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**Preliminary Research on the Auditing of Material
and Financial Resources in the Healthcare System –
The Case of Romania**

Claudia BOGHICEVICI¹

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Abstract

The hereby paper introduces the reader to the intricacies of the healthcare system by resorting to a rigorous audit of the organizational resources that the healthcare system has access to, namely the financial resources, the human resources and last but not least the material resources. By resorting to a complex mixed methodology, the paper sheds light on the healthcare system in Romania. a) This is a panoramic analysis of the entire health system, thus differing from a simple audit mission of an institution in this field. b) Alignment with the UN and the EU policies in the healthcare system is paramount in order for Romania to rank better in terms of medical services rendered to its population, and as such the focus of policies should be on ensuring organizational, human, material, and financial resources. c) The research methodology used to investigate the phenomenon in question is based on audit procedures established in the specialized practice, which is extrapolated from scientific research and adapted to the audit field. By employing the previously mentioned methodology, the present paper seeks to answer the main research question, which is: How does the increase in the health budget influence the quality of medical services provided in Romania? d) The main findings indicate that the Ministry of Health is unable to satisfy the different requests for financing and, concerning material expenses, in 2020 they have decreased significantly. e) One of the main contributions of the paper resides in deep practical character and can be used by professionals from all fields for activities such as substantiating public policies, government evaluations, and further research projects.

Keywords: health, healthcare, healthcare system, organizational resources, Romania.

JEL Classification: H75, I10, I15, I18.

¹ University of Craiova, Craiova, Romania, c.com77@yahoo.com.

1. Introduction

Over the past decades, the complexity of the healthcare systems has increased progressively, as well as the challenges that it has to respond to and the shortcomings that it faces. The Sustainable Development Goals (UN, 2020) mention, among the seventeen goals, reaching good health and wellbeing which translates into reducing mortality from all sorts of causes, strengthening prevention and treatment, and achieving universal healthcare coverage (UN, 2019), which is an underlying principle according to which the citizen of the countries should be able to have undeniable healthcare access without facing financial adversity or distress. Countries trying to attain these objectives should create the premises for enhancing financing, strengthening policy (Calder, 2021), and, implicitly, improving service towards population (Adebisi et al., 2020).

In the light of the presented context, the paper aims to answer the main research question: *How does the increase in the health budget influence the quality of medical services provided in Romania?* To achieve this, the paper will meet the following specific objectives:

1. evaluation of the legislative, institutional, and organizational framework in the Romanian health system;
2. evaluati the impact of investments and endowments in the Romanian health system;
3. evaluating the efficiency of financial allocations at the level of the Romanian health system;
4. elaboration of recommendations on each research axis.

The paper is based on the results of a performance audit report in the field of human resources in the health sector, as well as on a documentation on the hospital infrastructure in Romania. Starting from the existing specialized literature, as well as through the contribution of its own research, the thesis will cover four fundamental axes of audit for the diagnosis of the entire healthcare system in Romania: Axis 1 – organizational resources audit, Axis 2 – human resources audit, Axis 3 – material resources audit, Axis 4 – financial resources audit, however, the main focus will stay on Axis 3 and Axis 4.

2. Problem Statement

Since Romania joined the European Union, it had to shift from a rather centralized healthcare system and heavily underfunded and underperforming (to certain extents, characteristic for a formerly communist country) to a more patient-oriented system that brought major improvements in the life quality of its citizens (Pop et al., 2020). Although Romania is trying to align with the EU levels, it is still one of the countries with the lowest share of health expenditure to GDP, attracting one of the lowest levels of expenditure per inhabitant (Romania insider, 2017).

As portrayed by Pop et al. (2020), in order to ensure better quality of the lives of our people, more attention should be paid to two fundamental issues: the brain-drain of medical professionals (Suciu et al., 2017) – which is a stringent problem because

the state pays for the education of the future medical professionals, however, they leave taking jobs in other countries and causing the state not only to incur no return on its investment, but also the actual loss of population, on the one hand, and on the other hand the necessary infrastructure in order to render high quality medical services to the population as stated by the Romanian Constitution. The healthcare system in Romania is organized on three levels: primary (general practitioners), secondary (also referred to as outbound – specialized ambulatory services), and tertiary (provided in hospitals). The universal condition for ensuring the proper implementation of public health policies is the existence of a functional system of active, competent, and responsible authorities, which have the power to effectively distribute the available budget (Smith, 2018).

The Romanian health system is provided by health units, respectively, hospitals, national health institutes, public health departments, county ambulance services, county health centers, which are subordinated to the Ministry of Health, local public administration authorities, Ministry of Transport, The Romanian Academy, the Ministry of National Defense, the Ministry of Internal Affairs, the Ministry of Justice, the Romanian Intelligence Service and other units.

In Romania, the health system remained largely centralized, to the detriment of the efforts of the authorities regarding the decentralization of hospital units, a first step being the adoption of the Government Decision G.D. No. 303/2011 for the approval of the National Strategy for the rationalization of hospitals. The Ministry of Health aimed to increase efficiency in providing medical services, maintaining their accessibility and quality, reducing costs in hospital units, which will allow a redistribution of resources to other segments of health care (primary medicine, outpatient care, day care, home care, etc.), which can ensure the treatment of a larger number of patients, with lower costs than those of hospitals.

These are the premises conducive to the elaboration of the current paper.

3. Research Methods

The methodology proposed for the purpose of this research is based on audit procedures established in the specialized practice, which is extrapolated from scientific research and adapted to the audit field. The procedures will be used to achieve the specific objectives and to pursue the four avenues of research. These are: a) audit procedures used to obtain audit evidence, namely: direct observation, examination of documents and questionnaires, and b) analytical audit procedures, quantitative and qualitative, used for the analysis of audit evidence, which explains the findings and establishes the cause-effect link. This category includes: comparative analysis (Benchmarking), cost-benefit analysis, cost-effectiveness analysis.

a) Audit procedures used to obtain audit evidence

The observation represents the pursuit in order to obtain audit evidence of the various activities carried out within the healthcare system, processes, or internal procedures performed by the persons within the audited entities;

The document analysis is a form of qualitative research, and it consists of the analysis of the information contained in the documents of the entities related to the audit objectives in order to disclose meaning.

The interview of people with responsibilities in the field is one way of collecting information during an audit and is essential for helping the auditors understand the entity beyond the documented processes and reveals duties which are not comprised in procedures or instruction.

b) Analytical audit procedures, quantitative and qualitative

The comparative analysis is an audit procedure used to analyze audit evidence consisting mainly in examining trends, identifying ways to improve performance, and increasing economy in ensuring human resources (health personnel) in the national public health system.

The cost-benefit analysis is an audit procedure used for the analysis of audit evidence, which is performed by studying the relationships between the costs of providing human resources (health personnel) in the national public health system and the benefits derived from this action.

The cost-effectiveness analysis is an audit procedure used for the analysis of audit evidence and is performed on the relationships between the costs of providing human resources (health personnel) in the national public health system and the results expressed in costs per unit of obtained result.

4. Findings

In the previously presented context, normative acts were approved regarding the transfer of health care management subordinated to the Ministry of Health to local public administration authorities, as well as the list of public health units with beds for which health care management is done by local public administration authorities and Bucharest City Hall (Government Decision G.D. No. 529/2010).

Additionally, most of the health units are subordinated to the local public administration authorities, some are subordinated to the Ministry of Health, and some health units are subordinated to other ministries and public institutions, which shows that both the subordination and financing of the health system are mixed.

According to the provisions of Law no. 95/2006 on health care reform, as well as by G.D. no. 529/2010, the financing of the Romanian health system is ensured from several sources, as follows:

- from the state budget and from own revenues (excises) through the Ministry of Health;
- from the budget of the Single National Health Insurance Fund;
- from the local budgets that participate in the financing of some administration and functioning expenses, respectively, goods and services, investments, capital repairs, consolidation, extension and modernization, endowments with medical equipment of the public sanitary units of county or local interest;

- from the ministries and institutions of the system of defense, public order, national security, and judicial authority, through its own budget, which participates in the financing of some expenses for the administration and functioning of the sanitary units from their structure;
- other sources (non-reimbursable funds, donations, sponsorships, etc.).

An essential aspect of the health system in the vision of the Ministry of Health is the reversal of the pyramid of medical services, namely increasing the efficiency of medical services, accessibility in disadvantaged areas, and the ability to respond to beneficiaries of medical services.

In order to perform the audit of material resources, the existence of the following premises in the research activity will be considered, as they are highlighted in the financial statements of the Ministry of Health.

Table 1. Statements of investment expenditures at the level of the Ministry of Health, during 2016-2020

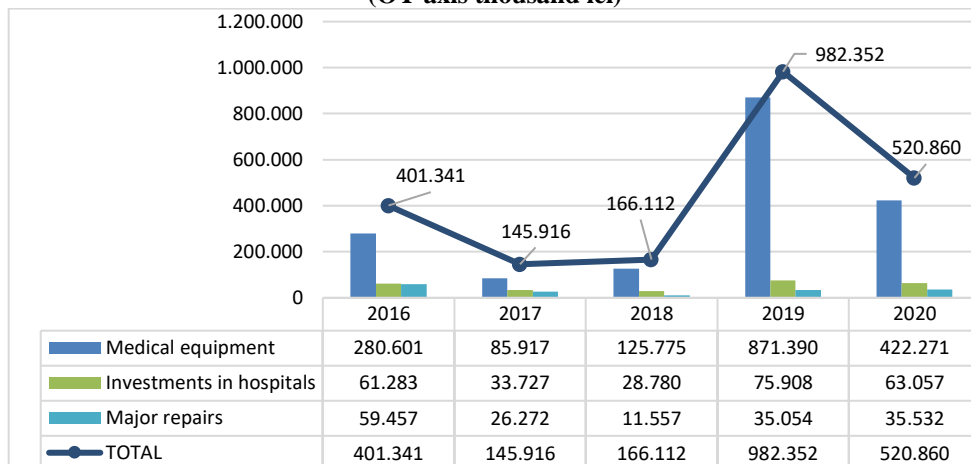
Year	2016		2017		2018		2019		2020	
	Requested	Financed	Requested	Financed	Requested	Financed	Requested	Financed	Requested	Financed
TOTAL Allocated funds, of which:	2.512.484	419.986	1.912.593	159.925	1.965.787	180.255	2.798.814	991.807	2.765.173	559.933
TOTAL CAPITAL TRANSFERS	2.380.749	401.341	1.870.003	145.916	1.930.290	166.112	2.729.498	982.352	2.682.041	520.860
TOTAL CAPITAL EXPENSES	131.735	18.645	42.590	14.009	35.497	14.143	69.316	9.455	83.132	39.073

Source: Ministry of Health Financial Statements, 2021.

As depicted in Table 1, capital expenditures registered a downward evolution in the period 2016-2018. Also, expenditures on goods and services had an upward trend in the period 2016-2018, followed by a significant decrease in the period 2019-2020. In terms of investments, the Ministry of Health received requests for investment funds in the amount of 11,954.851 thousand lei and allocated funds through capital transfers and capital expenditures (from the state budget and excise duties) in the total amount of 2,311,906 thousand lei, respectively 19%.

After the audit, the detailed situation of the types of investments financed from the budget of the Ministry of Health in the period 2016-2020 is presented in Figure 1.

Figure 1. The structure of capital transfers carried out between 2016-2020 (OY axis thousand lei)

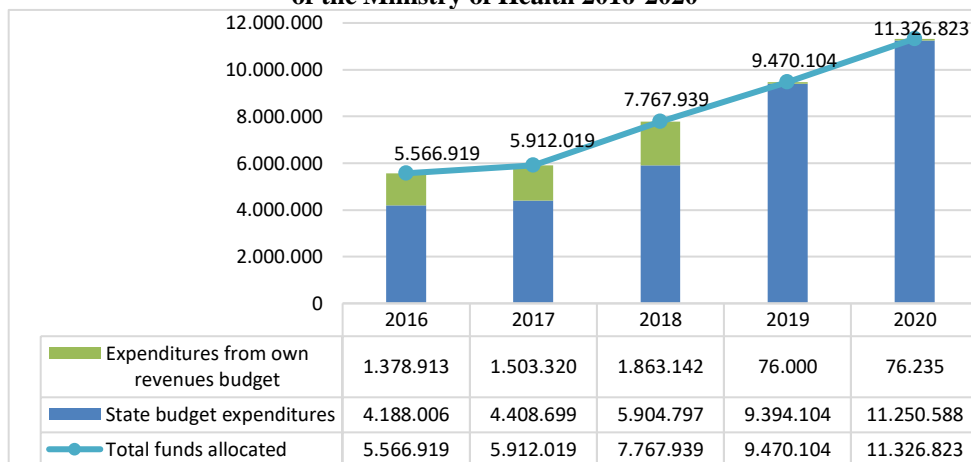


Source: Ministry of Health Financial Statements, 2021.

Investments in hospitals are rather fluctuating and investments in hospitals as depicted in Figure 1 undergo a downward trend, as well as the investment in medical equipment. This dire situation resulting from Table 1 and Figure 1 is a consequence of the lack of legal allocation procedures. Such procedures should be in place in order to consider also past requests of each hospital/unit and they should be evaluated in terms of scores for receiving the funding they need.

When it comes to the financial audit at the level of the Romanian healthcare system, after a careful analysis, we concluded that, between 2016 and 2020, the funds allocated to health have incurred an increase.

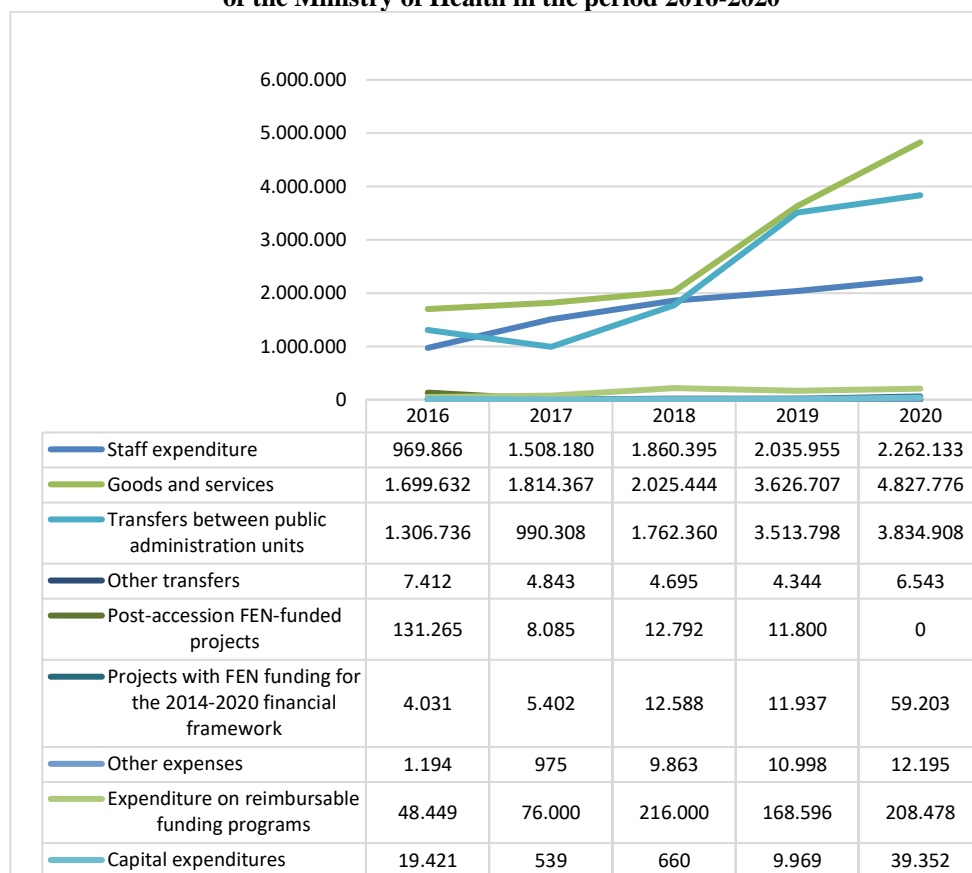
Figure 2. Structure of expenditures (OY axis - lei) of the Ministry of Health 2016-2020



Source: Ministry of Health Financial Statements, 2021.

With respect to the revenues collected, the highest share is represented by revenues coming from excise (94.59% in 2016, 94.46% in 2017 and 90.78% in 2018). Own expenditures registered an increasing trend in the period 2016-2018, followed by a significant decrease in the period 2019-2020, respectively, by over 90%, because the Ministry of Health no longer collected excise revenues, due to legislative changes.

Figure 3. Detailed situation of expenditure (OY axis - lei) categories at the level of the Ministry of Health in the period 2016-2020



Source: Ministry of Health Financial Statements, 2021.

The main conclusion we gather from the analysis of Figure 3 is that Personnel expenditure has generally been on an upward trend; Expenditures on goods and services had an upward trend in the period 2016-2018, followed by a significant decrease in the period 2019-2020; the expenses with the transfers between units of the public administration registered a downward evolution in the period 2016-2018, later (in the period 2019-2020) this type of expense has disappeared, and lastly, capital expenditures generally displayed a downward trend.

5. Conclusions

The Romanian healthcare system is characterized by a lack of integration between different sectors, so the Ministry of Health initiated legislative proposals as a result of which the G.E.D. no. 18/2017 on community health care. This legislative amendment aims to introduce community healthcare that contributes to improving the health of the population by ensuring equitable access to health services for all people in each community, regardless of socio-economic status (Vlădescu et al., 2016), level of education, its location in rural or urban environment or remote from the provider of medical services.

Currently, most health services are provided directly in the hospital, this segment being oversized, and the services provided in the community are provided much below the need (e.g., maternal and child health insurance services, home care services for dependent patients, and monitoring services for patients with various diseases). An anticipated evolution is foreseen by providing outpatient services, so that they have a much greater weight in the provision of specialized medical services and to contribute to the effective reduction of avoidable hospitalizations.

Regarding the financing of investment projects related to the infrastructure of the public health system, the conclusion was that it is not based on objective prioritization criteria, as it is necessary to adopt a normative framework to establish a uniform methodology for providing the necessary financial resources to the network of hospitals at the national level. The proposals focused on establishing unique criteria for granting investment financing.

The originality of the research comes from it being a panoramic analysis of the entire health system, thus differing from a simple audit mission of an institution in this field; moreover, the study is based on a diverse and complete range of data available for research; the research results can have a deep practical character and can be used by professionals from all fields for activities such as substantiating public policies, government evaluations, further research projects. Future lines of research should focus on organizational and human resources.

References

- [1] Pop, T.L., Burlea, M., Falup-Pecurariu, O., Borzan, C., Gabor-Harosa, F., Herdea, V., ... Căinap, S.S. (2020). Overview of the pediatric healthcare system in Romania. *Turkish Archives of Pediatrics/Türk Pediatri Arşivi*, 55(Suppl 1), p. 69.
- [2] Romania insider (2017). <https://www.romania-insider.com/romania-healthcare-lowest-per-capita-spending-eu>.
- [3] Suci, Ş.M., Popescu, C.A., Ciumageanu, M.D., Buzoianu, A.D. (2017). Physician migration at its roots: a study on the emigration preferences and plans among medical students in Romania. *Human resources for health*, 15(1), pp. 1-9.
- [4] Ministry of Health, Financial Statements, available online <https://www.ms.ro/bilanturi-contabile/>.

- [5] Adebisi, Y.A., Umah, J.O., Olaoye, O.C., Alaran, A.J., Sina-Odunsi, A.B., Lucero-Prisno III, D.E. (2020). Assessment of health budgetary allocation and expenditure toward achieving universal health coverage in Nigeria. *International Journal of Health and Life Sciences*, 6(2).
- [6] UN (2020). The Global Goals, available online <https://www.globalgoals.org/>.
- [7] World Health Organization. Universal health coverage (UHC). Geneva: World Health Organization; 2019 Oct 26. Available from: [https://www.who.int/en/news-room/fact-sheets/detail/universal-health-coverage-\(uhc\)](https://www.who.int/en/news-room/fact-sheets/detail/universal-health-coverage-(uhc)).
- [8] Smith, P.C. (2018). *Advancing Universal Health Coverage*.
- [9] Calder, K.E. (2021). *Crisis and compensation: Public policy and political stability in Japan*. Princeton University Press.
- [10] Vlădescu, C., Scîntee, S.G., Olsavszky, V., Hernández-Quevedo, C., Sagan, A. (2016). Romania: health system review. *Health systems in transition*, 18(4).