

**Algeria's healthcare spending: trends and global comparison**

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**Abstract:**

Algeria's health spending has evolved substantially over the past few decades, mirroring the nation's economic and social shifts. Given its heavy dependence on oil, Algeria's healthcare budget has been highly sensitive to fluctuations in crude oil prices. Recent oil price shocks have necessitated cuts in public health spending.

While these developments are underway, the global context is marked by significant variations in health spending. Algeria stands out among its MENA and middle-income counterparts by devoting a relatively higher proportion of its GDP to health, surpassing the regional average. However, this level remains below that of developed countries. Nevertheless, Algeria's health spending demonstrates efficiency, resulting in health outcomes that rival those of developed countries, even with fewer resources.

**Keywords:** Health Expenditures, Trends, MENA comparisons, international comparisons, Algeria.

**JEL Classification: I18, H51**

## **Introduction**

Total health expenditure includes all spending on health goods and services, both public and private (including household spending), as a proportion of GDP. This covers preventive and curative care, such as family planning, nutrition, rehabilitation, pharmaceuticals, administration, public health, and emergency services (OCDE, 2021).

Algeria, similar to many developing nations, has seen a notable shift in its health spending over recent decades. Public policies have prioritized expanding healthcare access through increased coverage and infrastructure development. These efforts have yielded significant public health improvements. Nevertheless, the Algerian health system confronts complex challenges, including rising healthcare needs, an aging population, and chronic disease prevalence.

### **Study problem:**

This article aims to examine the trajectory of health spending in Algeria, addressing the following research question:

**How has health expenditures evolved in Algeria? And to what extent do these expenditures correlate with health indicators in other MENA countries?**

### **Hypotheses**

To answer this research question, we will test two hypotheses:

**Hypothesis 01:** Algeria's health spending has experienced both sustained growth and recurring constraints. This growth is driven by:

- The epidemiological transition marked by rising non-communicable diseases, which are costly to treat.
- Additionally, advancements in medical technology have increased healthcare needs, and improved access to care, resulting from policies aimed at universal coverage. These policies have boosted spending on infrastructure and personnel.

However, these trends have faced financial constraints, especially during periods of low oil prices (e.g., the 1980s, 2015, 2020), which have forced budget cuts and hindered health system development.

**Hypothesis 02:** Algeria, like many MENA countries, has adopted universal health coverage, driving up healthcare costs. This trend is common in the region, limiting Algeria's ability to further increase spending. Factors such as economic development, income distribution, education, and population health influence health expenditures. Despite higher spending, Algeria's health indicators compare favorably to other MENA countries.

### **Research Methodology:**

To address this research question, we collected quantitative data from international (WHO, World Bank) and national (ONS Algeria) databases. After comparing and analyzing this data, we will present the trends in deflated health spending in Algeria. Subsequently, we will assess the efficiency of health spending in the MENA region by comparing spending levels with health indicators.

#### **1. Trends in health spending in Algeria**

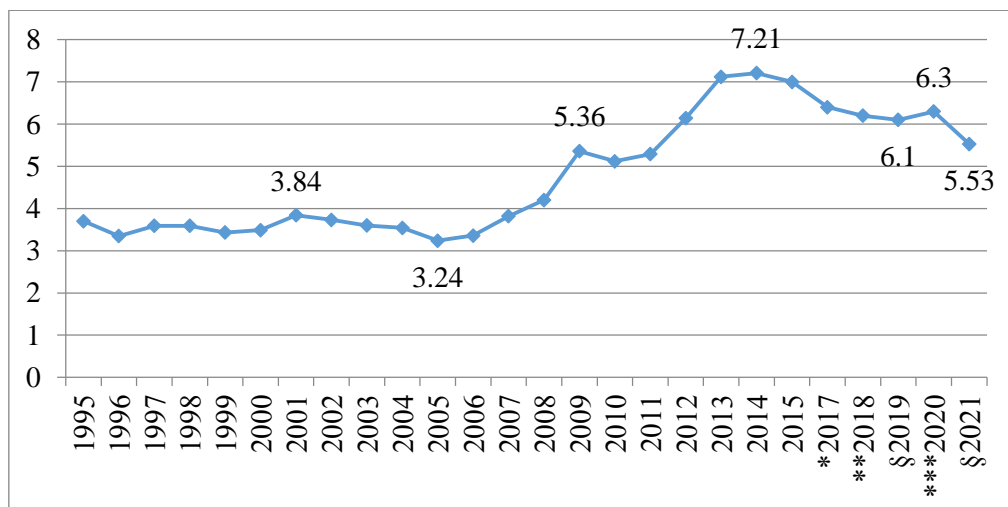
Health expenditures encompass all financial resources allocated to the prevention, diagnosis, treatment, and rehabilitation of diseases. They include:

- Public expenditures: financed by the state, local authorities or social security systems (hospitals, health centers, reimbursed medications...).
- Private expenditures: borne by households (un-reimbursed medical expenses, complementary insurance...).

##### **1-1- Trends in total health spending**

Total health spending comprises all funds allocated to disease prevention, diagnosis, treatment, and rehabilitation. It serves as a key indicator of a population's health and a nation's development. Health spending has been increasing, driven by the country's health transition since the 1980s. However, the 2015 oil shock and subsequent economic downturn have led to a slight decline. Algeria's health spending has evolved significantly over recent decades, reflecting demographic shifts, technological advancements, and public policies (Azri & Brahamia, 2023).

**Figure 1: Trends in Total Current Health Spending as a Share of GDP in Algeria**



**Source: Figure created by the authors based on:**

**World Bank data** (Banque Mondiale, 2017).

**\* World Data Atlas** (Atlas Mondial des Données, 2020)

**World Bank data** (Banque Mondiale, 2020)

**\*\*KNOEMA world Data Atlas** (KNOEMA Atlas mondial des données, 2021)

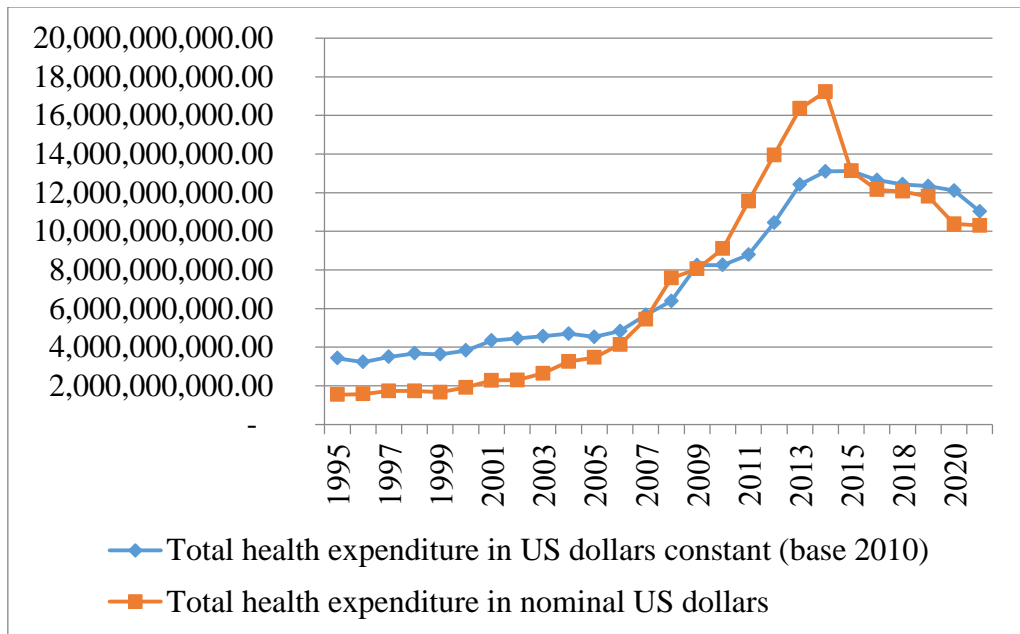
**\*\*\*Zehnati A.** (Zehnati, 2024)

**§OMS:** (OMS, 2024)

Total health spending in Algeria, as a percentage of GDP, increased significantly from 3.52% in 2004 to 7.21% in 2014, driven by the 2007-2011 national program's health initiative, which allocated 30 million euros to reorganize health services and reform hospitals (Chaoui & Legros, 2013). The 2015 oil shock triggered a decline in Algeria's health spending as a percentage of GDP, from 7% in 2015 to 6.2% in 2018. Subsequent budget cuts, as outlined in the 2020 Finance Act, further constrained health spending. These economic challenges led to Algeria's reclassification as a lower-middle-income country by the World Bank (Ministère des finances, 2025).

However, the population's access to basic infrastructure remains guaranteed, prioritizing the sectors of education, health, and care for children with disabilities or social difficulties. The share of health expenditures as a percentage of GDP, according to the WHO, continued to decline in 2021 due to the second oil shock that the country experienced in 2020, influenced by the global economic crisis caused by Covid, falling from 6.3% in 2020 to 5.53% in 2021. These fluctuations are nuanced by inflation; when examining health expenditures in constant dollars, a progressive decline in their purchasing power is observed.

**Figure 2: Trends in Total Health Spending in Algeria in Nominal and Real Terms (2010 base)**



**Source: Figure created by the authors based on World Bank data.**

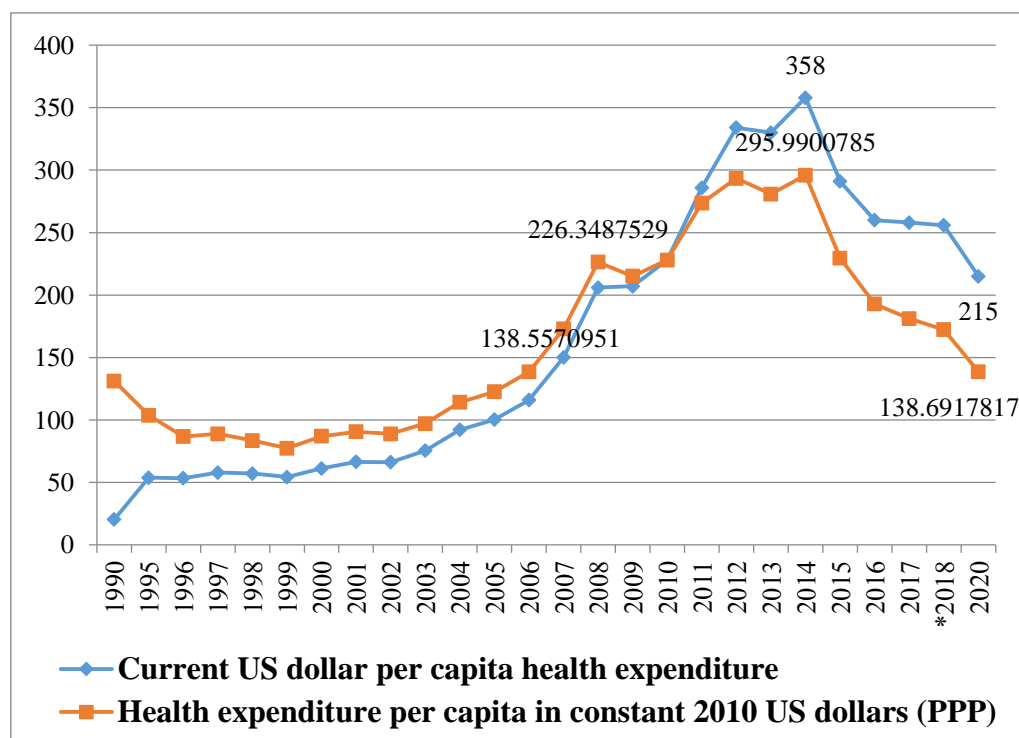
Health expenditures have experienced strong fluctuations. Thanks to the country's financial ease, they more than doubled between 2009 and 2014 in current dollars (in only 5 years), while in constant dollars, these same expenditures only increased by 59%!! Moreover, since the 2015 oil shock, they have continued to decline. Falling from approximately \$13 billion in

2014 to \$10.3 billion in 2021 (in constant dollars), representing a decrease of 21%.

### 1-2- Trends in per capita health spending

Current US dollar per capita health expenditures represent the annual spending on health goods and services. The following figure depicts the trend in per capita health spending between 1995 and 2020, both in current and constant 2010 US dollars.

**Figure 3: Trends in Per Capita Health Spending in Algeria, 1990-2018 (US dollars)**



Source: Figure created by the authors based on :

World Bank data (Banque Mondiale, 2017).

\*KNOEMA world Atlas Data (KNOEMA Atlas mondial des données, 2021)

The table reveals a 33.67% decline in per capita health spending (in constant dollars) between 1990 and 2000, due to the economic and security crisis. However, from 2000 to 2014, spending rose sharply, correlating with

GDP growth. Since 2015, spending has declined by over 53%, mirroring the decrease in GDP per capita from \$4,687 to \$4,423 (constant 2010 dollars) (Banque mondiale, 2024). Decreasing from US\$14,863 in 2014 to US\$12,849 in 2020 in current international dollars adjusted for purchasing power parity (PPP) (Atlas Mondial des Données, 2020).

Per capita health expenditure in 2020 was at the same level as in 2006! Despite the fact that 2020 was marked by a global COVID-19 pandemic that affected Algeria both epidemiologically and economically, health spending continued to decline due to insufficient resources caused by the oil shock.

## 2. International comparison of health expenditures

To evaluate the efficiency of Algeria's health spending and identify areas for improvement, a comparative analysis with other countries is essential. This section will compare Algeria's health spending to both MENA and other developed and developing countries.

### 2-1- Comparison of Algeria's health expenditures with those of MENA countries

Health expenditures in Algeria have experienced significant growth in recent decades, reflecting a desire to improve access to care and the quality of services offered. Although disrupted by recent oil shocks, compared to MENA countries, Algeria's health expenditures are efficient; given that it manages to achieve the same life expectancy at birth as Saudi Arabia, for only 20.6% of the per capita health expenditure in the latter!

**Table 1: Comparison of Health Expenditures in the MENA Region in 2021**

Country	Health expenditure as a percentage of GDP*	Per capita health expenditure in constant 2010 US dollars**	The life expectancy at birth	Crude death rate per 1,000 population	Doctors per 1,000 population
<b>Algeria</b>	5,53	250	77,13	4,33	1,73
<b>morocco</b>	5,74	189,1	74,97	5,77	0,73
<b>Egypt.</b>	4,61	180	70,16	6,39	0,71
<b>Libya</b>	4,02	406,9	72,15	5,95	2,16
<b>Tunisia</b>	6,97	268,1	74,26	7,6	1,26
<b>Yemen</b>	4,25	43,6	<u>63,72</u>	<b>6,82</b>	0,29

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<b>Syria</b>	3,05	<u>22,71</u>	72,3	5,05	1,19
<b>Saudi Arabia</b>	5,97	1 208	77,91	2,75	2,79
<b>Iran</b>	5,77	308,4	74,56	6,15	1,51
<b>Iraq</b>	5,25	217	71,34	4,43	0,91
<b>United Arab Emirates</b>	5,31	<b>2 268</b>	79,2	1,86	<b>2,88</b>
<b>jordan</b>	7,29	280,4	74,22	3,96	2,51
<b>lebanon</b>	<b>10,06</b>	614,4	74,42	8,86	2,62
<b>Oman</b>	4,37	800	73,94	3,28	1,99
<b>Kuwait</b>	5,78	1 529	80,26	2,61	2,29
<b>Qatar</b>	2,89	1 763,6	<b>81,56</b>	<u>1,08</u>	2,5
<b>Bahrain</b>	4,27	997,5	79,25	2,48	0,84
<b>Moyenne de la région</b>	5,36	598,94	74,79	4,67	1,70

**Source: Figure created by the authors based on:**

**World Bank data (Banque mondiale, 2024),**

**\*OMS (OMS, 2024)**

**\*\*Calculations performed by the authors using data from the World Bank and the WHO.**

**#Calculations performed by the authors**

At the Maghreb level, Algeria ranks third behind Tunisia with 7.3% and Morocco with 5.74% of their GDP allocated to health expenditures. However, when comparing per capita health expenditures, Algeria ranks second behind Tunisia. Yet, despite lower per capita health expenditures, Algeria has the highest life expectancy at birth in the Maghreb.

Moreover, it is worth noting that private health expenditures are higher than public expenditures in neighboring countries. In fact, in 2021, private health expenditures accounted for 60% of total health expenditures in Tunisia (ministère des finances tunisien , 2024), 73% in Morocco (Ezzrari, 2022) compared to 37% in Algeria (Zehnati, 2024). This underscores the Algerian government's commitment to universal healthcare, as evidenced by the socialization of health expenditures and the provision of free primary care to vulnerable populations.

In 2021, Algeria's national health expenditure exceeded the average for the Middle East and North Africa (MENA)<sup>1</sup> region. The same is true for per capita health expenditure, life expectancy at birth, and physician density per 1,000 inhabitants. Moreover, Algeria has a lower crude mortality rate per 1,000 inhabitants compared to the MENA region average.

In the MENA region, health expenditure as a percentage of GDP is highest in Lebanon, almost double that of Algeria, but for a life expectancy at birth that is significantly lower by 3 years and a crude mortality rate that is twice as high. In terms of per capita health expenditure and physician density per 1,000 inhabitants, the United Arab Emirates ranks first, with more than 9 times the per capita expenditure of Algeria, but for a life expectancy difference of only 2 years. In light of the health indicators achieved by Algeria, it can be deduced that health spending is efficient, resulting in remarkable outcomes that are better than the MENA regional average with less than half of the average per capita health expenditure in the region.

## **2-2- Comparison of Algeria's health expenditures with those of other countries worldwide**

A comparative analysis of health expenditures allows us to position Algeria in relation to international standards and to identify the strengths and weaknesses of its health system.

When compared to other Maghreb countries, Algeria's health expenditures appear to be the highest. However, compared to developed countries or even developing countries, these expenditures are quite insufficient, especially given the growing health needs due to the epidemiological transition (Azri & Brahamia, 2018).

However, considering the health outcomes achieved, Algeria's health spending appears to be very efficient. For instance, the United States, with per capita health expenditures 43 times higher than Algeria's, has a similar life expectancy. Moreover, the United States has the highest proportion of health spending as a percentage of GDP (Lechab, 2022).

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<sup>1</sup> According to the WHO classification, the Middle East and North Africa region includes: Algeria, Saudi Arabia, Bahrain, Egypt, United Arab Emirates, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Syria, Tunisia, and Yemen.

**Table 1: Comparison of Health Expenditures and Life Expectancy in Selected Countries in 2021**

<b>Country</b>	<b>Health expenditure as a percentage of GDP (2021)</b>	<b>Per capita health expenditure in constant 2010 US dollars **</b>	<b>The life expectancy at birth *</b>
<b>Algeria</b>	<b>5,53</b>	<b>250</b>	<b>77,13</b>
France	12,31	4 678	82,23
Italy	9,38	3 000	82,90
Cuba	13,79	1 005,4	78,16
Russia	7,39	754,3	72,55
China	5,38	603,8	78,59
Brazil	9,89	850,8	73,42
India	3,28	64,78	67,74
Canada	12,33	5 469,6	81,3
United states	17,36	10 891,84	77,43

**Source: table produced by our team using data from  
Who (OMS, 2024)**

**\*world Bank data (Banque Mondiale, 2024)**

**\*\*Data from the World Bank and WHO were used to create these calculations by the authors.**

A similar observation can be made when comparing Algeria with countries like Russia or Brazil, which spend more than three times as much as Algeria on healthcare, yet have lower life expectancies. However, other countries have achieved better results. For example, Italy spends 12 times more than Algeria but gains 5 more years of life expectancy, while France, despite spending 18 times more than Algeria, achieves the same life expectancy. A comparative analysis of Algeria's health spending reveals a complex and nuanced picture. While Algeria has made significant progress in terms of access to healthcare, particularly through universal health coverage, challenges remain.

## Conclusion

In conclusion, health expenditures in Algeria represent a major challenge for the country's development. Improving access to care, quality of services, and cost control are challenges that require the mobilization of all stakeholders. To address these challenges, several avenues are being considered, including strengthening primary and secondary prevention through the development of chronic disease prevention programs and the promotion of healthy lifestyles and behaviors. Algeria has experienced significant changes in its health expenditures in recent decades. These changes have been disrupted by the various oil shocks that the country has experienced. Public investments have helped to improve access to care and expand health coverage.

Algeria generally occupies an intermediate position in terms of health expenditure relative to its level of development. Expenditures are higher than those of many low-income countries but lower than those of high-income countries. However, challenges persist. Algeria must face several challenges, including the demographic transition with an aging population, the emergence of new chronic diseases with long-term care needs, and the need to strengthen prevention while facing budgetary constraints, which have been weakened by oil shocks. Despite these challenges, Algeria continues its efforts to strengthen its health system and ensure better care for its population. The reform of the sector is underway, with a focus on strengthening prevention, promoting primary care, and digitizing services. The future of Algeria's health system will depend on the country's ability to adapt to demographic and economic changes, while ensuring universal and quality health coverage.

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