

ROMANIAN MEDICAL SERVICES FINANCING ALTERNATIVES. A QUANTITATIVE REVIEW OF LITERATURE

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ABSTRACT. From a doctrinaire perspective, health economics represents the manner in which healthcare services are produced and provided in case of limited resources. Starting from the three fundamental questions that underlie economy: what goods and services must be produced?, in which manner must these goods and services be produced?, for whom we produce? In order to justify possible answers one must take into account that the produced goods are represented by healthcare.

Key words: *financing activities, healthcare, financial autonomy, financing source*

JEL Classification: G10, G30

1. Introduction and Review of Literature

Health is a gateway towards socio-economic ascension, an inherent component of life quality; every individual aspires to health and the state is organizing its healthcare system in accordance with its political, historical, and moral objectives in order to respond to these aspirations as suitable as possible. (Rebeleanu, 2007).

Health is regarded as a fundamental right, namely to benefit from the highest possible health standard irrespective of one's race, religion, political beliefs, economic or social conditions (Constitution of World Health Organization, 1947). Thus, viewed as a concept, health involves ensuring access to healthcare, and the state is considered to be a guarantor of this right.

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Modern society brings health as a consumer good (commodity), being perceived as an object comparable to other material aspects of life.

Within the „World Health Report – 2000”, the World Health Organization defines healthcare system as the all organizations, institutions and resources retained for health improving (Murgea, 2009).

The first study on the healthcare system crisis was conducted in 1991 by Ferge, who submits a comparative study between Hungary, Poland and Romania, a study which reveals the post communist healthcare systems by identifying a series of elements: the deplorable shape of infrastructure, the lack of financial resources, low wages, dissatisfaction with the healthcare system in Romania, defined by the term crisis (Ferge, 1997).

Other approaches from specialized literature describe the healthcare reform which was perceived as being one of the broader changes from a collectivist and bureaucratic welfare state system to capitalism (Deacon, 1992). In this study the author makes a comparison between the countries in Central Europe and Eastern Europe, their features being also found in Romania.

Healthcare is an extensive field as within a medical unit, one carries out several activities: ensuring the population's welfare, training new specialists, conducting medical research.

The research results are used in various fields such as: industry – creating new drugs; education – training new specialists; medical – new diagnostic procedures are established and also new approaches regarding the disease treatment.

The extensive study of social health insurances and of the funds collected and used for paying medical services has approached the issue of this system implemented fourteen years ago, which has undergone certain changes, both conceptual and structural.

In some opinions, the concept of financial autonomy of the National Health Insurance House is considered to be inoperative, because in conditions of major imbalance of the budget of the national unique social health insurance fund, the state budget would not be entitled to intervene.

The healthcare services consuming large amounts of money are those for disease treatment, but not less important are those for disease prevention and public health protection, defined as obligations of the central and local public administration and of all individuals and legal entities.

In our country, after the period when the “Semashko” model from the Soviet Union led to the “Law of Healthcare Organization” in 1949 which regulated a system of compulsory insurances in the form of funding through general taxation, in 1997 the first law was approved (Law 145/1997), which was modified and completed several times. In the same year the National Health Insurance House was founded, which collected funds from employers or employees.

On this occasion there was a separation of attributions between the National Health Insurance House and the Minister of Health and, at the same time, contractual relations have been established between partners, respectively the hospitals or the healthcare facilities with beds (in accordance with Law 270/2003, modified and completed by Law 95/2006) have been called healthcare providers.

The main object of the contract between the two partners - the National Health Insurance House as buyer and the medical facility as healthcare provider – is to provide healthcare services among which the most important would be:

- healthcare services requiring continuous hospitalization – type DRG (Diagnosis Related Groups);
- healthcare services that do not require admission, namely day hospitalization:
 - with a standard rate from the published professional regulations;
 - with a negotiated rate, respecting the provisions of the Framework Agreement of the National Health Insurance House;
- medical services performed in ambulatory:
 - consultations;
 - paraclinical investigations (MRI, CT, endoscopic explorations, ultrasound, laboratory medical tests, etc.).

2. Material & Methods

Scientific research is a very important area both within industrialized and developing countries. Scientific publications in the field of medical services financing are important for at least two reasons: access to research funds and researchers’ promotion.

In order to conduct the study concerning medical services financing in Romania, in addition to the legislation regulating these types of services, we also took into account the specialized literature, starting from the idea

that an ideal financing system does not exist; healthcare systems are designed to satisfy the health needs of a country's population based on the limited capacity of ensuring financial resources.

According to a methodology previously applied in the specialized literature (Berinde, Răchișan and Groșanu, 2012), in this study we considered important to primarily analyze articles based on empirical studies in order to outline an image concerning medical services financing as real and concise as possible.

The studies referring to literature reviews are based on certain premises:

- a) The criteria a journal must meet in order to be introduced in the study were primarily based on other studies conducted in this area in Romania and the European Union; then, the most important scientific journals have been taken into consideration: ISI, A/B/B+, BDI, CNCSIS; journals have been selected only from the medical and economic fields.
- b) The criteria by which an article was introduced in the study, namely: medical/economic field; geographical area of Romania and the European Union; the time span in which these articles were published, taking into consideration the period 2000-2010;
- c) How thoroughly were the articles included in the study reviewed?

We have considered aspects concerning the topic or subject of the article, the research method applied by the author, research purposes, the author's country of origin and the journal's country of origin.

In order to achieve the objectives of our research in the field of medical services financing within hospitals, we shall use certain search instruments:

- for Romanian literature: finance journals, respectively health journals;
- for foreign literature: specialized terms such as "pub-med", respectively "medscape".

In the period under investigation, we have also consulted various current articles which we took into account in order to create an accurate image of what is discussed in the field; they are not scientifically relevant, but they provide specific information. The technique of presenting a study based on specialized literature (quantitative) in order to identify relevant

research directions in the covered field is a viable one, being frequently experimented in the studies published in the economic area (Boța-Avram, 2011).

3. Discussions

Following the research, we identified 770 Romanian journals, acknowledged by CNCIS, from which 58 national journals listed ISI with a non-zero impact factor in 2009. Among them there are 9 medical journals, 3 economic journals, and 1 journal of public administration, which represented the cornerstone of the present study.

When conducting the study and the detailed analysis, we identified a total of 15 journals, respectively 112 scientific articles. For each identified journal, we mentioned its number, category, frequency, year of publication, and the number of articles published in each journal.

Table 1.

Number of articles identified in CNCIS national journals and the category they belong to

Nr. crt.	Journal title	Category	Frequency	Year	No. of articles	Method of evaluation	Author's profession
1.	Amfiteatrul Economic	A - ISI	2/year	1999	1	Quantitative	Department of Statistics
2.	Archives of the Balkan Medical Union	B	4/year	2002	1	Quantitative	Department of Statistics
3.	Audit Financiar	B+	4/year	2003	2	Qualitative	Economists
4.	Clujul Medical	B+	4/year	1920	32	Qualitative	Doctors
5.	Economia Seria Management	B+	2/year	1998	6	Quantitative	Economists
6.	Journal of Preventive Medicine	A - ISI	2/year	1998	3	Quantitative	Doctors
7.	Maedica a Journal of Clinical Medicine	B+	4/year	1997	8	Quantitative	Doctors
8.	Management în sănătate	B+	1/year	2006	3	Qualitative	Doctors
9.	Medical Update	C	2/year	2006	-	-	-
10.	Medicină Modernă	B+	12/year	2000	12	Qualitative	Doctors

Nr. crt.	Journal title	Category	Frequency	Year	No. of articles	Method of evaluation	Author's profession
11.	Revista Economică	B+	2/year	2009	6	Quantitative	Economist
12.	Revista Română de Statistică	B+	12/year	2004	6	Quantitative	Economist
13.	The Romanian Economic Journal	B+	4/year	1998	3	Qualitative	Economist
14.	Tribuna Economică	C	12/year	1902	19	Quantitative	Economist
15.	Viața Medicală	D	12/year	2009	10	Qualitative	Doctors
TOTAL: 15 journals and 112 articles							

Source: Statistical processing performed by the author

The journal Clujul Medical is one of the traditional medical journals, founded in 1920, shortly after the founding of the Romanian University from Cluj. It appeared monthly until 1940, and since 1957 the journal appears quarterly.

The scientific quality of the journal is ensured by a stringent analysis of each article and its presentation within the editorial board.

One can further notice that within the 15 journals we identified, the number of articles differs, depending on the degree of interest of each journal for the field of medical services financing in Romania.

Within the 15 journals we have also analyzed the research evolution in this field (Figure 1), and we divided the period 1900-2000 in three other periods as follows:

Table 2

Research evolution in the field of health management

Period	No. of journals	No. of articles
Before 1989	2	6
1990 - 1999	5	37
2000 - 2010	8	69

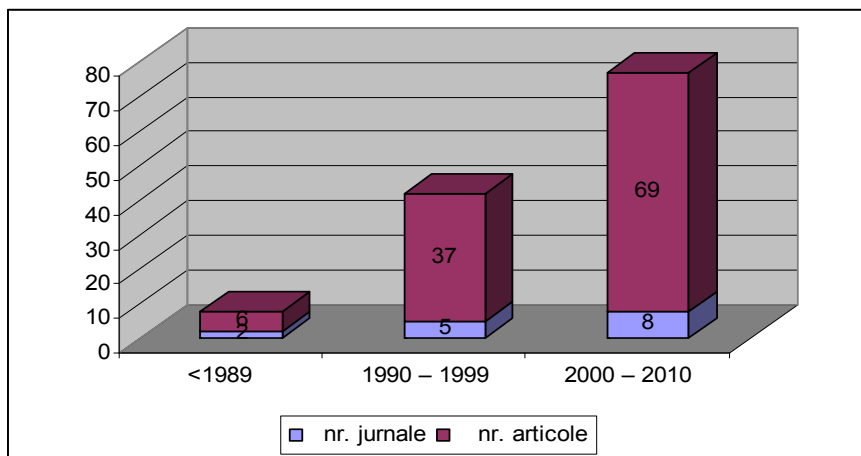


Figure 1. Research evolution in the field of health management

Source: Statistical processing performed by the author

From the present analysis, one can observe the lack of interest for this field in the period before 1989, due to a centralized system. For the period 1990-1999 we can notice an exponential increase of interest towards this field, increase which can also be observed for the next period 2000-2010.

As the importance of a journal is determined according to the number of quotations made by other authors, in this respect, Thomson ISI monitors and evaluates scientific publications.

One of the products of Thomas Reuters (ISI) is the “Master Journal Literature” which consists of over 16,000 journals included in 30 databases with which ISI collaborates. Only 3 of them form the Web of Science and they represent over 12,000 journals listed ISI. A journal from Master Journal List that is not in the Web of Science, is indexed BDI. These quotations represent a means of verification/validation of the status of a scientific paper.

One of the oldest journals in the European database is the British Medical Journal, which has over 170 years of continuous publication, being one of the earliest titles in the ISI database.

We have performed the same analysis on the international European journals, as presented in table 3.

Table 3.

Number of articles identified in European journals listed ISI,
number of identified articles

No crt.	Journal title	Frequency	Year of founding	No. of consulted articles	Method of evaluation	Author's profession
1.	British Medical Journal	48 no./ year	1840	10	Qualitative	6 Doctors, 4 Economists
2.	CASE Network Reports	Annual	1996	1	Qualitative	Economist
3.	Center for Operations Research and Econometrics, CORE	87 no./ year	1993	1	Qualitative	Economist
4.	CESifo DICE Report	Quarterly	1991	3	Qualitative	Economist, Doctor
5.	Croatian Medica Journal, CMJ 43(4):446-452, 2002 Public Health	6 no./ year	1986	1	Qualitative	Doctor
6.	Department of Economics and Business, Universitat Pompeu Fabra, Economics Working Papers	132/ year	1990	1	Qualitative	Economist
7.	Deutsches Institut für Wirtschaftsforschung ,DIW, Discussion	40/ year	1995	2	Qualitative	Economist
8.	Documents de treball de la Facultat de Sciences de Economiques I Empresariales	Annual	1986	1	Quantitative	Economist
9.	Health Economics Research programme at the University of Oslo, HERO - Working paper	23/ year	1999	3	Qualitative, quantitative	Economist
10.	Journal of Economics & Management Strategy	Annual	1992	1	Quantitative	Economist
11.	Munich Personal RePEc Archive, MPRA Paper	2385/ year	1965	2	Quantitative	Economist
12.	OECD Economics Department Working Papers	1/ week	1983	8	Qualitative, quantitative	Economist, Doctors, Others
13.	School of Economics and Management, Technical University of	27/ 2010	1999	1	Quantitative	Economist

No crt.	Journal title	Frequency	Year of founding	No. of consulted articles	Method of evaluation	Author's profession
	Lisbon, ISEG - Working Papers					
14.	The Barcelona Institute of Economics (IEB), Documents de Treball de l'IEB	56/2010	2000	1	Qualitative	Economist
15.	University of Gothenburg, Working Papers in Economics	8/2010	1992	1	Qualitative	Economist
16.	University of Leicester, Department of Economics, Working Paper	19/2010	1995	1	Quantitative	Economist
17.	University of Santiago de Compostela. Faculty of Economics. Econometrics * Working Paper Series Economic Development	2 vol./year	2001	1	Quantitative	Economist
TOTAL: 17 journals, 39 articles						

Source: Statistical processing performed by the author

In the case of international journals, we can observe an increase of the degree of interest for the field of medical services financing. We performed the same analysis for the following periods in table 4:

Table 4.

Evolution of interest towards medical services financing

Period	No. of journals	No. of articles
Before 1989	5	22
1990 - 1999	10	15
2000 - 2010	2	2

Source: Statistical processing performed by the author

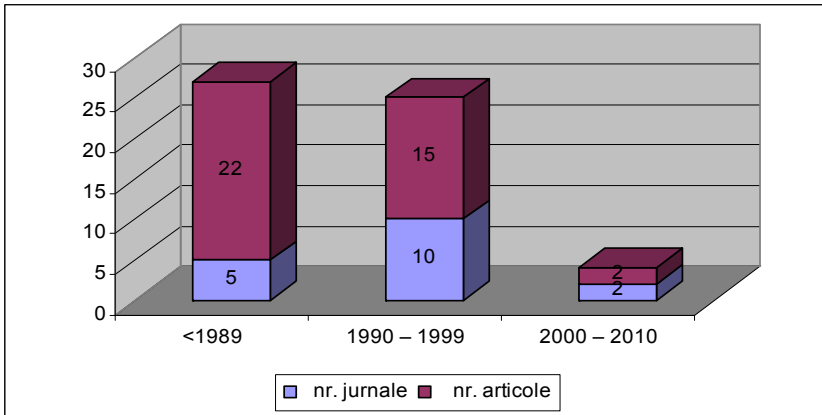


Figure 2. Research evolution in the field of health management at international level

Source: Statistical processing performed by the author

One can perceive the idea of low confidence to publish high-level scientific articles in newly emerged journals. It is noticed that within the European Union in contrast with Romania, there is a tradition and a highly constant interest for research.

As a comparison between the degree of interest in the field at national and international level, the situation is as follows:

Table 5.

National – international degree of interest concerning research in the field of medical services financing

Region	Authors Doctors	Authors Economists	Other perofessional categories of the authors
Romania	68	42	2
European Union	14	23	1

Source: Statistical processing performed by the author

In the 39 articles published within the 17 selected journals, we monitored and identified various aspects concerning research in the field of medical services financing at international level:

- research referring to the financing source in terms of public and private financing;
- research regarding the management of medical facilities that take decisions concerning financing;

- c) the attitude of the medical profession towards aspects related to medical services financing;
- d) qualitative aspects on the state of research in the field of medical services financing.

4. Conclusions

Starting from the information that we analyzed regarding the quantitative research concerning the medical services financing, we reached the following conclusions:

- in Romania, doctors are more concerned than economists with this field of the healthcare financing, compared to the situation in the EU countries, where doctors are more concerned with achieving performance in the medical field, leaving the finance problems to the specialists;
- out of the total of 39 articles, only 14 articles used the quantitative evaluation method, and out of those, almost 90% studied the importance of the increase of the public spending percentage on healthcare of the GDP, according to the fluctuations of the GDP as a result of recessions or other economic factors because the cutting of these spendings is on the short term and the need of medical services lead, in the long run, to increases of the healthcare costs, according to Peter Scherer, Marion Devaux - OECD, Health Working Papers;
- after using of the qualitative evaluation method as well, we reached the conclusion that in order to make the system more efficient, a useful recommendation would be to use additional private funds and to foster the competition in the healthcare system.

All the consulted articles conclude that a perfect medical system does not exist, not even one that could serve as a model and lately, all the European countries have been confronted with a healthcare system crisis.

According to what we studied, we considered the SWOT analysis a relevant auditing method that can provide us with some conclusions on the basis of the GLOBAL eHEALTH, SWOT analysis requirements.

a) Strengths:

- The high demand of international publications entails the publication of high value articles;
- EU countries' governments offer enough information concerning public healthcare policies;
- The World Health Organization shows initiative and has strong tools;
- There are few healthcare providers in Romania, compared to the EU;
- DRG financing (diagnosis related groups)- implemented by the Health Minister with the support of EU Phare 2003 program;
- People prefer using the Internet in order to decide on the types of healthcare, prescriptions, financing methods or to contact the doctors online;
- Medical staff is becoming more aware of the need of better quality and the low risk of litigation;
- Competitive advantages are created on the example of good medical practice.

b) Weaknesses (deficiencies)

- the need to increase the financing of the Romanian healthcare system;
- the lack of a unique, centralized, integrated informatic system;
- the lack of real autonomy of the healthcare services providers;
- the public policy activities are not coordinated at a national or European level, data measurements are not compatible;
- staff competence in the field of healthcare is considered to be a serious threat;
- the financing opportunities are limited;
- weak financing of research in Romania leads to the impossibility to perform the medical and research activities; doctors tend to be more preoccupied with the economical aspects to the detriment of their specialty;
- publishing is encouraged from a quantitative point of view, research projects are demanded in order to obtain financing for wages, facilities; thus the quality of research diminishes- money triggers research and not the other way round.

c) opportunities

- the integration in the EU requires the implementation of certain standards and recommendations that are meant to increase efficiency and quality;
- The EU membership offers the possibility of additional financing through projects supported by European funds;
- Citizens have higher expectations regarding the fast response of the healthcare services;
- Internet- the information channel regarding health- well adapted to meet the expectations of consumers, it is cheap, user-friendly, offers a great variety of medical assistance information and introduces the users to a global network of people sharing common interests.

d) threats

- free movement of persons gives the users the possibility of contacting the service providers from various countries, in this way, the private financing matter becomes part of the profits in the systems for other countries in the EU, not for our country;
- population aging and the migration of young work force;
- the development of private sector is considered as concurrence to the public system, or as his "enemy";
- the lack of competence concerning the medical field at the local administration level ;
- the legislation always changing has a negative impact (controversies among the legislative acts, their multitude).

Certainly, as the needs vary from country to country, the needs of implementation and the approach will also differ. However, the fact that the Nordic countries spend less/ per capita on healthcare services compared to other developed countries and yet they get better results (smaller number of incidents in chronic disease, longer life expectation, better quality of life, etc) could serve as a basis for future research, namely the analysis of the spendings on outpatient facilities or the analysis of preventing costs versus the hospitalization costs, a relevant component in this respect being the number of hospitalization days that is lower in the developed countries.

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