

REGIONAL DISPARITIES IN ROMANIA. CONTRIBUTION OF THE REGIONAL OPERATIONAL PROGRAM TO HEALTH INFRASTRUCTURE

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ABSTRACT - Health infrastructure is one of the weaknesses of socio-economic development in Romania and in other European states. In order to get a better picture of the Romanian health system issues, this paper analyzes a number of statistical indicators considered representative for the national and European health infrastructure for a 20 years period, between 1990 and 2010. Our paper has three main objectives: (a) to identify the main trends for health infrastructure in some of the European Union countries; (b) to describe the evolution of the health system in Romania, the comparative situation at the European level as well as regional level indicators dynamics; (c) to overview the Regional Operational Program in Romania, how much does it help the regional health infrastructure in our country. At the European level, there is a constant decrease in the number of hospital beds. For this indicator, Romania has slightly higher values than the European average. We must mention that the hospital beds indicator offers limited information on health infrastructure which also includes medical equipment and specific devices and practices. The number of hospitals in Romania increased with 18.9% during the last 20 years (1990-2010). During the observed timeline, the number of hospitals in Romania had a constant positive evolution at regional level. The number of doctors in hospitals has an increasing trend at the local as well as at the international level. Romania has a number of doctors twice lower than the European average (3.6 doctors for one thousand inhabitants). The Regional Operational Program (ROP) has a limited influence in achieving the objectives stated in Applicants Guide for Priority Axis 3. Major Intervention Area 3.1. This happens because supporting infrastructure improvements will not create institutional modernization. The financial contribution through ROP will result in the modernization of 11% of the existing hospitals in Romania.

Keywords: regional disparities, health infrastructure, health indicator analysis, Regional Operational Program, financial contribution

INTRODUCTION

Health infrastructure represents one important component of the socio-economic development in Romania and also in other states in Europe and worldwide. In order to have a clear image of the problems inside the health system, this paper analyses some indicators considered representative for the health infrastructure at the national and at the European level.

There are three main objectives for this paper:

- a. Main health infrastructure trend identification for some EU states, comparative situation at the European and at the national level;
- b. Health structure evolution in Romania, indicators dynamic at the regional level;
- c. Estimation of the Regional Operational Program (ROP) contribution to health system, how does it help mitigate regional disparities in health infrastructure in Romania.

The methodology used has four steps: actual evaluation, critic assessment of dedicated literature, specific database evaluation, diagrams realized using selected data and some conclusions.

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HEALTH INFRASTRUCTURE EVOLUTION

Health infrastructure analysis can be done at the European and at the national level by tracking some indicators chosen by international organizations. For this paper, the most important indicators were considered to be the number of hospitals and the number of hospital beds for 1,000 inhabitants.

Hospital infrastructure during 1990-2010 in some European countries

At the European level, there is a constant decrease in the number of hospital beds for EU 27 as well as for each member state. Compared with the European average indicator (5.6 hospital beds for 1,000 inhabitants), Romania surprisingly has rather high values for this indicator, varying around 7 beds for 1,000 inhabitants (Figure 1), the same values as Poland. Germany and Hungary have some of the highest values in Europe, while Spain – one of the largest European countries as surface – has very low values for this indicator, one of the lowest values in Europe.

According to the available data from EUROSTAT, all four European states chosen for this analysis have downward trends in terms of the number of hospital beds for 1,000 inhabitants indicator. The same descending evolution was registered for EU 27 values of the same indicator, between 3.76 hospital beds for 1,000 inhabitants in 1999 and 3.19 in 2009.

As showed in Figure 1, the number of hospital beds for 1,000 inhabitants in Romania has values at the same level with Poland indicator values, between 7.58 (hospital beds for 1,000 inhabitants) in 1999 and 6.16 in 2010.

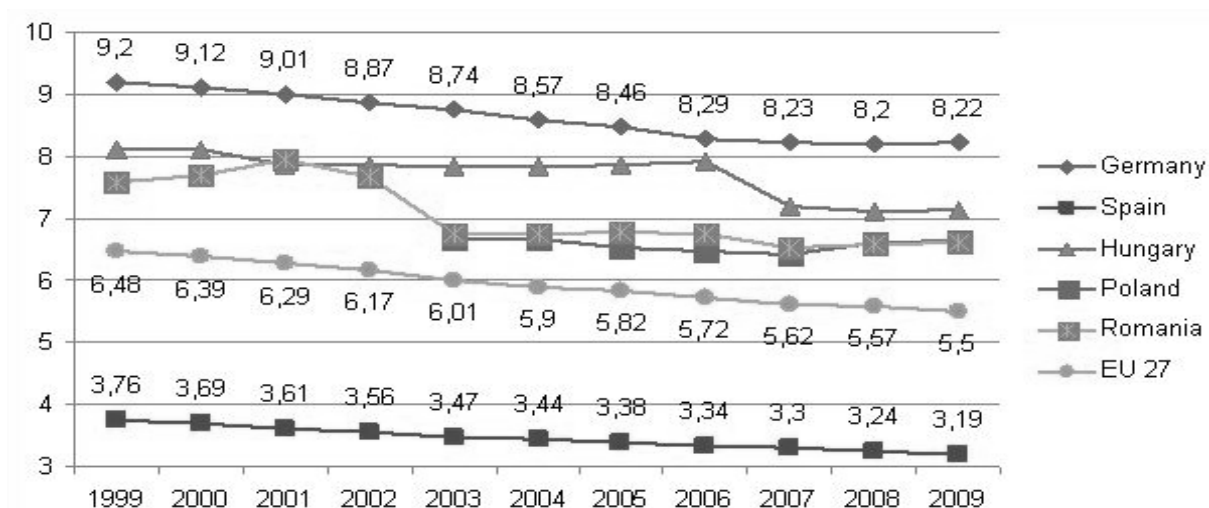


Figure 1. Number of hospital beds for 1,000 inhabitants in Romania and in other European states (1999-2010)

Source: analysis of the data in Annex 1

It is important to mention that the number of hospital beds indicator is rather limited as related to health infrastructure information because health infrastructure includes also medical equipment and techniques which were not analyzed here. Hospital beds for 1,000 inhabitants is an indicator representative for the global evaluation of hospital infrastructure.

Hospital infrastructure dynamics in Romania during 1990-2010 at the regional level

Number of hospitals

The number of hospitals in Romania increased during last 20 years with 80 units, namely 18.9%, from 423 in 1990 to 425 in 1999, reaching a number of 503 units in 2010 (see Annex 2). During the analyzed period, the number of hospitals in Romania had, at the regional level, a constant increasing trend, for most of the regions.

REGIONAL DISPARITIES IN ROMANIA. CONTRIBUTION OF THE REGIONAL OPERATIONAL PROGRAM TO HEALTH INFRASTRUCTURE

Comparing to national average, which registered values between 52 and 62 hospitals per region and analyzing the data from Annex 2, it results that four regions have always registered values above the average – the North-East, the Muntenia-South, the North-West, and the Bucharest-Ilfov Region – while the South-East, the South-West, and the West region have always had values below the national average.

As shown in Figure 2, hospitals are distributed quite evenly between regions in Romania, with percentages from 9% in the South-West region to 14% in the North-West and in the North-East Region. Bucharest-Ilfov has the highest percentage in Romania, 16%, due to its small area and the largest number of inhabitants.

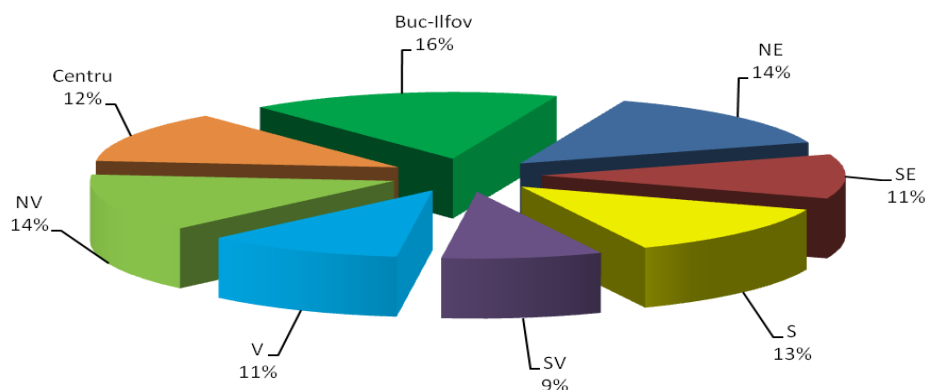


Figure 2. Regional distribution of hospitals in Romania (2010)

Source: analysis of the data in Annex 2

In a regional classification, the first place is taken by the Bucharest-Ilfov Region, with a 66% increase in the number of hospitals during the analyzed period. On the second place is the North-West Region with a 24% increase and on the third place is the North-East Region with 22% increase in the number of hospitals. Last place is taken by the South-West Region with 4.9% and Muntenia-South, with 9.9%.

The Muntenia-South Region is the only one with a smaller number of hospitals at the end of the analyzed period, 64 units in 2010 compared to 71 units in 1990.

The Bucharest-Ilfov Region is the other exception: the number of hospitals increased with 66%, starting at 50 units in 1990 and reaching 83 units in 2010. The fastest increase was during 2009-2010.

The South-West Region had a slight increase of only 4.9% during the analyzed period and had the most constant and linear evolution, from 41 units in 1990 to 43 units in 2010.

If we consider specific values for this indicator (per inhabitant) for each region, there was a constant positive evolution for every region in Romania. The national values are also the average value, with an increasing trend of 20% during 1990-2010.

Number of hospital beds

The statistical indicator hospital bed number for 1,000 inhabitants has an average value between 8.9 and 6.1 for the analyzed period. One may notice a 30% decrease in the number of hospital beds for the same number of inhabitants.

At the beginning of the analyzed period (1990), the numbers were between 7 and 12 beds for 1,000 inhabitants and, at the end of the period (2010), they were between 4 and 7 beds for 1,000 inhabitants. This decrease in hospital beds has a regional variation from 36.2% in the North-East Region to 12% in the Bucharest-Ilfov Region.

The Muntenia-South Region has the lowest values at the national level and a constant decreasing trend, from 7.22 hospital beds for 1,000 inhabitants in 1990 to 4.76 units in 2010.

EVOLUTION OF THE PRACTICING PHYSICIANS DURING 1990-2010

The number of physicians is a permanent variable at the local and international levels, considering different influence factors: changes in the number of graduates from medical schools, changes in work conditions, migration trends, etc.

Number of physicians in selected countries

For the analysis of the number of physicians for 1,000 inhabitants indicator at the European level, we chose some European states with different values and evolution trends, in order to get a clarifying picture of this indicator. The member states chosen for this analysis are Germany, Spain, Hungary, and Poland. National average values for these states are constantly increasing for the number of physicians indicator and constantly decreasing for the number of hospital beds. This is why the number of physicians against hospital beds has increased leading also to an increased quality of medical services.

Spain and Germany are among the states with the largest number of practicing physicians, above the European average of 3.2 physicians for 1,000 inhabitants. The case of Spain is remarkable because of the drastic decrease in the number of hospital beds and the constantly increasing number of physicians.

At the European level, Romania has one of the lowest positions regarding the number of physicians for 1,000 inhabitants indicator, even if the last ten years marked a slightly increasing trend, from 1.91 physicians for 1,000 inhabitants in 1999 to 2.44 in 2010. This indicator is twice lower in Romania than the European average of 3.6 physicians for 1,000 inhabitants.

The analysis of Figure 3 shows an increasing trend in the number of physicians for 1,000 inhabitants indicator in every analyzed country.

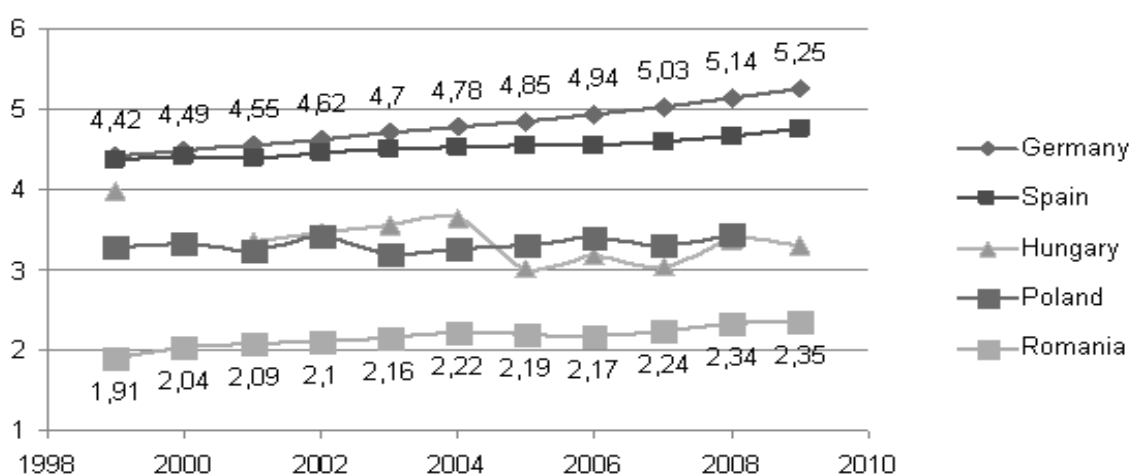


Figure 3. Physicians for 1,000 inhabitants in some European states (1999-2010)

Source: analysis of data in Annex 3

Number of physicians in Romania at the regional level

The number of physicians for 1,000 inhabitants in the Romanian regions has an evolution similar to that of the number of hospitals: there are increasing values for the entire analyzed period. The Bucharest-Ilfov Region is the only one with a much higher number of physicians related to the number of inhabitants in the respective region. It has a constant increasing trend for the analyzed indicator, from 2.38 physicians for 1,000 inhabitants in 1999 to 5.38 physicians in 2010. It has a 125% increase for this indicator.

The average increase in the number of physicians for the analyzed period is about 45%. The highest increase was in the Bucharest-Ilfov Region, 125%, followed by the West Region – 63.8%, and the North-West Region – 56.2%. The lowest increase was in the North-East Region – 20.4%.

REGIONAL DISPARITIES IN ROMANIA. CONTRIBUTION OF THE REGIONAL OPERATIONAL PROGRAM TO HEALTH INFRASTRUCTURE

Muntenia-South Region is the only one with a decrease in the number of physicians, from 1.47 physicians for 1,000 inhabitants in 1990 to 1.41 in 2010, which means a 3.7% decrease.

For a clear image of the evolution trends in health infrastructure at the regional level, we realised a dynamic analysis of the number of hospital beds and of physicians (Table 1).

Table 1. Health infrastructure indicators evolution in Romania at the regional level (1990-2010)

Region	1990		2010		Dynamics 2010/1990	
	Beds/hospital	Doctors/bed	Beds/hospital	Doctors/bed	Beds/hospital %	Doctors/bed %
North-East	544.78	0.17	280.78	0.33	-51.5	188.7
South-East	471.46	0.18	258.52	0.34	-54.8	190.8
South	364.01	0.20	242.17	0.30	-66.5	146.1
South-West	496.15	0.21	296.79	0.37	-59.8	177.3
West	518.82	0.19	248.15	0.47	-47.8	253.1
North-West	501.16	0.18	254.80	0.41	-50.8	225.0
Centre	523.21	0.17	252.86	0.37	-48.3	211.3
Bucharest-Ilfov	538.44	0.21	269.81	0.54	-50.1	256.7
Total Romania	489.36	0.19	262.43	0.40	-53.6	209.9

Source: analysis of multiple data in Annexes 1-5

As seen in Table 1, the number of beds and the number of hospitals decreased at the national level and in some regions was down to half in 2010 as compared to 1990. The number of beds related to the number of hospitals decreased with an average of 53.6%. The region with the highest decrease is the South Region – 66.5%, followed by the South-West, with a decrease of 59.8%. The smallest decrease was in the West Region – 47.8%.

In addition, one may see that the number of physicians and the number of hospital beds increased in the period under review and the national value of this indicator doubled. The national average ratio between the number of physicians and the number of hospital beds is 209.9%. Regions that have recorded the highest growth are the Bucharest-Ilfov, with an increase of 256.7% and the West Region with 253.1%. At the other extreme are the the South-West Region – 177.3% – and the Muntenia-South – 146.1%.

We may conclude that the medical care in Romania has improved in the last 20 years because the tendency was to have a smaller number of hospital beds and a larger number of physicians. This shows more attention to hospitalized patients. The analytical result must be viewed with caution because patient care requires more than a bed and a doctor and the health system in Romania has many other deficiencies: low number of nurses, outdated and inefficient equipment and poor and/or too expensive medication.

THE ROP INFLUENCE IN ROMANIA

The Regional Operational Program (ROP) implements elements of the National Strategy for Regional Development of the National Development Plan (NDP), contributing to reducing economic and social disparities between Romania and the EU Member States in terms of average development.

The ROP in Romania – General information³

Six priority axes were defined for the ROP, including Priority Axis 3 – “Improving social infrastructure”, which is of importance to the subject of our analysis.

³ www.inforegio.ro

The Regional Operational Program is funded between 2007 and 2013 from the state budget and from local budgets, being co-financed by the European Regional Development Fund (ERDF), whose contribution must not exceed 85% of the total financial allocation of the program.

The financial allocation for the axis and the major intervention area that influences health is 173.58 million Euro, equivalent to 3.79% of the total amount allocated by ROP for Romania.

Table 2. *Financial assignment for the ROP, Priority Axis 3, Major Intervention Area 3.1*

	Unit	The ROP 2007-2013	Priority Axis 3 “Improvement of social infrastructure”	Major Intervention Area 3.1 “Rehabilitation / modernization / health infrastructure equipment”
Total assigned fund	Million Euro	4,568.34	657.53	173.58
% of the total ROP	%	100%	14.39%	3.79%

Source: “Applicants Guide to submit projects for the ROP 2007-2013, Priority Axis 3 – Improvement of social infrastructure, Major Intervention Area 3.1 – Rehabilitation / modernization / health infrastructure equipment”

The total amount allocated by the ROP for health infrastructure – 173.6 million Euro – is quite high compared to other sources of funding in the same field. For comparison, the Health Reform Thematic Fund established under the Romanian – Swiss Cooperation Program in order to mitigate economic and social disparities has a total budget of 8.32 million Euro for 2011-2019, with application in neonatology and emergency medical services. The World Bank⁴, through the Health Reform Project developed from 2004 to 2012, provided a budget of 166.8 million Euro to improve people’s access to health services.

The ROP contribution to improve the health infrastructure in Romania

Priority axis 3 “Improvement of social infrastructure” aims to provide essential services to population through improvement of health services, education, social and public safety in emergency situations. Under this priority, we identified four major areas of intervention, including Major Intervention Area 3.1 “Rehabilitation / modernization / health infrastructure equipment”, which correspond to the subject developed in this paper.

According to the “Applicants Guide to submit projects for the ROP 2007-2013, Priority Axis 3 - Improvement of social infrastructure, Major Intervention Area 3.1 - Rehabilitation / modernization / health infrastructure equipment” there are general and specific objectives of this key area.

The general objectives are:

- Stop negative trends and create conditions for improving the health of the population;
- Adopting existing principles and policies in public health at the EU level;
- Continue reform of the health system to improve its performance as a prerequisite for improving health.

The general objectives are poorly formulated: they do not specify the negative trends to be stopped, nor the methods by which population health can be improved. They do not highlight European policies that should be adopted at the national level or the degree to which they were or were not implemented until now.

There are no details about how healthcare reform could be supported, nor any overview of the current situation: is there any plan, is there any reform in the health system and if this happens, what steps have been taken so far. Basically, modernizing hospitals cannot achieve the above objectives.

⁴ <http://www.worldbank.org/projects/P078971/health-sector-reform-2-project-apl-2?lang=en>

REGIONAL DISPARITIES IN ROMANIA. CONTRIBUTION OF THE REGIONAL OPERATIONAL PROGRAM TO HEALTH INFRASTRUCTURE

Specific objectives of the Major Intervention Area 3.1 are:

- to reduce the burden of non-contagious diseases;
- to increase the capacity for the control system for contagious diseases;
- to improve population' mental health;
- to ensure optimal health and quality of life in Romania at all stages of the life cycle;
- to improve control of behavioural risk factors and environmental factors and early detection of diseases;
- to improve the health system management.

The Guide for Applicants does not explain in detail the specific objectives and does not specify the measurement procedures applicable: it does not state which non-contagious diseases are covered and what steps could be taken to reduce their frequency, it remains unclear how it can increase the capacity of the health system to control diseases. Moreover, it is not stated how "the mental health condition" could be improved. There are no details about the optimal level of health and how it can be achieved. The programme does not clearly specify the management methods to improve the health system, the behavioural and environmental risk factors to be kept under control or the methods for achieving this goal.

The Guide for Applicants states for Priority Axis 3, Major Intervention Area 3.1 the following indicators for monitoring and evaluation⁵:

- *Immediate results (direct)* - Health facilities rehabilitated / upgraded / equipment (total) 50%;
- *Induced results (indirect)* - Increased access to health facilities rehabilitated / upgraded 10%.

In order to absorb the funds provided by the European Union through the Regional Operational Program, projects must be submitted, in compliance with the conditions set out in the Guidelines for Applicants⁶. The total value of the projects is between minimum 700.000 lei and maximum 85.000.000 lei (equivalent of about 200.000 to 25.000.000 Euros). Given the specific activities eligible for funding under Major Intervention Area 3.1, this key area is not covered by the provisions on State aid.

As seen in Table 3, the initial indicative planning ROP Axis 3, Major Intervention Area 3.1 provided rehabilitation of 50 hospitals across the 8 development regions. There was required no fixed number of units for each region, it was going to be set according to local needs.

According to the existing data on 31 July 31 2012, contracts for modernization / equipping / rehabilitation were signed for 58 hospitals, representing 11% of hospitals currently existing in Romania. Compared with the figures in the Guide for Applicants for monitoring and evaluating indicators of investment – 50 hospitals rehabilitated and 10% increase in access to health care – the results are better than expected.

The contracted amount represents an average of 98% from the initial indicative allocation. Two regions – the South-Muntenia and the North-West exceeded initial allocation with shares between 16% and 18%. The average amount was around 3 million Euro⁷. This is a good prerequisite for the absorption of EU funds.

The regions with the highest percentage of rehabilitated hospitals are the West Region (22.6%) and the South-East (22.2%). The South-Muntenia Region recorded a low shrinking percentage, only 4.7%, representing only 3 units of more than 60 hospitals existing in the region. The other four regions showed values around the national average of 11%.

Bucharest-Ilfov Region has benefited from the modernization of only 1.2%, namely a single hospital out of 80 units existing at the date of our survey. The amounts of the initial indicative allocation of ROP were 90% contracted, which shows the allocation of small amounts for this region. This reduced allocation of funds for the Bucharest-Ilfov region is justified by the fact that the region

⁵ Applicants Guide to submit projects on the ROP 2007-2013, Priority Axis 3 – Improvement of social infrastructure, DMI 3.1 – Rehabilitation / modernization / health infrastructure equipment, www.inforegio.ro

⁶ Available on-line <http://www.inforegio.ro/node/17>

⁷ Idem 3

already has a high density of hospitals and there are various sources of funding for modernisation, more than in other regions of the country.

Table 3. *Indicative financial allocation and contracted amounts in Romania on regional level for Major Intervention Area 3.1. (2012)*

Region	Indicative financial allocation	Planned number of modernized hospitals	Contracted number of modernized hospitals	Total number of hospitals (2010)	Modernized hospitals (%)	Total contracted funds	% contracted amount from allocation
unit	Mill. RON	Number of hospitals	Number of hospitals	Number of hospitals	%	Mill. RON	%
Total Romania	746.39	50	58	503	11.5	736.76	98.7
North-East	121.82	8.1	8	72	11.1	112.28	92.2
South-East	98.90	6.6	12	54	22.2	90.46	91.5
South	106.21	7.1	3	64	4.7	127.22	119.8
South-West	104.58	7.0	7	43	16.3	97.19	92.9
West	77.19	5.1	12	53	22.6	64.53	83.6
North-West	90.26	6.0	9	71	12.7	105.20	116.6
Centre	81.31	5.4	6	63	9.5	80.10	98.5
Bucharest-Ilfov	66.13	4.4	1	83	1.2	59.78	90.4

Source: analysis of the data in Annex 6

CONCLUSIONS

Taking into account the analysis of available statistical data, we draw some conclusions concerning the objectives targeted in this paper:

a) Health infrastructure development in Europe shows a decreasing trend in the number of hospital beds available per thousand inhabitants in parallel with the constant increase in the number of doctors. This process has the effect of increasing the number of doctors corresponding to hospital beds and, consequently, increasing the quality of the medical services. Increasing the number of doctors per thousand inhabitants coupled with fewer hospital beds results in increasing the quality of care provided to patients, because the fact that more physicians are responsible for a smaller number of patients is a guarantee of high quality services that will benefit patients. This is very obvious in Europe, especially for Spain, where the number of hospital beds is much below the European average (5.61 beds in 2010) and continues to decrease while the number of doctors is over European average (3.2 doctors in 2009) and growing;

b) Romania had an evolution comparable to the European trend, the number of beds per thousand inhabitants steadily decreasing and the number of doctors slightly increasing for the analyzed period. Romania has one of the lowest figures in Europe in terms of number of doctors per thousand inhabitants, although in recent years it has increased by 45%. The number of doctors per thousand inhabitants in Romania is twice lower than the European average of 3.6 doctors. The number of hospital beds registered an average decrease of 30% at the national level and almost all regions recorded values above the national average (6.16 beds per thousand inhabitants in 2010), except for the Bucharest-Ilfov Region with a decrease of only 12%. In Romania, existing data only allow a quantitative evaluation: the number of beds per thousand inhabitants is above the European average

REGIONAL DISPARITIES IN ROMANIA. CONTRIBUTION OF THE REGIONAL OPERATIONAL PROGRAM TO HEALTH INFRASTRUCTURE

(5.61 beds in 2010) and the number of physicians is somewhat lower than the EU average (2.3 doctors in Romania compared to EU, with 3.2 doctors in 2009) – the result is a level of care well below the European standards.

c) The ROP has a limited influence in achieving objectives stated in Applicants Guide for Axis 3, Major Intervention Area 3.1 because modernizing the infrastructure cannot lead to achievement of institutional goals. Both general and specific objectives are poorly stated, extremely general and without specifying how to quantify the results. The financial contribution through the ROP will result in modernising about 11% of the hospital units currently existing in Romania, most regions getting benefits close to the average percentage (11%). The initial allocation amounts were 98% contracted. This high percentage shows a high absorption, an original fair foundation and accurate assessment of high need for modernization funding of the hospitals in Romania.

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ANNEXES

Annex no. 1. *Number of hospital beds per thousand inhabitants in Romania and in some European states (1990-2010)*

	‰				
Number of beds in hospitals	Germany	Spain	Hungary	Poland	Romania*
1999	9.2	3.76	8.12	-	7.58
2000	9.12	3.69	8.1	-	7.69
2001	9.01	3.61	7.86	-	7.94
2002	8.87	3.56	7.86	-	7.67
2003	8.74	3.47	7.84	6.68	6.75
2004	8.57	3.44	7.83	6.67	6.74
2005	8.46	3.38	7.86	6.52	6.78
2006	8.29	3.34	7.92	6.47	6.74
2007	8.23	3.3	7.19	6.42	6.54
2008	8.2	3.24	7.11	6.61	6.57
2009	8.22	3.19	7.15	6.65	6.62
2010	-	-	-	-	6.16

Source: EUROSTAT

*Data for Romania taken from the Territorial Statistics 2011, INSSE

Annex no. 2. *Number of hospitals in Romania at the regional level (1990-2010)*

Year/Region	Total Romania	NE	SE	S	SV	V	NV	Centre	Bucharest Ilfov	National Average
1990	423	59	48	71	41	45	57	52	50	52.88
1995	412	61	44	63	38	47	54	49	56	51.50
1999	425	63	47	65	37	49	54	54	56	53.13
2000	442	63	50	67	40	48	59	56	59	55.25
2001	446	64	50	68	41	48	60	56	59	55.75
2002	447	64	50	69	42	48	60	56	58	55.88
2003	427	65	47	63	41	46	60	50	55	53.38
2004	425	64	47	61	41	46	60	50	56	53.13
2005	433	66	47	62	42	46	61	51	58	54.13
2006	436	67	47	62	42	46	62	51	59	54.50
2007	447	67	48	65	43	47	64	53	60	55.88
2008	458	67	51	65	43	47	67	57	61	57.25
2009	474	68	53	66	43	49	69	60	66	59.25
2010	503	72	54	64	43	53	71	63	83	62.88
Absolute Dynamics (2010-1990)	80	13	6	-7	2	8	14	11	33	10
Relative Dynamics (%)	18.9	22.0	12.5	-9.9	4.9	17.8	24.6	21.2	66.0	18.9

Source: Statistical Yearbook of Romania 2000-2010 and Territorial Statistics, INSSE 2005-2011

REGIONAL DISPARITIES IN ROMANIA. CONTRIBUTION OF THE REGIONAL OPERATIONAL PROGRAM TO HEALTH INFRASTRUCTURE

Annex no. 3. *Number of doctors in hospitals per thousand inhabitants in Romania and in other European states (1999-2010)*

	‰				
Number of doctors	Germany	Spain	Hungary	Poland	Romania*
1999	4.42	4.36	3.98	3.29	1.91
2000	4.49	4.42	-	3.32	2.04
2001	4.55	4.4	3.36	3.23	2.09
2002	4.62	4.46	3.47	3.41	2.10
2003	4.7	4.5	3.56	3.2	2.16
2004	4.78	4.52	3.65	3.27	2.22
2005	4.85	4.55	3.01	3.31	2.19
2006	4.94	4.56	3.17	3.39	2.17
2007	5.03	4.59	3.03	3.31	2.24
2008	5.14	4.66	3.37	3.44	2.34
2009	5.25	4.76	3.3	10.37	2.35
2010	-	-	-	-	2.44

Source: EUROSTAT

*Data for Romania taken from Territorial Statistics 2011, INSSE

Annex no. 4. *Number of hospital beds per thousand inhabitants in Romania at the regional level (1990-2010)*

	‰								
Year/Region	Total Romania	NE	SE	S	SV	V	NV	Centre	Bucharest-Ilfov
1990	8.92	8.54	7.56	7.22	8.30	10.60	9.59	9.57	11.24
1995	7.64	7.46	6.32	5.99	6.88	9.48	8.27	8.51	9.48
1999	7.31	6.93	6.02	5.67	6.59	9.25	8.08	8.02	9.31
2000	7.44	6.79	6.26	5.69	6.67	8.91	8.25	8.20	10.28
2001	7.49	6.82	6.25	5.78	6.74	8.90	8.36	8.21	10.47
2002	7.46	6.66	6.14	5.66	6.81	8.65	8.40	8.05	11.11
2003	6.57	5.76	5.51	4.84	5.91	7.31	7.23	7.12	10.51
2004	6.58	5.76	5.53	4.85	5.85	7.37	7.33	7.13	10.43
2005	6.61	5.80	5.53	4.90	5.88	7.40	7.34	7.21	10.46
2006	6.58	5.81	5.51	4.92	5.91	7.38	7.28	7.16	10.19
2007	6.41	5.73	5.36	4.78	5.64	7.11	7.25	7.01	9.76
2008	6.43	5.73	5.37	4.78	5.70	7.14	7.20	6.91	9.94
2009	6.47	5.77	5.40	4.90	5.77	7.21	7.24	6.94	9.87
2010	6.16	5.45	4.97	4.76	5.70	6.86	6.66	6.31	9.89

Source: analysis of data from the Statistical Yearbook of Romania 2000-2010 and from the Territorial Statistics, INSSE 2005-2011

Annex no. 5. Number of doctors in hospitals per thousand inhabitants in Romania at the regional level (1990-2010)

Year/Region	Total Romania	NE	SE	S	SV	V	NV	Centre	Bucharest Ilfov
1990	1.68	1.48	1.33	1.17	1.71	1.96	1.74	1.67	2.38
1995	1.77	1.38	1.28	1.13	1.63	2.13	1.96	1.80	3.38
1999	1.91	1.55	1.41	1.12	1.81	2.33	2.05	1.99	3.86
2000	2.04	1.70	1.53	1.30	1.94	2.40	2.35	1.99	3.85
2001	2.09	1.65	1.51	1.36	1.92	2.61	2.43	1.99	4.07
2002	2.10	1.67	1.52	1.37	1.92	2.53	2.37	2.13	4.16
2003	2.16	1.67	1.54	1.32	1.92	2.63	2.48	2.09	4.58
2004	2.22	1.77	1.53	1.29	1.95	2.72	2.46	2.15	4.92
2005	2.19	1.66	1.49	1.30	1.88	2.61	2.30	2.14	5.22
2006	2.17	1.62	1.48	1.31	1.86	2.59	2.31	2.16	5.12
2007	2.24	1.72	1.56	1.28	1.93	2.86	2.35	2.16	5.12
2008	2.34	1.83	1.62	1.39	2.03	2.92	2.52	2.28	5.15
2009	2.35	1.77	1.70	1.38	2.06	2.95	2.62	2.25	5.06
2010	2.44	1.78	1.67	1.41	2.09	3.21	2.72	2.33	5.38

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Source: analysis of data from the Statistical Yearbook of Romania 2000-2010 and from the Territorial Statistics, INSSE 2005-2011

Annex no. 6. Regional indicative financial allocation in Romania, Major Intervention Area 3.1

Region	North-East	South-East	South	South-West	West	North-West	Centre	Bucharest Ilfov
Indicative financial allocation (including beneficiary contribution) (mill. euro) <i>out of which:</i>	28.33	23.00	24.70	24.32	17.95	20.99	18.91	15.38
Financial allocation by FEDR and State Budget (mill. euro)	27.76	22.54	24.21	23.83	17.59	20.57	18.54	15.07

Source: Applicants Guide to submit projects on ROP 2007-2013, Priority Axis 3 – Improvement of social infrastructure, Major Intervention Area 3.1 – Rehabilitation / modernization / health infrastructure equipment, www.inforegio.ro