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The Bolivian Universal Health System and Effective Access to Healthcare: A Diagnosis

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Abstract

In 2019, the Bolivian government began implementation of the Universal Health Insurance (SUS) scheme, with critics claiming the unpreparedness of the healthcare system to provide universal and free services. To date, there is no research that assesses the effects of the reform and to what extent it is providing universal, free services. The objective of this study is to fill this research gap by providing a diagnosis on access to public healthcare services after the SUS's adoption. In this study, access is operationalized according to a theoretical framework developed by the World Health Organization (2010). The study has been conducted according to a combined method that compares data from before and after the SUS approval. First, data from the National Household Survey has been analyzed to provide an overview of dimensions related to access at the macro level. Secondly, the macro perspective is integrated with data collected through semi-structured interviews that provide a detailed analysis of the qualitative dimensions of accessing healthcare at the micro level, which are often not reflected by quantitative indicators. The results showed that on the one hand access to public healthcare services has increased in the first year of the SUS's implementation compared to previous years. However, despite the supply of additional human resources and physical infrastructure, the sufficiency in availability of human resources remains questionable, as the values disaggregated per 1,000 inhabitants remained roughly the same. Similarly, spending at the macroeconomic level did not reach recommended levels for universal coverage. Data from the case study deepens the understanding of the findings at the macro level. In fact, access appears as characterized by considerable challenges, such as long waiting times, lack of medicines and of beds, and low-quality services that overall restrain access to the public services. The study has concluded that despite the fact that access has increased, insufficiency of resources and the structural characteristics of the Bolivian healthcare system represent severe limitations for the universal outreach of SUS.

JEL Classification: I18, J18, D63.
Keywords: Universal healthcare, effective access, coverage, insurance.

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Resumen
En 2019 el gobierno boliviano ha aprobado el Seguro Universal de Salud, a pesar de las críticas en torno a la falta de preparación del sistema de salud para brindar servicios universales y gratuitos. Hasta la fecha, no existe ninguna investigación que evalúe los efectos de la reforma y en qué medida está proporcionando servicios universales y gratuitos. El objetivo de este estudio es responder a esta carencia de investigación, proporcionando un diagnóstico del acceso a los servicios públicos de salud tras la aprobación del SUS. En este estudio, el acceso se operacionaliza según un marco teórico desarrollado por la Organización Mundial de la Salud (2010). El estudio se ha realizado utilizando un método mixto que compara datos anteriores y posteriores a la aprobación del SUS. En primer lugar, se han analizado los datos de la Encuesta Nacional de Hogares para obtener una visión general de las dimensiones relacionadas con el acceso a nivel macro. En segundo lugar, la perspectiva macro se integra con los datos recopilados mediante entrevistas semiestructuradas, que proporcionan un análisis detallado de las dimensiones cualitativas del acceso. Los resultados mostraron que, por un lado, el acceso a los servicios sanitarios públicos ha aumentado en el primer año de implantación del SUS en comparación con los años anteriores. Por otro lado, a pesar de la dotación de recursos humanos e infraestructuras físicas adicionales, la suficiencia en la disponibilidad de recursos humanos sigue siendo cuestionable, ya que los valores desagregados por 1000 habitantes se mantuvieron más o menos iguales. Asimismo, el gasto a nivel macroeconómico no alcanzó los niveles recomendados para la cobertura universal. Los datos del estudio de caso profundizan la comprensión de los resultados obtenidos a nivel macroeconómico. De hecho, el acceso aparece caracterizado por retos considerables, como los largos tiempos de espera, la falta de medicamentos y camas, y los servicios de baja calidad que, en general, restringen el acceso a los servicios públicos. El estudio concluye que, a pesar de que el acceso ha aumentado, la insuficiencia de recursos y las características estructurales del sistema sanitario boliviano representan límites para su alcance universal.

Códigos JEL: I18, J18, D63.
Palabras clave: Sistema de salud universal, acceso efectivo, cobertura, seguro.

I. Introduction

In 2019, with the approval of the Universal Health System, *Sistema Único de Salud* (SUS), Bolivia moved a step forward towards the achievement of universal healthcare coverage in compliance with its constitutional mandate that proclaims the fundamental right to universal and free healthcare access (National Political Constitution, 2009). Nonetheless, the approval of the reform has been controversial due to the multiple deficiencies that characterise the healthcare system. As outlined by the 2016-2020 Institutional Strategic Plan (PEI) prepared by the Ministry of Health (2017), the healthcare system was considered inefficient and unequitable due to fragmentation at the management level and to the insufficient response capacity of the health facilities that presented characteristics such as poor equipment, unmotivated professionals, lack of HR and of infrastructure, and low-quality services. The report also points to the lack of consideration of the population's cultural diversity in the provision of services.

Within this context, on the one hand, the implementation of the Universal Health Insurance has been largely praised both domestically and at the international level for granting the possibility to 51% of the Bolivian population to access healthcare insurance. The World Health Organization (WHO) declared the Bolivian SUS as an ambitious health reform and as being "strengthened to withstand the impact of future health emergencies" (WHO, 2021). However, on the other hand, critics at home pointed to the precarious state of the health system; that is, to the lack of sufficient infrastructure, equipment and human resources that would be necessary to assist an additional 5 million Bolivians that would be covered by the SUS.

The first visible effect of the implementation of the SUS has been a sharp increase in public insurance subscription. According to data released by the National Institute of Statistics (INE), the subscriptions to public health insurance have risen from 17.5% in 2018 to 52% in 2020. Despite the increase in insurance subscription being a positive sign for universal healthcare access, to date there is little to no evidence available as to whether the massive registration corresponds to effective access, the nature and quality of the services granted under SUS, and therefore the extent of its implementation.

The purpose of this study is thus to fill this research gap by analysing the effects of formal universal healthcare coverage (SUS) on access to public health services and to produce a diagnosis of the extent of access achieved under SUS**.** In other words, the study answers the following research question: *How has access to public healthcare services evolved after the implementation of the SUS?*

In order to answer the research question, an investigation based on combined quantitative and qualitative methods will be carried out, relying on national statistics analysis and semi-structured interviews with data from users, administrative staff, and other key stakeholders. Firstly, this study presents an evaluation of the healthcare system by analysing data representative of access at the national level, obtained from the National Household Surveys of 2018 and 2019. Comparing dimensions such as effective access, availability, and affordability in the year prior and after the approval of the SUS allows for a first glance at the evolution of access to the public services. Secondly, the macro perspective is integrated with a case study that provides a detailed analysis of the qualitative dimensions of access to healthcare that are not incorporated into the quantitative data.

Despite the case study not being representative of the entire national territory, the objective is not to generalize from this case, but to collect detailed and revealing information about the qualitative dimensions of access to healthcare services. By doing, so this study provides two fundamental contributions. In the first place, it fills the existing research gap, by providing a general overview on how has access to healthcare evolved after the SUS through quantitative indicators representative of the national level. Secondly, by comparing and contrasting the results from National Household Survey data with the case study, the study reveals information about healthcare access dimensions that are not reflected by quantitative data and that provide a much richer and holistic idea about the opportunities and challenges involved in accessing healthcare. Third, the findings are also revealing and of interest for the wider national context. This is because the city of La Paz is among the municipalities receiving the greatest amount of financial resources[1] and having one of the highest Human Development Indexes, scoring 0.719 in 2019 (Global Data Lab, 2019); making it unlikely for the findings to be outliers. On the contrary, it is probable that the challenges identified in the context of La Paz be exacerbated in areas having less resources. Clearly these hypotheses are to be verified by future studies.

To evaluate the extent to which the approval of the SUS has granted universal access to health services, the analysis employs a theoretical framework widely used by WHO (2010) that combines quantitative and qualitative indicators. The framework will guide the analysis for both the data representative of the national level and the case study.

The following section will summarise the main theories and available research. Subsequently, the methodology section will provide details about the methods used and the theoretical framework employed. Before proceeding with the analysis, a background section provides information outlining the general structure of the health system and the evolution of the public insurance system. Finally, the last section will present the results, first for the national level and then for the case study, after which a conclusion will summarise the findings and provide direction for further research.

[1] In 2016, of the total transfers to the municipalities, it can be seen that the autonomous municipal governments of the Department of La Paz receive the largest amount, Bs. 2.657 billion, representing 25% of the total (Ministry of the Economy and Public Finance, 2016).

II. Literature Review

The implementation of universal healthcare (UHC) has long been advocated by international organizations, scholars, NGOs, and activists all over the world. In 1948, UHC entered the WHO constitution, which highlighted that *"the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, and political belief, economic or social condition"* (WHO, 1948, pg. 30). This fundamental human right was reaffirmed in the "Health for all" declaration of the Alma-Ata Conference in 1978 that called for quality, affordable and universally accessible healthcare for all. Subsequently, universal healthcare access entered the post 2015 development agenda, with SDG 3.8 calling for the achievement of UHC.

SDG Target 3.8 | 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.

More recently, in 2018, as part of the 40th anniversary of the Alma Ata Declaration, the 192 member countries of the UN signed the Astana Declaration, that goes a step further, expressing concern about the growing cost of healthcare. The new declaration calls not only for health for all, but for affordable health, constituting a renewal of the political commitment to primary healthcare from all the actors across the healthcare spectrum (Astana Declaration, 2018).

With the growing attention that has been dedicated to UHC, international organizations and scholars all over the world have outlined some of the pillars on how to move towards this universally advocated goal. However, in proposing strategies to achieve UHC, it is crucial for these strategies to be adapted to national contexts, and therefore to consider the economic, social and cultural differences between nations and regions. In fact, while there are some common steps to be taken in promoting UHC, is important to keep in mind that there is no blueprint for the endeavour.

The literature on universal healthcare access reflects the ongoing evolution in its conceptualisation. In the 1970's, the focus was indeed mainly on the structural factors that characterised healthcare access, such as financial affordability and physical accessibility. When it comes to these areas, many authors have highlighted that to achieve UHC, countries must raise sufficient public funds to cover the healthcare costs of those who cannot afford to contribute. In low-middle income countries, where a large proportion of the population live on low wages and work in the informal sector, general government revenues are especially important. Which are the best ways to finance UHC in countries where the tax collection base is low is a topic particularly subject to debate. Reeves *et al.*, (2015) stated in a study that pro-poor taxes on profits and capital gains seem to support expanding health coverage without the adverse effects of the outcomes observed for higher consumption taxes. In the context of low levels of formal sector employment in low-income countries, it is unavoidable that indirect taxes comprise a large proportion of tax revenue. Reeves *et al.*, (2015) point out that whereas some indirect taxes (for example on luxury goods) are not likely to affect poor people adversely, and other indirect taxes might help improve health outcomes (for example taxes on tobacco and alcohol), other

consumption taxes are highly regressive. Health-care user fees and co-payments, for example, represent a consumption tax on the sick that take countries away from UHC and adversely affect health outcomes.

Interestingly, Meheus & McIntyre (2017) show that a country's level of economic development does not predetermine its spending levels. In fact, they claim that increasing government revenue through taxation or other sources is first of all a fiscal policy choice. The mantra of lack of fiscal space can be challenged and government revenue can be increased through improved tax compliance and efficiency in revenue collection, maximizing revenue from mineral and other natural resources, and increasing tax rates where appropriate. And in fact, as argued by Matus-Lopez *et al.,* (2019), there is capacity to create fiscal space within the Bolivian health sector through economic growth linked to a commitment to reprioritize public spending on health, improvements in the internal sources of revenue through the reduction of informal work, and reduction of tax expenditures. The growth of Bolivia's spending on health as % of GDP went from 4.6% in 2008 to 6.8% in 2016, showing ultimately that there can indeed be fiscal space for health financing.

Additionally, ensuring a stable and sufficient government revenue can allow reducing the share of out-of-pocket spending, as Mills *et al.,* (2012) argue. To abolish health user fees for some or all citizens is indeed a considerable way to improve access to healthcare. That is because *"even tiny out of pocket charges can drastically reduce poor people's use of the needed services"* as Yong Kim stated in 2013. The case for out-of-pocket spending preventing a considerable number of people from accessing services in Bolivia was documented by Coronado (2017), who showed that in 2016, of those that were sick and did not seek medical services, 9.4% did so due to lack of financial means.

An additional pillar of universal access is physical accessibility to healthcare resources. This refers to the availability of professional medical personnel and healthcare facilities, but also to indicators of waiting time and travel time. Otieno & Asiki (2020) propose some good practices at the level of service delivery to increase access to care. Among these, expanding "close to client services", for example, primary care services provided by community health volunteers (CHVs), community mobilisation through the creation of support groups, and welfare organizations to spread health information, such as antenatal care and screening for chronic illnesses.

Whereas traditionally the literature on access to healthcare has focused on the more structural elements of financial and physical accessibility, from the 80's onwards there has been a growing number of scholars (Penchansky & Thomas, 1981; Frenk, 1992; Haddad & Mohindra, 2002) that identified multidimensional aspects of access related not only to the supply side of the healthcare system but also to features within the demand side, such as quality of care, cultural acceptability, need, and adequacy of healthcare services.

In fact, Mooney (1983) points to the fact that access depends not only on factors of the supply side such as location, availability, affordability, and appropriateness of services, but also on demand factors such as knowledge of the individuals, practices of care and burden of disease. Similarly, Aday & Andersen (1974) state that utilisation is defined by population characteristics and the health system's characteristics. Therefore, access to healthcare has been increasingly conceptualised as a *process* extending along a wide spectrum of factors involving qualitative and quantitative dimensions from both user's and supplier's sides.

When considered in its multidimensional conception, access is defined as follows by Levesque *et al.*,

> *"Access is seen as resulting from the interface between the characteristics of persons, households, social and physical environments and the characteristics of health systems, organisations and providers. Factors to consider could thus pertain* ***to supply-side*** *features of health systems and organizations, to* ***demand-side*** *features of populations, and to process factors describing the ways in which access is realised" (p. 4).*

Measuring the degree of universality in healthcare access might result in a complex procedure when considering the variety of dimensions included in its conceptualisation. However, through a good operationalization of the concept of access, empirical research might result in a good approximation of its status.

III. Methodology

Conceptual Framework

The dimensions according to which access has been measured are part of a widely used framework developed by the WHO (2010). The latter defines access as the opportunity to reach and obtain appropriate healthcare services in situations of perceived need for care, with access seen as resulting from the interface between the characteristics of persons, households, social and physical environments, and the characteristics of health systems, organisations and providers. The concept of universal health coverage is a multidimensional one, therefore requiring multidimensional conceptualisations and metrics in order to be measured. In particular, both quantitative and qualitative metrics are needed to provide a comprehensive picture of the extent of universal health coverage in a given setting. The indicators outlined below are based both on quantitative and qualitative measurement methods, with the objective of producing a comprehensive picture of the change introduced by the SUS and of the overall status of the healthcare system when compared with its objective of achieving universality.

Effective coverage – the proportion of the population in need of an intervention who have received an effective intervention.

Availability – the physical availability of healthcare, health infrastructure, workforce, medical goods and products, and timely provision of services. This is measured through

- *Physicians/nurses x 1,000*
- *Beds x 1,000*
- *Hospitals*
- *Geographical location* – the location of a health facility will have an impact on access to healthcare depending on the patterns of settlement of the population it serves and their capacity to travel to the health service (Levesque *et al.*, 2013).

Affordability – **(**of services) is defined as the absence of financial barriers to needed healthcare aiming at avoiding health-related poverty or impoverishment. Affordability of services for individuals or households differs from fiscal affordability.

- *Out-of-pocket spending: the amount of money a patient pays for medical expenses that are not covered by a health insurance plan*
- *Macroeconomic affordability:* fiscal space that can be made to finance a level of expenditure that ensures universal access to services measured as health spending as % of GDP, percentage of investment in health as % of total public investment

Quality – refers both to the quality of infrastructure and the workforce to provide the healthcare services required (ILO, 2008). Access to healthcare is not only based on geographical aspects, organisational availability and affordability, but also on the user's possibility to choose acceptable and effective services.

Quantitative data analysis

The study has been conducted according to a combined methodology.

First, analysis of quantitative data obtained from the 2016, 2017, 2018, and 2019 National Household Surveys, guided by the indicators of access, affordability and availability aimed at generating an overview on how access has evolved at the national level. The National Household Survey Data was collected by the National Institute of Statistics (INE) between January and December of the respective years through direct interviews of a total of 11,195 households in 2018 and 11,976 households in 2019 (INE, 2018, 2019). For the purpose of this study, only section four of the surveys, pertaining to the topic of healthcare, has been analysed. The sample is representative at the national level. Additionally, databases from the National Institute of Statistics (INE) and from the Social and Economic Policy Analysis Unit (UDAPE) updated to 2019 have been used. The databases allowed to extract information related to households' socioeconomic characteristics, health services utilisation, related expenses, and the system's availability of infrastructure and human resources. Secondary data obtained from National Household Surveys was analysed with SPSS software, while data from INE and UDAPE was processed with Excel. The main analyses performed were descriptive and three-way tables.

Given that more and better information can be gained by converging the quantitative findings with qualitative information, it has been deemed necessary to complement the research with a case study. In fact, the nature of the qualitative approach is to open the study by presenting the large, interconnected complexities of a situation (Creswell, 1999) which is precisely the objective of this research. To this end, semi-structured interviews have been conducted with health providers and users in the city of La Paz, with the objective of extending the findings of the first part of the analysis.

Qualitative data sampling

Data for the case study was gathered in the city of La Paz. The sampling strategy was based on a combination of convenience[1] and purposive[2] sampling. On the provider side, it has been concluded that health centre directors are the ones to be interviewed, as they possess the highest amount of information about both the administrative and service provision sides of the health establishments. Additionally, to include as much variation in the sample as possible, health centres of different macro-

[1] Information is collected from participants who are easily accessible to the researcher (Palinkas *et al.*, 2015).
[2] The method is based on the identification and selection of information-rich cases related to the phenomenon of interest (Palinkas *et al.*, 2015).

areas[3] of La Paz were selected according to the criteria that macro-areas are characterised by different levels of resources[4] and assigned population, hence diversity in dynamics of access. The areas selected were *San Pedro, Sopocachi, Los Pinos, Cotahuma, La Merced, Macrodistrito Centro, Villa Pabón, and San Pedro Alto*.

On the other hand, users' sampling was guided by the criteria of age, gender and location of their assigned health centre. As mentioned above, the location of a health centre defines indeed the nature of services due to their different levels of resources and thus quality, whereas differences in gender and age account variation in experiences and perspectives.

Qualitative data collection and analysis

Both providers and users were recruited by direct contact in health centres and hospitals. A total of 6 health centre directors were interviewed, with saturation of information having been reached with this amount, while on the user side, 8 participants were interviewed, giving a total of 14 semi-structured interviews. The interviews, held in the city of La Paz, lasted between 20 and 30 minutes and were recorded with a digital recorder. One participant preferred not to be recorded.

Before the start of the interview all participants received both oral and written information on the purpose of the research, its methods, use of data and privacy policy, as well as on the voluntary nature of participation and the right to withdraw at any moment. They all signed written consent to participate in the study. The interviews were held between November and December, 2021. The table below illustrates the main questions guiding the semi-structured interviews. The questions were generated after the quantitative analysis part of the study was concluded, the results of which guided the development of the questions.

Table No. 1. *Interview questions*

Health providers	Users
To what extent has the number of users at this health centre increased after the approval of SUS?	What do you think about the Universal Health Insurance?
What type of services does the SUS cover?	What services does the SUS cover?
Were the resources provided to this health centre sufficient for satisfying the increase in demand?	How do you think the quality of the public health services has evolved in the first year of implementation of the SUS?
To what extent has the approval of SUS eliminated the economic barrier to accessing healthcare?	Do you think there is sufficient information regarding the SUS?
What were the consequences of increased demand in terms of quality of the services?	What are the major benefits and the major challenges encountered under SUS?

Source: Prepared by author, 2021

[3] Health facilities are organised into Health Services Networks and Micro-networks to allow for coordinated action of the health services (SEDES, 2021). La Paz first level health centres are distributed in five networks.

[4] The resources assigned to health centres are established according to the criteria of the population residing in the respective area where the centre is located (Ministry of Health, 2019).

The data collected through interviews was transcribed and analysed according to coding and thematic analysis methods. The codes were first organized into broad categories according to the theoretical framework used. The analysis identified patterns of association in codes or themes across cases, and between sets of codes in the data. The codes were repeatedly revisited and adapted throughout the analysis process.

Limitations

One of the study's limitations concerns the fact that while the study's purpose is to perform a diagnosis for the first year of SUS implementation, that is, 2019, the interviews were conducted in 2021. To counter this limitation, before beginning the interviews, the interviewer asked the participants to relate their answers to the year 2019. Clearly, it is not possible to know the extent to which the participants were concise in reporting experiences solely pertaining to that year. However, the validity of the data is guaranteed by the fact that previous research confirms the existence of the issues identified with the interviews (2016- 2020 Institutional Strategic Plan, Ministry of Health, 2017; Chacon & Valverde, 2009; Narvaez & Saric, 2004), thus confirming that the deficiencies identified are not a product of the pandemic but existed before it.

Another limitation is related to the data sampling methodology. Limited resources and time made convenience sample the most adequate method for this study. Nonetheless, the problem with convenience sample is the high probability of underrepresentation or overrepresentation of particular groups. In this study, the risk might be that users' negative experiences be overrepresented and positive ones be underrepresented. However, given that the findings that emerged in the case study on the healthcare system deficiencies correspond to similar previously studied and reported cases, and given also the quantitative indicators that point to an insufficiency of resources across the country, it is unlikely for this bias to have had a considerable impact on the findings.

IV. Background

Historical context

Salazar & Rocha (2020) provide a quick historical recap on the Bolivian health system. They recall that in Bolivia, the first health system emerged in the 1930's. It was an elite system excluding the vast majority of the population. In the 1950's, after the National Revolution, a social security system was created for formal workers, leading to the establishment of the National Social Security Fund – *Caja Nacional de Seguridad Social* – in 1953. Subsequently, the social security system went through an intense process of fragmentation, with the generation of several other health funds, reaching a total of 16 different health funds with more than 40 medical health insurances, autonomous administrative capacity, and no degree of coordination with each other (Bermudez *et al.*, 1999; Tejerina, 2018).

By the 1980's, after the Alma-Ata Declaration (1978), a program targeting broad immunisation was implemented in Bolivia, and the health system was partially regionalized, with the creation of health districts and areas (Tejerina, 2018). In 1994, with the introduction of the Popular Participation Law, the ownership of public health infrastructure was given to the municipal governments. In 1996, the government approved the National Health Insurance for Maternity and Children (SNMN) scheme, with the objective of improving maternal health and reducing infant mortality (Muriel, 2007). This insurance

scheme was redefined in 1998 as Basic Health Insurance, emphasising access in rural areas. Finally, in 2003, the Universal Maternal and Child Insurance (SUMI) was implemented, substituting the previous ones and granting free and universal services to pregnant women until six months after childbirth and to children up to the age of five (Muriel, 2007). In January 2006, the government created the Health Insurance for Older Persons (SSPAM) scheme through Law No. 3323, which conserves the coverage of benefits established in the Free Health Insurance for the Elderly, but with modified financing, depending henceforth on municipal funds from the Direct Hydrocarbons Tax (RAF, 2006). In 2008, the government established, through Supreme Decree (SD) No. 29601, the Healthcare and Management Model, in the framework of Intercultural Community Family Health (SAFCI), with the objective of eliminating social exclusion, promoting social participation, and providing health services that take into account the person, family and community, embracing biomedical and traditional medicine. In 2013, SIS (*Servicio de Salud Integral*) was approved, unifying and expanding SUMI and SSPAM (for more information see Muriel, 2007). On February 27th, 2019, SD No. 3813 established the implementation of the SUS, the aim of which is to provide, for approximately 51% of the population (5.8 million people), which has no type of health insurance, with a universal, public and free health system. Within this framework, the SUS began its rollout on March 1st, 2019. The table below summarizes the main health insurance schemes of the public subsector, from 1996 to date.

Table No. 2. Public Subsector Health Insurance Schemes, 1996-2019

Details	Benefits
Maternity and Child Insurance (SNMN) July 1996 - December 1998	
Established on May 24th, 1996 by Supreme Decree (SD) No. 24303. The target population of SNMN was all pregnant women and children under five years of age. It was created out of the need for national insurance to cover medical services for the mother-child binomial, to eliminate economic barriers to accessing quality medical services and to extend institutional health coverage. The programme excludes people who are already affiliated to the social security system.	Women received free medical, surgical and pharmaceutical care, basic laboratory tests and hospital care during pregnancy, childbirth, postpartum and for obstetric emergencies. Similarly, children under five years of age received free medical, pharmaceutical and hospital care for Acute Diarrhoeal Diseases (ADEs) and infant and child health emergencies. Initially, the National Maternity and Child Insurance offered a total of 26 benefits, which were later increased to 39.
National Older Persons Insurance (SNV) December 1996	
SD No. 24448 of December 20th, 1996 created the National Older Persons Insurance with the purpose of providing free medical assistance to people over 65 years of age residing within the nation's territory, who are not insured in the Social Security System in the short term.	The services include the following: general medical care, surgical interventions, hospitalisation, provision of medicines, auxiliary diagnostic tests, and dental care. Excluded from the insurance are prostheses and orthopaedic equipment.
Free Health Insurance for Older Persons (SMGV) May 1998	
In 1998, the resources available for SNV were not stable, placing the insurance at financial risk. In order to solve the funding issue, a new insurance, SMGV, was designed.	SMGV includes the following services: general medical care, surgical interventions, hospitalisation, provision of medicines, auxiliary diagnostic tests, and dental care. Excluded from the insurance are prostheses and orthopaedic equipment.

Basic Health Insurance (SBS) December 1998 - December 2002	
On December 31st, 1998, SD No. 25265 was enacted, creating the SBS. This insurance conserves the same considerations as SNMN with respect to the protection of the mother-child binomial, but it is focused on the low-income population, with greater emphasis on rural areas, offering promotional, preventive and curative benefits, and, above all, seeking to reduce the high rates of maternal and infant mortality. The beneficiaries were divided into three groups: children, women and the general population. SBS also included treatment for the main causes of morbidity in the country such as malaria, tuberculosis and sexually transmitted infections. It introduced the promotion of child nutrition, vaccinations and vaccination against and prevention of sepsis and meningitis.	Children under five had the following benefits: new-born care; promotion of nutrition and child development; AIDs, ARIs, sepsis, meningitis, and preventive vaccination. Women were entitled to prenatal care, delivery, and new-born care; post-partum care, prevention and care of pregnancy complications; and emergency transport, obstetrics, and information, education and communication on institutional childbirth. Finally, the general population would benefit from healthcare in diagnosis and treatment of tuberculosis, malaria, cholera, family planning, and sexually transmitted diseases, excluding treatment of Acquired Immune Deficiency Syndrome. The number of SBS benefits was 92.
Health Insurance for Older Persons (SSPAM) January 2006	
In January 2006, through Law No. 3323, the government created the Health Insurance for Older Persons – SSPAM scheme, aimed at providing free health benefits in favour of Bolivian citizens over 60 years of age, of both sexes, living anywhere in the nation's territory and not insured in the Compulsory Social Security System or with any other health insurance. It conserves the benefit coverage established in the Free Health Insurance for Older Persons, but with modified financing, depending henceforth on municipal funds from the Direct Hydrocarbons Tax (IDH).	Consisted of outpatient care, complementary diagnostic services, dental care, hospitalisation, medical and surgical treatment, and the provision of necessary supplies, medicines and traditional natural products, according to each level of care.
Universal Maternal and Child Insurance (SUMI) November 2002 - December 2013	
SBS was replaced by SUMI through Law No. 2426 of November 21st, 2002. The main difference between the two is the universal nature of SUMI (SBS was an insurance targeted at the low-income population). The beneficiary groups are pregnant women (from the beginning of pregnancy until six months after delivery) and children up to five years of age (Bolivian nationals or foreigners with a residence visa in the country). In contrast to SBS, SUMI no longer covers care for the general population for diseases such as malaria, tuberculosis, cholera, and sexually transmitted diseases.	SUMI has five different packages: a) pregnant women, b) neonatology, c) paediatrics, d) dentistry, and e) laboratory, imaging, blood services, and traumatology. The list includes, among others, the following services: orthotics, prosthetics, cosmetic surgery, chemotherapy, orthopaedics, orthopaedic surgery prostheses, radiotherapy, cobalt therapy, organ and tissue transplants, and orthodontics. It began with 192 services and reached 547 protocolised services.

Comprehensive Health System (SIS) December 2013	
With Law No. 475, enacted on December 30th, 2013, SIS unified SUMI and SSPAM, expanding its coverage from 700 to 1,200 health services to improve service quality. It also provided free haemodialysis services nationwide. Universal coverage was extended to pregnant women, women of childbearing age, children under five, older persons, and people with disabilities, who were added among the beneficiaries.	Comprehensive healthcare includes the following services: promotion, prevention, comprehensive outpatient consultations, hospitalisation, complementary services for diagnosis, and medical, dental and surgical treatment, provision of essential medicines, medical supplies, traditional natural products, and others.
Universal Health System (SUS) February 2019	
On February 27th, 2019, SD No. 3813 established the implementation of the SUS, the objective of which is to provide approximately 51% of the population (5.8 million people) who do not have any type of health insurance with a universal, public and free health system. SUS unifies and expands the existing health insurance schemes and began its rollout on March 1st, 2019.	The services provided include health promotion and disease prevention, diagnosis and rehabilitation of disease, medical and odonatological consultation, nursery services, vaccines, medicines and medical supplies, laboratory and cabinet exams, and other services such as bandages, sutures, removal of stitches, blood pressure checks, etc.

Source: Prepared by author, with data from UDAPE-UNICEF (2006) and RAF (2006).

The legal foundations of the fundamental right to universal healthcare

The first Bolivian Constitution to include health as a responsibility of the State was that of 1938. The fundamental right to health was proclaimed in the Bolivian Constitution of 1967 and was further reinforced in the more recent 2009 National Political Constitution. In fact, the latter dedicates an entire chapter to the topic (Chapter II), made up of eleven articles that proclaim the duty of the State to guarantee free and universal access to healthcare without any discrimination (Article 18), to provide a sole universal, free and equitable health system (Article 18, II), to promote public policies to reinforce this right, and to monitor the quality of the service through the monitoring of the human resources, infrastructure and equipment (Article 39). The table below summarizes the main articles outlining the right to health.

Table No. 3*. The right to universal healthcare in the Political Constitution of the Plurinational State of Bolivia, 2009*

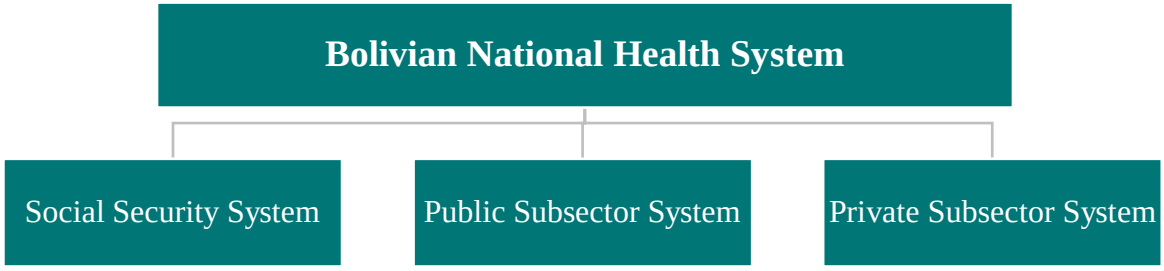
Political Constitution Of The Plurinational State Of Bolivia, 2009		
Theme	Art.	Text
Right to health and health assistance	18	I. All individuals have the right to health.
		II. The State guarantees inclusion and access to health for all persons, without exclusion or discrimination of any kind.
		III. The single health system shall be universal, free, equitable, intercultural, and participatory, with quality, care and social control.
	35	I. The State, at all levels, shall protect the right to health, promoting public policies aimed at improving the quality of life, collective wellbeing, and free access of the population to health services.
		II. The health system is unitary and includes the traditional medicine of the indigenous peoples and nations.
	37	The State has the absolute obligation to guarantee and uphold the right to health, which constitutes a supreme function of the State and a primary financial responsibility. Priority shall be given to health promotion and disease prevention.
	30	I. Within the framework of the unity of the State and in accordance with this Constitution, the indigenous and aboriginal peasant nations and peoples shall enjoy the following rights: 9. To have their traditional knowledge and wisdom, their languages, their rituals, their symbols, and their clothing valued, respected and promoted. 13. To a universal and free healthcare system that respects their cosmovision and traditional practices.
Right to access to medicines	41	I. The State shall guarantee the population's access to medicines. II. The State shall prioritize generic drugs by promoting their domestic production and, if necessary, shall determine their importation. III. The right of access to medicines may not be restricted by intellectual property and marketing rights and shall contemplate quality and primary generation standards.

Source: Political Constitution of the Plurinational State of Bolivia, 2009.

The Bolivian healthcare system

Currently the Bolivian health system consists of a public and a private sector. The public sector is divided into two subsystems; that is, the social security system and the public system. What all three subsectors have in common is a high degree of internal fragmentation and segmentation (Tejerina, 2018).

***Figure No. 1**. Bolivia's health System's subsectors, 2019*



Source: Ministry of Health, 2019.

One of the public subsystems is a contributory one, the social security system – *seguridad social* – that operates through health insurance funds – *cajas de salud* – to which the employers from the private sector and public institutions, subject to the labour laws, contribute 10% of their salaries. In Bolivia there are several health insurance funds: *Caja Nacional de Salud, Caja Petrolera de Salud, Caja de Caminos, Caja de la Banca Estatal, Caja* CORDES, SINEC, *Caja de la Banca Privada*, COSSMIL (military), and the university insurance. The National Health Insurance Institute (INASES) is responsible for this section of the public health system, particularly in terms of implementing, controlling and supervising the policies and norms related to health insurance (Medrano, 2006).

On the other hand, the non-contributory insurance system, headed by the Ministry of Health and Sports (MSD) covers the part of the population that cannot access the contributory-based insurance mentioned above. This subsector uses its own public resources for current spending. The public subsector is financed on the basis of public funds allocated to municipalities in terms of per capita allocations (20% of central government tax revenues) and uses MSD infrastructure (Muriel, 2007). The Bolivian public healthcare system is characterised by four levels of management: national, departmental, municipal, and local. That is to say that these four levels provide each part of the financial resources and administrative capacity for the public healthcare system. The central level finances the human resources (HR) of the public subsector with funds coming from the General Treasury of the State and has administrative capacity across the four levels. As Tejerina (2018) highlights, in practice, in public health establishments, besides HR financed by the State, there are also HR contracted by the department and municipality, resulting in a high degree of dispersion and inefficiency in service delivery. The 339 municipalities are in charge of administrating first and second level healthcare services, while the nine departments administrate the third levels. The health products of the first and second levels are financed through 15.5% of the tributary sharing or the equivalent of the IDH (Law No. 1152, 2019). The different elements of the health system are not articulated and coordinated with each other, leading to overlaps and gaps. Fragmentation inevitably leads to ungovernability and inefficiency (Tejerina, 2018).

Lastly, the private sector is divided into for-profit organizations (insurance and private services and clinics) and not-for-profit organizations (NGOs and the Church).

SUS beneficiaries

According to Article 5, Chapter II of the legislative text of Law No. 1152, the **beneficiaries** of the universal free healthcare are:

a. Bolivians who are not covered by social security insurance;
b. foreigners that are not covered by social security insurance or who belong to the categories of pregnant women, women in need of sexual and reproductive assistance, children less than five years of age, men and women older than 60, and people with classified disabilities.

People belonging to these categories can therefore go to the nearest first level health establishment, present their ID and one of the most recent water, electricity or gas bills to be registered in the system by the authorized health personnel.

The Bolivian health system is indeed divided into four levels of assistance and access. The first level is composed of general medicine and is the one to which patients must go for their medical needs. Its competencies include prevention, general medical assistance, regular and non-complex checks, which is sufficient for tackling the majority of and the most frequent health issues. The second level is comprised of services of internal medicine, genecology, general surgery, and podiatry, thus offering services that the first level is not able to**.** When the health needs of the patient cannot be met at the primary level of assistance, the person is transferred to another level. The third level offers specialized services concentrating on treatments that due to their complexity cannot be dealt with at the first or secondary levels. Lastly, a fourth level offers high-level technology for treating diseases and develops new knowledge for the advancement of the health system.

Article 7 of Law No. 1152 establishes important rules for access to healthcare services. Persons in need of a health service must definitely access it through the first level of care. If the patient's health issue cannot be resolved at this level, the health personnel transfer the patient to the second level of care. The same procedure applies for accessing the third and fourth levels of the healthcare system. These access rules are designed in accordance with the focus on primary healthcare, considered by the WHO as the key for achieving universal health and adopted as a key priority following the Alma-Ata Declaration in 1978. Primary healthcare is not only a less expensive approach for the promotion and maintenance of the population's health, especially in countries where resources are insufficient for the provision of care at specialized levels, but is also highly effective in improving people's health status (Okpokoro, 2013). In fact, 80% of cases can be theoretically resolved at the first level of care, thus avoiding overdemand for services at the second or third levels and consequently a collapse of hospitals characterized by limited human and physical resources. It is thus crucial that these resources be employed for the cases that truly require them.

What services does the SUS cover?

Coverage refers on the one hand to the kinds and extent of benefits included in the health insurance package. The Minister of Health made available a list outlining the services provided at the first and second levels of health access. It is stated that the list is not exhaustive and if health personnel can grant additional services not mentioned in the list, it is not limited in doing so.

At the **first level**, the health services include all services necessary for the following categories: health promotion and disease prevention, diagnosis and rehabilitation of diseases, medical and odonatological consultations, nursery services, vaccines, medicines, medical supplies, laboratory and office exams, and other services such as bandages, sutures, removal of stitches, blood pressure checks, etc. (Health Ministry, 2019).

The **second** and **third levels** of care include specialized medical attention, hospitalization, medicines, medical supplies, services complementary to the attention of the patient, laboratory and office exams, blood tests, and others of a similar nature.

In total there are 1,200 services in 250 packages that are free for SUS subscribers and that were previously subject to a cost for 63% of the population that lacked health insurance subscription. The Ministry of Health stated that progressively SUS would reach complete free coverage of health services.

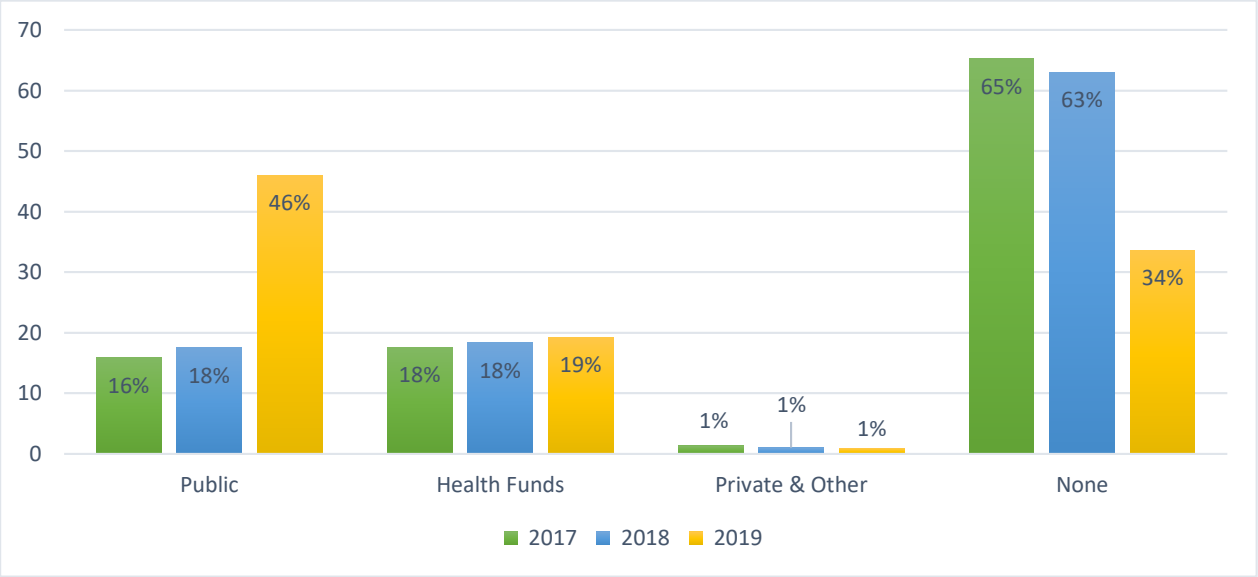
Health centre directors reported in interviews that for the provision of medicine under SUS they rely on a notebook provided by the Ministry of Health which outlines diseases and corresponding medicine covered by the Universal Health Insurance. Unanimously, health centre directors and patients reported that preventive and curative basic services are indeed covered under SUS; that is to say that at the first level of care, SUS includes the very basic provisions of consultancy, diagnosis, vaccination, and basic medicine such as painkillers free of charge. The law as well as health centres' directors emphasized the disease **preventive function** of the first level, which is not provided with specialist doctors, therefore requiring a transfer to the second level of healthcare for any need of specialized diagnosis or treatment. Similarly, at the second level, hospitalisation and some surgeries are included in the treatment needed for several diseases.

V. SUS: Dimensions of Access to Public Healthcare Services

Who are the beneficiaries of the Universal Health Insurance scheme?

Coverage refers to the population eligible for a set of healthcare services or packages. With the approval of the SUS, the first visible change has been in the total amount of subscribers to the public insurance scheme. While in 2018 the subscribers to the public insurance schemes was 18%, and the ones declaring not being affiliated to any health insurance scheme was 63%, these figures have considerably evolved with the approval of the universal healthcare scheme. In fact, data from the National Institute of Statistics (INE) shows that in 2019, 46% of respondents reported being affiliated to the SUS, while the percentage of respondents declaring not being affiliated to any insurance scheme decreased to 34%. As the graph below shows, the subscriptions to the public healthcare scheme have undergone a considerable evolution in 2019 compared to previous years.

Figure No. 2. *Bolivia: Total population registered under health insurance, by sector, 2017, 2018 and 2019*



Source: Prepared by author, with data from INE, 2019.
Note: In 2017 and 2018, public insurance includes Comprehensive Health Service (SIS) benefits, under Law No. 475 (formerly SUMI and SPAM) and Health Insurance of Autonomous Departmental or Municipal Governments, while in 2019 it refers to the Universal Health System (SUS) and Health Insurance of Autonomous Departmental or Municipal Governments. The latter are however a minimal part of the insurance subscription (2.2% of the total). The health funds for both years include *Caja Nacional de Salud, Caja de la Banca Privada, Banca Estatal, COSSMIL, and Seguro Universitario*. In 2019, *Caja Petrolera* is also included among the health funds.

As to the geographic distribution of the SUS's affiliates, it shows a high concentration of rural subscribers. In fact, according to the latest statistics released by INE, while in 2018 only 22.97% of rural respondents declared being affiliated to the public insurance scheme, the percentage reached 71.6% in 2019. On its part, the urban population the percentage went from 15.2% in 2018 to 35% in 2019. While urban subscribers more than doubled, the more remarkable change has been among the rural population. Data also indicates that among subscribers, women are slightly more numerous (25%), compared to men (21.08%) (INE, 2019).

Additionally, the median household income of those affiliated to the Universal Health Insurance is about 810 bolivianos per month, slightly higher than the 788 Bs./month of 2018. While prior to SUS, pregnant women, children up to five years of age and adults over 60 were covered by public free healthcare, there was still a considerable proportion of the population not covered by any type of health insurance. Typically, those excluded were adolescents and adult men that did not have formal employment and were thus not entitled to any of the health fund insurance schemes and having to pay out of their pockets when going to healthcare services. Coronado (2019) shows that in 2016 those who did not manage to access to health services, were characterized by belonging to the adult groups (especially when there were money constraints), being heads of household, and living in rural areas. Also in this group were adults who did not have regular education and those who did not complete

primary school. Particularly, in 2016, among the reasons for not seeking healthcare, 9.4% declared economic reasons (Coronado, 2019). It might be hypothesised that on the one hand, SUS offered opportunities for accessing healthcare for the disadvantaged groups previously excluded from health services. On the other hand, as Coronado (2019) notes, it is also possible that the economic crisis is widening informality rates, thus leaving groups previously covered by the corto plazo (short-term) insurance without it, especially in urban centres.

Table No. 4. *Household income per capita (Bs./month) of subscribers to public health insurance, 2018-2019*

Subscribers to SIS (2018) and SUS (2019), income in Bs./month	2018	2019
Mean	Bs. 1,010.30	Bs. 1,014.20
Median	Bs. 788.10	Bs. 809.90
Mode	Bs. 300.00	Bs. 500.00

Source: Prepared by author, with National Household Survey data, 2018-2019.

As debated widely in the literature, an important question in healthcare access is to determine whether formal coverage corresponds to **effective access**. The next session will thus present the results and discuss the extent of effective access to universal healthcare services.

VI. Effective Access

The latter is defined as the share of the population in need of an intervention that effectively **received** it. The definition of access is complex and multidimensional. Once having identified the population with health issues, it might be that a person in this group does not perceive the need to seek medical attention, that decides to not seek medical attention for several reasons or that outcomes of the health service received are unsatisfactory.

In this paper, access is identified as **the share of population that have reported health issues in the previous twelve months and have sought health service in a public health establishment, independently of the outcome of the service.** The limitation of this measure lies in not knowing the reasons of those that were sick and did not go to any health service.

According to National Household Survey data, in 2019, among those getting sick, 62.1% went to a public health entity, compared to 46.8% in 2018 and similar values in previous years. This means that in the years analysed, less than half of those reporting an illness used a public health service, either because they considered it unnecessary, because of supply side barriers or because of preference for private health services. Moreover, service utilisation across the income spectrum shows 35% of the first and second poorest quintiles using public health services between 2016 and 2018, while for the third quintile it is 30%. In 2019, around 41% of the two poorest quintiles that got sick used public health services. Additionally, while between 2016 and 2018, among those reporting health issues and having

visited a public hospital, roughly 58% did not possess any type of health insurance, a percentage which in 2019 decreased to 21.4%.

Table No. 5. *Percentage of population reporting illness that attended health services in the previous 12 months, 2016, 2017, 2018, and 2019*

% Getting sick and attending public health establishments	2016	2017	2018	2019
Yes	**52.8%**	**53.7%**	**46.8%**	**62.1%**
Poorest	36.1%	32.2%	35%	**41.0%**
2nd quintile	33.6%	30.8%	34.8%	**40.3%**
3rd quintile	31.2%	30.6%	30.6%	33.9%
4th quintile	27.9%	25.1%	27.1%	29.5%
Wealthiest	21.3%	19.8%	21.7%	20.9%
Public insurance	**33.7%**	**29.4%**	**34.8%**	**73.6%**
Not insured	**58.5%**	**58.3%**	**57.8%**	**21.4%**

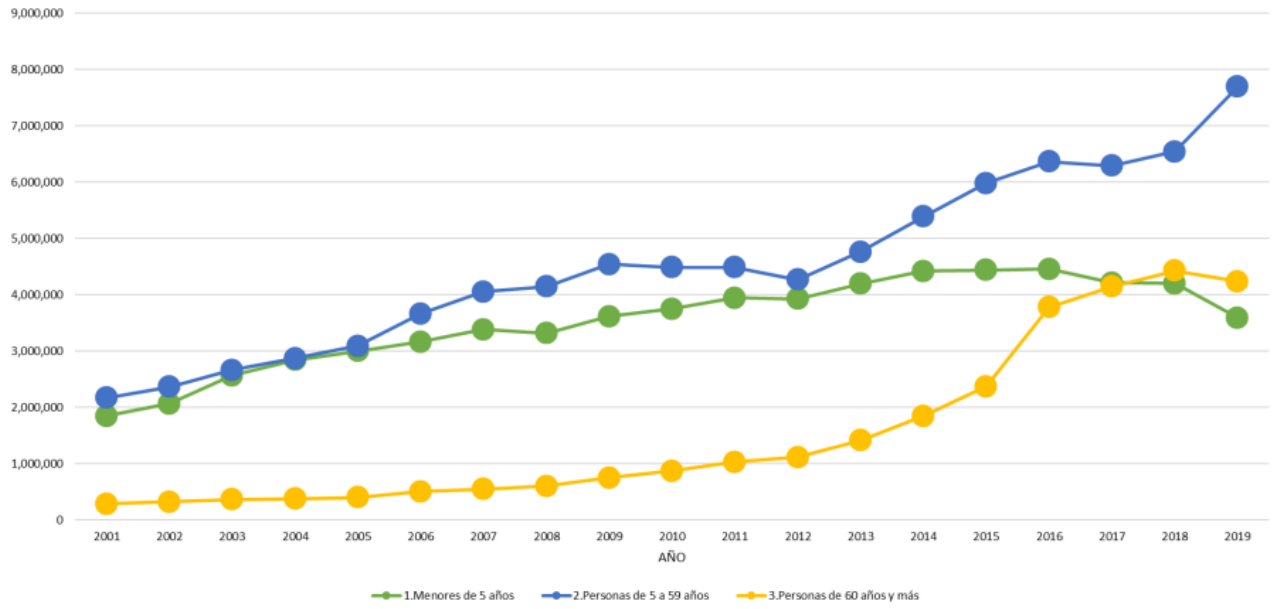
Source: Prepared by author, with National Household Survey data, 2016, 2017, 2018, and 2019.
Note: The variable "got sick" was calculated as cases that reported a health issue in the 12 months prior to the survey. Public insurance in the years 2016, 2017 and 2018 include SUMI, SPAM, and the insurance types provided by the autonomous department governments. In 2019, it refers to the SUS and the insurance types of the autonomous governments.

Similarly, another indicator that seems to point to an increase in effective access is the number of outpatient visits in the public subsector reported by the National Health Information System for Epidemiological Surveillance (SNIS-VE) and the Ministry of Health and Sports (MSD) for 2019. This indicator shows a general growing trend in the number of outpatient visits within the 5-59 age group, with an evident surge from 2018 to 2019. The latter age group corresponds indeed, with the exception of pregnant women, to the category that was not covered by any of the previous public health insurance schemes[1]. As to the >60 age group, while until 2018 it showed a steady increase in the number of outpatient visits, probably due to the provision of the nutritional supplement CARMELO[2] approved in 2015, for 2019 we see a slightly downward trend compared to previous years.

[1] With the exception of the health insurance schemes of the departments of Santa Cruz, Chuquisaca, Beni, and Tarija, which guaranteed a series of free basic healthcare packages for the age group of 5-59

[2] In order to contribute to the food and nutritional security of Bolivian elders, the Ministry of Health launched a nutritional supplement called CARMELO®, to be given to all older persons aged 60 and over, both retired from public and private institutions and not retired, across the country. The elders receive the nutritional supplement on the same day of their visit to the health centre closest to their home (Ministry of Health, 2015).

Figure No. 3. *Bolivia: Number of outpatient visits in the public subsector, by age groups, 2001-2019*



Source: SNIS-VE and MDS, 2021.
Note: The graph shows the national trend in outpatient care in the public subsector for new and repeat (N-R) consultations. The total number of outpatient visits, including new and repeat (N-R), is considered the number of administrative records and not the number of persons of the population (SNIS-VE and MDS, 2021).

The growing trend in accessing health services is also reported in a recent study by Coronado (2020). The findings indicate that in general, of the 18,000 adults in the National Household Survey that reported health issues in the previous 12 months, 70% accessed some type of medical attention. In particular the opportunity curve for medical attention turned out to be 84% in rural areas and 67% in urban areas. The study also reports that in 2019, the three poorest deciles have advantages in accessing medical attention, compared to previous years.

While formal coverage, outpatient visits, as well as the opportunities for accessing healthcare for the poorest quintiles of the population seem to have increased according to statistical data, it is important to elucidate the **type** and **nature** of the services to which patients have access through SUS. To this end, the information gathered through qualitative data provides a clearer perspective on the nature of the services patients have access to.

VII. Affordability

Affordability is measured, according to the theoretical framework employed in this study (WHO, 2010), through out-of-pocket spending and the macroeconomic dimension of affordability. The latter is measured through health spending as percentage of GDP, per capita spending, and percentage of public investment spent in the health sector. Effective universal financial protection can be attained not only if the population does not incur substantial out-of-pocket (OOP) payments and critical income losses due to payment for healthcare, but if there are no fears of and delays in seeking healthcare due to financial reasons, no borrowing and sale of valuable assets to pay for healthcare, and no detentions in hospitals for non-payment of bills.

Out-of-pocket spending (OOP)

According to National Household Survey data presented above, there is an increase in utilisation of public health services compared to previous years. However, when it comes to out-of-pocket spending[3], the median value for 2017, 2018 and 2019 appears to be roughly the same. In other words, when out-of-pocket spending is analysed, altogether there is no substantial change in the median value. Similarly, in breaking down the indicator into its various components, the result is that for the services of outpatient visits, the median spending was Bs. 100 for 2018 and Bs. 126 for 2019, thus presenting a slight increase in 2019. Only when it comes to expenditures on laboratory analyses or ambulances, we find that in 2019 the average spending was half that of 2018. As to medicine, it presents the same value for both years, at Bs. 80 (National Household Survey, 2018, 2019).

Additionally, WHO's Global Health Expenditure Database reports that in Bolivia, in 2018, OOP was 22% of total health expenditure, while in 2019 it was 23.87%, while domestic government expenditure went from 72.8% of current health expenditure (CHE) in 2018 to 71.2% in 2019. Why is it that data of 2018 and 2019 does not look much different and that eventually OOP as a share of current health expenditure increased? Did public providers refuse to lower or abolish user fees? Is it that the universal insurance covers only a basic package, making people still have to pay for services? Or is it that services are of low quality, making people go to private providers when they need a quality service, hence the same spending levels?

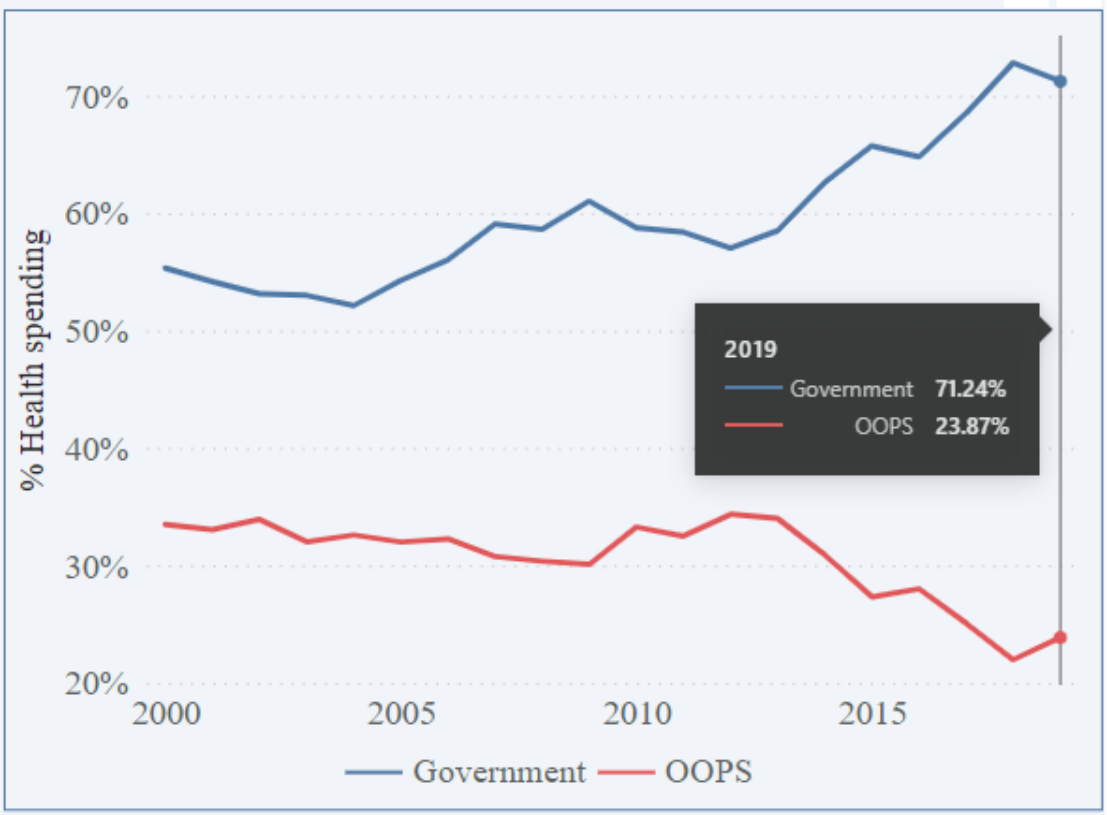
Table No. 6. *Household out-of-pocket spending per year, 2017, 2018 and 2019*

Out-of-pocket spending (OOP) Bs./year	2017	2018	2019
Mean	Bs. 626	Bs. 333	Bs. 334
Median	Bs. 110	Bs. 100	Bs. 100
Mode	Bs. 50	Bs. 50	Bs. 50

Source: Prepared by author, based on National Household Survey data, 2017, 2018 and 2019.

[3] Out-of-pocket spending is calculated as the sum of expenses in the previous 12 months on medicine, hospitalization, equipment, analysis, and consultation, according to National Household Survey data of 2018 and 2019.

Figure No. 4*. Domestic government expenditure and out-of-pocket expenditure (OOP)*



as % of current health expenditure (CHE), 2019

Source: WHO, Global Health Expenditure Database, 2019.
Note: Estimates of current health expenditures include healthcare goods and services consumed in each year. This indicator does not include capital health expenditures such as buildings, machinery, IT, and stocks of vaccines for emergencies or outbreaks (WHO, 2019).

Interviews with users and providers reveal that similar levels of OOP can be explained in the case study by a combination of the above-mentioned factors. Nonetheless, even if out-of-pocket spending values are constant, it is important to check the evolution of catastrophic spending. In fact, under universal health coverage, people might have the same out-of-pocket expenses, but less risk of impoverishment compared to previous years (Grogger *et al.*, 2015). It is therefore important for future research to monitor the evolution of catastrophic health expenses, given and considering that they can also constitute relatively small payments for households close to or under the threshold of the national poverty line (WHO, 2010).

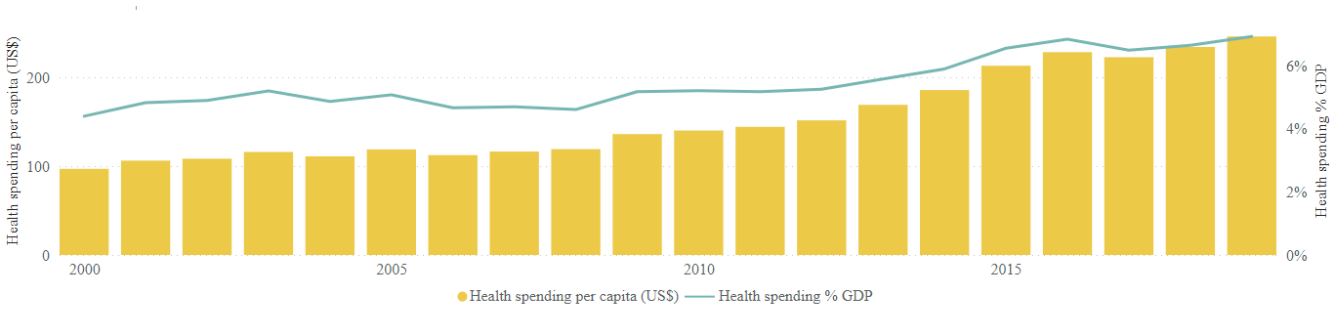
Macroeconomic affordability

When it comes to the trend of health expenditure in relation to GDP, the country has witnessed moderate and alternate progress. In 2010, health spending was 5% of GDP and in the following year it reached 7%, but then fell again to 6% in 2017, and finally reached 6.9% in 2019 (WHO Data, 2019), placing Bolivia in the 19th position in health expenditures as % of GDP of countries in Latin America

and the Caribbean (Statista, 2021). When the SUS was approved, experts called for an increase up until 10% of GDP in health spending to be able to support the system. However, health spending for 2019 stayed roughly unchanged compared to 2018. Despite the fact that health spending growth was more than double the average rate for the region (OECD, 2020), Bolivia has low spending on health compared with neighbouring countries.

Health expenditure **per capita** per year in constant US$ has also slowly increased from year to year, having more than doubled since 2010. In 2019, current health spending per capita was US$ 246, an increase of only US$ 11 compared to 2018 (World Health Organization Database, 2019). Given the present health spending levels, Aponte *et al.*, (2019) state that the required per capita spending to sustain universal health coverage in Bolivia should be US$ 400.

Figure No. 5. *Current health expenditure (CHE) as % GDP and CHE per capita, constant US$, 2019*



year	Health spending per capita (US$)	Health spending % GDP
2006	112.35	4.66%
2007	116.37	4.70%
2008	119.12	4.61%
2009	136.01	5.17%
2010	140.06	5.20%
2011	144.17	5.17%
2012	151.48	5.25%
2013	168.96	5.57%
2014	185.58	5.90%
2015	212.95	6.55%
2016	228.20	6.83%
2017	222.59	6.49%
2018	234.07	6.64%
2019	245.92	6.92%

Source: WHO, Global Health Expenditure Database, 2019.

On the other hand, health expenditure as a percentage **of general government expenditure** increased only 2 percentage points in the last decade, from 10% in 2010, to 12% in 2018 (WHO, 2018). Similarly, investment in health for the year 2018 was US$ 264,035.90, whereas in 2019 it was US$ 293,058.70 dollars, out of US$ 500,000 programmed, constituting 7.7% of total public investment (Ministry of Economy and Finance, 2019). Although there is no straightforward answer to the question of how much a country should spend on health, the answer depends on a variety of factors, such as the health problems a country faces, the effectiveness of the existing health services, the price of inputs, and the priority in the allocation of funds, among other elements (Savedoff, 2007). Although there are slight improvements when it comes to Bolivian health expenditures, the data indicates that the government must ensure a broader and more efficient flux of resources at the macro level to its healthcare system to reach the conditions typical of a universal health system. To make the case more

explicit, the tables below present the typical values of some indicators under Universal Health Insurance, comparing them with the ones in Bolivia.

Table No. 7. *Economic indicators under universal health insurance and Bolivia*

Indicators	Universal	Bolivia
% of GDP spent on health	≥ of 10%	6.4%
Public spending as % of total health spending	75% to 100%	71% (WHO)
Current health spending per capita	US$ 3,994 PPP[4]	US$ 496 PPP

Source: Prepared by author, with data from Aponte et al., (2019), World Bank (2018) and WHO (2019).

Table No. 8. *Health indicators under universal health insurance and Bolivia*

Indicators	Universal	Bolivia
Life expectancy at birth	≥ 75 years	71 years
% of population living under poverty line	0 to 20%	37.2% (WB)
Infant mortality rate (per thousand)	0 to 6	21 (before first year after birth)
Maternal mortality rate (per 100,000 livebirths)	≤ 20	155 per 100,000 livebirths (WB)

Source: Prepared by author, with data from Aponte *et al.*, (2019), World Bank (2018) and WHO (2019).

According to Aponte *et al.*, (2019) the insufficiency of the health budget **requires a redistribution of the General State Budget (PGE)** and makes it necessary to identify different **sources of financing** to achieve the sustainability of the Universal Health Insurance scheme that would allow for the hiring of human resources in health, and investment in equipment, medicine and the necessary supplies for healthcare.

Table No. 9. *Additional financial resources to finance UHC*

a)	In addition to the resources included in the PGE (General State Budget), it is suggested that 10% of the current revenues from internal taxes and customs be allocated to health.
b)	Creation of taxes to discourage harmful practices. It is suggested that taxes on tobacco and sugary beverages be introduced to discourage unhealthy practices, applying the positive experience gained in other countries.
c)	Creation of a tax on coca leaf production. The proposal is to create a tax to be applied to the 44,200 metric tons of coca production at a rate that would increase the State's revenues by 0.25%. This amount is equivalent to US$ 90 million.
d)	Strengthening fiscal discipline. A recent IDB study (2018) shows that the inefficiency of public expenditure in Bolivia is 6.3% of GDP. These technical inefficiencies in the region are mainly related to corruption, poor resource allocation and poor public management.

Source : Aponte *et al.*, 2019.

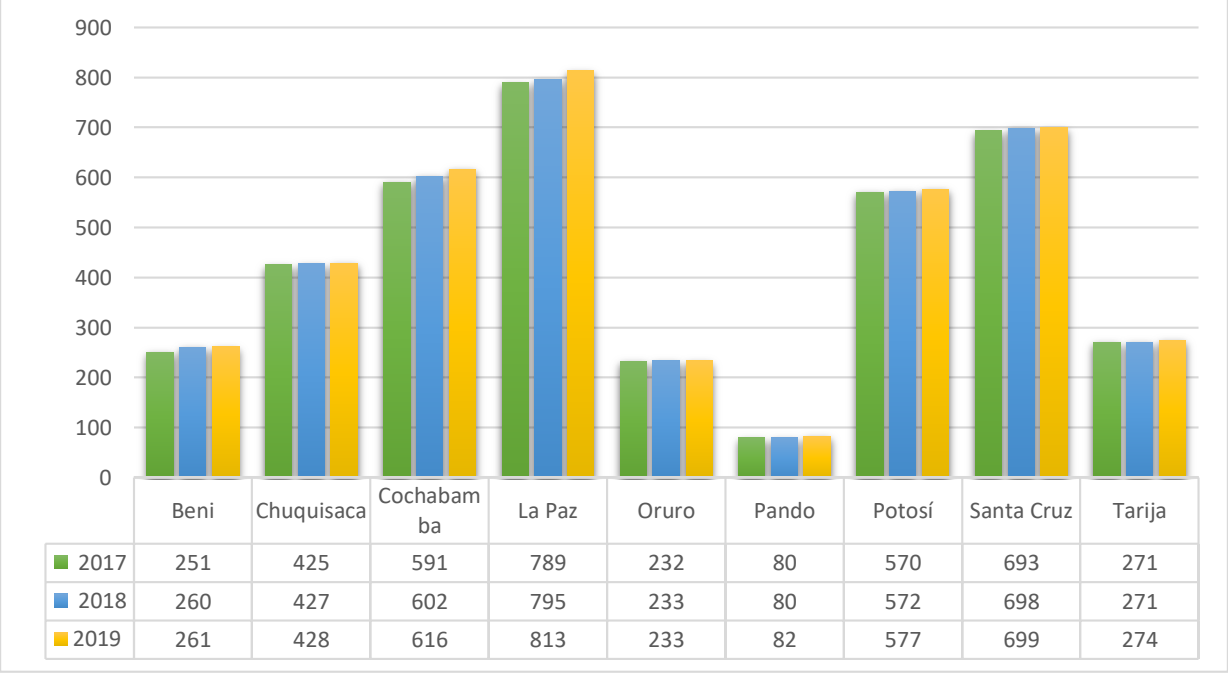
[4] OECD average per capita current expenditure on health, 2017. Estimates of current health expenditure include health goods and services consumed per year.

VIII. Availability

In 2019, the government promised an investment of US$ 200 million, the hiring of 8,000 new human resources and to provide for the construction of new hospitals. It was said that the process would be gradual and step-by-step. However, at the end of 2019, there were few additional resources.

According to data from INE, in 2019 there were in total 3,983 **health establishments** in Bolivia:, 3,610 first level health centres, 238 basic hospitals, 47 general hospitals, and 32 specialized institutes which provide third and fourth level care. In 2019, there were 55 additional health structures, compared to 2018, the majority of which were primary health centres. The graph below shows the distribution of health structures across Bolivia in 2019. It shows that the departments of Beni, Pando, Oruro, and Tarija have seen zero or two additional health establishments, despite being the departments where access to services is the most challenging, thus needing the most investment. Critics however claim that many of these new health establishments are not functioning, as they lack the necessary equipment and human resources to be operative. Similarly, others claim that the construction of many establishments is incomplete. Marconi (2021) suggests that it is necessary to carry out an external, technical, and financial audit, and to review the distribution with sector specialists and financial auditors, since there are voices that claim that the choice of locations was mostly for political and clientelist reasons. The distribution of the health structures plays a very important role in access to healthcare. In fact, the location of a health facility will have an impact on access to healthcare depending on the patterns of settlement of the population it serves and their capacity to travel to the health service (Levesque *et al.*, 2013).

Figure No. 6. *Total health establishments in the public subsector, by department, 2017-2019*

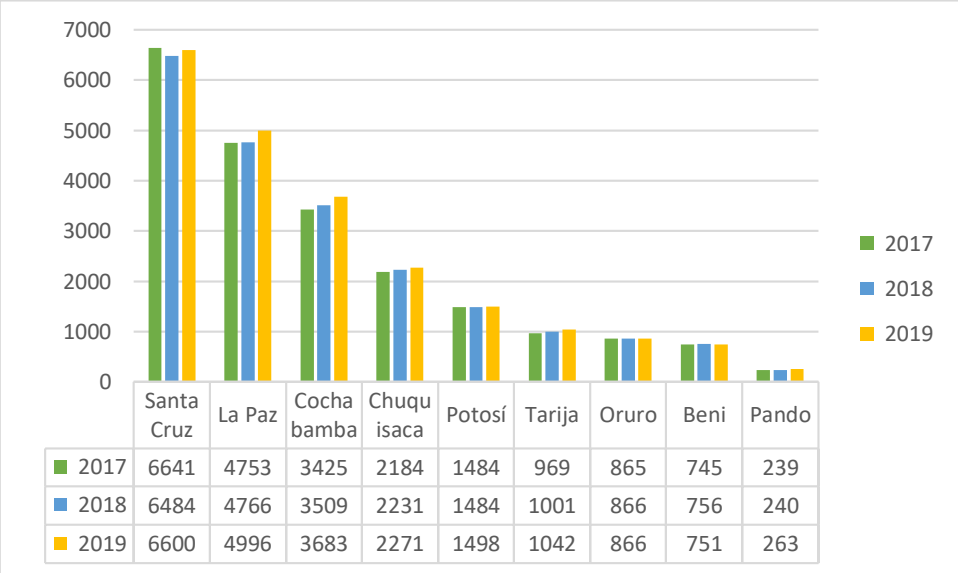


	Beni	Chuquisaca	Cochabamba	La Paz	Oruro	Pando	Potosí	Santa Cruz	Tarija
2017	251	425	591	789	232	80	570	693	271
2018	260	427	602	795	233	80	572	698	271
2019	261	428	616	813	233	82	577	699	274

Source: Prepared by author, with data from UDAPE, 2017-2019.
Note: Health establishments refer to all levels of health structures existing in the given department in the public subsector.

Similarly, with regards to **hospital beds** available in 2019, there were an additional 633 beds compared to 2018. The additional beds make for an average of 2.09 beds per 1,000 inhabitants in line with the LAC average, but below the values of eleven countries in LAC and below the OECD average of 4.7 per 1,000 inhabitants (OECD, 2020). Because the level of inpatient services required by individual countries depends on several factors – such as demographic issues and the burden of disease – there is no global target for the number of hospital beds per country (WHO, 2018). So, while 2 beds per 1,000 inhabitants in one country may be sufficient, 2 beds per 1,000 in another may be woefully inadequate because of the number of people hospitalized by disease. Moreover, it can be seen that total beds per department have increased mostly in Santa Cruz, La Paz and Cochabamba, leaving the other departments – which are the ones with less resources – with almost the same quantity of beds.

Figure No. 7. *Total available beds, by department, 2017, 2018 and 2019*

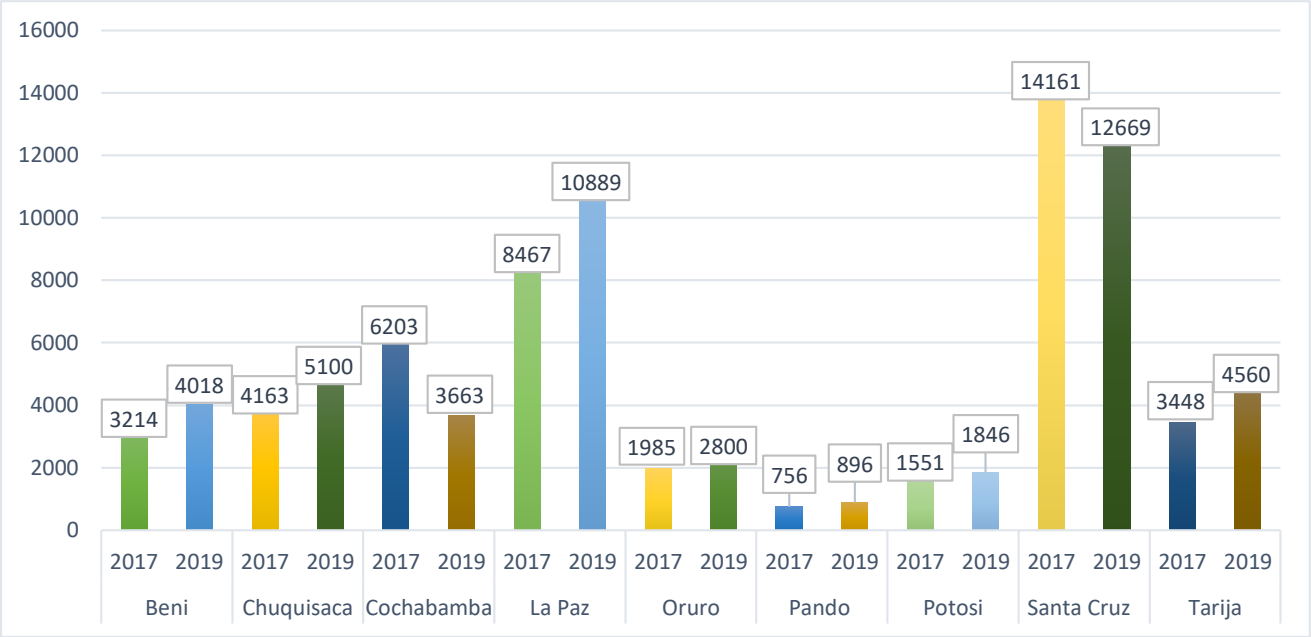


	Santa Cruz	La Paz	Cochabamba	Chuquisaca	Potosí	Tarija	Oruro	Beni	Pando
2017	6641	4753	3425	2184	1484	969	865	745	239
2018	6484	4766	3509	2231	1484	1001	866	756	240
2019	6600	4996	3683	2271	1498	1042	866	751	263

Source: Prepared by author, with data from UDAPE, 2018-2019.
Note: Total available beds are the sum of beds available in all levels of health establishments per department. Hospital beds include inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centres.

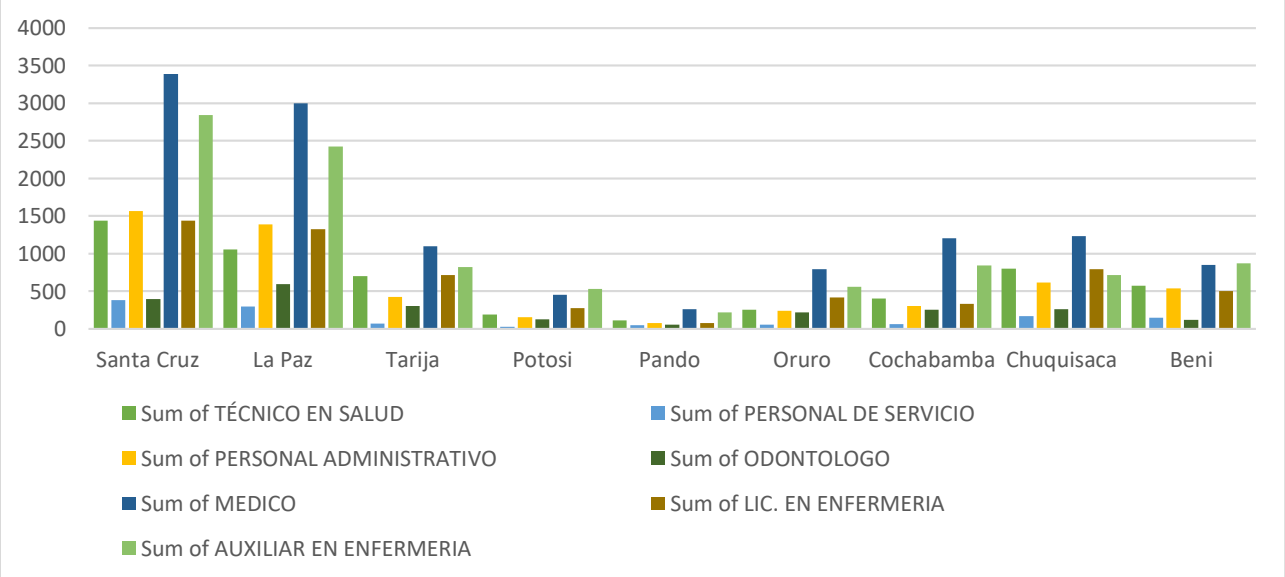
As to **human resources** (HR), the latest available data indicates that in 2019 there were an additional 2,493 human resources compared to 2017 in the public subsector (UDAPE, 2019). In 2019, there were 1.06 doctors per 1,000 people and 1.3 nurses and auxiliary nurses per 1,000, which is far below the 2.1 LAC average (OECD, 2020), and below the threshold of 4.45 skilled health workers (physicians and nurses/midwives) per 1,000 inhabitants to deliver on the ambitions of universal health coverage (WHO, 2016). The data indicates that the 2019 increase in human resources supply does not considerably change the ratio of HR per thousand inhabitants. Moreover, the average at the national level does not reflect the inequality in the distribution of HR, thus not reflecting the real availability in areas with less resources, especially rural ones.

Figure No. 8. *Total human resources in the public subsector, by department, 2017 and 2019*



Source: Prepared by author, based on data from UDAPE 2019.

Figure No. 9. *Total human resources in the public subsector, by function and department, 2019*



Source: Prepared by author, based on data from UDAPE, 2019.

As the data disaggregated per thousand inhabitants reveals, the additional resources provided for the first year of the Universal Health Insurance implementation have generated a small relative improvement compared to previous years. That is because the new health establishments and beds of

the public subsector have been provided mainly for the major departments of La Paz, Santa Cruz and Cochabamba, while the rest remained with roughly the same number of resources. Similarly, despite the supply of new human resources in the public subsector, when considering the availability per 1,000 inhabitants, the values continue to be below the LAC average and WHO recommendations, generating doubt as to the extent of lack of HR in public health establishments.

IX. Access to SUS healthcare services: a case study of La Paz

In the following section the analysis is broadened and deepened by reporting qualitative data guided by the indicators used in the first part of the analysis and by adding the dimension of quality. As mentioned in the methodology section, the objective of the case study is to open up the analysis to aspects that are not necessarily reflected by the quantitative data and to have an overall understanding of access dynamics in the city of La Paz. Moreover, the case study could be useful as a comparative metric to formulate hypotheses for future research into national contexts.

Effective access

At the first level of healthcare, users and centre directors reported the gratuitous nature of consultations and very basic medicine provided under SUS. However, interviewees complained that the medicine covered by the SUS at the primary level of healthcare is very basic, such as paracetamol and ibuprofen, whereas when it comes to more expensive medicine, this is not covered or simply not available. Additionally, many patients and health centre directors reported that there are cases in which not even the most basic medicine is available. In fact, all interviewees except one reported to have experienced at least once lack of availability of medicine at their health centres. Additionally, all interviewees expressed a well-known and long-standing characteristic of the health system, that is, the long waiting times that require patients to wake up very early in the morning and to wait several hours if not the whole day to get access to a consultancy. Furthermore, the sheets that authorize consultations for a given day are limited, meaning that if a patient does not arrive early enough to the health centre, they might not get a sheet for that day, having to come back on the following day. With the approval of the SUS, the dynamic of long waiting times has been exacerbated due to a notable increase in demand.

With regards to the second level of care, coverage includes hospitalization, surgery and medication. A first difficulty in accessing secondary level specialized care derives from the rules of accessing the healthcare services. In fact, in order to access the second level of healthcare, a first level health centre must first refer the patient, attesting the need for specialized care, without which the user cannot access the secondary level, unless in the case of an emergency. While the modality is normal in healthcare access practice, having the objective of avoiding the overuse of specialized healthcare services, according to all interviewees, this mechanism presents major difficulties. On the one hand, patients claimed that is quite difficult to get a transfer to specialized hospitals and that the long waiting times in the primary care level implies that patients' health condition can deteriorate during the waiting period for the transfer. On the other hand, health centre directors reported that the challenges arise from the fact that coordination with the second level occurs through a third centre that coordinates the transfers. What happens is that sometimes this centre does not respond to calls or reports a lack of availability of beds, making it impossible for the director to approve the transfer and hence for the patient to access specialized public healthcare, forcing the person to resort to private health services, if the patient can

afford it. Additionally, second level directors declared receiving references for cases that can actually be dealt with at the first level of care. An ulterior challenge comes from the fact that hospitals have difficulty in providing health centres with counter-references[5], weakening the fundamental right to continuity of care. These limitations hinder the quality and extent of effective access to specialized levels of care.

While demand has increased at the national level along with the share of the population that seeks public healthcare, in the case study analysed, access to public health services is limited. In the city of La Paz, lack of sufficient resources limits the utilisation of primary and specialized care. Clearly, further research is needed to investigate how the dynamics reflected by the case study manifest themselves in different contexts, especially in areas with less resources. It could be hypothesized that the limits to access identified in the case study might present more severe challenges in contexts with less resources.

Out-of-pocket expenditure

Health centre directors reported that shortages in funds lead to shortages in medicines. Interviewed users and directors revealed that as a consequence of the lack medicine at health centres patients have to pay for some medicines that are not available. Some of the health centre directors reported that in some cases patients had to pay even for the paper on which to print their receipts, as cuts in funding translated into lack of paper and printer capacity at health centres. Some users also complained that SUS covers basic inexpensive medicine and complex medicine requires out-of-pocket spending. Similarly, because demand has increased and the resources needed to meet it have not done so in the same proportion, there are consistent problems in the quality of the services provided. For example, given the very long waiting times, due to which a user must get to a health centre as early as 5:00 or 6:00 a.m., the last of whom have their consultations at the end of the day, users that can afford it prefer to resort to private health centres, thus to paying out of their pockets for healthcare services.

This partly explains the fact that OOP did not vary much in 2019 compared to 2018. Another factor that explains the equal share of out-of-pocket spending is the perception that users have about public healthcare. As reported by health centre directors as well as users, there is the general perception that public healthcare services are of low quality, due to insufficiency of equipment, HR, infrastructure, and also, according to users, to bad treatment from doctors and nurses towards patients, especially towards those coming from rural areas. As reported in other studies in the literature (WHO, 2018; Atun *et al.*, 2015), when there is a perception of bad quality, users prefer to spend out of their pockets to get quicker and more efficient health services. Moreover, some patients reported that in some cases the medical staff itself recommends patients to go to a private centre for their analyses, as transferring them to the second level of care and getting their health needs met may require several days or weeks of waiting. One of the interviewees reported indeed that when her mother got sick there were no available beds in the public hospital where she went, forcing her to resort to a private clinic for treatment. The findings are consistent with other cases reported in the literature that indicate that problems with quality and waiting times for health services forces groups to pay out-of-pocket to access healthcare (Atun *et al.*, 2015).

[5] Health files that the second level of care must provide to the first level to allow it to follow the patients' health condition

Finally, another explanation might be the fact that OOP might not decline immediately with Universal Health Insurance, with the reasons being, among others, that before the existence of the insurance scheme, households used to not spend or spent less on healthcare services, as Grogger *et al.*, (2015) showed from analysing Mexico's experience with universal healthcare.

Challenges at the macroeconomic level

An official working for the municipal secretariat reported the following challenges in the task of managing resources. As already mentioned, the law stipulates that 15.5% of the *coparticipación tributaria* (tax co-participation) is given to the first and second levels of healthcare. In addition, this budget can be increased or added to with other financing sources to cover the gaps that might arise. The official reports that the 15.5% as a budget is far from sufficient. First of all, she reports that all the services that cannot be covered by the third level are indeed covered by the second level, putting additional pressure on the system. Secondly, distribution of resources is done according to the population. However, many people that actually use the services are not present at the moment of the census, due to migration phenomena, thus generating a permanent deficit in terms of resources per capita. Besides, resources from international organizations have also been gradually diminishing. Another deficiency comes from the fact that the distribution of resources is made according to the size of health establishments; that is, bigger hospitals receive more resources. However, the official states it would be equally important to include within the criteria of distribution the quality of the services provided, so as to be able to distribute more resources to hospitals with low-quality services and to prioritize the first levels of care. The fragmentation and the different bodies in charge of management makes it difficult for the municipal level to be efficient, she reported. Overall, the scarce financial resources provided by the Ministry of Health constitute a challenge for the adequate provision of services and there is no single, coherent and applicable financing model at all levels of management to ensure equitable distribution of resources.

The fragmentation of the healthcare system not only means that financial, human and physical resources are managed by different bodies, but also implies different degrees of responsibility for the bad functioning of the system. Further investigation must however be done in relation to the different levels of responsibility, as the municipal level complains of receiving insufficient resources, while the central level points to weak administrative capacity in the departments and municipalities. What seems to be the case is that among the different bodies that make efforts to manage the healthcare system, none is fully successful because the internal bureaucracies do not support them, there are no effective tools to coordinate among each other, and the mechanisms for social participation and control are insufficient (Tejerina, 2018).

Availability

Health centre directors interviewed reported that with the approval of the SUS they have been designated one doctor and one nurse, or in some cases a few, that have constituted, they state, an improvement for the management of healthcare demand. However, they report these additions are not at all sufficient and unanimously stressed the need of more human resources. The consequence of this deficiency is that, for example, if there is only one odontologist at a health centre, no odontologist is present for attending to patients in the afternoon, posing a considerable limitation for access to healthcare. Similarly, when doctors are on vacation leave, no one can replace them, with the service

being suspended until they return to the office. There is moreover lack of administrative capacity, as often doctors must attend patients and deal with overburdened administrative procedures. On top of this, as one director reported, it happens that administrative staff is not properly equipped to deal with procedures that require use of technology, constituting an additional burden for the already scarce medical staff. Clearly, the insufficient number of professionals was evident already before the approval of the SUS, and although it has increased, demand has also, requiring the provision of more designations, for which additional financial resources are necessary. Once again, if a municipality such as La Paz, to which substantial resources are given, does not reach the needed level of human resources to deal with healthcare demand, it would be interesting to analyse the evolution in other national contexts.

Quality

Access to healthcare is not only based on geography, organisational availability and affordability, but also on the user's possibility to choose acceptable and effective services. The deficiencies in availability and affordability of healthcare services clearly impacts on their quality. Challenges arising from long waiting times, the limits encountered by chronic patients in accessing services and the difficulties in coordination with other levels of care, among others, substantially lower the quality of public health services. Also, an additional and widely reported challenge comes from the interpersonal nature of relations between providers and users. All interviewed users reported to have either experienced bad treatment from a provider or to know someone that has. Similarly, all interviewees stressed the fact that the way one is treated varies widely according to the doctor/nurse encountered on the specific day or at the specific health centre. In other words, users report that *"not everyone is bad, there are also good doctors and nurses"*. However, *"some just treat us very badly, yell at us, expect us to be knowledgeable of the medical practices and get mad if we do something wrong"*, reported one patient outside a second level hospital. Some users reported that older persons are especially neglected. Furthermore, some reported discrimination related to being indigenous and coming from rural areas, which despite having seen improvements in the last decade, is still visible nowadays. A working paper by ILO (2009), analysing healthcare exclusion in Bolivia, also reported that ethnic origin is an element that generates discrimination and exclusion and is often expressed in a contained demand for cultural reasons (p. 49). The nature of interpersonal relations and discrimination make the services less **acceptable** for people and might seriously prevent them for seeking healthcare. It also constitutes an infringement of the principle of good treatment proclaimed by Law No. 1152 and restated by Law No. 0132, with regulation of 2019, that state the following:

"Under the principle of pre-eminence of the person, as stated in Law No. 1152, the personnel of health establishments must obligatorily provide good treatment to the sick and his/her relatives, prioritizing their wellbeing and dignity over any administrative consideration, in the interpretation of the norms that implement or directly affect the fundamental right to health" (Ministry of Health, Regulation No. 0132, pg. 3, 2019).

When asked regarding the reason for bad treatment, users replied that it probably it comes from the fact that many providers do not like their professions, that many do it as business, otherwise, *"they would do their job well and put effort into providing patients with satisfactory outcomes*" (Participant 6, personal communication, November, 2021).

Indeed, patients complain that not only are they sometimes treated badly, but also the outcome of the service can be very unsatisfactory. Many users report in fact that at a public health service they were told they were perfectly fine, were given some very basic medicine and sent home. They reported then that when the visit was repeated with a private doctor, they underwent complete diagnosis and were prescribed treatment. The consequence of the unsatisfactory service outcomes is definitely that patients be sceptic about public providers' level of expertise, especially at the first level of care, and consequently, to be very reluctant to resort anew to public health providers.

Additionally, with the approval of the SUS, patients cannot go to any health centre they desire, but must go to the one which is closer to where they live, with the registrations regulated according to residence areas. While on the one hand this regulation is supposed to bring order to healthcare access, it also accentuates inequalities in availability and quality existing between health centres, as people residing in areas with higher quality health centres will receive better services, whereas those assigned to disadvantaged ones, have no choice but to endure, or seek private healthcare. In fact, another important dimension that emerged in the case study is that there are enormous differences in the quality of healthcare received according to the area in which health centres and hospitals are located. Users interviewed in the Hospitals of Los Pinos and Cotahuma reported quite good experiences, stating that they were treated well and were satisfied with the outcome of the services received. However, users interviewed in La Merced and those that reported having gone to Hospital Holandés reported very bad experiences, especially at the latter. Some patients believe that the quality depends on the health centre directors and their ability to apply good conduct of behaviour among their subordinates. Others attribute the deficiencies to lack of resources assigned to the health establishments. Independently of the causes behind it, the main finding is that healthcare service quality varies considerably among different areas and different hospitals/health centres, exacerbating inequality in access that has for a long time characterised the healthcare system.

Finally, users reported a lack of sufficient information, especially in rural areas, where many are not aware of the existence of the SUS and of the services that it covers. The trend has been confirmed by health centre directors, who also reported lack of sufficient information on the side of patients that reportedly have high expectations as to what the SUS covers, and who are confused by the regulation on the area of registration under the SUS, especially in the first months. In fact, an official from the SUS registration office reported that the government was implementing a socialisation plan, travelling across the entire country to provide information to and register uninformed users under SUS.

X. Conclusion

This study's purpose was to provide a general diagnosis of the universal healthcare system, for which it has presented an analysis of quantitative indicators representative of the national level and a qualitative case study. At the national level. it has been observed that access to public health services has increased compared to previous years. Furthermore, additional human resources and infrastructure have been provided to the public subsector. However, the case study has been particularly useful in providing insights into the more qualitative dimensions of access, proving ultimately that the information provided by statistical data does not reflect crucial dimensions related to the extent and quality of the services received. Thus, while at the national level an increase in demand was observed, as well as in

access to public healthcare services, the nature of access, in the case study analysed, is limited by several factors. Lack of financial resources translate into lack of medicines and human resources. Quality-related issues such as long waiting times, perception of low-quality services, and fragile interpersonal relations between users and medical staff constrain access to the services and generate incentives for those who can afford it to seek private healthcare services, resulting ultimately in out-of-pocket expenditures despite the formal gratuitous nature of public healthcare services. In other words, the deficiencies that characterised the healthcare system prior to the approval of the SUS have not improved substantially, while demand and utilisation of services have, with consequences for quality and availability. Given that the city of La Paz is among the municipalities that receives more resources for healthcare, with one of the highest HDIs in the country (Global Data Lab, 2019), it is unlikely that the results found are outliers. On the contrary, it is possible that the critical points of access, availability, affordability, and quality identified in La Paz might be exacerbated in areas with less resources in the country. Clearly, the hypothesis is to be verified in future research projects.

Finally, some recommendations for achieving universal healthcare access have been obtained from healthcare providers, users and the wider literature. The most intuitive ones point to increasing the financial resources provided to the healthcare system. Associated with this is the urgency to improve efficiency in spending and in the designation of resources to health establishments and municipalities. Lastly, it is also important to diversify funding sources, as Aponte *et al*. have stressed.

Furthermore, health centre providers recommend investing in the definition of primary health centres; that is, to provide them with the required human and physical capacities necessary for attending to 80% of the health cases. In fact, health providers and users report that at the present resource level, it is not possible to meet this target. Improving primary attention also means changing public perception of primary healthcare as being inefficient and unable to provide appropriate diagnosis and treatment.

In addition, the fragile interpersonal relations between providers and users that was also previously documented makes it necessary to enforce systems of monitoring providers' performance and patients' health outcomes following public service utilisation. Generating accountability is fundamental for a high-quality service provision. Lastly, though the contribution of political challenges to low-quality healthcare are rarely acknowledged, it is fundamental to minimize such barriers and self-serving interests in favour of collaboration towards achieving universal healthcare access.

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