furthermore, the economic burden of its negative effects is estimated at 1% of GDP in middle- and high-income countries (PAHO, 2015b).

Alcohol consumption in LAC is high. Heading the list are Grenada, Saint Lucia, and Chile, which respectively consume 12, 10, and 9.6 liters of pure alcohol per capita annually.⁸ The countries with lower consumption are El Salvador (3.5 liters), Guatemala (3.8 liters), and Honduras (4 liters) (WHO, 2015b).

Bolivia

Alcohol consumption in Bolivia averages 5.9 liters per capita, around the midpoint of the regional distribution.

A detailed analysis of taxes on the main alcoholic beverages shows that they have all increased. However, the increase is nominal. In real terms, discounting average inflation, the tax has fallen on maize chicha, wine, rum, vodka, and whisky, and has risen only on beer (5.4% between 2005 and 2015). This last increase is due to the government's creation of the Pro Milk Fund in 2011, financed with the specific tax on beer. This fund managed to bring in nearly \$b 50 million in 2015, made possible by a 27% tax on the retail price of beer (a 13% value-added tax plus a specific tax of \$b 3.5 per liter).

A systematic literature review, in which more than 1,000 estimates of the impact of raising the price of alcoholic beverages were analyzed, concluded that beer had the lowest elasticity, with around 0.46, followed by wine, with -0.69, and liquor, with -0.8 (Wagenaar et al., 2009). This means that a tax that increased the price of beer by 10% would reduce consumption by 4.6%, while revenues would increase by around 5%.

In Bolivia, there is no breakdown of tax revenues by type of alcoholic beverage, not even one disaggregated by type of special tax. However, the figure is known to be close to 2% of total state revenues (0.6%-0.7% of GDP). This volume limits this source of fiscal space, since if it is assumed that only part of these revenues corresponds to alcohol and that the

8 Among people over the age of 15.

average elasticity is 0.65, a 20% price increase from taxes would increase revenues by just a few hundredths of a percentage point of GDP.

As a result, the study of fiscal space for this country concluded that, given the current tax levels and approximate elasticity, a higher alcohol tax would have little impact in terms of revenues. However, it could significantly reduce expenditures for the treatment of alcohol-related diseases.

Peru

Peru, in turn, has one of the higher rates of alcohol consumption in LAC (8.1 liters annually per capita). In 2013, the country raised the selective tax on beer, wine, and liquor, based on alcohol content. This was a fixed tax per liter, plus a tax based on the value of the wines and liquors, and, for beer, a percentage based on the system of sale to the public. This measure put an end to the discussion for the moment, which is why the country study on fiscal space did not consider it a feasible new source of resources.

Honduras

The latest tax reform in Honduras had the same implications for the alcohol tax seen in the analysis of the tobacco tax. The recent increase from 15% to 18% made it impossible in the short term to consider fiscal space from new tax changes in this area.

Other taxes

Few countries are introducing other specific health taxes. An important case is that of Honduras, which since 2014 has levied a tax on carbonated drinks of L 0.6414 per 1,000 liters, bringing in revenue equivalent to 0.18% of GDP in 2015. Based on historical sales growth, the study of fiscal space for the country estimates that revenues of up to 1 point of GDP could be obtained by 2020. Furthermore, increasing the tax rate by 10% would create fiscal space of 0.072% of GDP (Prieto and Montañez, 2016).

The same conclusions can be reached regarding this tax on carbonated drinks as were reached about the rest of the specific taxes analyzed. Marginal tax increases create very little fiscal space through revenues but could have a significant impact by liberating resources allocated to medical care through the disincentive to consume these products. Thus, from a public health standpoint, their consumption should be discouraged, and taxes are an effective means of accomplishing this.

3.3.6. Reduction in tax expenditures

Not everyone is subject to the general tax regulations. Governments approve exceptions in the form of exemptions, reimbursements, deductions, differential rates, and other measures from which different activities, categories, or entities can benefit to facilitate the achievement of certain strategic objectives. This type of exception is known as tax expenditures.

Tax expenditures are unrealized income. They act as a subsidy, but instead of collecting and distributing revenues, the government stops collecting from those it wishes to benefit. Tax expenditures are normally regressive, since they benefit large corporations and sectors and reduce the capacity to collect revenue that could be channeled to the most vulnerable population groups in conditions of vulnerability.

The scientific literature is generally critical of tax expenditures, for several reasons. First, many exemptions generate more distortions in resource allocation and costs than positive incentives. Second, some of them are granted during an economic crisis or when certain sectors have been hit by a depression or are in the development phase, but once the crisis is over or the industry has developed, they are not rescinded. Third, one of the strongest arguments against tax expenditures is that some of them lack democratic transparency, because they were either granted during dictatorships or negotiated in secret (Marcel, 2014). Thus, instead of creating positive incentives for the economy, tax expenditures may simply be rent-seeking interventions.

Measuring tax expenditures makes it possible to quantitatively estimate the extent of tax base erosion and the opportunity cost that this represents in terms of government revenues. However, one of the main problems in estimating this is that direct international comparison is not feasible. Thus, as the OECD notes in a comparative international study, the definition of tax expenditures is generally more or less the same, but the form they take and the exclusion/inclusion criteria for fiscal benefits varies with the national criteria (OECD, 2010). In fact, Canada and the United Kingdom declare tax expenditures of 5.1% and 4.9% of GDP, respectively, but Germany and the Netherlands only 0.26% and 1.06%, respectively.

Like the OECD study, the international study by Villela, Lemgruber, and Jorratt (2010) comparing seven countries up to 2009 notes the existence of differences in national criteria. Bearing this in mind, this work indicates that tax expenditures in 2007 represented 8.4% of GDP in Guatemala and 5.48% in Mexico, the two countries with the highest figures. They are followed by Chile (3.96% of GDP in 2009), Colombia (3.52% in 2007), Brazil (3.2% in 2009), Argentina (2.08% in 2009), and Peru (1.81% in 2009).

The most important of the principal taxes was income tax, which accounted for between 40% (Brazil) and 85% (Chile) of total tax expenditures. Argentina was an exception, since there, the benefits were granted mainly through value-added tax (52% of the tax expenditures).

An update of these estimates to 2013 that includes Bolivia shows that, except in the latter, virtually none of the countries with information exhibits a clear trend toward reducing tax expenditures (Table 9).

Table 9. Tax expenditures in Latin America as a percentage of GDP, 2005-2013

Country	2005	2011	2012	2013
Argentina	2.21	2.46	2.59	2.45
Bolivia	2.70	1	1.2	1.3
Brazil	1.69	2.8	3.32	-
Chile	4.38	5.04	4.46	4.71
Colombia	3.70	-	-	-
Guatemala	8.40	-	-	-
Mexico	6.32	3.87	3.82	-
Peru	2.07	2.04	1.94	-

Sources: Based on official country data and Villela, Lemgruber, and Jorratt (2010); MEFP (2014); Trigueros (2014); SIICL (2014); MECON (2016).

Honduras

Tax expenditures in Honduras represented between 4.2% and 6% of GDP in the period 2002-2007. This spread is due to the fact that the lower figure corresponds to information from the Executive Directorate of Revenue (DEI) of Honduras, cited by Escobar (2010), while the higher figure is an approximation by Escobar that includes a number of fiscal benefits not considered in the official source, such as customs duty exemptions for exporters.

The official data indicate that the bulk of tax expenditures are found in almost equal proportion in sales taxes (29.5% of the total) and import duties (28.2% of the total). According to Escobar (2010), a minimum of political will could increase revenues by more than 1 point of GDP. However, this assessment is obsolete, since, as noted in previous sections, the country introduced a major tax reform in 2014 that, among other things, eliminated some of these exemptions.

Peru

In Peru, there is a report by the National Tax and Customs Administration (SUNAT) for the period 2009-2012 (SUNAT, 2012) that updates the data in Villela, Lemgruber, and Jorratt (2010). The results show that tax expenditures have had some ups and downs but have remained around 2% of GDP.

What is interesting about these reports is that they provide a detailed disaggregation of tax expenditures. Thus, the latest available data reveal that one-third of them are applicable across the board (33.1% of the total). Next come aid to the agricultural sector (18.8%), education exemptions (11.69%), and benefits for financial intermediation, very similar in volume to those for education (11.4%).

This distribution shows how complicated it is to review and analyze the advantages of eliminating or reducing some types of tax expenditures to benefit health. For example,

eliminating tax expenditures in sectors such as education and health (0.2% of the total) and culture and sports (0.38%) is a priori counterproductive, but it may be feasible to modify those that benefit the financial industry or the oil and gas and mining sectors (3.3%).

To estimate how much fiscal space is available from this source, tax expenditures must be subjected to socially validated public scrutiny (Marcel, 2014). Not all tax exemptions are undesirable and some may be fully justified. The main concern here, to be precise, is knowing up to what point these exemptions are justifiable and, when they are, what their priority is compared to health.

Finally, considering the tax expenditures of 2012, equivalent to 1.94% of GDP, and their gradual reduction by one-quarter over the next five years, the study for Peru estimates fiscal space of approximately 0.48 points of GDP (Matus-López and Prieto, 2015).

Bolivia

The information for Bolivia is more or less the same as for Peru, based on the reports of the Ministry of Economy and Public Finance for 2011-2013. As seen in Table 9, the data indicate a downward trend, plateauing at 1.3% of GDP. In the last year, they were composed mainly of the value-added tax (74.6% of tax expenditures), followed by the corporate income tax (profits) (9.5%) and transaction taxes (3.8%).

This same source divides tax expenditures into three categories: investment promotion (69.3% of the total), the delivery of goods and services (28.3%), and donations (0.8%). Those allocated to investment promotion represent 0.9% of GDP and primarily benefit the export sector, with 49.4% of the total. They consist of reimbursement of the taxes paid by these companies for the purchase of inputs and services for products destined for the international market. These are followed by benefits to industry for chemical imports, iron smelting, steel, etc., with 9% of the total, and the purchase of machinery and electrical equipment for the public sector (7.2%). Finally, education, civil society, and nonprofit foundations also benefit from tax expenditures, as does part of the oil and gas sector (1.9% of the total).

The Bolivia study states that fiscal space from this source could be as high as 1.3% of GDP, although it estimates a lower amount, since it is neither feasible nor advisable to eliminate part of this tax expenditure. If the ministry's guidelines are followed and a 10% reduction in tax expenditures linked with the export industry, for example, is proposed, an estimated fiscal space of 0.07%-0.1% of GDP could be gained.

3.3.7. Other taxes

A number of taxes are gradually gaining ground in the fiscal area, among them taxes on financial transactions and those designed to protect the environment. This section, however, includes a type of tax relevant for most Latin American countries: taxes on natural resources, especially on mining and the oil and gas sector.

Though mentioned in the literature, these industries have rarely been addressed in empirical studies on fiscal space (Durán-Valverde and Pacheco, 2012). In this case,

however, they are extremely relevant for the study on Bolivia, since in 2014, revenues from the country's oil and gas sector amounted to \$b 27.5 billion, or approximately 42% of total state revenues (\$b 64.5 billion). Direct taxes on the oil and gas sector alone yielded \$b 15.6 billion, or 27% of total tax revenues (\$b 57.7 billion).

By levying this direct tax, these resources increased by 198% between 2004 and 2005. The crisis of 2009-2010 put the brakes on this growth, but it has since rebounded. This tax is a clear source of fiscal space and may continue generating resources for public expenditure and in particular for health expenditure. It has two drawbacks, though. First, its flow is subject to international variations in the prices of raw materials, which means that linking current expenditure with this source of financing is complicated. Second, it is hard to know how far these taxes can be increased. The legislation and the tax on oil, gas, and fuel production have different components and criteria that make it hard to compare the different fiscal regimes. It appears that, in the case of Bolivia, these taxes are slightly above the average for Latin America (MEFP, 2014; UNASUR, 2013) but below that of some Asian countries (PWC, 2012; Mintz and Chen, 2012; Sunley, Baunsgaard, and Simard, 2002).

For all of these reasons, the country study concludes that the resources from the oil and gas sector can greatly facilitate meeting the target of public expenditure in health of 6% of GDP. In 2014, the direct tax on the oil and gas sector alone yielded revenues of 6.8% of GDP. Less than a 10% increase in revenues from this tax would be enough to raise public expenditure in health by more than half a point of GDP and put Bolivia very near the target.

3.4. Source IV: External sources of financing

External sources of fiscal space for health are those that originate outside the country through development aid and cooperation, as well as the debt contracted with multilateral institutions such as the World Bank or with international financial institutions (Heller, 2005a; Tandon and Cashin, 2010; Gupta and Mondal, 2013).

3.4.1. Fiscal space through debt

Debt has been a source of financing for the countries, especially when the resources needed for a major investment, such as the construction of hospitals, roads, railroads, etc., are not available at a particular time.

There are two logical reasons for this type of decision. The first, both economic and rational in nature, assumes that the fruit of the expenditure resulting from the debt will be greater than the interest that will be paid on the loan. For example, port construction should increase the volume of international trade and domestic economic activity, boosting government revenues through greater resources from tariffs and taxes on the activity.

The second reason, of a social-rational nature, regards the cost of investment as a need. The effects of this may or may not increase future state revenues to cover the payment of the debt contracted, but this does not determine the decision. Governments resort to debt because they lack domestic resources to cover a necessary expenditure or investment at a particular time.

This source of fiscal space for health has three arguments against it. The first is that poor countries often do not have access to the international credit markets and, when they do, the interest rates/risks are very high, preventing the investments from yielding a profit through the returns.

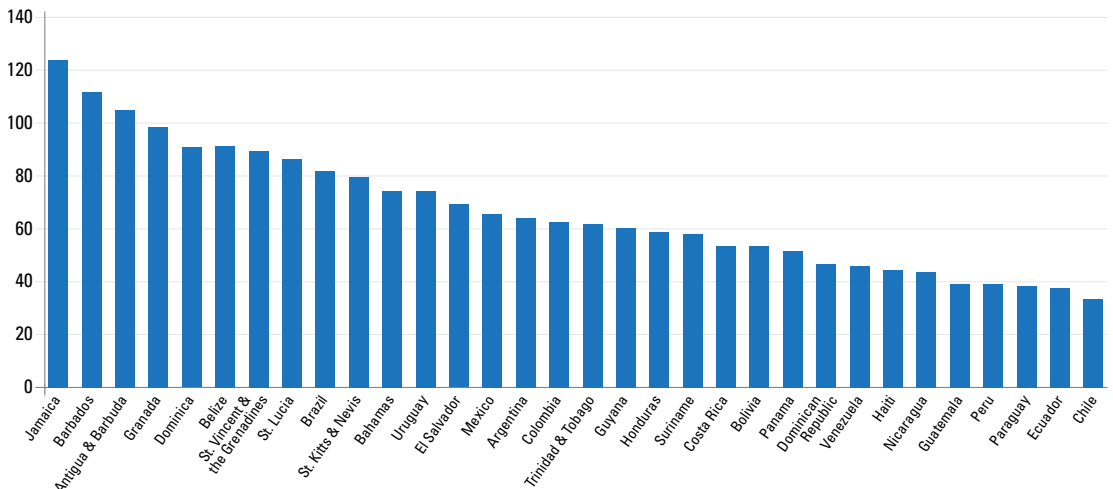
The second argument against debt is that it is hard to know or estimate the return on an investment in health. Its beneficial effects, such as better health and longer life expectancy, can be intuited and can in turn be transformed into greater human capital that boosts worker productivity. This would lead to increases in the country's production capacity, greater investment, and, ultimately, higher public revenues to pay off the initial debt. However, none of this can be estimated with relative certainty. There are too many domestic and international variables that can influence this virtuous circle and, possibly, the time needed for them to materialize may be longer. Meanwhile, interest payments on the initial debt may be so burdensome that they cause current expenditure and public investment to contract and ultimately make borrowing counterproductive in terms of the initial objective.

The third argument is related to the history of debt in the region. In past decades, Latin America was highly indebted, requiring public intervention and state bailouts of financial institutions. This resulted in one of the worst crises in the history of the continent, seriously eroding living conditions and exacerbating poverty. Although time has passed, the memory lingers on, and politicians and economic authorities are reluctant to accept indebtedness as a source, except in very justified situations.

Debt in Latin American and the Caribbean (LAC)

LAC countries currently have low levels of public debt in comparison with the international scenario. In most cases, state obligations are no greater than 60% of GDP, and in some—for example, Chile, Peru, and Ecuador—they are not even 25% of GDP (IMF, 2017a) (Graph 15). This situation is the result of rigorous debt reduction achieved in two ways. The first has been through firm control of government finances and, particularly, the measured growth of public expenditure and external financing needs. Debt has been reduced in relative, though not nominal, terms. The amounts borrowed have increased in most of the countries, and their lower relative weight is attributable to the fact that the pace of borrowing has been significantly slower than that of economic growth and that government budgets have been focused on maintaining a balance between government expenditures and government revenues.

Graph 15. Gross government debt as a percentage of GDP in Latin America and the Caribbean, 2015



Source: IMF (2017a).

The other intervention that has contributed to debt reduction is the debt forgiveness programs of the international organizations (IMF, World Bank, Inter-American Development Bank) for the poorest countries, as in the case of Bolivia, Honduras, and Nicaragua in 2005 and 2006.

Peru

Peru is one of the countries whose gross debt has significantly declined in recent years. In 2009, the consequences of the crisis began to materialize in the developed countries, which raised their debt levels to over 40% of GDP. Notwithstanding, the debt in Peru did not exceed 30% of GDP and even continued to decline, falling to 20.6% of GDP in 2014. Although it rose again the following year, its levels are still below what they were at the start of the current decade.

In this specific case, fiscal stability has been buttressed by the passage of the 2013 law on increasing transparency and fiscal responsibility (Law 399), aimed at providing more information and boosting confidence in the management of public expenditure. Another very important factor was the economic boom that occurred prior to the crisis, driven by higher prices of raw materials, especially mining products.

Today, international ratings of Peruvian debt have improved. In 2017, Moody's gave it an A3 rating, and Fitch Ratings and Standard and Poor's, a stable BBB+ (Expansión, 2017), which, in comparison with 2003, represents a five-step upgrade. However, notwithstanding the positive aspects of this situation, it should be noted that the Peruvian debt enjoys only medium confidence levels, since its ratings are more than six steps below the AA ratings of the advanced economies. The reason is that, despite good outcomes and better

management, Peru continues to be vulnerable to changes in the environment and the external economic situation.

The study on fiscal space concludes that the country is in a position to acquire debt to expand the fiscal space for health, as long as the economy is improving and external conditions do not significantly worsen. However, this does not eliminate the problem of the transfer of resources and interests. Early collection of revenues, mainly through taxes, carries interest costs, and if the investment in health does not result in higher productivity and production, the State will incur a direct cost—that is, it will be making a decision on a social-rational basis.

Essentially, the decision is a political one. The justification for debt lies in the value judgment that needs related to universal health are an urgent priority, rather than one that can gradually be addressed in the medium and long term. The margin will depend on the financial cost that political decision-makers consider acceptable and will be based on the interest rate at each level of debt.

Bolivia

The analysis for Bolivia is similar, although with higher initial levels of gross debt and a steeper reduction. Until the debt-forgiveness programs, the country had debt levels above 80% of GDP. This situation, combined with low income, kept the country in a poverty trap from which it was hard to escape. Debt forgiveness and fiscal discipline, together with economic growth, caused this indicator to fall from 80.4% of GDP in 2005 to 35.7% in 2011.

In a country so dependent on natural resources, the rising prices of raw materials prior to the crisis boosted Bolivia's international reserves, which grew from US\$ 853 million in 2002 to nearly US\$ 3.2 billion in 2005. Its tax and production policy, along with nationalization of the oil and gas industry and related tax reform, enabled the country to continue this trend and increase its international reserves to just over US\$ 15.1 billion in 2014. This strength was reflected in the ratings of the Big Three international credit rating agencies.

In 2015, the delayed consequences of the crisis pushed Bolivia's public debt to 40.6% of GDP, resulting in changes in the country's risk rating that were not uniform across the board. Moody's kept the debt rating at Ba3, Fitch downgraded it by one level in 2016 (BB-), and Standard and Poor's downgraded it by five levels with respect to three years earlier (CCC in 2016; that is, substantial risk).

The conclusion is that the country has room for indebtedness, but its international ratings and the associated interest rates are still significantly worse than those of the advanced economies. In other words, credit for Bolivia continues to be relatively expensive.

Therefore, given the historical experience, the country's economic authorities are reluctant to resort to this source of financing. The latest decisions to do so—for hospital construction, for example—have been guided by the principle stated earlier: investment in infrastructure and no financing of current expenditure. Thus, as in the Peruvian case, for the immediate future, this source of fiscal space has been ruled out.

Honduras

Honduras was another country that benefitted from debt forgiveness. In 2003, its debt was 70% of GDP and, thanks to this intervention, it fell to 40.3% in 2006. Subsequent good management and debt relief helped the country continue reducing the debt to 22.9% in 2008. Since then, however, it has risen to above its 2006 levels, reaching 46.1% of GDP in 2015.

The country's risk ratings also reflect this situation. Moody's rates the Honduran debt as highly speculative (B2), as does Standard and Poor's (B+). On the positive side, both agencies have issued positive projections for the coming years.

The study on Honduras reaches the same conclusion as the other two studies; that is, it does not rule out debt for securing resources for health but makes it conditional on investment expenditure (hospital and infrastructure construction), not current expenditure (wages, payouts, and supply purchases). Notwithstanding, it warns of the risks associated with this source.

3.4.2. Fiscal space from external aid

Nearly all the empirical studies advise against relying on external aid as a source of fiscal space for health (Gupta and Mondal, 2013; Sharma, 2015). Only Heller (2005a) holds that it is necessary for low income countries that find themselves in a poverty trap that cannot be escaped without external aid. The reasons for the general opposition to this source are the variability and uncertainty of the flows (Ravishankar et al., 2009; Birger et al., 2015; Bulír and Hamann, 2007), which can interfere with the sector's development plans, cause imbalances in the network of care, and create perverse incentives for government administrations.

The phenomenon was demonstrated during the last crisis, whose impact in the rich countries slashed funding for development assistance, resulting in the paradox that as more resources were needed, fewer were received. In 1980, development assistance represented 0.3% of the world's gross income. During the crisis of 2000, it fell to 0.14%, rising to 0.2% before 2009, only to fall to 0.17% in 2012. Two years later, it returned to the levels seen at the beginning of this decade (WB, 2017).

In LAC, the proportion of external assistance allocated to health is low and varies substantially from country to country, averaging just 0.2% of total regional health expenditure. However, it is important in Haiti, which, mired in a humanitarian crisis, depends on external aid to finance 32.7% of its total health expenditure. It is followed by Belize (11.4%), Honduras (7.8%), Guyana (7.3%), Saint Lucia (6.7%), and Nicaragua (5.5%). This source falls below 5% in the rest of the countries, as is the case of Bolivia (3.2%) and Peru (0.74%) (WHO, 2017a).

In Peru, resource flows fluctuated wildly throughout the period for which information is available; and at the onset of the crisis, when more resources were needed, they fell. They rebounded in 2012, only to fall again in the past two years. Due to these fluctuations and

the economic growth of the past decade, the proportion of external aid in health financing in Peru represented just 0.74% of total health expenditure in 2014 (WB, 2017).

The situation in Bolivia is similar. In the analysis since 2001, this fluctuation is observed in the external aid contracts signed by the government. In just one decade, this assistance fell three times: in 2004, by 25.9%; in 2006, by 55.5%; and again, in 2010, by 28.1% (MEFP, 2011).

According to WHO (2017), external aid for health in Bolivia has been declining. In 2004, it represented 12% of the country's health expenditure. It has since fallen, and in 2014, the latest year available, it represented 3.2% of that expenditure. This trend is due in part to the fact that, as the Ministry of Planning and Development (MPD, 2013) notes, the country had a per capita income of over US\$ 3,000 in 2014, making it no longer a priority for assistance from the rich countries (WB, 2017).

In short, in both Peru and Bolivia, given the dimensions and volatility of the flows, it seems inadvisable to consider external aid a source of fiscal space for health. However, it is recommended that they search for mechanisms to stabilize these resources and use them for sustainable infrastructure projects that have been studied and planned with the competent health authority.

Finally, there is a different take in the case of Honduras. Here, external aid represented 7.8% of total health expenditure in 2014. Moreover, the study for this country found a negative correlation between external aid flows and the national government's allocation of resources to health (Prieto and Montañez, 2016). Notwithstanding, in this case it is recommended that consideration be given to channeling this source of resources through public institutions in a manner consistent with national planning, making a special effort to control the negative effects it could have in terms of potential government funding cuts. Even so, the impact of this measure would be limited, and it would create fiscal space of approximately 0.15 points of GDP in 2020.

3.5. Source V: Efficiency improvements in health expenditure

This is a particularly important source of fiscal space that does not involve generating new income, but liberating part of the funds already in use. It essentially comes from providing the same health services and benefits, but with fewer resources.

Quantifying the efficiency of health expenditure is complicated and involves a broader area of research beyond the scope of the study of fiscal space. There is an abundance of comparative analyses of the efficiency of national health systems, but with differing results. These studies, which are largely confined to the rich countries, show that greater public expenditure in health improves health indicators and that it is even more effective when the revenues are from direct taxes or risk-sharing mechanisms (Moreno-Serra and Smith, 2012; Bokhari, Gai, and Gottret, 2007).

In an attempt to determine how to increase efficiency, WHO (2010) identified the principal problems of health systems. The first of them is unnecessary drug expenditures.

Proper medication and more efficient prescribing can yield major savings in expenditure without harming people's health. WHO proposes three essential public interventions: avoiding overmedication, eliminating poor-quality or ineffective drugs, and promoting the use of generic drugs.

A second problem is the need to boost the productivity and efficiency of human resources through efficient geographical distribution of general health personnel and specialists and better working conditions, incentives, and workloads. Unmotivated, poorly paid human resources with no incentive to look for ways to improve their performance are unlikely to propose measures or take action to increase efficiency.

The third group of problems is related to the supply of services. Ongoing evaluation of medical practices and procedures is needed to identify the most efficient protocols, with sufficient flexibility for special cases. The distribution of health facilities and their level of complexity must also be analyzed. The current infrastructure was built in different historical periods, and while the population and epidemiological profiles have changed, the infrastructure remains. Tailoring the supply to these changes is complicated, but an effort should be made to assess needs, increase access for the people who need it, and take full advantage of capacities and equipment at health facilities. This also includes the introduction of hospital infection control measures, since hospital infections significantly increase patients' need for care.

According to the WHO (2010), greater efficiency in these areas could represent 20%-40% savings in health expenditure. In an average country with public expenditure in health of 3.5% of GDP, this would imply fiscal space of 0.70-1.5 points of GDP.

Studies associated with the universal health strategy (Cid et al., 2016) also show that one of the main sources of efficiency in the organization of services is the shift from hospital-centered care to integrated health service networks centered on the first level of care. In the latter, services are provided under a primary health care strategy based on disease prevention, health promotion, avoiding unnecessary hospitalizations, and organizing integration with more complex care services.

In this context, which is centered not so much on care as on financing, governments should introduce ways of distributing health expenditure according to complexities and needs. A shift from historical budgets to needs-based budgets is necessary. There are adjusted capitation tools in primary care that make it possible to bring expenditure closer to the needs of each territory. Furthermore, there are payment mechanisms in hospital financing that consider the complexity of case mix of diagnoses of each facility. This needs-based financing approach is essential for creating incentives to improve expenditure.

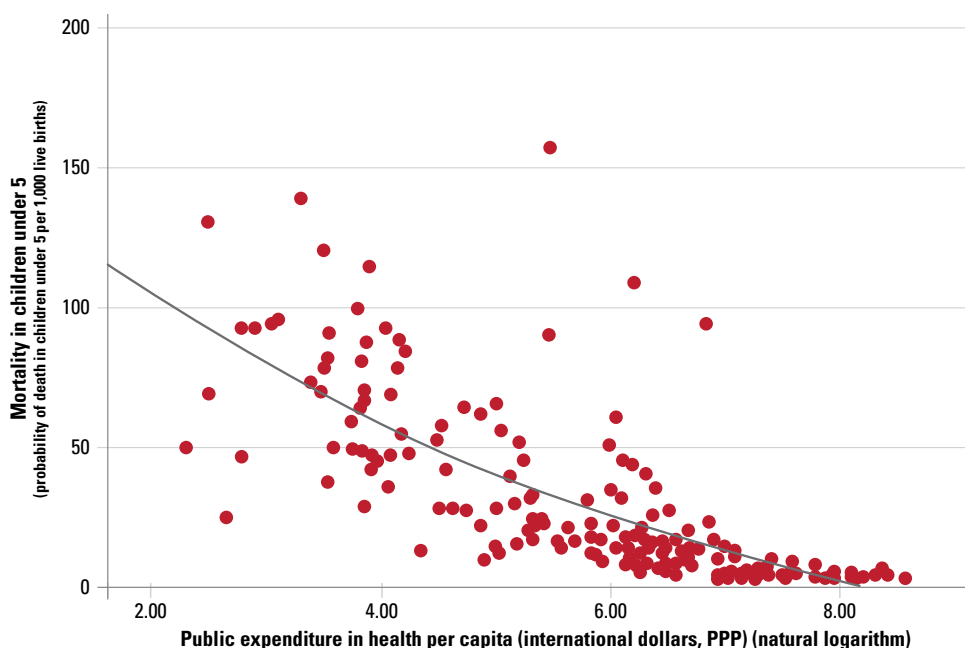
Finally, in the specific area of fiscal space, it is possible for efficiency efforts to include others outside the health sector—for example, efforts to boost the efficiency of ministry of finance or treasury revenue collection.

3.5.1. Efficiency measurement

There are several approaches to measuring efficiency in public expenditure in health. One of them is to measure the main health outcomes in terms of GDP or per capita figures—for example, life expectancy or infant mortality, or even aspects of morbidity (Cid et al., 2016; OECD, 2015b; Aísa, Clement, and Pueyo, 2014; Nixon and Ulman, 2006).

At the global level, there is a fairly clear correlation between the two variables: the higher the expenditure, the better the overall outcomes (Graph 16). This correlation has a steeper slope in low-income countries and is less pronounced in high-income countries, which confirms the diminishing marginal performance of the expenditure. In other words, the initial investments in health have a greater impact than subsequent investments. Furthermore, there is a certain scattering at the lower income levels that is hard to explain, which may be an indication of the vast differences in outcomes in the execution of expenditure in the poorest countries, or their particular epidemiological, cultural, and geographic characteristics.

Graph 16. Global public health expenditure per capita and mortality in children under 5, 2014



Source: WHO (2017a).

The reality is that these analyses do not capture the other factors or social determinants of health, which, unrelated to public expenditure in health, may be affecting the results. For example, better nutrition, education, or climate conditions can increase life expectancy more in a country with low public expenditure in health than in a country that invests more in health.

A second methodology consists of using a broad set of health outcomes that refer not only to people's health status but to the production of services, such as hospital admissions, deliveries, and medical consultations. Two techniques are primarily used for this purpose: data envelopment analysis (DEA) (González, Cárcaba, and Ventura, 2010) and stochastic frontier models (SFM) (Grigoli and Kapsoli, 2013).

Even so, however, there is still the problem of comparing countries with different income levels. One solution is to include diminishing marginal increases, under the assumption that the frontier of possibilities for health production is a convex function. In other words, as expenditure increases, the potential gains from efficiency decrease (Kumbhakar, 2010).

These approaches were used in a number of specific studies on fiscal space for health.

3.5.2. Efficiency of health expenditure in the region

The regional analysis of fiscal space measured health financing (in terms of per capita expenditure) against health coverage and health outcomes (for communicable and noncommunicable diseases, injuries, and maternal and child health).

Based on public expenditure in health, two large groups of countries were identified: one consisting of Barbados, Brazil, Chile, Colombia, and Costa Rica, which have relatively high per capita expenditure; and the other consisting of the eight remaining countries (Bolivia, Ecuador, Guyana, Honduras, Jamaica, Nicaragua, Paraguay, and Peru), which have relatively low health expenditure (Báscolo, et al. 2015). The first group has medium-high service coverage, Chile being the country with the highest indices. Chile and Costa Rica have the best health outcomes, although the latter has relatively low coverage in relation to public expenditure.

The performance of the other two countries, Brazil and Barbados, is different. Brazil exhibits the transition pattern of developing countries, in which communicable diseases and maternal and child health problems are declining but the importance of noncommunicable diseases is growing. Barbados, in contrast, has a profile with a greater presence of communicable diseases, such as infection with the human immunodeficiency virus (HIV).

In the countries with low health expenditure, coverage is significantly lower and health outcomes vary widely. Bolivia and Guyana have the lowest coverage, but Bolivia's health outcomes are markedly better. Their epidemiological profiles differ, for example, in the prevalence of communicable diseases such as HIV infection. Thus, within this group, Jamaica, and Peru are the countries with the best health conditions.

Summarizing resources, coverage, and health outcomes, the regional study divided the countries into four groups (Table 10). In the upper part of the table are Bolivia, Guyana, Honduras, and Nicaragua; followed by a second group consisting of Ecuador, Paraguay, and Peru; a third, more efficient group, consisting of Barbados, Costa Rica, and Jamaica; and a fourth group at the top of this classification, consisting of Brazil, Chile, and Colombia.

Table 10. Efficiency: resources and performance by health category by country, 2014

Country	Resources	Coverage				Health Outcomes			
		Communicable diseases	Noncommunicable diseases	Injuries	Maternal-child	Communicable diseases	Noncommunicable diseases	Injuries	Maternal-child
Bolivia	--	-	-	--	-	/	/	/	--
Guyana	-	+	+	/	-	/	--	--	--
Honduras	--	-	/	/	/	-	/	/	-
Nicaragua	--	/	+	/	/	/	-	/	-
Ecuador	-	-	/	+	/	/	/	--	/
Paraguay	-	/	-	/	/	/	/	-	-
Peru	-	/	-	-	/	/	++	/	/
Barbados	++	+	+	/	/	/	-	++	+
Costa Rica	++	/	+	/	/	++	+	+	++
Jamaica	-	-	/	-	/	/	-	+	+
Brazil	+	/	+	/	/	+	/	-	+
Chile	+	+	+	/	+	++	+	+	++
Colombia	+	/	+	/	+	+	++	/	+

Performance categories: good, far above average (++); good (+); low (-); low, far below average (--). Source: Báscolo et al. (2015).



Honduras

The studies of fiscal space do not usually quantify the gains that can be obtained through efficiency. This is the case for Honduras, where this source of fiscal space is addressed through a purely qualitative analysis.

Thus, the country study highlights the targeted social policy. This policy seeks to establish a social protection floor and, to that end, has a solidarity and social protection fund for poverty reduction, whose objectives include improving the efficiency of health expenditure. To accomplish this, it proposes joint management of the resources allocated to social programs, which would increase and pool their financing and management. Within this framework, the country study proposes integrated health networks that emphasize primary care as a potential source of resources.

Peru

Peru obtains positive results with DEA and SFM analysis. In the study by González, Cárcaba, and Ventura (2010), the efficiency of health expenditure was measured in terms of life expectancy and healthy life years. The country had an index of 0.95, well above that of the upper middle-income countries (0.83) and almost at the level of the high-income countries (0.96). Meanwhile, the study by Grigoli and Kapsoli (2013) puts Peru among the five most efficient of 80 developing countries studied between 2001 and 2010.

Although positive, these findings should be viewed with caution. In a summary of efficiency rankings, the country's position ranges from 57th to 119th, depending on the indicator and methodology used. In view of these data and the diminishing marginal returns of the expenditure, Kumbhakar (2010) estimated the resources that can be liberated with a 5% gain in expenditure efficiency. The result for Peru would be equivalent to fiscal space of 0.16% of GDP for 2014.

Bolivia

Bolivia ranks lowest in the international comparisons. In a DEA⁹ analysis of 165 countries, Bolivia ranks 28th in health efficiency among the 45 lower middle-income countries considered (González, Cárcaba, and Ventura, 2010), somewhat above the average for the group but behind that of the Latin American countries.

In the meantime, in another SFM analysis of 80 emerging and developing countries that measures the potential gains from health system efficiency, Bolivia ranks 40th, with an indicator of 0.94 (Grigoli and Kapsoli, 2013), a value slightly above the average, with a high of 0.98 (Papua New Guinea) and a low of 0.81 (Sierra Leone).

Kumbhakar's (2010) results for Bolivia, in turn, reveal that, all other conditions being equal, a 5% increase in the efficiency of public expenditure in health could create fiscal space of the same magnitude in public expenditure in health, which, in terms of GDP, would be equivalent to roughly 0.1%.

9 A refined analysis based on DEA, known as a value efficiency analysis (VEA), was conducted.

In these last two cases, special mention is made of the need to improve public expenditure in health payment and distribution mechanisms and, in particular, to put an end to the inefficiencies and inequities of compartmentalized health insurance programs without solidarity among them. The fragmentation of the different public and private insurance programs makes it impossible to take advantage of the efficiency of economies of scale and the gains from risk pooling, while heightening information asymmetries and encouraging the selection of beneficiaries based on their risk of illness. The existence of a score of health insurance programs alongside a high percentage of uninsured population is a clear manifestation of inefficiency in the organization of the system.

Whatever the focus of the analysis, universal coverage necessarily involves solidarity between high-income and low-income people and between the healthy and the sick, because much of the population simply cannot afford the care it needs (Maeda, Araujo, and Cashin, 2014).

CHAPTER 4



POLITICAL AND SOCIAL ANALYSIS

The studies of fiscal space for health have a heavy component of macroeconomic, public finance and, as noted, technical analysis of the principal sources. However, the political and social feasibility analysis is very limited. There are some methodological attempts, as indicated in the discussion of the theoretical framework, when the situation of a particular country is involved. However, even in these cases, the methodologies are a long way from addressing the problems through a political science analysis. Most of the time, they are limited to documentary analysis, interviews, and surveys.

Although these tools are useful and furnish valuable information, they reveal the official positions of institutions and individuals but do not address the risks and requisites for transforming these positions into action. Furthermore, these methodologies do not capture the positions of stakeholders who do not voice their interests when they are in opposition to those of the social majority. The prominence and power of some of these groups can be critical when attempts are made to introduce measures that create fiscal space for health and can block or favor some sources over others (Clements, Coady, and Gupta, 2012).

4.1. Regional analytical framework

The regional study used an analytical framework based on three dimensions—institutions, stakeholders, and disputes—and five measures for the creation of fiscal space for health: increasing resources, prioritizing health, reducing the fragmentation of systems, improving regulatory mechanisms, and focusing on primary health care (Table 11).

Table 11. Dimensions of the creation of fiscal space and political economy

Creation of fiscal space	Institutional framework	Stakeholders	Disputes
Increase in fiscal resources (public health expenditure) and pooled expenditure	Greater fiscal capacity; changes in the tax structure and formalization of the economy	Contributors and beneficiaries, political stakeholders	Capacity for redistributing wealth and income
Prioritization of public health expenditure within the framework of social policies	Strengthening of health in social policies		
Reduction of segmentation and fragmentation through the integration of insurers	Insurance mechanisms, risks, and resources from different sources	Contributors and beneficiaries	Equity/inequity in the conditions of health service coverage and access
Improvement of regulatory mechanisms and incentives for more efficient service delivery	Mechanisms for transfers to providers (budgetary, assistance contracts)	Financing agencies and health care providers	Regulation and incentives instead of autonomy in health service delivery
Guidance for a system of health services based on primary health care	Strengthening of primary care with a coordinating role in the health services system	Medical specialists, primary health care teams, and social movements	Regulation, coordination, and relative power in the health services system

Source: *Báscolo et al. (2015)*.

The results were not disaggregated by country but were general in nature. Thus, they indicate the importance of the principal stakeholders, but, due to the nature of the study, do not go into detail about the specific situation in each country and each political moment.

4.2. Documentary analysis in Peru

The study of fiscal space for health in Peru was one of the first to attempt a political and social feasibility analysis of the technical conclusions about the generation of new resources. To accomplish this, the study reviewed the official agreements and policies concerning

sources of fiscal space for health. The most important documents were the Political Parties' Agreement (APP) of 2006, the policy on Universal Access to Health of 2009, the 12 guidelines of the National Health Council of 2013, the objectives of the Bicentennial Plan 2021, and the Millennium Development Goals (MDGs). The basic fiscal policy document was the Ministry of Economy and Finance's Multi-year Macroeconomic Framework (MMM).

Based on the analysis of these agreements and documents, the sources of fiscal space were classified under four acceptability categories: high, medium, low, and nil. The classification was done by a local expert. Under this classification, sources of fiscal space were considered highly acceptable if they were mentioned positively and specifically in agreements and concrete policies. Their acceptability was considered medium if they had been discussed officially but not implemented or if they had been poorly implemented. The acceptability of sources mentioned only in passing, without official discussion, was considered low. Finally, the feasibility of sources not mentioned in agreements or policies because they had previously been ruled out was considered nil.

The results showed that generating resources for health through economic growth was highly acceptable, as was increasing income tax revenues by expanding the tax base—however, not by raising tax rates, whose acceptability was only medium. The idea of raising the tax on tobacco products and all efforts to improve the efficiency of health expenditure were also highly acceptable.

The sources with medium acceptability included the reduction of tax expenditures, the reprioritization of health expenditure in the annual budget increases, and the reduction of informality, in addition to the proposal to raise the income tax rate.

Finally, the sources with low acceptability were increasing the corporate income tax, transferring resources from other sectors to health, and increasing social contributions to social security for health. In contrast, the acceptance of external financing from aid or loans or controlled inorganic money creation or borrowing was nil.

4.3. Interviews with agents in Bolivia

In the study on Bolivia, the political and social analysis was conducted through 20 interviews and surveys of institutional, political, and social representatives. The participants included representatives of the Ministry of Health, the Ministry of Economy and Finance, the Ministry of Development Planning, the Social and Economic Policy Analysis Unit, the National Health Fund, the National Unity (UN) and Socialist Movement (MAS) caucuses of the Legislative Assembly, the Medical Association, the Unified Confederation of Labor Unions, foundations, and national experts.

The sample was designed by a local expert, who conducted the fieldwork in June-July 2016. It comprised 80% ($n = 16$) 30-40 minute in-person interviews with a total of 20 open-ended and closed questions, while in the rest of the cases (20%, $n = 4$), a questionnaire with the same questions was sent and subsequently completed. This was the case for the UN and MAS caucuses.

Both open-ended and closed questions were used in the survey. In the closed questions, a Licker-type scale of the degree of agreement/disagreement was used for different measures and sources of financing, with 1 indicating total disagreement and 10 indicating total agreement.

The results showed greater support for fiscal space for health created through economic growth and improvements in the efficiency of health expenditure. However, relatively high levels of support were found for increasing taxes on the wealthiest people, raising the tax on imports of alcoholic beverages, and reducing tax expenditures. Furthermore, the least feasible sources were the creation of inorganic money (no feasibility), government debt, and increases in the social contribution of workers or employers (low acceptability).

4.4. Documentary and online surveys in Honduras

The study on Honduras used a combination of documentary analysis and online surveys. As in the Peruvian case, agreements and documents were identified that explicitly addressed some of the sources of fiscal space. Examples of this documentation include the strategic guidelines of the Country Vision 2010-2038 and the National Plan 2010-2020, approved in 2010, and the Government Strategic Plan 2014-2018.

In addition, key stakeholders in policy-making were surveyed, among them government officials and representatives of cooperation agencies, industry, civil society, unions, the media, and, depending on the issues discussed, others such as political parties and religious groups. The survey was conducted online and first sent to 32 stakeholders and the attendees of a workshop for presentation of the preliminary results. A total of 11 responses were received.



Although the representativeness of the sample was low and possibly biased toward people who were more interested in the issue, its results confirmed some of the conclusions already drawn from the documentary analysis. Thus, it confirmed the agreement on economic growth as a source of fiscal space, as well as the difficulty of increasing the priority of health when allocating new resources. This seems to be because defense and domestic security appear to have priority in medium-term planning.

Concerning the generation of new government revenues, the majority of those surveyed had a negative opinion of increasing tax rates, especially since the last tax reform was so recent; nor did they support an increase in social contributions to health, or borrowing.

In contrast, there was greater acceptance of expanding the tax base through greater control of tax evasion, financing from specific health taxes (increasing the existing tax or levying one on processed foods), and external aid.



CONCLUSIONS

The concept of fiscal space and its linkage with health emerged during the efforts to meet the Millennium Development Goals (MDGs), using the experiences of the developing countries as a reference. This concept stresses the need to guarantee the sustainability of the governments' financial position in processes where additional resources for health are needed.

Fiscal space for health focuses on the capacity and viability of the sources of financing but does not answer all the questions and issues related to health expenditure. However, in cases where the path toward transformation of the health system is predetermined, or is still being determined, studies of fiscal space can be critically important in planning changes and effectively answering the question of whether the interventions can be sustainably financed.

The following sources of fiscal space have been identified: a) creation of conducive macroeconomic conditions; b) greater prioritization of health; c) creation of new fiscal revenues and greater fiscal pressure; d) greater efficiency in revenue collection; e) external aid in the form of loans and grants to the health sector; and f) greater efficiency in existing health expenditures.

Economic growth--the most direct and generic source of fiscal space--is based on the assumption of economic stability and consists of creating fiscal space through GDP growth and the consequent increase in state revenues. Greater prioritization of health, in turn, assumes an increase in public expenditure in health at the expense of other sectors, such as defense or foreign affairs.

Economic growth is a source of fiscal space in the studies, but in some scenarios it generates additional resources, in terms of GDP, only through the social security system. Indeed, it is to be expected that contributions will increase with economic growth, because whatever the characteristics of growth, to one degree or another it usually goes hand in hand with higher employment and higher gross wages. This does not occur as directly in the expenditure based on fiscal revenues, which is more subject to historical inertia, political will, and budget priorities.

PAHO's analytical framework presents two ways of tackling the challenge: one, as an increase in the weight of health expenditure in social public expenditure or total public expenditure; the other, as an increase in social public expenditure as a whole. In the latter case, the goal is to avoid competition between health expenditure and other complementary budget lines for an intersectoral approach to universal health.

As the scientific literature demonstrates, in addition to contributing resources, the creation of new income with greater fiscal pressure through taxes is positively correlated with better health indicators. In addition to revenue levels, the structure of the tax system is key to meeting the objective of greater equity. Systems that are based primarily on indirect taxes, which is the case in most of the countries in the region, tend to be more regressive, imposing a greater burden on poorer households. The opposite is true in countries where direct taxes, mainly on income or wealth, have greater weight.

By the same token, increasing efficiency in revenue collection involves preventing tax evasion and avoidance and promoting formality in the economies. Here, it is worth calling attention to tax expenditures, consisting of measures such as special tax reductions or exemptions from the tax code. This occurs when an agent, sector, or type of income is exempted from the code and granted a specific right that results in lower taxes than those paid on other similar activities or income. Many of these exemptions were created at a specific time for a specific purpose, but the need for them has never been reevaluated.

Finally, external aid from loans and specific donations for the health sector consists of two mechanisms: debt and grants. Based on the scientific literature, it is important to note the macroeconomic implications of the former and the volatility and fragmentation of the latter.

Promoting an increase in fiscal space requires a broader social dialogue that includes all stakeholders. These decisions, which involve the State, tend to be political and are chiefly grounded in technical arguments. There are several ways of promoting this type of dialogue, and in all cases, technical analyses are essential.

PAHO's studies of fiscal space—a regional one for 13 countries and individual ones for Bolivia, Honduras, and Peru—show the following:

- In general, there is fiscal space for health in the countries, and economic growth is not sufficient to fill that space and meet financing needs.
- More fiscal resources must be collected and in a better way.
- Tax expenditures should be reviewed to identify unfair exemptions or exemptions of no benefit to the countries.
- There are arguments and room for increasing specific health taxes (mainly on alcohol and tobacco). Although the revenues are low in these cases, expected savings for the system may be high.
- From a policy standpoint, loans and grants are not a viable source for governments in the medium and long term.
- Measures to boost efficiency should accompany these efforts, propelled by the principles established in the strategy for universal access to health and universal health coverage.

Political conditions in the countries are no less important than economic growth and are often determinants of growth. The strategy for reorienting the system toward universal health and the discussion of fiscal space for health both involve political decision-making more than technical decisions. In fact, countries with more developed democratic systems have more efficient social allocation of resources, where health is considered a priority. It is impossible, however, to make good decisions without the available technical evidence. This book is an attempt to contribute to both components of the issue.

Finally, the limitations of this study give rise to different viewpoints and the need to continue implementing a research agenda that can broaden the analysis of fiscal space, both geographically (subregions and countries) and in aspects not addressed in this publication that could offer other potential sources of fiscal space, including:

- Efficient tax collection to mitigate tax evasion and avoidance, increasing fiscal efforts in the search for fiscal space for health, based on increased efficiency.
- Differential analysis of effective tax rates, by industry. For technical reasons and due to the status of powerful groups, the countries have effective tax rates differentiated by economic sector. Although the frameworks of the prevailing development models justify them, some cases are less clear and hard to justify, such as lower taxes on the financial sector, especially banking, and certain areas of the service economy.
- Studies that open up alternatives for optimizing social efficiency, based on major development objectives such as universal health or the Sustainable Development Goals (SDGs), integrating the complexities of all social sectors that need improvement as new lines of knowledge production are developed in this area.



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Countries that have made the most progress toward universal coverage have public expenditure in health equivalent to at least 6% of their gross domestic product (GDP), which is the percentage established in PAHO's universal health strategy as the benchmark for countries. However, while higher expenditure is a prerequisite, it is not enough to combat inequities and advance toward universal health. In addition to greater resources, the quality of the expenditure must be improved, reducing health system inefficiencies. Moreover, public expenditure in health should be sustainably increased in a fiscally responsible manner.

The concept of fiscal space for health refers to the ability of governments to provide additional budgetary resources for the health system without affecting the financial position of the public sector or supplanting other socially necessary expenditures. Any analysis of fiscal space, therefore, will attempt to identify the prospects for increasing health expenditure in the short and medium term to address a series of clearly established health needs.

This publication brings together and summarizes PAHO's studies on fiscal space for universal health in the Americas and draws on the contributions of the regional forum held in Washington, D.C. on 7-8 December 2015. With this publication, whose target audience is the technical personnel responsible for policy development, decision-makers, and authorities, PAHO hopes to contribute to the analysis and discussion of health financing policies on the path toward universal health.