

## HEALTHCARE ECONOMICS AS METHOD OF RENDERING THE ACTIVITY EFFECTIVE

<sup>1</sup>Claudiu CICEA, <sup>2</sup>Cosmin DOBRIN, <sup>3</sup>Ion POPA, <sup>4</sup>Cristian BUSU

<sup>1</sup>Academy of Economic Studies, Piata Romana 6, Bucharest, Romania, claudiu.cicea@man.ase.ro

<sup>2</sup>Academy of Economic Studies, Piata Romana 6, Bucharest, Romania, cdobrin@yahoo.com

<sup>3</sup>Academy of Economic Studies, Piata Romana 6, Bucharest, Romania, popaion2000@yahoo.com

<sup>4</sup>Academy of Economic Studies, Piata Romana 6, Bucharest, Romania, cristian.busu@man.ase.ro

### Abstract

The issue of healthcare economics analysis should be started from the concept and the particularities within this important area of economic life - social. In the present conditions of limited resources and the needs that continue to multiply and diversify, in the context of stiff competition in any field, the issues of competitiveness and rationalization of any human activities becomes very important.

In what follows the authors will examine some significant aspects regarding the healthcare economics, such as healthcare costs, ethics and objects of the healthcare economics, contributions for the fundamentals and development of the healthcare economics etc.

**Keywords:** healthcare economics, public healthcare, performance, quality, standards of living

### 1. INTRODUCTION

All analyses in the field of health care economics must consider three basic problems, as follows:

- a) The apparently contradictory relationship between economics and healthcare, involving a dialogue between economic staff and healthcare staff in healthcare units;
- b) The opposition between resource allocation methods, the effectiveness of amounts earmarked to healthcare system and costs; the limitation of available resources requires for difficult choices in the healthcare field, as it risks the emphasis of social inequalities in this field that is very important to people;
- c) The increasingly complete action of ethics in healthcare system, regarding psychological effects resulted from the application of decisions with severe economic character on morbidity rate.

The French expert A. Labourdette (Sociologie Santé, 1990) provided an original definition of the condition of economists in healthcare system: "neither a promethean, nor a slave", meaning that his main responsibility is to rationally assign available resources, to provide healthcare services at the lowest costs. This economic and social responsibility is rejected by healthcare staff requesting additional funds.

This symbiosis is not recent as it was demonstrated in 1975, when Professor J. Brunet-Jailly was describing the economist's task: "The role of economists within healthcare system does not consist of giving solutions to all problems. Their training neither allows them to determine the objectives a society sets for itself, nor to deal with medical issues lying within other professions competence." Economists must analyse the economical aspects of actions performed by healthcare staff and must study the results. In conclusions, the economist participates in searching the best action and the highest effectiveness, with his own scientific arguments in addition to the arguments of healthcare specialists".

Professor P. Pene (1975) has based the doctor condition on the same idea: "Through his actions, the doctor must range in an economic context, thus being obliged to inform himself first regarding the resources and the conditions of healthcare activity. If we take into account the predictable progress of biology and of other medical specialties on one hand and the evolution of social behaviour against the disease on the other hand, the question arises whether the development of healthcare activities is clearly provided. On the contrary, concrete methods of development of activities and the underfinancing of the medical act raise special problems that lead to solutions different from the ones we accept and know. These mutations will be required by the progress of society towards the acknowledgement of limitation of available resources against the unlimited needs for healthcare - through an increasingly will to use these resources under the most effective conditions. Thus, it is required to apply the sacred principles of medicine, accommodating the conditions of healthcare activities to an economic and social context with a fast development."

We have widely presented these two opinions of specialists in the field of healthcare economics in order to emphasize the effects of application of technical progress in healthcare, the increasing socialization of morbidity, the limitation of financial resources and the increase of healthcare needs.

Currently, these elements lead to imperative measures, as the rationalization and effectiveness imperative becomes a major objective in healthcare system.

## 2. REDUCTION OF HEALTHCARE COSTS

The healthcare economics specialist J. P. Moatti (1991) states the following: "The hypothesis I share today with my colleagues is that healthcare economics itself would only be able to give answers to concrete difficulties of healthcare management system in the degree that it can establish connexions between practical aspects and theoretical, fundamental reflections".

But, for fault of rigour - the superiority of cost-effectiveness procedures applies, without scientific assessments of healthcare costs. The role of a scientific economic assessment consists of identifying all quantifiable elements for assessing the interest of applied medical practices towards collectivity.

Precise answers are required for the questions regarding opportunity of examinations and treatments, the segments of patients on age and social categories, methods of providing healthcare, the persons able to run economic analyses.

Personally, I choose the use of cost-benefit method presented within the chapter "Methods of economic assessment of healthcare activities effectiveness", grounded on the fact that this way the limits of the distance between benefits and costs can be emphasized, within the context of use of investment resources. The procedures for running these assessments are difficult due to difficulties related to obtaining information regarding required costs and the importance attached to quantification of investment return in healthcare.

Beyond technical aspects related to the acquirement of reliable information required to correctly establish the level of healthcare costs and the reduction of arbitration in the manager decision, these assessments and moderation are a tool for meeting the final objective: allocation of resources for healthcare services that should endure the real necessary, under social equity conditions.

Generally, economic sciences are crossed by two complex and contradictory objectives, i.e. production effectiveness and allocation effectiveness. These main objectives can be entirely applied to healthcare economics. Thus the more difficult the economical and social situation is, the decision within healthcare field must be grounded by specific methods of relevant, realist assessment that does not generate new social inequalities.

Research in healthcare economics is an asceticism, with no projects for important discoveries, only the registration of certain progress at the level of resource accumulation and their effective use.

### 3. ETHICS IN HEALTHCARE ECONOMICS

The issue of healthcare economics can be approached starting from the controversial feature of control actions aiming at the use of healthcare costs. The question arises whether the doctor must do everything for a patient, regardless of healthcare cost. On the other hand, one permanently invokes the significant increase of healthcare costs, as opposed to other services that do not register important leaps (education, transportation, etc.). This situation leads us to the distinct analysis of collective services and individual services. The report between professional ethics and therapeutic accidents which must be analysed both from the point of view of the doctor and the sociologist is very important. The problem can only be solved by taking into account the progress of medicine with social tendencies regarding security.

Medicine had a spectacular evolution, according to the French economist Jean Hamburger (1995) in an article about "Therapeutical revolution", emphasizing the occurrence of a new confrontation between medicine permanence and its rapid metamorphoses with difficulties to be solved.s

Technical revolution in medicine influences the principles of therapeutical actions. Medicine got stronger but has paradoxically emphasized ethics issues. Under these conditions, the behaviour of medical personnel transforms: failing some actions means, the former doctor will have responsibilities commensurate to his abilities. Nowadays, "a heart supplement" is needed from the doctor, providing an increase of his power of action.

Currently, many people acknowledge ethics issues related to the new artificial conception methods, "in vitro" fertilisation, organs donation, prenatal therapy, genetics discoveries etc.

Thus, power merges with fragility!

Three periods can be distinguished regarding the perception of ethics in healthcare economics and risk assumption:

- a) up to the 19<sup>th</sup> century: the model of minimum responsibility of the doctor towards the patient occurs, without any contractual security obligations;
- b) the 19<sup>th</sup>-20<sup>th</sup> century: the solidarity mechanism between doctor and patient manifested, as medical practice included liability that partly got to medical services contractors;
- c) the period of 2000s, characterized by ethics and vulnerability in providing/receiving healthcare services.

The actual risk is not only related to the progress in medical technique but the retroactive discovery of deficiencies that had not been observed until then, such as the example of advanced possibilities to treat haemophilics and patients receiving transfusions and also the risk of HIV infection.

The strong development of healthcare technique in modern societies, the increasing effectiveness of therapy and the occurrence of unexpected risks require – at this century beginning- the acceptance of the ethics notion of healthcare economics vulnerability.

If the consideration of vulnerability ethics is accompanied by legal and expertise mechanisms, the manager intervention is required in order to ensure work policies and strategies.

The result of this approach is to provide a balance between doctor and patient, based on a common language. Therefore, the communication transparency is required regarding the truth statement in all situations, including conflicts.

In this context, the procedures regarding the assessment and awareness of healthcare services are the object of study of economists in healthcare system.

The fact is that it is impossible to discuss about healthcare economics without taking into account aspects regarding ethics and vulnerability in healthcare services field. This field is wide and complex, leading to expansion of knowledge and confirmation of the multidisciplinary, sociological and psychological feature in addition to healthcare economics itself.

#### 4. THE OBJECT OF HEALTHCARE ECONOMICS

Healthcare economics is not a branch of knowledge complementary to economic sciences, but it is one of the basic elements of these, aiming at provision of healthcare to all social categories and mainly to the most endangered population worldwide.

The object of healthcare economics consists of the assessment of healthcare services supplied to patients, from the point of view of costs and of healthcare activity effectiveness.

From an economic point of view, one must accept that the idea stating that the provision of effectiveness in the use of resources available in healthcare system is essential. We must admit that a healthcare assessment must be added to the economic analysis in order for the level of healthcare activity effectiveness to be real.

Qualitative markers must be added to systems of markers specific to the assessment of quantitative factors of healthcare activities. For example, the "life year" concept can be more significant than markers used currently. And this is explained by the fact that the result of outpatient or hospital healthcare activity is often unknown *ad initio*. +I, then this question arises: why is a good assessment of "inputs" useful if "outputs" are ignored?

Classic healthcare markers are indicative when they are correlated with the level of healthcare costs within gross domestic product (minimum 8% level accepted in all western countries). Population health condition is strongly influenced regarding its improvement due to performant medicines, with spectacular effects regarding the disappearance or the attenuation of some severe pathology. From this point of view, the improvement of population health condition is accompanied by the appropriate increase of the healthcare marginal cost.

Current studies demonstrate an increase of the marginal cost at the same time with a decreasing marginal effectiveness, thus requiring a special attention regarding the allocation of financial resources. Therefore, comparisons regarding healthcare effectiveness and economic effectiveness of healthcare activities are very sensitive.

Besides the aspects related to the effectiveness of healthcare activity, the second category of difficulties in the assessment of healthcare services which are the object of healthcare economics refer to establishing

healthcare cost. According to the definition of the Worldwide Health Organization (W.H.O.), health is a physical, psychical and social well-being. This definition does not limit to the absence of pathology or disability, but it involves social and cultural factors (work conditions, living conditions, level of education). If we expand this perspective, it is possible for the markers not to reflect anymore the level of real effectiveness of healthcare activity. Frequently, the morbidity level determined by epidemiologists is considered. Thus, quantitative assessments are established based on WHO drafted for the registration of the accurate and objective diagnostic. However, it is not possible to emphasize constant and strong relationships between the level of morbidity and healthcare cost.

The correct assessment of costs is only possible by means of a complete computerization process.

The permanent need to rationalize healthcare costs and the fine management of assigned funds is found in the relationship between economics and healthcare. The increase of these resources depends on the economic activities development.

This is also the case of our country where the financing of healthcare suppliers is mainly provided by health insurance houses, out of natural and legal persons contributions, of employees and economic agents contributions. During the past 20 years, in all European countries, the economy has become one of the dominant factors of healthcare progress. That is why the level of healthcare costs must relate to macroeconomic and financial adjustment mechanisms.

The foundations of economic policies specific to contemporary economic thinking are changed by the supporters of the unbalance theory (E. Malinvaud – 1986). According to this theory, the increase of social healthcare costs represents an impairment of economic expansions from the moment that national economy was regulated based on “open modelling” principles, that is of external constraints - thus requiring internal adjustments. The cause and effect relationship between healthcare activity and external competitiveness of companies must be seen as a safe and durable reality. This objective of global competitiveness is mainly based on the cost reduction mechanism and on the mechanism of fight against inflation.

Economic “stop” and “go” policies for supporting economic activities under recession and inflation conditions (inspired by Keynes) indicated harmonization with social and healthcare policies as an advantage.

Keynes considered that all income involved in the economic circuit must be spent effectively. But, the distribution of social performances is generally performed in favour of social groups with low and average income, with high consumption tendencies.

In our country, the financing of healthcare is the task of healthcare insurance houses and of the Ministry of Health, as financial resources largely depend on healthcare contributions and the budget assigned for healthcare.

The existence of health insurance system is seen as an essential social effect essential in the performance of healthcare services. The right of all persons regarding healthcare is an inalienable right, even if inequalities or disparities are recognized within healthcare services structure.

Therefore, it is required to provide a double balance from the healthcare economics point of view:

- adjustment of economic activities through the effective request for healthcare services and a good assignment of available financial amounts;
- harmonization between economic and social, mainly between economic and healthcare.

## 5. HEALTHCARE ECONOMICS IN THE CONTEXT OF SOCIAL DEVELOPMENT

There is a relatively apparent contradiction that determines the political factor to limit healthcare costs: on one hand, it is necessary to keep all random increases of healthcare costs under control and, on the other hand, it is convenient to consider the very dynamic feature of this system which stimulates the other social segments.

Healthcare activity does not only represent a public services department, but an economic department, because it generates obvious effects on production and distribution of medicines and sanitary materials. Medicine industry and sanitary materials production are very important within healthcare system. Pharmacies providing medicines and sanitary materials both to patients and healthcare units are also very important. Moreover, healthcare activity determines the development of home care, of the activity field specific to medical-social and social units, nursing homes, asylums etc. It is obvious that this field will continue to register an increase of healthcare services volume, considering the morbidity increase and population ageing.

## 6. HEALTHCARE ECONOMICS IN MEMBER STATES OF O. C. D. E.

Member states of "Organisation de Coopération et de Développement Economique" (O. C. D. E.) registers very high healthcare costs, being characterized by the fine coordination of assigned funds and the high rate of public healthcare system within the total healthcare services.

Up to the 80s, most of the member states of O. C. D. E. with a developed market economy have used inflationary mechanisms in order to finance healthcare, e.g. direct invoicing of healthcare services in the urban area or the payment of hospitalization day.

The most representative case of this tendency is U.S.A., where healthcare cost has increased much quicker than other goods and services than in other member states of O. C. D. E. This is mainly explained by the fact that healthcare staff and healthcare units are generally financed through tariffs on healthcare services.

Healthcare economics in France is similar to the one in USA, with a higher level of healthcare costs, with an important rate in the gross domestic product (9.8% in 2002).

Healthcare payment remains dominant in liberal countries, by taking measures specific to inflation conditions. Thus, free choice of forensic involves important costs in relation with the countries that do not use this system. Systematic use of inflation mechanisms by means of tariffs and provided healthcare services is explained by the entire occurrence of market economy, as it is considered incompatible with medical ethics.

In the context of existing problems regarding financing of medical activities and organization of healthcare services, industrial countries within O.C.D.E. have tried several remedies by applying some new concepts of healthcare reform aiming at aspects related to:

- diversification of possibilities to access healthcare services financed by the central or local budget;
- control of level of expenses for healthcare services by means of an appropriate global budget.

Thus, an important objective is to establish a concordance between the elements of healthcare system and the relationships between insurants and healthcare services suppliers.

## 7. CONTRIBUTIONS TO THE FOUNDATION OF HEALTHCARE ECONOMICS

The above mentioned healthcare economics elements must be supplemented with critical aspects, allowing the assessment of the scope and diversity of subjects that were treated.

It is required to establish the initial points for economic approaches, by trying to compare theory with practice during all the specialty analyses, under the conditions of recognition of a healthcare services market.

From the point of view of healthcare services management, the market is the abstract place where the demand and the offer confront in order to reach to changes characterized through market costs. There is a market for every type of healthcare services and every market allows a cost.

From a theoretical point of view, we are entitled to apply to this market an assembly of financial instruments specific to healthcare economics. For example, from the determination of costs and incomes or of any other budgetary constraints, effects result on the healthcare services demand. At the same time, the application of competition measures specific to the market economy stimulates the healthcare services offer.

From a practical point of view, this hypothesis is very sensitive when assessed, due to special characteristics of healthcare activities, thus transforming the healthcare market in an unspecific market, which is specific to non-commercial services market.



In this situation, an analysis is required, under the conditions of the existing economic theories, of healthcare strategies and policies, including knowledge about mechanisms for adjustment of healthcare services market.

The result of this analysis aims at providing effectiveness of healthcare activities, reaching the optimum economic and social by means of maximization of healthcare level and the results obtained under the conditions of financial constraints.

The foundation of healthcare economics also involves aspects related to the analysis of the opportunity of state intervention in healthcare department, from the following points of view:

- a) the provision of the amount of healthcare services whose effectiveness is certain, proved by clinical records and by the certainty regarding the improvement of health condition of patients (microsocial perspective);
- b) the provision of the amount of healthcare services at the lowest costs per effect unit, acknowledged as effective both from the point of view of technical endowment and regarding the existence of specialized healthcare staff;
- c) the provision of resources in accordance with the real requirements of healthcare services, leading to the best report in the field of healthcare provision by means of resource allocations based on effectiveness and medical priority criteria.

Such an example is the decision of the American state Oregon to set up the criteria for allocation of financial resources in the field of healthcare according to MEDICAID socialized healthcare assistance. Ranking of priorities regarding allocation of financial resources according to this program involves the use of the QALY synthetic marker (quality adjusted life year), that is allocation of funds according to maximization of the number of saved lives from a statistic point of view. The result of this approach led to substantial financing of AIDS patients and children specific diseases.

This decision example in healthcare field is illuminating in order to understand that certain healthcare options are difficult to accept from an ethical point of view. From a macrosocial point of view, this approach allows alternative options at group level, including the ensurance of a certain pathology type.

- d) the provision of effective healthcare services production up to the level where the collective benefit equals the level of healthcare marginal cost.

From this last point of view, the classic example is specific to cost-benefit analysis, referring to optimization, starting from the decreasing return principle, respectively the allocation of resources for maximization of population level of healthcare.

Regarding the foundation of healthcare economics, the economist J. P. Moatti (1992) states: "from an economic point of view, the analysis of adjustment mechanisms of healthcare system is required, without assessing their accuracy, which is unacceptable from a medical point of view". This is why the equity criterion in healthcare economics analyses is the foundation of the assessment of healthcare costs rationalization policy because it indicates implicit effectiveness. Adjustment and control actions of healthcare costs lead to the study of the report between the effectiveness of healthcare activities and social equity, the incidence on total access to healthcare for various social categories. It is obvious that free access is restricted by restrictive measures, for example de obligation to pay the health social contributions.

### ACKNOWLEDGEMENT

This paper presents the partial results of the scientific research entitled "Social and economic efficiency in the public health system in Romania, the fundamental vector of the sustainable growth and increased wealth", within the postdoctoral school "The Economy of the Knowledge Transfer in Sustainable Development and Environment Protection" (POSDRU / 89 / 1.5 / S / 56287 project)."

### REFERENCES

- Carey, R.G. and Lloyd Robert, C. (2001). *Measuring Quality Improvement in Healthcare – A guide to Statistical Process Control Applications*, ASQ.
- De Cenzoa, D. and Robbins, P.S. (1999). *Human Resource Management*, sixth Edition, John Wiley & Sons.Inc.
- Donabedian, A. (1992). *Evaluating the Quality of medical Care*, Health Services Research an anthology.
- Dupont, M. and Fourcade, A. (2000). *L'information médicale ou patient*. Regles et recommandations assistance Publique-Hospitoaux de Paris.
- Gruber, J. (2002). *Tax Subsidies for health insurance: Evaluation the costs and benefits*.
- Kundtz, H.M. and Kistler-Glendon, K. (2000). *Knowledge management: Processes, People and Culture as an Enabler to Improving Healthcare Performance*. *HIMMS Proceedings*, Session 58. Retrieved from <http://www.himss.org/content/files/proceedings/2000/sessions/ses058.pdf>.
- Hailey, D. and Harstall, Ch. (2001). *Decisions on the status of health technologies* - Information Paper, Alberto Heritage Foundation for medical research.
- Luban, F. (2006). *Sisteme bazate pe cunoștințe în management*. Editura ASE, București.
- Marcu, G.M. (2000). *Metode și practici, partea II – Suport metodologic*, Editura Risoprint, Cluj Napoca.

- Minca D.G. and Marcu M.G (2005). *Sănătate publică și management sanitar*, Ed. Universitară, „Carol Davila”, ed. II-a revizuită, București.
- Nicolescu, O. and Nicolescu, L. (2005). *Economia, firma și managementul bazate pe cunoștințe*, Editura Economică, București.
- Perleth, M., Jakubowski, E. and Reinhard, B. (2001). What is „best practice” in health care? State of art and perspectives in improving the effectiveness and efficiency of the European health care systems, *Health Policy*, 56.
- Reinhard, B. and al. (2002). „Best Practice in Undertaking and Reporting Health Technology Assessment; Working group 4 Report, *International Journal of Technology Assessment in Health Care*, Vol.18.
- Scholtes, P. (1998). *The Leader's Handbook*, Mc Graw & Hill Inc, USA.
- Teodorescu, H.N. (2009). *Ocrotirea sănătății, asistența socială specifică și gestionarea resurselor biologice umane ale populației în SI-SC*. Disponibil la adresa: [http://www.acad.ro/pro\\_pri/doc/st\\_e07.doc](http://www.acad.ro/pro_pri/doc/st_e07.doc)
- Vlădescu, C., Predescu, M. and Stoicescu, Em. (2002). *Sănătate publică și management sanitar*, Ed. Exclus srl.