Evaluation Study

Impact assessment of ROP 2007-2013 interventions

POR 2007-2013

KAI 3.1 Rehabilitation/ modernization/ equipping of health services infrastructure

July 2019

CIVITTA Strategy & Consulting / Archidata / NTSN CONECT / Structural Consulting Group

Lot 2 -

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ABREVIETIONS

CA	Contracting Authority
IDA	Intercommunity Development Angency
RDA	Regional Development Agency
NRF	Non-reimbursable Funds
MA	Management Authority
PA	Priority Axis
SB	State Budget
ROP BE	Regional Operational Programme Evaluation Bureau
CCE	Coordination Committee of Evaluation
RDC	Regional Development Council
ToR	Terms of Reference
EC	European Commission
CC	County Council
MC	Monitoring Committee
NSRF	National Strategic Reference Framework
	Public Health
IFD	Implementation Framework Document
KAI	Kea Area of Intervention
EVALSED	Online source that offers guidance regarding evaluation of socio-economic development, with focus on EU cohesion policy
EQ	Evaluation Question
NIS	National Institute of Statistics
ERDF	European Regional Development Fund
ESIF	European Structural and Investment Funds
MEF	Ministry of European Funds
MRDPA	Ministry of Regional Development and Public Administration
MH	Ministry of Health
NGO	Non-Governmental Organization
TO	Technical Offer
MEP	Multiannual Evaluation Plan
ROP	Regional Operational Programme
ER	Evaluation Report
IR	Inception Report
SR	Synthesis Report
SMIS	Unique System of Project Management
CEH	County Emergency Hospital

CH	Change Theory
TAU	Territorial Administrative Unit
EU	European Union

Development regions

NE	North East
SE	South East
SM	South Muntenia
SW	South West
W	West
NW	North West
C	Center
BI	Bucharest Ilfov

1. EXECUTIVE SUMMARY

In 2007-2013 period, the Key Area of Intervention (KAI) 3.1 under the Regional Operational Program (ROP) targeted investments for the rehabilitation, modernization and equipping of the county hospitals, along with the development of specialized ambulatories. The specific objective of KAI 3.1 was to contribute to enhancing the quality of the healthcare infrastructure and balancing its territorial-regional distribution across the country, in order to ensure equal access to health services. At the same time, one of the expected effects was that interventions funded under KAI 3.1 would help support outpatient care, with a positive impact on hospital costs and access to specialized assistance services.

The objective of the present evaluation is to highlight and detail the impact of the interventions financed through KAI 3.1 under ROP 2007-2013, and the contribution of ERDF regarding the improvement of the quality of the healthcare infrastructure and their balanced territorial distribution. In this regard, answers were provided regarding the following two evaluation questions:

1. What was the net effect of the intervention and which were the factors that influenced the results?
2. Which interventions have produced results, for whom, and under what conditions?

The net effect of the intervention and the factors which determined it were defined in relation with the following four dimensions:

- Citizens' access to health services, namely the extent and conditions under which KAI 3.1 contributed to ensure equal access for citizens to health services;
- The territorial-regional breakdown of the interventions supported under the KAI 3.1, namely the extent to which the projects were distributed in a balanced manner across the country;
- The quality of healthcare services, namely the extent and conditions under which interventions funded through the KAI 3.1 have contributed to increasing the quality of healthcare services;
- The sustainability of the interventions, and the extent to which the investments maintained their effects in time and under what conditions.

The impact of the investments financed under ROP KAI 3.1 cannot be appraised without taking into consideration the socio-economic context in which these investments have taken place and also the needs, challenges and priorities of the national health system.

Like other EU countries, Romania is also facing an aging population, an upsurge in the number of patients suffering from chronic diseases and budgetary constraints in the health system. This contributes to increased inequalities in terms of access to health services but also in respect to population health status, with the most affected categories living in the most disadvantaged areas, affected by poverty or social exclusion. The healthcare system faces multiple challenges and the quality of healthcare infrastructure is low. In this context, in order to determine the types of interventions which produced results and the conditions under which they were carried out, the next analytical areas have been taken into consideration:

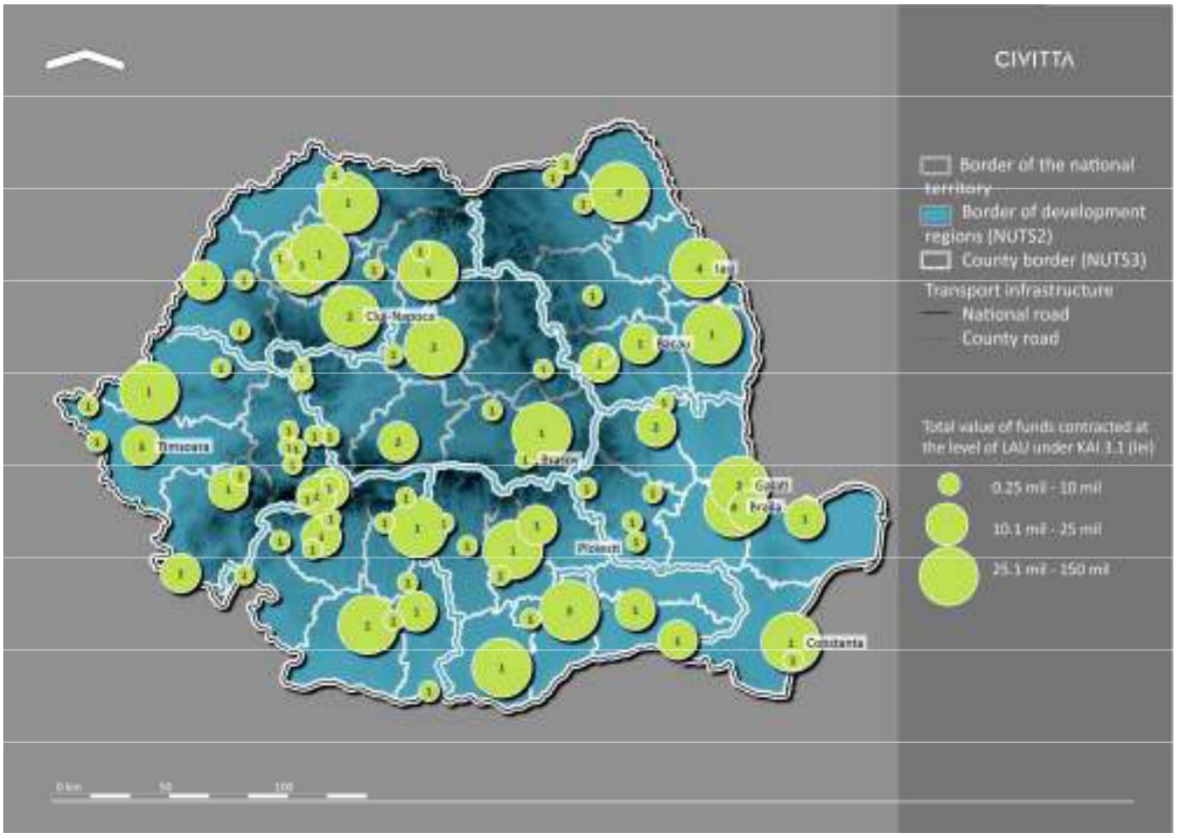
- *The general and local context in which interventions were designed and carried out;*
- *The financial dimension of the Interventions supported by the KAI 3.1;*
- *Types of interventions supported by the KAI 3.1;*

- *Stakeholders and their potential influence on the design and implementation at program and project level.*

In the framework of calls for the KAI 3.1, 133 requests for funding were submitted, with a requested EC contribution of EUR 292.9 million, thus exceeding the initial allocation (requested funds amounted to 153% of the allocation). 101 projects were contracted[1], with a total EC contribution of EUR 249.60 million. The total contracted amount was € 353.12 million.

Following the implementation of the projects, a total of 98 medical units were supported, exceeding the target by about 58% (62) at program level. Also, the target at program level was vastly exceeded in respect to the number of people benefiting from rehabilitated / upgraded / equipped health infrastructure, reaching more than 2 million people / day, compared to the initial target of 30,000 / day.

DIAGRAM 1 - TERRITORIAL DISTRIBUTION OF PROJECTS FINANCED BY KAI 3.1



Evaluation findings

Corroborating the analysis results with the opinions collected through the qualitative research instruments, the following finding can be drawn:

1. The number of supported infrastructures, out of which hospitals/ ambulatories is significantly higher than originally estimated by ROP programming;

[1] Source of data: www.inforegio.ro site, data on contracted projects (according to RFI, the number of contracted projects was 101, with a total value of EUR 323 million)

2. At the regional level, the distribution of projects is relatively balanced, with some of the features mentioned above. On the territorial / county level, the number of projects depended on both the capacity of the beneficiaries and the degree of urbanization;
3. The number of persons benefiting from health infrastructure, of which women/ men is significantly higher than originally estimated through ROP programming;
4. The services provided within the beneficiary medical units have diversified and improved;
5. The accessibility of the infrastructure has increased, from the perspective of the availability of medical services and medical staff;
6. The accessibility of medical units has increased also for locomotor disabled people, through the constructions performed;
7. The waiting time for the health service in the beneficiary units has decreased, especially as regards the diagnosis duration, especially within the small units;
8. The level of satisfaction among the users has increased in the beneficiary units;
9. The working conditions of the staff have improved significantly, in some cases the intervention being directly responsible for attracting and/or maintaining medical staff in the unit. However, it should be noted that experiences differ from one medical unit to another and, according to stakeholders' views, other aspects such as management, the work environment or existing opportunities, influence more strongly the physicians' decision to leave the unit;
10. The development of staff competencies only occurred in some cases, and a systemic effect at the level of intervention could not be documented;
11. From a strategic perspective, the investments supported by the ROP KAI 3.1 subscribed to the general public policy objectives in the field of health;
12. The size of the funding provided through the KAI 3.1 is likely to produce effects at national level, as it covers almost a quarter of public health units;

13. Regarding the conditions that influenced the results, the following aspects proved to be the most relevant after the consultations:

    - although, following the investments, the results have been positive in all cases, the distance from large urban centers was an influential factor for the impact of the interventions in small cities;
    - effective collaboration between local public authorities and medical units has proven to be particulary important to ensure adequate coverage of project needs;
    - the progress of the procurement procedures was the main obstacle in the implementation and the cause of the delays;
    - the administrative burden associated with the submission of financing applications and the reports during the implementation of the contractual modifications was high, but the overall effective collaboration with the ROP intermediate bodies has made it easier for beneficiaries to evercome this obstacle.

Conclusions and recommendations

In relation with the objectives of the ROP KAI 3.1, taking into account the findings of the analysis and the responses to the evaluation questions, the following conclusions and recommendations can be drawn:

Evaluation question 1. Which was the net effect of the intervention and which were the factors that influenced the results?

The net effect of ROP KAI 3.1 is a positive one, reflected both in the aggregate actual results at the level of the projects as well as on the whole, at the level of the health

system or of the local communities. The intervention responded, even if only partially, to a major need for the system and in many cases supported public medical units from small cities to demonstrate that they could be performing.

The effects of the intervention are sustainable, as the positive results were maintained both during and after the project's sustainability period.

The most important factor which influenced the intervention is the dimension – in financial terms - of the funding provided by the KAI 3.1, being the first of this magnitude, after the communist period. However, the challenges of the health infrastructure in Romania remain numerous and complex, and funding needs remain high.

Another factor which positively influenced the achievement of results is the intervention design, based on mixed investments in rehabilitation, modernization and endowment with equipment. Thus the projects responded both to functional, operational and comfort needs for the patients and healthcare professionals, thus contributing to the satisfaction of

healthcare users and even attracting staff in the context of a labour market in crisis at the sector level.

The management of the medical unit, the involvement of the local authorities and the collaboration between the two entities are a factor favouring the achievement of positive results.

R1. The intervention model applied under KAI 3.1, i.e. combined investments in rehabilitation, upgrading and endowment with equipment, especially for small urban areas units, could be a model for intervention in preparation for the strategic and operational framework for the implementation of structural instruments for the post-2020 period.

R2. Successfully highlighted examples could be considered as best practices and popularized in order to be replicated and expanded through future funding.

R3. The contribution of ROP KAI 3.1 should be analysed from the perspective of contributing to the achievement of the objectives of the national strategies in the field and could be a reference point for defining future interventions.

R4. Taking into consideration the needs of the system, it is recommended to allocate substantial funds in the future for the rehabilitation, modernization and extension of the health infrastructure in line with the strategic reform directions of the provision of medical services.

R5.Taking into consideration the significant change of context between the start of the ROP KAI 3.1 interventions and the following potential interventions, an analysis is recommended at the level of all public health units, which might also take into account the evolution of the private sector. Following this analysis, a number of medical units. Categories of medical units could be prioritized for funding. The results of the analysis and the criteria for prioritization should be public, in contrast to the situation from 2007-2013, when the list of hospitals elaborated by the Ministry of Health was drafted in a non-transparent manner.

R6. In order to ensure alignment between future interventions and public policy in the field, the involvement of the Ministry of Health in the design of the intervention, the definition of indicators and targets and the selection criteria for projects in essential.

Evaluation question 2. What interventions have produced results, for whom and under what conditions

Most funded projects combined rehabilitation investment, upgrading and equipment provision. The evaluation revealed that this type of interventions, which responds to more needs, is the one that generates significant and sustainable results.

The positive effects are manifested for all supported units, but obviously they are more notable as their funding are higher. Two types of projects have been highlighted by the stakeholders as "successful": (1) those supported in small urban areas, remote from large urban center and (2) those supported in county or municipal hospitals with a high degree of degradation.

The positive effects produced by the interventions of KAI 3.1 are highlighted first of all for the patients, by increasing the accessibility, diversity and quality of the medical services, as well as for the medical staff, by improving the working conditions. Also, in small towns, the entire community gains, by increasing the quality of life.

Favourable conditions for obtaining and maintaining positive results are mainly related to:

- Geographic location; if the medical unit is located in proximity of a large urban center, the results may be worse than over a longer distance.
- Linking interventions with other investments, from other sources.

Positive results have been obtained despite the following unfavourable conditions, related to:

- Delays caused by the difficulties encountered during the procurements procedures.

- Administrative burden related to accessing and implementing projects.
- Staff shortages, generated mainly by the migration of medical staff abroad.

Certain types of medical units have remained uncovered (ineligible) by funding, for both 2007-2013 and 2014-2020 periods.

R7. It is recommended to consider the financing of hospitals subordinated to line ministries (Ministry of Transport, Ministry of Administration and Interior, Ministry of Health).

Lessons learned

Monitoring KAI 3.1 intervention was poorly built, based on indicators that proved to be impossible to collect.

R8. It is recommended that MS be involved in defining the intervention monitoring framework, aligning the indicators with those frequently used by medical units, limiting their number to those considered absolutely necessary and relevant.

R9. It is recommended to use IT solutions to collect and report indicators, including their collection directly by the IB/MA from administrative sources (DRG), in line with international best practice in the field.

The administrative burden on implementation has remained an obstacle for beneficiaries.

R10. It is recommended to use IT solutions for monitoring, reduce the number of administrative documents requested in printed format, eliminate copies, and simplify the implementation process.

The most significant challenges of this evaluation was the limited understanding or misunderstanding of the role of evaluation in identifying the evidence needed to make decisions in the public policy cycle. The evaluation team has constantly tried to communicate with all the actors involved and to explain the importance and to explain the importance, purpose of the evaluation, and how each stakeholder can benefit from an evaluation exercise, in order to base his decision on solid information from the evaluation, or in order to better understand how effective was the way money was spent, what has the effect and what not, which are the interventions that have results and impact.

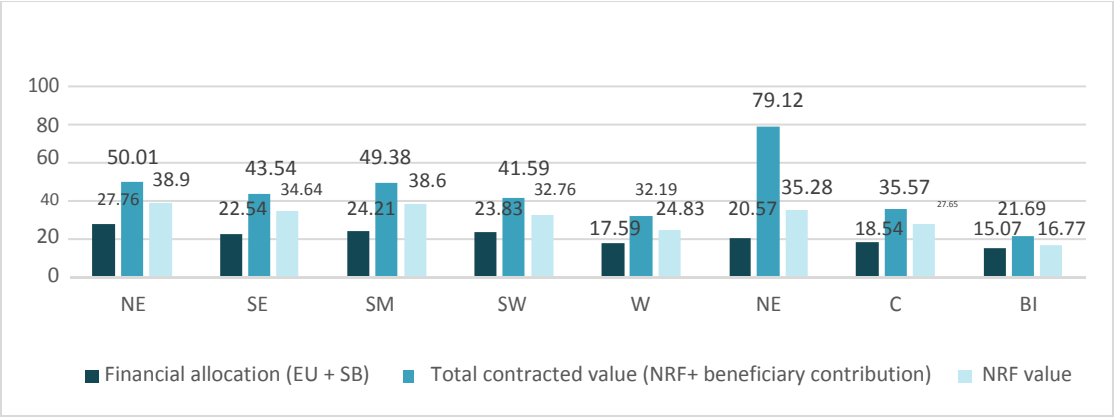
R11. We consider that a collective effort is needed to create and develop the evaluation culture at central/ regional/ local level.

R12. Taking into account the data accessibility and quality, as well as the willingness of the main stakeholders to get involved in the evaluation process, we believe that a realistic duration for an impact assessment should be 8 months.

2. EXISTING SITUATION

In 2007-2013 period, the Key Area of Intervention (KAI) 3.1 under the Regional Operational Programme (ROP) targeted investments for the rehabilitation, modernization and equipping of the county hospitals, along with the development of specialized ambulatories. In the framework of calls for the KAI 3.1, 133 funding applications were submitted, with a total value of EUR 425.6 million, of which the requested Community contribution was EUR 292.9 million, thus exceeding the initial allocation (the degree of submission being 153%)[2]. 101 projects were contracted[3], with a total value of the non-reimbursable funding (NRF) of EUR 249.60 million. The total contracted amount was € 353.12 million[4] (Figure 1).

FIGURE 1. REGIONAL DISTRIBUTION OF FUNDS KAI 3.1 (MIL. EUR)



Source: Administrative data MA ROP, own processing

Overall, the average value of implemented projects was approximately EUR 3.5 million (total EU funds, SB and employer's contribution), with the highest average value recorded in the Bucharest-Ilfov region (two projects with an average value of EUR 10.8 million), and the lowest average value in the West region (EUR 1.8 million), however, this region ranked first in terms of the number of projects implemented (18). At the reference date of the analysis all contracted projects were completed.

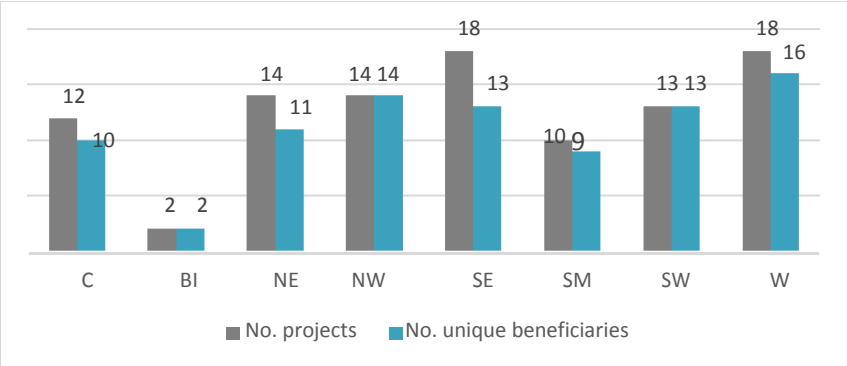
The 101 projects were implemented in 98 medical units and had a total number of 88 unique beneficiaries, including 31 county councils, 22 municipalities and 33 towns and 2 communes. Their regional distribution is presented in Figure 2.

[2] According to the Final Implementation Report ROP 2007-2013

[3] Source of data: MRDPA – MA ROP – information processed from the financing contracts analyzed by the evaluation team

[4] The EUR amounts were calculated from RON, at the exchange rate of EUR 4.54, which was the rate at the end of 2016

FIGURE 2 REGIONAL DISTRIBUTION OF PROJECTS AND BENEFICIARIES OF KAI 3.1



Source: Administrative data MA ROP, own processing

3. STAGES OF THE STUDY

3.1. DESCRIPTION OF THE METHODOLOGY

The methodological approach of the evaluation is based on the change theory at the level of the intervention and case studies, combining several analysis tools. Thus, the different types of effects could be observed, as well as the isolation of the impact of the intervention supported by KAI 3.1, by separating the influence of the contextual factors and the effects of other interventions.

Along with this, the evaluation considered the identification of the success factors, the interventions that proved more effective, as well as the conditions that favour the achievement of the results. These were the basis for formulating conclusions and recommendations for defining future interventions and for improving implementation.

To determine the effects of the intervention, the evaluation requirements were aimed at analysing seven indicators (Table 1), on several levels of analysis (territorial, regional, type of infrastructure and target group categories). In order to compensate for the lack of data (e.g. regarding user satisfaction or development of staff skills) or inconsistencies (for example regarding the number of persons benefiting from the sanitary infrastructure) between the data collected by the monitoring of projects, each of these indicators has been defined in the initial stage of the project, at the same time establishing the method of data collection and the method of interpretation.

TABLE 1 INDICATORS ANALYSED IN THE EVALUATION

Analysis indicator/level	Territorial (rural / urban)	Regional	Type of infrastructure	Target group categories
The number of supported infrastructures, out of which hospitals/ ambulatories		X	X	
The number of persons benefiting from health infrastructure, of which women/ men	X	X	X	X
Provided services			X	
Accessibility of infrastructures	X	X	X	X
Waiting time for the health service			X	
User satisfaction level	X	X	X	X
Staff skills development		X	X	X

Several data collection methods and techniques were used in the evaluation process, which will be described below.

1. **Documentary research**

The information extracted was used both in the preparation of other tools (e.g. interviews, surveys or case studies) and in the formulation of findings. The following types of resources were consulted:

Documents

- Final and sustainability reports of the implemented projects
- Funding applications and funding contracts for the implemented projects
- Annual reports and Final Report for the Implementation of the ROP
- MS Reports
- Medical units reports
- Specialty literature (studies, analyses etc.) – see Appendix 1

Databases

- MA ROP database on implemented projects (SMIS or alternatively)
- Other relevant databases and statistical data sources (NIS - Tempo Online, Eurostat)

Web sites

- Websites of local authorities
- Websites of medical units
- Websites of MEF (www.fonduri-ue.ro), MH (www.ms.ro) and ROP (www.inforegio.ro)
- Other relevant databases (DRG[5]) and statistical data sources (NIS– Tempo Online[6] , Eurostat[7] etc.)

2. Semi-structured interviews

By the semi-structured interviews, the information obtained through other methods has been deepened, clarified and validated, regarding:

- Understanding of general, contextual issues
- Detailing and explaining aspects related to the net effects estimated and produced as a result of the implementation of the projects
- Investigating the factors and conditions that influenced the obtaining of the net effects and benefits of the intervention

All interviews were conducted face-to-face, and for this purpose, 8 travels were made in all 8 development regions and at central level. Most of the interviews conducted were individual interviews, but some of them were group interviews (by transforming some focus groups into group interviews). The average duration of an interview was one hour, and discussions were recorded by minutes, the report of which is presented in Annex 8 of this report, together with the interview guides used for each target group category.

3. Opinion survey

Four opinion surveys were conducted during the evaluation, as follows:

- *At the level of the beneficiaries of ROP KAI 3.1*
- *At the level of the medical units that benefited directly from the intervention*
- *At the level of non-beneficiaries*
- *At the level of patients, beneficiaries of the services within the medical units that benefited from support through KAI 3.1*

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[5] The Diagnosis Related Groups (DRG) system is a scheme for the classification of patients according to diagnosis. Through the DRG system, patients can be classified simultaneously both by pathology and by the cost of care, which ensures the possibility of associating the types of patients with the hospital expenses incurred. The DRG system was developed to evaluate the hospital's results, but it was taken over and adapted to be used for hospital funding, and on the www.drg.ro website there are various indicators of hospital performance

[6] http://statistici.insse.ro:8077/tempo-online

[7] https://ec.europa.eu/eurostat/statistics-explained/index.php/Health_statistics_at_regional_level#Healthcare

Given the relatively small number of projects implemented under KAI 3.1, the first two surveys mentioned above targeted the persons with the management positions in the local public authorities / project managers, and managers of the medical units that received funding, from all 101 projects. The questionnaire was applied online[8], and the questions included were closed to facilitate the collection and interpretation of the results.

The survey of the non-beneficiaries targeted the local public authorities that submitted projects within the KAI 3.1 calls but did not access funding, in total 23 administrative-territorial units. The method of applying the questionnaire was similar to the one described above.

The opinion survey among patients aimed at identifying the effects of the investments supported by KAI 3.1, the following issues being monitored:

Diversity of medical services provided
Number of medical services provided
Quality of the services provided
Availability of equipment
Waiting time
General appearance
Cleanliness
Accessibility for persons with disabilities

The size of the patient sample was determined by applying Cochran's classical formula[9] , resulting in a volume of **270 patients.** The statistical population consisted of the patients who received services from the medical-sanitary units rehabilitated during the period of the survey. The total population volume was estimated based on the most recent data[10] by aggregating the number of patients by funded units and by regions from the first quarter of 2019, the value being about 320.000 patients. Data collection was done during a single month, which is why we considered the total population as the estimated number of patients who have benefited from the facilities in the units funding during the course of a month.

The selection of patients was made through a non-random procedure, depending on the type of medical units that were funded through the ROP. The selection of the medical units where the data will be collected was done for convenience, so as to ensure that the following conditions are met:

a. Coverage by hospitals / ambulatories
b. Coverage by large urban / small urban
c. Coverage by investment value: medical unit that benefited from investments under RON 4.1 million and over RON 4.1 million

Thus, considering the volume of the determined sample, it was considered satisfactory to question patients from 8 medical units which meet the above criteria. For criteria a) and b)

[8] Through the SurveyMonkey platform www.surveymonkey.com/

[9] We consider that the population is large and the correction for finite populations can be omitted. For calculation details, see V. et al. - Economic Statistics, Tribuna Economica Publishing House, 2004, Chapter 5 or Titan, E. et al. - Economic statistics, ASE Publishing House, Chapter 4, available online at http://www.biblioteca-digitala.ase.ro/biblioteca/pagina2.asp?id=cap4

[10] http://www.drg.ro/indicatori/CNAS/indicatori.php

hospitals / ambulatories and large / small urban were selected proportionally, by the medical units which are beneficiaries of ROP KAI 3.1.

Within these medical units, at the level of the funded departments, considered fixed collection points, the responding patients were selected so that their regional distribution is respected. This way, it was possible to observe patients' satisfaction with the investments made in the regions throughout the country, but also by different types of medical units.

For better data quality and to reduce non-response, the questionnaire management was performed face-to-face by the survey operators.

The reports for each conducted survey are presented in Appendix 10 of this report.

4. Focus group/ Group interviews

The organization of focus groups was aimed at providing qualitative information in addition to that collected from other sources, relevant at regional level. The 7 focus groups were organized in the form of a structured discussion, based on a focus group guide developed previously. Overall, 40 persons participated, from the following target groups:

- RDAs
- Representatives of the local authorities benefiting from the KAI 3.1 interventions
- Medical units that benefited directly from the ROP funding
- Relevant NGOs operating in the field of health services
- County Health Directorates.

The discussion topics included:

- Initial conditions, needs and expectations for the intervention financed by the KAI 3.1.
- Types of interventions
- Results and effects of interventions

2 of these focus groups were transformed ad-hoc into group interviews, given the fact that such focus groups had no significant presence. In terms of methodology, invitations to participate were sent to all beneficiaries in each region, both at the level of local public authorities and at the level of the medical units, as well as other relevant regional actors (county health directorates, NGOs, RDAs). However, we note a relatively low degree of interest on the part of the beneficiaries in participating in such meetings and implicitly in the evaluation process, especially since most projects were completed over 4 years ago and some of them even existed the 5-year sustainability period after the completion of the ROP-financed interventions.

The guides used in focus groups/group interviews, along with the reports of each focus group/group interview conducted are presented in Appendix 9 to this report.

5. Case studies

The use of case studies was aimed at obtaining qualitative information in addition to that obtained by other methods, so as to be able to refine, explain and detail certain findings resulting from other methods, and to emphasize easier examples of good practices, specific problems, specific implementation contexts, determinant factors for the success of the intervention. Case studies were conducted through: documentary research, interviews (with the managers of the medical units and with the medical staff, interviews with representatives of the beneficiary local public authorities), on-site visits, direct observation.

The selection of cases was aimed at covering the following elements:

- One intervention in each development region
- At least one intervention for each type of medical unit (hospital / ambulatory)

- At most one intervention within the same development region
- At least one intervention in large urban areas (Bucharest, municipalities that are county residences) and small urban areas (municipalities, towns)

Information was collected on:

- The context of the intervention
- The effects of the intervention (including evaluation indicators)
- The factors that determined the effects
- The involvement of the concerned parties

The case studies are presented in Appendix 13 of this report.

6. Delphi survey

The Delphi survey consists of exchanging opinions within a group of experts, each expert independently providing estimates and hypotheses to a facilitator who examines the data and issues a synthesis report. Group members discuss and review the report and provide updated feedback to the facilitator, who re-analyses the material and issues a second report. The process is repeated for three iterations. The participation of 7 experts with varied expertise in the health services sector was considered, as follows: hospital managers, World Bank experts, experts from the Ministry of Health, experts in the field of investments in health infrastructure / health policies from various institutions (National School of Public Health, National Institute of Public Health, Universities of Medicine and Pharmacy), evaluators of projects within the ROP KAI 3.1.

The Delphi method was applied in 3 iterations of the survey, by sending a questionnaire containing:

- Iteration 1) for exploring the basic elements, the main topics
- Iterations 2) and 3) for the realization of hierarchies, concrete appraisals and reconciliation of divergent opinions.

The Delphi survey was focused on obtaining relevant opinions from the specialists, regarding the net effect of KAI 3.1 interventions, as well as the factors that influenced the results. The Delphi Survey report is presented in Appendix 11 of this report.

7. Panel of experts

The panel of experts aimed at the involvement of 5 experts: experts in the field of investments in the health infrastructure / health policies, different from the Delphi survey, who were invited to formulate a common opinion regarding the net effect of the KAI 3.1 intervention and their determining factors.

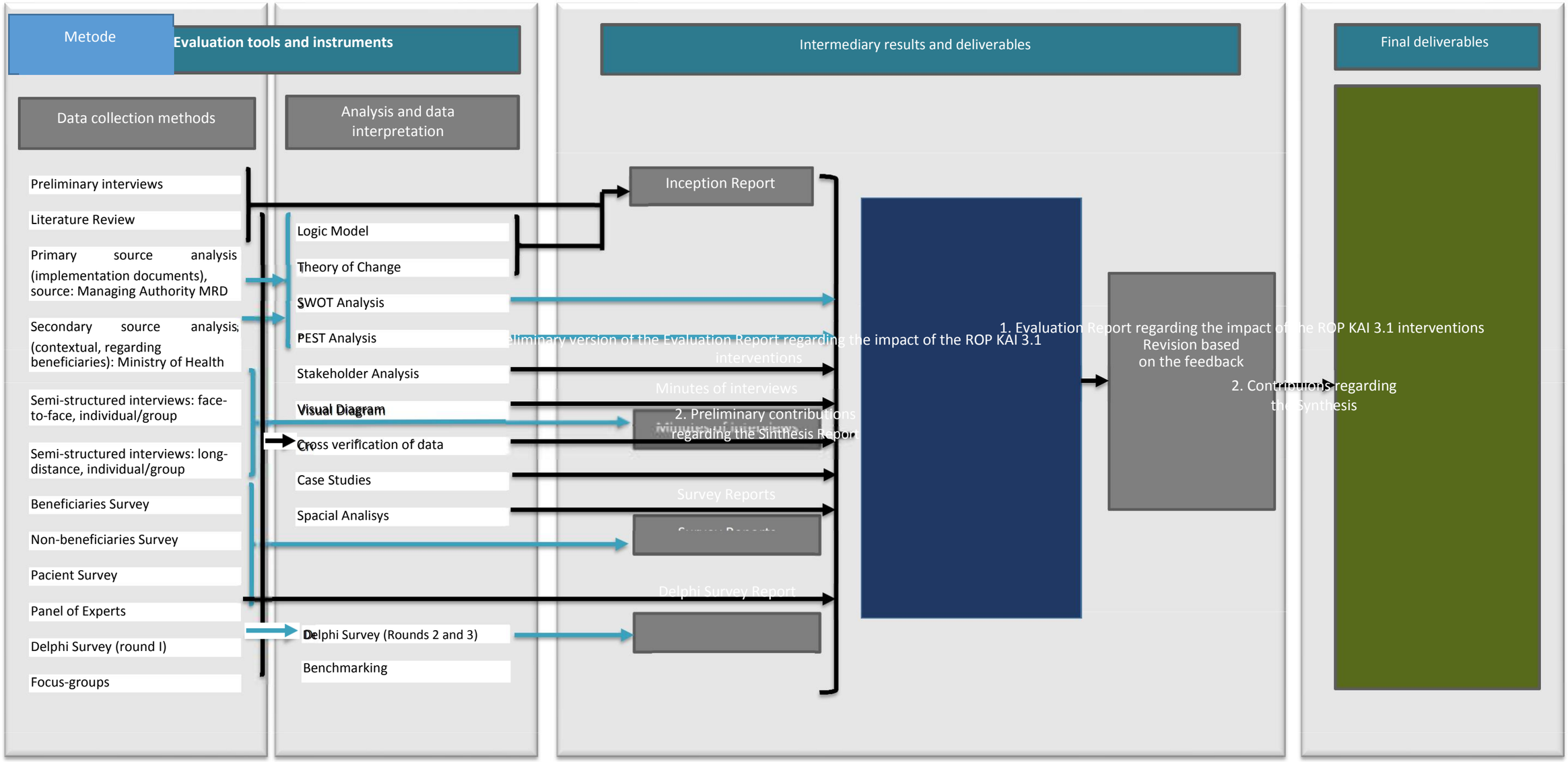
The report related to the panel of experts is presented in Annex 12 of this report.

The methods and techniques of data collection, described above, were complemented by methods and techniques for analysing and interpreting data and information such as: PEST analysis, SWOT analysis, stakeholder analysis, visual diagram, benchmarking analysis.

Taking into account the data accessibility and quality, as well as the willingness of the main stakeholders to get involved in the evaluation process, we believe that a realistic duration for an impact evaluation should be 8 months.

The general methodological approach is presented in the Figure below:

FIGURE 3 GENERAL METHODOLOGY FOR THE EVALUATION OF KAI 3.1



3.2. SPECIALTY LITERATURE

The specialty literature offers many methodological guidance elements, both general and specific, on the following levels: impact evaluation, evaluation of health interventions, evaluation of interventions supported by the European Regional Development Fund, in the context of the Cohesion Policy. Both the EC and the Romanian authorities have conducted several relevant evaluation exercises, which allow the extraction of good practices/ lessons learned for the current evaluation.

Internationally, Health 2020 [11] recognizes that governments can achieve real results in improving public health if they act in an integrated manner to meet two interconnected strategic objectives:

- improving health for all and reducing inequalities in health
- improving leadership and participatory health governance.

Inequities still persist in access to quality medical services.

Research shows that effective interventions require a political environment that goes beyond the sectoral approach and allows for the achievement of integrated programs. Urban development that takes into consideration the determinants of health is crucial, and mayors and local authorities play an increasingly important role in promoting health and well-being. Participation, responsibility and sustainable financing mechanisms can enhance the effects of such programs.

Lessons learned from the previous programming period[12] at European level, which has been intensely focused on projects in the field of infrastructure modernization and development, allow us to extract several recommendations relevant for the future programming period:

- *Hard* investments need to be combined with *soft* investment in human resources in order to achieve added value and synergy from the funding attracted.
- Priority must be given to projects that have an impact on improving the sustainability and costs of health systems, that is, projects that will encourage hospitals to specialize and concentrate and cooperate with other hospitals in other fields of medicine.
- Therefore, to promote projects such as:
    - Introducing systems for monitoring and measuring the effectiveness of medical services
    - Reducing the unnecessary use of specialized healthcare, especially acute disease care, and improving primary health care services
    - Prevention and health promotion
    - Adoption of guidelines and standards of health care
- Investments in health need to be monitored and correlated with updated strategies
    - Health needs and their development must to be constantly monitored, and strategic documents updated with the latest data
    - Management Authorities and Intermediate Bodies need to work together to correctly identify the latest developments in the health field so as to ensure that the calls launched reflect the current situation
- Supporting the Management Authority in selecting only projects that are supported by needs evaluation and that sufficiently demonstrate the long-term solution
    - Demonstrating that the investment responds to the needs and possible inefficiencies in health matters at national or, possibly, at regional level.

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[11] World Health Organization, http://www.euro.who.int/en/health-topics/health-policy/health-2020-the-european-policy-for-health-and-well-being

[12] European Commission, http://www.esifforhealth.eu/pdf/WP2_Guide_FINAL_20150211.pdf

- Identifying trends in the area targeted by investments and assessing the extent to which the investment addresses such trends and if it provides thus a long-term solution to the addressed need.

According to EVALSED[13] impact evaluation should be regarded from the perspective of the contribution of a program/policy/intervention to change, and not necessarily from the perspective of long-term evolution, from the statistical perspective, where there can be many other factors that can influence a particular policy. EVALSED also mentions that impact evaluation is carried out 3 years after the completion of the programming period. In this context, it is important to mention that the implementation of projects funded under ROP 2007 – 2013, KAI 3.1 inclusively, was carried out until 31.12.2015 (according to the N+2 rule), which means that impact evaluation is recommended starting with 01.01.2019. From this perspective, we believe that this evaluation exercise was carried out at the appropriate time to identify and analyse the effects of interventions funded under ROP 2007 – 2013, KAI 3.1 inclusively, and to respond to the evaluation questions in the most appropriate way.

Also, one of the definitions of impact evaluation, according to the World Bank [14], is "an evaluation carried out some time (five to ten years) after the intervention has been completed so as to allow time for impact to appear".

At the level of ROP 2007-2013, there were several evaluation exercises, which included the ex-ante evaluation, intermediate and ad-hoc evaluations[15], provided by the Multiannual Evaluation Plan (MEP)[16], and as a response to the management needs during the program implementation. The ex-post (impact) evaluation provided in MEP PO 2014-2020 adds to them.

As regards the impact evaluation for the interventions financed under KAI 3.1, we mention the existence of a previous evaluation exercise - KAI 3.1 Impact Evaluation "Rehabilitation, modernization, development and equipment of the health services infrastructure" and KAI 3.3 carried out in 2015, following which relevant recommendations for the present evaluation were identified. However, as regards the exercise of KAI 3.1 impact evaluation, the previous evaluation had a series of limitations, such as the relatively low number of completed projects and the limited availability of monitoring data. Another limitation of the 2015 evaluation is that it was carried out during the implementation of ROP 2007-2013, by taking into account the completed projects, but not also the existence of a period of time between the completion of projects and the impact evaluation, which means that, in addition to the limited number of completed projects, another important methodological limitation was that not enough time had passed after completing the projects so as to allow effects to appear and, in particular, the sustainability of the appeared effects could not be evaluated.

Unlike the previous evaluation, the present evaluation thus provides more analytical depth in terms of the evaluation questions, given that the analysis includes first and foremost the entire portfolio of completed projects, being able to provide an in-depth impact analysis of the interventions financed at the level of the entire KAI 3.1 with conclusions and recommendations that have macro-level methodological validity and can be used as lessons learned for preparing the next programming period 2021-2027.

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[13] https://ec.europa.eu/regional_policy/sources/docgener/evaluation/guide/guide_evalsed.pdf

[14] http://documents.worldbank.org/curated/en/475491468138595632/text/382680Impact1e10experience01PUBLIC1.txt

[15] The list of ROP evaluations 2007-2013 can be consulted here: http://old.fonduri-ue.ro/documente-suport/56-evaluari/154-evaluare-por

[16] Available at: http://old.fonduri-ue.ro/res/filepicker_users/cd25a597fd-62/Documente_Suport/Evaluari/1_EVALUARI_POR/1_pme%20por_dec2009_aprobat%20cmpor_ro.pdf

In addition to the previous evaluation reports, the main strategic documents in the health field were also analysed. The strategic documents envisaged are aimed at the implementation of the EU Cohesion Policy through the ERDF in the period 2007-2013, in the field of health infrastructure, and the European and national strategic framework in the field of health, in particular regarding the development of the infrastructure and the objectives targeted by the KAI 3.1. Moreover, considering that the projects implemented have exceeded the duration of the programming period, all the documents related to the 2014-2020 programming period, relevant to the health infrastructure, can be taken into account when analysing the progress of the KAI 3.1 interventions.

These were analysed from the perspective of highlighting the expected effects following the implementation of this type of interventions and of the factors that can produce influences, so that they are taken into account in the evaluation process. Also, consideration was given to identifying specific cases that can be considered for benchmarking or case studies.

Context of the implementation of KAI 3.1

The health services, at the time of the ROP programming, were well below the acceptable standards at EU level, despite the existence of a network developed in services of different types. The intervention was based on the urgent need for investments in this area. In parallel, the Government of Romania was to implement a comprehensive reform program at the health sector level.

The main influencing factors taken into account at the level of the KAI 3.1 programming refer to:

- Legislative changes, associated with the reform process (of the medical sector or administrative decentralization) and the modification of public policy priorities in the field (highlighted in particular in the national strategies for 2007-2013 and 2014-2020). Legislative changes could not be anticipated at the time of programming, and previous evaluations confirmed that they had an influence on implementation.
- The migration of the work force - the massive departure of specialized medical staff (doctors, nurses) abroad.
- Progress of the implementation of other complementary programs (funded from European or national funds). This is particularly relevant for achieving the objectives of increasing the accessibility of health services, given that the infrastructure and territorial connectivity were and have remained poorly developed, especially in rural areas.
- Capacity of beneficiaries to implement infrastructure projects.

This evaluation monitored the extent to which these aspects changed during the implementation of the interventions supported by KAI 3.1, as well as whether these changes influenced the implementation and in what way.

Possible effects expected as a result of the implementation of KAI 3.1.

The expected effects following the implementation of the interventions supported by KAI 3.1 are related to the improvement of the quality of the healthcare services infrastructure and their balanced territorial - regional distribution throughout the country, in order to ensure equal access of the citizens to the health services.

This evaluation monitored the extent to which aspects regarding the accessibility of the services, the quality and the diversification of the services provided, the load on the hospital service, the working conditions for the medical staff can be found in the results of KAI 3.1, but also the extent to which the investments were capitalized and are sustainable.

3.3. COLLECTION OF QUANTITATIVE AND QUALITATIVE DATA

The collection of quantitative data in the evaluation exercise aims at the statistical and quantitative presentation of the results of the documentary research and the results of the quantitative research methods, namely the analysis of the available databases, the accomplishment of the 4 opinion surveys and the Delphi survey. Data on the project portfolio were obtained from BE ROP, MA ROP and RDAs, and were aggregated in databases with the projects submitted, contracted and completed on KAI 3.1, as well as databases with information collected from the funding applications, funding agreements, the latest progress reports and the sustainability reports.

In addition to the above, numerous statistical data were collected regarding the health infrastructure and users, their access to medical services, from statistical databases available on the Eurostat and Tempo Online website of the National Institute of Statistics.

Also as part of the quantitative research, the 4 surveys described in the previous section were conducted. Regarding the opinion survey addressed to the patients of the medical units that benefited from the KAI 3.1, the questionnaire was applied in 8 medical units that met the selection criteria mentioned in the previous section, which included:

- 1 hospital and 7 ambulatories
- 4 medical units that received investments under RON 4.1 million / over RON 4.1 million
- 3 small urban units (town hospitals) and 5 large urban units (in municipalities and municipalities that are a county residence, including Bucharest).

Thus, the medical units where the questionnaire was applied are:

TABLE 2 MEDICAL UNITS WHERE QUESTIONNAIRES WERE APPLIED ON PATIENTS

Medical unit	Type	Investment value	Localization	Region
Municipal Hospital "Dr. Alexandru Simionescu" Hunedoara	Ambulatory	< RON 4.1 million	Large urban	W
Găești Town Hospital, Dâmbovița county	Ambulatory	< RON 4.1 million	Small urban	SM
Ilfov County Emergency Clinical Hospital	Hospital	> RON 4.1 million	Large urban	BI
Town Hospital "Dr. Valer Russu", Luduș	Ambulatory	> RON 4.1 million	Small urban	C
Town Hospital "Ioan Lascăr", Comănești town, Bacău county	Ambulatory	> RON 4.1 million	Small urban	NE
Buzău County Emergency Hospital	Ambulatory	> RON 4.1 million	Large urban	SE
Slatina County Emergency Hospital	Ambulatory	> RON 4.1 million	Large urban	SW
Dej Municipal Hospital	Ambulatory	< RON 4.1 million	Large urban	NW

Following this opinion survey applied on-site, a number of 270 responses were obtained, distributed as follows: 56% were women and 44% men, and most were aged 40-50.

The 3 opinion surveys applied online were carried out by the exhaustive inclusion of all beneficiaries, medical units and non-beneficiaries found in the databases obtained from the MA ROP, which resulted in a volume of:

- 88 unique beneficiaries - local public authorities that benefited from funding through ROP 2007-2013
- 98 medical units that received funding through ROP 2007-2013
- 23 unique non-beneficiaries - territorial administrative units that applied for funding through the ROP 2007-2013 but did not obtain funding.

The response rate to these two of the three questionnaires was sufficient for the validity of the results. Thus, the following were obtained:

- Survey of beneficiary ATUs - 40 answers, which implies a response rate of 45%
- Survey of beneficiary medical units - 26 answers, which implies a response rate of 26%

Regarding the survey addressed to non-beneficiaries, the response rate was very low, given that only 2 responses were obtained (which implies an 8% response rate), although the on-line questionnaire was preceded by telephone mobilization and successive calls back to the persons/institutions targeted, in order to reach a maximum number of respondents (same as with the other two questionnaires applied). Thus, this survey could not be validated.

The collection of qualitative data was carried out through several research methods, which are presented below:

Focus groups

During the data collection period, 7 regional focus groups/group interviews were organized, according to the methodology above. Due to the insufficient number of participants, 2 of them, namely those from the South-West and West regions, were transformed into group interviews, and in the Bucharest-Ilfov region, where only 2 projects were implemented, no focus group could be organized.

Their development is presented below:

TABLE 3 FOCUS GROUPS CONDUCTED

Region	No. of participants	Institutions
SW	3	DSP Vâlcea, DSP Mehedinți, Drăgășani Municipal Hospital
NW	6	Cluj Municipal Clinical Hospital, Beiuș Municipal Hospital, Satu Mare CC (2), DSP Sălaj, Alesd Town
W	5	Timișoara Mayoralty, Timișoara Municipal Hospital, Hunedoara Municipal Hospital, Timiș CC
SE	10	Brăila Psychiatry Hospital (2), DSP Buzău Pneumophysiology Hospital (2), Râmnicu Sărat Municipal Hospital, Brăila Mayoralty, Buzău CC, DSP Brăila, Brăila CC
NE	7	Suceava CC, Botoșani CC (2), Piatra Neamț County Hospital, Comănești Mayoralty, Siret Mayoralty, Siret Chronic Disease Hospital
SM	6	DSP Dâmbovița, Dâmbovița CC, Lehliu-Gară Hospital, Teleorman CC, SJU Alexandria
C	3	Mureș CC, Abrud Mayoralty, DSP Sibiu

Semi-structured interviews

27 interviews were conducted, in which 39 persons participated, representatives of the main institutions involved in the management and implementation of KAI 3.1 and with responsibilities in the field of interest, namely:

- 3 interviews with MA ROP representatives (Program Management Service, Project Evaluation and Contracting Service, Project Monitoring Directorate)
- 8 interviews with monitoring officers within RDAs (1 interview in each development region)
- 2 interviews with representatives of the Ministry of Health (General Programs Directorate - Program Implementation and Coordination Unit, Management and Healthcare Directorate, European Business Advisers)
- 10 interview with Beneficiaries of the KAI 3.1 investments
- 4 interviews with Representatives of medical units that benefited from support through KAI 3.1

Case studies

There were 7 individual case studies and 1 collective case study conducted. The individual case studies included one project from each development region, with the exception of the West region, for which a collective case study was carried out for all the projects implemented within Hunedoara county, in order to highlight the efficiency and economic value of the project, from the perspective development of the territory. The realization of the collective case study was determined by the large number of projects implemented in Hunedoara county (9 projects), compared to the rest of the counties of the country, where we have a maximum number of projects implemented of 5 for 1 county, 4 projects for other 5 counties, and in the rest of the counties the number of projects is between 1 and 3.

Projects included in the individual case studies were:

TABLE 4 PROJECTS INCLUDED IN THE INDIVIDUAL CASE STUDIES

SMIS code	Project name	Beneficiary	Region	County	ATU
2098	Modernization of the integrated Ambulatory of the Moinești Municipal Emergency Hospital	Moinești Local Council	NE	Bacău	Moinești City
5635	Modernization, development and equipment of the specialty ambulatory of the Râmnicu Sărat Municipal Hospital	Râmnicu Sărat Local Council	SE	Buzău	Râmnicu Sărat Municipality
13092	Rehabilitation, modernization and equipment of the integrated ambulatory of the Câmpina Municipal Hospital	Câmpina Local Council	SM	Prahova	Câmpina Municipality
17595	Rehabilitation, modernization and equipment of the Ilfov County Emergency Clinical Hospital	Ilfov County Council	BI	Ilfov	Bucharest Municipality
3095	Modernization, development and equipment of the ambulatory within the Slatina County Emergency Hospital	OLT County Council	SW	Olt	Slatina Municipality

12285	Modernization and equipment of the ambulatory within the Cluj-Napoca Municipal Clinical Hospital, in order to improve the quality of the healthcare services infrastructure	Local Council Cluj-Napoca	NW	Cluj	Cluj-Napoca Municipality
17883	Modernization and equipment of the "Dr. Valer Russu" Town Hospital Ambulatory, Luduș	Luduș Local Council	C	Mureș	Luduș town

Projects included in the collective case study from Hunedoara County were:

TABLE 5 PROJECTS INCLUDED IN THE COLLECTIVE CASE STUDY FROM HUNEDOARA COUNTY

SMIS code	Project name	Beneficiary / ATU
26442	Rehabilitation, modernization and equipment of the integrated ambulatory of the "Dr. Alexandru Simionescu" Municipal Hospital, Hunedoara	Hunedoara Municipality
1708	Integrated Ambulatory within the Deva Emergency Hospital	Hunedoara County
15214	Modernization, rehabilitation and endowment with specialized equipment of the departments operating in Uricani locality, belonging to the Integrated Ambulatory of Lupeni Municipal Hospital	Uricani City
15608	Modernization and equipment of the integrated ambulatory of the Hațeg Town Hospital	Hațeg City
17852	Modernization of the specialized ambulatory departments within the Petrila multifunctional health center	Petrila Town
18234	Rehabilitation, modernization and purchase of equipment for the specialized ambulatory of the Petroșani Emergency Hospital	Petroșani Municipality
3189	Modernization, rehabilitation and endowment with specialized equipment of the integrated ambulatory of the Lupeni Municipal Hospital	Lupeni Municipality
3875	Modernization of the Călan Multifunctional Health Center	Călan Town
11608	Modernization and equipment of the integrated ambulatory of the Orăștie Municipal Hospital	Orăștie Municipality

The collected information was summarized in a sheet of each project, in a unitary format, and their report is available in Appendix 13 to the evaluation report.

3.4. LIMITATIONS

The methodological limitations that have the most significant effects on the evaluation team's ability to answer effectively to the evaluation questions are presented below (Table 6), accompanied by actions taken to mitigate their influence on the process.

TABLE 6 RISKS MANIFESTED DURING THE EVALUATION AND MEASURES TAKEN

Manifested risks	Resolution method
Data accessibility - Difficult access to administrative data at IO ROP level (funding applications, progress and sustainability reports, availability for interviews, for participation in focus groups). The evaluation involves an additional effort on the part of stakeholders, starting with those at the central level and up to the regional and local level. This additional effort is identified in the need to provide the necessary data to the evaluation team, data which is not always collected, archived and aggregated according to the responsibilities of each involved stakeholder. Without generalizing, difficulties were encountered in collecting data at regional level, with significant delays from some regions in providing this data, and the reluctance of others to provide it archived. These difficulties generated delays in carrying out other methods, which depended on the primary data collection and related documentary research.	This risk was partially limited by the involvement of the team of experts, by direct and repeated communication with the relevant stakeholders, by overcoming communication barriers and by performing a proper management of expectations and limiting as much as possible the effort made by the authorities responsible for collecting data. Where data collection from primary sources was not possible, its identification from other sources available to the public was attempted.
Data quality - Inconsistencies between information collected from different sources, such as between the centralized monitoring data provided by MA ROP and the data provided for in the funding contracts and applications, and data provided by beneficiaries in the sustainability reports. For instance, beneficiaries reported different program indicators due to change of the definition of certain indicators during project implementation, which made it difficult and, in some cases, impossible to aggregate them.	The analysis was done by corroborating/ cross-checking the various databases made available and validating them with the stakeholders, including with the on-line information available. Following consultations with BE ROP, where differences were found, it was decided to include the data from CF, contracts and reports in the analysis, and to process them in a project portfolio centralizer, developed within the project.
Data accessibility - Difficult access to administrative data at the level of medical units, lack of comparability, their poor quality	The effects of this risk were only partially mitigated by the application of two surveys: among the managers of the beneficiary medical units and among the managers of the non-beneficiary medical units, with qualitative information being collected. The low response rate adversely affects the quality of the information collected.
Low participation rate in focus groups, with all efforts made to send invitations to all beneficiaries at the level of each region, both at the level of the ATU and at the level of the medical unit, including relevant actors - DSP	Focus groups with insufficient participants were turned into group interviews.
Low response rate to the online opinion surveys.	The effects of this risk were mitigated by extending the period for conducting the opinion

	surveys and repeatedly calling back to mobilize the target groups, in order to increase the number of responses.
Low availability of relevant persons for participation in interviews.	Informal channels were used to mobilize relevant persons. Numerous telephone calls back were made, and the evaluation team showed maximum flexibility to adapt to their program.
The short time available for evaluation, after receiving the requested data and information.	The evaluation team made every effort to meet the required deadlines, by supplementing the number of experts and the support team.
The quality of the data collected during the durability/sustainability period, especially with regard to the number of tourists indicator, which each beneficiary reports according to their own understanding and which was impossible to aggregate.	Use of alternative data sources - DRG, data collection directly from medical units through interviews, case studies, use of open data.

The biggest limitation of this evaluation is considered to be the limited understanding or non-understanding of the role of evaluation in the public policy ecosystem, which is why we consider there is a low rate of response/participation in the application of the methods, but also for the difficulties encountered in data collection, a limitation that the evaluation team constantly tried to mitigate by constant communication with all the actors involved and explaining the importance, purpose of the evaluation, and how each stakeholder can benefit from an evaluation exercise, in order to base his decision on solid information from the evaluation, or in order to better understand how effective was the way money was spent, what is effective and what is not, which are the interventions that have results and impact. We consider that a collective effort is needed to create and develop the evaluation culture at central/ regional/ local level.

4. ANALYSIS AND INTERPRETATION

4. 1. EVALUATION QUESTION 1. WHAT IS THE NET EFFECT OF THE INTERVENTION OF THE KAI 3.1 FUNDS AND WHAT WERE THE FACTORS THAT DETERMINED THIS EFFECT?

The net effect of KAI intervention and the factors which determined it were defined in relation with the following four dimensions:

- *Citizens' access to health services*, namely the extent and conditions under which KAI 3.1 contributed to ensure equal access for citizens to health services;
- *The territorial-regional breakdown* of the interventions supported under the KAI 3.1, namely the extent to which the projects were distributed in a balanced manner across the country;
- *The quality of healthcare services*, namely the extent and conditions under which interventions funded through the KAI 3.1 have contributed to increasing the quality of healthcare services;
- *The sustainability of the interventions*, and the extent to which the investments maintained their effects in time and under what conditions.

a) Collected data

Data and information collection was done using several methods and tools (see previous sections), so that a documented answer to the evaluation question could be formulated. The data and information collected were:

- *Quantitative:* the interventions realized by the ROP KAI 3.1, from the financing applications, the final implementation reports and the sustainability reports at project level, for 101 projects. Also, quantitative data were collected regarding the number of cases in hospitals and their complexity, from the database of the Center for Research and Evaluation of Health Services - DRG, as well as statistical data on the medical services in Romania, from the online database of the National Institute of Statistics (NIS) and Eurostat.

  The set of projects under review includes all 101 completed projects[17], the available data referring to:

  - Regional / territorial distribution of projects, both in terms of number and value;
  - The size of the funding and investments made within the projects: infrastructure and equipment;
  - The value of the ERDF non-reimbursable contribution and the contribution of the beneficiaries to achieving the investments;
  - Outcome indicators at the project and program level;
  - Investments to promote accessibility
  - Context elements regarding interventions, at project level.

- *Qualitative:* the opinions of the different stakeholders regarding the four levels of analysis, through interviews, focus groups, surveys, etc. The data collected refers to

[17] The data set was built on the information obtained from the database of the Monitoring Department within the MA ROP, with cut-off deadline 31 December 2018

the perception regarding the quality and accessibility of the services, the different effects of the intervention, the factors that determined these effects, etc.

b) Data analysis

In order to formulate the answer to this question, the impact evaluation theory (EIT) method was used, supplemented by case studies (see Appendix 13 of this report), as well as a multitude of analysis tools (see Section 3.1, Section 3.2 and Appendices 2-7)

Access of citizens to medical services

Within KAI 3.1, a total of 98 medical units were funded, exceeding the target set at the program level by about 58% (62) (Table 7). From this perspective, it can be seen that the intervention has achieved its objectives. Given the lack of baseline data regarding the number of patients and their socio-demographic characteristics, it is difficult to assess and isolate the contribution of the interventions funded by the ROP KAI 3.1 in relation to this indicator. According to the ROP Final Implementation Report, in the case of the indicator "The number of beneficiaries of the rehabilitated / modernized infrastructure", the target was spectacularly exceeded, reaching over 2 million persons/day, compared to 30,000 persons/day, as it had been initially estimated. However, the reported results must be interpreted with reserves, taking into account the methodological limitations regarding the calculation of the indicator[18]. These refer to the fact that the medical units do not monitor the number of "persons" but the number of "cases", one person being the subject of several "cases", with each medical consultation. Also, the services provided are monitored, a visit to the medical unit may mean the registration of several services (e.g. carrying out tests in order to renew the driving license by one person means at least five services registered by the medical unit). At the same time, it is possible that the recorded daily average values were not reported, but the monthly/annual values of the cases/services.

Also, given that the programming documents, in this case the Implementation Framework Document[19], do not provide information on the basic value of this indicator and/or on the target estimation method, there may have been different understandings on the correct reporting method. In addition, it is possible that the indication in percentage form of the indicator, in the Applicant's Guide[20] (p. 5) may have contributed to the different understanding of the reporting.

TABLE 7. THE RESULTS OBTAINED IN THE CASE OF PROGRAM INDICATORS

Indicator	ROP 2007-2013 Target	Estimated by signed contracts	Achieved	Level of achievement
Medical units rehabilitated (no.)	62	103	98	158%
Number of persons who benefit from the rehabilitated / modernized / equipped health infrastructure (no.)	30,000	3,191,183	2,081,078	6,937%

[18] The methodological limitations were analyzed and explained in detail in the Evaluation Report made in 2015.
[19] http://www.fonduri-ue.ro/por-2007#documente-relevante
[20] http://www.old.inforegio.ro/ro/axa-3.html

The administrative data[21] analysed shows a decrease in the number of persons (cases) who receive medical services in hospitals, a situation that is explained by the measures implemented in the health system and the efforts made for the progressive transition from accessing the medical services in hospitals to ambulatories and primary medical care units. At the same time, the data reported by the medical units in the DRG show a decrease of approximately 0.5 days of the average length of hospitalization, compared to the period before the interventions were performed.

In the case of ambulatories, including those integrated in hospitals, national databases could not be accessed, thus the analysis was based on the information available at the level of the funded projects. Lacking basic values, the evolution of the number of persons who received services in the beneficiary units cannot be effectively quantified, but, taking into account the trend at the national level, it is expected that it will have increased compared to the period before the intervention.

If the program indicator is interpreted as the number of persons benefiting from the rehabilitated / modernized / equipped health infrastructure, the direct causal link with the intervention is clear, as few medical units receive funding from other sources, especially in the amount of that accessed through ROP. In this case, it can be assumed that all patients who also accessed the services of the medical unit in the past become beneficiaries of the "rehabilitated / modernized" medical unit, therefore their number inevitably increased, the initial value being zero.

If the program indicator is interpreted as the additional number of persons benefiting from the rehabilitated / modernized / equipped health infrastructure, as a result of the investments made, the direct causal link between the increase of the number of patients / consultations granted in the ambulatories and the ROP KAI 3.1 intervention cannot, however, be precisely determined at the KAI level based on statistical and administrative data. However, qualitative information, collected through interviews, focus groups and surveys, shows a strong belief from respondents that ROP intervention can be associated with producing this effect, contributing at least in part to increasing the number of persons benefiting from modernized / rehabilitated health infrastructures. However, the values recorded for the program indicator, in this case, are of small importance for determining the impact. Moreover, also through the qualitative information collected from the patients, it turned out that the rehabilitation of the medical unit is not a motivating factor for accessing services for patients, because most have accessed them in the past and would have come there anyway, due to the lack of other options.

Specifically, the data collected from the MA / IO ROP administrative sources shows the existence of a positive direct causal link between the interventions supported by ROP KAI 3.1 and the increase of the access to medical services in the supported units, by: the increase in the number of available medical services (at least 33 beneficiary medical units have assumed and reported the introduction of new medical services as a result of the investments, in total over 150 new medical services), the increase in the number of equipment (93 projects have been allocated amounts for the purchase of equipment, with weights between 3-93% of the value of the grant).

Also, the data from the projects show an improvement of access for persons with disabilities (at least 44 projects have assumed and reported concrete measures to improve the access, for example: access ramps, lift, adaptation of toilets and doors for wheelchair access, etc.).

[21] DRG database

Good practice: The introduction in the technical-economic evaluation grid, at the criterion "Equal opportunities and non-discrimination", of the explicit provision regarding the scoring of the projects aiming at "the creation of facilities / adaptation of the structure for persons with disabilities" motivated the applicants to introduce such measures in the project, even if they did not consider them (or do not consider them) necessary. For example, the manager of a small medical unit considers that "[...] I had to install a lift, it was a criterion. My hospital has only one floor, no lift is needed. Now I have to pay the operating and maintenance expenses too".

Quality of the services

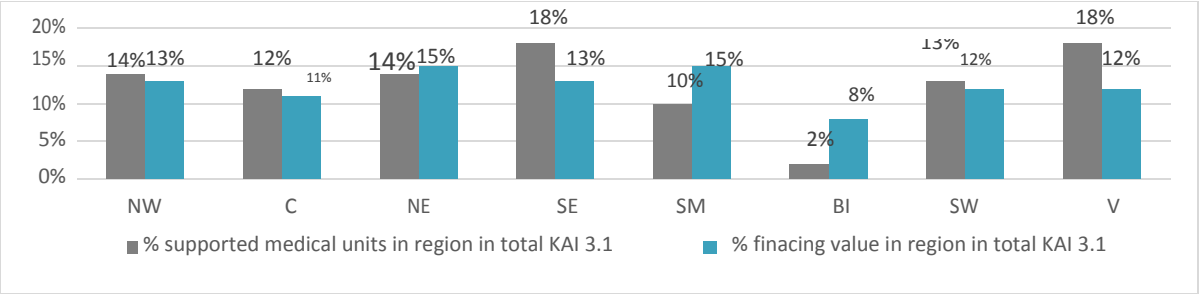
The data reported by the medical units in the DRG show a significant increase of the Case Mix Index (CMI)[22] in all KAI 3.1 beneficiary units for which there are reported values (from an average value of 0.8382 in 2008, to 1.2173 in 2018), which indicates their increased ability to handle cases of higher complexity than in the past. However, the causal link with the ROP intervention cannot be established with certainty, the same trends being observed at the national level, also in the case of non-beneficiary units.

However, the opinions of all the persons consulted by different methods concur in confirming the increase of the quality of the medical services provided in the units which received funding.

Territorial-regional distribution

The analysis of administrative data shows a relatively balanced regional distribution of KAI 3.1 funding, both in terms of number of projects and value, with 1% differences between the two analysis dimensions in the case of four regions (Figure 4). The biggest differences are registered in the case of the Bucharest-Ilfov region, where the weight of the total KAI 3.1 funding (8%) is significantly higher than the weight of the number of projects (2%). This situation is explained by the high value of the funded projects. By contrast, 18% of the total projects were funded in the West region, these having a slightly lower weight, of 12% from the total value (the average value of the projects is lower).

FIGURE 4 REGIONAL DISTRIBUTION OF KAI 3.1 FUNDS

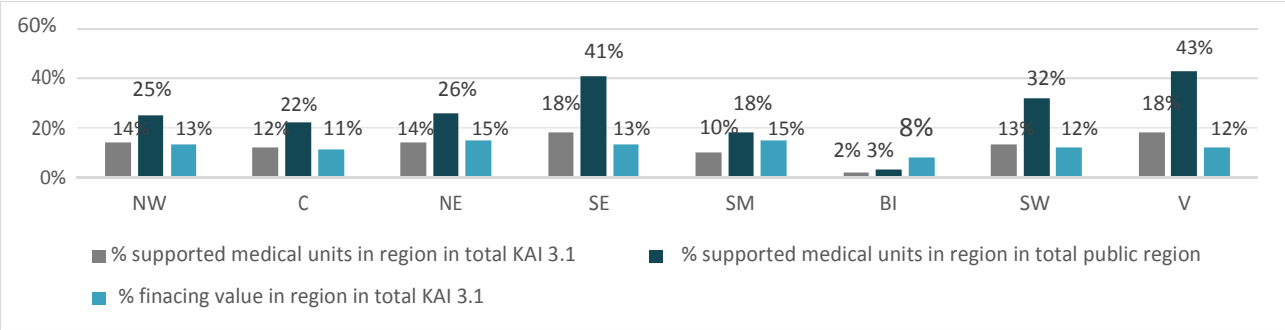


Source: NIS, TEMPO Online, MA ROP

[22] The Case Mix Index is used to calculate costs and to settle the services provided by medical units. The index is determined, inter alia, taking into account the complexity of the procedures / services provided. A higher index means greater funding for the medical unit but also its ability to handle complex cases. More details on the CMI can be found at: https://lege5.ro/Gratuit/gmztanjr/norma-metodologica-de-aplicare-a-contractului-cadru-privind-conditiile-acordarii-asistentei-medicale-spitalicesti-ingrijirilor-la-domiciliu-serviciilor-de-urgenta-prespitalicesti-si-altor-tipuri-de-tr?pid=22078180#p-22078180

The cross-analysis of the administrative and statistical data shows a less balanced distribution of the KAI 3.1 funding, in relation to the number of public medical units (excluding hospitals and specialized ambulatories) existing at regional level. Thus, in the Bucharest-Ilfov region, only 3% of the potentially eligible medical units were funded, while in the South-East and West regions 43% and 41% of the public medical units were funded.

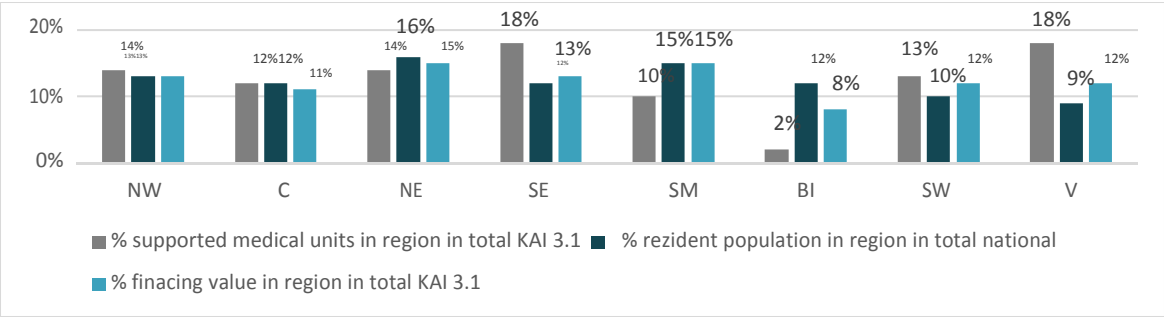
FIGURE 5 TERRITORIAL DISTRIBUTION OF THE KAI 3.1 FUNDS IN RELATION TO PUBLIC MEDICAL UNITS, AT REGIONAL LEVEL



Source: NIS, TEMPO Online, MA ROP

In relation to the population residing in regions, the data show that, in terms of the value of the projects, in six out of eight regions the distribution is balanced (Fig. 5). There are differences in the case of the Bucharest-Ilfov region, where the share of financing in total is lower compared to the resident population, and in the West region, where the ratio is the opposite (the weight of funding is higher).

FIGURE 6 DISTRIBUTION OF KAI 3.1 FUNDS IN RELATION TO THE POPULATION AT REGIONAL LEVEL



Source: NIS, TEMPO Online, MA ROP

Sustainability of the intervention

The analysed sustainability reports show that the projects maintained their results even after completion, with investments having all the premises for long-term sustainability. The interest expressed by all stakeholders in maintaining the investment and in accessing any source that could continue / supplements the efforts to rehabilitate, modernize and equip the medical units is particularly high, given the huge funding needs of the Romanian health system.

c) *Results from the analysis (findings)*

Corroborating the analysis results with the opinions collected through the qualitative research instruments, the following finding can be drawn:

The number of supported infrastructures, out of which hospitals/ ambulatories is significantly higher than originally estimated by ROP programming. The list of funded hospitals was established by administrative decision, by order of the Minister of Public Health, not being within the scope of influence of the ROP programming. The number and list of ambulatories receiving support was decided by competitive means, during open calls. Depending on the type of infrastructure, most interventions were performed in ambulatories (89).

At the regional level, the distribution of projects is relatively balanced, with some of the features mentioned above. On the territorial / county level, the number of projects depended on both the capacity of the beneficiaries and the degree of urbanization (for example, in Hunedoara County, the largest number of projects was implemented, nine, because in this county there are more urban localities than in others). 36 projects were implemented in towns, and 60 in municipalities and municipalities that are county residences. 41 projects were implemented by the county councils.

The number of persons benefiting from health infrastructure, of which women/ men is significantly higher than originally estimated through ROP programming. Monitoring vulnerabilities do not allow the correct quantification of the contribution of the intervention regarding attracting new patients to the rehabilitated / modernized / equipped medical units, but it can certainly be considered that all patients who receive services in these units have conditions and services superior to those in the period prior to the intervention.

The services provided within the beneficiary medical units have diversified and improved. Most projects had an important component of investments in modern equipment, which led to an increase in the number and complexity of services provided to patients. This fact is reflected both in the monitoring reports and in the reports of the medical units in the DRG, being confirmed and validated through qualitative research.

The accessibility of the infrastructure has increased, from the perspective of the availability of medical services and medical staff. This effect is particularly felt in small urban areas (small towns and municipalities), where the health infrastructure was in an advanced state of degradation and could no longer meet the needs of the serviced population. After the ROP intervention, there was an increase in the number of patients and even an increase in the patient pool. In some cases, when the medical unit received more funding, the transformation was spectacular, as is the case of the Moinești Emergency Municipal Hospital, in Bacău County, which has become at least as attractive as a hospital in a big city for patients, but also for doctors. The well-performing management and the access to the various funding opportunities available are among the factors that have determined the results in this case.

The accessibility of medical units has increased also for locomotor disabled people, through the constructions performed.

The waiting time for the health service in the beneficiary units has decreased, especially as regards the diagnosis duration, especially within the small units. This is due in large part to the higher performance equipment purchased with the support of the KAI 3.1 funding. The quantification of the actual time saved is impossible to achieve, due to the lack of monitoring data, at the level of the beneficiary units. Therefore, in the context of this evaluation, the waiting time should be understood as a general reference for the duration of access / development of the different types of services, and not as the actual time (which should be

calculated for each type of service separately). The finding was made based on the opinions gathered by the stakeholders during the evaluation.

The level of satisfaction among the users has increased in the beneficiary units. The opinions of the various stakeholders surveyed converge in terms of improving conditions for patients, the overall appearance of medical units and the perceived quality of the services provided. It is important to note that most patients would still access the services of the medical unit even if the ROP investment had not taken place. Also, there were no differences regarding this effect according to the target group category, geographic location or type of infrastructure.

Also, the working conditions of the staff have improved significantly, in some cases the intervention being directly responsible for attracting and/or maintaining medical staff in the unit. However, it should be noted that experiences differ from one medical unit to another and, according to stakeholders' views, other aspects such as management, the work environment or existing opportunities, influence more strongly the physicians' decision to leave the unit.

The development of staff competencies only occurred in some cases, and a systemic effect at the level of intervention could not be documented. The collected opinions revealed that sometimes the purchase of equipment was accompanied by training. Otherwise, either the attracted staff were already adequately trained to use the equipment, or the doctors already had those skills.

4.2. EVALUATION QUESTION 2. WHAT TYPE OF INTERVENTION HAS PRODUCED RESULTS, FOR WHOM, AND UNDER WHAT CIRCUMSTANCES?

The impact of the investments financed under ROP KAI 3.1 cannot be appraised without taking into consideration the socio-economic context in which these investments have taken place and also the needs, challenges and priorities of the national health system.

Like other European Union countries, Romania is also facing an aging population, an upsurge in the number of patients suffering from chronic diseases and budgetary constraints in the health system. This contributes to increased inequalities in terms of access to health services but also in respect to population health status, with the most affected categories living in the most disadvantaged areas, affected by poverty or social exclusion.

The national health system has undergone significant changes in recent years, evolving from complete centralization and full public ownership, to a gradual opening towards competitive services, transfer of authority at local level, development of private services. Further, as emphasized in the analysis of international organizations[23], *"the health system faces multiple challenges. The progress of reforms in key areas such as the development of integrated community care centres and the construction of regional hospitals has been delayed, while in other priority areas the measures taken by the authorities appear to be insufficient. The administrative capacity of the Ministry of Health continues to be very limited, while insufficient investment planning and lack of political commitment continue to hinder the progress of reforms. The shift to ambulatory care remains in its infancy, with most efforts being focused on hospital care."* (Country Report, Romania, 2019[24]).

[23] For example. Functional analysis of the World Bank from 2012, available at: http://documents.worldbank.org/curated/en/310301468297587288/Romania-Functional-review-health-sector or EC Country Recommendations in the context of the European Semester

[24] https://ec.europa.eu/info/sites/info/files/file_import/2019-european-semester-country-report-romania_en.pdf

In this context, the next analytical areas have been taken into consideration:

- *The general and local context in which interventions were designed and carried out*
- *The financial dimension of the Interventions supported by the KAI 3.1*
- *Types of interventions supported by the KAI 3.1*
- *Stakeholders and their potential influence on the design and implementation at program and project level*

a) Collected data

Data and information collection was done using several methods and tools (see previous sections), so that a documented answer to the evaluation question could be formulated. The data and information collected were:

- *Quantitative:* details on the interventions realized by the ROP KAI 3.1, from the funding applications, the final implementation reports and the sustainability reports at project level. Also, quantitative data were collected regarding the medical staff and the medical services in Romania, from the online database of the National Institute of Statistics (NIS) and Eurostat.

  The set of projects under review includes all 101 completed projects[25], the available data referring to:

  - The size of the funding and investments made within the projects: infrastructure and equipment
  - Duration of projects
  - Difficulties encountered in implementation
  - Context elements regarding interventions, at project level

- *Qualitative:* the opinions of the different stakeholders regarding the four levels of analysis, through interviews, focus groups, surveys, stakeholder analysis, benchmarking etc. The data collected refers to the perception regarding the conditions in which the investments were carried out and which were the elements that determined the results.

b) Data analysis

In order to formulate the answer to this question, the impact evaluation theory (EIT) method was used, supplemented by case studies (see Appendix 13 of this report), as well as a multitude of analysis tools (see Section 3.1, Section 3.2 and Appendices 2-7).

The general and local context in which interventions were designed and carried out

At a national level, the strategic priorities of the health sector have been established concretely and assumed at the governmental level since 2004, by the National Public Health Strategy (SNSP)[26] and by the National Strategy on Health Services (SNSS) and the Action Plan for the Health Sector Reform (PARSS)[27]. Strategic documents set out mechanisms and guidelines aimed at improving the health of the Romanian population by implementing measures aimed at transforming public health structures towards those that are appropriate to new international concepts and approaches. At the same time, it is envisaged to ensure a high level

[25] The data set was built on the information obtained from the database of the Monitoring Department within the MA ROP, with cut-off deadline 31 December 2018
[26] Order of the Minister of Health no. 923/2004, http://legislatie.just.ro/Public/DetaliiDocument/53745
[27] Decision no. 1088/2004, http://legislatie.just.ro/Public/DetaliiDocumentAfis/54091

of equity in the access to public health services and to increase the access of the population to quality medical services and to streamline the provision of hospital medical services.

The main objectives set for the provision of health services in Romania for at least a period of 10 years (so throughout the 2007-2013 programming cycle), were the following:

- Improving population access and increasing equity in the provision of health services;
- Improving the quality of health services;
- Improving the effectiveness and efficiency of health services.

The Regional Operational Programme supports the implementation of the National Health Strategy to make health services more efficient by rehabilitating and equipping the hospital infrastructure, as well as by rehabilitating and equipping the ambulatories (KAI 3.1). In this context, the evaluation by the Ministry of Health of the situation of hospitals in Romania identified a number of 15 county hospitals proposed for rehabilitation through the ROP (including ambulatories), distributed by regions, as follows:

- **Botoșani**, **Vaslui** (North-East)
- **Buzău**, **Tulcea, Vrancea** (South-East)
- **Dâmbovița, Ialomița**, **Teleorman** (South Muntenia)
- **Gorj, Vâlcea** (South-West)
- **Maramureș** (North-West)
- **Satu Mare**, **Sălaj** (North-West)
- **Covasna** (Center)
- **Ilfov** (Bucharest Ilfov)

The improvement of the health services infrastructure, the endowment with advanced equipment and technologies have also been identified as needs in the Regional Development Strategies and Plans (SDR/PDR) adopted at the level of some development regions for the 2007-2013 programming period, such as, for example, Bucharest-Ilfov[28] and North-East[29]. Also, the health sector and, specifically, the improvement of the health infrastructure are mentioned as priorities in all local development strategies, at county or local level. KAI 3.1 also responded to regional needs, supporting to a certain extent their resolution, taking into account the limited level of available financial resources, by calls for projects aiming to support investment in ambulances to which medical units from all regions subordinated to local authorities had access.

Within KAI 3.1, the medical units subordinated to the line ministries were not eligible for funding (e.g. CFR hospitals subordinated to the Ministry of Transport, penitentiary hospitals subordinated to the Ministry of Interior, hospitals subordinated to the Ministry of Health, hospitals subordinated to the Ministry of National Defence).

At the time of designing and launching the KAI 3.1 calls, the needs for funding the health infrastructure were, as at present, huge. Medical units operate in old buildings (30-50-80 years old or older), which no longer meet the current requirements regarding functional circuits and can no longer be adapted, only to a small extent[30]. Some buildings were in an advanced state

[28] http://www.regioadrbi.ro/media/6779/Planul%20de%20Dezvoltare%20Regionala%20Bucuresti-Ilfov%202007-2013.pdf

[29] https://www.adrnordest.ro/user/file/regional%20rdp%202007/3_%20Strategia%20de%20dezvoltare%20regionala.pdf

[30] The current trends are for medical units to be built modularly, so that they can be easily modified and adapted to the ever changing requirements, dictated by the renewal of functional circuits.

of degradation, being at the first rehabilitation of the construction. Most sanitary units did not have modern equipment and devices, especially in small urban areas[31]. This is still the case, despite the investments through KAI 3.1, which were considered unanimously welcome, "a breath of oxygen for survival", "absolutely necessary, but insufficient" to cover the needs, especially at the level of large medical units, which often had to separate the projects already under preparation and to fund only part of the investments in KAI 3.1.

In the context of the massive migration abroad of the working-age population, medical staff was one of the categories that had the highest emigration rates, amid dissatisfaction with a combination of factors: very low wages, poor working conditions, lack of equipment, de-professionalization, low quality of life (except for big cities, growth poles). The lack of medical staff has brought many medical units into a situation where they cannot provide services. In this context, for many beneficiary units, funding was the only opportunity to attract and maintain medical staff. Experiences are different however and they cannot be generalized. For example, in the case of a small town (Lehliu-Gară) close to a large urban center (Bucharest), it is still difficult to maintain medical staff, because proximity to the capital makes the medical unit less attractive and poor transport infrastructure makes the commute difficult. On the opposite side, in the case of Moinești (Bacău County), located at a distance from larger urban centers (about 60 km from Bacău), there were significant successes in attracting staff, despite the fact that the level of quality life and the opportunities they offer are not high. On the contrary, the hospital itself has become a factor that has increased the quality of life in the locality. In both cases, however, projects funded through the KAI 3.1 have been complemented by numerous other initiatives and funding.

Despite the migration of medical staff, due to the sharp demographic decline, the number of physicians relative to the population increased in the period covered by the KAI 3.1 intervention in all regions of the country, from an average of 221.33 doctors per 100,000 inhabitants in 2008 to 284.10 in 2016[32]. The best coverage is in the Bucharest-Ilfov region (553.07 doctors / 100.000 inhabitants in 2016), and the worst in the South-Muntenia (152.09 doctors / 100.000 inhabitants in 2016). Figures do not show however the distribution of medical staff by environments or by type of medical unit.

The financial dimension of the Interventions supported by the KAI 3.1

The value of the funding accessed through KAI 3.1 was clearly higher than any other funding sources accessed or available at that time. Even so, the needs were so high that the projects that some hospitals had prepared (feasibility studies) were adjusted to fit the available budget.

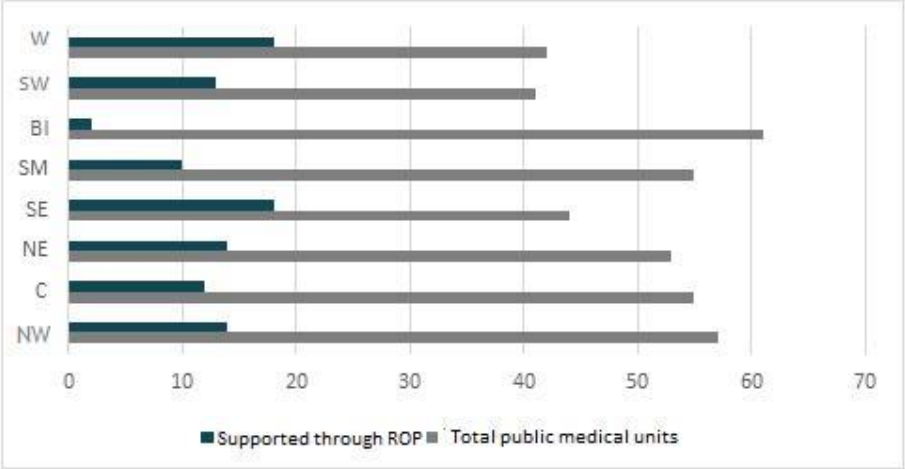
Other funding was provided by the Ministry of Health and/or by the local public authorities (especially the county councils), but these could not be compared with those in KAI 3.1.

At national level, through KAI 3.1, 98 public medical units were supported, out of a total of 408 units (24%). The report is also kept at regional level, except for the Bucharest-Ilfov region, where only two hospitals were funded, out of a total of 61.

[31] As evidenced by the participants' reports in interviews and focus groups.

[32] Source: Eurostat, search code: hlth_rs_prsrg

FIGURE 7 MEDICAL UNITS SUPPORTED BY KAI 3.1 IN RELATION TO THE TOTAL PUBLIC MEDICAL UNITS, AT REGIONAL LEVEL (2017)



Source: NIS, TEMPO Online, MA ROP

Taking into account the fact that, through the ROP funding, almost a quarter of the public health care units in the country were supported, and that the size of the project funding is clearly superior to any other source at that time, it can be considered that the KAI 3.1 intervention had the potential to produce visible changes in the quality of the healthcare infrastructure in Romania, but the effects are diminished by the size of the needs.

Types of interventions supported by the KAI 3.1

KAI 3.1 financed investments in the rehabilitation, extension and modernization works of buildings of medical units and the purchase of modern medical equipment and technologies. As the beneficiaries were public authorities, all purchases (of works or equipment supply) were carried out in accordance with the legislation in force in the field of public procurement.

Recognized as one of the main obstacles in the implementation of the projects during the previous programming period (as, in fact, and in the current one, 2014-2020), the conduct of procurement procedures, especially the resolution of complaints, caused the greatest delays and problems in the implementation of projects, irrespective of the amount contracted, the subject of the contract, the type of beneficiary, the geographical location or other factors.

Stakeholders and their potential influence on the design and implementation at program and project level

The main stakeholders in the context of the implementation of KAI 3.1 are shown below, together with elements regarding their potential influence on the intervention

TABLE 8 STAKEHOLDERS

Entity	Field of interest	Actual involvement
Ministry of Health	Strategic, national	Defining the list of beneficiary hospitals Approval of the technical documentation of the projects
Ministry of Regional Development and Public Administration	Strategic, national	Defining the design of the intervention and indicators, at ROP level
MA ROP	Strategic, national Operational	Launching calls, developing guides, monitoring at PO level, evaluating the intervention
IO ROP	Strategic, regional Operational, at project level	Evaluation, contracting and monitoring of projects, ROP monitoring at a regional level
Local public authorities	Strategic, local Operational, at project level	Developing and implementing local development strategies Accessing and implementing projects Conducting procurement
Beneficiary medical units	Operational, at the medical unit level	Defining needs for elaborating the CF Ensuring conditions for project implementation (temporary adaptation of functional circuits, etc.) Providing human resources for the use of equipment Ensuring sustainability

c) Results from the analysis (findings)

Corroborating the analysis results with the opinions collected through the qualitative research instruments, the following finding can be drawn:

- From a strategic perspective, the investments supported by the ROP KAI 3.1 subscribed to the general public policy objectives in the field of health.
- The size of the funding provided through the KAI 3.1 is likely to produce effects at national level, as it covers almost a quarter of public health units.
- Regarding the conditions that influenced the production of the results, the following aspects have emerged as the most relevant following the consultations:
  - although the results of the investments were positive in all cases, the distance to the large urban centers was an influential factor for the impact of interventions in small towns.
  - effective collaboration between local public authorities and medical units has proven to be particularly important in order to ensure adequate coverage of project needs, namely by the conducted procurement. There have been cases when the technical specifications of the medical unit were changed by the ATU (to fit the available budget or for other reasons), which led to the purchase of equipment considered suboptimal by the medical unit.

- the conduct of procurement procedures was the main obstacle to implementation, and the cause of delays.
- the administrative burden associated with the submission of funding applications, reporting during implementation or contractual changes has been lifted, but the generally effective collaboration with IO ROP has made it easier for beneficiaries to overcome this obstacle.

5. CONCLUSIONS, RECOMMENDATIONS AND LESSONS LEARNED

ROP 2007 - 2013 was one of the major instruments for the implementation of the national strategy and the regional development plan in Romania, in the context of the National Strategic Reference Framework (NSRF). With an allocation of approximately € 4.4 billion, the ROP has financed interventions to reduce disparities between the most developed and least developed regions, in support of the "economic, social, territorially balanced and sustainable development of the regions of Romania"[33].

The specific objective of KAI 3.1 was to contribute to enhancing the quality of the healthcare infrastructure and balancing its territorial-regional distribution across the country, in order to ensure equal access to health services. At the same time, one of the expected effects was that interventions funded under KAI 3.1 would help support outpatient care, with a positive impact on hospital costs and access to specialized assistance services.

In relation to the objectives of ROP KAI 3.1, taking into account the findings from the analysis (see Section 4.) and the responses to the evaluation questions, the following conclusions and recommendations can be drawn:

Evaluation question 1. What was the net effect of the intervention and which were the factors that influenced the results?

The net effect of ROP KAI 3.1 is a positive one, reflected both in the aggregate actual results at the level of the projects as well as on the whole, at the level of the health system or of the local communities. The intervention responded, even if only partially, to a major need for the system and in many cases supported public medical units from small cities to demonstrate that they could be performing.

The effects of the intervention are sustainable, as the positive results were maintained both during and after the project's sustainability period.

The most important factor which influenced the intervention is the dimension - in financial terms - of the funding provided by the KAI 3.1, being the first of this magnitude, after the communist period. However, the challenges of the health infrastructure in Romania remain numerous and complex, and funding needs remain high.

Another factor which positively influenced the achievement of results is the intervention design, based on mixed investments in rehabilitation, modernization and endowment with equipment. Thus, the projects responded both to functional, operational and comfort needs for the patients and healthcare professionals, thus contributing to the satisfaction of healthcare users and even attracting staff in the context of a labour market in crisis at the sector level.

The management of the medical unit, the involvement of the local authorities and the collaboration between the two entities are a factor favouring the achievement of positive results.

> R1. The intervention model applied under KAI 3.1, i.e. combined investments in rehabilitation, upgrading and endowment with equipment, especially for small urban areas units, could be a model for intervention in preparation for the strategic and

[33] ROP, pg. 120, available at http://old.fonduri-ue.ro/res/filepicker_users/cd25a597fd-627/Doc_prog/prog_op/ 1_POR/POR.pdf

operational framework for the implementation of structural instruments for the post-2020 period.

R2. Successfully highlighted examples could be considered as best practices and popularized in order to be replicated and expanded through future funding.

R3. The contribution of ROP KAI 3.1 should be analysed from the perspective of contributing to the achievement of the objectives of the national strategies in the field and could be a reference point for defining future interventions.

R4. Taking into consideration the needs of the system, it is recommended to allocate substantial funds in the future for the rehabilitation, modernization and extension of the health infrastructure in line with the strategic reform directions of the provision of medical services.

R5.Taking into consideration the significant change of context between the start of the ROP KAI 3.1 interventions and the following potential interventions, an analysis is recommended at the level of all public health units, which might also take into account the evolution of the private sector. Following this analysis, a number of medical units. Categories of medical units could be prioritized for funding. The results of the analysis and the criteria for prioritization should be public, in contrast to the situation from 2007-2013, when the list of hospitals elaborated by the Ministry of Health was drafted in a non-transparent manner.

R6. In order to ensure alignment between future interventions and public policy in the field, the involvement of the Ministry of Health in the design of the intervention, the definition of indicators and targets and the selection criteria for projects in essential.

Evaluations question 2. Which interventions have produced results, for whom, and under what conditions?

Most funded projects combined rehabilitation investment, upgrading and equipment provision. The evaluation revealed that this type of interventions, which responds to more needs, is the one that generates significant and sustainable results.

The positive effects are manifested for all supported units, but obviously they are more notable as their funding are higher. Two types of projects have been highlighted by the stakeholders as "successful": (1) those supported in small urban areas, remote from large urban center and (2) those supported in county or municipal hospitals with a high degree of degradation.

The positive effects produced by the interventions of KAI 3.1 are highlighted first of all for the patients, by increasing the accessibility, diversity and quality of the medical services, as well as for the medical staff, by improving the working conditions. Also, in small towns, the entire community gains, by increasing the quality of life.

Favourable conditions for obtaining and maintaining positive results are mainly related to:

- Geographic location; if the medical unit is located in proximity of a large urban center, the results may be worse than over a longer distance.
- Linking interventions with other investments, from other sources.

Positive results have been obtained despite the following unfavourable conditions, related to:

- Delays caused by the difficulties encountered during the procurements procedures.
- Administrative burden related to accessing and implementing projects.
- Staff shortages, generated mainly by the migration of medical staff abroad.

Certain types of medical units have remained uncovered (ineligible) by funding, for both 2007-2013 and 2014-2020 periods.

R7. It is recommended to consider the financing of hospitals subordinated to line ministries (Ministry of Transport, Ministry of Administration and Interior, Ministry of Health).

Lessons learned

Monitoring KAI 3.1 intervention was poorly built, based on indicators that proved to be impossible to collect.

R8. It is recommended that MS be involved in defining the intervention monitoring framework, aligning the indicators with those frequently used by medical units, limiting their number to those considered absolutely necessary and relevant.

R9. It is recommended to use IT solutions to collect and report indicators, including their collection directly by the IB/MA from administrative sources (DRG), in line with international best practice in the field.

The administrative burden on implementation has remained an obstacle for beneficiaries.

R10. It is recommended to use IT solutions for monitoring, reduce the number of administrative documents requested in printed format, eliminate copies, and simplify the implementation process.

The most significant challenges of this evaluation was the limited understanding or misunderstanding of the role of evaluation in identifying the evidence needed to make decisions in the public policy cycle. The evaluation team has constantly tried to communicate with all the actors involved and to explain the importance and to explain the importance, purpose of the evaluation, and how each stakeholder can benefit from an evaluation exercise, in order to base his decision on solid information from the evaluation, or in order to better understand how effective was the way money was spent, what has the effect and what not, which are the interventions that have results and impact.

R11. We consider that a collective effort is needed to create and develop the evaluation culture at central/ regional/ local level.

R12. Taking into account the data accessibility and quality, as well as the willingness of the main stakeholders to get involved in the evaluation process, we believe that a realistic duration for an impact assessment should be 8 months.