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Managed competition in Colombia: convergence of public and private insurance and delivery

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Abstract

The Colombian health system has made a deep transition into managed competition since a major reform in 1993. A market for insurers was created, the consumer has free choice of insurer and a national-level equalisation fund distributes revenues via a per-capita payment. Fully subsidised insurance for the poor and informal, and a comprehensive standardised benefit package for subsidised and contributory schemes (both schemes covering 98 per cent of the population), has led to a low level of out-of-pocket expenses and high financial protection, as well as to reduced gaps in equity in access. The preconditions for managed competition are largely met, but improving health care providers' organisation towards integrated care, to enable them to deliver more value, is a necessary step to achieve the expected results of managed competition in terms of efficiency and quality. Although the current system is likely to be reformed in the coming months, the nature and extent of those reforms are not defined yet, so our analysis is based on the current system.

Keywords: financial protection; integrated care; subsidised insurance; universal health coverage; value-based competition

Introduction

Colombia underwent a health care reform in 1993 that transitioned the health care system towards one based on managed competition. Before then, the health care system was segmented into three separate schemes: (1) a compulsory employment-based social health insurance scheme for workers in the formal sector, funded via payroll taxes with one large public insurer plus more than 1000 small public insurers, all of them siloed from each other. Enrolment was compulsory but there was no choice of insurer. This scheme enrolled around 24 per cent of total population (Giedion and Villar, 2009). These insurers offered full coverage of benefits for the paying worker and limited coverage for dependents, but there was not an explicit benefit package. (2) A private voluntary (non-opt-out) insurance segment for the better off, mostly overlapping covered benefits with the employment-based social health insurance scheme. This sub-sector enrolled about 3 per cent of the population and insurers competed for individual-, household- or employer-based contracts. (3) A network of public hospitals catering to the rest of the population, supposedly self-targeted to the poor, and funded through supply-side subsidies and a small percentage by user-fees.

The most fundamental changes that were introduced by the 1993 reform are: (1) a competitive insurance market that broke the previous silos via consumer's free choice of insurer. (2) An equalisation fund that collects payroll taxes and general taxes which are distributed to insurers via per-capita payments. (3) A fully subsidised insurance scheme for the poor in the informal sector. (4) A transformation of supply-side subsidies to public hospitals into demand-side subsidies to be administered by insurers in the subsidised insurance scheme. (5) A standardised and

comprehensive benefit package with low out-of-pocket expenses. These two features aimed at preventing product-based and price-based competition, while competition on the insurer side expectedly would focus on technical quality (i.e. better health outcomes per dollar spent), interpersonal and amenities characteristics of health care providers, timely and easy access to care and overall provider networks. (6) A gatekeeper-based model with closed primary care networks built through either selective contracting by the insurer or vertically integrated providers. (7) A competitive provider market for primary care via consumer's free choice of primary care provider within the options offered by the insurer.

The current situation is one of universal coverage in terms of population (98 per cent), benefit package (comprehensive benefits with a few explicit exclusions) and financial protection (low out-of-pocket expenses). The system can be considered a success in terms of insurance coverage and financial protection, although access barriers are still a major concern, as will be shown below. Keeping the boundaries of the benefit package has proven challenging, mostly because of judicial orders that have weakened its use as an efficiency tool. This paper contributes to the discussion about the implementation of managed competition in middle-income countries, and its novelty lays in its description of the barriers to effective competition in a context of a large share of informal employment, lower institutional capacity and smaller amounts of per-capita health expenditures as compared to most OECD countries.

Current structure of the health care system

The insurance side of the system is organised into two separate schemes: the contributory scheme (CS) and the subsidised scheme (SS). The CS covers 51 per cent of the total population and enrolls workers in the formal sector (and their dependents), self-employed workers (and their dependents) and pensioners. It is financed via payroll taxes plus general taxes;¹ both are pooled at the national-level equalisation fund, which returns to insurers a per-capita payment that works as a hard budget constraint to the insurer. An additional 4 per cent of the population is enrolled in separate CSs whose payroll taxes are not pooled at the equalisation fund (Ministerio, 2023a).

The SS is aimed at the poor in the informal sector and covers 44 per cent of the population. Eligibility is established with a proxy-means test. It is financed via general taxes that are pooled at the equalisation fund, which also returns to insurers a per-capita payment having the same effect as a hard budget constraint. Starting in 1995, both the benefit package and the per-capita payment of the SS were about half that of the CS. This gap has been progressively closed and nowadays the benefit package is currently the same but the nominal value of the per-capita payment is 13 per cent lower for the SS (Ministerio, 2022a). This difference is partly explained because demand is lower in rural areas and small villages.

Both schemes have open enrolment all year-long, both for first-time enrolment and for switching among insurers. Switching has been made easier through a web-based application.

Regarding the benefit package, it was originally designed as a positive list for both insurance schemes. Uncovered benefits (typically, new technologies entering the market) were not the responsibility of insurers. This fact created barriers to comprehensive care and limited household's protection against catastrophic expenses (as many of the uncovered technologies were high-cost). To solve for this coverage gap, the Constitutional Court ordered the equalisation fund to reimburse insurers for uncovered benefits on a fee-for-service basis. The equalisation fund was able to pay for these uncovered benefits with the surpluses accrued during economic upturns (when payroll tax collections are higher than per-capita payments) but this soon led to exhaustion of such surpluses. Consequently, every year the government has to add a given amount to the health care budget to pay for these benefits for both the CS and the SS, which accounts for 10.8 per cent of their revenues (Superintendencia, 2021).

¹The 12.5 per cent payroll tax is split between employer (8.5 per cent) and employee (4 per cent).

The provision side of the system mixes private and public providers. Currently, less than one-third of the bed supply and one-fifth of the operating room supply is in the public sector (Jurado and Santos, 2022). Insurers in the CS are free to selectively contract with private or public providers, and they are allowed to create vertically integrated networks as long as they spend no more than 30 per cent of health care expenses with their own providers. In the SS, insurers are obliged to contract at least 60 per cent of the per-capita payment with public hospitals.

The prevailing payment mechanisms are capitation for primary care, and fee-for-service for medium- and high-complexity care. However, a recent trend towards prospective payments has taken place (Castano *et al.*, 2021). This trend includes bundled payments for episodes of care or chronic diseases, and population-based payments for medical conditions or for components of care delivery (e.g. drugs, lab tests, imaging, home care, etc.). Contracting practices usually lead to fragmenting care among different providers, but some promising models of integrated care (i.e. seamless care across knowledge disciplines, care delivery settings and stages of disease) for medical conditions (e.g. diabetes, chronic kidney disease) have emerged and have facilitated competition based on health outcomes instead of price-based competition irrespective of quality. Integrated delivery networks have been incentivised by regulations, and they are emerging slowly and gaining market share due to their ability to bear risk within the context of population-based payments.

The governance and regulation side of the system was deeply changed by the 1993 reform, the main fact being the purchaser–provider split in the public network of hospitals. Public hospitals were converted into autonomous entities, while national, departmental (i.e. provincial/state) and municipal governments were re-directed to regulatory and overseeing functions. The Ministry of Health (MoH) issues regulations regarding per-capita payments to insurers, benefit package content and periodic updating, quality of healthcare providers (minimum, entry-level requirements, plus voluntary accreditation), price controls of pharmaceuticals and public health issues among other functions. The Superintendency of Health oversees providers, insurers and other health care players, and enforces regulations issued by the MoH. Departments (states) oversee entry-level requirements to healthcare providers and lead public health policies at the departmental level, whereas municipalities also oversee and enforce regulations, as well as lead public health policies at the local context.

Roadmap to managed competition

The Colombian experience can be described as a convergence of public and private schemes. Although financing of the social health insurance is 99 per cent public (via payroll taxes and general taxes), insurance is operated mostly by private insurers (both for-profit and not-for-profit), and delivery is operated by private and public providers.² Although public insurers were not eliminated by the 1993 reform, entry of new insurers and employee's choice of insurer exposed these previously siloed insurers to competition. Most of those public insurers disappeared (today only four survive) as a consequence of either their enrolees' switching to competing insurers, or the government closing them down. In the first case, switching enrolees to other insurers was smooth, but in the second case it not always was the case, particularly for enrolees under active medical treatments. The largest public insurer was transformed in 2008 into a public–private partnership that has succeeded in overcoming the weaknesses of its predecessor and currently has the largest market share (20 per cent) in both insurance schemes.

The main design features of the managed competition framework are at the heart of the Colombian health system, as will be described in the next section. However, one key challenge to achieve the expected outcomes of improved efficiency and equity is: given that quality of care is not fully observable at the provider side, how to promote competition based on value rather

²The fact that insurers are allowed to retain surpluses from the per-capita payment, and that public hospitals have to bill services instead of receiving supply-side subsidies, has been criticized by opponents of the current system as a shift from a human-rights-based approach to health care towards a business-minded approach.

than competition purely based on price? Competition purely based on price has pervaded the system, and it has led to fragmentation of care, skimping on care and cost-shifting, which has been possible due to three main structural problems: (1) information asymmetry vis-a-vis consumers regarding technical aspects of quality of care; (2) CS insurer's power to selectively contract and build closed delivery networks; and (3) SS insurers additional obligation to contract with public hospitals. Poor quality as a consequence of these problems is not completely observable to consumers, which prevents competition (both at the insurer and the provider side) from rewarding good-performers and penalising poor-performers through consumer choice. In addition, regulations on the insurer side have traditionally been focused on financial indicators and not on whether or not they improve health outcomes indicators (Departamento Nacional de Planeación, 2019).

However, promoting value-based competition has to overcome two main barriers: the current fragmentation of health care providers, and the operationalisation of outcome metrics. Regarding the former, it is necessary that providers are organised in such a way that they can integrate the cycle of care of a given medical condition or integrate around patient's needs (Porter and Lee, 2015) in order to have the best possible control of the variables that influence health outcomes (at least those related to personal interventions). Such organisational arrangements are hard to develop because providers are used to operate in a fragmented delivery context. In addition, it cannot be assumed that insurer-led transition from fee-for-service to prospective payments will be enough to stimulate the evolution of providers towards integrated delivery models; although the government issued regulations to promote prospective payments, it is necessary that providers themselves take the necessary steps to evolve towards these integrated models.

Regarding measurement of health outcomes, it poses big methodological challenges such as standardising indicators, avoiding gaming and crowding-out on non-measured medical conditions, and risk-adjustment to allow for meaningful comparisons among providers (Friedman and Scheffler, 2016); these challenges have proven difficult to deal with, according to the experience of the High-Cost Account (personal communication from Lisbeth Acuña, Director of High-Cost Account). On the other hand, health outcome indicators make more sense on the provider side than on the insurer side. In a context of a per-capita payment, and in the absence of perfect risk adjustment and risk sharing, no insurer wants to be, e.g. 'the best on cancer care' because this information is perceived by insurers to have a stronger effect on adverse selection than on market success.

To what extent are the preconditions met?

Free consumer choice of insurer

As of January 2023, there were 30 insurers in the social health insurance system (Ministerio, 2023b). Although consumer choice and open enrolment are keystones of the system, enrollees tend to stay with the insurer they chose in the first place (Prada, 2016). Moreover, the fact that two of the largest insurers in the CS have reduced their members and five others have grown their enrolment concomitantly is only partially explained by consumer choice. The largest part of this shift is explained by the enforcement agency's (the National Superintendency of Health) prohibition for the two member-losing insurers to enrol new members and eventually closing them down (due to their failure to comply with indicators of financial soundness), and reassigning current members to the five insurers that are gaining market share.

In addition, for choice to exert its power, it is necessary to have two or more insurers to choose from, in a given geographic market. Although large urban centres may support several competing insurers, this is not the case for small villages and rural areas. Competition in these small villages is not necessarily desirable, because each competitor would have a very small membership that would not justify setting up a full-blown service at the local level. Hence, a policy recommendation was issued in 1995 to implement a dual policy of a full market approach in large urban markets, but a monopoly approach in small villages (Harvard, 1996). According to that recommendation, it

would be more efficient for these small markets to create a model of competition ‘for’ the market rather than ‘in’ the market, granting exclusive rights to one insurer for a period of time. Although some attempts have been made to create such a model, these have largely failed. [Table 1](#) shows the Hirschman–Herfindahl Index for insurance markets at the 100 least populated municipalities (3,290 inhabitants or less) in the country. It is clear that the majority of these 100 municipalities have had oligopolistic insurance markets and only a small number have had a local monopoly.

Consumer information and market transparency

Having one single benefit package with the same coverage of benefits and out-of-pocket expenses has increased market transparency in both the CS and the SS. But other aspects of care delivery such as timely access to care or health outcomes are still less transparent. Consumer information on health insurers has mostly focused on observable indicators of processes (waiting times, administrative burden for the patient, etc.) and customer satisfaction. Health outcomes, however, have had a limited role in driving competition, and many insurers are criticised for selecting the provider with the lowest prices (both in retrospective and prospective payments), irrespective of health outcomes. Other insurers have started to search for sustainable contracts that yield improved health outcomes in subsequent years.

An interesting experience regarding consumer information is that of the High-Cost Account, created in 2007 as a risk-sharing mechanism to compensate for biased selection among insurers, within five medical conditions³ (Bauhoff *et al.*, 2018). It collects data on process and outcome indicators⁴ at the provider and insurer level to make sure that the above-average concentration of high-cost patients in a given insurer is a consequence of adverse selection and not of poor-quality care.

These data have allowed to build large databases and patient registries whose aggregate statistics are published on an annual basis. For example, two reports were published in 2021 (Acuña *et al.*, 2021a, 2021b) that rank the health care providers and insurers with the best process and outcome indicators for the medical conditions that are overseen by the High-Cost Account. This information is expected to create market transparency, although challenges still remain regarding validity of data, gameability, risk adjustment and the crowding-out effect on the rest of medical conditions that fall outside the ‘spotlight’ of the High-Cost Account.

Risk-bearing buyers and sellers

Insurers bear risk as they receive a per-capita payment from the equalisation fund, to provide all necessary care within the benefit package. Regarding the benefits outside the benefit package, which were reimbursed by the equalisation fund on a fee-for-service basis, a big change occurred in 2020 when the MoH shifted payment for these services to a prospective budget. This change was intended to move insurers from a soft to a hard budget constraint, so as to control for the accelerated growth trend exhibited by benefits outside the benefit package.

Transferring risk from insurers to providers has been very contentious, except regarding capitation for primary care. In 2011, a law was passed that prohibited capitation for services other than primary care,⁵ but new prospective modalities other than primary care capitation are now taking force. These new modalities emerged to transfer risk to providers in both the CS and the SS (Castano *et al.*, 2021). On the provider side, it is clear that many of them, used to operate under fee-for-service contracts, lack the capabilities to reduce potentially avoidable morbidity and unwarranted variation in clinicians’ utilisation of health care technologies. In addition,

³HIV, haemophilia, cancer (11 types of cancers), stage-5 chronic kidney disease and rheumatoid arthritis.

⁴Examples of process indicators: waiting times from diagnosis confirmation to starting treatment in cancer, or proportion of diabetes patients whose HbA1c was measured according to guidelines. Examples of outcome indicators: incidence of chronic kidney disease, proportion of diabetes patients with HbA1c below 7 per cent.

⁵This regulation aimed at keeping fee-for-service payments for medium and high complexity services, but it didn’t impose fee-for-service as the only payment mechanism to be used.

Table 1. Distribution of the 100 municipalities with the smallest population, according to ranges of the Hirschman–Herfindahl Index for insurance market at the municipal level, years 2009–2021

HHI range	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
3000–3999	16	13	17	20	14	15	14	17	10	15	14	16	16
4000–4999	13	18	19	16	17	15	16	16	18	16	15	15	18
5000–5999	13	10	14	14	16	18	12	10	10	11	12	12	11
6000–6999	6	10	9	7	4	3	9	10	10	6	5	9	10
7000–7999	2	3		2	4	9	5	8	7	11	17	21	21
8000–8999	9	10	12	14	9	4	15	17	21	23	18	15	16
9000–9999	27	21	15	13	20	20	13	6	8	2	3	3	5
10,000	5	6	6	4	6	5	5	7	5	4	5	8	2
NA	9	9	8	10	10	11	11	9	11	12	11	1	1
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

HHI describes how competitive a given market is. An HHI of 10,000 equates to a monopoly; values between 2500 and 9.999 imply two or more competitors but still concentrated, while values below 2,500 imply a competitive market.

Source: Authors' estimations based on BDUA (Base de Datos Única de Afiliados). HHI, Hirschman–Herfindahl Index; NA, not Applicable due to missing data.

the fragmented patterns of contracting under fee-for-service have been replicated in some of the new prospective modalities (specifically block payments for components of care, such as medications, *in-vitro* diagnostics and the like), thus perpetuating fragmentation of care and making it difficult for risk-bearing providers to integrate cycles of care and improve health outcomes.

Contestable markets

Insurance markets face reasonable barriers to entry, but regulatory barriers regarding risk-based capital and technical reserves have proven difficult to enforce (Bauhoff *et al.*, 2018). Most insurers are currently on red numbers. However, part of this problem arises from government's delays in paying the bills for services outside the benefit package, before the 2020 transition to prospective budgets. Therefore, it makes it difficult for the government to enforce risk-based capital regulations and technical reserves when the government itself is part of the problem. Exit barriers have also proven hard to overcome. When a given insurer has poor performance in the market, enrollees do not rush out to other insurers, but the Superintendency has to apply restrictions to enrol new members, and closely control that insurer's operations or even take over its whole management or closing it down.

Provider markets are also contestable, except for public hospitals and for cancer care providers, which have to submit detailed plans to the MoH when they want to expand capacity or create new service lines.

Freedom to contract and integrate

Beyond the 30 per cent limit to vertical integration, selective contracting in the CS gives insurers the power to drive demand to those providers that satisfy their need for keeping costs under control. This market power has spurred the consolidation of providers in the pharmaceutical sector, who engage in large-scale purchasing, distribution and final delivery of drugs, similar to Pharmacy-Benefit Managers. *In-vitro* diagnostics and imaging have also followed this consolidation trend. On the hospital and outpatient sectors, a few large integrated networks have emerged, some of them showing rapid growth given their ability to engage in risk-based contracts with insurers.

In the SS, compulsory contracting of at least 60 per cent of the per-capita payment with the public hospitals restricts insurers' bargaining power, especially at most small villages, because these have only one safety-net, public hospital. Most of these contracts are on a capitation basis, and insurers complain about these hospitals' patterns of skimming on care and over-referral. For example, while in 2007, 48 per cent of deliveries were referred to higher-complexity hospitals, this figure grew to 88 per cent in 2012 (Ministerio, 2016). However, due to their role as safety-net hospitals, it is very difficult for insurers to terminate contracts based on these complaints.

Effective competition regulation

Although there is a generic framework for regulation on effective competition, and a separate authority (the Superintendency of Industry and Commerce) enforces this framework across all sectors of the economy, it is not applied in the health care delivery system to regulate market power in geographic and product markets. Therefore, regulations to prevent or correct abuse of dominance both on the provider and insurer sides (one single insurer or provider with excess market power) in both insurance schemes are not strictly enforced. Enforcement against anticompetitive practices has focused mostly on avoiding collusion (when two or more non-dominant players collude to exert market power) among insurers, among providers or among doctors, and a series of high-profile cases with strong penalties have created awareness around collusion avoidance.

Cross-subsidies without incentives for risk selection

One of the biggest achievements of the 1993 reform was to create a cross-subsidisation system between high-income and low-income households, and between low-risk and high-risk

individuals. As shown above, contributions in the CS are based on salary, whereas insurance is fully subsidised in the SS, but enrollees in both schemes receive the same benefit package (except for payment of sick-day leave and maternity leave, not covered in the SS).

Risk selection has been addressed through open enrolment, prohibition of rejecting individuals and termination of coverage, and *ex-ante* risk adjustment of the per-capita payment by age, gender and geography. This latter adjuster aims to recognise regional differences in availability of high-complexity services. Additional risk adjusters (diabetes, hypertension and chronic kidney disease) are being considered to improve the limited performance of the demographic model. Unpriced risk heterogeneity of the per-capita payment has been addressed with the High-Cost Account, which works as a mechanism of risk-sharing-for-high-costs but restricted to the five high-cost medical conditions mentioned above.

Cross-subsidies without opportunities for free riding

Compulsory enrolment is supposed to prevent free-riding because all Colombians were expected to be enrolled either in the CS or the SS. However, during the first decade of the reform, there was still a large share of the population without coverage. For example, in year 2000, 43 per cent of the population was uninsured and a large part of this population was informal workers (Giha and Rodriguez, 2021). Individuals in this segment exhibited the typical free-riding problem as they sought insurance when they felt sick. But after 2002, enrolment in the SS grew rapidly and now at least 98 per cent of the population is enrolled with a full benefit package, so the free-riding problem has been largely reduced.

However, inefficient consumer distribution into the market still persists, both within insurers in the CS and from the SS to the CS. Table 2 shows an example of differences in cases of haemophilia and HIV/AIDS for insurers in both schemes. To illustrate, if haemophilia patients were evenly distributed among insurers, their prevalence per 100,000 enrollees would be similar. However, a range of 7.5–29.9 in the CS, and 1.9–9.3 in the SS shows wide variation between insurers; these figures also show that the mean prevalence in the CS is twice that of the SS.

Biased selection within each scheme is addressed through the High-Cost Account for the five medical conditions listed above. However, given that both schemes have the same benefit package, strong incentives are in place to minimise contributions among enrollees in the CS, or to remain in the SS despite not being eligible. These two challenges have been addressed via cross-checking with other sources of income (via the national tax agency), but it is estimated that at least 5.7 per cent of total health expenditures is missed because of leakage into the SS (Peña, 2018), plus additional missed collections because of under-reporting of salaries in the CS.⁶

A source of concern is the negative effect of the SS on formal employment. Having fully subsidised insurance, SS enrollees have an incentive to stay as informal workers to avoid payroll taxes (Camacho *et al.*, 2009). In order to avoid this effect, payroll taxes in the CS have been gradually substituted with general taxes. Today almost 50 per cent of the whole budget for the CS is raised through central government general tax revenues (Ministerio, 2021).

Effective quality supervision

As said above, quality in terms of improvement of health outcomes has not been the driver of competition. The expectation that health insurers would act as prudent purchasers on behalf of consumers has proven unrealistic, because, given the same information asymmetry, the consumer cannot tell if the insurer is contracting with high- or low-quality providers. Consequently, competition has been driven mostly by prices, which has put in place strong incentives among some insurers to skimp on quality and create access barriers (such as delays in

⁶Underreporting of salaries is more common in low- and middle-income countries due to less strict tax enforcement regulations and agencies, as well as due to the large share of the economy that is in the informal sector.

Table 2. Cases of haemophilia (per 100,000 enrolees) and HIV/AIDS (per 100 enrolees) by insurer and type of insurance scheme, as of 2020

Insurer	Haemophilia A	HIV/AIDS
Contributory scheme		
1	7.5	0.50
2	29.9	0.43
3	11.3	0.33
4	9.7	0.21
5	8.3	0.42
6	16.7	0.14
7	10.8	0.38
8	9.3	0.15
9	7.8	0.39
10	14.5	0.29
Subsidised scheme		
11	8.1	0.31
12	5.8	0.21
13	1.9	0.21
14	9.3	0.13
15	6.1	0.18
16	3.5	0.24
17	8.6	0.34
18	11.6	0.14
19	3.3	0.12
20	6.4	0.2

Source: Reports from High-Cost Account.

authorisations, or ineffective call centres) by insurers and by providers paid under prospective contracts. This is especially the case when prospective contracts are based on components of health care delivery, and less so when it is based on medical conditions. Some studies have measured these access problems (Abadia and Oviedo, 2009; Defensoría del Pueblo, 2020), but the media permanently expose plenty of anecdotes that point to that problem.

Quality supervision has focused on structure and process indicators, which are not necessarily good proxies of desirable health outcomes. On the provider side, entry-level requirements are focused on indicators of structure, while voluntary accreditation is more focused on process indicators and patient safety. However, voluntary accreditation has not been widely sought by providers; as of April 2023, only 58 providers were accredited (mostly hospitals).⁷ Interestingly, Colombia has five hospitals accredited by the Joint Commission International, and at least six hospitals have ranked among the top 20 hospitals in Latin America, according to the ranking of *America Economía* (2021).

Although public hospitals have increased their quality standards of structure, some of them have failed to comply with entry-level requirements for some service areas. However, when

⁷<https://www.sispro.gov.co/observatorios/oncalidadsalud/Paginas/acreditacion-en-salud.aspx>. Accessed 17 April 2023.

these services are provided only by the public safety-net hospital at its local market, they cannot be closed by the health authorities because there are no other providers in the area. This is the case for 504 municipalities as of 2021 (Ministerio, 2022b), where, although their share of the total population is small, equity concerns justify keeping these safety-net hospitals even if they fail to comply with the same quality standards that are applied to hospitals in larger urban centres.

Guaranteed access to basic care

Coverage of primary care services is wide across the country and access to antenatal care and birth attendance by skilled worker have improved particularly for women in the lowest income quintiles, reducing inequities in access to basic care. Tables 3–6 show descriptive statistics for indicators of access to pregnancy and delivery services and their evolution between 1990 and 2015. Although abundant anecdotal evidence suggests that insurers or prospectively paid providers create access barriers that affect the poor more than the non-poor, it has been clear that, as compared to uninsured individuals, insurance exerts a positive and significant effect on access, although this effect is higher in the CS than in the SS (Miller *et al.*, 2013; Houweling *et al.*, 2017; Garcia *et al.*, 2020). However, other authors show that insurance has no effect on reducing inequalities (Guarnizo *et al.*, 2021) but this difference may be due to the shorter and more recent time period of the analysis. Effects on access may also have improved because one of the key indicators that is monitored by the Superintendency of Health is the waiting time for several elective treatments or speciality consultations.

Basic benefit package

All Colombians have access to the same comprehensive benefit package. The original design as a positive list was challenged by the Constitutional Court with the thesis that denying necessary care to an individual on the grounds that it is not covered by the benefit package entailed a violation of the right to health care. However, given that the government contract with insurers was originally defined in the 1993 reform in terms of a positive list of covered benefits in exchange for the per-capita payment, these uncovered services had to be reimbursed directly by the equalisation fund to insurers. Insurers had to pay for these services before filing for reimbursement and these services were paid on a fee-for-service basis by the equalisation fund in the CS, and by the departmental governments in the SS.

A landmark in the legislation about the benefit package was a Law passed in 2015, which shifted from a positive-list to a negative-list approach to define the benefit package. However, given that the per-capita payment to insurers was tightly adjusted to pay for covered benefits before this law, the government kept paying for the previously uncovered benefits for the following five years, on a fee-for-service basis. The last step in that evolution was a shift in 2020 from fee-for-service to a prospective budget that transfers risk for these uncovered benefits to the insurer.

Table 3. Indicators of access to antenatal care, 1990–2015: per cent of deliveries receiving antenatal care

Year	No antenatal care	Antenatal care from a skilled provider	Antenatal visits for pregnancy: 4+ visits
2015	2.4	97.5	89.8
2010	3.0	96.7	88.6
2005	6.4	93.5	83.1
2000	9.0	90.6	80.2
1995	13.5	85.8	74.5
1990	15.0	84.3	69.7

Source: Estimations by authors, from Demography and Health Surveys.

Table 4. Indicators of access to birth attendance, 1990–2015

Year	No assistance during delivery	Place of delivery			Assistance during delivery from a skilled provider
		Health facility	At home	Other place	
2015	0.4	96.9	2.7	0.4	95.9
2010	0.2	95.5	4.3	0.2	95.6
2005	0.3	92.0	7.8	0.2	92.6
2000	0.3	87.5	12.3	0.1	88.3
1995	1.2	76.8	22.6	0.4	84.5
1990	0.3	76.4	22.2	1.4	80.6

Source: Estimations by authors, from Demography and Health Surveys.

Table 5. Evolution of the proportion of mothers who had no antenatal care for the last baby, by income quintiles, 1990–2015

Year	Total	Wealth quintile					H/L ^a
		Lowest	Second	Middle	Fourth	Highest	
2015	2.4	6.7	2.2	1	0.4	0.00	0.000
2010	3	7.5	2.6	1.8	1.1	1	0.133
2005	6.4	15.7	7.2	3.1	2.5	0.9	0.057
2000	9	19.6	11.7	5.6	2	3.1	0.158
1995	13.5	33.5	15.6	8.6	3.8	2.1	0.063
1990	15	33.8	18.5	11.7	5.3	2.9	0.086

^aRatio of highest to lowest income quintile.

Source: Estimations by authors, from Demography and Health Surveys.

Table 6. Evolution of the proportion of mothers who delivered the last baby in a health facility, by income quintiles

Year	Total	Wealth quintile					H/L ^a
		Lowest	Second	Middle	Fourth	Highest	
2015	96.9	88.8	99.1	99.5	99.5	100	1.1
2010	95.5	85.6	96.4	99.3	99.4	99	1.2
2005	92	73	94.1	97.6	99.1	99.2	1.4
2000	87.5	64.8	86	94.9	98.3	98.2	1.5
1995	76.8	45.2	76	87.6	96.2	97.3	2.2
1990	76.4	48.7	71.4	87.3	92.5	95.4	2.0

^aRatio of highest to lowest income quintile.

Source: Estimations by authors, from Demography and Health Surveys.

In summary, the benefit package was originally intended to be a tool to incentivise efficiency, and new technologies were supposed to enter the package after a health technology assessment process. This intention was quickly eliminated by the Constitutional Court's thesis of the right to health care, and the benefit package is no longer a tool for allocative efficiency. However,

the health technology assessment agency carries out economic evaluations of some new technologies that are issued as recommendations to the MoH.

Affordable out-of-pocket payments

Cost-sharing is not a major tool to address moral hazard in the Colombian system. In fact, in 2020, it represented 1.1 per cent of total health insurance expenditures (Superintendencia, 2021). In addition, the comprehensiveness of the benefit package means that most households do not have to pay directly for health care. There still remains a small market for people who pay directly out-of-pocket but this typically occurs with covered low-cost services or drugs that some people prefer to buy by themselves, and for uncovered services such as cosmetic surgery. Accordingly, one of the major achievements of the 1993 healthcare reform was to reduce out-of-pocket payments, which increases financial protection to the population and reduces the probability of incurring catastrophic expenses. In fact, out-of-pocket payments as a share of total health expenditures are 20.6 per cent, one of the lowest in Latin America, and well below the average of middle-income countries (GBD, 2019). The Covid-19 pandemic showed a strong protective effect of insurance against financial hardship of households, as all the acute care has been paid by the health system, a big difference vis-a-vis other Latin American countries (Restrepo *et al.*, 2021).

No conflict of interest by the regulator

A purchaser–provider split was mandated by the 1993 reform regarding public hospitals. Before then, most public hospitals were vertically integrated with local, regional or national governments and they were funded via supply-side subsidies, that is, budgets based on operational and capital costs. The reform mandated that public hospitals must be transformed into autonomous entities and they would compete for contracts with SS insurers to raise their revenue. Supply-side subsidies were expected to be transformed into per-capita payments to insurers, and these insurers would pay hospitals for services delivered. However, the government realised that public hospitals, particularly local safety-net hospitals were unable to survive on services billed on a fee-for-service basis, and it had to protect them from closure, based on equity concerns. It means that the government had to keep a protectionist approach with safety-net hospitals, both regarding operational costs and capital investments (Castano, 2007). However, an arms-length relationship with public hospitals has not fully developed because local-, departmental- and national-level hospitals have representatives of the corresponding levels of government in their boards of directors, and not infrequently receive bailouts to overcome financial difficulties.

With regards to public insurers, the national government had a vested interest to protect the largest public insurer inherited from the pre-reform times, but its poor performance finally caused its transformation into a new legal entity, a public–private partnership created in 2008. The national government has a 49 per cent share of this new insurer's equity which has reduced its conflict of interest. Other regional or local governments have ventured into public–private partnerships to create insurers. These partnerships have been struggling due to the political cycle that shapes the public partner's view of its ownership.

Evolution of providers towards integrated models of care to deliver more value

The managed competition framework assumes the provider side as a given, but as noted above, fragmentation of care is a hurdle to value-based contracting and risk-bearing by health care providers. We propose this additional precondition to those previously mentioned. Integrated models of care are a necessary condition for creating value in health care, particularly for chronic conditions (Porter and Lee, 2015). Other models of care focus on short-term conditions, urgent and emergency

care and health maintenance. These models of care must be developed to adequately address patient needs. The traditional models of hospital and doctor's office do not fit well with all types of patients' needs and are particularly inadequate for chronic care (Christensen *et al.*, 2009).

On the insurance side, fragmented patterns of contracting are a major barrier to the emergence of integrated models of care. In addition, insurers cannot adequately perform care coordination because they are not as close to the patient as the provider.

To break this vicious circle, providers should have evolved towards integrated models of care, to allow for contracting to be based on patient's needs and medical conditions. It can be done through integrated delivery networks, accountable care organisations or patient-centred medical homes. Providers with integrated models of care are more capable of engaging in risk-bearing contracts, as they can impact avoidable morbidity and have stronger incentives to reduce unwarranted variation in clinicians' utilisation of medical technologies (Ouayogodé *et al.*, 2017). In addition, integrated models of care make it easier to contract with insurers and promote quality-based competition, provided information on health outcomes is made available to the public.

The provider sector in Colombia is still very fragmented but an evolution towards integrated care is taking place slowly. As said above, although regulations have been issued to promote integrated delivery networks, the impact of these regulations has been limited. Some integrated delivery models have emerged, but most experiences deal with specific risk groups such as diabetes, haemophilia, chronic kidney disease, arthritis and other high-cost conditions. Regarding integrated delivery networks, some of the ones that have emerged started focusing on primary care and expanded towards middle- and high-complexity services. However, there are regulatory barriers in place that prevent an organised evolution towards integrated care (specifically sub-contracting and restrictions to vertical integration between insurers and providers) and prospective payments, specifically population-based payments.

Concluding remarks

The Colombian experience with managed competition can be considered successful in terms of coverage of individuals and benefits, and a large reduction of gaps in access equity. Although access barriers persist, low out-of-pocket expenditures show that these barriers are lower than before the reform and lower than other countries in the same income level. However, this experience also shows that competition does not necessarily yield the expected effects on efficiency and quality, due to market imperfections, specifically information asymmetries. Transparency in quality information demands a strong effort to make data on quality valid, reliable and relevant for consumers, a big challenge for health systems in general, but even bigger for low- and middle-income countries. In the absence of good quality data, purely price-based competition may lead to skimping, which goes contrary to the objectives of better quality and improved efficiency. The evolution of providers into integrated models of care is a necessary change that needs to be promoted and supported by policies and market incentives. Although equity gaps between the SS and the CS have been reduced since the early 90s, differences still remain that require further efforts to improve. A large share of informal employment makes it difficult for the achievement of universal enrolment, but once it is achieved, free-riding is largely reduced. However, there seems to be a lingering effect of comprehensive coverage to informal workers on formalisation of the labour force. Lastly, the problems and challenges analysed in the previous sections have fuelled a proposal by the new leftist government for a major structural reform, which eliminates managed competition and creates a government-run system, on the financing side.

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