

IMPLEMENTATION OF THE HOSPITAL INFRASTRUCTURE INVESTMENT PROGRAM IN ROMANIA — RULES, DIMENSIONS, AND EXPECTED EFFECTS**Oana MIRON***Valahia University, Str. Aleea Sinaia, No. 13, 30004 Targoviste, Romania*
nicoricioana@yahoo.com**Abstract**

Fundamental health services, which the state is required to provide through its network of hospitals, must be delivered at high standards of quality and safety for all citizens. However, certain areas currently lack these services altogether, negatively impacting the population's health. Therefore, it is important to adopt an integrated national strategy to secure funding, through public administration, for priority projects aimed at improving essential public health services. Recently, decision-makers in Romania have established an institutional framework supporting this approach in the form of the National Investment Program for Hospital Infrastructure (NIPIHU). This paper analyzes this program, which is critically needed in the context of implementing the National Recovery and Resilience Plan (NRRP) - Component 12 – Health. Proper implementation of this program could lead to improvements in national health indicators and reduce disparities relative to the European Union average.

Keywords: Hospital infrastructure; investments; national program; repayable/non-repayable funding; monitoring/oversight of implementation

JEL Classification: H51; I18

I. INTRODUCTION

Hospital infrastructure in Romania is relatively outdated, with equipment and buildings that no longer meet modern standards. This can lead to unsafe conditions for patients, affecting the quality of medical care and treatment outcomes (Bechir, 2019; Drugus et al., 2015). Moreover, the COVID-19 pandemic has highlighted the vulnerabilities of Romania's hospital infrastructure (Cozma et al., 2024; Bostan et al., 2022a). An investment program can significantly enhance crisis response capabilities and strengthen the healthcare system to address future challenges. The reasons for initiating a National Program for Investment in Hospital Infrastructure (NIPIHU) are related to a range of objectives: increasing access to quality medical services, reducing medical staff migration, adapting to new standards and medical technologies, etc. As we know, access to quality medical services is limited in some regions of the country.

By modernizing hospital infrastructure, it is possible to develop centers of medical excellence and ensure better access to complex and specialized treatments, thus reducing regional inequalities and providing equal health opportunities for all citizens. Additionally, one of the causes of medical staff migration from Romania is the lack of adequate working conditions. Old hospitals and poor facilities drive many doctors and nurses to seek better working conditions abroad. Investments in infrastructure can create a more attractive work environment, contributing to the retention of qualified medical personnel. From another perspective, "As a member of the United Nations (UN) and the European Union (EU), Romania is committed to supporting the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda, adopted through the UN General Assembly Resolution at the UN Sustainable Development Summit in September 2015. In the context of sustainable development, investments in hospital infrastructure significantly contribute to Goal 3 – Good Health and Well-being, and Goal 10 – Reduced Inequalities, by improving access to quality healthcare services, which are essential for a functional society and for ensuring equal access to resources for all citizens." (RP, 2024a). On the other hand, modern medicine is evolving rapidly, and new technologies and treatment methods require specific facilities and equipment. The current infrastructure in many Romanian hospitals is not prepared to integrate these technologies. Therefore, implementing an investment program is necessary to adapt to new medical requirements and international standards.

This is why we believe that adopting and implementing a hospital infrastructure investment program in Romania is important for ensuring high-quality medical care, increasing access to medical services, retaining medical staff, and adapting to new technologies. These investments not only have a direct impact on public health but also provide positive economic and social benefits in the long term. Furthermore, Romanian decision-makers have recently established an institutional framework aimed at a comprehensive, strategic national approach to

securing state funding through public administration for priority projects that improve basic public health services. This paper provides an analysis of this essential tool within the context of implementing the National Recovery and Resilience Plan - Component 12 - Health (Bostan et al., 2022b; Barbuta, 2021).

In this regard, our paper is structured as follows (Figure 1).

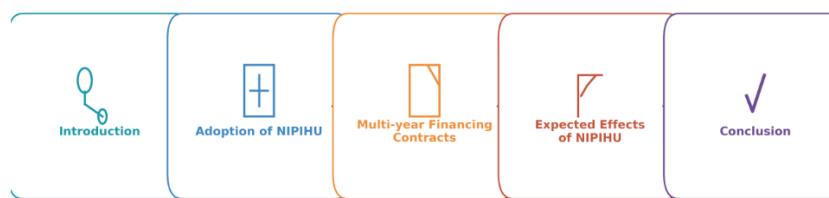


Figure 1. Research design.

Source: Prepared by the author

This study applies a qualitative, descriptive-analytical methodology to examine the legislative, institutional, and financial framework of the National Investment Program for Hospital Infrastructure (NIPIHU). The analysis is based on official documents, including primary and secondary legislation, government decisions, implementation guidelines, and policy papers related to the National Recovery and Resilience Plan (NRRP), Component 12 – Health.

The research follows three core methodological steps: (i) Documentary review of national and European regulations and programmatic documents, enabling the identification of NIPIHU's objectives, beneficiaries, and funding mechanisms; (ii) Comparative institutional and financial analysis, assessing how NIPIHU's multiannual financing contracts, beneficiary obligations, and monitoring procedures align with or differ from other national investment schemes in the health sector; (iii) Qualitative assessment of expected effects, drawing on official data regarding approved investments to evaluate the program's potential to improve hospital infrastructure, reduce regional disparities, and strengthen the healthcare system's resilience.

This methodology supports a focused, structured interpretation of NIPIHU's implementation logic and anticipated outcomes, without engaging in quantitative or econometric modelling.

II. ADOPTION OF NIPIHU (NATIONAL PROGRAM FOR INVESTMENT IN HOSPITAL INFRASTRUCTURE)

To ensure that the entire population has access to essential medical services, improve quality of life, and meet European standards, Romania has launched the NIPIHU. This program, in alignment with the National Health Strategy 2022-2030 and other strategic documents, supports the state's efforts to efficiently use national funds to achieve European objectives regarding access to quality medical services. The implementation of NIPIHU complements other national programs, such as the National Program for Public or Social Interest Constructions managed by the National Investment Company (CNI), the National Investment Program for the Consolidation of "Mihail Cantacuzino" Hospitals, and the National Program for Expert Assessment of Public Buildings at Seismic Risk in the fields of health and education (RP, 2024).

Once completed, the investments included in this program will contribute to adapting hospital infrastructure to modern technological requirements and creating functional and efficient workflows in hospitals, while also ensuring a more equitable distribution of healthcare infrastructure across different locations and counties. The Ministry of Investments and European Projects (MIEP) is responsible for the planning, coordination, monitoring, and verification of these investments, and the beneficiaries are diverse (Figure 2).

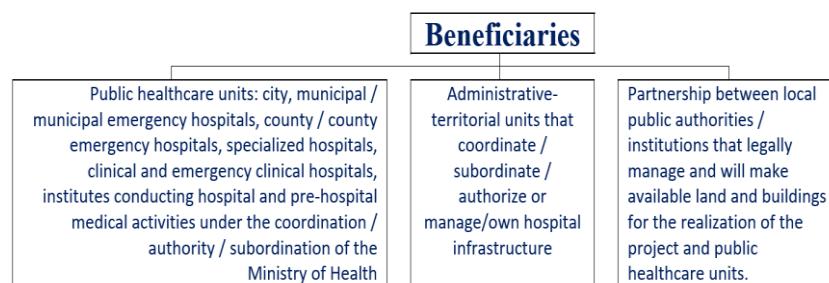


Figure 2. Beneficiaries of the NIPIHU. Source: Prepared by the author based on (RP, 2024ab)

Note: The objectives must be located on the land associated with the investments; the constructions planned to be carried out through the projects within the program must be in the public ownership of the state or the administrative-territorial units and/or under the management of the beneficiary.

Of course, there is also another category of beneficiaries, namely the indirect ones, who are the residents of the areas where the investments in hospital infrastructure will take place, based on the identified needs. These projects, funded by the state budget through the Ministry of Investments and European Projects (MIEP) from a separate budget line for transfers, local budgets, or other legal sources (the total value of the program managed by MIEP for the period 2024-2031 is 13.25 billion RON), aim to expand (including connecting to existing buildings), construct new buildings, modernize, rehabilitate, and equip the public infrastructure of urban, municipal, and county hospitals, emergency hospitals, specialized hospitals, and institutes providing hospital and pre-hospital medical services, among others.

The maximum eligible value for each funded project is detailed in Table 1.

Table 1. The maximum limits under which multiannual financing contracts can be concluded (RP, 2024ab)

Maximum value (Thousands of Lei)	Beneficiary entities
2,000,000	County hospitals / county emergency hospitals, specialized hospitals
350,500	Municipal/Municipal Emergency Hospitals
250,000	City hospitals

For financing projects aimed at public healthcare facilities, which have been approved for support through the National Recovery and Resilience Plan (NRRP) by the Ministry of Health in its role as the coordinator of reforms and investments for Component 12, but for which the financial allocation has been reduced (EU, 2021), a total amount of 3.25 billion lei has been established (RP, 2024a). For these types of investments, various chapters and subchapters of expenses can be financed from the state budget (Table 2).

Table 2. Chapters/subchapters of expenses that can be financed from the state budget

Code	Category / Description
CHAPTER 1	Expenses for obtaining and developing the land
1.2	Landscaping
1.3	Arrangements for environmental protection and restoration
1.4	Utility relocation/protection expenses
CHAPTER 2	Expenses for the provision of utilities necessary for the investment objective
CHAPTER 3	Costs for design and technical assistance
3.1	Studies
3.1.1	Field studies
3.1.2	Environmental impact report
3.1.3	Other specific studies
3.2	Documentation for approvals, agreements and authorizations
3.3	Technical expertise
3.4	Energy performance certification, energy audit, road safety audit
3.5	Projection
3.5.1	Design theme
3.5.2	Pre-feasibility study
3.5.3	Feasibility study / approval documentation
3.5.4	Technical documentation for approvals
3.5.5	Technical quality check
3.5.6	Technical design and execution details
3.6	Organization of procurement procedures
3.7	Consultant
3.7.1	Project management
3.8	Technical assistance
3.8.1	Technical support from designer
3.8.1.2	Designer participation in control phases
3.8.2	Site management
3.8.3	Safety and health coordinator
CHAPTER 4	Expenses for the basic investment
4.1	Construction and installations
4.2	Installation of machinery and technological equipment
4.3	Equipment requiring assembly
4.4	Equipment not requiring assembly; transport equipment
4.5	Fixtures
4.6	Intangible assets
CHAPTER 5	Other expenses
5.1	Site organization

Code	Category / Description
5.1.1	Construction works related to site organization
5.1.2	Expenses related to site organization
5.2	Fees for consents and authorizations
5.3	Miscellaneous and unforeseen expenses
5.4	Information and advertising expenses
CHAPTER 7	Budget margin and implementation reserve
7.1	25% budget margin
7.2	Implementation reserve for price adjustment

Source: RG, 2016

For each type of investment eligible under NIPIHU, the Ministry of Investments and European Projects (MIEP) will issue project calls. The general eligibility and selection criteria, as well as the processes for evaluation, selection, contracting, technical monitoring, and financial management throughout the implementation period, will be detailed in the financing guide, approved by an order of MIEP (RG, 2024a).

III. MULTIANNUAL FINANCING CONTRACTS – PARTNERS, OBLIGATIONS, CONSEQUENCES

Following the publication of the guide, the stages for submitting funding applications, evaluation, and selection are carried out, after which the contracts are signed (RP, 2024a). Under the program, multiannual financing contracts are concluded between MIEP and the beneficiaries for a maximum period of 5 years, depending on the annual allocation of commitment credits for this purpose, without requiring annual breakdowns of the budget credits, which are accumulated for the entire funding period. During the validity of the contracts, the value of commitment credits will be equivalent to that of the budget credits; depending on the annual budget allocations, contracts may be extended by up to 2 years but not later than December 31, 2031.

MIEP transfers amounts to beneficiaries based on transfer requests accompanied by supporting documents, within the limits of the approved annual budget and in the order of receipt of the requests. Beneficiaries are responsible for organizing and managing procurement procedures for goods, services, or works in accordance with applicable legislation and contractual obligations, ensuring that state budget funds are used as intended. Beneficiaries are required to provide MIEP with all necessary documents for the monitoring and financing of public hospital infrastructure projects and to guarantee the accuracy, legality, and correctness of the data presented. At MIEP's request, inspectors from the State Inspectorate for Construction conduct on-site checks to verify the correspondence between the actual situation and the submitted documents.

Other provisions related to compliance verification include the following (RG, 2024a):

- MIEP performs ex post checks to ensure that public procurement legislation has been adhered to and that expenditures made by beneficiaries or partners are in line with the procurement plan established in the project;
- Beneficiaries, leaders, and partners are required to submit award documents and signed contracts within 10 days of completing the procurement procedures;
- Projects are technically monitored by MIEP through the analysis of quarterly progress reports and supporting documents, which are submitted electronically to track the project's status and indicator achievements;
- Beneficiaries must input data into the information system regarding the progress of indicator achievements, expenditures incurred, and related procurement documents.

If funds are used improperly, MIEP notifies beneficiaries of the violations and requests the return of the amounts within 30 days. If the amounts are not returned, decisions are issued for the recovery of improperly or non-contractually paid sums. We note that investment projects funded through NIPIHU, under component 12 - Health, include 27 medical units and public hospitals (Table 3) that will be built, renovated, or equipped with partial funding from Romania's Recovery and Resilience Mechanism.

Table 3. Investment objectives funded under NIPIHU, related to Target 377, Component 12 - Health of the NRRP (RG, 2023a)

No.	Investment objective	Name Beneficiary
1	Construction of a Cardiovascular Surgical Center at the Emergency Institute for Cardiovascular Diseases and Transplantation Târgu Mureş	Emergency Institute for Cardiovascular Diseases and Transplantation Târgu Mureş
2	Construction of New Wards at Hospital No. 2 Vaslui	Vaslui County
3	Bistriţa County Emergency Hospital - Expansion of the Hospital Pavilion by Constructing a New Building	Bistriţa-Năsăud County
4	Completion of Design and Construction for the Municipal Pavilion Bacău and Integration into the Medical Complex of the Bacău County Emergency Hospital	Bacău County

5	Giurgiu County Emergency Hospital - New Hospital Phase I (Oncology and Neurology Wards)	Giurgiu County
6	Alba Iulia County Emergency Hospital - Relocation and Modernization of the Oncology Department and Establishment of an Interventional Cardiology Unit	Alba Iulia County Emergency Hospital
7	Brașov Clinical Hospital for Infectious Diseases and Pulmonology - A New Building (Updated Name: Construction of the Brașov Clinical Hospital for Pulmonology and Infectious Diseases)	Brașov Municipality
8	Construction of a New Wing - Mother and Child Health Department - Constanța County Clinical Emergency Hospital "St. Apostle Andrew"	Constanța County
9	Construction of a New Facility for the Piatra-Neamț County Emergency Hospital, Neamț County, with Innovative Functions and Technologies for Climate Protection and Digitalization	Neamț County
10	Construction and Equipping of a Building for Infectious Diseases and Pulmonology Wards	Oradea Municipality
11	Construction of a Hospital and Related Facilities for the Municipal Hospital "Dr. Teodor Andrei" Lugoj	Lugoj Municipality
12	Timișoara Regional Oncology Institute	Timiș County Public Health Directorate
13	New Construction: Emergency Institute for Cardiovascular Diseases "Prof. Dr. C.C. Iliescu" Bucharest	Emergency Institute for Cardiovascular Diseases "Prof. Dr. C.C. Iliescu"
14	Clinical Emergency Hospital "Prof. Dr. Agrippa Ionescu" Balotești - Modernization of Infrastructure	U.M. 0929
15	Extension of Wings A1, A4 of the Bucharest University Emergency Hospital with a Height Regime of STH + GF + 3F/ STH + GF + 6F, Exterior Parking Arrangements	Bucharest University Emergency Hospital
16	Repartitioning of the Existing Building and Extension with a New Wing - Clinical Neurosurgery Department - Cerebrovascular Pathology and Neurosurgery Center at the Cluj County Clinical Emergency Hospital	Cluj County Clinical Emergency Hospital
17	Construction of a New Pavilion - Polytrauma Surgical Block at Barracks 1044 Sibiu	Ministry of National Defense
18	Investment and Intervention Works in Barracks 705 Pitești	Ministry of National Defense
19	Construction of Obstetrics and Gynecology, Neonatology, Pediatric Surgery, and Pediatrics Wards, Arad - New Units According to #377	Arad County
20	Construction, Equipping, and Arrangement of the Buftea Obstetrics and Gynecology Hospital and Demolition of Existing Buildings (C1-C15), Relocation of the Oxygen Station, and Water Supply Facility	Ilfov County
21	New Facility for the Emergency Hospital of the Ministry of Internal Affairs "Prof. Dr. Dimitrie Gerota"	Emergency Hospital of the Ministry of Internal Affairs "Prof. Dr. Dimitrie Gerota"
22	Operational Medicine-Polytrauma Pavilion in Barracks 1053 Craiova	Ministry of National Defense
23	Municipal Polyclinic, Cardiology and Oncology Specialization, Constanța - New Hospital	Constanța Municipality
24	Radiotherapy Laboratory - Pitești County Emergency Hospital	Argeș County
25	Construction of a New Operational Medicine-Polytrauma Pavilion D = GF + 4F, Access Road, and Networks in Barracks 646 Brașov	Ministry of National Defense
26	Zerlendi Tuberculosis Diagnostic and Treatment Center, Bucharest - New Hospital	"Marius Nasta" Institute of Pneumology
27	Construction of a Pediatric Psychiatry Center within the "Prof. Dr. Alexandru Obregia" Clinical Psychiatry Hospital	Bucharest Administration of Hospitals and Medical Services

Investments focus on developing new public hospital infrastructure, either to provide additional medical services or to enhance the quality of existing ones. Additionally, investments may be directed towards acquiring medical equipment and apparatus for new or renovated healthcare facilities (RG, 2023b). According to the cited source, the total budget allocated through NRRP for the 27 investment projects is 10,822,127,393.23 RON excluding VAT, which is equivalent to 2,187,127,865.89 EUR, calculated at the Inforeuro exchange rate for October 2022 (1 EUR = 4.9481 RON), according to Instruction no. 2 rev.1 issued by MIEP.

IV. ANTICIPATED EFFECTS OF ADOPTING NIPIHU

As a member of the European Union and other international organizations, Romania must adhere to the health quality standards set by these bodies. Investments in public hospital infrastructure are important to meet these obligations and to avoid sanctions or loss of external funding. In addition to improving the healthcare system, these investments have the potential to stimulate the economy by creating jobs in construction and medical

equipment sectors, and to increase Romania's appeal as a destination for medical tourism. A modern and efficient medical system can attract patients from other countries, thereby contributing to the country's economic revenue.

From a social perspective, investments in healthcare infrastructure will enhance the quality of medical services by providing rapid access to high-quality preventive and curative care. This will reduce health inequalities through early diagnosis and successful treatment of severe conditions, thereby decreasing the number of individuals with unmet medical needs. Special attention will also be given to ensuring that new facilities are accessible to people with disabilities. In the long term, these investments will improve the efficiency and quality of hospital care, contributing to the formation of an integrated hospital network with well-defined roles at each level of complexity. This will enhance access to medical services for the regional population, including vulnerable groups, and reduce preventable mortality, thereby improving overall quality of life. Moreover, NIPIHU positively impacts education and ongoing development by providing the infrastructure necessary for a healthy and well-educated population, supporting sustainable societal development. It will also strengthen administrative capacity at both central and local levels for preparing and implementing large investment projects.

Finally, NIPIHU plays an important role in upholding fundamental human rights by ensuring the right to health as guaranteed by the Constitution of Romania (RP, 2003). The program aims to develop a modern and well-equipped medical infrastructure that provides adequate coverage for the entire population, ensuring equal and prompt access to high-quality medical services regardless of gender, age, social background, or disability.

V. CONCLUSION

Funding for Hospital Infrastructure Projects in Romania is essential for ensuring high-quality medical services, reducing regional disparities, stimulating the economy, and aligning with international standards. These investments are important for safeguarding public health and building a resilient and sustainable healthcare system.

A modern and well-equipped hospital infrastructure enables the provision of high-quality medical services. Hospitals equipped with state-of-the-art technology and modern facilities are better able to diagnose and treat patients efficiently, thereby improving the quality of care and patient recovery rates. Furthermore, investments in hospital infrastructure help to mitigate regional disparities, considering that Romania has significant gaps between developed and less developed regions in terms of access to quality medical services. Funding hospitals in disadvantaged areas helps reduce these disparities, ensuring equitable access to medical care for all citizens, regardless of where they live. Additionally, investments in hospital infrastructure stimulate the economy by creating jobs in construction and related industries. A well-developed healthcare system can attract investors and support medical tourism, contributing to economic growth.

In our opinion investments in hospital infrastructure can reduce long-term costs by improving the efficiency of hospital operations and decreasing the need for frequent repairs. Modern hospitals are also more energy-efficient and have lower maintenance costs.

VI. ACRONYMS OF SOME EXPRESSIONS USED IN THE WORK:

EU – European Union

MH – Ministry of Health

MIEP – Ministry of Investments and European Projects

NIPIHU - The National Investment Program in Hospital Infrastructure

NRRP – National Recovery and Resilience Plan

RG – Romanian Government

RP – Romanian Parliament

UN – United Nations

SDG - Sustainable Development Goals

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