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**HEALTH AND NUTRITION
SECTOR FRAMEWORK DOCUMENT**

SOCIAL PROTECTION AND HEALTH DIVISION

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ABBREVIATIONS

CCT	Conditional cash transfer
CNCD	Chronic Non-Communicable Disease
CRITERIA	Red Regional de Priorización Explícita y Planes de Beneficios en Salud [Regional Network for Explicit Priority-setting and Benefit Plans in Health]
DALYs	Disability adjusted life years
DIME	Decisiones Informadas sobre Medicamentos de Alto Impacto Financiero [Informed Decisions on High Financial Impact Medicines]
ECLAC	Economic Commission for Latin America and the Caribbean
HRH	Human Resources for Health
HTA	Health Technology Assessment
ICTs	Information and communication technologies
IPHNs	Integrated Primary Healthcare Networks
LAC	Latin America and the Caribbean
MDG	Millennium Development Goal
MHI	Mesoamerican Health Initiative
NSG	Non-sovereign guaranteed
OECD	Organization for Economic Cooperation and Development
PAHO	Pan American Health Organization
PPP	Public-private partnership
RBF	Results-based financing
SFD	Sector Framework Document
SG	Sovereign guaranteed
SPH	Social Protection and Health Division (IDB)
WHO	World Health Organization

I. THE SECTOR FRAMEWORK DOCUMENT IN THE CONTEXT OF EXISTING REGULATIONS AND THE INSTITUTIONAL STRATEGY 2010-2020

A. The Health and Nutrition Sector Framework Document as part of existing regulations

- 1.1 Consistent with paragraph 1.20 of “Strategies, Policies, Sector Frameworks, and Guidelines at the IDB” (document GN-2670-1), which stipulates that Sector Framework Documents (SFDs) should be updated every three years, this document replaces the Health and Nutrition Sector Framework Document (document GN-2735-3) approved by the Operations Policy Committee on 1 November 2013.
- 1.2 This Health and Nutrition Sector Framework Document (SFD) is one of 20 prepared under the framework of document GN-2670-1, which together provide a comprehensive vision of development challenges in the region. Given the extensive literature regarding the social determinants of health (Berkman et al. 2014), this SFD is complemented by the Education and Early Childhood Development SFD; the Social Protection and Poverty SFD; the Gender and Diversity SFD; the labor SFD; the Water and Sanitation SFD; the Food Security SFD; the Urban Development and Housing SFD; the Decentralization and Subnational Governments SFD, the Climate Change SFD; the Innovation, Science, and Technology SFD; and the Fiscal Policy and Management SFD. These documents address the following topics, among others: comprehensive early childhood development, including maternal and child health and nutrition; adolescent health (focused on ways of addressing the issue of vulnerable youth); cultural adaptation of services by gender and ethnicity; social security-related labor market dynamics; trends in poverty-alleviation programs and care services for dependent individuals; diseases linked to the availability and quality of water and sanitation services; investments for the development of healthy urban spaces in sustainable cities, nutrition issues linked to food security; housing and urban mobility conditions; the impact of climate change on the determinants of health; innovations in telehealth and telemedicine; and the efficiency of health expenditure. This SFD is also in keeping with the Bank’s five sector strategies, particularly the Strategy on Social Policy for Equity and Productivity (document GN-2588-4).

B. The Health and Nutrition Sector Framework Document and the IDB Institutional Strategy

- 1.3 This Health and Nutrition SFD is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008), which acknowledges that the Bank needs to address social exclusion and inequality and low levels of productivity and innovation as emerging structural challenges for development in the region. This SFD guides the Bank’s work in terms of maximizing human capital in productive life, and well-being at all stages of life, and it takes the view that health interventions play a key role in the quality of life during pregnancy, infancy, childhood, youth, adulthood, the later years, and old age, as well as dignity in the face of death.

II. INTERNATIONAL EVIDENCE REGARDING THE EFFECTIVENESS OF HEALTH AND NUTRITION POLICIES AND PROGRAMS, AND IMPLICATIONS FOR THE IDB’S WORK

- 2.1 **Economic evidence confirms that health status is associated with economic growth and productivity.** The improved health of the population is an end in and

of itself and is a central component of quality of life. The economic literature also concludes that the health status of the population is a determinant of economic growth (Bloom et al. 2013). This nexus arises from the direct relationship between improved health and higher productivity, reducing the depreciation of human capital (Barro 2013). The public health literature adds to this evidence through studies that identify the relationship between poor health and low productivity, owing to premature mortality, absenteeism due to illness, a reduction in employees' capacity to perform their work, or disability (Krol and Brouwer 2014; Quazi 2013). A systematic review of the impact of chronic disease on productivity (Chaker et al. 2015) indicates that total annual costs of loss of productivity related to premature mortality and disability from breast and colon cancer amount to US\$5.5 billion and US\$20.9 billion, respectively, in the United States; cardiovascular disease costs the Australian economy US\$13.2 billion per year; chronic kidney disease reduces the probability of labor force participation almost eightfold; and almost 40% of workers with chronic obstructive pulmonary disease were forced to stop working as a result of their illness. In 36 countries accounting for 80% of the world's population, days of lost productivity as a consequence of depression and anxiety may be equivalent to as many as 50 million work years, at a cost of US\$925 billion to these economies (Chisholm et al. 2016).

2.2 **There is a growing political consensus regarding the need to move towards universal health coverage** (Horton and Das 2014; Atun et al. 2015; Vega and Frenz 2015). The evidence demonstrates a positive correlation between wider health services coverage, improved health outcomes, and lower levels of mortality (Moreno-Serra and Smith 2015). The World Health Organization (WHO) defines universal coverage as the desired result of health system operation that is achieved when anyone needing access to health services (promotion, prevention, treatment, rehabilitation, and palliative services) is able to get it without suffering financial hardship (WHO 2014). Universal health coverage falls under Sustainable Development Goal 3—"achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all" (United Nations 2015)—and this commitment will therefore guide the public health policy agenda at the international level.

2.3 **A health system is defined based on interdependent causal variables or components that account for population health outcomes.** The scope of action of a health system consists of all interventions whose purpose is to promote, restore, or maintain health that have impact on health risk factors and access to health services. In carrying out these interventions, health systems perform the following functions, regardless of how they are organized: (i) provide services; (ii) manage human, physical, and technological resources; (iii) collect and allocate financial resources; and (iv) exercise leadership and governance within the health sector and beyond. This SFD adopts a systemic approach (Papanicolas and Smith 2013) based on six interdependent components of health systems: (i) users; (ii) service delivery; (iii) human resources; (iv) financing system; (v) medical technologies; and (vi) governance. This conceptual framework is used to organize international evidence on health systems and the main challenges confronted by the region, and as a point of reference in defining the Dimensions of Success. To obtain better population health outcomes with equity, financial protection, and sustainability,

- consistent and simultaneous interventions in these causal components of health systems are required.
- 2.4 Presented below is international evidence on the efficiency and effectiveness of health and nutrition policies and programs for each of the six components of health systems.¹
- A. Users. For individuals to care for their health, socioeconomic and gender- and ethnicity-based obstacles and cultural factors must be overcome.**
- 2.5 **Users who share responsibility for caring for their health help to improve it.** Users of health services who participate more, are better informed, and share responsibility for their health care contribute to improving their health status and generate lower costs to health systems; this is the result of behavioral changes favoring the adoption of healthy habits and the informed search for health services (Hibbard and Greene 2013). Greater user participation is achieved by health care staff and users making explicit decisions together, by providing balanced information on risks and benefits, and by helping users to clarify what is most important for their particular situation (Witteman 2015; Shay and Lafata 2015). User-focused health services promote empowerment in relation to self-care decisions, the adoption of healthy habits, timely recourse to medical care, and adherence to recommendations, treatments, and palliative care.
- 2.6 **The poorest households are doubly disadvantaged because they are more exposed to health risk factors and have less access to services.** For the poorest households, shared responsibility for their health means overcoming major challenges. Low-income individuals have lower levels of education and are more exposed to adverse housing, water, and sanitation conditions, and to food insecurity; they are therefore at greater risk of disease, which in turn helps to perpetuate the poverty-disease cycle (Chung et al. 2016). Additionally, the poorest individuals face multiple barriers in access to health services and their health needs are not fully met (Di Cesare et al. 2013). For vulnerable groups, chronic diseases cause conflicting priorities, such as deciding whether to buy food or meet the cost of periodic medical care (Gucciardi et al. 2014). There are also economic barriers to attending medical appointments, such as the cost of the appointment, medicines, and transportation, or the opportunity cost of missing work (Emmerick 2015).
- 2.7 **The use of demand incentives and interventions to reduce economic barriers can improve service utilization, especially in the area of prevention.** Conditional Cash Transfer (CCT) programs have a positive impact on the use of health preventive services (Quiñones R. 2016), and in Brazil, Colombia, Honduras, Jamaica, Mexico, and Nicaragua, CCTs are reported to have helped improve children's health and reduce their morbidity (Molina-Millan et al. 2016; Rasella et al. 2013; Guanais 2013). One aspect that is not typically included in CCT programs is the use of specific demand incentives to increase institutional delivery. Thus, the Mesoamerican Health Initiative (MHI) is conducting impact evaluations of payments to pregnant women to encourage the use of institutional delivery in Nicaragua and in Chiapas, Mexico. In Chiapas, it was discovered that transportation costs can be a more substantial barrier to institutional delivery, even in places where cultural factors were thought to be more dominant (Tristao et al. 2015).

¹ The references used constitute the best available evidence based on whether a study is up-to-date, its impact, and its relevance and quality (with an emphasis on peer-reviewed journals).

- 2.8 **In addition to income, the level of use of preventive services also depends on factors related to users, health care personnel, and the community.** User-related factors that influence use include individual characteristics such as age, sex, level of education, and ethnicity. Women use preventive and diagnostic services more frequently than men, who make use of emergency services more often (Arruda 2016). Ethnic minorities make less use of preventive services such as mammography (Kempe et al. 2013). In some cases, the indigenous population reports dissatisfaction with available services and shuns treatments that do not value their cultural knowledge and customs (King et al. 2009). Another factor is the lack of health information that users and communities have. This is reflected in limitations to their ability to obtain, process, and understand basic information for making appropriate decisions regarding their health, including the ability to use and negotiate with the health system (Batterham 2016).
- 2.9 **Successful prevention strategies identify the main obstacles and facilitating factors for achieving optimal interventions.** It is essential that the beliefs, knowledge, attitudes, and motivations of health care staff, users, and the community be taken into account (Rubio-Valera et al. 2014). In several countries, for example, community agents are the link between the population and health services; their participation has increased the use of preventive services, improved chronic disease control, and reduced infant mortality in contexts as disparate as those of Spain, Brazil, Honduras, the United States, and South Asia (González et al. 2016).
- B. Service delivery. The organization of health services into integrated networks boosts the population's access to quality services and fosters efficient delivery.**
- 2.10 **An integrated primary health care network approach is a tool for achieving continuous, coordinated, and uninterrupted care.** Primary health care is a strategy for focusing health service delivery on health promotion and preventive care, and it offers timely, comprehensive access to quality services over time for the majority of health needs of a defined population (Vilaça Mendes 2013; Pelone et al. 2013). To effectively implement this strategy, health services need to be provided in a continuous, coordinated, and uninterrupted manner over time and through the different providers and levels of complexity in the health system (Valentijn et al. 2013). This is the driving force behind the formation of Integrated Primary Healthcare Networks (IPHNs) (Pan American Health Organization (PAHO) 2010, 2007). Under this approach, health services are managed and delivered in a way that ensures that people receive—on an ongoing basis and with emphasis on prevention—a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation, and end-of-life care at the different levels and sites of care, and according to their needs throughout their life cycle (WHO 2015a). The existence of an organization responsible for managing the network and assessing its clinical, administrative, and financial dimensions supports continuity of care, the supervision of establishments, and the integration of services (Mehta et al. 2016; Sellappans et al. 2015; Nicholson et al. 2013).
- 2.11 **A primary level of health care emphasizing prevention favors improved health outcomes.** In the context of an integrated network, primary care acts not only as a point of entry into the health system, but also as the level that successfully treats the greatest number of health problems. This allows services to be geared towards prevention, thus allowing health risks or problems to be detected and reduced in a

timely manner (Vasan et al. 2013; Grunfeld et al. 2013) and treating most health problems before they worsen. A number of studies conducted in the United States, the European Union, and several Latin American and Caribbean (LAC) countries have documented an association between health care experiences emphasizing prevention and reduced general and child mortality, reductions in avoidable hospitalizations, and longer life expectancies (Hansen et al. 2015; Kringos 2013b). Primary health care also performs an important role in the management of general morbidity, the control and monitoring of chronic patients, and the delivery of palliative care, reducing the demand for hospital-based care (Comin-Colet et al. 2014).

- 2.12 **Streamlining hospital functions and integrating them into care networks can lead to improved care at lower costs.** In countries belonging to the Organization for Economic Cooperation and Development (OECD), one of the main changes in hospital functions has been an increase in the use of outpatient surgery (which does not require hospitalization), resulting from the development of less invasive techniques and improved anesthetics (OECD 2015). In Belgium, Finland, and Canada, more than 70% of tonsillectomies were done as outpatient procedures in 2013. These innovations have improved patient safety and health outcomes, have frequently reduced the unit cost of interventions, and improved integration among hospital services, specialized care, and primary care (Lewis 2015). Integrating hospitals with clinical networks allows patients to be directed to the most suitable providers for each condition, avoiding unnecessary admissions and improving pre- and post-hospital care. This process reduces demand for beds and the duration of hospital stays, and improves the quality of care, reducing hospital-acquired infections and readmissions due to complications (Mascia et al. 2015).
- 2.13 **Public and private sector interaction plays a key part in the delivery of health goods and services.** The private sector—for profit and nonprofit—is a major actor in the health field. Its role includes the supply of medicines, inputs, and equipment, and the construction of care facilities that complement public sector health actions. The procurement of goods and services from the private sector in a competitive market, subject to an effective regulatory framework and quality standards (see paragraph 3.22), is a strategy used by governments to fulfill their public policy mandates.
- 2.14 **At the international level, the public sector is involved in developing options that allow it to share health service management risks with the private sector.** These range from contracts with the nonprofit private sector through to public-private partnerships (PPPs) for service delivery. In Brazil, social health organizations (*Organizações Sociais de Saúde*) have been widely contracted to deliver services to the public sector or to administer public facilities; they have demonstrated higher levels of efficiency and shorter response times than traditional management models (LaForgia 2009). PPPs are distinct from other public-private cooperation mechanisms in that the private sector assumes explicit risks over a long period (more than 10 years).
- 2.15 **PPPs have demonstrated their strength with respect to traditional contracting models in terms of providing infrastructure, equipment, or services within shorter timeframes.** PPPs can therefore generate greater efficiency in the use of resources, improving satisfaction levels among users and health care professionals,

with final costs similar to those of the traditional model (Alonso et al. 2015).² Nonetheless, the PPP model demands strong planning and management capacity on the part of the State, so that it can select, design, and manage projects that allow the private sector to bring efficiency and innovation to the process (Jomo et al. 2016). To preserve fiscal sustainability, the State should also take into account the long-term fiscal impact on the government budget of PPP projects in all sectors (Romero 2015). Value for money assessments allow projects to be selected that may benefit from a PPP approach (Roehrich et al. 2014).

- 2.16 **Climate change and natural disasters necessitate a resilient health care network.** Hospital buildings have a substantial carbon footprint, for example, as they operate all year round, have exacting air-conditioning standards, and perform numerous industrial processes with high energy consumption (Dhillon et al. 2015; Pollard et al. 2014). In the United Kingdom, hospitals are estimated to account for 25% of public sector emissions; for this reason, a long-term strategy has been prepared to reduce these emissions by replacing heat and power generation equipment, improving thermal insulation, and altering air temperature limits (NHS *Carbon Reduction Strategy Update*, 2009). Climate change is also expected to increase the frequency and magnitude of extreme meteorological events, and this could create risks for health infrastructure. As a result, there is a growing movement to update hospital construction and operating standards to foster resilience. Although this would raise construction costs in the short term, the net long-term impact would be positive owing to savings in operation, maintenance, and replacement costs (Paterson et al. 2014). Lastly, patterns of climate change are expected to increase the risks of malnutrition, vector-borne diseases, malaria, caloric stress, and other pathologies. Consequently, it is recommended that services be strengthened for the most vulnerable groups (WHO 2014b).
- C. **Human resources. For universal coverage to be achieved, integrated policies for training and retaining professionals should be combined with innovations in management and technology to boost their productivity.**

- 2.17 **A comprehensive and intersectoral policy on human resources for health (HRH) is essential for achieving effective coverage of quality health services.** A review of the experiences of Brazil, Ghana, Mexico, and Thailand concludes that: (i) HRH are essential for expanding service coverage and health benefit plans; (ii) achieving effective coverage requires strategies that incorporate the availability, accessibility, acceptability, and quality of HRH; and (iii) to attain good results from HRH, the participation of actors inside and outside the health care sector is essential (Campbell 2013). This perspective introduces a comprehensive look at HRH policies, as it considers that in the absence of adequate policies and funding for HRH, other investments in the health system will not achieve expected results. In addition, service coverage with high quality services requires long-term efforts with respect to planning, management, and intersectoral action, particularly with the education and professional training sector. In the postwar period, the Government of Japan adopted a gradualist strategy that initially expanded the supply of rapid HRH training programs and subsequently focused on improving quality by means of continuing education and licensing examinations (Akashi 2015). In Australia, the use

² In the definition used in this document, the traditional contracting model is characterized by government procurement of specific services or infrastructure of specified quantity and quality, and selection is based on a tender process (Burger and Hawkesworth 2011).

- of tools for strategic health workforce planning recently identified the need for coordinated reforms involving the government, professional associations, and the education sector in order to achieve a sustainable labor force (Crettenden et al. 2014).
- 2.18 **Organizing health professionals into multidisciplinary teams improves the effectiveness of care, patient safety, and HRH productivity.** Health service delivery is more effective and more focused on patient safety when work is carried out by professional teams composed of different disciplines (Cumin et al. 2014). Moreover, a team perspective enhances the resilience of health systems to shocks resulting from epidemics and natural disasters. Collaboration among physicians, nurses, nutritionists, clinical assistants, and community health agents raises the productivity of health care personnel by facilitating continuity of care and promoting better patient care based on a high quality primary care model (see paragraph 2.10). Task shifting is a complementary approach to increasing the productivity of multidisciplinary work through the efficient redistribution of tasks away from the most highly trained health teams to less highly trained staff (Tsolekile et al. 2015). Task shifting has favorable outcomes in interventions such as access to maternal and newborn health services in countries with scarce resources (Floyd et al. 2016), in the more effective administration of antiretrovirals for HIV-AIDS (Mdege et al. 2012), and in boosting HRH productivity in the management of patients with chronic diseases such as hypertension (Joshi et al. 2014).
- 2.19 **The use of information and communication technologies (ICTs) can help to resolve HRH bottlenecks by making some processes more efficient, overcoming geographical barriers, freeing up the time of professional staff, and supporting their training.** Telehealth and telemedicine, which used to be technological novelties, have become essential components of health services. Telehealth consists of the use of ICTs to support a wide range of distance services, including the diagnosis and treatment of illnesses, health surveillance and promotion, public health interventions, and the training of patients and professional staff. From the perspective of health care staff, telehealth can, for example, help to maintain and improve their skills and knowledge for the complex tasks that they need to perform when providing services (Nesbit 2013). Telemedicine is a more specific concept, and it involves the use of ICTs in clinical services (Papali 2016). Telemedicine can enhance the availability of medical resources by optimizing care processes and allowing specialists to serve remote locations by means of teleconsultations (Wilson and Maeder 2015). Telemedicine is driving changes in traditional models of care—for example, in the permanent monitoring and support of patients with congestive heart failure (Martín-Lesende et al. 2013). Though recent trends in telemedicine are aimed at expanding the approach, reducing its costs, and diversifying services, technological, regulatory, and organizational challenges will need to be overcome in order to implement it (Dinesen et al. 2016).
- D. Financing system. A good financing system collects sufficient resources to meet health system objectives, minimizing adverse impacts on determinants of productivity and economic growth.**
- 2.20 **Financing system functions interact so as to achieve health system objectives.** The functions of a financing system include the collection of financial resources for health care; the way in which they are collected or merged as funds or “pools” to cover the risk of a specific population; and service procurement, which

includes resource allocation mechanisms and payments to end providers (Kutzin et al. 2010; Hsiao et al. 2007). The financing system has direct impact on the objective of protecting people from the risk of impoverishment as a result of health problems, and of ensuring equitable financial contributions by users. Design of the system also has direct impact on and interacts with the other health system components. Other intermediate and instrumental objectives for improving health are (i) promoting the equitable supply and use of services; (ii) improving transparency and accountability; (iii) fostering quality in service delivery; and (iv) improving efficiency in the organization, delivery, and management of the health system (Kutzin 2013). How financing functions lead to achieving the objectives of the health system is explained below.

- 2.21 **The collection system should promote economic efficiency equitably and sustainably.** Three conventional sources of health care resources exist: (i) public financing—through general taxation or earmarked allocations; (ii) social security contribution systems; and (iii) private financing, including commercial health insurance payments, individual savings accounts, and out-of-pocket payment for services. Selection of the optimum mix of financing sources should be guided by the following criteria (Kutzin et al. 2016). First, avoid distortions in the labor market that may arise from creating disincentives to formal contributions or limiting labor mobility opportunities to avoid losing insurance coverage (Levy and Schady 2013), with potentially negative impacts on the growth of the formal sector of the economy, productivity, and, ultimately, on maximizing taxes collected for public health care financing. Second, equity, which is achieved when all contribute to financing health care expenditure in proportion to their capacity to pay. Third, the administrative feasibility of collection from potential sources both in the medium and long term. Although this issue is specific to each country's macroeconomic, social, and institutional context, international experience has shown that countries are converging on mixed collection systems that combine contribution systems with general taxation and taxation for designated purposes, collected from different tax bases, leaving private financing to supplemental insurance (Fan and Savedoff 2014).
- 2.22 **A health system that provides financial protection is one where no family must incur catastrophic costs and all contribute based on their financial capacity, regardless of their health care needs.** The relative size of public and private health care expenditure, especially the out-of-pocket component, determines the level of financial protection and the opportunities for accessing services. An inverse relationship has been documented between levels of out-of-pocket expenditure and households' risk of impoverishment or financial disaster (health care expenditure above a pre-established percentage of total income). A study of 89 countries found that the risk of catastrophic expenditure or impoverishment is low when out-of-pocket expenditure is less than 20% of total health care expenditure (Xu et al. 2010); it also found a positive correlation between financial protection and increases in public health spending as a percentage of GDP, particularly where this percentage is low. Prepayment is usually standard in countries that have succeeded in minimizing the level of out-of-pocket financing, in the form of mandatory contributions to social security and/or public subsidies for the poorest groups (Fan and Savedoff 2014).
- 2.23 **The way in which health care resources are pooled can improve equity.** Once resources have been collected, the different sources can be pooled in a single fund

or national pool, or they can be maintained in separate risk pools (with or without compensatory mechanisms or mechanisms for transfer between funds for populations of different risk levels). Forming larger pools that cover different population groups (rich and poor, healthy and sick) has a positive impact on the level of financial protection, equity in resource distribution, health system capacity to generate incentives for the efficient organization of services and administrative efficiency in general (Kutzin, 2012). An analysis using data from 153 countries for the 2008-2015 period indicates that expansion of health coverage through higher spending from pooled public funds is associated with lower infant and adult mortality rates. On average, a 10% increase in per capita health spending resulting from the pooling of public funds leads to a reduction of 7.9 deaths per 1,000 children under age five and 1.3 deaths per 1,000 adults; this impact is greatest in low- and middle-income countries (Moreno-Serra and Smith 2015).

- 2.24 **Health sector inefficiency is an obstacle to universal coverage.** Allocative inefficiency encompasses decisions that yield poor value for money, such as spending on high-cost treatments that prolong life for a couple of months. Technical inefficiency means that resources are wasted during the production process, such as duplicate testing, avoidable readmissions, prolonged stays, and excess unit costs. In health, inefficiency is cause for concern for a number of reasons (Smith 2012). First, it denies people the full health benefits that can be obtained when they receive the best possible care given available resources. Second, the excessive allocation of resources to treatments that have low therapeutic value or that are carried out inefficiently restricts access to treatments and health gains for other patients. Third, there is an opportunity cost for public investment in other sectors. Lastly, waste resulting from inefficient care can reduce society's willingness to contribute to the financing of health services, thus harming social solidarity, health system performance, and social welfare.
- 2.25 **An estimated 20% to 40% of health care resources are wasted globally, for a variety reasons** (Chisholm and Evans 2010). Some common causes of inefficiency in the health sector worldwide include: resource allocation for health problems of nonpriority populations; a disconnect between the population's needs and the supply of services; administrative problems in procuring services and medications; lack of clinical management standards; selection of interventions that are not cost-effective; personnel and input cost overruns; and fraud and corruption (Smith, 2012; Hussmann, 2012; and Chisholm and Evans, 2010).
- 2.26 **Experience worldwide shows that there are a series of options for improving efficiency in public health spending.** Taking as a benchmark strategies adopted by the OECD to improve efficiency (OECD 2010; Smith 2012), as well as experiences in the LAC region, policy options are focused on strengthening financing systems—particularly the purchasing function, evaluation of health technologies, and explicit priority-setting (see paragraph 2.31). In terms of the organization of public health services, the development of integrated networks based on primary care (see paragraph 2.10) may support increased efficiency in the use of resources. Opportunities also exist to improve the technical efficiency of services through interventions such as the centralization of diagnostic support services, such as laboratory and imaging services. Moreover, few countries in the region have evidence-based medium-term financing plans and budget planning. It is thus essential to improve analytical foundations and information systems to allow

- health resource planning and allocation to be based on targets of production, quality, or risk-adjusted health outcomes (see paragraphs 2.27 and 2.28).
- 2.27 **Financing has a direct impact on efficiency through the purchase of goods and services.** The purchasing function is the process by which resources are allocated to service providers. To enhance efficiency, the specialized literature on financing encourages the implementation of proactive models for strategic purchasing or “value for money,” where decisions on the types of interventions to be financed are based on health priorities and evidence of cost-effectiveness (see paragraph 2.31), providers are selected based on their relative levels of quality and efficiency, and payment mechanisms promote quality (WHO 2010, Smith 2009, Figueras et al. 2005). These models represent options for bridging the gap between health care planning and budgetary allocation of resources, although they are at an early stage of development.
- 2.28 **Payment mechanisms may be designed to reward quality, ensuring the delivery of relevant and effective services geared to user preferences.** Results-based financing (RBF) is a generic term that describes any arrangement under which financing is linked to specific performance (O’Brien and Kanbur 2014). In the health sector, RBF arrangements have been used in contracts in and between the public and private sectors, and they vary widely in terms of the type and level of payment (monetary, goods, or other forms of recognition), the payment recipient (national or subnational jurisdictions, health care providers, households, patients), and what is rewarded (outputs or outcomes). RBF has been promoted to increase production of priority services, accelerate the adoption of innovations in public health policies, boost the quality of care, or increase the efficiency and productivity of health service providers (MacArthur et al. 2014). RBF also may be an instrument to achieve greater equity if incentives are provided for care for the most vulnerable population, as in the Argentine case of *Programa Sumar* (previously known as *Plan Nacer*) (Cortez and Romero 2013) or the Mesoamerican Health Initiative in the eight Mesoamerican countries (see paragraphs 4.25 and 4.26).
- E. Medical technologies. Rising health care costs call for mechanisms to regulate supply and demand for medical technologies.**
- 2.29 **Technology is one of the main determinants of increases in health spending.** At the aggregate level, the most important determinants of growth in health spending are the demographic effect, the income effect, changes in relative prices (prices for health services that exceed general inflation), and the introduction of new medical technologies (De la Maisonneuve and Oliveira 2013). A literature review found that the estimated share of new medical technologies in overall growth in health spending ranges from 25% to 75% (Sorenson et al. 2013). According to a detailed study of cost distribution in Holland, variations in the costs of pharmaceutical technology are not uniform, and the rate of cost increases is most pronounced at the top of the distribution (de Meijer et al. 2013). As a result, aging is likely to heighten the impact of introducing new technologies as a determinant of expenditure.
- 2.30 **Decisions concerning what to finance with public funds are not always geared toward services and technologies that have the greatest impact on the health and welfare of the population.** The inclusion of criteria of lower cost and greater health impact in financing decisions can be a tool for achieving efficiency and equity (see paragraph 2.26) (Smith and Yip 2016). As technology is one of the major forces driving cost increases, and given tight budgetary circumstances worldwide, only

those technologies that create significant improvements should be financed using public funding alone. The existence of an imbalance between investments in cutting-edge technology (which is not always cost-effective) and the allocation of funding to high-impact, low-cost basic services is well documented worldwide. Several studies also show that there may be more efficient ways of addressing some of the main health problems. For example, low- and middle-income countries could save 16% and 35% of the costs per life year, respectively, if they were to optimize the current mix of services for the prevention and treatment of cervical cancer (Ginsberg, 2009).

2.31 **Multiple tools exist to improve allocative efficiency in health spending.** In order to make health spending more efficient, most middle- and high-income countries have chosen to develop systems of explicit priority-setting that use a combination of tools to influence the type and amount of medical technologies financed with public funds, as well as the prices paid for them. One of these measures that is increasingly used worldwide is the formulation of explicit positive or negative lists that determine which services are covered by public funding. In most OECD countries—where pharmaceutical spending accounts for 18% of the health budget on average (OECD 2015)—the prices of drugs are either regulated or negotiated through centralized negotiating/purchasing processes (see Table 1). Other measures are designed to encourage the rational use of technologies by doctors through independent clinical information campaigns, guidelines, or incentives.

Table 1. Policy measures for controlling drug spending

Policy Measure	Description of Measure	Reference
Reference price	Comparison of drug prices in different regions to strengthen bargaining power.	Kaiser et al. 2014
Pricing based on comparative effectiveness	Introduction of a price limit for a new drug. The price may only be higher than that of an equivalent drug on the market if it offers a comparative medical advantage.	Diogène and Figueras 2011, Criteria 2016a
Bulk purchasing	Centralized purchasing to achieve greater bargaining power and strengthen efficiencies in logistics.	Boyle 2011
Use of generics	Use of drugs that are not protected by intellectual property rights.	Kaplan 2012
Influence over prescriptions	Financial incentives, fixed budgets for drug spending, and the supply of information to encourage the rational use of drugs by doctors.	Criteria 2016b

Source: Prepared by the authors.

2.32 **Evidence from technology evaluations has the potential to replace routine practices with less costly technologies that offer better results.** Policies to make health spending more efficient and improve allocative efficiency require Health Technology Assessments (HTAs). These provide comprehensive information regarding the technical characteristics of a health technology, its safety, clinical efficacy and effectiveness, costs, cost-effectiveness, organizational implications, social consequences, and ethical and legal considerations in its use. Investing in agencies that produce information that can be used to make evidence-based coverage decisions has the potential to generate savings that can then be used to finance other investments required to improve the health of the population. For example, the issuance of a single recommendation regarding the treatment of cervical cancer, based on studies by the Government of Thailand’s agency for

technology assessment, created savings for the health system that far exceeded the institution's operating costs since its creation (Glassman and Chalkidou 2012).

F. Governance. The growing attainment of health outcomes is related to improved management techniques, increased efficiency in the health sector, and intersectoral coordination.

2.33 Improved management capacity is essential for optimizing health system performance and efficiency. In almost all middle- and high-income countries, the growing prevalence of chronic diseases, associated with the context of fiscal constraints, means that the remit of the health authorities needs to be further developed in the areas of strategic planning, change management, cost management, logistics instruments, and performance evaluation (Bengoa 2013). In high-income countries, there is growing interest in the development and application of management methods in health care networks, to increase the value created by health care (Porter and Lee 2013, 2015). In low- and middle-income countries, where budget constraints are greater, the management function should play an even more important role (Bradley et al. 2015).

2.34 "Big Data"³ and health intelligence have the potential to increase health sector efficiency, but there are challenges in developing them. Savings associated with the use of automated methods of analyzing large databases ("Big Data") in the United States health care industry could surpass US\$300 billion per year (McKinsey 2011). Efficiency savings arise, for example, from the ability to generate health intelligence by connecting different sources of information. Examples include electronic medical histories for patients, supplier payment records, and updated epidemiological data for the early identification of the best prevention strategies and the best ways of managing chronic disease cases, etc. (Groves et al. 2013).⁴ "Big Data" can also be a tool for detecting pandemics and threats to the health of the population before they materialize (French and Mykhalovskiy 2012). Nonetheless, major technical and organizational challenges will need to be overcome before the growing availability of digital data in the health sector can be transformed into effective gains. These challenges include information technology infrastructure requirements, data analysis and visualization tools, work processes, confidentiality and privacy, and the establishment of standards and governance (Roski et al. 2014; Raghupathi and Raghupathi 2014; Belle et al. 2015).

2.35 Success in containing chronic disease epidemics also depends on innovations and measures from outside the health sector. The Caribbean has assumed global leadership for raising awareness of the importance of controlling chronic non-communicable diseases (CNCDs), and for highlighting the importance of fostering integrated actions across different sectors to contain that epidemic. The 2007 Caribbean Community Declaration of Port-of-Spain led to the convocation of the United Nations High-level Meeting on Non-communicable Diseases in 2011, and also resulted in intersectoral and population policies through strategic partnerships between the public and private sectors and civil society to promote healthy habits for the control of chronic disease risk factors (Samuels and Fraser 2010, UN 2010).

³ "Big Data" refers to datasets whose size is beyond the ability of typical data analysis tools to capture, store, manage, and analyze (McKinsey 2011).

⁴ For example, a change in air quality could generate an alert to providers to contact their asthmatic patients for the purposes of prevention, while a comparison of medical history data and payments to suppliers could indicate which patients are frequent users of services.

In Spain, the United Kingdom, and Holland (among others), the integration of social and health services is an approach that is being consolidated to provide less costly, higher quality long-term care for chronic patients, older adults, and vulnerable groups (O’Toole et al. 2016; Toro Polanco et al. 2014). In the area of economic measures, despite the potential distortions created by taxes on specific items, there are successful examples of taxes being used to reduce tobacco consumption in several LAC countries (Guindon et al. 2015), as well as alcohol in a number of states in the United States (Staras et al. 2016; Naimi et al. 2016). More recently, a strategy of taxing sugary drinks was implemented as a public health measure in a number of states in the United States and in Mexico (Falbe et al. 2015; Stern et al. 2014) (see paragraph 3.43). Lastly, community-based interventions offer opportunities for innovation in health policy, either through education about health, laws, and standards, or through findings from behavioral economics, with measures such as adding calorie information to menus (Pinto et al. 2014). A number of the recommendations issued by the United States Department of Health’s Community Preventive Services Task Force are presented below.

Table 2. Recommendations for community-based policy measures

Objective of the intervention	Recommended policy measure	Date of recommendation
Prevent excessive alcohol consumption	Limit the hours of sale of alcohol	June 2008
Prevent skin cancer	Educational approaches in recreational and tourist sites	August 2014
Prevent injuries from vehicle accidents	Mandatory use of helmets by motorcycle riders	August 2013
Prevent and control obesity	Behavioral interventions to reduce sedentary screen time among children	August 2014
Reduce tobacco use and passive smoke exposure	Interventions to increase the unit price of tobacco	November 2012

Source: *Community Preventive Services Task Force 2016.*

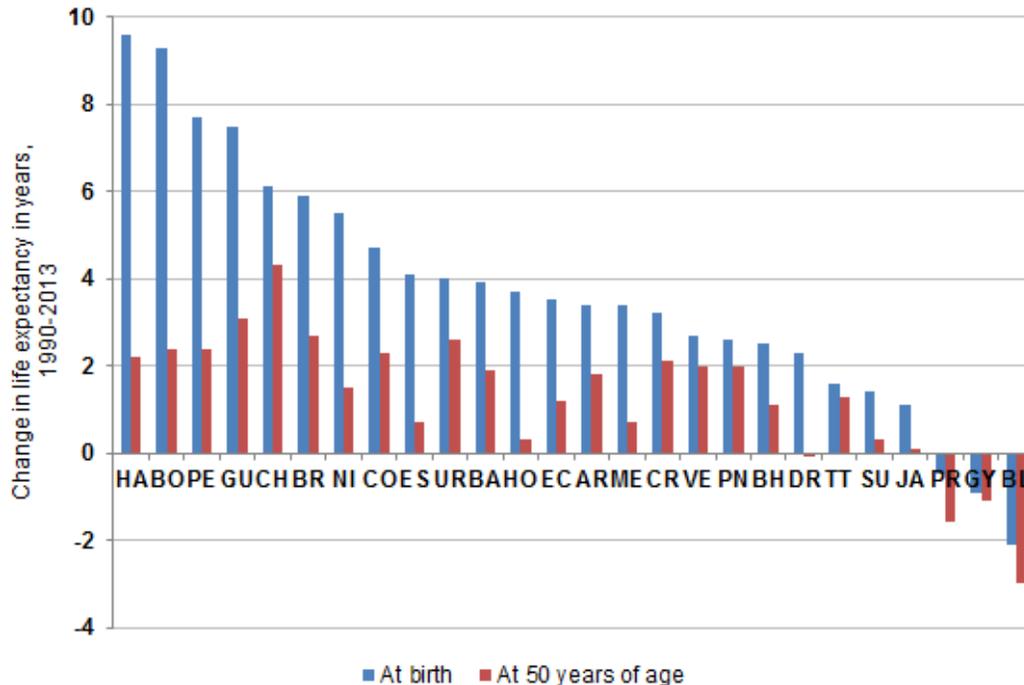
III. MAIN CHALLENGES FOR THE REGION

- 3.1 **Aging will be the most salient demographic feature over the coming decades.** Compared to the developed world, the aging process in LAC has progressed at a faster rate. From 1990 to 2014, the proportion of the population composed of adults over age 65 rose from 4.8% to 7.4%, and is expected to reach 26% in 2050 (Economic Commission for Latin America and the Caribbean (ECLAC) 2015). Life expectancy at birth has risen thanks to a reduction in child mortality. However, gains in life expectancy at 50 years of age have been lower in most countries in the region, suggesting weaknesses in the management of chronic diseases and other problems affecting older adults (see Figure 1).⁵ The aging process is accompanied by new

⁵ [Life expectancy data for IDB borrowing member countries.](#)

requirements in terms of both the quantity and type of health services, particularly long-term care (see paragraph 3.11).

Figure 1. Changes in life expectancy at birth and at 50 years of age in IDB borrowing member countries, 1990-2013



Source: Prepared by the authors based on data from the Global Burden of Disease Study 2013.

- 3.2 **The countries of the region face an increasingly complex epidemiological profile.** Mortality rates from transmissible diseases have declined considerably in recent decades. The human immunodeficiency virus (HIV) and malaria remain significant in the Caribbean (Figueroa 2008; De Boni et al. 2014), as does tuberculosis in some countries, such as Haiti and Bolivia. At the same time, infectious disease epidemics—such as dengue, chikungunya, influenza, and (more recently) Zika—have occurred with greater frequency, highlighting deficits in vector control strategies and treatment capacity for these emergencies. Assessments of compliance with international health regulations in the region have identified opportunities for improvement in the capacity for timely diagnosis, input availability, surveillance and containment systems, and trained staff (WHO 2014).
- 3.3 **There have been major advances in terms of reducing child mortality, but challenges remain with respect to the neonatal period and maternal mortality.** The region has made substantial progress towards fulfilling the Millennium Development Goals (MDGs) for child health (ECLAC 2015).⁶ However, although the neonatal mortality rate for the region fell from 22 per 1,000 live births in 1990 to 9.3 per 1,000 in 2015, the relative proportion of infant mortality occurring in the neonatal

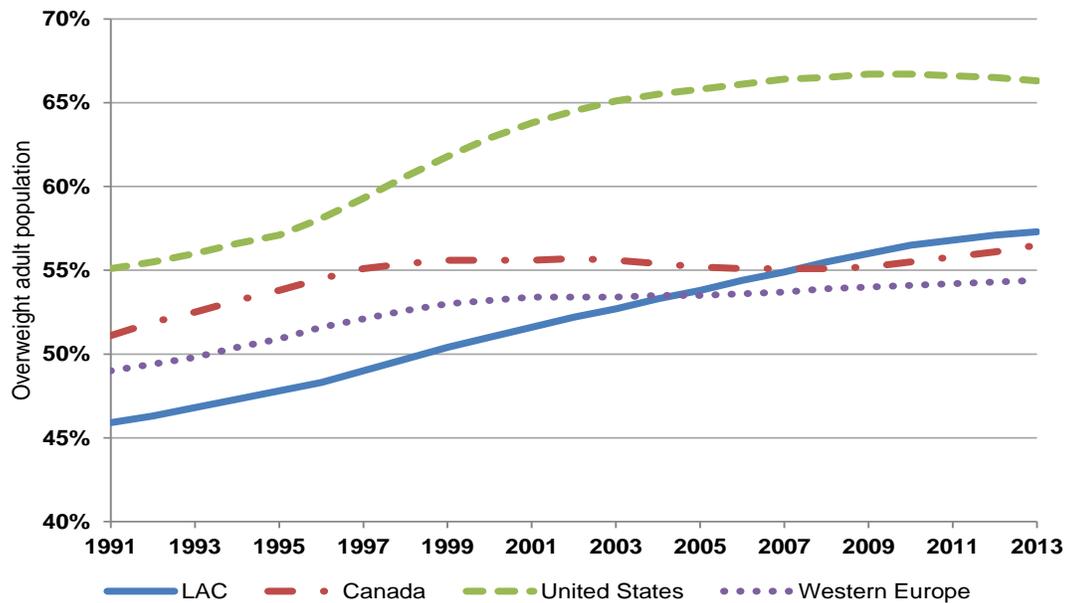
⁶ [MDG health indicators in IDB borrowing member countries and regional progress towards the targets.](#)

period has risen over the last 20 years (World Bank 2015). This is a challenge given that the main causes of neonatal mortality—such as premature birth, low birth weight, and delivery complications—require more complex interventions (Berezin 2014). Though maternal mortality in the region has declined over the last 20 years, the MDG goal of a 75% reduction was not achieved, meaning that the quality of services needs to be strengthened. The average estimated maternal mortality rate for LAC was 67 per 100,000 live births in 2015, and inequalities remain both within and among countries (World Bank 2015). A large number of these deaths could be avoided through the use of prenatal care protocols, quality care during childbirth, emergency obstetric care, and sexual and reproductive health services. The reduction in the rate of adolescent pregnancy has also been slow: the value of this indicator for the region is 83.7 per 1,000 women ages 15 to 19—almost five times the level in developed countries. This creates health, economic, and social risks in this age group (Restrepo-Méndez 2015; Conde-Agudelo 2005).

- 3.4 **Young people are affected by growing rates of mortality and morbidity from external causes, particularly violence.** The main health problems of young people are experiencing include mental illness, injuries, and the health consequences of risky behavior, such as tobacco use, alcohol abuse, drug addiction, unsafe sexual practices, poor diet, and low levels of physical activity. It has already been mentioned that rates of adolescent pregnancy in the region are alarming. As urbanization has grown, many of the region's countries have witnessed rising mortality among young adults, especially men, as a consequence of a generalized increase in interpersonal violence and traffic accidents. These two problems are among the two main causes of adolescent mortality. The region is also witnessing high levels of violence against girls and women. A study of 12 LAC countries found that the proportion of women that suffer intimate partner violence ranges from 17% to 53.3% (Bott et al. 2012).
- 3.5 **Problems of overweight and obesity are growing among all age groups in the region, and the persistence of chronic child malnutrition in some countries contributes to that trend.** In 2013, the proportions of children and adolescents that were overweight in Argentina, Costa Rica, and Uruguay were estimated at 26.4%, 29.0%, and 34.4%, respectively. Between 1991 and 2013, the prevalence of overweight in LAC rose from 45.6% to 57.3% (see Figure 2). In the latter year, more than 60% of adults were overweight and more than 25% were obese in The Bahamas, Barbados, Belize, Chile, Mexico, Paraguay, and Trinidad and Tobago (Global Burden of Disease Study 2013). At the same time, the persistence of chronic child malnutrition in the region is a risk factor that is linked to overweight, obesity, and the incidence of chronic diseases in adulthood. In 2014, an estimated 11.7% of children in LAC suffered from chronic malnutrition, and the percentage was higher still among the poorest population (UNICEF 2015). The highest rates of chronic malnutrition were seen in Guatemala (48%) and Ecuador (25.3%) (Rivera et al. 2014), although many countries have seen progress as a result of simultaneous improvements in indicators for nutrition, water and sanitation, family income, and access to health services (Levinson et al. 2013). In Peru, the rate of chronic malnutrition fell from 29.8% to 17.5% between 2005 and 2013 (Mejía Acosta and Haddad 2013; UNICEF 2015), and in Brazil it declined from 37% to 7% between 1974 and 2007 (Monteiro et al. 2010). With the nutritional transition in the region, the paradox of malnutrition coupled with overweight and obesity can be seen in the same individual over time, and in the same family. For example, observed patterns indicate that high levels of chronic malnutrition in the early years of life—a factor

responsible for short stature—are associated with high levels of body mass at school age. The phenomenon of the double burden of malnutrition and overweight (for example, a child with chronic malnutrition and a mother that is overweight) has been documented in Guatemala (with a prevalence of 20%), Ecuador (8%), and Mexico (6%) (Rivera et al. 2014). Sedentary lifestyles also contribute to overweight in LAC. A comparative study of the six WHO regions found that levels of physical activity in the Americas were the lowest in the world (Hallal et al. 2012).

Figure 2. Prevalence of overweight in the adult population in selected countries and regions, 1990-2013



Source: Prepared by the authors based on 2013 Global Burden of Disease data.

- 3.6 **In Latin America and the Caribbean, CNCDs are the main cause of mortality and disability.** In 2013, 74% of deaths in the region and 69% of the burden of disease (measured in Disability Adjusted Life Years, or DALYs)⁷ were attributed to chronic conditions (Murray et al. 2015). The main causes of death include cardiovascular disease, cancers, diabetes/endocrine disorders, and respiratory diseases. The five main causes of DALYs were chronic conditions: cardiovascular diseases, mental disorders and substance abuse, cancers, and diabetes.⁸ Mental disorders are becoming increasingly significant across all age groups, and LAC countries face technical and organizational challenges in introducing mental health care interventions into their portfolio of services to respond to this need (Caldas de Almeida, 2013).
- 3.7 **The burden of disease inflicted by CNCDs highlights the need to improve their detection and implement adequate treatment.** Only 21.1% of the total population

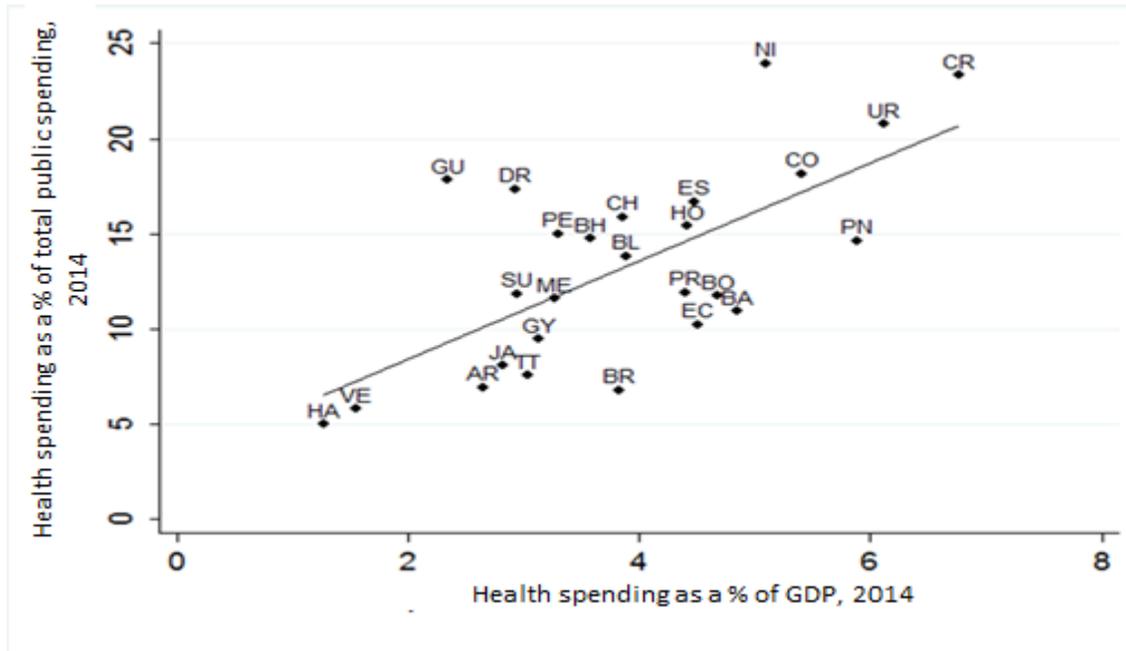
⁷ DALYs are a measure of the total burden of disease, and they correspond to the total number of life years lost due to premature death and disability.

⁸ [Distribution of the burden of disease in IDB borrowing member countries.](#)

- with hypertension in Chile, Argentina, and Uruguay are aware of their condition and has it under control. An estimated 27.4% of diabetics in Argentina are not aware of their condition. Among those that have already been diagnosed, 50% of the total population and 70% of the population in the poorest provinces are classified as having poor control of their glycemic level (Rubinstein et al. 2015). In Colombia, the proportion of people with hypertension and/or diabetes receiving treatment is less than 50% in all population groups, and the percentage is even lower among groups with lower levels of education (Di Cesare et al. 2013). In the case of mental health, more than 58% of people in LAC with major depression and 71% of those using alcohol are in need of treatment but have not had access to such (PAHO 2009). In the case of cancer, survival rates in LAC are lower than in high-income countries, due in large part to the lack of early detection. For example, the five-year survival rate of breast cancer patients in LAC is estimated to be 20% lower than in the United States and Western Europe (Goss et al. 2013). In fact, survival rates in LAC may be overestimated, as the lower-resource countries in the region often lack cancer registries, or have very incomplete vital statistics records.
- 3.8 **Gaps remain in health indicators between countries, geographical areas, gender, race, ethnicity, and socioeconomic status.** While the under-five mortality rate in Chile of 8.1 per 1,000 live births is close to the rates in developed countries, the estimated rate in Bolivia is 38.4 (World Bank 2015). Disaggregation of national indicators show that there are health inequities by region and by socioeconomic status: the probability of dying before age five in the region is three times higher in the poorest 20% of households than in the wealthiest 20% (ECLAC, 2010). The poor are more exposed to risk factors and have a higher CNCD burden than those with high incomes (Di Cesare et al. 2013, Stevens et al. 2008). Disparities by region and socioeconomic status are also related to racial and ethnic inequities in health. For example, in 2008, life expectancy among Brazil's Afro-descendant population was six years less than for the white population (Paixão et al. 2010), and maternal mortality among indigenous women in LAC is three times higher than the regional average (Cordero Muñoz et al. 2010).
- 3.9 **The region has seen significant growth in service coverage but challenges remain in relation to quality.** There has been substantial progress with respect to coverage indicators in the region, including reproductive and neonatal health (family-planning, 80%; prenatal care, 78%; births attended by skilled health care staff, 95%); immunizations (DPT [Diphtheria, Pertussis, Tetanus], 85%); treatment of infectious diseases (tuberculosis, 58%; antiretroviral therapy, 45%); and indicators of social determinants (water, 90%; sanitary facilities, 80%) (WHO 2015b). Nonetheless, a better evaluation of those results will require effective coverage data, which includes not only the people who received services but also the quality of the services provided.
- 3.10 **Public health spending absorbs a substantial portion of government budgets in LAC.** In LAC and worldwide, there has been an increase in health spending over the last three decades as a consequence of the following factors: (i) population aging; (ii) an increase in the incidence of CNCDs; (iii) improvements in socioeconomic standards alongside higher demand for health services; (iv) implementation of reforms to bring about universal health coverage; and (v) development and introduction of technological advances. In OECD countries, public health spending is 17.9% of total public spending and 7.7% of GDP, while in

Bank borrowing member countries it accounts for 13.3% of total public spending and 3.9% of GDP, with great variations between countries (see Figure 3).⁹

Figure 3. Public health spending as a percentage of total public spending and GDP in Bank borrowing member countries, 2014



Source: Prepared by authors based on WHO National Health Accounts data.

3.11 The growth in public spending on health care and long-term care will continue.

At the global level, acceleration of the aging process will increase spending on health care and long-term care for older adults. Spending on long-term care includes health services (palliative care, nursing, family-based care) and social services (domestic help and residential care). Projections for OECD member countries and the BRICS countries (Brazil, Russia, India, China, and South Africa) provide estimates of the growth in public health spending—overall and on long-term care in particular—under two scenarios: one assuming no policy measures to contain costs, and another including measures such as controls on technology adoption or changes in institutional incentives (de la Maisonneuve and Oliveira 2013) These studies indicate that the growth in public health spending in LAC countries is likely to be higher than the OECD average. From 2010 to 2060, spending in the OECD countries is expected to increase by between 3.3 percentage points of GDP (scenario with cost containment) and 7.7 percentage points of GDP (scenario without cost containment). Over the same period, the projected spending increases for Brazil, Chile, and Mexico under the cost-containment scenario are expected to be 4.0, 4.7, and 4.5 percentage points, respectively. In the scenario without cost-containment they are expected to reach 8.2, 9.3, and 9.1 percentage points, respectively.

3.12 Given the more challenging macroeconomic and fiscal outlook in the region, the emphasis on health expenditure efficiency is even more important in the

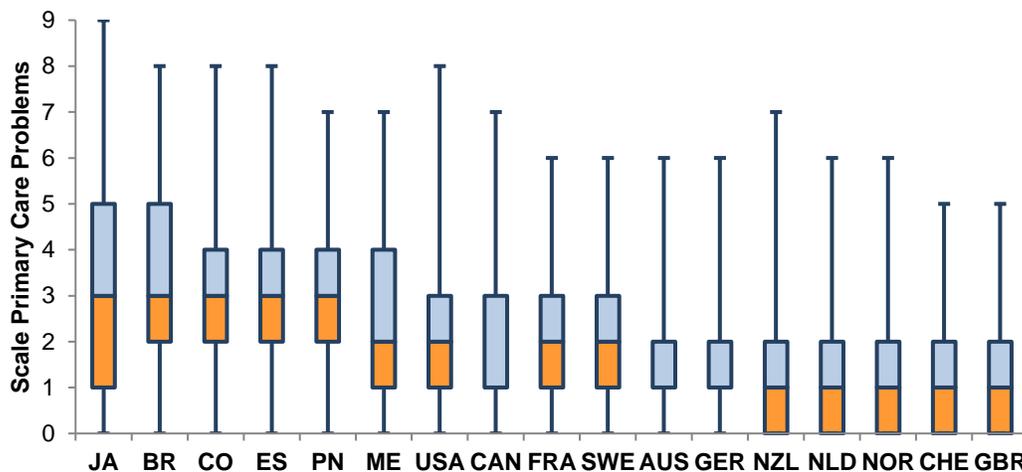
⁹ [Composition of health spending in IDB borrowing member countries.](#)

- move towards universal coverage.** Economic forecasts for the region point to a slowdown in most countries. Against a background of major budgetary constraints in both LAC and worldwide, there is a need to focus on a set of strategies that aim to improve both efficiency in resource allocation (selecting the group of interventions that will achieve the best possible health outcomes) and technical efficiency (implementing these interventions in the correct manner), in order to move towards universal coverage.
- 3.13 Presented below are the main challenges that the LAC countries face in increasing the efficiency and effectiveness of their health and nutrition policies and programs (organized as in the section above).
- A. Users. The vulnerable population is faced with additional obstacles to using services and maintaining adequate health status.**
- 3.14 **Higher CNCD rates among the poorest are the result of greater exposure to risk factors and low use of preventive services.** Lower child mortality and improved infectious disease control have improved equity in health outcomes in most countries in the region (see paragraph 3.3). However, one new manifestation of inequity is the higher incidence of CNCDs observed among the poorest. The reason for this is the higher exposure to CNCD risk factors such as obesity and tobacco use among this population, which has less access to health services with the continuity and regularity required for early detection and effective management of conditions such as cancer and cardiovascular disease (Goss et al. 2013).
- 3.15 **There is room for improvement in strategies to create greater shared responsibility and awareness in relation to self-care** (Sapag et al. 2010). These strategies include the use of telemedicine tools to control chronic diseases. Such tools facilitate communication between users and health care staff for joint decision-making regarding a patient's treatment, thus educating patients about their illness and means of self-care, and allowing clinical data to be shared (see paragraph 2.19). The strategies have demonstrated a certain effectiveness, for example in managing diabetes (Hsu et al. 2016). In the case of cancer, initiatives by nongovernmental organizations using community participation platforms have succeeded in raising the population's awareness and level of knowledge regarding breast and cervical cancer in Argentina, Mexico, Nicaragua, and Peru (Strasser-Weippl et al. 2015).
- 3.16 **Demand-targeted interventions have generated positive impacts on maternal and child health and could be explored for CNCDs.** In recent years, studies have identified positive impacts of conditional cash transfers (CCTs) on the use of preventive services, especially in maternal and child health, although benefits have also been observed in the case of older adults (Salinas-Rodríguez and Manrique-Espinoza 2013; Behrman and Parker 2013). A series of evaluations have associated CCT programs with greater use of preventive services for children in Nicaragua, Colombia, Honduras, and Jamaica, child vaccination in Colombia, Honduras, and Nicaragua, and infant mortality reductions in Mexico (Molina-Millan 2016; Cecchini and Veras Soares 2015). Additionally, the preliminary results of two impact evaluations on the effect of demand incentives for the increase in coverage of institutional delivery show very significant results, particularly in areas where the lags in this indicator are more significant (see paragraph 2.7). However, the potential of demand-targeted interventions to increase the use of chronic disease preventive services is little explored. CCT programs in The Bahamas and Mexico are attempting to promote this approach.

- 3.17 **Eliminating cultural barriers improves access to health services.** Studies conducted for the design of maternal and child health interventions in Mexico, Panama, and Nicaragua, and also under the umbrella of the MHI, confirm that the sociocultural context is important to understanding decisions about the use of services by indigenous and rural populations. There is new evidence regarding the ways in which health-related decisions are made—an important element in designing strategies to remove barriers (Kolodin et al. 2015). The cultural adaptation of health services is an effective strategy for increasing access (Tucker et al. 2013; Lubbock and Stephenson, 2008). Case studies have documented successful experiences of intercultural health care policies in different countries, including Chile, Colombia, Ecuador, Guatemala, Peru, and Suriname (Mignone et al. 2007; Gabrysch et al. 2009). Some examples of cultural adaptation of sexual and reproductive health services are the adoption of the vertical position during labor, authorization of midwife assistance, and family member attendance at the birth (Cordero Muñoz, 2010).
- B. Service delivery. The characteristics of public health service delivery systems in the region present challenges for organizing them into Integrated Primary Healthcare Networks (IPHNs).**
- 3.18 **The creation of IPHNs is a common element in health agendas in the countries of the region, but there are challenges in implementing them.** Interest is growing among governments in LAC in organizing their services according to IPHN models. However, public health systems in the region have been historically characterized by fragmentation among providers, a predominance of hospital-based services, and weaknesses in network management and planning mechanisms (Montenegro et al. 2011). To overcome these challenges, the first step in countries such as Brazil, Chile, Costa Rica, El Salvador, and Nicaragua was a program to strengthen primary care, with a family- and community-based approach, delivery of a broad range of services, the use of multidisciplinary health teams, delimitation of geographical areas for service delivery, and the introduction of referral and counter-referral protocols between primary health care and the system's other levels of care (Giovannella 2015). However, there are substantial differences in coverage between those primary care models (for example, 36% in Paraguay and 62% in Brazil), and the portfolio of primary care services offered is also varied. Few evaluations have been carried out of the IPHNs by the countries, but results for Argentina show that the coverage of continuous treatment for hypertension is 10 percentage points higher among the population served by network-based providers than in the population served by non-network providers (Cejas et al. 2015). In recent years, the Bank has provided loans and technical cooperation funding to support the organization, strengthening, and evaluation of IPHNs in Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, El Salvador, Nicaragua, Panama, and Peru, among others.
- 3.19 **Despite the progress made, there is still room to substantially improve different aspects of primary health care in the region.** Nationally representative user surveys carried out by the Bank over the 2012-2014 period examined experiences in relation to health service access, quality, and usage in six countries in the region (Mexico, Colombia, Brazil, Panama, El Salvador, and Jamaica) using a methodology employed in 11 high-income countries over the same period (United States, Canada, France, Sweden, Australia, Germany, New Zealand, Holland, Norway, Switzerland, and the United Kingdom) (Schoen et al. 2013; Macinko and Guanais 2015). The results indicate that in the LAC countries included in the survey,

only between 31% and 52% of public sector users reported that they were up-to-date with respect to a minimum set of preventive health measures, in contrast to an average of 80% in 11 high-income countries (Guanais et al., forthcoming). In addition, the quality of primary health care services is considerably lower in LAC than that observed in high-income countries (see Figure 4). Baseline studies for the MHI also highlight the low quality of primary care (above all in the more remote areas of countries in the Mesomerican region), as measured by the availability of inputs and the suitability of infrastructure (Mokdad et al. 2015; Ellicott Colson et al. 2015). Similarly, a qualitative analysis of two primary care-based nutrition programs in Bolivia and Panama found that community health agents often lacked the necessary materials and failed to spend sufficient time on providing nutritional advice (Leer et al. 2014).

Figure 4. Problems in primary care services reported by users in 6 LAC countries and 11 high-income countries, 2013



Note: The highest score indicates the most problems in primary care (max. = 16 problems). Figure represents: minimum and 25th, 50th, 75th, and 99th percentiles.

Source: Prepared by the authors based on Guanais et al. (forthcoming).

3.20 Strengthening the efficiency of IPHNs in LAC also requires investments in hospital management and network coordination tools. On average, 46% of public health budgets in LAC were used for hospitalized patient care in 2010. This percentage is even greater in countries with higher levels of income, such as Barbados (64%) and Chile (82%).¹⁰ Although there have been no systematic reviews of hospital performance in the region, studies in a number of countries (such as Brazil and Costa Rica) point to significant inefficiencies in public and private hospitals (Morera-Salas 2015; Guerra et al. 2012; Ozcan et al. 2010; LaForgia and Coutolenc 2008); this suggests that the success of a program to organize IPHNs depends on improvements in hospital performance. Another important issue is that, although the region has a growing number of network coordination experiences, most of these are focused on regulating supply and demand for urgent and emergency services (Echeverry et al. 2015). As a result, the use of more

¹⁰ WHO National Health Accounts database.

- comprehensive approaches to coordination between levels of the system (primary care, medium complexity, and high complexity) may have a greater impact on the health of the population.
- 3.21 **Health infrastructure in the region is aging and poorly maintained, but investment planning to replace it has been limited.** Efforts to organize IPHNs in LAC have made apparent the limitations in establishing the service delivery platform needed to support required actions between primary care, specialized clinics, and hospitals. An important issue to be considered is the deterioration of health service delivery infrastructure. The region is estimated to need approximately US\$100 billion in health infrastructure and equipment investments (Astorga, 2016). This gap mainly reflects the need to replace existing infrastructure that is very old, in addition to requirements for the expansion and upgrading of infrastructure to more modern energy efficiency standards (see paragraph 2.16), and medical equipment replacement. The demand for new infrastructure is therefore set to grow. Investment projects should encourage network designs that take into account changes in demand (the growth of cities, population aging, and falling birth rates) and improvements in care models, and that improve the efficiency of infrastructure management. The Bank has supported countries such as Nicaragua and Peru in developing investment master plans that incorporate these variables. These plans should also be linked to budget planning cycles.
- 3.22 **Public-private partnerships (PPPs) and contracts for private delivery of services with public financing have been gaining ground in the region.** There are 13 PPP health contracts in operation in LAC, while 9 are under construction, 12 are at the bidding stage, and 25 are being studied, underlining the dynamic nature of the PPP process in the region. Evaluations carried out by the IDB (Alonso et al. 2015) show that PPPs in the region have yielded similar benefits to those seen in Europe (see paragraph 2.15). PPPs also act as a benchmark for traditional investment and operating processes, and they force the health sector to modernize its investment management capacity (Astorga, 2016). In service delivery, both for-profit and nonprofit private providers are increasingly being contracted with public financing to deliver clinical services, such as the social health organizations in many Brazilian states (Barbosa et al., 2015; Souza and Scatena, 2013).
- 3.23 **In order for the PPP instrument to be used efficiently in the health sector, the public sector needs to strengthen its management tools.** The countries face the following challenges in using these types of mechanisms: (i) strengthening public administration for the formulation, execution, and monitoring of contracts, with a view to reinforcing the PPP-related investment cycle and anticipating its fiscal impact (as Peru is doing with Bank support, for example); (ii) fostering the sharing of experiences between countries with a view to building a critical mass of expertise in health PPPs and learning from good practices in different countries (particularly regional adaptations of the original PPP model from the United Kingdom); (iii) strengthening management capacity for risks retained by the State that fall outside the scope of PPP contracts; (iv) developing communication strategies that allow the community to be properly informed regarding the scope of PPPs; and (v) fostering the coordinated development of PPPs and traditional investment projects with a view to delivering an overall improvement in the management of public assets. The models for contracting the private sector with public financing to deliver services, typically for shorter periods than traditional PPPs, are a more

flexible option in cases in which public sector capacity to launch PPP projects is still not sufficiently developed.

C. Human resources. Deficiencies in the training, distribution, and productivity of health care professionals constitute a major obstacle to the timely delivery of quality services.

- 3.24 **A health system emphasizing primary care must train professionals to work in multidisciplinary teams.** The epidemiological realities in the region and the shift towards health care and nutrition service delivery via integrated health care networks mean that adjustments must be made to the education, training, allocation, and management of health care personnel, especially as the primary care approach is human-resource intensive (Nigenda et al. 2013; Talbot et al. 2009). These challenges have prompted different countries in the region to implement policies and programs with this approach, for example in Ecuador, El Salvador, and Nicaragua, with Bank support. Interventions are under way in these countries to strengthen their primary care networks, implement models that integrate medical care with community perspective, implement innovations in service organization and delivery, and reorganize human resource training to improve the supply and distribution of health care professionals in remote areas.
- 3.25 **With respect to medium and high complexity health care, the public sector faces difficulties in hiring and retaining specialized physicians, as well as in assigning them to positions outside major urban centers.** Data from the Regional Observatory for Human Resources in Health provide evidence of human resource disparities in LAC. The average number of doctors per 1,000 inhabitants in LAC is 1.8: higher than the world average (1.4) but below the average for high-income countries (2.8). There are significant variations between countries, from 8.6 in The Bahamas to 0.4 in Haiti (PAHO 2013). However, average densities can obscure significant problems of distribution, composition, and public or private sector employment conditions. In most countries, the public sector faces difficulties in offering competitive remuneration to specialized physicians, as well as in recruiting them to work in rural areas (Hoyler et al. 2014). Strategies that are being used in the region include dual practice arrangements, which allow doctors to work in the public and private sectors; however, these experiences have not been sufficiently systematized and are difficult to implement (McPake et al. 2016; Jumba et al. 2007).
- 3.26 **There is little experience in the region with planning for the training and distribution of health care professionals.** The region's planning deficit for the supply of health infrastructure (see paragraph 3.21) is even more problematic given the lack of planning concerning the training and distribution of human resources (Nigenda and Muños 2015). The Bank is providing support in several countries in the region for simultaneous initiatives to expand health infrastructure and train personnel, but substantial challenges remain.
- 3.27 **Central and subnational planning and management agencies lack professionals with specialized training.** Organizational structures and hiring processes have centered on health care experience over staff with analytical profiles, management and planning specialists, administrators, communicators, information technology experts, etc. (Nutley and Reynolds 2013). The implementation of modern management systems that improve the effectiveness and efficiency of the health system will therefore entail significant challenges.

3.28 **The use of ICTs is expanding in the region as a strategy for enhancing the productivity of HRH, but these initiatives have not so far succeeded in bringing about large-scale improvements.** The use of telemedicine with distance consultations in Peru, Ecuador, and Colombia has yielded tangible results in terms of improving health services (Prieto-Egido et al. 2015), while experience with distance refresher courses in 15 countries using telehealth tools points to positive outcomes in terms of acceptance and the updating of knowledge (Dos Santos et al. 2014). At the same time, recent studies of the use of mobile telephone communications to improve cardiovascular health in low-income communities in Argentina, Guatemala, and Peru indicate the importance of associating distance interventions with personal contacts, of taking into account the socioeconomic and cultural profile of the population being served, and of adapting ICT tools to the characteristics of local health systems (Rubinstein et al. 2016; Beratarrechea et al. 2016). In implementing these experiences, a need has become evident to develop an appropriate platform that includes the establishment of norms and regulatory frameworks, investments in infrastructure implementation and training for the personnel that will use it, and specific adaptation to the characteristics of the socioeconomic environments in which they are being used (Oviedo and Fernandez 2010).

D. Financing system. Inefficiency in the allocation and use of resources hinders progress towards quality universal health care coverage and increases the risk of impoverishment.

3.29 **Levels of public health expenditure in the region may be insufficient to provide households with financial protection.** Levels of financial protection are measured based on the out-of-pocket proportion of health system financing and the proportion of households incurring impoverishing or catastrophic costs. Although per capita health spending doubled between 2002 in 2013, public spending has seen little increase as a percentage of total spending in LAC—just one percentage point, from 12.3% to 13.3% (see Table 1). In 2013, out-of-pocket spending as a percentage of total spending averaged 33.3% in LAC (in the OECD countries it was 13.6%), and values under 20% were found in only four LAC countries. The poorest households in rural areas, with minors or elderly members, have a greater propensity to incur catastrophic costs (Grogger et al. 2015). Insurance coverage is associated with less likelihood of catastrophic expenditure, although this finding does not take into account variations in insurance benefit generosity from country to country (Wagstaff et al. 2015). Public programs for the distribution of essential medicines in Argentina and Brazil have also yielded successes in terms of financial protection and increased equity (Emmerick et al. 2015; Dondo et al. 2016). The above evidence indicates that there is room for improving financial health care protection throughout the region, entailing the availability of additional resources for prepayment and risk pooling systems.

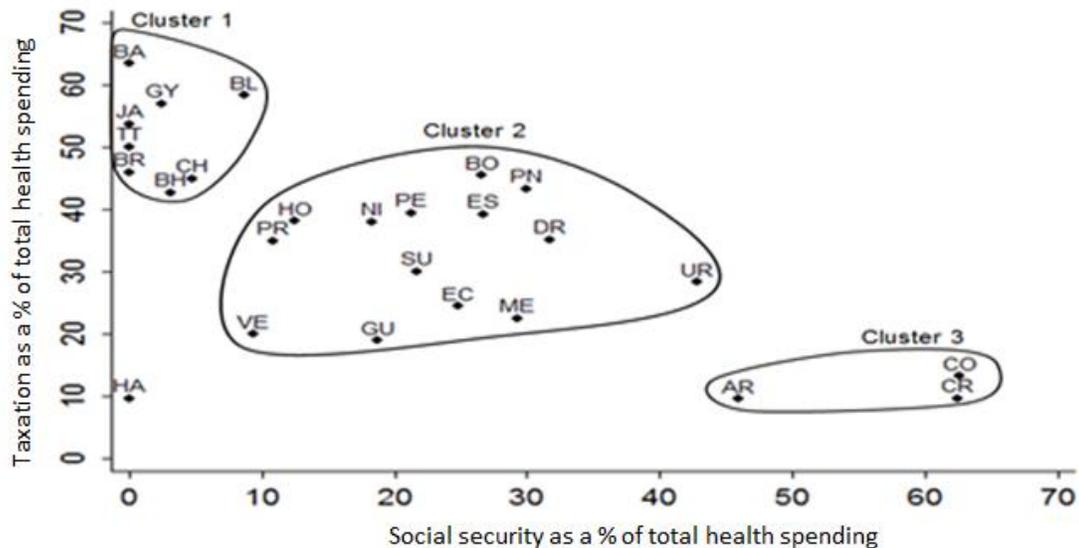
Table 1. Composition of health spending by region, 2002 and 2013

Description	Number of countries	Total health spending per capita (US\$PPP)		Public health spending/public spending (%)		Out-of-pocket spending/total health spending (%)	
		2002	2013	2002	2013	2002	2013
World	189	752	1,251	10.9	12.0	35.6	32.1
East Asia and the Pacific	24	313	589	10.4	11.5	31.4	27.5
Europe and Central Asia	28	725	1,309	11.0	11.4	39.2	37.1
Latin America and the Caribbean	32	477	848	12.3	13.3	35.3	33.3
Middle East and North Africa	19	891	1,179	8.5	8.7	38.9	33.8
South Asia	8	136	321	8.3	8.3	52.4	50.3
Sub-Saharan Africa	47	140	263	9.0	11.1	42.7	36.1
High-income: OECD	31	2,362	3,832	14.3	15.6	18.8	17.9
Low-income	32	49	102	9.3	10.8	52.7	42.3
Lower middle-income	48	164	310	10.0	10.2	42.2	40.4
Higher middle-income	54	448	861	10.7	12.5	33.4	29.7
High-income	55	1,949	3,112	12.6	13.5	22.4	21.5

Source: Prepared by the authors based on WHO National Health Accounts data.

- 3.30 Financing system fragmentation is detrimental to efficiency and quality.** In general, the region's health financing systems are characterized by fragmentation, with different mixes of financing from contributions and general taxation, as well as the existence of different membership systems and different shares of private spending in the total. Based on those variables, the countries can be grouped into three main clusters in terms of the sources of public financing for the health sector, with general taxation predominating in the first cluster, mixed financing in the second, and social security financing in the third (see Figure 5). A high level of fragmentation may contribute to the existence of inequities if it limits access to services based on people's work or socioeconomic status, with the following consequences: high levels of out-of-pocket expenditure, poor financial protection, little possibility of risk pooling, and inefficient resource allocation (Titelman et al. 2014; Centrángolo 2014).

Figure 5. Sources of public financing for health in LAC, 2014



Source: Prepared by the authors, based on WHO National Health Accounts data.

3.31 **Options for reducing fragmentation in financing—resource collection and risk pooling—depend on each country’s context.** In the last decade, several LAC countries with mixed financing systems have strengthened the public noncontributory system, maintaining existing social security and private systems but reducing gaps between the different systems’ benefit plans, in some cases even combining them (Atun et al. 2014). As indicated in Table 3 below, the first cluster consists mainly of countries that share similarities with the national health service model in the United Kingdom; the second cluster contains most of the countries, with mixed models and marked fragmentation; and the third cluster is composed of the small number of countries in which the main public source is social security. Given these trends, it should be a priority to evaluate: (i) the potential economic inefficiencies associated with the financing mixes observed (see paragraphs 2.24 and 3.10); (ii) the strengths and weaknesses of the collection options (for example, giving greater weight in health care financing to general taxation and less to payroll taxes, or reviewing the feasibility of mandatory contribution systems based on individual payment capacity, not linked to work status, which, thus far, have been difficult to implement in the region); (iii) resource pooling options, given the political economy of the contributory systems; and (iv) institutional options and instruments for allocating resources to insurers and/or providers based on the population’s risk profile, which represents another challenge in different countries of the region.

Table 3. Country type according to the mix of financing sources

Cluster 1. Predominance of general taxation	Cluster 2. Mixed financing (contributions and general taxation)	Cluster 3. Predominance of social security
Universal and unified public system: Brazil. Systems based on national health services: Bahamas, Barbados, Belize, Jamaica, Suriname, Trinidad and Tobago. Separate systems, general taxation accounting for a significant share: Chile.	Separate social security systems with low integration: Bolivia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Dominican Republic, and Uruguay.	Process of integrating benefits and regulation ongoing: Colombia. Total integration of financing and service delivery: Costa Rica. Separate systems, social security accounting for a significant share: Argentina.

Source: Prepared by the authors.

- 3.32 **The inefficiency of health sector financing in the region may be significant.** Despite the unavailability of systematic information on the level of health sector inefficiency in the region, evidence has been emerging that the resources that the countries invest in health care are not yielding the expected returns. An analysis of 191 countries found that healthy life expectancy in LAC was between 12 and 44 percentage points below the most efficient countries worldwide (Salomon et al. 2012). An example of technical inefficiency in the region is that 20% of hospitalizations could be avoided through good primary care—equivalent to savings of approximately US\$3.8 billion in 2010 (Guanais et al. 2012).
- 3.33 **Inefficiencies in resource allocation is reflected in public spending on costly medical technologies with low value added.** For example, insulin analogs are increasingly being used instead of human insulin in several Latin American countries to treat type 2 diabetes, although the analogs are up to five times more expensive than human insulin and there is little evidence that their long-term effects are superior in most cases (Sakuma et al. 2016). This contrasts with decisions in countries such as the United Kingdom and Germany, where it is recommended that human insulin be used as the preferred alternative, and that analogs only be used in very specific circumstances. The impact of these decisions is even more evident if one considers that the region has still not attained acceptable levels of coverage of the most basic health services for all the population, particularly its most vulnerable groups.
- 3.34 **Implementation of results-based financing arrangements will require an adequate platform.** RBF in LAC has focused on supply; on the way in which providers of related services are paid by donors or the government; on levels of service production (such as prenatal health or well-child visits) to a certain extent; and, very infrequently, on health outcomes. These arrangements have been implemented in Belize, Costa Rica, Panama, and the Dominican Republic (Miller and Singer Babiartz 2013), and also under the umbrella of the MHI. The case that has perhaps been most evaluated in the region is Programa Sumar in Argentina, the results of which have shown an increase in the use and quality of prenatal care services and improvements in birth outcomes, associated with service-based payments to providers under the provincial government’s program (Nuñez et al. 2016; Gertler et al. 2014).

- 3.35 **Interest is growing in RBF as a potential policy instrument for improving efficiency, but there is a need to address a number of challenges in implementing it.** To ensure contract compliance, RBF requires effective information systems and monitoring, evaluation, and audit capacities. The financing and delivery functions should be separate and agents should have the autonomy to make changes to processes and resource management as required to achieve the established goals. Suitably qualified human resources are needed to perform the actions required to comply with indicators associated with the payment of incentives (Eldrige and Palmer 2009). The design of payment mechanisms should anticipate and adopt mitigation measures to avoid possible negative consequences, such as the excessive transfer of risk to providers, a lack of attention to performance in unmeasured areas, and negative consequences for the intrinsic motivation of providers (Miller and Singer Babiarz 2013).
- E. Medical technologies. There is a risk of an acceleration in health spending growth, stemming from the adoption of medical technologies.**
- 3.36 **Explicit benefit plans and evidence-based coverage decisions are part of a strategy to contain health expenditures and improve efficiency in LAC.** A large number of countries now have explicit health benefit plans, aimed at allocating resources to more effective interventions and improving controls over health spending (Giedion et al. 2014; Cotlear et al. 2015). Some of these have already been in operation for over a decade (in Colombia, Mexico, Chile, Peru, Uruguay, and the Dominican Republic, among others), while others are in the process of designing them (e.g. Honduras). Some countries, such as Chile, Peru, and Uruguay, have included explicit guarantees in their benefit plans regarding access, financial protection, and quality. Several countries have institutionalized the evaluation of health technologies to support decision-making. In 2012, Latin America became the first region in the world to adopt a resolution on the importance of Health Technology Assessment (HTA) in health systems.¹¹ To find out more about the status of HTA in the region, PAHO carried out a mapping exercise that compiled information on 31 countries. It found that the region has 76 institutions that are engaged in some type of HTA-related activity (revealing a certain degree of fragmentation), and that 49% of these are state agencies. Similarly, 12 countries in the region have HTA units, commissions, or institutes, and 7 reported having laws that in some way mandate the use of HTA in decision-making processes.
- 3.37 **There is growing evidence demonstrating concrete savings from implementing HTA in LAC countries.** Beyond legislation, the actual linkage between HTA conclusions and decision-making is still incipient, but it is promising. In Brazil, for example, the authorities' adoption of a recommendation to substitute high-cost statins with low-cost alternatives (preventative medicines for cardiovascular disease) in national primary care protocols may have saved the public health budget more than US\$2 billion (Vianna Araujo et al. 2011). In the case of Colombia, the government spent US\$31.1 million in 2014 on applied behavior analysis (ABA therapy) for the treatment of autism, before the Health Technology Evaluation Institute (IETS) conducted a thorough evaluation and concluded that

¹¹ See PAHO CSP28.R9.

- there was insufficient evidence to indicate that these therapies were of proven clinical effectiveness.¹²
- 3.38 **Consolidating an explicit priority-setting system calls for regulation and capacity building.** There are a number of difficulties in designing and implementing a priority-setting system in the LAC region, which include technical limitations for evaluating technologies and designing and updating benefit plans, as well as the lack of a regulatory and institutional framework within a systemic approach that incorporates the processes of the institutions responsible for evaluating, regulating, purchasing, and prescribing technologies (Cañon et al. 2016; Giedion et al. 2014; Giedion et al. 2013). Despite the progress made, few countries currently have well-established institutional frameworks for making coverage decisions and updating benefit plans based on evidence.
- 3.39 **Explicit priority-setting entails the coordination of multiple actors and processes, and results may be limited if this is not achieved.** It is very unusual in the region for health technology registration to be coordinated with those for technology evaluation and coverage decisions (Cañón et al. 2016). There is opportunity for improving coordination of HTAs with decisions on which technologies to finance with public funds (Criteria 2016c). The segmentation of health systems further hinders coordination (Barraza et al. 2016). Conflicts have also arisen with respect to the constitutional framework, which in many countries is based on the right to health. This is used in litigation to demand access to high-cost interventions, a phenomenon known as the “judicialization of health” (Vargas-Peláez et al 2014). In Colombia, expenditure on this item has reached 20% of the total amount of health social security contributions collected (Criteria 2016d).
- 3.40 **The region needs to deepen measures to regulate spending on pharmaceutical drugs.** Latin America is becoming one of the fastest-growing markets for pharmaceutical drugs in the world. Illustrating the importance of the region to this market, Global Health Intelligence (2015) reported that growth in the Latin American market for drugs would be 12% in 2017, four times higher than in the European and North American markets. Changes in the region’s epidemiological and demographic profile, together with the emergence of a growing middle class, explain why several countries in the region have seen rapid growth in drug spending, and why the Latin American region is an increasingly important part of the global pharmaceuticals market. In 2016, countries belonging to Mercosur (Argentina, Brazil, Paraguay, Uruguay, Venezuela, and Bolivia) and Unasur (Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, and Venezuela) began joint negotiations with pharmaceutical laboratories for the purchase of high-cost medicines for cancer treatment. Along with strengthening their medical technology evaluation capacities, the region’s countries need to develop legal and institutional instruments and experience in the regulation and negotiation of drug prices and/or centralized drug procurement, as well as explore information-sharing mechanisms. For example, the DIME Network (see paragraph 4.29) is assisting a number of countries in the region to improve the management of medicines with a high financial impact, through the production and distribution of relevant information to support decision-making on publicly-funded coverage.

¹² See <http://www.iets.org.co/reportes-iets/Paginas/Efectividad-seguridad-terapias-ABA.aspx>.

F. Governance. Against a background of fiscal constraints in the region, the function of service delivery management takes on greater importance in achieving health outcomes.

- 3.41 **In most LAC countries, the public health authority function is better developed than that of service delivery management.** In most LAC countries, the structure and organizational capacities of ministries and departments of health include health authority functions such as vaccination campaigns, vector eradication, epidemiological surveillance, and the safety of pharmaceuticals and medical technologies (Atun et al. 2015). However, there is no comparable development in organizational structures and institutional capacities for service delivery management (Dussault 2015). Those functions are essential for ensuring the efficient operation of service networks, including, for example, supply planning, the contractualization of results, cost management, the procurement of goods and services, logistics, performance management, and monitoring and evaluation (Bengoa 2013). In countries with a high degree of decentralization in health (including Argentina, Brazil, Bolivia, Colombia, Mexico, and Peru), the challenge is to strengthen management at the subnational level as well.
- 3.42 **The weak development of health information systems represents a persistent bottleneck for efficient management.** Even vital statistics data, which are basic for determining health needs, are incomplete in most countries. In the period from 2010 to 2012, only one of the IDB's 26 borrowing member countries had vital statistics systems classified as being of very good quality, while 2 were good, 8 were fair, 11 were of low quality, and 4 were of very low quality (Mikkelsen et al. 2015). Nonetheless, there are a number of positive examples and progress in information systems. These include the discovery of a link between Zika virus infection in pregnant women and microcephaly in children, reported by Brazil's health authorities in 2015 (Paixão et al. 2016). Between 2011 and 2014, there was a 40% increase in the number of national cancer registries in LAC countries, though the population covered by those registries is still low (Strasser-Weippl et al. 2015).
- 3.43 **To improve health outcomes, there is a need to coordinate measures that lie outside the health sector's control.** For example, tax policy can be used as an instrument for changing behaviors and adopting healthy habits. Levels of smoking in the region are still very high, averaging 25.8% (32.2% for men and 19.5% for women). Levels are even higher in the Southern Cone, particularly Chile and Uruguay (Ng et al. 2014; Miranda et al. 2013). A review of 32 studies found that in the higher-income countries of LAC, the price elasticity of demand for cigarettes is around -0.5, indicating that tax policy may have some effectiveness in reducing consumption and increasing revenue collection (Guindon et al. 2015). In Mexico, where drinks were one of the three main daily sources of calories ingested by children and adults in 2012 (Stern et al. 2014),¹³ an excise tax on sugary beverages was introduced on 1 January 2014. Though the evidence is still preliminary, an observational study found that the consumption of beverages subject to the tax declined by an average of 6% compared to the 2012 baseline, reaching a reduction of 12% in December 2014. The reduction was higher among households of lower socioeconomic status (Colchero 2016).

¹³ In 2012, the three main daily sources of calories for children and teenagers were flavored milk drinks, nondiet sodas, and juice drinks. For adults, they were nondiet sodas, sweetened coffee or tea, and juice drinks.

IV. LESSONS LEARNED FROM THE IDB'S EXPERIENCE IN HEALTH AND NUTRITION

4.1 **Between 2013 and 2015, 18 sovereign-guaranteed loan operations and 44 technical cooperation operations were approved in the health sector, totaling US\$2.9 billion and US\$18.7 million, respectively.** The value of loans approved increased by 84% compared to the previous three-year period (2010 to 2012), while the value of technical cooperation operations declined by 1%. Sixteen investment grants were approved within the framework of the Mesoamerican Health Initiative (see paragraphs 4.5, 4.25, and 4.26) for a total amount of US\$28.3 million, of which US\$19.3 million were investment tranches and US\$9.0 million were performance incentive tranches. One non-sovereign guaranteed operation was also approved in the health sector.

A. Results of the Development Effectiveness Matrix (DEM)

4.2 The DEM for sector projects shows improvements over time in key aspects of each operation's design, from sector diagnostic assessment to evidence-based identification of interventions and the planning of monitoring and evaluation activities (see Table 3). In the 2013-2015 period, 10 projects were classified as "highly evaluable" and 8 as "evaluable", indicating a certain balance between these two categories.

4.3 In the "project rationale" area, the results obtained are explained by the use of relevant and updated studies and diagnostic assessments as the foundation for interventions supported by Bank operations. In the area of "monitoring and evaluation," the sector has placed priority, where possible, on using administrative data to perform robust evaluations with the following objectives: reducing the costs of these studies; encouraging the use of data that are routinely collected but infrequently analyzed; and improving medium-term incentives to improve the quality of administrative data. In the "economic analysis" area, despite the methodological difficulties inherent to the valuation of life years (Neumann et al 2014), the use of health metrics such as DALYs (see paragraph 3.6) in cost-effectiveness analyses has been an important tool in establishing, for example, the importance of supporting preventive health strategies in IPHNs (see paragraph 2.10), and also of prioritizing certain expenditures (see paragraph 2.31) in Bank-financed projects.

Table 2. Summary of sector DEM results (score and classification)

Year	Number of projects approved	Score by section				Annual average score	Number of projects by classification**		
		Program rationale	Monitoring and evaluation	Economic analysis	Risk management		Highly evaluable	Evaluable	Partially evaluable
2010-2012	16	8.3	8.1	7.6	8.9	8.2	5	9	2
2010	5	8.3	6.2	7.5	8	7.5	0	4	1
2011	4	7.9	8.3	7.2	8.8	8	1	2	1
2012*	7	8.7	9.7	8.2	10	9.2	4	3	0
2013-2015	18	9.7	9.7	8.3	n.a.	9.2	10	8	0
2013	5	9.4	9.6	9.2	n.a.	9.4	4	1	0
2014	9	9.6	9.5	7.8	n.a.	9.0	4	5	0
2015	4	10.0	10.0	7.8	n.a.	9.3	2	2	0

Note: (*) For 2012, the table includes the “Early Childhood Development Program” (PR-L1051) and the “Grow Well to Live Well Early Childhood Development Program” (BO-L1064). Although these are classified as social investment, they have a comprehensive approach to early childhood development and include financing for health components.

(**) No project was classified as “partially unevaluable” or “unevaluable.”

Source: Prepared by the authors.

B. Lessons learned from the experience of Bank operations

- 4.4 There has been no new evaluation of health sector operations by the Office of Evaluation and Oversight (OVE) since the last Sector Framework Document.¹⁴ The discussion below therefore summarizes the main lessons learned based on project monitoring reports, project completion reports, and loan documents for sovereign guaranteed (SG) and non-sovereign guaranteed (NSG) operations.
- 4.5 In terms of SG operations, the Bank has succeeded in positioning itself strategically and maintaining a significant presence in the health and nutrition sector through loan operations in 21 of the Bank’s 26 borrowing member countries, with more significant participation in terms of the number of operations in the most vulnerable countries facing greater institutional challenges. The Bank also has a permanent presence in the sector in Mesoamerica, with innovative results-based financing initiatives such as the Mesoamerican Health Initiative, which is a public-private partnership between the Bill & Melinda Gates Foundation, the Carlos Slim Health Institute, the Spanish Agency for International Development Cooperation, the governments of eight countries in the Mesoamerican region, and the Bank (see paragraphs 4.25 and 4.26).
- 4.6 Despite efforts to develop business in the sector, the operational experience of the NSG windows in the area of health social infrastructure has been limited, with three operations approved by the Bank between 2009 and 2015. Important lessons have been learned, however. As this portfolio is relatively new for NSG operations, these projects sought to demonstrate that private sector investment in health social infrastructure projects is viable. In 2014, one of the operations was repaid and the debt canceled due to the emergence of operational risks. The financial close of the second operation was not achieved and it was canceled.
- 4.7 The main lessons learned from both Bank windows (SG and NSG), as well as the interface between the two, are summarized below.

¹⁴ The last sector review carried out by OVE was the “Health Sector Evaluation: 1995-2005.”

1. Lessons learned and recommendations from SG operations

- 4.8 **Alignment with national priorities.** Interventions must be aligned with national priorities in order to ensure their sustainability through political and technical support. This need is even more pressing in infrastructure and strategic projects, in which it is crucial to actively involve local governments to ensure improved health service access and coverage. Recommendation: the definition of strategic areas of the operation in alignment with government priorities facilitates political commitment during development and implementation of the program.
- 4.9 **Institutional and execution capacity.** The main execution arrangements used in health sector projects in recent years have been as follows: (i) use of the structure of line ministries, with added support to meet the demands of project management (as in operations in El Salvador, Nicaragua, Brazil, Argentina, the Dominican Republic, and Honduras, among others); and (ii) the use of self-contained execution units attached to ministries and created specifically for the purposes of project management (as in Bolivia, Ecuador, Guatemala, Panama, Paraguay, and Peru, among others). In a number of cases, under both scenarios, ministry-led execution has been supported by technical assistance from management firms (for example, in Bolivia and in a number of projects in Brazil). There are trade-offs in each one of these arrangements in terms of ownership of the project by the national authorities, sustainability of the intervention, and expeditiousness in execution, among other things. In deciding which model to use, it is important to assess the specific institutional context and the objectives of the project. A common lesson from all of the projects is the importance of using modern planning tools; these were essential, for example, to the success of operations under the MHI (see paragraphs 4.25 and 4.26). Recommendations: (i) conduct careful evaluations of the institutional management capacity of the different entities involved in execution; (ii) support the drafting of manuals and/or operating regulations that include a clear definition of the functions of the units and staff assigned or the teams belonging to the line departments, of decision-making levels and channels, and of the responsibilities of each stakeholder; (iii) adopt a systemic approach to analyzing processes, enabling factors, and obstacles to success; (iv) foster the use of modern planning and management tools, with the support of project management software and dashboards; (v) strengthen the capacity of technical teams responsible for managing all the technical and fiduciary aspects of execution cycles for infrastructure works; (vi) reinforce service supervision systems in sector institutions through an approach based on evaluation, training, and continuous measurement of improvements; (vii) ensure the involvement of senior ministry staff in supervising program management to provide an element of stability in the projects.
- 4.10 **Maintenance and sustainability of infrastructure.** Failure to allocate funding in emergency situations or for preventive maintenance can imperil the sustainability of infrastructure. Some projects have faced challenges even where contractual conditions have been included requiring a percentage of infrastructure costs to be allocated to maintenance funds. As a result, the Bank has been discussing the inclusion of maintenance services for longer time periods in hospital construction tenders, as in the case of a Bank-supported program in Nicaragua. Recommendations: (i) create a long-term fund to provide funding for any required maintenance activities; (ii) build capacity through specific technical maintenance plans; and (iii) consider the possibility of construction contracts that include maintenance services over a long period.

- 4.11 **Participation of users and stakeholders.** By ensuring user participation (starting with the project design phase) and using solid and stable communication channels to effectively coordinate stakeholders, resistance that can hinder project implementation can be avoided. At the institutional level, the use of participatory mechanisms for decision-making has fostered accountability on the part of the authorities, facilitated the institutionalization of monitoring meetings, and generated shared responsibilities. In Ecuador, the Dominican Republic, and Brazil, for example, it has been demonstrated that a participatory approach is crucial in situations involving change, such as the improvement of health information management systems and investment management. At the community level, the cultural adaptation of services with the participation of beneficiaries—carried out as part of MHI activities in Guatemala, Honduras, Panama, and Mexico, as well as in Bank loan operations in Bolivia and Ecuador—has proven to be a good practice for boosting program ownership on the part of beneficiaries and local authorities. Recommendations: (i) strengthen the role of stakeholders at both the community and institutional levels by instituting consultation mechanisms during the preparation and implementation phases; (ii) incorporate the perspective of service users through intercultural adaptation instruments; and (iii) empower users to monitor health service delivery and report failures and irregularities to the relevant authorities, informing them of the benefits to which they are entitled.
- 4.12 **Strengthening the planning capacity of service networks.** Increasing the coverage and quality of services calls for the integration of activities across the different levels of health care; this can be achieved efficiently by forming service networks. The main objective of these networks is to ensure a continuous supply of comprehensive, quality primary care and reduce inefficiencies and overlapping services. To this end, service networks require robust and centralized information systems. Moreover, the more challenging macroeconomic and fiscal outlook for the region increases the pressure for service efficiency. In this context, the efficient use of resources requires the strengthening of organizational culture and technical capacity for planning health care networks. These efforts to strengthen management include the use of demand estimation techniques, taking demographic and epidemiological changes into account; planning of the lines of care; preparation of investment plans in infrastructure, human resources, and equipment; and strengthening of network management processes, among other things. Recommendations: (i) link investments in infrastructure with strengthening of network management and planning instruments; (ii) streamline the expansion and updating of infrastructure based on service supply and demand projections; (iii) evaluate the need to train human resources for health at an early stage in the infrastructure investment cycle; and (iv) take advantage of the launch of infrastructure projects to introduce changes in service models with a view to greater efficiency and quality.
- 4.13 **Political economy of the reforms.** Given the implications and scope of the proposed health sector reforms, agents such as insurers, pharmaceutical companies, hospitals, medical associations, territorial authorities, and users may seek to impede their implementation if potential losses from the proposed new models are anticipated. It is more difficult to achieve consensus when discussions regarding the design and implementation of new strategies fail to take the intended outcomes of these strategies as their starting point. The introduction of results-based financing mechanisms (see paragraph 2.28)—as in the case of Bank operations in

Argentina, the Dominican Republic, Honduras, Panama, and Nicaragua, and in MHI operations (see paragraphs 4.25 and 4.26)—has helped to create favorable conditions for building consensus on the aspects of the system that need to be reformed. Recommendations: (i) use discussion of desired results as a starting point for building reform consensus; (ii) prepare and disseminate in-depth studies and data highlighting the benefits of the proposed measures; (iii) organize exchanges with governments and agencies of other countries that have experienced similar reforms with positive outcomes in order to share their experiences; and (iv) maintain ongoing dialogue on the positive outcomes expected for all system users, and their dissemination and promotion.

2. Lessons learned from SG/NSG collaboration

- 4.14 **Development of health PPPs.** The IDB, with the support of technical cooperation operations, has made significant progress in generating knowledge that helps to place the region's use of health PPPs in context (Alonso et al. 2015a; Alonso et al. 2015b; Alonso et al. 2014). SG operations have also increasingly included components to develop PPP instruments, such as in the case of technical units responsible for the creation and management of contracts in Trinidad and Tobago, and the inclusion under a programmatic series in Peru of conditionalities for the structuring of PPP projects (linked to a major program of technical cooperation to support PPP projects in the Ministry of Health network). Over the last three years there has been growing demand for advisory services in support of PPP projects in the region's health sector. Work should therefore be deepened in these areas, expanding the availability of technical and methodological instruments that facilitate the execution of health sector PPPs by the public sector, ensuring that projects awarded to the private sector are consistent with the health care network and are technically and financially robust.
- 4.15 **Collaboration of sector specialists in NSG operations.** The participation of sector specialists in the SG areas in the early development stages of NSG operations (in Mexico, for example) provided important sector knowledge regarding, for example, gaps and needs, public sector activities, and policy and regulatory frameworks.

3. Lessons learned in NSG operations

- 4.16 **Potential trade-offs between development impact and credit risk.** The experience with NSG operations has demonstrated a learning process in terms of identifying the balance between sector credit risk and the level of development impact of NSG operations in health. For example, achieving a higher proportion of beneficiaries belonging to vulnerable groups requires hospitals to depend more on repayments from public insurance systems for services provided; these tend to be subject to significant delays in the countries of the region and can therefore affect debt repayments.
- 4.17 **Local currency financing.** It is standard to use local currency in NSG health projects, but the lack of flexibility in the product has limited operational scope in the sector. The three operations in the portfolio of health operations were funded in local currency to minimize exchange risk, as payments and reimbursements for health services are in local currency.
- 4.18 **Mitigation of risks through strategic partnerships and technical assistance.** Useful strategies for improving risk evaluation and mitigation in health social infrastructure operations include partnering in projects with multilateral institutions

with greater experience in the sector (e.g. the International Financial Corporation), or funding a financial sustainability and feasibility analysis through a technical cooperation operation prior to the loan operation.

C. The Bank's comparative advantages in the health sector

- 4.19 In recent years, the Bank has set about strengthening its strategic position in the sector. The sector presence in the Bank's portfolio of investments in the region has been consolidated (see paragraph 4.1) and support is being provided to generate knowledge relevant to clients. Additionally, collaborative ties with other public and private institutions committed to progress with the region's health agenda have been strengthened. In the context of a reduction in support to the sector from bilateral cooperation agencies, the combination of these strategies creates an important source of value added for clients, as it links financial investments that have been growing in number and volume (a symptom of robust demand) with the generation of knowledge in areas seen by them as priorities.
- 4.20 The Bank's portfolio of operations in the health and nutrition sector has gradually come to be targeted towards supporting promotion and prevention and developing integrated service networks geared to client demand. This is consistent with international evidence of the need to prepare health systems to close gaps in maternal, neonatal, and child health, and to handle the CNCD epidemic (see paragraphs 3.3 to 3.8). The Bank's knowledge-generation efforts have also been aligned with this priority agenda for LAC and are gaining growing recognition. Notable areas are (i) health expenditure prioritization systems; (ii) strategies for CNCD management and control and health system performance evaluation (with special reference to primary care effectiveness); (iii) results-based payment and financing mechanisms; and (iv) measurement of service quality, especially in maternal, neonatal, and child health care.
- 4.21 The priority areas identified in this SFD (see paragraph 5.2) require a set of competencies for the design, financing, and operation of health care systems, as well as technical knowledge on the subjects of maternal and child health and CNCDs. The Bank's team possesses technical knowledge in these two areas and in recent years has strengthened required competencies concerning the design and management of integrated service networks, with emphasis on primary care, hospital management (although demand still exceeds current response capacity), planning and tender processes for complex health infrastructure, public-private partnerships in health, and results-based financing models, etc. Nonetheless, there is room for the Bank to strengthen its competencies and response capacity in relation to sector financing, human resource planning and management, and information technology.
- 4.22 The Bank has decentralized a substantial number of sector specialists, which has made it possible to strengthen dialogue with clients, consolidate knowledge of local contexts and characteristics, and provide greater supervision of local operations. It is also promoting synergies with other sectors such as water and sanitation (with a view to better health outcomes) and the fiscal and State capacity sectors (in order to improve sector management and efficiency). The Bank's organizational structure, which combines health and social protection in a single division, facilitates expeditious response to client demands for synergistic and complementary investments in the two sectors. Good examples of these synergies are conditional

cash transfer programs, comprehensive early childhood development, and the integration of social and health care systems for long-term care.

- 4.23 There are health sector areas where the Bank, recognizing the expertise and institutional capacity already developed by other institutions, does not seek to play a leadership role, but rather to strengthen partnerships and promote joint actions, for example in: (i) methodologies for evaluating health care technologies and drug policies, with PAHO; (ii) systems for surveillance and control of emerging threats (such as Zika, chikungunya, or the flu pandemic), with PAHO, the Caribbean Public Health Agency, and the United States Center for Disease Control and Prevention; and (iii) the design of mechanisms to ensure the sustainability of actions that seek to hasten the end of the epidemics of HIV/AIDS, malaria, and tuberculosis, with the Global Fund to Fight AIDS, Tuberculosis and Malaria (the main global source of funding for the control and prevention of these diseases). If prioritized by the countries during the programming process, the Bank could provide financial support in these areas.
- 4.24 A number of emblematic initiatives should be highlighted on account of their scope and/or impact, including the Mesoamerican Health Initiative (mentioned in paragraphs 2.7, 2.28, 3.16, 3.17, 3.19, 3.34, and 4.5 above) and the knowledge networks led by the Social Protection and Health Division (SPH), which are described below. These initiatives have been complemented by numerous successful intraregional technical-cooperation experiences (CT/INTRA) for countries in the region to share experiences in the areas of maternal and child health, hospital management, and the evaluation and selection of health technologies, among others.

1. Mesoamerican Health Initiative (MHI)

- 4.25 The Bank's proactive role in building public and private partnerships is a major advantage. One example is the MHI, under which investments are being made in the supply, usage, and quality of maternal-child health services and high quality nutrition of proven cost effectiveness in extremely poor communities in remote areas in eight countries (Panama, Costa Rica, Nicaragua, Honduras, El Salvador, Guatemala, Belize, and the state of Chiapas in Mexico).¹⁵ The MHI is a pioneering experience for both the region and at the global level in results-based financing mechanisms (see paragraph 2.28) and data- and evidence-based decision-making. It has succeeded over a relatively short period of time in substantially improving coverage and quality indicators in service delivery for the most vulnerable population groups in Mesoamerica (Bernal et al., forthcoming).
- 4.26 Initial financing for each operation comes from MHI funds (investment tranche) and national funds. Where the outcomes agreed upon with the countries are achieved (in terms of policy changes and the coverage and quality of health services), the MHI disburses half of the amount contributed by the governments (performance tranche). Robust and independent evaluations are being carried out throughout the projects' implementation in order to verify outcomes. Table 4 below describes some of the main innovations introduced under the MHI, such as, for example, the collection and analysis of specific data for the poorest areas; the systematic use of data for decision-making and results-based management; a strong emphasis on improving

¹⁵ See <http://www.saludmesoamerica.org>.

quality; and the introduction of innovations in management processes and clinical procedures.

Table 4. Main innovations introduced by the MHI

Innovation	Description
Generation of specific data for the poorest areas	Importance of targeting the poorest areas based on robust and reliable data. Much of the data generated by the MHI indicated that problems in the poorest areas were of a greater magnitude than expected, particularly in terms of data quality and effective service coverage.
Strengthening of evidence-based decision-making processes	The approach introduced through the MHI seeks to improve the quality and timeliness of services based on the data routinely produced by information systems. This has allowed improvements in the prioritization, design, and monitoring of services, as well as in the health status of the population, without the need for major changes affecting the entire information system.
Results-based management on a large scale	The MHI introduced technical assistance to develop planning and monitoring capacities based on results and on the design of programs with a systemic vision, through the adoption of a theory of change that integrates the transformations that the intervention aims to achieve and makes them explicit.
Introduction of programs supporting management for continuous improvement in maternal health	As part of the emphasis that the MHI has placed on improving service quality, continuous improvement programs that operate routinely as part of system functions are key. The MHI has introduced management measures that seek to examine all care processes to identify opportunities for improvement.
Innovations in biomedical technology and service platforms	The introduction of innovations—especially appropriate technology and other biomedical innovations, service platforms, and demand incentives—is vital for renewing systems and improving their effectiveness and efficiency.

Source: Prepared by the authors.

4.27 Tools initially developed under the MHI operations have been incorporated into the Bank's portfolio of health care loans or scaled up to the national level by the countries' governments. Examples include management measures such as the expansion of the dashboard for maternal and child and reproductive health indicators to the entire state of Chiapas and to the entire country of El Salvador (a process that is also under way in Panama); the expansion of results-based management in hospitals in Honduras as part of a national process of autonomy; and the strengthening of results-based planning instruments in eight countries. Programmatic measures proposed by the MHI have also been incorporated and expanded: for example, the expansion of the primary health care quality model to the entire country of El Salvador; reorganization of health care networks based on the Essential Obstetric and Neonatal Care model in Chiapas; and the update of national standards for diarrhea management (through zinc dosing in El Salvador and Panama, and the use of micronutrients to reduce anemia in El Salvador and Honduras).

2. Knowledge networks

4.28 The objective of the Regional Network for Explicit Priority-setting and Benefit Plans in Health (CRITERIA), which today has more than 900 members, is to support and promote exchange among the countries of the region to strengthen their health

priority-setting systems (see paragraphs 2.30 and 2.31). By deploying different communication strategies, knowledge management and dissemination, and management of cooperation projects designed for the specific context in each country, CRITERIA has managed not only to introduce or reinforce the importance of expenditure priority-setting within the countries' government agendas, but also to strengthen the Bank's technical and policy dialogue with the countries of the region. To date, the CRITERIA team has designed and implemented projects to support priority-setting systems in Colombia, Costa Rica, the Dominican Republic, and Uruguay. All of the information produced is publicly available on the web (www.redcriteria.org).

- 4.29 Another regional initiative—the DIME Network—is a collaborative project currently involving eight countries (Colombia, Costa Rica, Chile, Ecuador, El Salvador, Mexico, Peru, and the Dominican Republic); it is aimed at producing and managing easily accessed, up-to-date, and objective information for decision-makers involved in the public financing of health technologies (see paragraph 3.40). The DIME network is financed by two operations under the Regional Public Goods Initiative. It produces and publishes (via a web platform) information on medicines with a high financial impact that is validated and compared with high-income countries and countries in the region, as agreed upon by the participating countries. The information includes prices, coverage, competition, and evidence of clinical effectiveness. In the current stage, the initiative gathers and disseminates information on price, coverage, competition, and rational use of 20 medications. Detailed information on medication prices and coverage by the health system is available for Colombia, Ecuador, and Mexico, and prices and coverage are indicated for benchmark countries like Australia, Brazil, Canada, Chile, Germany, New Zealand, Norway, and Peru. All of the information produced is publicly available on the web (www.omaif.org).
- 4.30 A Regional Collaborative Network was also recently launched in collaboration with ISALUD University to support the management of Health Services Networks (www.riisalud.net). Its objective is to facilitate the sharing of experiences and stimulate cooperation between actors to improve the management instruments used in managing health service networks. Ten countries are currently participating in the initiative (Argentina, Bolivia, Chile, Colombia, Costa Rica, the Dominican Republic, El Salvador, Honduras, Paraguay, and Uruguay).

V. DIMENSIONS OF SUCCESS AND LINES OF ACTION TO GUIDE THE BANK'S OPERATIONAL AND RESEARCH ACTIVITIES

- 5.1 This SFD proposes the following key goal for the Bank's health and nutrition activities in the next three years: promote better health among the population, with equity, financial protection, and sustainability.
- 5.2 Bearing in mind the need to establish priorities for Bank action in the health sector, in the context of the region, the health of the population can be improved through interventions targeting the following three epidemiological challenges: (i) closing gaps in maternal and child health indicators across socioeconomic levels and ethnic groups, with emphasis on reducing maternal and perinatal deaths and improving nutrition in pregnancy and early childhood; (ii) controlling the growing incidence of CNCDs; and (iii) supporting the countries' efforts to strengthen their preparation and response capacity for epidemiological emergencies. The strategies proposed for

- overcoming these challenges with equity, financial protection, and sustainability are as follows: continuing to invest in the reduction of economic and noneconomic barriers to health service access; strengthening integrated service networks with a prevention-based approach; fostering greater efficiency in the mobilization, pooling, and use of resources based on epidemiological priorities and evidence regarding cost-effectiveness; and strengthening sector management capacities, health intelligence, and intersectoral coordination.
- 5.3 To provide guidance for the Bank's operational work and meet the goal proposed for the next three years, **four interdependent Dimensions of Success** are proposed. These dimensions were formulated based on the best available evidence regarding successful policies and programs under the six components of health systems described throughout this SFD (see paragraph 2.3), as well as the lessons learned from the Bank's experience in the sector. This SFD is complemented by the Bank's programming instruments. Therefore, although the Dimensions of Success guide the Bank's operational and analytical activities, support for borrowers will address the specific demands of the countries.
- 5.4 The rationale for each Dimension of Success is summarized below. A description is provided of the corresponding priority lines of action, and specific operational and knowledge activities are proposed as the focus of the Bank's work in support of the region's health systems over the period covered by this SFD. The main guiding principles in determining the dimensions were the cost-effectiveness of interventions and reductions in inequality.
- A. Dimension of Success 1. All are informed and share responsibility for their own health care.**
- 5.5 **International evidence indicates that to improve the health of the population, users must participate in their own care and adopt healthy behaviors.** This evidence is even more relevant given the region's epidemiological profile, which is dominated by CNCDs that require life-long preventive efforts and continuous management and control on the part of people who have developed one or more chronic conditions. For individuals to care for their health, however, socioeconomic and gender- and ethnicity-based obstacles and cultural factors must be overcome. This first dimension of success highlights the importance of reducing economic and noneconomic barriers to health services access, and of directing health and nutrition care toward promoting self-care and preventing risk behaviors.
- 5.6 **Lines of action:** (i) strengthen intersectoral education and communications approaches for behavioral change and the adoption of healthy lifestyles; and (ii) reduce economic, gender, ethnic, and cultural barriers to encourage the use of services.
- 5.7 **Operational activities:** (i) interventions for population risk screening and behavioral change (for example, programs to improve feeding and child care practices; promotion of the use of preventive services by the male population; sexual and reproductive health programs for adolescents; and communication programs using ICTs for behavioral change); (ii) interventions contributing to overcoming economic, gender, and cultural barriers to the use of services (for example, conditional cash transfer programs; incentives to promote adherence to disease management protocols; cultural and gender adaptation of services; or promising interventions such as "maternity waiting homes" for pregnant women in remote rural areas, among others).

- 5.8 **Knowledge and dissemination activities:** (i) generate knowledge regarding (a) the risk profiles of the population and effective strategies for behavioral change, and (b) interventions that help to overcome economic, gender, or cultural barriers to the use of services; and (ii) publish and disseminate papers on the systematization of experiences and the results of impact evaluations of strategies to encourage the use of preventive services.
- 5.9 These activities will be carried out by SPH, in collaboration with the Gender and Diversity Division (GDI) and the Education Division (EDU), where appropriate.
- B. Dimension of Success 2. All have timely and continuous access to high quality health services and nutrition.**
- 5.10 **International experience indicates that the organization of health services into integrated networks based on primary care boosts the population's access to quality services and fosters efficient delivery.** Public health systems are responsible for providing services to most of the population in the region, which still faces important challenges in terms of service coverage and quality. The second dimension of success is associated with actions to strengthen service delivery (including adequate education and management of health care personnel) and important aspects of governance (such as accreditation, inspection, surveillance, and control activities). This dimension seeks to guide supply-side investments (infrastructure, human resources, inputs, technology, clinical and health management processes) with the objective of assisting the region's countries in achieving universal health coverage with high-quality services.
- 5.11 **Lines of action:** (i) ensure the sufficiency and relevance of infrastructure, technology, inputs, and human resources required for the creation of service networks; and (ii) strengthen the planning and management capacities of these networks with the participation of public and private actors.
- 5.12 **Operational activities:** (i) investment to improve physical and technological infrastructure at all levels of care, and to comply with modern standards of energy efficiency and climate change resilience; (ii) provision of medical inputs and equipment and the supply and distribution chains for those inputs; (iii) promotion of private sector participation in public infrastructure improvements; (iv) education and training programs and innovative incentive schemes to improve the performance and geographical distribution of human resources for health, as well as interventions to optimize the composition of health teams; (v) investment to strengthen the organization and the clinical and health management models of service networks and the units comprising them; (vi) investment to cover the operating costs of expanding care through models for public or private delivery of health care with public funding (including through the nonprofit private sector and civil society organizations); and (vii) development or consolidation of the regulatory framework necessary for solid public-private coordination in the area of private service delivery with public financing, and the development of public-private partnerships for the construction and maintenance of infrastructure and equipment for hospitals and public clinics, and/or their clinical management.
- 5.13 **Knowledge and dissemination activities:** (i) support the countries in developing investment plans and sustainability analyses through technical assistance and analytical work; (ii) generate and systematize knowledge about network organization and management models, including a publication on models of organization of integrated health care service networks in the region, and another

- on health service access, quality, and utilization from a user perspective; (iii) generate knowledge regarding the use of “Big Data” techniques applied to large administrative and clinical datasets with a view to furthering the performance evaluation of health service networks, including efficiency aspects; (iv) systematize and generate knowledge regarding models for the integration of social and health care systems for long-term care; and (v) systematize and generate knowledge regarding PPPs in the region’s health sector.
- 5.14 This line of activities will be supported, where appropriate, by collaboration with the Climate Change and Sustainable Development Sector (CSD), the Institutions for Development Sector (IFD), and the Operations Financial Management and Procurement Services Office (FMP).
- C. Dimension of Success 3. Financial protection is achieved through efficient public health care expenditure.**
- 5.15 **To attain universal health coverage (particularly protection against financial risks), as well as access to essential, quality health care services and access to medicines for all, it is essential to increase the efficiency of collections and the use of resources in the health sector.** The third dimension of success consists of financing systems and mechanisms for priority-setting in expenditure and the use of medical technologies. It recognizes that resource collection, allocation, and management based on efficiency and effectiveness criteria are necessary to achieve a high level of financial protection and system sustainability. The purpose of this dimension is to support the countries in strengthening the framework for financing and efficient management of public health expenditure to achieve better results with available resources.
- 5.16 **Lines of action:** (i) improve the administrative and economic efficiency of resource collection and pooling systems for health sector public financing; (ii) promote a systematic approach to deciding which health care technologies should be publicly funded, under what circumstances, and for whom; and (iii) strengthen processes for strategic purchasing and financing and results-based management.
- 5.17 **Operational activities:** (i) strengthen the capacity of sector institutions to model future patterns of demand for services and the corresponding expenditure projections; (ii) support reform processes in the areas of collection, pooling, and administration of resources for health care financing; and (iii) contribute to the creation of systematic, legitimate processes for making decisions—based on rigorous evidence—regarding public funding of coverage for health care technologies, and strengthen institutions tasked with evaluating, regulating, and procuring those technologies.
- 5.18 **Knowledge and dissemination activities:** (i) expansion of the knowledge network regarding health expenditure prioritization processes, including publication of systematization of methodologies and experiences; (ii) knowledge generation regarding measurement of the multiple dimensions of expenditure efficiency in the sector; (iii) the development, using technical assistance, of health sector institutional capacity for planning and results-based budgeting processes, and for the design and implementation of mechanisms for results-based financing; and (iv) publication of systematization of methodologies and impact evaluations on results-based financing mechanisms.

- 5.19 This line of activities will be supported, where appropriate, by collaboration between SPH, the Labor Markets Division (LMK), the Institutional Capacity of the State Division (ICS), and the Fiscal and Municipal Management Division (FMM), among others.
- D. Dimension of Success 4. Sector governance calls for efficiency and leadership by the health authorities, and promotes intersectoral coordination for results.**
- 5.20 **Given the more challenging macroeconomic and fiscal outlook, the importance of emphasizing efficiency in sector governance and of intersectoral coordination for results is growing.** The fourth and final dimension of success relates to health system governance, i.e. the capacity to formulate, plan, implement, and ensure accountability for health service delivery on a large scale. Exercising governance also entails leadership in the health sector for the coordination of intersectoral policies and programs that impact a population's health outcomes (for example, water and sanitation programs, tobacco and alcohol taxation policies, development of suitable spaces for physical activity, consumption of healthy foods, etc.). Governance is also essential in actions to prevent and control emerging infectious diseases, for example to achieve intersector coordination in actions to control vectors. This last dimension of success also highlights the growing importance of adopting holistic approaches to addressing health issues associated with the region's demographic and epidemiological profiles. For example, providing satisfactory end-of-life care requires integrated work by the health and social protection sectors.
- 5.21 **Lines of action:** (i) support the definition of the responsibilities of the different actors in the health sector as regards system functions (governance, financing, service delivery, and resource generation); (ii) strengthen the institutional capacity of health authorities for the exercise of sector leadership, health intelligence, regulation and supervision, and intersectoral coordination; and (iii) conduct dialogue with the strategic government units responsible for cross-sectoral coordination of policies with an impact on the population's health.
- 5.22 **Operational activities:** (i) support health ministries in defining and coordinating responsibilities among system actors at the national and subnational levels, and build sector leadership capacities in these ministries (and/or strategic government units responsible for intersectoral policy coordination) for formulating and implementing national health care policies and strategic plans that consolidate public and private sector and civil society efforts; (ii) support the strengthening of health intelligence functions in the health ministries at the national level and, where relevant, the subnational level by generating and efficiently using individual, population, and civil registry information, information on disease prevalence, and emerging epidemiological threats and the evolution of pandemics, as well as information on lifestyle habits and risk factors, the production, use, and costs of services, human and physical resources, membership and coverage, and use of services; and (iii) build health ministry institutional capacity to exercise regulatory, supervisory, accountability, and citizen participation functions.
- 5.23 This line of activities will be supported, where appropriate, by collaboration between SPH and other Bank divisions (for example, on issues of water and sanitation investments, urban spaces, tax policies, etc.).

5.24 Lastly, it is proposed that the lines of action include the organization of regional policy dialogues on the priority issues presented in this SFD.

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