Journal of Population Therapeutics & Clinical Pharmacology

RESEARCH ARTICLE
DOI: 10.53555/jptcp.v30i14.6226

CHARACTERIZATION OF THE PRESCRIPTIONS OF HEALTH TECHNOLOGIES NOT COVERED BY THE BENEFIT PLAN IN COLOMBIA: AN ANALYSIS BASED ON THE MIPRES REPORT

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Abstract
The study "Characterization of the prescriptions of health technologies not covered by the Benefit Plan in Colombia: An analysis based on the MIPRES Report" analyzes the prescriptions of technologies not included in the Colombian Health Benefits Plan. The use of the MIPRES Report, which compiles detailed data on these prescriptions, stands out. The goal is to understand these practices to improve decision-making in the health system. The analysis covers the period from 2016 to 2022 and reveals a variable dynamic in the frequency of users of the health system. A steady increase is seen through 2019, followed by a decline in 2020 and 2022, possibly related to the COVID-19 pandemic. The larger EPS, such as NUEVA EPS, SANITAS and EPS SURA, serve the majority of members. The diseases that generate the highest costs are urinary incontinence not otherwise specified, diabetes mellitus, and atrial fibrillation. Possible overutilization of resources under these conditions is suggested. In addition, geographical variations in the demand for health services are identified, with Bogotá, Valle del Cauca and Antioquia being the departments with the highest demand. It is recommended to strengthen emergency response capacity, promote equity in access to health care, improve resource management, and foster competition and transparency in the sector. It also calls for boosting the prevention and management of chronic diseases. This study offers a comprehensive view of the prescriptions of technologies not covered in Colombia, providing valuable information to improve the efficiency and quality of the health system. However, more research is needed to address these challenges effectively.

Keywords: Health Technology Prescriptions, MIPRES Report, Colombian Health System, Variability in Demand, Costs and Priority Diseases.

Introduction

Health technologies —which encompass medicines, medical devices, procedures, and interventions— are indispensable in delivering quality and efficient health care. Nevertheless, many health systems face limitations in the coverage and financing of certain technologies due to budget constraints or priority setting processes. In Colombia, the Health Benefits Plan Charged to the Capitation Payment Unit (UPC) and additional services by EPS outline technologies that should be covered mandatorily. Despite this definition, there can be cases where physicians decide to include more technologies not

listed in this basic plan if they consider it necessary based on clinical grounds (Pichon-Riviere et al., 2021).

The Report about Health Technologies' Non-Financial Prescription. UPC or Complementary Services Resources (MIPRES) is an information system introduced by the Ministry of Health and Social Protection of Colombia to oversee and keep track of these non-covered technology prescriptions. This detailed report takes note of various aspects such as the patient's diagnosis, the technology prescribed, the estimated cost, and even the clinical justification— among other relevant details (Arias López & Ceballos Rebellón, 2020).

To better understand the health needs of the population, as well as to estimate extra resources required and make decisions about updating and expanding the basic plan, it is essential to take into account the picture of HT prescriptions not covered by Benefit Plan. Yet until now there have been no comprehensive studies at the national level that would allow to characterize these prescriptions in terms of MIPRES Report data (Menares & Muñoz, 2023).

The primary goal of this investigation is to conduct an extensive characterization of the health technology prescriptions outlined outside the Benefit Plan in Colombia. We will base this analysis on the information procured from the MIPRES Report. The purpose of a descriptive and stratified analysis is twofold: first, we aim to pinpoint patterns, trends, and geographical fluctuations within these prescriptions; secondly, we endeavor to compute the costs intertwined with these prescription dynamics. The results obtained from this scrutiny are expected to play a pivotal role in guiding decision-makers within the Colombian health system. Their primary mandate would be to use the findings as a compass towards enhancing accessibility of these essential technologies and ensuring optimization of the resource allocation process (Silva Carrillo, 2023).

The document will focus its lens on the evaluation of health technology prescription processes unbacked by UPC resources or Colombia's supplementary services. In this light, prevailing legislation along with the stakeholder responsibilities will be brought under scrutiny. An insight into our methodology reveals a meticulous search and sieving process for dependable and pertinent information sources. The unveiled results will cast light upon the unearthed technologies and services— painting their colors on the canvas of healthcare impact. The discussion shall meander through the analysis of this impact, navigating through ethereal ethical and legal realms. Lastly— drawing curtains on our study's performance stage— we present conclusions bedecked with recommendations; these stand as staunch sentinels based on findings that unfurled before us during the course of our academic odyssey (Silva Carrillo, 2023).

Theoretical Framework

Health technologies— which include but are not limited to medicines, medical devices, procedures, and interventions— play a critical role in the delivery of quality healthcare services (Pichon-Riviere et al., 2021).

Nevertheless, in most health systems in many parts of the world, coverage and financing of that technologies are limited by the constraints on health budgets or by the decisions of prioritization (Menares & Muñoz, 2023). In the case of Colombia, the Health Benefits Plan charged to the Capitation Payment Unit (UPC) and the complementary services provided by the Health Promoting Entities (EPS) define the set of technologies that must be compulsorily covered (Silva Carrillo, 2023). On the other hand, it is essential to highlight that there are some health technologies that are not funded by UPC resources or complementary services in Colombia and as a result, their prescription and access may be limited by the lack of resources, regulations, and specific health policies. This situation creates inequities in the access to these technologies and diminishes the quality of the medical attention provided in the country, which represents an inequality inside the health system. As a result, without funding these technologies may prevent the ability of the healthcare professional to provide the patients the ideal treatment they deserve, which represent a gap in the quality of the healthcare (Cipagauta et al., 2023).

However, treating physicians may prescribe additional technologies that are not included in this basic plan when they consider it clinically necessary (Arias López & Ceballos Rebellón, 2020). The Report on the Prescription of Health Technologies Not Financed with UPC Resources or Complementary Services (MIPRES) is an information system implemented by the Ministry of Health and Social Protection of Colombia to monitor and follow up on these prescriptions for technologies not covered (Valencia Hurtado & Ortiz Bañol, 2021).

The MIPRES Theoretical Framework is fundamental to understand the context and theoretical foundations on which the implementation of this information system is based, which allow an adequate management and control of prescriptions, analyzing the regulations in force in the country and examining the medical history, health policies and previous related studies. The regulations in force in Colombia related to the prescription of health technologies not financed with UPC resources or complementary services are mainly found in Resolution 2050 of 2019 of the Ministry of Health and Social Protection (Quintero Ortiz, 2020).

Understanding the landscape of health technology prescriptions not covered by the Benefit Plan is crucial to identify the health needs of the population, estimate the additional resources required, and make informed decisions about updating and expanding the basic plan (Mejia Pianeta, 2022).

So, to date, no comprehensive analyses have been carried out to characterize these prescriptions at the national level using data from the MIPRES Report (Salgado Álvarez et al., 2020). This study aims to fill this gap and provide a detailed analysis of the prescriptions of health technologies not financed with UPC resources or complementary services in Colombia, focusing on the determinants of their use and accessibility, as well as on prescribing patterns and barriers to their implementation in order to inform decision-making in health policies in the country (Tapias Pérez, 2023).

According to the findings and analysis carried out by Yepes Bustos and Olmos Bolaños in their study published in 2022, it is clearly and precisely established that Statutory Law 1751 of 2015 in Colombia establishes and enshrines the fundamental right to health, while at the same time accurately and exhaustively regulating the General Social Security Health System (SGSSS) throughout the country. The main purpose and objective of this law is to effectively and forcefully guarantee access to health services and technologies for all Colombians, regardless of their social, economic or any other condition. In other words, it seeks to promote and materialize equity in terms of access to health, providing comprehensive, timely and, of course, quality care (Reyes-Morales et al., 2020).

Nevertheless, there are also several important things that everyone has to keep in mind and never forget – there are still a lot of complicated and complex challenges and obstacles in the proper and effective execution of Statutory Law 1751 of 2015. The most important and critical problem is the presence of a large number of various barriers and restrictions in access to health services – countless people, unfortunately, unable to access the necessary care and treatment that are essential to improving and supporting their well-being. This problem is truly a challenge of terrible proportions, as it substantially restricts and violates the essential and constitutional right to health, and also has a harmful effect on the life quality of millions of individuals in our society (Alcedo et al., 2023).

One of the most critical barriers is the lack of appropriate infrastructure in a few rural and distant areas of the state that limits access to physical access to health care. Some communities have no hospitals or health centers near where certain individuals must travel long distances to access even simple medical treatment. In addition to making it difficult for persons to acquire the care they need, this can also be pricey and time-consuming, actually restricting health care access (Méndez, 2020; Fiorini and Rivera, 2022).

Besides geographical, an equally significant barrier to access to health services is economic. Regardless of the government's efforts to provide all individuals with universal access to health care, there are numerous people who lack enough financial support to pay for the health services they need. Medications, treatments, and procedures may be too expensive for low-income people to afford costs. This not only limits your access to high-quality care but also aggravates your health condition and leads to complications unnecessarily (Palermo et al., 2020).

Furthermore, another significant disadvantage is the absence of medical and health staff in many country regions. The deficiency of doctors, nurses, and other health occupational forces significantly prolong the time the patients require to get proper medical help. Moreover, the problem is even more severe in the fields outside large centers, such as small towns or remote areas. The insufficiency of professionally trained personnel leads to the limited number of services, slower outcomes like diagnosing and treating, and worse quality of services available (Leyva-López et al., 2022).

In order to meet these challenges and to clear these obstacles, it is essential for governments and health authorities to set clear-cut policies and develop programs that are capable of dealing with the various impediments mentioned above. We need investment in medical and health infrastructure in rural and remote areas; improved access to all legitimate medical facilities free of inequality and unprincipled payments and entitlements; strict adherence to the principle of training and availability of health personnel across the length and breadth of the nation; and much-need awareness about the medical rights of the population and the corresponding availability of medical health care (Pérez, 2020).

Without a doubt, Law 1751 of 2015 is an important instrument in ensuring the right to health in Colombia. However, despite the above, barriers persist that prevent effective access to timely and quality health care. The barriers include lack of access to health services associated with the difficulties of accessing health care from remote areas of the country, lack of financial resources, and deficiencies in the provision of staff. To overcome these barriers and thus provide comprehensive and accessible coverage, we need to take concrete and real steps to implement policies and programs that guarantee access to health services for all the inhabitants of the country. Only by working together and with the necessary seriousness and commitment, will we be able to achieve a better, fairer, and healthier society for everyone (Yepes Bustos & Olmos Bolaños, 2022).

Moreover, another critical problem is, the fiscal sustainability of the health system in Colombia, that is to say, how to finance adequately and sustainably the entire social security system in health, since an increase in the demand for medical services and technologies, in an unfavorable economic and fiscal context for the country, should lead to a balanced financing that in the long term ensures quality care and being able to serve the entire population (Bolina et al., 2021).

In short, Statutory Law 1751 of 2015 in Colombia is key to the economic access to health and equity in the General Social Security Health System (SGSSS). However, it is necessary to overcome the barriers to access to health and to the system's own financial sustainability, in order to effectively ensure economic access to health as a fundamental right for all Colombians, guaranteeing a comprehensive, timely and quality response (Bran-Piedrahita et al., 2020).

It is worth emphasizing that all reviews of technologies not included in the Benefit Plan must be made within the framework of the General Social Security Health System (SGSSS) and its regulatory framework. Thus, criteria such as equal access to health services, the search for excellence in the provision of care to users, and the financial soundness of the system as a whole must be taken into account. It is necessary to analyze in detail the degree to which each of these undertakings is met in the assessment of each technology, in order to determine the most efficient and fair way to provide support to all users and beneficiaries of the system (Alba Reyes & Cubides Cubides, 2022).

Methodological Framework

The design of the study was carried out a descriptive and retrospective research using the data collected in the MIPRES information system in Colombia. The data source was used from the Report on the Prescription of Health Technologies Not Financed with UPC Resources or Complementary Services (MIPRES), which is administered by the Ministry of Health and Social Protection of Colombia. Access to the MIPRES national database was requested for the selected study period, which covers the years 2016 to 2022. The study population was taken from all patients, amounting to 1,048,575, who were prescribed health technologies not covered by the Health Benefits Plan Charged to the UPC or by the complementary services of the Health Promoting Entities (EPS) in Colombia during the selected time period.

The variables analyzed include demographic characteristics of the patients (age, gender, geographic region) Main diagnosis Prescribed health technology (medications, medical devices, procedures, interventions). Clinical justification of the prescription: Health Promoting Entity (EPS) that reports the prescription. For Data Analysis: The information obtained from the database was processed using SPSS version 25. A descriptive analysis of the data was used, including the frequencies and percentages of health technologies prescribed, distribution of prescriptions by diagnosis, geographic variation in prescriptions, and analysis of trends over time. In addition, stratified analyses by demographic and geographic variables could be performed to identify patterns and differences in prescriptions.

Regarding ethical considerations, the study used anonymized data and complied with the ethical requirements established by the Ministry of Health and Social Protection of Colombia for the management of MIPRES data. Approval from an ethics committee was not required due to the retrospective and non-interventional nature of the study. This methodological framework made it possible to analyze and characterize the prescriptions of health technologies not covered by the basic plan of the EPS in Colombia, using the data collected in the MIPRES information system.

Results

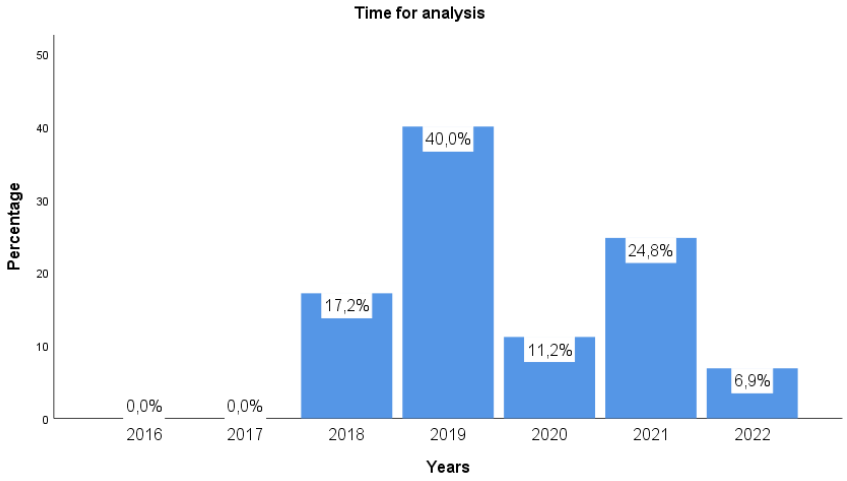
According to the data provided on the frequency of users per year, a variable dynamic can be seen during the period from 2016 to 2022. Initially, there was a steady increase in the number of users, reaching its highest point in 2019 with 419,861 users, which was equivalent to 40% of the total recorded in that period. However, this upward trend was interrupted in 2020, when there was a notable decrease in the number of users, possibly related to external factors such as the COVID-19 pandemic. Unfortunately, in 2021 a partial increase was achieved, with a record of 259,605 users, equivalent to 24.8% of the total. However, this increase was only temporary, as a new drop was observed in 2022, with 72,072 users, corresponding to 6.9% of the total. It is important to note that the years with the least activity were 2016 and 2017, with only 1 and 8 users respectively, representing an insignificant percentage of the total. A relevant aspect is that the years 2019 and 2021 accounted for 64.8% of the total number of registered users during the period analyzed, while the remaining 35.2% were distributed among the other five years. Generally speaking, an upward trend can be observed until 2019, followed by an abrupt drop in 2020, a partial increase in 2021 and a further decrease in 2022. These variations in the number of users could be related to specific events or circumstances that influenced each year's activity. (Table 1), (Figure 1)

Table 1. Analysis Time

		Frequency-Users	Percentage	Valid Percentage	Cumulative Percentage
Years	2016	1	0,0	0,0	0,0
	2017	8	0,0	0,0	0,0
	2018	179.953	17,2	17,2	17,2
	2019	419.861	40,0	40,0	57,2
	2020	117.075	11,2	11,2	68,4
	2021	259.605	24,8	24,8	93,1
	2022	72.072	6,9	6,9	100,0
	Total	1.048.575	100,0	100,0	

Source: Authors (2023)

Figure 1. Analysis Horizon



Source: Authors (2023)

According to the data provided on the Health Promoting Entities (EPS) with the highest number of users in Colombia, it can be seen that NUEVA EPS tops the list with a considerable percentage of 19.8%. In second place is SANITAS with 11.7%, followed by EPS SURA with 9.2%. These three EPS represent the entities with the largest number of affiliates in the country's health system. On the other hand, some EPS have comparatively lower percentages. For example, ESS - COOSALUD E.S.S. has the lowest percentage with only 1.8%, followed by EPS - NUEVA EPS SA with 2.0%. The remaining EPS, such as SALUD TOTAL, COMPENSAR, COOMEVA, FAMISANAR and MEDIMAS Contributivo, have percentages ranging from 3.7% to 8.7%, indicating a moderate number of affiliates compared to the main EPS mentioned above. From the above, it can be concluded that the NUEVA EPS, SANITAS and EPS SURA are the entities with the highest number of affiliates to the health system. The other EPS are in an intermediate position in terms of the number of members treated in the health system. (Table 2.)

Table 2. EPS for Greater Users

EPS

		Frequency	Percentage	Cumulative percentage
Valid	EPS002 - SALUD TOTAL	77.232	7,37	10,8
	EPS005 - SANITAS	122.438	11,68	22,5
	EPS008 - COMPENSAR	58.693	5,60	28,1
	EPS010 - EPS SURA	96.081	9,16	37,3
	EPS016 - COOMEVA	56.524	5,39	43,8
	EPS017 - FAMISANAR	38.603	3,68	47,5
	EPS037 - NUEVA EPS	207.372	19,78	70,7
	EPS044 - MEDIMAS Contributivo	91.153	8,69	79,9
	EPSS41 - NUEVA EPS SA	21.411	2,04	90,6
	ESS024 - COOSALUD E.S.S.	18.825	1,80	93,3
	Total	1.048.575	100,00	

Source: Authors (2023)

According to data extracted from the MIPRES Report in Colombia during the period from 2016 to 2022, it can be observed that certain diseases produce higher expenses to the health system than others. Specifically, the disease that appears to generate the highest costs is urinary incontinence not otherwise specified, with a percentage of technology prescriptions not covered by the Benefit Plan of 115.04%.

This suggests a possible overutilization of medical resources not covered by the plan, which can contribute significantly to the total costs of the health system. On the other hand, although essential (primary) hypertension shows a percentage of prescriptions greater than 100%, which may indicate a situation of overuse or non-optimal medical practices, other diseases such as insulin-dependent diabetes mellitus without mention of complication (56.66%) and atrial fibrillation and flutter not otherwise specified (57.91%) also present considerable percentages of prescriptions not covered by the Benefit Plan.

In contrast, diseases such as moderate protein-calorie malnutrition (80.41%) and congestive heart failure (61.41%) show relatively lower percentages compared to urinary incontinence and other diseases mentioned above. This suggests that although these diseases also pose a burden on the healthcare system, they may lead to lower costs compared to urinary incontinence and other prominent conditions. (Table 3.)

Table 3. Primary Diagnosis.

Main Diagnosis

		Frecuency	Percentag	Valid Percentag	Cumulative Percentag
Valid	DIABETES MELLITUS INSULINODEPENDIENTE SIN MENCION DE COMPLICACION	5941	0,57	0,6	15,1
	DIABETES MELLITUS NO INSULINODEPENDIENTE SIN MENCION DE COMPLICACION	6022	0,57	0,6	16,5
	DESNUTRICION PROTEICOCALORICA SEVERA, NO ESPECIFICADA	7332	0,70	0,7	18,8
	DESNUTRICION PROTEICOCALORICA MODERADA	8432	0,80	0,8	19,6
	DESNUTRICION PROTEICOCALORICA , NO ESPECIFICADA	6673	0,64	0,6	20,7
	HIPERTENSION ESENCIAL (PRIMARIA)	10611	1,01	1,0	45,0
	FIBRILACIÓN Y ALETEO AURICULAR, NO ESPECIFICADO	6072	0,58	0,6	50,2
	INSUFICIENCIA CARDIACA CONGESTIVA	6439	0,61	0,6	51,6
	ENFERMEDAD PULMONAR OBSTRUCTIVA CRONICA, NO ESPECIFICADA	9698	0,92	0,9	60,9
	INFECCION DE VIAS URINARIAS, SITIO NO ESPECIFICADO	5789	0,55	0,6	83,9
	INCONTINENCIA URINARIA, NO ESPECIFICADA	12063	1,15	1,2	91,2
	Total	1048575	100,00	100,0	

Source: Authors (2023)

Based on the data provided on the departments with the highest number of users in the health system, it can be seen that Bogotá, D.C. tops the list with a considerable percentage of 24.64%. It is followed by the department of Valle del Cauca with 13.68%, and then Antioquia with 13.14%. These three departments represent the areas with the highest demand for health services in Colombia.

In contrast, some departments have relatively low percentages compared to the previous ones. For example, Sucre has the lowest percentage at just 0.95%, followed by Vichada with an almost negligible 0.02%.

The remaining departments, such as Atlántico, Caldas, Cundinamarca, Nariño, Risaralda, Santander and Tolima, show percentages ranging from 2.76% to 4.98%. This indicates moderate demand compared to the three main departments mentioned above.

Finally, Bogotá, D.C., Valle del Cauca and Antioquia are the departments with the highest number of users in the health system in Colombia, while Sucre and Vichada have the lowest demand. The other departments are in an intermediate position in terms of the number of users served in the health system. (Table 4.)

Table 4. Departments with the highest users

	Department	Frequency	Percentag	Cumulative Percentag
Valid	05 - ANTIOQUIA	137.812	13,14	13,1
	08 - ATLÁNTICO	44.493	4,24	17,4
	11 - BOGOTÁ, D.C.	258.340	24,64	42,0
	17 - CALDAS	34.868	3,33	50,6
	25 - CUNDINAMARCA	46.510	4,44	60,6
	52 - NARIÑO	28.987	2,76	69,1
	66 - RISARALDA	33.227	3,17	76,0
	68 - SANTANDER	52.216	4,98	80,9
	70 - SUCRE	9.987	0,95	81,9
	73 - TOLIMA	31.458	3,00	84,9
	76 - VALLE DEL CAUCA	143.471	13,68	98,6
	99 - VICHADA	169	0,02	100,0
	Total	1.048.575	100,0	

Source: Authors (2023)

Discussion

The dynamic variability in the frequency of users of the Colombian health system during the period from 2016 to 2022 reflects a series of trends and significant changes in the demand for health services over time. Initially, a steady increase in the number of users was observed, peaking in 2019 with 419,861 users, which represented 40% of the total recorded in that period. However, this upward trend was interrupted in 2020, a year in which there was a notable decrease in the number of users, possibly related to external factors such as the COVID-19 pandemic. This decrease was further reflected in 2021, although a partial increase was achieved compared to the previous year, registering 259,605 users, equivalent to 24.8% of the total.

However, this increase was temporary, as in 2022 a further significant drop was observed, with only 72,072 users, corresponding to 6.9% of the total. It is important to note that the years with the least activity were 2016 and 2017, with only 1 and 8 users respectively, representing an insignificant percentage of the total. On the other hand, the years 2019 and 2021 accounted for 64.8% of the total number of registered users during the period analyzed, while the remaining 35.2% were distributed among the other five years.

These variations in the number of users could be related to specific events or circumstances that influenced each year's activity. For example, the decline in 2020 and 2022 could be attributed to the COVID-19 pandemic and its impact on access to health services, while partial increases in subsequent years could reflect efforts by health authorities to recover and maintain health care amid the health crisis.

However, in relation to the Health Promoting Entities (EPS) with the highest number of users, it is worth noting that NUEVA EPS leads the list with a considerable percentage of 19.8%, followed by SANITAS with 11.7% and EPS SURA with 9.2%. These three EPS represent the entities with the largest number of affiliates in the Colombian health system. On the other hand, some EPS have comparatively lower percentages, such as ESS - COOSALUD E.S.S. and EPS - NUEVA EPS SA, with only 1.8% and 2.0% respectively.

On the other hand, the diseases that generate the highest costs to the health system in Colombia, it is observed that urinary incontinence not otherwise specified is the one that has the greatest impact, with a percentage of prescriptions for technologies not covered by the Benefit Plan of 115.04%. This suggests a possible overutilization of medical resources not covered by the plan, which contributes significantly to the total costs of the health system. Although other diseases also have considerable percentages of prescriptions not covered by the Benefit Plan, such as insulin-dependent diabetes mellitus without mention of complication (56.66%) and unspecified atrial fibrillation and flutter (57.91%), it is observed that unspecified urinary incontinence is the one that has the greatest economic impact on the health system.

To conclude this discussion, it can be stated that the variable dynamics in the frequency of users of the Colombian health system during the period from 2016 to 2022 reflects a series of trends and significant changes in the demand for health services over time, influenced by specific events and circumstances such as the COVID-19 pandemic. Likewise, the importance of entities such as NUEVA EPS, SANITAS and EPS SURA is highlighted, which represent the main EPS with the largest number of affiliates in the country's health system, and it is identified that unspecified urinary incontinence is the disease that generates the highest costs to the health system in Colombia, followed by other conditions such as diabetes mellitus and atrial fibrillation.

Conclusions and Recommendations

In light of the results presented, the following recommendations are proposed to improve the Colombian health system: Strengthen the capacity to respond to public health emergencies: It is essential to invest in preparedness and response to crises such as pandemics or other health emergencies. This calls for improved coordination between health institutions, increased availability of medical resources, and the promotion of research and development of vaccines and treatments.

Promote equity in access to health care: Policies and programs aimed at reducing inequalities in access to health services among different population groups and geographic areas should be implemented. It also expands health coverage in underserved areas, strengthens primary health care, and eliminates economic, social, and cultural barriers that limit access to health care.

Therefore, in order to improve the efficiency and quality of health services, measures must be taken to optimize the management of resources and guarantee efficient and high-quality medical care, seeking to promote evidence-based clinical practices, implement systems for monitoring and evaluating the quality of care, and encourage the training and continuous updating of health personnel. Another policy should be aimed at promoting competition and transparency in the health sector, and it is important to promote a competitive environment among the Health Promoting Entities (EPS) to stimulate continuous improvement in the quality and efficiency of the services offered, this is achieved through the implementation of performance evaluation mechanisms. the dissemination of information on the quality and costs of health services, and the promotion of the active participation of users in decision-making about their health care. Given the significant impact of chronic diseases such as urinary incontinence on health system costs, it is crucial to invest in prevention, early detection, and effective management programs for these conditions, in order to promote healthy lifestyles, foster health education, and ensure timely access to specialized treatments and services.

Bibliography

1. Alba Reyes, D. A., Cubides Cubides, E. M., & González Vizcaino, C. E. (2022). Outsourcing of administrative health services in Bogota. areandina.edu.co
2. Alcedo, J. M. G., Cárdenas, M. G. T., & Antonio, M. M. B. (2023). Challenging times: what will happen to telepsychology after the pandemic? Humanist Magazine. ssh.org.pe
3. Arias López, C. J. & Ceballos Rebellón, I. F. (2020). Strategies for the promotion of representatives of the pharmaceutical industry in the face of the MIPRES system in Colombia. eafit.edu.co
4. Bolina, A. F., Velásquez Aznar, A., Félix Alemán, A., Torres, G. I., Mendigure Fernández, J., López, L. C., & Diniz Rezende, M. A. (2021). Health System in Latin America Facing the Novel Coronavirus Pandemic: Potentialities, Challenges and Role of Primary Health Care. unne.edu.ar
5. Bran-Piedrahita, L., Valencia-Arias, A., Palacios-Moya, L., Gómez-Molina, S., Acevedo-Correa, Y., & Arias-Arciniegas, C. (2020). Barriers to access to the Colombian health system in rural areas: perceptions of users of the subsidized regime. Toward Health Promotion, 25(2), 29-38. scielo.org.co
6. Cipagauta, L. A. A., Urrego, A. X. T., & García, L. A. R. (2023). Health Insurance System in Chile, Mexico and Colombia; Documentary Review. Ciencia Latina Multidisciplinary Scientific Journal, 7(5), 8426-8444. ciencialatina.org

7. Fiorini, M. E. B., & Rivera, R. J. C. (2022). The importance of barriers to access and equity in health care. Ciencia Latina Multidisciplinary Scientific Journal, 6(6), 973-998. ciencialatina.org
8. Laranja, M., Edwards, J., & Pinto..., H. (2020). Implementation of smart specialisation strategies in Portugal: An assessment. ... Office of the .... europa.eu
9. Leyva-López, A., Rivera-Rivera, L., Márquez-Caraveo, M. E., Toledano-Toledano, F., Saldaña-Medina, C., Chavarría-Guzmán, K., ... & Lazcano-Ponce, E. (2022). Study of the quality of life of family caregivers of people with intellectual disabilities. Salud pública de México, 64(4, Jul-Aug), 397-405. saludpublica.mx
10. Marín Varón, J. C. & Correa Cardona, M. (2023). Necessary conditions for the strengthening of pharmaceutical sovereignty in Colombia. uexternado.edu.co
11. Méndez, J. O. M. (2020). The challenges of access to drinking water and basic sanitation in rural areas in Colombia. Engineering Journal. uniandes.edu.co
12. Menares, F. & Muñoz, P. (2023). The Impact of a Disease-Specific Health Insurance Reform on Mortality. york.ac.uk
13. Mejía Pianeta, P. A. (2022). Estimation of inflation in the area of health that adjusts to the reality of the consumption of medicines, technologies and health services in Colombia. uan.edu.co
14. Palermo, C., Cirino, E., & Findling, L. (2020). Are there barriers to access to consultation and participation? The trajectories of the elderly in the City of Buenos Aires. Society Magazine. uba.ar
15. Perez, G. (2020). Rural roads: key routes for production, connectivity and territorial development. cepal.org
16. Pichon-Rivière, A., Augustovski, F., García-Martí, S., Alcaraz, A., Alfie, V., & Sampietro-Colom, L. (2021). Mechanisms for the identification and selection of health technologies for assessment by agencies in support of reimbursement decisions in Latin America. International Journal of Technology Assessment in Health Care, 37(1), e81. cambridge.org
17. Quintero Ortiz, D. N. (2020). ... to face the decrease in their income due to the price regulation defined by the Ministry of Health in Colombia during the period 2015-2019. eafit.edu.co
18. Reyes-Morales, H., Dreser-Mansilla, A., Arredondo-López, A., Bautista-Arredondo, S., & Ávila-Burgos, L. (2020). Analysis and reflections on the initiative to reform the General Health Law of Mexico 2019. Salud Pública de México, 61, 685-691. scielosp.org
19. Salgado Álvarez, C. E., Madera Jarava, J. D., & Pérez Martínez, S. A. (2020). The impact of royalties on the satisfaction of the Right to Health in Colombia. MISC. ssoar.info
20. Silva Carrillo, G. C. (2023). Implementation of MIPRES in Colombia from the analysis of the market for hypoglycemic drugs excluding insulins. uniandes.edu.co
21. Tapias Pérez, N. (2023). SIMULAF – Software for the validation of drug prescriptions. ces.edu.co
22. Valencia Hurtado, D. & Ortiz Bañol, F. J. (2021). Regulatory aspects related to the use of non-PBS and excluded technologies in the SGSSS in COLOMBIA period 2010-2020. uniajc.edu.co
23. Yepes Bustos, C. Y. & Olmos Bolaños, Y. C. (2022). Statutory Law 1751 of 2015 in relation to the subsidized regime and the economic impact it has on the SGSSS in Colombia during the period 2015–2020. uniajc.edu.co
24. Zapata Moreno, N. (2020). COVID-19: State of Health Emergency, Government Regulations and Labor Effects in Colombia. eafit.edu.co