THE SUSTAINABILITY OF THE ROMANIAN HEALTHCARE SYSTEM IN RELATION TO EUROPEAN DYNAMICS

SLUSARIUC GABRIELA CORINA
ASSOCIATED PROFESOR PHD., UNIVERSITY OF PETROSANI, ROMANIA
e-mail:ellaslusariuc@gmail.com

Abstract

This study examines the sustainability of Romania's healthcare system within the broader European context, highlighting structural vulnerabilities stemming from chronic underfunding, population ageing, and the migration of medical personnel. Although Romania benefits from substantial funding through the NRRP and other European programmes, resources remain insufficiently directed toward prevention, modern infrastructure, and digitalization. High mortality from cardiovascular diseases and cancers, including among younger age groups, underscores the urgent need for strong prevention policies and the promotion of healthy lifestyles. Additionally, unequal access to medical services, particularly in rural areas, demonstrates the necessity of strengthening community-based healthcare and investing in human resources. To achieve sustainability, the healthcare system must implement patient-centered reforms, improve hospital management, depoliticize leadership structures, and harness digital technologies. Ultimately, health should be regarded as a strategic driver of national development—an essential prerequisite for both prosperity and security.

Keywords: *health, performance, quality of medical services, sustainability, digitalization*

Classification JEL: *H51, I18, I13*

1. Introduction

The global economy is facing multiple complex crises, such as environmental degradation and global warming, the depletion of natural resources, and food insecurity. Human health is affected by numerous disruptions of homeostasis and overall balance, with significant consequences for each individual and for society as a whole. Despite remarkable advances in the medical field, which have contributed to increased life expectancy worldwide, modern societies — including Romania — are experiencing a significant decline in birth rates, reduced fertility, and persistently high mortality levels, all of which generate negative demographic effects. Europe's population is aging, and the prevalence of chronic non-communicable diseases continues to rise.

Individual health is a key component of human security and acts as a social catalyst, playing an essential role in maintaining a nation's resilience in the face of crises, natural disasters, and conflicts. The health sector is a strategic domain, a powerful economic driver, and a major contributor to scientific progress, research, innovation, and technological development. Therefore, every state must support a healthcare system capable of ensuring the health of its population — a fundamental element for improving quality of life, increasing longevity, and maintaining demographic continuity and development.

The importance of the healthcare system stems from the fact that a state's primary resource is its own citizens. A society in which individuals enjoy a high level of health, education, and civic development is a society oriented toward progress, innovation, and sustainable growth, capable of adopting and implementing new elements that enhance the quality of life.

In this sense, protecting the health of the population, together with ensuring a high educational level, becomes a fundamental element of social security and should be clearly reflected in public policies. Therefore, the healthcare system must hold a central and prioritized position within the public policy framework of any state.

Experience from various European health systems shows that problems in the healthcare sector cannot be solved without the involvement of all responsible stakeholders. While therapeutic

medical services consume the largest share of financial resources, prevention and public health protection services are equally important and fall within the responsibilities of both central and local public authorities as well as the general population.

All European states prioritize health education and disease prevention activities, as it is more efficient and economically advantageous to prevent illness than to treat it later, with significantly lower associated costs. Consequently, promoting health policies that focus on prevention must be a central objective of any modern healthcare system, just as health education should represent a fundamental component of the educational system.

2 Literature review

The importance of this topic has led to extensive analysis in the specialized literature, being examined by numerous researchers.

Poterba, Venti, and Wise (2010), as well as Wendt (2009), have made significant contributions to understanding the functioning of health systems. Anghel, Anghelache, and Avram (2017) explored the European Union's health strategy, while Anghelache, Anghel, Iacob, and Hașegan (2020) analyzed the current global context shaped by the health crisis and the emergence of an unprecedented economic and financial crisis. Additionally, Stuckler et al. (2009) examined the effects of economic crises on public health.

Recent studies have strengthened the understanding of Romania's healthcare system, with Toma (2022) highlighting the financial sustainability challenges of public health, Ciobanu et al. (2020) examining the evolution of patient satisfaction with public medical services, and Slusariuc (2021) analyzing performance management within medical institutions, all contributing valuable insights into the system's structural limitations and reform needs.

3. The health system in Romania

Over the past decades, the Romanian healthcare system has transitioned from an integrated model — in which healthcare providers operated under the authority of the Ministry of Health and were publicly owned — to a contractual model, where both public and private healthcare providers negotiate and conclude service agreements with the health insurance funds. These agreements are based on a national framework contract that establishes the conditions and mechanisms governing such contractual relationships. The financing of the healthcare system is secured primarily through mandatory social health insurance contributions, supplemented by additional sources such as the state budget and external funds.

Currently, the Romanian healthcare system faces significant structural challenges, including outdated hospital infrastructure and equipment below the European average; substantial disparities between large university hospitals and medical units in rural areas or small towns; acute shortages of physicians and nurses in several regions; and a persistent migration of medical personnel toward major urban centers and, predominantly, to other countries. This migration has led to severe shortages of specialists in key medical fields such as intensive care, oncology, and pediatric psychiatry.

In 2024, the budget allocated to the Ministry of Health reached 18.89 billion lei, while the National Health Insurance Fund (FNUASS) received 62.4 billion lei. Despite these allocations, total healthcare expenditure amounts to only 4.5% of GDP, significantly below the European average of approximately 9%. This chronic underfunding places considerable pressure on all levels of the system, limiting access to quality healthcare services and hindering the development of medical infrastructure.

Health expenditures per capita remain the lowest among EU Member States, and in 2021 hospital services accounted for 44% of total health spending—the highest share in the EU, compared to the EU average of 28%. Human resources in the health sector are severely insufficient: Romania has only 3.5 physicians and 0.9 nurses per 1,000 inhabitants, while the European average is 7.9

healthcare professionals. This acute shortage leads to overcrowded medical facilities and decreases the quality of care, particularly in rural and disadvantaged areas.

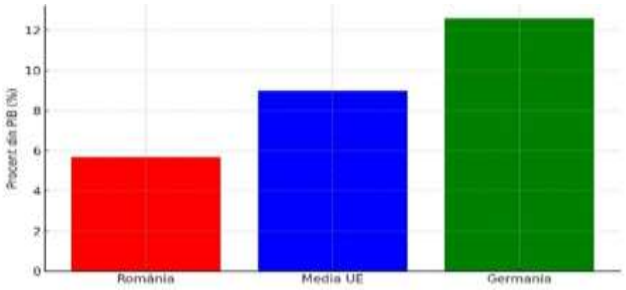


Figure 1. Health Expenditures as a Percentage of GDP – Romania vs. EU (2024)
Source: Processed by the author based on information from the Ministry of Finance

A significant share of the Romanian population benefits from health insurance without contributing financially, creating a major structural imbalance that threatens the long-term sustainability of the system, particularly in the context of population ageing and increasing healthcare needs. At the same time, Romanian citizens must pay out-of-pocket approximately 23% of total health expenditures, a financial burden that reveals the limitations of the public system and generates substantial barriers to equitable access to care, especially for vulnerable groups.

Nevertheless, Romania benefits from substantial financial opportunities for sectoral reform through the National Recovery and Resilience Plan (EUR 2.45 billion) and the Operational Programme for Health (EUR 5.88 billion), which can support infrastructure modernization, service digitalization, and reduction of access inequalities..

Romania has increased its allocation for healthcare in recent years, from 5% of GDP in 2017 to between 5.7% and 6.5% in 2021, and then to 5.7% in 2022. By 2024, only 7.05% of GDP was allocated to medical services, the lowest percentage in the European Union. This chronic underfunding severely affects the quality of services, hospital equipment, as well as the morale and motivation of medical personnel.

There are significant disparities in the financing of public and private healthcare providers. Although private hospitals offer a substantial share of medical services, they do not benefit from equitable financial allocations. This discrepancy may discourage the development of public–private partnerships, which are essential for expanding access to modern healthcare services.

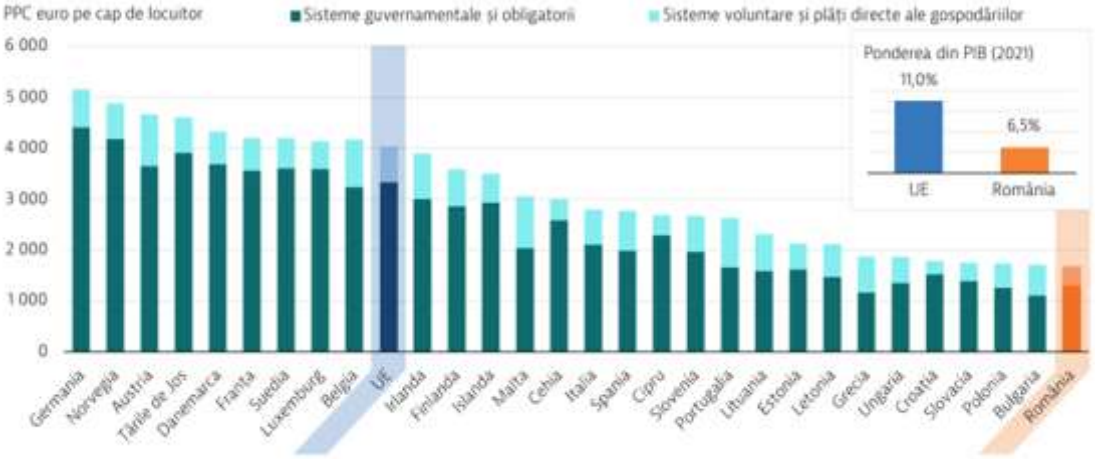


Figure 2. Health expenditure per capita in Romania remains the lowest among EU countries
Source: OECD Health Statistics 2023 [data refer to the year 2021]

Hospital services accounted for the largest share of Romania's health expenditure in 2021 (44%), the highest proportion among EU countries, while the EU average was 28%.

This high level of spending on hospital services contrasts with the relatively low expenditure on other functions: the share of funding allocated to outpatient care (18%) is the lowest in the EU and well below the EU average of 29%, even though strengthening primary care has been on the political agenda since the 1990s. In addition, one quarter of total health expenditure is directed toward pharmaceuticals, which consist largely of out-of-pocket payments.

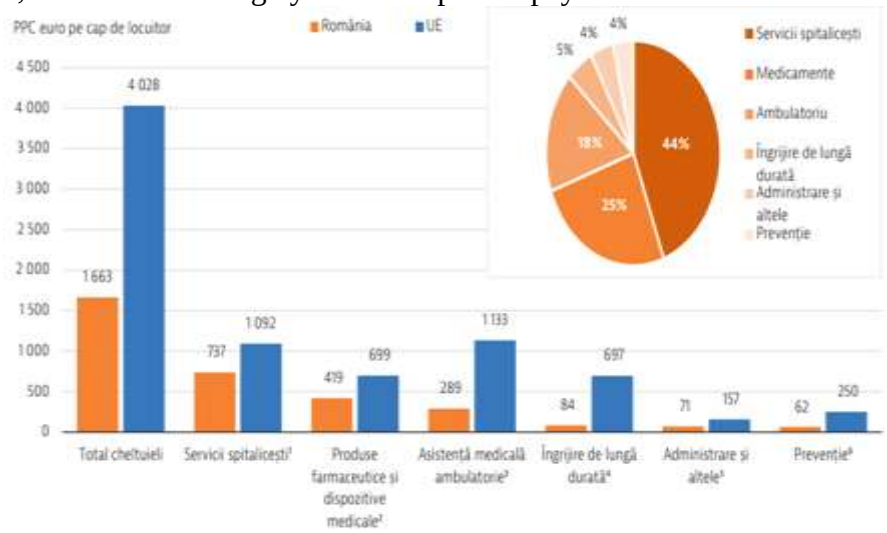


Figure 3. Health expenditure per capita in Romania remains the lowest among EU countries

With an average of only 3.5 physicians and 0.9 nurses per 1,000 inhabitants, Romania is far below the European average of 7.9. The acute shortage of medical personnel leads to overcrowding in healthcare facilities and reduces the quality of care, particularly in rural and economically disadvantaged areas. Romania benefits from substantial financial support through the National Recovery and Resilience Plan (EUR 2.45 billion) and the Operational Health Programme (EUR 5.88 billion). These funds represent a unique opportunity to modernize healthcare infrastructure, digitalize services, and reduce inequalities in access to care.

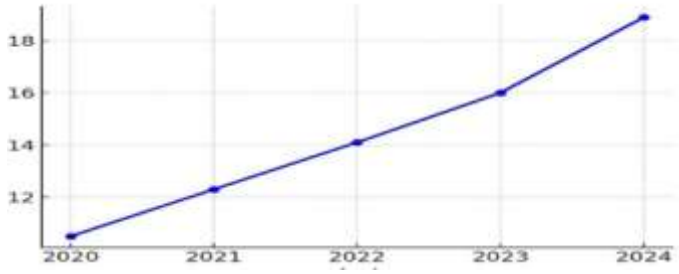


Figure 4. Evolution of Romania's Healthcare Budget (2020–2024)
Source: Author's processing based on data provided by the Ministry of Finance

In 2024, the activities of Romania's healthcare and public health network were carried out in over 69,000 medical units (57,000 in urban areas and 12,000 in rural areas), representing an increase of approximately 2,000 units compared to the previous year.

The objectives of public policies in the field of health relate to three key aspects, based on the World Health Organization's concept of health system performance: the population's health status, citizens' level of satisfaction with the performance of the health system, and the extent to which the system provides financial protection. An analysis of Romania's health indicators, based on data obtained

from public healthcare units or collected through national and international studies, reveals a poor health status among the Romanian population compared to the EU average.

Another major issue faced by the healthcare system is underfunding. Beyond the fact that financial resources allocated to health are insufficient, the prioritization of expenditures is inadequate. A comparative analysis of health spending allocation shows that prevention and rehabilitation services receive a disproportionately low share compared to curative treatments. Resource allocation is not based on impact assessments or cost-efficiency studies, nor on transparent, objective, and consistent criteria; instead, it is often influenced by individual or group interests financial or administrative.

Among the priorities of Romania's healthcare system are the construction of regional hospitals, the revitalization of primary healthcare services, and the modernization of equipment in existing hospitals. These directions could significantly contribute to improving system efficiency and increasing patient satisfaction. Increasing budget allocations is essential to reach the European average levels and to reduce the pressure placed on both patients and medical staff. Contribution reform should aim to broaden the base of contributors and encourage compliance through equitable fiscal policies. The development of complementary health insurance could diversify funding sources and improve access to optional services, without undermining equity within the public system.

A stronger emphasis on prevention must become a strategic priority, with investments in health education and preventive services at the community level. Investment in human resources should address not only training, but also the retention of medical personnel through competitive salaries, modern working conditions, and career development opportunities within Romania.

SWOT Analysis of Romania's Healthcare System

Strengths	Weaknesses
Investments through NRRP	Chronic underfunding
Professional and well-trained medical staff	Migration of healthcare personnel
Investments through OHP	Outdated infrastructure
	Low level of digitalization
Opportunities	**Threats**
Access to European funding	Declining public trust
Development of telemedicine	Inequalities in access to care
Adoption of digital health technologies	High prevalence of nosocomial infections

The SWOT analysis of Romania's healthcare system generates several strategic recommendations, including:

- Implementing new programs aimed at improving the population's health status, with a strong focus on prevention, screening, and health education.
- Adjusting medical services to demographic and epidemiological changes, by expanding services for the ageing population, improving chronic disease management, and aligning resources with evolving healthcare needs.
- Introducing and adopting advanced medical technologies to enhance efficiency, diagnostic accuracy, and access to modern treatments.
- Adapting the production and organization of healthcare services to shifts in the structure of supply and demand for health resources, including reallocating resources based on the real needs of the population.
- Improving social justice and equity**,** ensuring that all citizens—regardless of socio-economic status or geographic location—benefit from fair and effective access to healthcare services.
- Reducing barriers to accessing medical care**,** by expanding services in underserved areas, increasing digitalization, and simplifying administrative processes.

Table 1 Health System Performance Indicators – Romania vs. EU (2024)

Indicator	Score Romania	EU Average	Romania's Rank (out of 27)
Prevention	50.3	65	22
Diagnosis	45.1	68.4	25
Rapid Medical Response	37.2	66.1	26
Healthcare System Capacity	38.4	72.5	24
Compliance with International Standards	53.1	70.0	21
Risks / Vulnerabilities	66.3	75.2	20
TOTAL	48.4	69.5	23

Sursa: Global Health Security Index https://ghsindex.org/

Romania's healthcare system must be reformed in order to address the complex challenges posed by population ageing and to shift toward preventive activities that focus on strengthening behavior change within the general population.

Another direction that the reform of the healthcare system must follow concerns the focus of policies on preventing illness. Cause-specific mortality shows an increasing trend in deaths from cardiovascular diseases, both among young adults and the elderly, as well as a significant rise in the proportion of deaths caused by tumors, particularly at young ages and among women. To reverse these trends, it is necessary to promote a healthy lifestyle, balanced nutrition, and the reduction of sedentary behavior and stress, as well as to combat tobacco and alcohol consumption. Moreover, strengthening health and social services in rural areas would improve the population's access to care.

Health must be viewed as a key driver of development—a long-term resource, not merely a consumer of resources. An ageing nation, with high disease rates, an inadequate healthcare system unable to meet health needs, and financial inefficiency cannot be a healthy and prosperous nation. Romania must implement the National Health Strategy and invest in health, health education, professional human resources, and modern healthcare infrastructure adapted to the needs of contemporary society.

The lines of action that should be aligned with both the National Health Strategy and the National Defense Strategy include:• placing the patient at the center of the system;• ensuring adequate remuneration and professional recognition for medical staff;• resolving health problems as quickly, equitably, and cost-efficiently as possible;• improving the efficiency and depoliticization of hospital management.

According to the framework established by the World Health Organization, public health policies should focus on three core dimensions: population health outcomes, citizens' satisfaction with system performance, and the degree of financial protection offered. However, analyses of national and international indicators reveal that Romania remains below the EU average regarding population health status

4. Conclusions

Global healthcare system models reflect the diversity and complexity of the challenges faced by different societies. Each model presents advantages and disadvantages that depend largely on the social, economic, and political context of each country. Overall, global trends indicate a shift toward more integrated and universal systems; however, there is no single solution applicable to all states. Ultimately, the success of a healthcare system depends on how effectively it balances universal access, cost efficiency, and the quality of services provided.

In the context of globalization and demographic pressures, many countries are adopting hybrid healthcare models that combine state intervention with market mechanisms, aiming to achieve both economic efficiency and equity in access to medical care. Transformations such as the digitalization of services, the migration of medical personnel, and changes in population behavior are

reshaping healthcare systems globally, requiring a rethinking of traditional organizational and financing paradigms.

Developing countries often implement models adapted to their fiscal and institutional limitations, where mixed financing, external support, and public–private partnerships become essential components in building resilient and sustainable healthcare systems.

Regardless of the model adopted, every state has the obligation to ensure equitable access to high-quality healthcare services, which implies responsibility for the proper management of resources. Population health should therefore represent a political priority, as it constitutes a key condition for economic prosperity and has a direct impact on national security. Digitalization and artificial intelligence must play an increasingly important role in the development and efficiency of the healthcare system, particularly in preventing, anticipating, and countering risks and threats to national interests in this field.

Romania's healthcare system is currently facing a deep crisis, acknowledged both nationally and internationally. Romania ranks among the lowest in the European Union in terms of essential health indicators such as life expectancy and infant mortality. These outcomes are the result of inconsistent health policies implemented after the 1990s, marked by numerous reforms inspired by external models that were culturally and economically unsuitable for the country. The persistent issues in the Romanian healthcare system stem from legislative, organizational, financial shortcomings, and critically, from a severe human resources crisis.

To strengthen national security in the healthcare sector and align Romania's system with those of EU member states, several strategic directions must be pursued: increasing the responsiveness of the public health system during pandemics or emergencies, reshaping the healthcare model around the patient/citizen, improving the coherence between labor market, education, and health policies, adopting concrete measures to limit demographic decline, and reducing regional development disparities.

It is necessary for responsible authorities to develop a comprehensive action plan to ensure efficient management of healthcare funds through the optimal use of available resources, cost savings, fraud reduction, and enhanced transparency.

For the healthcare system to function properly, leadership positions at all levels must be filled with well-trained professionals selected based on objective efficiency criteria, through fair recruitment processes for managerial, medical director, and department head positions. Additionally, current performance evaluation indicators for managers should be revised, and new reward mechanisms for high-performing leaders should be introduced. Finally, both the population and medical staff need support in shifting entrenched mindsets by promoting values such as integrity, work ethic, compassion, and collaboration, while combating traditional practices deeply rooted in organizational culture. Public campaigns within medical institutions and the media should play a central role in rebuilding the doctor–patient relationship on the basis of trust and mutual understanding.

5.References

1. Anghel, M., Anghelache, C., & Avram, D. (2017). *Analiza strategiei Uniunii Europene în domeniul sănătății și impactul asupra statelor membre*. Revista Română de Statistică, nr. 10.

2. Anghelache, C., Anghel, M., Iacob, S., & Hașegan, G. (2020). *Impactul crizei sanitare asupra economiei mondiale și perspective macroeconomice*. Romanian Statistical Review, nr. 3.

3. Bălan, M., & Radu, B. M. (2019). *New Trends of Health Worker Migration. Case of Romania.*Annals of the "Constantin Brâncuşi" University of Târgu Jiu, Economy Series, 3**,** http://www.utgjiu.ro/revista/ec/pdf/2019-03/01_Balan.pdf

4. Blidaru, T. C. (2025). Romania's health workforce attraction and distribution challenges. Health Policy Journal

5. Ciobanu, O.-M., Ciobanu, C.-I., Ciobanu, R.-C., & Ruse, A. V. (2020). *Evolution of patients' satisfaction regarding the medical services received in public hospitals*. Annals of the "Constantin Brâncuși" University of Târgu Jiu, Economy Series, *(1),*

6. Comendeiro-Maaløe, M., Ridao-López, M., & Bernal-Delgado, E. (2021). *Healthcare system efficiency and sustainability: A systematic comparison across EU countries.* Health Policy, 125(10), 1376–1384.

7. Diac, D. (2024). *Human resources management in public hospitals in Romania: Challenges to financial and human sustainability*. Cross-Cultural Management Journal, XXVI(1), 58–79.

8. Petre, I. (2023). *Analysis of the Healthcare System in Romania: A Brief Review*. MDPI Healthcare, 11(14), 2069.

9. Petre, I. (2023). *Analysis of the healthcare system in Romania: A brief review.* Healthcare, 11(14), 2069.

10. Poterba, James M., Venti, Steven F., & Wise, David A. (2010). *Aging and Health Financing in Europe*. University of Chicago Press.

11. Scheffler, R. M., Campbell, J., & Cometto, G. (2022). *Forecasting imbalances in the global health workforce: A shortage of 15 million health workers by 2030.* Human Resources for Health, 20(1), 1–11.

12. Slusariuc, G. C. (2021). *Performance in management of medical institutions.* Annals of the "Constantin Brâncuși" University of Târgu Jiu, Economy Series, *(6)*

13. Stuckler, David, Basu, Sanjay, Suhrcke, Marc, Coutts, Adam & McKee, Martin. (2009). *The Public Health Effect of Economic Crises and Alternative Policy Responses*. The Lancet, 374(9686)

14. Toma, G. (2022). *The resources of the public health system for Romania to be a healthy and stable state.* Annals of the "Constantin Brâncuși" University of Târgu Jiu, Economy Series, *(5)*

15. Wendt, Claus. (2009). *Mapping European Healthcare Systems: A Comparative Study*. Journal of European Social Policy, 19(5), 432–445.

16. Wismar, M., Maier, C. B., Glinos, I. A., Dussault, G., & Figueras, J. (2020). *Health professional mobility and health systems in Europe: New evidence and policy responses.* Health Policy Series, 44**.** European Observatory on Health Systems and Policies

17. World Health Organization (WHO). (2024). *Health Systems Performance Assessment: A Framework for the European Region*. WHO Regional Office for Europ

18. Zapata, T., Blidaru, T. C., Rafila, A., Comșa, R., Novac, I., Andersen, Y., & Buchan, J. (2025). *Mitigating health workforce migration in Romania: Policy lessons for Europe***.** Human Resources for Health, 23

19. Toma, G. (2022). *The public health system in Romania can be sustainable on the financial market.* Annals of the "Constantin Brâncuși" University of Târgu Jiu, Economy Series, *(4)*