Strategic Options in The Field of Public Health Against the Background of Limited Financial Resources

Nicoleta Asaloș
"Ovidius" University of Constanta, Faculty of Economic Sciences, Romania
nasalos20@gmail.com
Patricia Bostan
Emergency County Hospital of Târgu Mureș, Medical Analysis Laboratory, Romania
patri.b.37@gmail.com
Ionel Bostan
"Ștefan cel Mare" University of Suceava, Doctoral School of Economics, Romania
ionel_bostan@yahoo.com

Abstract

Ensuring the financial resources necessary for the optimal functioning of a vital sector for a society/nation at a given time is often very difficult. Things become even more complicated in a context of overlapping crises (financial, health, geostrategic, energy, supply flows, etc.). Referring to the attempts to make the Romanian public health system more efficient, we will show that, so far, a real reform, in the sense of performatization/streamlining of the analyzed system, has not yet taken place. A proof of this lies in the gap between our system and that of most European countries. We are also taking into account some indicators which indicate the health status of the Romanian population, compared to the level of the same indicators in other EU countries. Our findings show that the analyzed system seems to be in a state of "continuous reform" and the results remain relatively modest.

Key words: public health, public strategies/policies, financial resources, medical staff/healthcare workers, budget allocations
J.E.L. classification: H11, H51, H70, I15, I18, M48

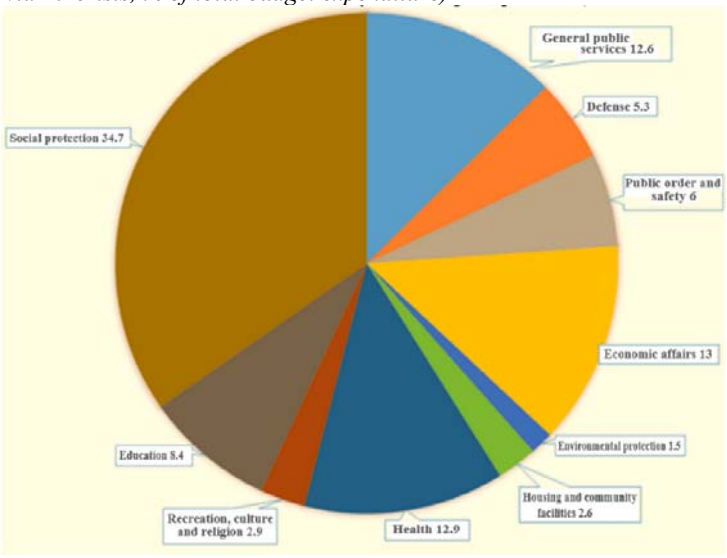
1. Introduction

Economic science tells us that, in general, resources are finite. There is a competition between the various social and economic sectors to obtain as many/large as possible allocations from the consolidated public budget, in an attempt to demonstrate to decision-makers the particular importance of the respective sectors' activity for the state and the society. It is true that sectors such as education, national defense, public administration, justice, transport and major infrastructure, public health, research, public order and safety, economic actions, etc. are very important and they operate on a constitutional basis; however, when it comes to the distribution of public financial resources there can be no total satisfaction.

It has always been considered that what these sectors receive is too little in relation to the tasks and requirements they have to fulfil and in order to keep pace with the constant changes in the society and the world. If we take into consideration the prolonged presence of overlapping crises (financial, health, geostrategic, energy, supply flows, etc.), the situation becomes even more complicated. Prior to this, the Romanian state budget allocations were configured as shown in Figure 1. Public criticism argued that "Romania's budgets in recent decades have focused mainly on just a few areas. Compared to the other European Union countries, Romania allocates more from its budget for security and public order, the army and bureaucracy - money which is largely earmarked for salaries -, it has among the highest spending on pensions, it gives more subsidies and directs more funds towards roadbuilding, leaving education last among its priorities (...)." (Baniță, 2019).

According to the same source, Romania also occupied a modest position in terms of the share of health expenditure (20th place), with 12.9% of the total budget, compared to an EU average of 15.3%.

Figure no. 1. The configuration of the Romanian state budget allocations (prior to the Covid-19 crisis, % of total budget expenditure)



Source: (Baniță, 2019).

The source also mentions that some countries, such as Ireland, the Czech Republic, the United Kingdom, the Netherlands and Slovakia are in higher positions (with 18-20% of the total budget), and that Romania is above the EU average when it comes to spending funds on hospitals, medicines and medical products, even though the overall average health expenditure is lower due to spending on consultations and tests carried out in specialized/extra-hospital clinics, including dental clinics, with a share of 0.4%, compared to 4.9% at EU level.

The above-mentioned aspects fully justify the need for decision-makers to prioritize, optimize at macro level, based on public policies and regularly updated strategies. Obviously, in the case of Romania, as a Member State of the European Union, the influence of European legislation must also be taken into account.

As far as the field of public health is concerned, one can consider it to be undergoing a "continuous reform", even though the achieved results are relatively modest. These are reflected in the underfunding of the system, the poor availability of modern equipment, unmotivated and unstable staff (the massive emigration of healthcare workers, which occurred after 2007, is worth mentioning), resulting in the current precarious state of the population's health, with the lowest level among EU countries.

At present, actions for the implementation of policies/programs/strategies aimed at increasing the performance of the public health sector in Romania, involving all that stems from their qualitative and quantitative approach, have been completed and are being implemented. The present research is developed precisely around them, even though the authors will also try to construct a profile of the current state of the respective system, especially from a critical perspective.

Our paper is divided into the following parts: Introductory considerations on the difficulties of ensuring the financial resources necessary for sectors of major social importance, Theoretical Background, Research methodology, Shortcomings of the Romanian public health sector and the health status of the population, Strategic guidelines concerning the development of the public health sector against the background of overlapping crises and Conclusions.

2. Theoretical background

A glance at the articles written so far on the attempts to streamline the Romanian public health system reveals that most of them have examined the various reforms initiated by different governments. In fact, as the Ministry of Health itself argues, the reform of the Romanian health system dates back to the 1990s, starting with the adoption of the Social Health Insurance Law No. 145/1997. This changes the method of financing the health system (initially, it was done through national taxation and allocation from the state budget, through the Ministry of Health). The novelty introduced consists of *individual taxation with income withholding* and the administration of the funds collected in this manner by a newly established insurance fund managed by the National Health Insurance House (Ministry of Health, 2022).

Subsequently, a series of other changes to the legislative framework intervened, with the creation of the College of Physicians, the Hospital Association, the National Authority of Quality Management in Healthcare and some reorganizations of the system - at different levels (primary, secondary and tertiary), as well as various professional associations by medical specialties.

What we can state with certainty is that, so far, a real reform, in the sense of performatization/streamlining of the analyzed system, has not yet taken place. The proof lies in the gap between our system and that of most European countries. We are also taking into account some indicators which indicate the health status of the Romanian population, compared to the level of the same indicators in other EU countries.

Over the years, many researchers have tackled this type of issues (Besciu, 2014; Ciumaș & Văidean, 2007; Druguș *et al.*, 2015; Santini *et al.*, 2021; Scîntee *et al.,* 2022; Tamba *et al.*, 2016; Văidean *et al.*, 2010; Vlădescu *et al.*, 2008), and one of the conclusions which emerged was that for reasons related to the country's economic possibilities or the management, a public health system with relatively modest performance is perpetuated. Some of the authors of this paper have had concerns in this regard (Bostan *et al.*, 2022a,b; Bostan, 2016; Bostan & Hurjui, 2015). The findings showed that the system always appears to be in a state of "continuous reform", and the achieved results remain rather weak, requiring the introduction of at least a modern management into the sector's entities (Burciu *et al.*, 2008).

The above-mentioned aspects are reflected in the underfunding of the system, the poor availability of modern equipment, the unmotivated and unstable staff (the massive emigration of healthcare workers, which occurred after 2007, is worth mentioning), resulting in the current precarious state of the population's health, with the lowest level among European Union's member states.

3. Research methodology

Tackling the present topic ("Strategic options in the field of public health against the background of limited financial resources") implies the investigation of a wide range of updated specialized works, highlighting several elements specific to the descriptive method.

To a certain extent, our documentation is based on the regulatory framework in force, applicable to the financing of action programs in the field of public health, in particular the Romanian Government Decision on the approval of the National Health Strategy 2022-2030 and the Action Plan for the 2022-2030 period, with a view to its implementation, with all its annexes, including the corresponding Explanatory memorandum.

Moreover, we refer to the reports of certain prestigious institutions, which contain relevant and valuable data in support of what is presented herein, in order to give full credibility to the aspects presented in our paper. In particular, we have in mind some reports of the Romanian Ministry of Finance and Ministry of Health, as well as documents concerning the development/implementation of policies/programs/strategies, all of them originating from the Government.

4. Findings

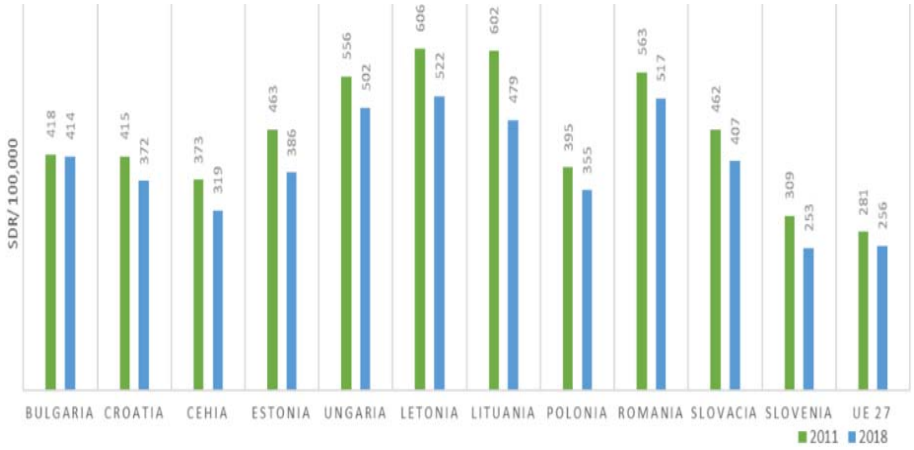
4.1. Some shortcomings of the Romanian public health sector and the health status of the population

In order to achieve a well-functioning public health sector that serves patients efficiently and results in preventive measures for the healthy population, the pillars of that system must be (CDR, 2018): the healthcare professionals/staff, who provide healthcare services, and the medical technology, which supports diagnosis and treatment.

What is certain is that in Romania, in this respect, the situation is far from acceptable, with implications for the health status of the population.

To a certain extent, we can become aware of this just by looking at the avoidable mortality situation, which is one of the highest among the (former socialist) EU Member States (Figure 2).

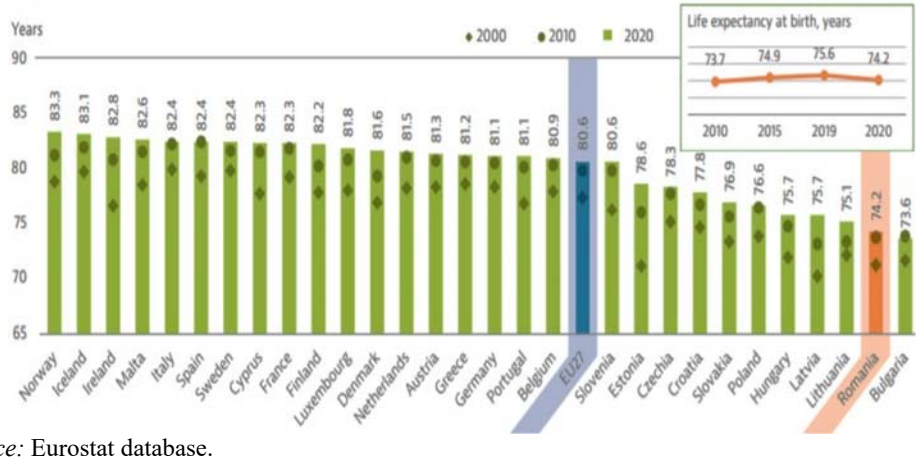
Figure no. 2. Avoidable mortality in some EU Member States, 2011 vs. 2018 (standardized mortality rate, deaths per 100,000 inhabitants)



Source: Eurostat database.

Furthermore, Romanians' life expectancy reached just over 74 years, the second lowest in the European Union, being six years below EU average, after decreasing (temporarily) by 1.4 years in 2020 due to the impact of the COVID-19 pandemic (Figure 3).

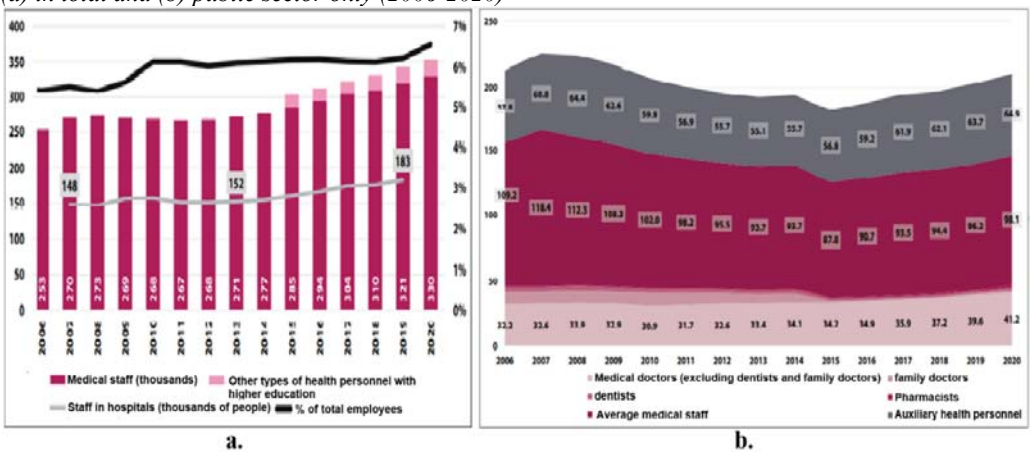
Figure no. 3. Ranking of EU Member States by life expectancy of citizens in the year 2020



Source: Eurostat database.

With the help of graphs (Figure 4.a and Figure 4.b), we are showing the evolution of healthcare staff in Romania, in total and then only in the public sector, over the last 15 years. Before the Covid-19 pandemic, 54,304 doctors were working in Romania, which meant an average of about 270 doctors/100,000 inhabitants, well below the EU average of 340 doctors/100, 000 inhabitants. As regards the number of nurses, in 2022 the number of nurses/100,000 inhabitants reached 890 (calculated on a resident population of 19,023 thousand on January 1, 2021), which is in line with the EU average. In the Multiannual Strategy for Human Resources Development in Health 2022-2030 (Government of Romania, 2022a), it is mentioned that in the year 2020, 359,673 professionals were working in the national health system, to which about 27,000 employees in the administration sector of public healthcare units were added.

Figure no. 4. The evolution of the healthcare workforce in Romania: (a) in total and (b) public sector only (2006-2020)

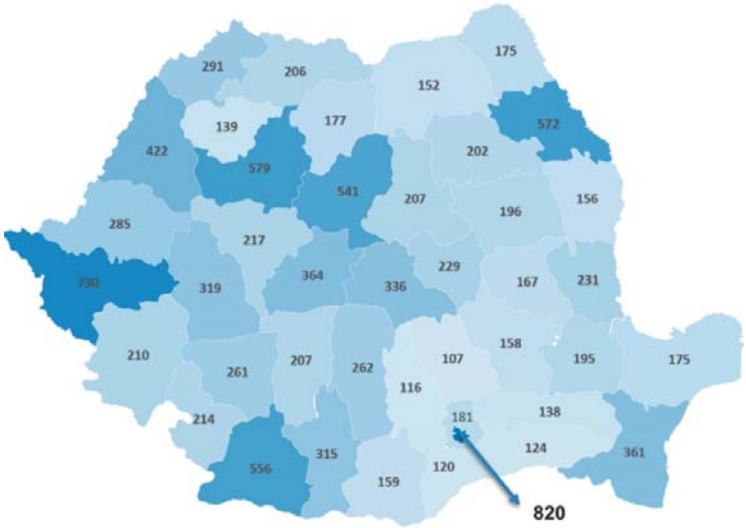


a. b.

Source: Authors' adaptation after (Guga, 2022).

Even though the number of medical staff seems satisfactory, the system is still facing certain difficulties, the same source noting that there are major disparities between localities in terms of the distribution of doctors, both between urban and rural environments and at county level (Figure 5), and also a reduced attractiveness of the vacancies in the territory for the medical staff (in 2020 the Ministry of Health reported 43,409 vacancies, representing approx. 20% of the existing positions).

Figure no. 5. Distribution of doctors at national level (no. of doctors/100,000 inhabitants)



Source: (Government of Romania, 2022b).

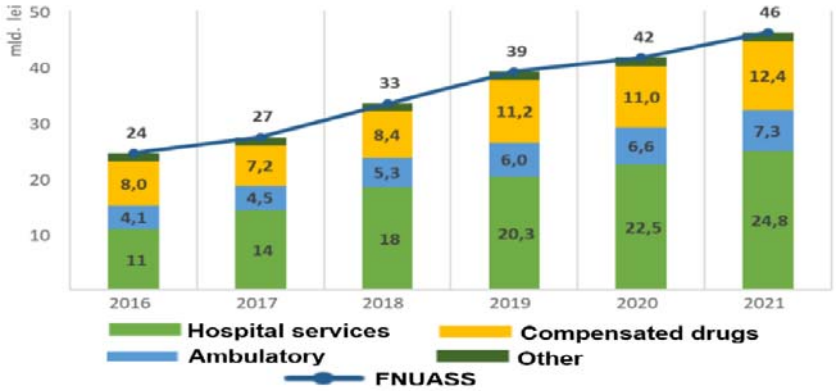
Moreover, if we are referring to the entities in which the activity was carried out within the health system, both public and private, based on relatively recent research (Anghelache *et al.*, 2020), it appears that these included over 63,000 healthcare establishments, of which 51,000 units in urban areas and 12,000 in rural areas.

Regarding the main categories of establishments in the health network, the same research shows that in 2019 it included 532 hospitals (compared to 524 in 2018) and 161 related establishments (for day hospitalization/outpatient services). Of the 694 hospitals and related establishments, there were only 344 large medical establishments - with more than 100 beds, and 268 are small-sized medical establishments - with less than 50 beds. In total, there were more than 12,000 independent specialized medical practices in 2019 (652 more than in the year 2018) and more than 15,000 thousand dental practices (339 more units than in 2018). Family medicine practices were approx. 11,000 (78 units less than in the year 2018), pharmaceutical units were approx. 9,900 (drugstores and pharmaceutical outlets), down by 49 units compared to the year 2018; nevertheless, the network of medical laboratories increased compared to the previous year, providing services through 4,300 medical laboratories, with 66 more units than in the year 2018.

As regards the infrastructure of the health system, it should be noted that, even if certain categories of establishments disappeared definitively (rural polyclinics), the number of establishments providing medical services has steadily increased over the last two decades, especially in the private sector. Therefore, in the year 2020, 148 hospital-related establishments were registered in this sector, with a small number of beds for *day hospitalization*, offering only day hospitalization services for a wide range of medical specialties (Andrei, 2021).

Looking also at the expenditure incurred from the National Health Insurance Fund (FNUASS), we notice that most of them are aimed at hospital treatment, leaving less than half for primary healthcare, specialist outpatient services, medicines, other medical services and technologies (Figure 6).

Figure no. 6. Structure of FNUASS expenditure, by categories of contracted services and products



Source: (Government of Romania, 2022a).

This shows that in the Romanian medical system, prevention (to which active monitoring through an integrated management plan of chronic diseases with high prevalence should be added) occupies a low position, whereas curative healthcare is massively favored. Totally abnormally, acute illness care and basic monitoring of chronic patients have become predominant here.

This explains why Romania is among the EU Member States with the highest avoidable mortality, as we have shown above, with high death rates both from causes which are preventable through public health interventions and from causes which are treatable via adequate quality healthcare.

However, it should be noted that the preventive aspect is linked to family medicine (first in the contact with the future patient), an area with many shortcomings in the case of Romania. It is worth recalling that access to primary healthcare services is unequal, mainly due to the uneven distribution of family medicine practices, with poor coverage in rural areas (Figure 7).

In summary, the problems faced by the Romanian public health system are a result of the following (Government of Romania, 2020):

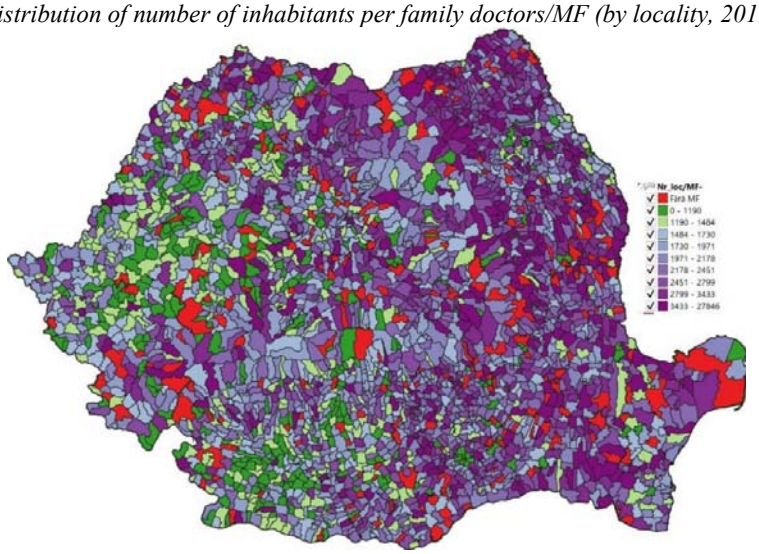
• delaying the reforms aimed at strengthening the capacity of primary healthcare and at developing community healthcare;

• the limited administrative capacity of the Ministry of Health and local public health authorities;

• poor investment programming and poorly integrated social, employment, health and education services.

As we have already pointed out, there are also issues with the outpatient healthcare system, which "is still under-utilized, while the transfer of hospital-based healthcare services to the outpatient healthcare system remains slow and fragmented" (Government of Romania, 2020).

Figure no. 7. Distribution of number of inhabitants per family doctors/MF (by locality, 2019)



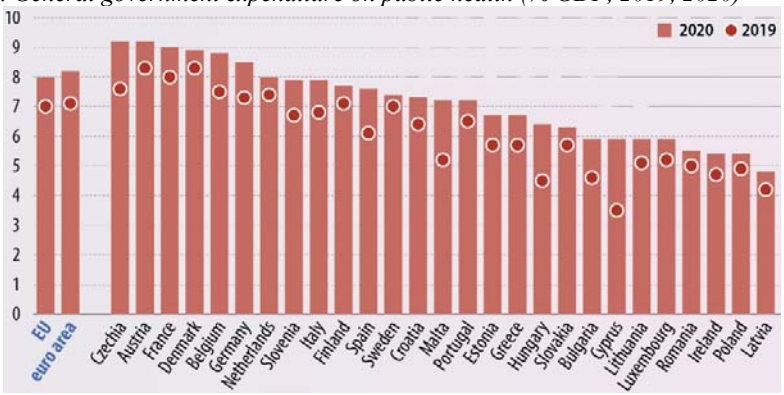
Source: (Government of Romania, 2022a).

4.2. Strategic guidelines concerning the development of the public health sector against the background of overlapping crises

Prior to the onset of the overlapping crises (financial, health, geostrategic, energy, supply flows, etc.), the Romanian main decision-makers were interested in improving the financing of the public health sector.

For example, in the 2007 – 2016 period, the financing of the health sector in Romania doubled in terms of budget allocations, from 1.76 billion lei in 2007 to 4.1 billion lei in 2016. As a percentage of the allocated budget, according to the state budget law of that year, it represented 4.5% of GDP in the year 2018, ranking last in the EU, with an average allocation around 8% of GDP (CDR, 2018). Even though in the next two years it reached around 6% of GDP, the budget allocation for health remained low, compared to most EU Member States (Figure 8).

Figure no. 8. General government expenditure on public health (% GDP, 2019, 2020)



Source: Eurostat database.

Obviously, the low level of funding of the health system affects its overall performance, as well as the quality of life of Romanian patients; however, against the background of the above-mentioned crises, very large allocations from the state budget are hardly possible. Nevertheless, it is not only this type of financial resources that should be taken into account in terms of the development of the respective system. Here, we are also considering EU budgetary sources, as well as loans from the International Bank for Reconstruction and Development (IBRD). The sums to be contracted are more than significant. For example: Health Operational Programme 2021-2027 - over €4bn: ERDF + FSE+ State Budget; expenditure eligibility: January 1, 2021 - December 31, 2029 (Government of Romania, 2022b). Or else NRRP / The National Recovery and Resilience Plan, €2.46bn; Objective: Strengthening the resilience of the health system in Romania by increasing the level of access, safety, quality and functionality of healthcare services and healthcare infrastructure (MIEP, 2021).

In this context, we recall the following (Government of Romania, 2022a):

• The National Recovery and Resilience Plan (NRRP), which will be implemented until 2026 with European funding (non-reimbursable and reimbursable), stipulates reforms and major investment interventions in the healthcare system;

• The Health Operational Programme 2021-2027 ensures that the system targeted here has outstanding access to high non-reimbursable funding and/or through other dedicated sources/grants;

• Alongside these, the Ministry of Health and the National Health Insurance House will continue to implement the programmes financed via IBRD loans, namely the "Health Sector Reform Project - Improving Health System Quality and Efficiency" and the "Results-Based Programme in Romania's Health Sector".

The National Health Strategy 2022 - 2030 includes several general objectives (OG.1-OG.11), divided into three Strategic Intervention Areas, as follows (Government of Romania, 2022a). In Strategic Area for Intervention 1 - *Public Health* (3): OG.1. Sustainability and resilience of the health system; OG.2. Reducing mortality and morbidity associated with communicable diseases with major individual and societal impact; OG.3. Healthy life years and increased quality of life.

In Strategic Area for Intervention 2 - *Health services* (1)/Shifting the focus of health services from hospital to specialist outpatient clinics and from specialist outpatient clinics to primary health care; OG.4. Improving availability, equitable and timely access to safe and cost-effective health services and medical technologies. In Strategic Area for Intervention 3 - *A sustainable and predictable health system* (7): OG.5. Governance of the health system; OG.6. Ensuring financial sustainability and resilience of the health system; OG.7. Ensuring adequate human resources, their retention and professionalization; OG.8. Increasing the objectivity, transparency and accountability of the health system; OG.9. Coordinating healthcare and integrating health services; OG.10. Adequately integrating of research and innovation so as to improve the health status; OG.11. Improving the quality of health services through investment in health infrastructure. This last general objective (OG.11), being important in relation to what we have mentioned before about the success of contracting financial resources, other than the national ones, includes a specific essential objective: *Increasing the administrative capacity for planning, financing, preparing and implementing investment in public health infrastructure.*

Certainly, equally important is the specific objective of *Increasing the access to and the quality of healthcare services through continued public and private investment in health infrastructure*. Its achievement is based on actions such as (Government of Romania, 2022a):

• Developing infrastructure in primary and outpatient healthcare, especially in areas with difficult access to health services (Measure: *Building/renovating and equipping 200 integrated community centers through partnerships between the Ministry of Health and the local government*);

• Further development of hospital infrastructure in line with the Regional Health Services Plans and Regional Health Services Master Plans (Measures: *Building and equipping three new regional emergency hospitals - Cluj-Napoca, Iași, Craiova; Rehabilitation, expansion and equipping of the remaining five regional hospitals; Building and equipping 25 new hospitals; Rehabilitation and equipping hospitals of major impact within the regional hospital service networks*).

The development of the public health services' infrastructure for the prevention, control, diagnosis and surveillance of communicable diseases has also not been omitted; it involves the rehabilitation and equipping of laboratories within the National Reference Laboratories System, by upgrading all of them.

5. Conclusions

The national public health system, which has been the focus of our research in this paper, is today, 15 years after Romania's accession to the European Union, relatively underperforming. In any case, it is below those found in most Member States, even in the former socialist ones.

Even though the system in question has been "continuously under reform" since the 1990s, with the introduction of individual taxation with withholding from the taxpayer/insured person's income, and the administration of the funds collected in this manner by the National Health Insurance House (initially, it was carried out through taxation at national level and allocation from the state budget through the Ministry of Health), in addition to certain reorganizations of the system - at various levels (primary, secondary and tertiary), the search for an optimal formula that guarantees a broadly acceptable streamlining is still underway. In any case, the situation seems to revolve around solving two categories of causes: one related to resource allocation (depending on the country's economic potential) and another related to the management.

In the case of Romania, both categories have persisted for a long time; however, in this period (after the year 2020) the situation has become even more complicated against the background of overlapping crises (financial, health, geostrategic, energy, supply flows, etc.). These aspects are reflected in the underfunding of the system, the poor availability of modern equipment, the unmotivated and unstable staff, resulting in the current precarious state of the population's health.

Our paper emphasizes the shortcomings of the above-mentioned sector and some of the key aspects of the population's health status, highlighting the issues related to the medical staff (we recall the massive emigration of healthcare workers which occurred after 2007), the related infrastructure, the management, etc. When discussing a series of strategic guidelines concerning the development of the public health sector against the background of the overlapping crises, we are referring to the need for the proper implementation of certain programs - in the medium and long term - which rely on other financial resources than those from the state budget. Thus, we are referring to EU budgetary sources, through the MFF 2021-2027 and the NRRP, as well as to loans from the International Bank for Reconstruction and Development (IBRD).

Regarding the *limits of this research*, we have shown that these are generated by the fact that the authors make little use of comparative approaches - in relation to other countries, in the EU or outside the EU, and that there is a certain degree of uncertainty, generated mainly by the context of the overlapping crises mentioned in the paper, in terms of the actual implementation of what follows from the strategic guidelines mentioned.

Finally, it is precisely within this framework of discussion and debate that we believe *our future study and research* should be integrated. We consider that this is all the more necessary as it will be interesting to see in time whether Romania will demonstrate the necessary administrative capacity to absorb to the highest possible degree the resources allocated to it through programming.

6. References

- Andrei, T. (coord.). 2021. *Tendințe sociale [Social Trends]*. Bucharest: National Institute of Statistics.
- Anghelache, C., Anghel, M.G., & Iacob, S.V. 2020. Studiu privind sistemul sanitar din România. Stadiul şi perspectiva evoluţiei sănătăţii sub efectul crizei pandemice [Study on the health system in Romania. Status and perspective of health evolution under the effect of the pandemic crisis]. *Revista Română de Statistică*, *Supl. Nr. 9*, pp. 115-126.
- Baniță, M. 2019. Prioritățile statului roman (...) [Priorities of the Romanian state (...)]. Profit.ro, 2 August, [online]. Available at: https://www.profit.ro/ [Accessed on November 2, 2022].
- Besciu, C.D. 2014. *The Romanian Healthcare System and Financing Strategies*. Procedia - Social and Behavioral Sciences, Vol. 149, pp. 107-113. https://doi.org/10.1016/j.sbspro.2014.08.169
- Bostan, P., Asaloș, N., & Bostan, I. 2022a. Funding Public Health Action Programs: Allocations, Budget Execution and Post-Audit Results at the Level of the First Pandemic Year. *"Ovidius" University Annals, Economic Sciences Series* 21(1), pp. 793-802.
- Bostan, P., Lazăr, C., & Bostan, I. 2022b. Perspectives on the Development of Public Health System's Infrastructure in the Context of NRRP's Implementation. *"Ovidius" University Annals, Economic Sciences Series* 21(1), pp. 22-31.

- Bostan, I. 2016. Investigating the Effectiveness of Programs on Health Financing Based on Audit Procedures. *Iranian Journal of Public Health*, 45(8), pp. 1074–1079.
- Burciu, A. (Coord.). 2008. *Introducere in management [Introduction to management]*. Bucharest: Economica Publishing House.
- CDR/Coaliţia pentru Dezvoltarea României [Coalition for the Development of Romania]. 2018. *Sistemul de sănătate din România [Health system in Romania],* [online]. Available at: https://coalitia.org/wp-content/uploads/2018/09/Sistemul-de-Sanatate-din-Romania_Provocari-si-Recomandari.pdf [Accessed on November 9, 2022].
- Ciumaş, C., & Văidean, V.L. 2007. *The Financing and the Efficiency of Resource Usage in the Social Health Insurance System*. The Proceedings of The International Conference Competitiveness and European Integration, Finance Section. Alma Mater Publishing, Cluj-Napoca.
- Drugus, D., Oprean, C., & Azoicai, D. 2015. Study on health professionals' perception of quality of healthcare provided to patients. *Rev. Med. Chir. Soc. Med. Nat.* 119(2), pp. 517-521.
- Government of Romania. 2022a. *Strategia multianuală pentru dezvoltarea resurselor umane din sănătate 2022-2030 [Multiannual strategy for human resources development in health 2022-2030],* [online]. Available at: https://rohealthreview.ro/wp-content/uploads/2022/07/Monitorul-Oficial-Partea-I-nr.-663.pdf [Accessed on November 19, 2022].
- Government of Romania. 2022b. *Planul Strategic Multianual pentru Dezvoltarea Resurselor Umane în Sănătate 2022-2030 [Multiannual Strategic Plan for the Development of Human Resources in Health 2022-2030* (…)], [online]. Available at: http://sgglegis.gov.ro/legislativ/docs/2022/06/ys82vn054jzbfq_wtcdx.pdf [Accessed on November 21, 2022].
- Government of Romania. 2020. *Sinteza Programului operaţional sănătate 2021-2027 [Summary of the Health Operational Programme 2021-2027],* [online]. Available at: https://mfe.gov.ro/wp-content/uploads/2020/07/5e0bdcbddccca4d66d74ba8c1cee1a68.pdf [Accessed on November 23, 2022].
- Guga, S. 2022. *Syndex. Muncă și justiție social [Labour and social justice]*. Bibliothek der Friedrich-Ebert-Stiftung, [online]. Available at: https://library.fes.de/pdf-files/bueros/bukarest/19530.pdf [Accessed on November 18, 2022].
- Hurjui, I., & Bostan, I. 2015. Reconfiguration of anti-TB (MDR and XDR) budgetary allocations, in the context of following "Berlin Declaration". *Rom J Leg Med* 23(4): 296-299. https://doi.org/10.4323/rjlm.2015.296
- MIEP/Ministry of Investments and European Projects. 2021. *Planul Naţional de Redresare şi Reziliență/PNRR [National Recovery and Resilience Plan/NRRP],* [online]. Available at: https://mfe.gov.ro/wp-content/uploads/2021/06/0c2887df42dd06420c54c1b4304c5edf.pdf [Accessed on November 23, 2022].
- Ministry of Health. 2022. *Reforma Sistemului de Sanatate. Politici de Sanatate Publica [Health System Reform. Public Health Policies],* [online]. Available at: http://romtens.ro/ro/activitate/reforma-sistemului-de-sanatate-politici-de-sanatate-publica [Accessed on November 23, 2022].
- Santini, A., Man, A., & Voidăzan, S. 2021. The accuracy of diagnostic tests. *Journal of Critical Care Medicine* 7(3): 241-248. https://doi.org/10.2478/jccm-2021-0022
- Scîntee, S.G., Mosca, I., & Vlădescu, C. 2022. *Can people afford to pay for health care? New evidence on financial protection in Romania*. World Health Organization. Regional Office for Europe [online]. Available at: https://www.who.int/europe/publications/i/item/9789289057905 [Accessed on November 27, 2022].
- Tamba, B.I., Azoicăi, D., & Druguș, D. 2016. Health care economics in Romania – dynamics and evolution. *Rev. Med. Chir. Soc. Med. Nat.* 120(1), 163–172.
- Văidean, V.L., Maşca, S., & Cumpănaşu, E. 2010. Studiu privind metodele clasice de finanţare a serviciilor de sănătate [Study on classical methods of financing health services]. *Revista de Studii şi Cercetări Economice Virgil Madgearu, Anul III, Nr. 1,* Cluj-Napoca.
- Vlădescu, C., Scîntee, G., Olsavszky, V., Allin, S., & Mladovsky, P. 2008. Romania: Health system review. *Health Systems in Transition* 10(3): 1-172.