Appendix 1. Colombian healthcare system review

Colombia is classified as a low- and middle-income country (1). Recognized by the Constitution of 1991 as a republic and a constitutional state in which the law guaranteed the social welfare of all its people (2). Among the fundamental rights, the Constitution protects the health of citizens, providing them with a system of health guarantees for all (2). For a better understanding of the socioeconomic situation of Colombia, table 1 is a summarized view of some important data extracted from the World Bank Group. This data represents several problems in the country: substantial inequalities, economic obstacles, and precarious inversion in health (3,4). This report reveals that Colombia has one of the highest levels of inequality in the world, and the second highest in Latin America and the Caribbean, a paramount aspect to consider for the analysis of the data, given morbidity and mortality outcomes in the research (3).

<table>
<thead>
<tr>
<th>Index</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>51,265,841</td>
</tr>
<tr>
<td>Gross national income (GDP)</td>
<td>314.32 US$</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>6,131.2 US$</td>
</tr>
<tr>
<td>Poverty headcount ratio</td>
<td>10.3%</td>
</tr>
<tr>
<td>GINI index</td>
<td>54.2</td>
</tr>
<tr>
<td>Health expenditure</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

Table 1: Highlight data of Colombian socioeconomic status (4).

Before the Constitution of 1991, there were multiple attempts in the country to provide health to all population, proclaiming health as a right (5). One of them, and the most important, Law 100 of 1993, issued by the Colombian Congress under two fundamental pillars: 1) The right of all citizens to health and 2) The decentralization of health (6). Law 100 created the General System of Social Security in Health (SGSSS) overseeing everything related to health care access, and under a contracting out model. The health services are provided by the Health Service Provider Institutions, which can be public, private, or a mixture of both (7). Further, the insurance company in charge of resource management is known as Health Promoting Services (7).
Within the SGSSS there is a Compulsory Plan of Health, now named the Health Benefits Plan, which was created to provide health to the Colombian population, financed by the Capitation Payment Unit (UPC) (7).

The insured people in Colombia, regardless of their income or location are entitled to all the health services they require, except for cosmetic surgeries or new technologies missing proven efficacy (7).

The system is divided into three regimens: contributive, subsidiary, and special. The Contributive Regimen is constituted by all the contract workers, public servers, independent workers, and pensioners who contribute to a quote paid between the employee and the employer, representing 12% of the basic wage (7). The Subsidiary Regimen receives people without the ability to pay (7). Lastly, the Special Regimen is a group of people that are not part of any of the anterior regimens and belong to Ecopetrol, military forces and National Police, teachers, and public universities (7). However, there is another institution that can provide health services to Colombian citizens, known as prepaid services, which are paid by people in the contribute regimen to obtain health care service faster and with better quality.

The vast majority of the country's citizens are assured to the SGSSS, embracing approximately 99% of the national population for 2021, 47% enrolled by the Subsidiary Regime, and 48% in the Contributive Regime (8), which is a problem in the system funding. Additionally, there are 1.5 million people who belong to the prepaid service who are also part of the Contributive Regime (9).

Health Service Providers' Institutions classification is poor, there is mixed data about it, having some reports with 53.88% being private and 45.69% being public (10), and others as the Health Situation Analysis reporting 18.75% public and 80.91% private (11). This situation leads to uncertainty in the national characterization of the health service providers institutions. Moreover, there is a sub-register in the classification of Health Service Providers Institutions by complexity, missing classification of the 54.3% of the institutions in the country, and a record of only 1,356 institutions of II level and 720 institutions of III level in the country (10). This is prove that the Colombian health system is known for not having complete and feasible data, nor adequate and unified records, leading to an inability to update the health status of the population (12).
Furthermore, it has been shown that, despite the wide variety of surgical and non-surgical procedures offered by the Colombian health system, not all citizens manage to access healthcare services. In addition, many individuals face significant economic challenges in meeting the copayments, as they have low purchasing power (13). This raises the question of how many citizens can access surgical procedures in a timely and safe manner.

For instance, the estimated density of health professionals in 10,000 inhabitants, including physicians and nurses, varies considerably between the capital and remote cities, presenting 76.66 in Bogotá, the highest rate, while 14.53 in Vaupes (8). Specifically, in Colombia, it has been reported three to nine, one to two, and five to nine surgery, obstetrics, and anesthesia providers respectively per 100,000 population (14). A worrisome statistic considering in Colombia there is a demand for 39,000 medical specialists, corresponding to 34% of surgical health needs (15).

Another way of understanding the gap between different regions of the country is by the life expectancy, where Bogotá has the longest with 78.9 years, while Caquetá, Choco, and Casanare have an average of eight years less (3). Furthermore, in rural zones, their inhabitants must wait twice as long as urban residents for general medicine appointments, and more than a month for a pediatrician (3). These inequalities are represented in the disparities of Health Service Providers, in which 53% of private are concentrated in the principal cities: Bogotá D.C (17.67%), Antioquia (11.67%), Valle del Cauca (10.16%), Atlántico (6.88%) and Santander (5.72%) (11).

Even if Colombia’s health system is rated in 22nd place by the World Health Organization, further improvements are needed (16). For example, the Pacific region has great health necessities, is one of the regions with the lowest density of health professionals and consequently has a lower rate of medical care delivered (11). Likewise, Antioquia, Bogotá D.C., Risaralda, San Andrés, Santander, and Valle del Cauca have a percentage of affiliation to the contributory regime greater than 50%, while in Caquetá, Chocó, Guainía, Guaviare, La Guajira, Nariño, Putumayo, Vaupés and Vichada have less than 15% of members who belong to this regimen (11). This is a representation of the economic disparities Colombia faces.

Moreover, indigenous, and afro-descendant people in Latin America are commonly represented among the population in poverty and vulnerable situations, leading to alterations in all spheres of life, including health. In
Colombia in 2005, the percentage of indigenous people in municipal capitals was 21.4%, in contrast to 78.5% in rural areas (17). In other words, they are prone to far distances and have low capacities in health services, as mentioned before due to their place of residence.

Evidently, there is much to understand from the Colombian context, but one thing is clear: there is room for improvement. An important factor to consider is the great disparities the country faces. There is a critical centralization of health resources and economic inequalities, creating a barrier to health care access and, even more, the so-called Bellwether procedures (laparotomy, cesarean sections, and fracture management) (18).

Nevertheless, identifying these inequalities, and understanding their genesis is the first step toward a more inclusive and accessible health system.

References

8. Montes S. La medicina prepagada cuenta con más de 1,5 millones de afiliados en el país. 2019 Jul 6 [cited 2022 Aug 2]; Available from: https://www.larepublica.co/empresas/la-medicina-prepagada-cuenta-con-mas-de-1-5-millon-de-afiliados-en-el-pais-2880859


