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*Health Policy Challenges in Health Economics and Finance  
in Latin America*

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# **Health Policy Challenges in Health Economics and Finance in Latin America**

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## EXECUTIVE SUMMARY

The Latin America and the Caribbean (LAC) region has experienced a long-term process of improvement in population health conditions, shifting its health priorities from mother-child care and transmissible diseases to non-communicable diseases (NDCs). However, persistent socioeconomic inequalities create barriers to achieving Universal Health Coverage (UHC). Despite the high level of governments' commitment to UHC, and rising coverage, approximately 25 percent of the population does not have access to healthcare, particularly in rural and outlying areas.

Health system quality issues have been largely ignored, and inefficiency, from health financing to health delivery, is not on the policy agenda. The use of incentives to improve performance are rare in LAC health systems and there are political barriers to introduce reforms in payment systems in the public sector, though the private sector has opportunity to adopt change.

Fragmentation in the financing of healthcare is a common theme in the region. Most systems retain social health insurance (SHI) schemes, sometimes more than one, mostly for the formal sector; parallel National Health System (NHS)-type arrangements exist for the poor and those in the informal labor market. The cost and inefficiency in delivery and financing is considerable.

Regional health economics literature stresses inadequate funding – despite the fact that the region has the highest inequality in access and spends the most on healthcare – and analyzes multiple aspects of health equity. The agenda needs to move beyond these debates to designing and leveraging delivery and payment systems that target performance and efficiency.

The absence of research on payment arrangements and performance is a symptom of a health management culture based on processes rather than results. Indeed, health services in the region remain rooted in a culture of fee-for-service and supply-driven models, where expenditures are independent of outcomes.

## INTRODUCTION

Health policy reforms in LAC need to address efficiency rather than equity, integrate healthcare delivery and tackle provider payment reforms. The integration of medical records, adherence to protocols and clinical pathways, establishment of health networks built around primary healthcare, along with harmonized incentives and payment systems, offer a direction for reforms that allow adapting to existing circumstances and institutions. This offers the best path for sustainable UHC in the region.

Latin American research on health economics and finance has focused heavily on issues of funding sources, spending, access and equity, reflecting political and economic priorities. Issues in healthcare delivery, efficiency, payment systems and economic tradeoffs have received far less attention, despite the importance of these topics to fiscal health and the effectiveness of resource use, both critical considerations in resource constrained settings. Additionally, the focus on empirical analysis of public sector programs and spending eclipses work on the private health sector, although, on average, the latter represents just under half of all health spending in Latin America and Caribbean (LAC) countries, and in some countries, private spending exceeds public investment.

The aim of this chapter is to analyze the health policy challenges to achieving Universal Health Coverage (UHC) in LAC using the lens of health economics, drawing on the research of the last few decades to demonstrate the trends in financing priorities and economic solutions in addressing shortcomings. It is divided into four sections. The first section provides an overview of progress towards UHC across the region and regional trends in equity, access and impoverishment due to health spending. The next section outlines regional patterns of healthcare financing and compares health financing both within LAC and to other regions. Following this, the paper summarizes and analyzes health economics and finance research in LAC since the 1980s, drawing largely on English-language literature. The chapter concludes with an analysis of current challenges and directions for future research.

Access to affordable and comprehensive healthcare services is a crucial dimension of quality of life in any country, and the governments in the LAC region adopted this as a responsibility early in the 20th century, building on European models that guaranteed equal access to healthcare. In the 1980s, LAC governments restated their commitment to principles of equity, solidarity and collective action by expanding services to ensure that all citizens have access to healthcare (Medici, 2008; Cotlear et al., 2015; Dmytraczenko and Almeida, 2017). During this decade, health emerged as a fundamental human right and entitlement in most of Latin America (Atun et al., 2014); indeed, many constitutions have enshrined healthcare as a right of citizens (Yamin and Frisanho, 2015).

Commitment to access and equity continues to figure prominently in legal and policy structures, and is constantly being reinforced in public statements, resource allocations and actions. Most recently, Universal Health Coverage (UHC) was internationally endorsed through the September 2015 United Nations General Assembly agreement to the Sustainable Development Goals (SDGs), which committed signatory countries to meeting a set of 17 goals by 2030; the third SDG includes ten targets, among them achievement of

UHC. This commitment has been embraced by many LAC countries and translated into action in much of the region (Atun et al., 2014).

UHC means, at the very least, the right of citizens to access healthcare that guarantees health promotion and prevention and provides geographically accessible care. Improving access to healthcare services requires that citizens have a source of healthcare providing integrated services to families and communities. These services must offer access to early detection and treatment of communicable and non-communicable diseases (NCDs) as well as emergency and elective healthcare to meet basic health needs. The system should help patients avoid catastrophic expenditures that compromise ability to access care and weaken financial stability.

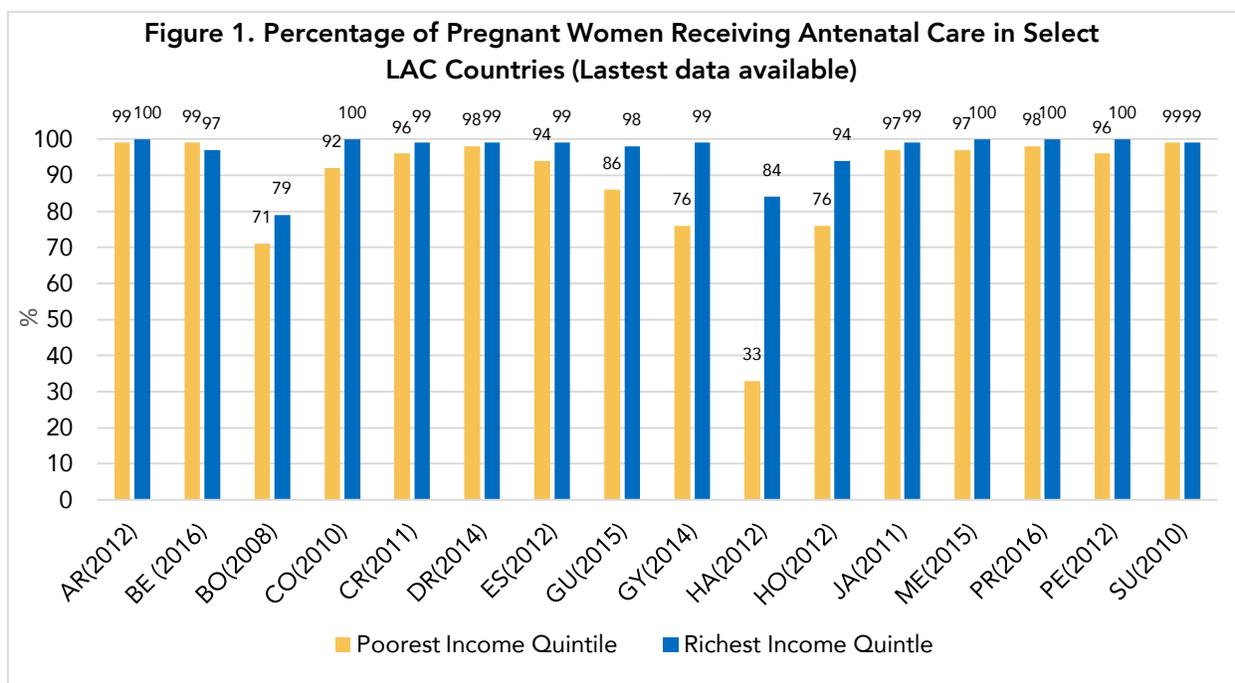
However, the distance between these aspirations and effective UHC implementation is considerable, especially among Low- and Middle-Income Countries (LMICs) – including much of LAC – due to resource and institutional challenges. Sustained adherence to UHC is further complicated by the constant discovery and dissemination of new medical technologies, drugs and therapies, which have implications for healthcare costs, and confront governments in all countries with challenges in meeting UHC goals.

In LAC countries specifically, the barriers to achieving UHC include not only the level of health spending, but also inefficiencies in the use of public and private health funding. Health spending constraints limit the scope and depth of services needed to meet the commitment to UHC, but poor quality and weak public sector management in healthcare delivery undermine the effective use of existing public resources. Yet these topics, despite their importance, have received far less attention in policy discussions, or in the literature. Instead, much of the health economics research in LAC is biased toward analysis of equity and access, reflecting policy and financing priorities.

The next sections analyze the health policy challenges to achieving UHC in LAC through the lens of health economics and finance. Drawing on research since the 1980s trends in financing priorities and offer economic solutions to address shortcomings.

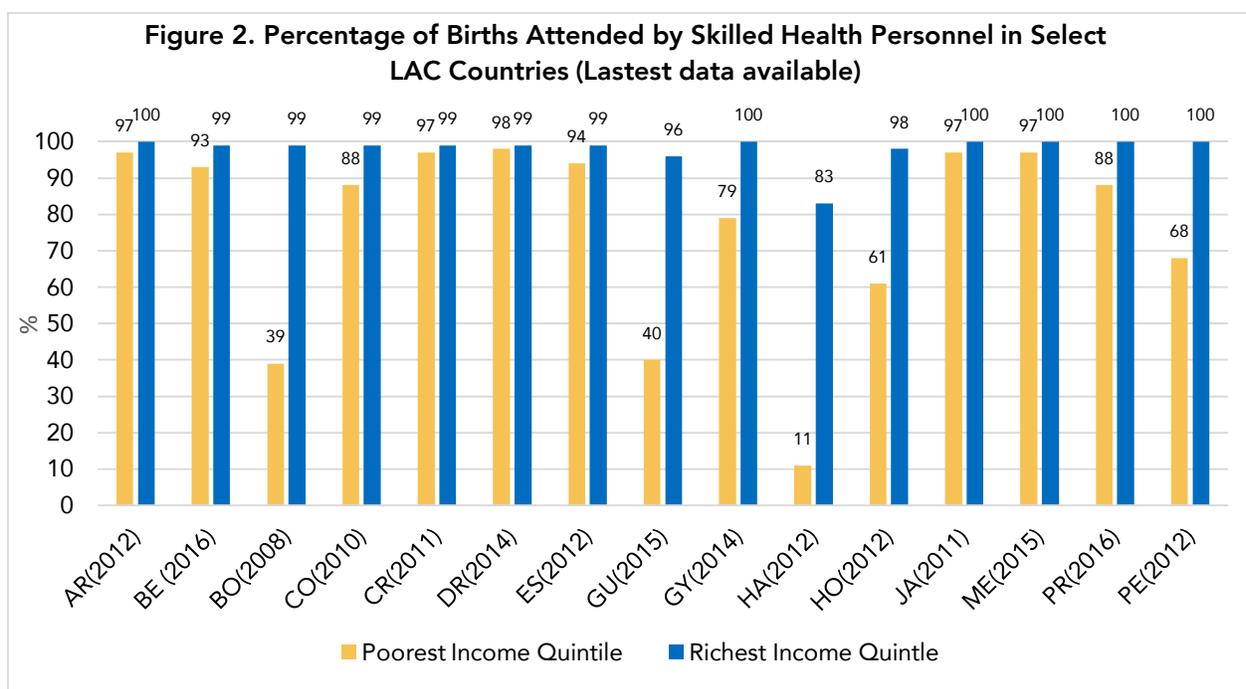
## **1. EQUITY, IMPOVERISHMENT AND HEALTH FINANCING IN LAC**

Most of the existing literature indicates that LAC was successful in expanding health coverage over the last two decades of democracy, reducing inequality and ensuring stable economic growth (Titelman et al., 2014). Since the early 1990s, governments expanded services to millions of people, mostly achieved through subsidizing the poor and offering free reproductive, maternal and child health services, and thus narrowing the gap to in access to services. For example, the percentages of pregnant women receiving antenatal care and births attended by skilled health personnel (Figures 1 and 2) do not vary much between the poorest and the richest quintiles across most LAC countries.



Source: Demographic and Health Surveys (DHS), several countries and years

AR – Argentina; BE – Belize; BO – Bolivia; CO – Colombia; CR – Cost Rica; DR – Dominican Republic; ES – El Salvador; GU – Guatemala; GY – Guyana; HA – Haiti; HO – Honduras; JA - Jamaica; ME – Mexico; PR – Paraguay; PE – Peru; SU – Suriname



Source: Demographic and Health Surveys (DHS), several countries and years

AR – Argentina; BE – Belize; BO – Bolivia; CO – Colombia; CR – Cost Rica; DR – Dominican Republic; ES – El Salvador; GU – Guatemala; GY – Guyana; HA – Haiti; HO – Honduras; JA - Jamaica; ME – Mexico; PR – Paraguay; PE – Peru

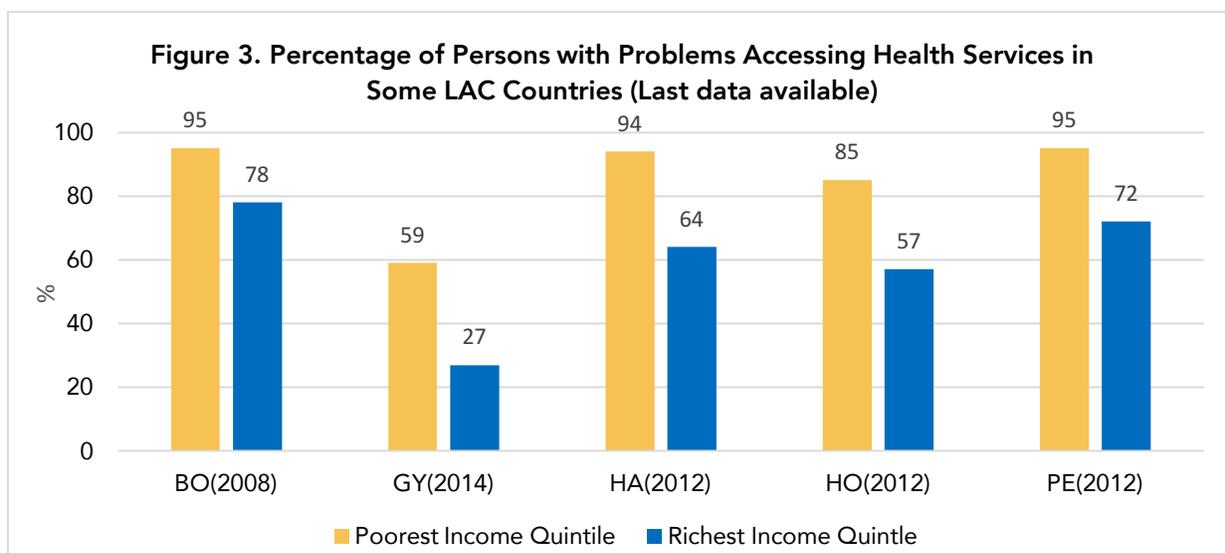
Nevertheless, inefficiencies in health services persist. For example, hospitalization of patients whose treatment could be more effectively managed at a primary care level results in lower quality of care and higher costs. Effectively increasing health spending with poor results (Guanais, Gómez-Suárez, & Pinzón, L., 2012).

Substantial socioeconomic inequalities in health coverage remain, especially in the poorest countries such as Haiti, Bolivia, Honduras, Guatemala and Guyana. There are still persistent coverage gaps between the poorest and richest quintiles for other indicators of access to preventive and curative health services, such as treatment for childhood infections (e.g., diarrhea and acute respiratory problems), access to contraception and immunizations.

One example of inequality in health access is the healthcare utilization differential for individuals living with NCDs, measured by the “ratio of NCD health services utilization”. This ratio is defined as the percentage of persons living with NCDs who utilize health services divided by the percentage of persons without NCDs who utilize services. It is expected that people with NCDs visit doctors more often than people without NCDs, although this indicator is sensitive to differences in how health services screen and provide healthcare options for populations living with NCDs. In countries such as Peru and Nicaragua (according to household surveys for 2008), the ratio in the poorest quintile is only 1.5 and 2.68, compared with 2.3 and 3.5 in the richest quintiles of these two countries, respectively (Medici, 2016).

NCDs present the predominant disease burden across LAC and it has risen across all socioeconomic groups, over time and across countries, but access to appropriate preventive and treatment services is lagging in much of the region. For example, in Brazil, more than 60 percent of cancer cases are detected at stages 3 or 4, when the cost of treatment is several times greater than at stages 1 and 2, and the probability of death is much higher (Medici, 2018). Challenges of access to these services are not universal, however. In the highest income groups, access to prevention, early detection and treatment meets international standards, especially for those who are covered by private health insurance; but in the public system, early detection is rare, and treatment typically begins two months after detection (Instituto Oncoguia data, 2018). This has negative implications for the poor, who disproportionately rely on public services for diagnoses and treatment.

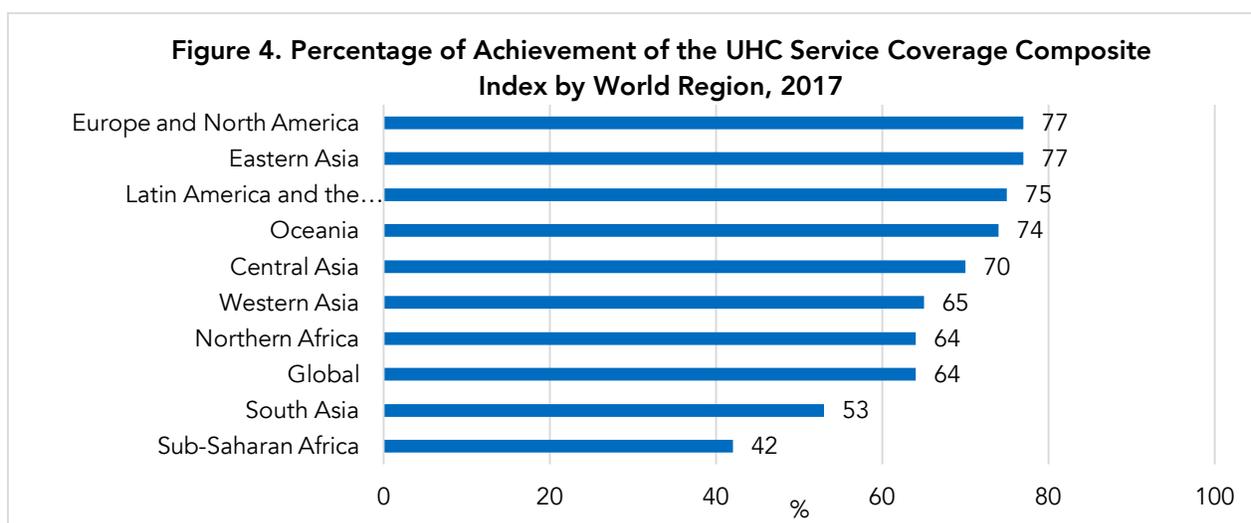
This disparity in access to early diagnosis and prevention for NCDs is representative of a broader divide in health access between the poor and the middle/upper classes in LAC. The poor face more difficulties in accessing health services than do the rich and middle classes. As Figure 3 shows, over 90 percent of the population in the poorest income quintile faced problems accessing health services in Bolivia, Haiti and Peru, while the population in the richest quintiles had far fewer problems.



Source: Demographic and Health Surveys (DHS), several countries and years  
 BO – Bolivia; GY – Guyana; HA – Haiti; HO – Honduras; PE - Peru

The remaining challenge in LAC countries is how to transform UHC commitments into reality with resource constraints and rigidities in public financing and delivery. WHO and the World Bank have constructed a set of indicators to follow the achievement of UHC: SDG indicator 3.8.1. Known as the “UHC Service Coverage Index”, it is a composite index of the following: (i) reproductive, maternal, newborn and child health; (ii) infectious diseases; (iii) non-communicable diseases; and (iv) service capacity and access (WHO and World Bank, 2017). The index is a proxy for the number of people who receive all these essential services. It is comprised of sixteen tracer indicators that track population coverage of essential health services and are selected based on regularly collected data for a majority of the countries.

Figure 4 shows the percentage of achievement of the UHC Service Coverage Index by region; LAC is ahead of all other developing regions, and above the global average.



Source: World Bank and WHO (2017)

Where populations do not qualify for publicly financed coverage, out-of-pocket (OOP) payments for healthcare can cause households to incur catastrophic expenditures for major illnesses, which in turn puts them at risk of falling into poverty. Subsidized services can in theory prevent families from incurring catastrophic health expenditures and/or bankruptcy. The incidence of catastrophic health expenditure (SDG indicator 3.8.2) is measured by WHO and the World Bank at two expenditure thresholds: 10 percent and 25 percent of total family spending. In other words, these two indicators measure the portion of the population that spends greater than 10 percent and 25 percent, respectively, of total household expenditures on health-related costs. Table 1 shows the percentages of the population at risk of impoverishment due to these catastrophic health payments over time by region.

**Table 1: Percentage of the Population at Risk of Impoverishment due to Catastrophic Health Costs**

Regions	2000		2005		2010	
	10% Threshold	25% Threshold	10% Threshold	25% Threshold	10% Threshold	25% Threshold
Global	9.7	1.9	11.4	2.4	11.7	2.6
Africa	8.7	1.5	10.3	1.9	11.4	2.5
Asia	10.4	2.1	12.2	2.8	12.8	3.1
LAC	13.4	2.6	17.5	3.2	14.8	2.5
North America	5.5	1.0	5.3	0.9	4.6	0.8
Europe	3.5	0.9	7.0	1.0	7.2	1.0
Oceania	3.5	0.5	3.4	0.4	3.9	0.5

Source: World Bank and WHO (2017)

In 2010, LAC had the highest level of catastrophic spending at the 10 percent threshold, and is tied for the second highest at the 25 percent threshold. This finding aligns with the inequality that persists in the region, despite progresses in improving income distribution over the last decade.

The lack of practical solutions based on targeting the poor is problematic. It is easy to say that social inequities in health exist because the society is unequal, and that resolving those inequalities is the only way to respond. However, governments in LAC countries have tried to address social inequalities in health by implementing populist policies such as free health services for all, but these have neither resolved the social inequalities nor achieved health equity. Households in the poorest quintile are most likely to experience catastrophic health spending in all countries, hence targeted insurance subsidies for these groups could be an alternative. However, providing access to services at a higher level of quality, efficiency and effectiveness poses the real challenge to LAC governments. Access is adequate in terms of spending and geography, but services seem to fall short in financial protection and in targeting priority health conditions

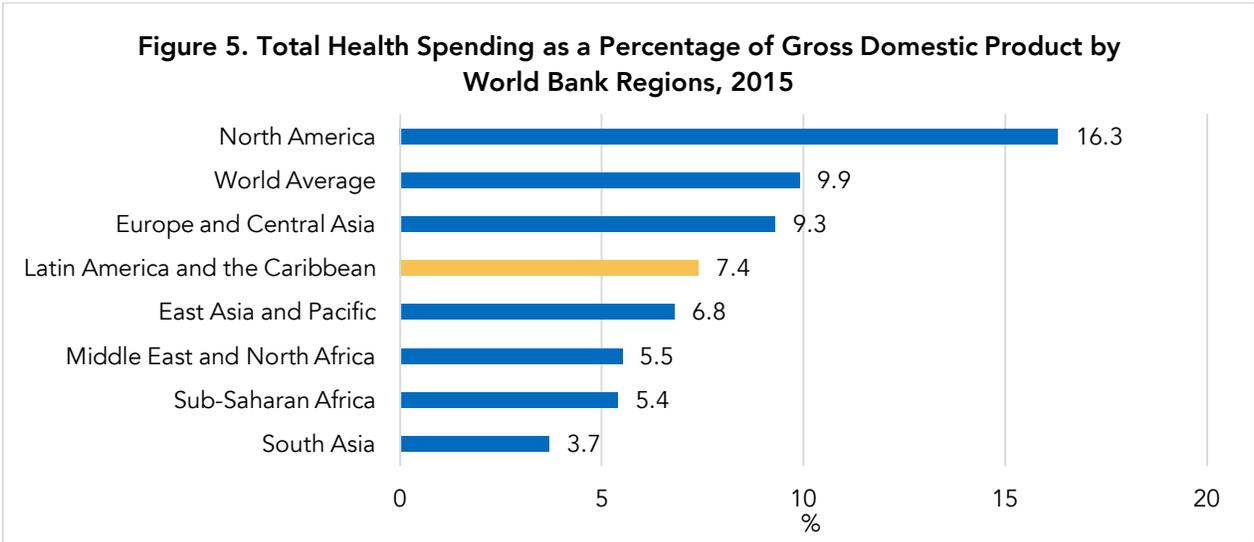
**2. REGIONAL PATTERNS OF HEALTH FINANCING IN LAC**

Health expenditures are highly correlated and associated with income. Countries in the Organization for Economic Cooperation and Development (OECD) have higher incomes and greater public health

spending, but they also benefit from stronger governance and effective tax systems, leading the public sector to provide more and better services (World Bank and WHO, 2017). In contrast, LMICs often offer inadequate health coverage, forcing citizens to rely on private insurance or OOP.

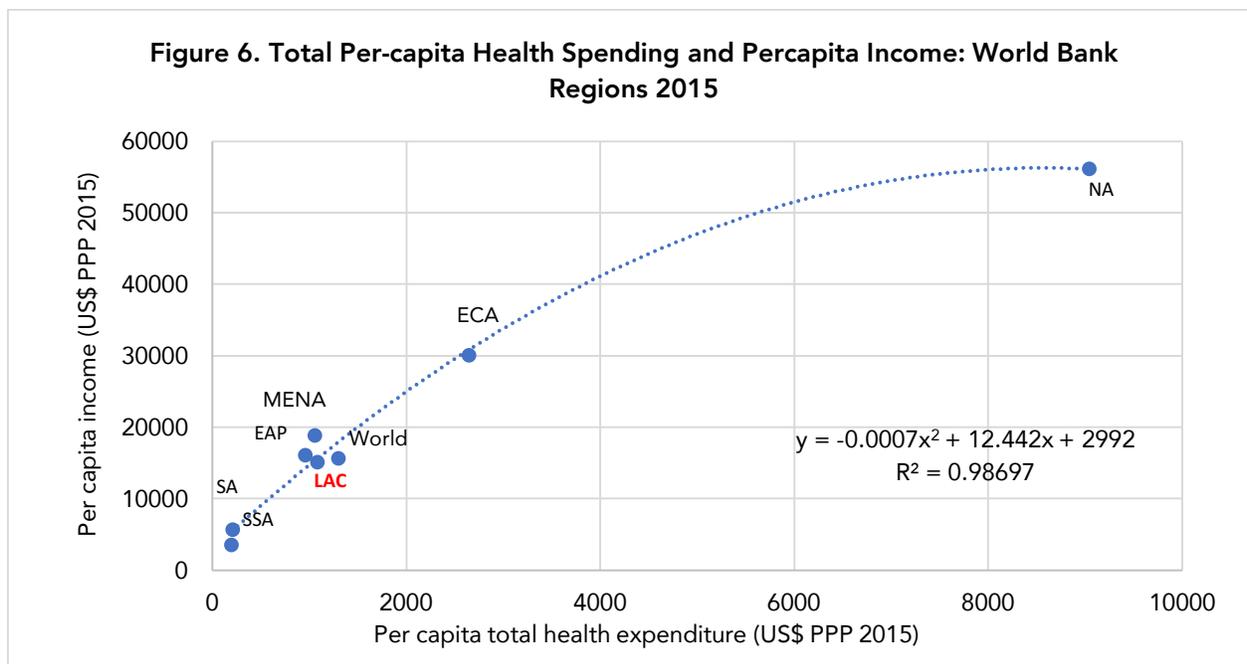
While the European model relies heavily on public funding, other high-income countries, such as the United States, employ a mix of private insurance largely provided through employers, earmarked taxation (in the US, Medicare for the elderly and Medicaid for the poor), state-level subsidies and OOP spending. In the US, the public sector finances roughly half of all healthcare. According to the US Current Population Survey, as of 2016, nine percent of the population remained without any insurance coverage; like in LAC, this is a reflection of the inequities in society. As discussed subsequently, LAC countries generally aspire to European systems, but in fact better reflect the US model, with a mix of public and private financing and delivery.

As shown in Figure 5, the LAC region spent 7.4 percent of GDP on health in 2014, below that of North America and ECA (encompasses Western and Eastern Europe, and Central Asia), but above the East Asia Pacific (EAP) and Middle East and North Africa (MENA) regions. LAC, EAP and MENA could be considered the “world middle class” in terms of health spending, having spent US\$1,057, US\$960 and US\$1,981, respectively, per capita at purchasing power parity on health in 2015.



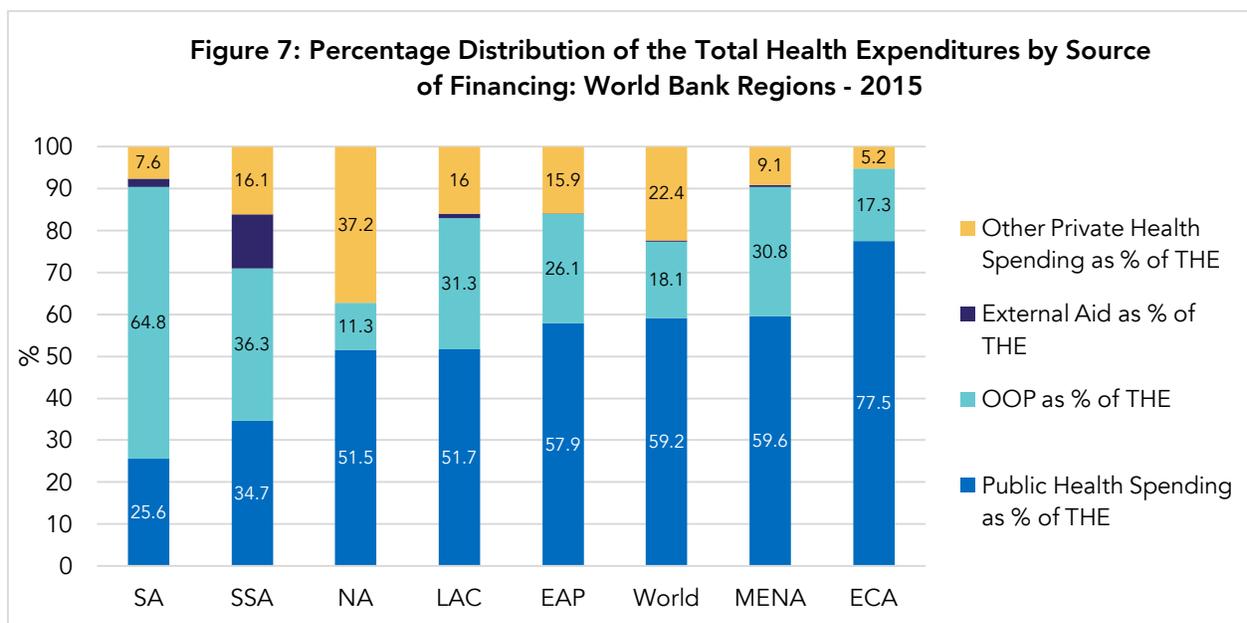
Source: World Bank and WHO (2018)

Figure 6 compares per capita health expenditure with per capita income in 2015. ECA health spending was two and a half times higher than that of LAC, reflecting the rapidly rising incomes in Eastern Europe and the high incomes of Western Europe. On a per capita-basis, the US and Canada (NA) spent more than nine times what LAC countries spent.



Source: World Bank and WHO (2018)

According to the data in Figure 7, just over half of total health spending in LAC is public. This is much higher than in the poorest regions (South Asia, SA; Sub-Saharan Africa, SSA), where 26 to 35 percent of funding is public, but pales in comparison to the 78 percent of public funding in Europe and Central Asia (ECA). The participation of the public sector in health spending in LAC is almost identical to that of North America (NA), though the composition of that spending is quite different.

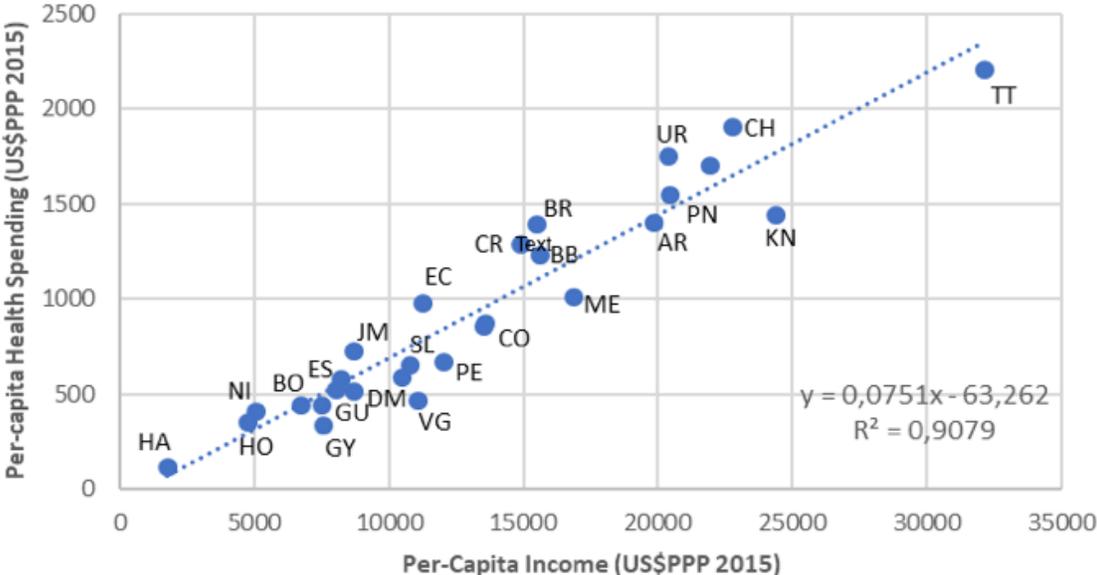


Source: World Bank Indicators (2018)

Most concerning is the high percentage of OOP payments in LAC: over 30 percent of healthcare is financed OOP. This is significantly higher than the 11 percent in NA and 18 percent worldwide. It reflects the high levels of income inequality in LAC, and is driven by uneven coverage and access, as well as shortcomings in the public delivery systems. Even LAC countries with nominal universal coverage exhibit high average levels of private insurance coverage and OOP payments. For example, over 25 percent of Brazilians have private insurance and over 25 percent pay OOP, reducing the public contribution to total health expenditure to less than half, despite constitutional and legal guarantees to universal access and UHC. Rounding out the total health financing in LAC is financing from all external sources, which is negligible at 1 percent.

These regional trends in health spending mask considerable variation within the LAC region itself. While the average health spending across the LAC region as a whole is 7.4 percent of GDP, individual country spending ranges between 3.2 percent of GDP in Venezuela to 9.2 percent of GDP in Uruguay. Only ten countries spent more as a percentage of GDP than the regional average. The range of per capita health expenditures (at purchasing power parity) varied from US\$120 (Haiti) to US\$2,204 (Trinidad and Tobago) and again, ten countries spent above the regional average. Figure 8 shows the range of health spending in LAC countries in 2015 relative to national per capita income. Chile, Brazil, Uruguay and Costa Rica spend more on health adjusting for per capita income; others, like Mexico, Colombia and Peru, are spending less than the adjusted regional average.

**Figure 8. Per-Capital Health Spending and Health Per-Capital Income in LAC Countries - 2015**



Source: World Bank Indicators (2018)

The percent of total government spending devoted to health also varies from country to country, and by a significant amount. In 2015, it ranged from 3 percent in Haiti and Venezuela up to 20 percent in Uruguay

and Chile, with the average hovering just below 11 percent. Thus, expenditure across the region varies in many dimensions, and ranges are dramatic, reflecting heterogeneity across LAC.

The mixed health systems structure in the region are a legacy of colonial pasts, and an evolution of coverage and spending in response to evolving policies and programs at the national and sectoral levels. Spanish and Portuguese-speaking countries established social security systems, effectively social health insurance (SHI) systems, in the first half of the 20<sup>th</sup> century that were financed by mandatory employer and employee contributions, and designed to meet the needs of formal sector workers and their families. Parallel systems for those categorized as “informal workers” – those who are self-employed, in agriculture, irregularly employed and not contracted by formally registered companies – were effectively left to self-finance their care until subsequent UK National Health Service (NHS)-type systems, with public provision and financing, were phased in by governments to cover those outside the SHI system. Reliance on an NHS-style system among the English-speaking Caribbean countries from the onset offered their populations a comprehensive, single payer, publicly delivered healthcare system.

Brazil, Chile, Colombia and Costa Rica have since either merged or restructured their parallel SHI and NHS systems, which has changed the face of healthcare and its financing in those countries, and are discussed below under the review of research. Other countries have made less dramatic adjustments. Argentina implemented changes in their three main health financing arrangements: a public option, a publicly financed SHI and private insurance. The publicly financed SHI is highly fragmented spread-out across more than three hundred institutions (*Obras Sociales*) covering specific groups of formal sector workers, and covering more than a third of the population. However, over the last decade almost ten percent of the population have lost SHI protection due to economic crises, a replaced by some private health insurance but mostly by public coverage (Cavagnero and Bilger, 2010).

Uruguay, another predominant SHI system, launched a new health law in December 2007, creating a National Integrated Health System (SNIS) and a National Health Insurance (NHI) prioritizing equity, financial protection and changes in the healthcare model. The Law established adjustments premiums, inclusion of new services and reduction of co-payments as well as improvements in system efficiency (Arbulo et al., 2015). Effectively, the Uruguayan reform was based on new institutional arrangements for improve efficiency (such as enabling strategic purchasing and use of incentives to change the healthcare model) to allow better sectoral governance, combining innovation with a new relationship between the State, the healthcare market and society. The new SNIS and NHI system is based on cooperation and healthcare complementarity, with oversight by a new National Board of Health.

A vibrant private sector of both payers and providers exists in parallel with public investments in the LAC region, and most citizens select to use both public and private providers. This reflects both the limitations of public funding levels but also the accessibility and (perceived) quality of public services. In Mexico, officials in the Ministry of Health, one of the agencies responsible for public healthcare service delivery, have private health insurance coverage; this sums up part of the challenge.

The sources of funding for healthcare differ across national health systems but encompass the following:

- *Public financing*: from general taxation and SHI
- *Out-of-pocket (OOP) payment*: from individuals and households, often paid directly to pharmacies, physicians, hospitals and informal providers
- *Other private financing*: private insurance (often referred to as voluntary health insurance, VHI), though private insurance is most often an employer benefit with mandated employee contributions and philanthropy
- *External sources*: from multilateral and bilateral donors

Table 2 classifies the 31 LAC countries by their mix of financing using five classifications.

<b>Table 2: Health Financing Mix in 31 LAC Countries in 2015</b>	
<b>Financing Mix</b>	<b>Countries</b>
Over 50% public funding Under 30% OOP and private financing	Argentina, Belize, Bolivia, Colombia, Costa Rica, Cuba, Dominica, El Salvador, Jamaica, St. Lucia, Suriname, Uruguay
Over 50% public funding Over 30% OOP and private financing	Chile, Guyana, Nicaragua, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago
Over 50% OOP and private financing	Bahamas, Barbados, Brazil, Dominican Republic, Ecuador, Honduras, St. Vincent and Grenadines, Venezuela
Over 50% OOP	Guatemala, St. Kitts and Nevis
External aid major source of funding	Haiti

Source: Author elaboration based on World Bank (2018)

Public funds represent more than 50 percent of health spending in 20 of the 31 LAC countries, and are financed by a combination of SHI and general taxation. SHI is the predominant source of public health financing in most LAC countries and revenues are based on contributions from employees and employers, with some countries providing targeted subsidies for the elderly, low-income children and youth, and households below the poverty line. SHI funds are also subsidized through general revenue in a handful of countries. In contrast, Bahamas, Barbados, Brazil, Dominica, Jamaica and St. Vincent and Grenadines have a universal NHS system financed through general tax revenues.

Despite significant public spending across much of LAC, OOP payments remain an important source of health spending. In 17 of LAC countries, OOP represents 30 percent or more of total health spending, and over 50 percent in Guatemala and St. Kitts and Nevis.

Among other private sources of financing, private health insurance (or voluntary health insurance - VHI) is the most important, and is largely concentrated in a small, high-income segment of the population. Out of 31 countries in LAC, 26 are covered by private health insurance, and in eight of these countries, it comprises at least 10 percent of total health spending as shown in Table 3. Most private insurance is employer-based health insurance, although individual plans exist as well (Pettigrew and Mathauer, 2016).

Suriname has the highest rate of private health insurance coverage, almost one third, encompassing various forms of insurance, including public insurance primarily for civil servants, with voluntary membership for others family members. (Pettigrew & Mathauer, 2016).

After Suriname, Brazilian citizens rely the most heavily on private health insurance, mostly covered as employer health insurance benefits, though a small proportion of the population purchases individual insurance coverage either for comprehensive care or ancillary services such as dental care (Van der Heijde and Mendonça, 2012). Private health coverage expanded after the 1988 constitution dismantled the social security system and created a Universal Health System (*Sistema Único de Saúde, SUS*). Effectively, many employers and employees shifted from SHI to employer-sponsored private insurance. Other non-formal sector workers choose to purchase health insurance either on their own or as part of a membership organization (e.g. engineering association).

Table 3: LAC Countries with Private Health Insurance Coverage over 10 Percent (latest available data)	
Countries	Percent Coverage
Suriname	30.8
Brazil	28.2
Bahamas	23.1
Jamaica	15.4
Uruguay	13.9
Colombia	10.9
Argentina	10.1
Guatemala	10.1

Source: World Bank (2018), latest available data

In 2007, 18.9 percent of Jamaicans 15-74 years old had private health insurance, mainly as an employee benefit rather than as individual coverage. However, participation is declining due to slow economic growth and increasing labor force informality following the 2008 international economic crises, and by 2009 private health insurance coverage had dropped to 15.4 percent (Cushinie, 2010). In Guatemala, private coverage mostly complements the SHI for formal sector workers.

Considering the short-term trends in health spending, after the 2008 economic crises, public health expenditures are on the decline in many LAC countries and OOP payments are rising in tandem. This trend further undermines achievement of equality and UHC goals.

**3. HEALTH ECONOMICS AND FINANCE RESEARCH ON LAC**

This section summarizes the major trends and accomplishments in LAC over the past roughly four decades in health economics and finance, drawing on key research to illustrate the points and to provide context to the research findings. We focus on the contributions to the field from studies and research in English on multiple topics under the rubric of health economics and finance. National level expenditure data are discussed in multiple research efforts, reports and other publications. These are not reviewed here as many simply review similar data or provide the information as background, although equity studies review expenditure levels consistently.

While fiscal and financial topics related to health emerged in the 1970s, the following decade saw the quality and scope of research on health financing in LAC broaden and publication in English became more common. Mesa-Lago (1985) produced an analysis of the impacts of the macroeconomic financial crises on

health, and how to pay for publicly financed and provided healthcare as costs were spiraling, particularly in social security systems. Musgrove (2004) assessed the impacts of the economic crises and concluded that countries reduced investment costs in that period, and while recurrent expenditures declined, staffing levels remained constant. In both cases, the lack of data on health during and after the crises across the region inhibited good analysis or even grasping the magnitude of shifts.

The value and harnessing of health data evolved over the 1990s and 2000s with a strong investment in fiscal and household data, much of it comparable across the region thanks to a regional data collection initiative in the 1990s, ENCOVI (Encuesta sobre Condiciones de Vida), that offered a basis for research on public spending and equity, as measured specifically by access. Despite such progress, data gaps in measuring performance, efficiency and costs of healthcare have affected what is researched, the research methodologies utilized and ultimately what evidence exists regarding healthcare economics and finance in the region.

This section is broken down by specific sub-topics. We summarize the breadth and content of the available English-language research related to each topic, as well as some implications for further research.

**Demand for Health.** Healthcare demand has received little attention. Bitran and McInness (1993) provide comprehensive definitions, explanations and analysis of the demand for healthcare, outlining the differences among need, demand and utilization (effective demand), and how understanding the three aspects of demand should inform public sector decision making. It stands as the best analysis of the theory and its application in low- and middle-income settings. In applying the framework to examine demand for healthcare across income groups in Santo Domingo, Dominican Republic and San Salvador, El Salvador, they found higher demand for private compared to public healthcare. Overall, 58 percent of users chose private providers for outpatient and inpatient care, and 33 percent relied on public services, with the poor using private providers as frequently as the rich. In both cities, the poor preferred to pay OOP rather than wait for public care as an inverse relationship emerged between paying and appetite for waiting.

Measuring demand means examining actual use of health services, usually through household or provider exit surveys (Bitran and McInness 1993) or through focus groups (Lewis et al., 2004). The latter study, in which separate focus groups of men and women from randomly selected towns across El Salvador were convened, resulted in a strongly expressed preference for care from the for-profit private sector. Men said they would not go elsewhere. Women found non-profit outpatient services acceptable, and only sought public hospital care when they could not afford private care, effectively echoing the results from the San Salvador study.

**Health and Equity.** As discussed above, economics research in LAC has focused heavily on equity issues, and the embrace of UHC simply reinforced the drive to understand and address inequity. The studies implicitly use spending levels as a proxy for equity. Ironically, as previously discussed, inequity in LAC is the highest in the world, despite the fact that it spends the most on health as a percent of GDP, reflecting the fact that the issue is more complex than many policymakers and researchers assume.

Costa Rica expanded children's health insurance coverage between 1973 and 1984 from 42 to 72 percent, and the infant mortality rate (IMR) during that period declined from 70 to 20 deaths per 1,000 live births. Using a country fixed effects model, Dow and Schmeer (2003) concluded that insurance explained only a small part of the drop in IMR, however. The region would be well served to apply that level of rigor to researching impacts of investment as policy decisions and credit for achievements tend to be skewed toward priors that are not adequately measured in research.

Knauth et al. (2006) compare patterns of household catastrophic health spending incidence across 12 LAC countries. Data from national household surveys were applied to measure national experience with catastrophic expenditures and compare experiences across countries. The results indicate that between 1 and 25 percent of households in the 12 countries experienced catastrophic expenditure due to healthcare costs. In general, rural residence, being part of the lowest income quintile, presence of older adults, and lack of health insurance were found to be associated with higher likelihood of catastrophic health expenditures.

Considerable attention has been paid to the design of the benefits package under SHI. Giedion, Tristão and Bitran (2014) compared benefit plans across seven countries in the region and showed that implementing a coherent benefit package is both technical and politically difficult given the lack of oversight, limitations of human resource inputs and the inability of healthcare systems to limit access to services when under pressure from patients.

The recent World Bank agenda to address UHC produced a book and a number of working papers, some for LAC countries, that reviewed the evidence and made recommendations regarding directions for change in financing as well as delivery and management of healthcare (Cotlear et al., 2015a). A set of edited papers by Dmytraczenko and Almeida (2017) use UHC to discuss coverage and equity among countries in the region. Cotlear et al. (2015b) explore the results of different public healthcare programs that target specific groups, and the resulting segregation of patients, a persistent issue in virtually all countries.

*Who should pay for healthcare?* Affordability and how to pay for expanding and ever more expensive care led to debates starting in the 1980s on the acceptability of user fees to finance care as a complement to public spending, and the implications for the poor and equity overall (Jimenez, 1986). The controversy over user fees and their relevance to healthcare systems in the region became a litmus test for equity partly because the debate lacked nuance: the choice became either for households to pay for all care or receive it for free. The region had previously embraced cost sharing with patients for sound financial reasons, but the region and the broader global community came to essentially decry the practice.

Gertler, Locay and Sanderson (1987) used a simulation model for Peru and concluded that while user fees generate revenue for the public system, the negative impact on aggregate consumer welfare suggested that "undiscriminating user fees" were regressive. The debate continued as user fees were a rallying cry

in many countries in the region. Research from Jamaica (Lewis and Parker, 1991), Dominican Republic (Lewis, 1992) and Honduras (Lewis, 1993) collected data from facilities and measured the effects of user fee revenue on providers and concluded that (i) the marginal value of revenue was significant given the rigidities of line item budgets, and (ii) fees could be set on a sliding scale to accommodate the poor, a practice of all three countries.

**Health and Efficiency.** Efficiency concerns have not resonated in LAC countries' public systems. Indeed, Brazil's Labor party government rejected the efficiency agenda on ideological grounds. Partly due to ideology and partly to rigidities of the public sector delivery model, addressing inefficiency and waste have not been on the agenda, but some initiatives have examined the topic.

Araujo (2018) undertook a data envelope analysis for Brazil looking specifically at the public healthcare system. He estimates average efficiency losses in primary care, and secondary and tertiary care combined at 23 and 34 percent, respectively, which translates into US\$9 and 13 billion, respectively, in annual losses. In primary care, efficiency correlates with the size of municipalities; municipalities under 5,000 population are just 54 percent as efficient as the most efficient municipalities. The biggest opportunities for efficiency gains arise from improving integration across levels of care, raising worker productivity and improving hospital performance; together, these efficiency improvements could save over US\$16 billion annually.

Another area that implicitly captures inefficiency is the overuse of hospitals, something that is poorly measured, but widely acknowledged by providers and managers. The separate management of hospitals and primary healthcare facilities contributes to the lack of integration, and to the costly overuse of hospital services. Macinko (2010) used a standardized methodology to distinguish unnecessary hospital discharges in Brazil between 1999 and 2007, examining the impact of the Family Health Program, a primary care program (see discussion in *Brazil Reform*). The Program's medical team approach, house-to-house visits and community health efforts resulted in statistically significant declines in unnecessary hospitalizations, and double the decline for chronic conditions such as asthma, cardiovascular disease and stroke.

Guanais et al. (2012) analyzed a similar issue in Argentina, Colombia, Costa Rica, Ecuador, Mexico and Paraguay and concluded that out of 39 million discharges, between 10.8 percent (Costa Rica) and 21.6 percent (Colombia) of hospitalizations could have been managed instead at a lower, and less costly, level of service. They estimate that the unnecessary costs can reach as much as 2.5 percent of total health spending, suggesting that the problem, while small in percentage terms, is a serious fiscal concern. Anecdotal evidence indicates that the percentage may be even higher, and given the limited services included in these studies, it is conceivable that they provide an underestimate. Better integration of secondary and primary care, rather than managing these services in parallel as is currently the practice, could help reduce fragmentation and improve patient access to appropriate services.

A third efficiency issue surrounds costs and effective use of resources. Lewis, La Forgia and Sulvetta (1996) performed an in-depth study of hospital costs, measuring actual costs rather than relying on expenditure data. This was accomplished over a two-week period in a Dominican Republic hospital using time and

motion studies, direct measurement of resource use (e.g., unit costs of pharmaceutical administration, lab tests) and application of a step-down approach to allocate indirect costs. The results allowed comparisons of a number of measures, among them: expenditures versus costs, where the former was 50 percent higher than actual costs; comparing the total cost of human resources (84 percent of the budget) to the average human resource cost per patient treated (12 percent); and absenteeism of physicians, which reached 88 percent of contracted time. Costs also showed perverse expenditures, for example, the cost of the large, underutilized immunization clinic exceeded average surgery costs by 20 percent.

***Restructuring the Financing and Delivery of Healthcare.*** A few countries – Brazil, Chile, Costa Rica, Colombia – have achieved a complete restructuring and overhaul of their healthcare delivery and financing system. The nature of the restructuring varied significantly across the four countries.

*Brazil Reform.* The Universal Health System (*Sistema Único de Saúde, SUS*) is a decentralized, federally financed healthcare system that emanated from the new constitution in 1988, which marked the reestablishment of democracy. The existing parallel SHI and NHS-type systems were merged into a single, national, universal system (SUS), centering care around public health and envisioning service provision to all citizens, which also implied absorbing the private sector over the longer term. Public payment was intended to be based on a prospective payment, originally to both public and private providers, but public services now dominate under SUS. As discussed in the Prospective Payment sub-section, it effectively morphed into a line-item budget system. Decentralization to the municipalities has created challenges, but it has also spawned experimentation at the state and municipal levels that were later adopted elsewhere. SUS also drove out the upper and middle classes, however, which explains why over 25 percent of the population has private health insurance and OOP comprises an even higher percentage of total health spending (IESS data, 2018; Lewis and Medici, 1995, 1998). While Brazil’s public health efforts produced impressive control of infectious disease, its service delivery lags, with low efficiency (Araujo, 2018; La Forgia and Couttolenc, 2008), low quality and a lack of basic incentives for healthcare performance and outcomes. It can be argued that SUS deserves an update, but to their credit the 1988 reforms universalized care and shifted away from a hospital model of care, no minor feats.

*Chile Reform.* The end of dictatorship marked the shift toward a new system for Chile as well. In 1981, the government established two separate systems: one managed, financed and delivered by the public sector, known as FONASA; the other, options across a set of privately managed care providers known as ISAPRES. Workers select their preferred provider and the employer/employee insurance premium is submitted directly to the provider (Bitran and Urcullo, 2008; Bitran et al., 2000). In 2005, the government mandated health insurance coverage for selected (mostly chronic) medical conditions; this mandate applied to both the public system (FONASA) and the ISAPRES. The results, based on evidence pieced together from public data, show sizable improvements in diagnosis and treatment of chronic conditions for all beneficiaries in the system, and particularly for hypertension, depression and type 1 and 2 diabetes. Improved diagnosis also allowed more-timely treatment (Bitran et al., 2010). Limited evaluations have prevented a full understanding of the impact of reforms, and those noted above are therefore partial. Chile’s unique financing and delivery structure deserves more scrutiny to generate lessons for policy in Chile and beyond.

*Colombia Reform.* Analysis of the dramatic Colombian health reform launched with Law 100 in 1993 offers particularly valuable insights into the big-bang approach to reform. The reformed system, which replaced the previous NHI-NHS system, raises funds through payroll taxes on formal sector workers, supplemented by general tax revenue (Rodriguez-Monguio and Infante, 2004). The reform separated providers and payers, introduced competition among providers, launched market driven incentives through managed competition, and established subsidized coverage for low-income households. The intent was to move from supply-side dominance of what to provide, where and to whom, to a system in which money follows patients as they move through the health system. Numerous studies have analyzed the economic, financing and policy aspects of the reform (Giedeon and Villar-Urbe, 2009; Glassman et al., 2009; Giufrida et al., 2009; La Forgia, 2008).

Results after 16 years were impressive, with insurance coverage growing from 25 to 85 percent of the population, including among the self-employed, and increases in utilization (Glassman et al., 2009). Harnessing data from household surveys, Trujillo (2003) analyzed the relationship between health status and insurance participation, and between participation and healthcare utilization. With a three-equation model for SHI, private insurance and health service use, he found that coverage leads to higher use of medical care, but, surprisingly, that those in good health and those with chronic conditions are more likely to enroll in SHI than those in poor health.

Further analysis of household data sheds light on other aspects of the reforms. Applying propensity score matching and instrumental variable analysis, Trujillo, Portillo and Vernon (2005) and Giedion and Villar-Urbe (2009), in separate analyses, find that access to and utilization of healthcare services was significant and more pronounced among rural and low-income households as well as among the self-employed. They also found reductions in OOP payments and catastrophic spending, with those with subsidized insurance benefiting the most. Miller, Pinto and Vera-Hernández (2009) analyzed the subsidized insurance cohort using a regression discontinuity design and found that the program not only reduced catastrophic health spending for low-income citizens, but also promoted use of preventive services through targeted incentives to providers, a major achievement of a social insurance program. Subsequently, with a different focus but similar empirical design, Camacho and Conover (2013) used household survey and administrative data for Colombia and found that babies born to mothers with health insurance had a lower incidence of low birth weight, and mothers also seemed to have relatively better access to health facilities, which reinforces the evidence on the positive impact of the reform.

The Colombian reform extended coverage and improved financial protection for households, but the issue of improving efficiency and effectiveness of services, another objective of the reform, received less attention, partly because baseline data and evaluation were not part of the reform plan. Nonetheless, McPake et al. (2003) assessed the impact of the reform on hospitals, pulling together available data. While acknowledging that the data was partial, they analyzed trends in inputs, production and productivity; evaluated case mix; and reported on qualitative studies of provider and patient perceptions and satisfaction. They found that productivity rose, partly due to reductions in staff and increases in discharges,

complexity of cases rose, personnel were better informed and processes in hospitals were formalized, though many staff remained anxious and overwhelmed by the extent of the changes. Patient satisfaction results were ambiguous.

Weiss (2013) raises questions about the financial viability of the reform over time, given the broad benefit package and the fact that over half of participating households required subsidies. In addition, the Colombian constitution guarantees universal access, which has led to legal actions and excessive spending, particularly on individuals who seek treatment outside the country and send the receipts to the government.

*Costa Rican Reform.* In 1974, Costa Rica merged its SHI and NHS systems into a single public provider-payer program, Costa Rican Social Security (*Caja Costarricense de Seguro Social*, known as *Caja*), that serves the entire population through publicly financed and delivered services. Its focus on primary care, internal contracts with performance indicators and targets, and electronic health records makes it stand out from other public healthcare systems in the region (Pesec et al., 2017). Gauri, Cercone and Briceño's (2004) multivariate analysis compared service delivery via contracts with non-profits and via traditional public sector providers and found a 30 percent lower expenditure per capita in private providers with no significant difference in outcomes. Costa Rica consistently produces solid health outcomes grounded in a carefully managed public system with some modern elements that improve performance.

**New Financing Models.** The need for new health financing models that build on existing experience was highlighted by Londoño and Frenk (1997), two public health leaders in the region in the late 1990s who, respectively, designed and launched the Colombian reform and *Seguro Popular* in Mexico. In the quest for better options to target and finance care, countries have tested a number of alternatives to the traditional SHI or NHS delivery and financing system. Though few have been formally evaluated, these experiments have become policy and all of them innovated in healthcare financing. The innovations fall into two broad categories: the first strengthen access to subsidized primary healthcare, the other harnesses conditional cash transfers as an incentive for preventive healthcare use among low income families.

*Conditional Cash Transfers.* The launching of a conditional cash transfer (CCT) program, *Bolsa Familia*, in Brazil in 1996 pioneered targeting income transfers to low-income households, conditional on their bringing babies in for well-baby check-ups (and sending children to school). Mexico established a similar program, *Progresa*, in 1997, which was launched in tandem with a highly credible randomized impact evaluation led by Jere Behrman and the International Food Policy Institute (IFPRI). Barham's (2011) impact evaluation of *Progresa* showed that the program led to a 17 percent decline in rural infant mortality among the treatment group, but did not reduce neonatal mortality on average. The benefit–cost ratio sits between 1.3 and 3.6. Gertler's (2000, 2004) analyses of the health impacts of *Progresa* (and its successor, *Oportunidades*) showed improvements in prenatal care, child health and nutrition due to the conditional household income transfer.

The results from *Progresa* led to widespread adoption of CCTs across the region as a way to stimulate demand for healthcare, particularly preventive services. Impacts were mixed, but, notably, efforts were made to measure impact through randomizing implementation of the program, a new approach in healthcare for the region. Brazil's *Bolsa Família* program eventually followed suit with a less rigorous evaluation, but reflected the acknowledgement that measurement of impact mattered for both research and policy (Aquino et al., 2009; Rasella et al., 2013; Shei, 2013).

With Mexico as an example, Knaul et al. (2006) make the point that evidence matters for policy as it not only guides policy, but also facilitates evidence on what worked and why.

*Brazil's Family Health Program (Saúde da Família)*. The Family Health Program launched nationally in 1994, building off of and adapting a successful Brazilian state initiative. The program was built on the idea that financing house-to-house visits in low-income areas by a dedicated medical team could improve the health status of the lowest income households at a modest cost. The medical team, led by a physician accompanied by nurse, outreach workers and other medical professionals, visits homes on a regular schedule and engages in activities including: diagnosing ailments, identifying threats to health, treating or referring citizens for care, and tracking chronic illnesses through subsequent visits. The program allows for early identification of "silent" killers like high blood pressure, and ensures prenatal care access for pregnant women, among other things.

Funded by the federal government but implemented locally, the Family Health Program has expanded across the country, and multivariate analysis suggests that it has contributed to rapid reductions in infant and perinatal mortality, among other achievements (Aquino et al., 2009). Other countries, both within and outside the region, have adopted some aspects of the program. It represents one of the few successful efforts to truly address equity concerns in healthcare.

*Mexico's Seguro Popular*. Mexico launched health insurance coverage for the low-income, uninsured population in 2003 with a seven-year rollout. The goal was to create explicit benefits for the poor and marginalized populations, funded via federal capitation grants to the states, who became responsible for designing their own state program for the indigent with oversight at the national level. A complementary Catastrophic Fund finances catastrophic care for specified diseases through fee-for-service payments to private providers. Mandated in the design is systematic data collection to support annual evaluations to track progress and measure impact (Knaul and Frenk, 2005; Knaul et al., 2012). The latter requirement has translated into a wealth of studies that shed light on activity and performance, and represents a sharp departure from reforms elsewhere in the region that effectively ignore the value of data, evaluation and research in guiding policy.

By the beginning of 2006, 11.5 million Mexicans had gained insurance coverage under *Seguro Popular*, and federal transfers to states had increased by 38 percent. Results show effective targeting to low-income patients, declines in inequality in access to services, a sharp rise in the number of discharges for the newly insured, and households reportedly spending roughly 14 percent less on medications than uninsured

households (Gakidou et al., 2006). King et al. (2009) exploited the randomized rollout of *Seguro Popular* and produced a difference-in-difference analysis that found somewhat different results: a 23 percent reduction in catastrophic expenditures, but no differences in spending on medication or in the number of discharges between the insured and uninsured. Barros (2008) in his impact study found a reduction in OOP payments and a shift from private to public providers among the insured.

Nigenda et al. (2015) complement the observational and impact studies with an examination of the implementation of the reform. They conclude that lack of institutional capacity at the federal and state levels, federal-state tensions, weak information systems, political factors and irregularities in some spending undermined the program. This may be the price of ambitious reform in an immature public sector structure.

*Argentina's Plan Nacer.* Gertler, Giovagnoli and Martinez (2014) conducted a randomized evaluation of an innovative public insurance incentive program in Argentina, *Plan Nacer*, intended to improve maternal and child health service coverage among low-income households through incentive payments to public physicians and hospitals. The initiative resulted in increased prenatal visits and higher birth weights, suggesting the value of financial incentives for public providers.

*Nicaragua Insurance Experiment.* In Nicaragua, Thornton et al. (2010) undertook an evaluation of a voluntary public health insurance program of the Social Security Institute (INSS) that targeted informal sector workers. Although OOP expenditures fell, total expenditures fell by less than the insurance premium, and no evidence emerged of an increase in healthcare utilization among the newly insured. Low enrollment (20 percent of eligible population) and retention (10 percent) rates suggest limited demand, and the program was terminated once the subsidy expired.

**Contracting Out and Public-Private Partnerships (PPP).** Contracting out public services to private, often non-profit healthcare providers has been on the regional agenda since the mid-1990s, but has mostly manifested in sporadic, often short-lived experiments that terminated either with a new government or dissatisfaction with the new financing arrangement. Driving many of the initiatives were inefficiency in service delivery, the high cost of public financing, and rigidities in public management of public providers and expenditures.

Experimentation with contracting out services to non-profit providers serving low-income populations in a number of Central American countries suggested advantages in terms of quality and efficiency of service delivery. Some of these experiments were triggered by the inaccessibility of underserved populations that non-profit organizations were willing to serve (La Forgia, 2005).

In Brazil, São Paulo state initiated PPPs for private management of public hospitals, stemming from a law under the Cardoso government that placed a ceiling on the number public employees allowed in public facilities. In response, the state launched a new approach based on contracting out to non-profit organizations, Social Health Organizations (*Organizações Sociais da Saúde, OSS*), starting with 12 new

hospitals in low-income areas of São Paulo. The partnerships were based on clearly delineated contracts that allow the management organization to hire, pay and manage staff and all other inputs. The contracts contain equally clear accountabilities for the hospitals, which are evaluated monthly based on predetermined indicators by public oversight committees. Five percent of the budget is withheld annually to ensure compliance with the contract, and is released upon confirmation of compliance.

Comparisons of the performance of the 12 OSS hospitals and 12 traditional publicly managed hospitals – which rely on public servants and public budget rules – found higher quality and productivity, lower costs and greater patient satisfaction in the OSS hospitals (La Forgia and Couttolenc, 2008; La Forgia and Harding, 2009). The OSS hospitals have been in continuous operation for 20 years and the model has been adopted by all new state hospitals, and by the primary care services contracted by the São Paulo municipality as well as by other states in Brazil (Lewis et al. forthcoming).

Another evaluated PPP experiment involves the San Miguelito Hospital in Panama, a major referral hospital. In this reform, Panama established a purchasing entity, CONSALUD, that combined Ministry of Health and Social Security Institute (the Panamanian SHI) funding and contracted out management and delivery of the San Miguelito Hospital. Using a prospective payment system that reimbursed the hospital on the basis of the number of discharges, outpatient surgeries and emergency room visits, it created incentives for providers to engage and retain patients, and enhance productivity. To measure the effects of the new arrangement, Bitran, Ma and Gomez (2005) compared San Miguelito Hospital with two similar traditional public hospitals whose budgets were determined by the traditional former year allocation, public sector staff was hired centrally, and managers had limited autonomy and minimal training in management. They found that San Miguelito Hospital produced higher inpatient volume, lower lengths of stay, higher technical efficiency, lower expenditure per patient and higher rates of patient satisfaction than the comparative publicly run hospitals. The results mirror those in Brazil and suggest the value of well-structured and managed PPPs.

In Haiti, a pilot effort in 1999 to incentivize preventive services in NGO service delivery led to the development of performance-based contracts. USAID agreed to finance 95 percent of provider costs, with an additional 10 percent tied to achievement of six specific targets largely related to prevention. After one year, the results, reported by Eichler (2001) showed a striking jump in percent immunized, which almost doubled in two of the three NGOs involved in the performance-based contracts. Additionally, availability of modern contraceptives rose, as did mothers' use of oral rehydration therapy (ORT) and demonstrated appropriate preparation of ORT. No increase in prenatal care was found, however. The mixed results suggest potential for performance-based incentives, but some adjustments to performance targets.

**Provider Payment.** Salaries, historical (line-item) budgets and capitation characterize how providers are paid in LAC countries. Brazil introduced a "DRG-light" payment, AIH (*Autorização Internação Hospitalar*) for hospitals in the 1980s shortly after the US launched its DRG system. While the payment arrangement persists, it has evolved effectively into a budget allocation, as the amount of spending per facility is determined at the beginning of the year, and the AIH is used to reimburse facilities (Lewis et al.,

forthcoming). The Brazilian AIH payment system has never been evaluated or used to incentivize policy or provider performance, unlike DRGs systems in Europe or the United States. Public payers at all levels of the system ignore the power of the payment system to encourage efficiency and/or quality. Similarly, Chile's prospective payment system functions like a historical budget despite the existence of a handful of reimbursement rates by disease (Tulyenko et al., 2001). Unlike Europe (Busse et al., 2011), DRGs have not even been harnessed to improve management in either country, nor do they function as actual prospective payment systems. Thus, the only payment innovations emanate from the CCT program in Brazil, and PPPs.

**Private Sector: Delivery, Financing and Payment Systems.** One of the advantages of private sector investments is the opportunity to innovate. Yet, in LAC, private health services tend to be largely traditional, fee-for-service, physician owned and operated facilities. Private managed care models in Brazil, Chile and Colombia offer insights into alternative delivery and pricing arrangements that face incentives for efficiency and performance (Lewis et al., forthcoming), and Mexico's diabetes management companies point to structural approaches that meet the needs of all segments of society. That experience, combined with the continuing dependence of the poor on private providers, suggests shortcomings in public systems, including those that purport to be universal. The emergence of upgraded private mini-clinics in greater São Paulo, Brazil – for example, Dr. Consulta, a chain of affordable and accessible clinics that has grown rapidly over the past five years – reflect lack of access, not necessarily geographic but rather related to the cost of time and inconvenience associated with accessing public healthcare facilities, factors that inhibit utilization and prove costly to patients. On the one hand, these private services reflect innovations that highlight alternative ways to deliver care, which could inform public sector investments; but, on the other hand, they fall short in promoting an integrated care model that both the public and private sectors will need to adopt in managing chronic conditions.

Prospective payment is in its infancy in the region, though it has potential as way to better integrate public and private healthcare delivery. Similarly, efficiency gains are tied to better incentives linked to both management improvements and payment arrangements that promote enhanced performance. Evidence from the OECD, particularly those countries with mixed healthcare systems, points to the power of payment systems in promoting both quality and efficiency. United Healthcare acquisitions in Brazil have begun to explore the potential of alternative payment systems to drive performance, but fee-for-service reigns in the region.

Finally, unavailability of private company data inhibits analysis and learning from healthcare experiments and rollouts in the private sector. Claims data, for example, are not exploited compromising both management and innovation. Overall, evaluation and research are scarce, but measuring impact without impinging on proprietary information would inform both private payers and operators and establish a basis for broader adoption of innovations and improvements.

#### 4. CURRENT CHALLENGES AND DIRECTIONS FOR FUTURE RESEARCH

LAC countries have achieved a great deal in healthcare, and the research summarized above reflects creativity and experimentation at a level and scope beyond much of what has occurred in other regions. The mixed public-private system serving much of the region, the experience with SHI and private insurance, and the experiments with health service delivery and financing offer a basis for moving forward, provided lessons from these experiences are internalized and acted upon. Importantly, the rallying cry regarding insufficient spending captures only part of the challenge in healthcare in LAC countries. Better organization, financing and delivery grounded in clearly designed incentives and accountabilities will likely have a major impact on access, quality and efficiency. Funding alone will not help countries achieve these fundamental objectives that lie at the core of the shortcomings of healthcare in the region.

In general, healthcare coverage is approaching universality across the region, although remote areas receive uneven coverage. More concerning are the quality and efficiency of services, two key economic factors that receive little attention or investment. Quality measures are scarce and no consensus exists on standards; management in facilities is weak, and there are few studies that touch on relative productivity to measure efficiency; and costs are largely unknown, with the public sector relying instead on expenditure data to capture costs. The high reliance on OOP payments and the extent of private insurance coverage suggests dissatisfaction with available public options. Waiting times and time-intensive requirements to access care within publicly financed systems pose high costs to patients. Citizens effectively pre-pay for care via the tax system, but many select to purchase care in parallel.

Over the coming decades, the rapidly shifting demographic, social and epidemiological patterns in the region will affect both public revenues and the demand for healthcare. The aging population and the rise of NCDs both have serious implications for healthcare costs, and also the type of care required, e.g. more preventive services, long-term management of chronic conditions, integrated care and palliative care. Despite acknowledgements of these challenges, most health financing in the region is still driven by illness episodes, rather than by managing chronic conditions. Indeed, Costa Rica offers the sole example of an integrated primary care system that functions effectively for NCDs (Gottret et al., 2008).

Instead, fragmented delivery – with the public sector managing hospitals and outpatient services separately, and the private sector offering outpatient services from individual physicians and physician groups, and inpatient care from private hospitals – is the norm, reinforced by the lack of electronic health records or some alternative means of cross-provider communication and tracking of patients and their healthcare. Greater attention to integrating care and ensuring a patient focus in public healthcare services will be key to meeting the challenge of NCDs and helping citizens maintain their health status. Addressing the gap requires restructuring healthcare services, integrating hospital and primary care, focusing on patient care management and engaging patients in improving their health. Central to this shift is harnessing and targeting economic and other incentives,

Such reforms in delivery hinge on integrated information systems that provide feedback to providers, and alternative financing systems that offer incentives for value over volume. Lack of interoperability across information systems and uneven coverage of information technology define part of the challenge. A larger issue is the need to re-structure information systems to generate data for management and oversight of providers, track outcomes and consider financial factors. Integrating information technology and data systems offers a basis for management and accountability, as well as economic research. Indeed, such information will prove essential for evaluating performance and impact of healthcare investments.

Among the important economic incentives are payment systems in the public sector that are predominantly historical, line-item budgets for hospitals, with capitation or historical budget allocations for primary care services. The private sector relies heavily on fee-for service payments from payers and patients, and as discussed above, typically underutilizes the potential leverage of payments to stimulate improvements in delivery, an opportunity that recent innovations in the US under the Affordable Care Act (“Obamacare”) have made clear. Bundled payments (Dummit et al., 2018) that finance a set of inpatient and outpatient services for a particular diagnosis, and Affordable Care Organizations (ACOs) (Song and Fisher, 2016) that promote prevention and chronic disease management offer examples of options that have considerable promise in LAC for both the public and private health sectors. Because of their flexibility and ability to innovate, private players are often the first initiators of change, and tend to influence the public sector in the process. The absence of experimentation and research into the impact of payment arrangements on performance in LAC is a symptom of the lack of attention to innovation in this area and to lessons from OECD countries.

Restructuring public systems offers a means to improve quality and efficiency, and, as in the four countries that have already done so, to streamline public provision and financing. It further offers an opportunity to rethink health delivery and financing given the limitations of current programs. Merging SHI and NHS systems, and simultaneously strengthening coordination across primary care providers, hospitals, diagnostics and other ancillary services are priorities, including for countries that have already moved away from multiple public systems.

Other areas for research to support these broad directions include industrial organization of healthcare markets (provider competition, provider integration and coordination, market regulation, pharmaceutical purchases and price setting) and the political economy of healthcare (transparency and accountability). On the demand-side more research is needed on policies and interventions that promote healthy behaviors and discourage risky behaviors (traditional price policies and changes in the architecture of choice).

Moving away from a health management culture of processes to one based on efficiency and outcomes is far from easy, and most of countries in LAC have not committed to such a transformation, or are in the early stages of embarking on such changes. Implementing the components of value-based healthcare, for example, requires a rethinking of the overall quality of patient outcomes (and the longer-term benefit relative to the cost of any intervention), rather than just the quantity of treatments delivered. Health services in the region remain rooted in the culture of fee-for-service and supply-driven models, where

payments are delivered independent of outcomes. Indeed, the lack of accountability across the system lies at the heart of the problems facing all LAC countries. Accountability requires data and holding providers and payers to account for their actions, spending and outcomes. That process remains to be addressed, but it deserves to be prominent in the health policy agenda in the region.

Last, but not least, health policy reforms in LAC need to be driven by sustainability, based on evidence and rooted in the best practices of governance, financial management and equity. Integrated healthcare offers a solution to fragmentation in delivery and financing, but involves better information technology and provider payment reforms, among other initiatives. Even maintaining the coexistence of different health systems (SHI, NHS, private health insurance by employers or individuals), which is highly likely given entrenched interests and expectations, the integration of medical records, adherence to protocols and clinical pathways, establishment of health networks built around primary care, along with harmonized incentives and payment systems, offer a direction for reforms that allow adapting to existing circumstances and institutions, and the basis for holding the system to account. These reforms, while challenging, offer a direction for adaptation and change that can move healthcare services to a new level, improve use of scarce resources and meet the goals of UHC.

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