



Research Article

HEALTH AND OUT-OF-POCKET SPENDING IN MEXICO 2017-2020

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ABSTRACT

Objective. From documentary research, we compared the health and out-of-pocket spending in Mexico; for this we will describe some historical aspects of the Mexican health system, some theoretical concepts, compare the figures of health spending in Mexico with other countries during the last 5 years and the out-of-pocket expenditure of Mexicans, during the period 2017 to 2021. **Methodology** The elaboration of the historical section consisted of the search and analysis of articles with information on the origin of the Health System in Mexico from the Porfiriato, which described by historical periods the basic structure of the Health System, the institutions that make it up, the population it covers and the benefits received by members of the different institutions, reforms and financing, data were also obtained from the portal of the National Institute for Welfare (INSABI) **Results.** Comparing five indicators that measure health spending, Mexico has lower health spending compared to other countries with a high, medium and low level according to its GNI, in the period 2017-2020. In the **discussion and conclusion**, the information collected on health and out-of-pocket spending in Mexico 2017-2020 was analyzed, compared with other countries by level of Gross National Income (GNI), and with the bibliography selected to make deductions from the subject.

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INTRODUCTION

Origin and historical development of the health system in Mexico

According to Chertorivski and Fajardor the National Health Systems constitute the organized social response so that countries can improve, maintain, and increase the level of health of citizens; they evolve and transform according to the modification of their biological, economic, political, and social components. The organized social response "is constituted by the set of resources that society and the government have generated and the way in which they are organized for their application in health care activities." In 1841 the Superior Council of Health was instituted in Mexico; from its creation until 1880, its performance was intermittent due to political conflicts, lack of resources and the relative disorganization of the country. In 1842 the National Academy of Medicine and the National School of Medicine were created; public health, understood as practices related to public hygiene, was gradually introduced in Mexico. Until the late nineteenth and early twentieth centuries, the application of modern sanitary practices, introduced by the government of Porfirio Díaz, was consolidated in Mexico.^{1,2} Since the late seventeenth century,

there were various practices related to public hygiene. In the late eighteenth and early nineteenth centuries, hospitals proliferated; who lacked hygienic conditions.³ The Health System in Mexico generates differences and nullifies the possibility of a true and effective universalization of health services by depending on the financing received by each subsystem and by dividing the population according to their employment relationship and ability to pay.

OBJECTIVE

Based on documentary research, health and out-of-pocket spending in Mexico was compared; for this we will describe some historical aspects of the Mexican health system, some theoretical concepts and compare the figures of health spending in Mexico with other countries and during the last 5 years and the out-of-pocket expenditure of Mexicans, during the period 2017 to 2021.

METHODOLOGY

The elaboration of the historical section consisted of the search and analysis of articles with information on the origin of the Health System in Mexico from the Porfiriato, which described by historical periods the basic structure of the Health System,

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the institutions that make it up, the population it covers and the benefits received by members of the different institutions, reforms and financing, data were also obtained from the portal of the National Institute for Welfare (INSABI) to integrate the creation of this Institute that was born with the reform of the General Health Law of Mexico 2019. Through the technique of review and analysis of articles, the theoretical framework that integrates the guiding principles of the health system in Mexico was built. A graph and two comparative tables were constructed with data on health and out-of-pocket spending in Mexico from official institutions or agencies: Expansión/Datos Macro.com 2017-2020, Centro de estudios de las finanzas públicas/evolución del gasto público 2006-2020, Gross national income 2020. Bank mundial.org. In the conclusion and discussion, the information collected on health and out-of-pocket spending in Mexico 2017-2020 was analyzed, compared with other countries by level of Gross National Income (GNI), and with the bibliography selected to make deductions from the subject.

RESULTS

Health and out-of-pocket spending in Mexico

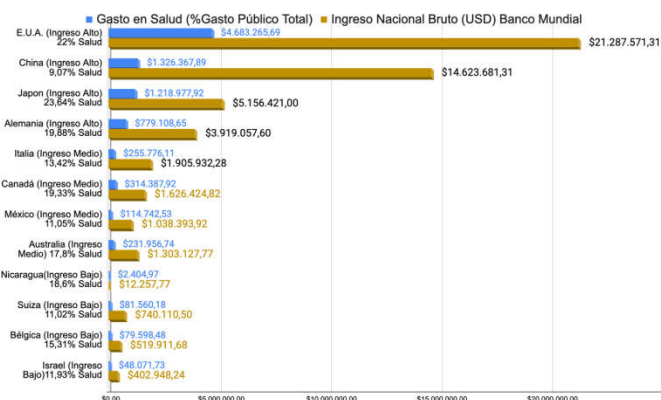
A country's health spending is made up of public spending and private spending. Public Health Expenditure is made up of recurrent and capital expenditures from the public sector for the provision of health services, family planning activities, nutrition and emergency health care.²

Comparing public spending on health, Mexico allocated 11% to this item and is below the average of low-level countries (Nicaragua, Switzerland, Belgium, and Israel) with 14.4%. In relation to medium-level countries, Mexico is also below the average (Italy Canada Australia) with 15.4%, and below the high-level countries (USA, China, Japan, and Germany) with 19%, registering in the latter level 8 percentage points below the average (Graph 1).

This shows that in Mexico, of the total gross national income of 1,038,393.92, only 114,742.53 is allocated to health spending. It is important to note that Nicaragua's investment in health is 18%, the highest in the countries considered at the low level (Graph 1).

Figure 1. shows in millions of US dollars the GNI and the total public expenditure by country, positioning in the vertical axis the percentage of investment of each one and in the horizontal axis its income and investment respectively.

Gráfico 1. Comparación del gasto en salud de México y países de ingreso alto, mediano y bajo.



Own elaboration. Fuentes: Public expenditure on health. Available in: <https://datosmacro.expansion.com/estado/gasto/salud> World Bank. Available in: world bank.Org

Table 1 compares health spending public expenditure on health, percentage of investment in health with respect to the government budget, percentage of GDP, ranking of public expenditure on health with respect to GDP and per capita expenditure in Mexico in the period 2017-2020.

Health spending in Mexico in 2017 had an increase compared to the previous year (9.93%), a percentage that in 2018 decreased and in the same proportion (9.93%). Observe a downward trend from 2017 to 2020. Represented 11.05% of total spending for each year, The percentage of investment in health with respect to the government budget, places Mexico in 73rd place for the period 2017-2020. The percentage of GDP rose from 2.76% in 2017 to 3.15% in 2020; the variation is 0.05, In 2017, health spending with respect to GDP, places Mexico in the ranking 110 of 192 countries and was falling to position 112 in 2020. Per Capita Spending, ranged from \$251-\$273 per person and is the total health expenditure divided among all inhabitants, regardless of age or status, GDP Per Capita is a good indicator of living standards. Currently, the United States, according to public spending per capita in health, is at the top of the list of 191 countries, which means that it is the country that invests the most in health per capita. In the United States for the year 2020 health spending was 22.55%, well above Mexico (9.93%), Germany is a high-level country that had an increase in health spending of 5.6 points in 2020 compared to the previous year; it rose to position 3 in the ranking of countries by amount invested in health per year 58.85% with respect to GDP. Public spending in Mexico for that same year represented 11.05%, placing it in 110th place in the ranking of public spending on health with respect to GDP, Comparing Mexico with countries of the same level (medium), in 2020 Italy had a public expenditure on health that reached 7.41% of GDP, occupying the 21st place of the 192 countries that make up the ranking. In Canada, public spending on health reached 7.61% of GDP and ranked 16th. Mexico in 2020 fell to position 112 of the 192 countries, its percentage of GDP was 3.15%, with Mexico with low-income countries, Nicaragua had a health expenditure of 5.02% of GDP, falling from position 41 to 44 of 192 countries; Israel recorded a health expenditure of 6.45% from 46th to 47th place out of 192 and Mexico recorded a health expenditure of 3.15% of GDP and ranks 112th out of 192 countries (Table 1).

Comparing five indicators that measure health spending, Mexico has lower health spending compared to other countries with a high, medium, and low level according to its GNI, in the period 2017-2020.

Table 1 Comparison of health expenditure in Mexico during the years 2017, 2018, 2019 and 2020

Indicator	2017	2018	2019	2020
Public Expenditure on Health	It increased 9.93% of health spending (710,961 million) represented 11.05% of total spending.	Decreased 9.93% (773,789.6 million) represented 11.05% of total spending.	It remained at 11.05% of total spending.	Decreased 9.93% (701,827.2 million) represented 11.05% of total spending.
	Percentage of investment in health in relation to	It is placed in 73rd place	It is placed in 73rd	It is placed in

the government budget		place	73rd place	place
Percentage of GDP	2,76%	2,67%	2,68%	3.15%
Ranking of Public Expenditure on Health with respect to GDP	Position 110, out of 192 countries.	It fell to 112th place out of 192 countries.	It remained in the 110th position, out of 192 countries.	It fell to 112th place out of 192 countries.
Expenditure Per Capita	\$260.97 USD per person, ranking 77th out of 192.	\$251.94 USD per person, ranking 79th out of 192.	\$273.75 USD per person.	\$262.34 USD per person, ranking 78th out of 192.

Source: Own elaboration with data from public expenditure on health. Available in: <https://datosmacro.expansion.com/estado/gasto/salud>

There are three main financing mechanisms for health services: state collection (through general and specific taxes), social insurance contributions (often collected through payroll taxes, other taxes, or other contributions) and private payments (including direct or out-of-pocket payments and private insurance).³ Mexicans' out-of-pocket spending is one of the highest in the world.

Table 2 Out-of-pocket expenditure for health in Mexico during the period 2017-2020

Year	2017	2018	2019	2020
Out-of-pocket spending for Health	41%	40%	40%	41.3%

Indicator of Health Inequity	Epidemiological transition, "Long-term changes in the patterns of death, disease, and disability that characterize a specific population and that usually occur along with broader demographic, social, and economic transformations" (Frenk et al. 1991, 487).	Organized social response to health needs that is implemented through the Health Care System.	Gross Domestic Product (GDP), Public Expenditure and Health Expenditure:	Access to the SS:
	Polarized and prolonged model = reformulation of the social response to health conditions.	The transition of health care is the transformation of the social response, expressed in the way the health system is organized for the provision of services. (Frenk J. Towards a new public health)	*In Mexico, health spending is less than 5% of GDP and out-of-pocket spending is greater than 20% of health spending, possible serious economic consequences for households and the country *The budget exercised by the Health Institute for Welfare (INSABI) in 2018, decreased 26% and in 2001 21%.	Decreased attention due to the pandemic. Guerrero consults first time and subsequent 75.5% and 80.4% less, respectively. In contrast, Michoacán presented a reduction of 5.9% in first-time consultations and Guanajuato of 36.6% in subsequent consultations.

Source: Own elaboration with data from: Health at a Glance 2017, 2019, 2020, OECD Indicators and the Center for Economic and Budgetary Research. Annual out-of-pocket expenditure (2018). <https://www.oecd.org/health/health-at-a-glance/>
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Small steps to transform the health system [Internet]. Mexican Institute for Competitiveness A.C. Available in: <https://imco.org.mx/pequenos-pasos-transformar-al-sistema-salud/>
National Institute of Statistics, Geography and Informatics Available at: <https://www.inegi.org.mx/>

Out-of-pocket spending refers to the direct expenditure of families to meet health care requirements (does not include private health insurance).¹⁹ Mexico is the second OECD country with the highest percentage of out-of-pocket spending on health and this has far-reaching socio-economic implications for the country.

Table2 presents the out-of-pocket expenditure for health in Mexico from 2017 to 2020, and some indicators that determine the organization of health care are recorded, such as the epidemiological transition that does not affect the different social groups equally and accentuates social inequalities in health. J. Frenk believes that an equitable, high-quality health system can help steer the course of the epidemiological transition.¹¹ Other indicators are: the organized social response

to health conditions; health expenditure as an indicator of inequality and the possible consequences for households and finally access from the distribution and provision of health services.

Lower health resources are related to an increase in out-of-pocket spending. In Mexico, out-of-pocket spending imposes very high social costs.¹⁹ The resources that families allocate for this purpose could have been used to achieve a higher level of education or increase their wealth.¹⁹ In the most conservative scenario, where affected households have an out-of-pocket expenditure of 20% for chronic diseases, income losses could reach 1% of GDP. If the government does not act, these losses could grow to more than 302 billion at least in 2030, which is equivalent to 7.3 times the UNAM budget.(Table 2).

Out-of-pocket spending on health is the main form of payment for health services in low- and middle-income countries, putting families at risk of catastrophic spending and impoverishment⁴

This is closely related to the low percentage of resources allocated to health, in Mexico, only 5.6% of GDP is allocated to health, 55.8% comes from public resources (3.2% of GDP) and the remaining 44.2% corresponds to the private sector. (Table 2).

Out-of-pocket spending in Mexico increased by 40% and 41% in the period 2017 to 2020 and in the payment of medicines reached 68%.⁵ Every Mexican without social security spends 462,000 pesos a year on health, 83% of this spending is done with savings or loans.⁶ (Table 2).

In Mexico, it has been reported that the perception of poor quality of the SS offered by the different insurance subsystems causes the population with social security to use private health

services; a fifth of the population has difficult access to public health services, which forces them to make use of private services, thereby incurring out-of-pocket expenses, increasing the probability of catastrophic spending.

CONCLUSIONS

The segmentation of health services is synonymous with inequality and fragmentation for Mexican society by generating marked differences in the provision of health services; this model divides the population according to their employment relationship and the financing received by each subsystem, which defines whether or not they have social security and the ability to pay, so there are several health institutions with different financing schemes and various insurance coverages.⁵

The segmentation of the system has favored the imbalance in the origin of public spending in relation to total spending on health.⁵ Public expenditure on health is the sum of the expenditure made by social security institutions and the expenditure of institutions dedicated to serving the uninsured population.⁵

And there is an imbalance in the origin of public spending in relation to total health spending due to the complexity of the National Health System that generates inequity in the granting of services.⁵ The greatest challenge of the current Mexican health system is to seek alternatives to strengthen its integration, in such a way that a common package of benefits is guaranteed to all people, the high transaction costs inherent in a segmented system are reduced and the universal and egalitarian exercise of the right to health protection is finally achieved.⁵ More than 16 million Mexicans lack some form of financial protection in health.⁵

Frank believes that a major problem in the Mexican health system is the high percentage (58% in 2003) of health spending comes directly from families through out-of-pocket spending. With the reform in 2003 of the General Health Law and the creation of the Social Protection System in Health (SPSS), all uninsured families were offered access to subsidized insurance through the Popular Health Insurance (SPS); with emphasis on the reduction of catastrophic health expenses of families, greater incentives for efficient spending on health, and more equitable and accessible health care for the entire population.⁴

Despite being a public policy classified as successful by various studies, in 2020 the SPSS was replaced by the Health Institute for Welfare (INSABI), with the aim of providing and guaranteeing the free provision of health services, medicines and other supplies to people without social security. However, in 2020 it went from having an affiliation of 42.1 to 26.9 million people, a decrease that is attributed to the lack of knowledge on the part of the population of the services of INSABI, due to problems of accessibility to it, or to the change of institute.⁷ There are changes in the way in which the Mexican State covers and finances these services, the budget exercised by INSABI, decreased 26% in 2018 and 21% in 2021.

To ensure the autonomy and financial viability of the health system, it is essential not to alter the organizational structures of the institutions currently operating in Mexico; redefine the mechanisms of inter-institutional coordination, and thereby optimize the use of hospital infrastructure, human resources, goods, and services, seeking effective health protection

through interrelation actions. It is not a question of merging public health institutions and creating a single national entity for the provision of health services in Mexico, but of executing interrelationship actions. In line with Dr. Julio Frenk, "Every health system involves the interaction between service providers and members of a population (organized social response)."

In Mexico, investment in health is insufficient to meet the challenges posed by demographic and epidemiological transitions, which imply a growing predominance of noncommunicable diseases. Frenk notes that "an equitable, high-quality health system can, in turn, help steer the course of the epidemiological transition."

Therefore, a better health system will be one that has the greatest capacity to anticipate the course of the epidemiological transition to mobilize resources and produce services that reduce inequalities and achieve the greatest increases in health levels at the lowest cost.

This allows us to conclude that in Mexico:

Health spending is lower (11.5%) compared to other countries of high, medium, and low level according to their GNI, in the period 2017-2020, and public spending on health from 2018 decreased compared to the previous year by 9.93% and remained so until 2020, more than half of the resources for health in the last five years are private and, mostly out-of-pocket expense. (41% in 2017 – 41.3% in 2020), the growth of public health expenditure (\$260.97 USD per person in 2017 and USD 262.34 per person in 2020) has not contributed to reducing the gaps of inequality in the distribution of financial resources persistently between the insured and the uninsured population; the budget of the Ministry of Health has decreased by more than 20% in real terms during the current six-year period, and out-of-pocket payment is considered one of the least efficient and least fair ways to finance a health system.⁸ In addition, a health finance system based on out-of-pocket spending tends to detract from resources for economic development, increase poverty, and reduce a nation's productivity and competitiveness; Mexico is the second OECD country with the highest percentage of out-of-pocket spending on health.

The poorest 10% of households in the country spend more than 70% of out-of-pocket spending on medicines, while the richest 10% spend about 56%. Only 61% of people with diabetes, hypertension and dyslipidemia who went to the state health services (Sesa) came out with all the medicines.⁹ The insurance subsidized through the Popular Health Insurance (SPS) to uninsured families decreased the out-of-pocket expenditure on health of families, from 50% in 2003 to 41% in 2017 and has remained so until 2020. The health budget decreased by more than 20%, during this six-year period¹⁰, and it is necessary to increase public resources allocated to health and strengthen the quality of service provision, so that having affiliation to them is a real protective factor against out-of-pocket spending, to have a healthier and more competitive Mexico, more inclusive, efficient, transparent health services are needed and that the right to health is not conditioned to the level of income.

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