

**PARTICULARITIES OF THE MANAGERIAL STRATEGIES IN THE HEALTHCARE SYSTEM IN A MULTIVARIANT ENVIRONMENT**

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**ABSTRACT**

*The present study has a central objective to evaluate and monitor the available resources for the protection of people's health. In the present context of financial difficulties, the main contributions aim to establishing the steps of the methodology and decisional process for applying the managerial strategies in the medical system. The research starts from elements such as the microclimate, the characteristics of the environment and quality of life, the medical ethics etc. An important aspect is represented by the analysis of several variable for the healthcare system. The results of the present study seek to evaluate the reliability of the Romanian medical system.*

**KEYWORDS:** *available resources, effectiveness, reliability, validity.*

**JEL CLASSIFICATION:** *H51, I11, P46, P52*

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**1. INTRODUCTION**

The managerial strategies specific to the medical system take into account the planning of the available resources (human, financial, material and informational) able to ensure the achievement of the objectives set on regional, national and international level. The role of the medical staff in the elaboration of managerial strategies is only secondary, the leading role belong to the specialists in sanitary management and to the special governmental policies. However, the participation of the medical staff guarantees the success, as they are expected to effectively take part in the actions and programmes designed to achieve the governmental strategies.

It is also important to settle the criteria for the selection of certain projects designed to use the medical potential in certain time periods, so that these projects could allow the participation of all the elements necessary for achieving the managerial strategy. Thus, the typology of medical services systems is relevant only for a certain period of time, for instance the preventive medicine versus the curative medicine or the hospital medicine versus the ambulatory medicine. Moreover, for each type of medical care, the strategy to be adopted needs to underline the elements relevant at a certain moment, thus allowing positive additional effects. For instance, at the level of the hospital medical care, attention should be given to the strategic relations between the public services versus the private services. Kumar and Prakash underline that "recent studies indicate that private health care significantly affects both the cost and quality of health care services"; "...utilization of health services differs by the demographic and socio-economic status of the individual as well, in addition to the availability, accessibility and quality of services in different places or regions" (Kumar & Prakash, 2011). In the same time, this attention should be focused on medical services versus the surgery services or the medical treatments versus the rehabilitation treatments – and examples may continue.

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A particular attention should be paid to the health system variables, which often generate disturbances within the system. Variables such as the level of public expenditure on healthcare, the average salary in the health system, healthcare system infrastructure, the number of doctors per capita etc, directly affects the typology of the managerial strategies in a multivariant economic and social environment (several of these variables will be analyzed later, in this paper).

## **2. THE ASSESSMENT OF MEDICAL SERVICES**

The fundamental problem underlying the analysis of any strategy is assessing and monitoring the costs of health protection, since the financial resources are so limited and restrictional. This outstanding aspect implies the selection of the adequate method capable to insure the accuracy and coherence of the strategy to be adopted, the rational use of the available potential, suitable for the priority objectives to be achieved in certain time periods. No strategy, however, can solve all the problems of the national medical system, taking into account the financial and human restrictions. Too often, the services for the frequent diseases are given priority against the rare diseases or the curative medical care is sustained instead of the preventive medical care, even though the role of the latter one is so important.

The main aim of the managerial strategies specific for the sanitary system is to establish the efficient methods and techniques for organising and financing the medical services nationally, in order to improve the health condition of the population in different time periods (Alexandru, 2004). In general, from the perspective of management theory and its foundations, a strategy (regardless of its nature - management or production, independent or integrated, recovery or development etc.) is well defined when defining elements of a strategy defined:

- fundamental and specific objectives (basically, which is the purpose of the strategy);
- ways of action (in other words, how the targets are carried out);
- resources (which are material, financial, human and information efforts in order to accomplish the objectives)
- interim and final deadlines (when targets are met).

Moreover, from the point of view of management as a science, there is a clear distinction between policy and strategy. This differentiation is achieved in at least two ways: in temporal terms (policy has a lower time horizon than the strategy) and in terms of level of detail (the policy is more detailed than the strategy).

In addition, in the healthcare system, in order to establish the managerial strategies, the necessary methodological and decisional process must develop along the following steps:

- a) Identifying the main health problems at a certain time, such as the high incidence of the cardiovascular diseases, of TB, of AIDS and of oncological diseases;
- b) Establishing the hierarchy of the medical care needs, based on priority indicators and criteria, such as the breast cancer for young women or the frequency of AIDS at young people;
- c) Establishing a set of programmes and measures to insure the priorities established by an additional financing of the curative care or informative programmes for the preventive care;
- d) Estimating the efficiency of measures of the managerial strategy, using specific managerial techniques and epidemiologic methods of evaluating the health condition, the morbidity and the mortality.

The managerial strategies specific to the sanitary system have a wider range than the medical policies, as they include aspects relating to the life quality, assuring the microclimates, the quality of the environment, the medical ethics and the population prophylaxis. Therefore, the domain of the study is complex and multidisciplinary and starts from finding out the medical care needs (Alexandru, 2009). This fundamental landmark of the strategy must be identified in the first stage of the methodological-decisional process, namely establishing the priority health problems.

The real necessary amount of medical services is the result of a detailed analysis of the existent health condition (complying with the statistic and epidemiologic indicators) compared to the expected, desired health condition. The evaluation methodology used in the sanitary management is based on the following techniques:

- a) Normative techniques to establish the necessary medical services, taking into account the necessary equipment and medical staff needed to treat certain diseases. This necessary is identified by the special sanitary managers, who then estimate the evolution tendencies, according to the demographic and epidemiologic studies. The disadvantage of this method lies in the difficulty to achieve the long term objectives, as they are too ambitious and optimistic.
- b) Techniques for establishing the expected objectives, for identifying the production capacities for the medical services and the distribution ones for each domain of medical care, geographical region and population category. The method considers the theoretical needs of the population based on the income and life standard, on the economic and social conditions. The drawback of this method lies in the huge volume of information necessary to identify the needs of medical care expected by the population.

These managerial techniques for identifying the necessary medical services can be applied practically and emphasise the complexity of the solutions for this problem. It is very important to know the necessary resources, even though the effective achievement is improbable. Accomplishing the specific actions is important in medicine and in the sanitary management. The practical achievement implies the consensual construction of two ways of action, namely:

- \* the quantitative and qualitative evaluation of the population health condition, by collecting information concerning sanitary data and statistics, demographical factors, epidemiologic surveys;
- \* the interpretation and the practical application of the processed information, the dissemination of results, the assessment of the importance given to different categories of needs by balancing them against the factors influencing them (from the economic, financial, social, cultural, demographic, administrative, political and environmental point of view).

Our experience in the healthcare system (as a manager and a researcher) highlights the importance of knowing the necessary of medical services for achieving the strategic objectives in this domain. The reality in our country is that the teams in charge of organising strategic missions have underestimated the role of this stage, reducing it to collecting purely statistic data, analysing the existing studies and conceiving ways of grouping the population.

On the other hand, the identification of medical services needs to take into account the priorities of the national medical system, namely a selection from which to start to apply the health programmes and the medical scientific research studies. This aspect is critical for the diseases for which there are no real and final therapeutic solutions and for which the identification of curative actions represents a priority in saving lives. Despite the important financial efforts for finalising these medical priorities, it is necessary that the services offer should take into account these aspects with a major impact on the health condition.

### **3. SPECIALTY RESEARCH**

The specialty research and studies imply the identification of priorities in medical services considering the following aspects (Beresniak, 1997):

- The number of sick people (morbidity and mortality) corresponding to different groups of diseases analysed;
- The number of persons that can be possibly treated through the financed health programmes;
- The possibility to treat the diseases using the existent medical staff and the technical capacity of the system;
- The existence of methods of prevention and diagnosis;

- The existence of measures for treatment and medical recovery;
- The costs of medical care;
- The effects of providing medical services applied in the economic-social reality;
- The wishes and expectations of the population concerning the provision of medical services.

These aspects lead to the necessity to establish several objective criteria for financing the pathologies, which could be adjusted from the medical point of view through alternatives of intervention (different medical-surgical approaches, prevention – cure - recovery).

The alternatives of medical intervention must be characterised by effectiveness and the effectiveness is expressed by the reliability of the medical services. In this context, the reliability represents the capacity of the medical system to give the same results, under similar conditions (similar production and reproduction). In its turn, the reliability of a medical intervention assures the validity of the medical system, that is to say obtaining potential results to match the expected result.

The existent studies demonstrate the direct relation among effectiveness, reliability and validity. These researches show that there is an assembly of elements of feasibility, which can be approached analytically from the following perspectives (Alexandru, 2008):

- Organisational – meaning adapting to the specific geographic and demographic conditions, to the real modalities of providing medical services considering the existent sanitary system;
- Legal – meaning giving legal status to the modalities of medical intervention, of the sanitary notices and authorisations for functioning;
- Political – meaning the approaches of the political factors and governmental programmes for geographical regions and pathology types;
- Ethical – meaning the modalities of medical option and selection of sanitary priorities.

Therefore, the alternatives of intervention specific to any managerial strategy are based on the equation effectiveness – reliability – validity.

If we try to define these terms in the context of the healthcare system, we can specify that the effectiveness represents the ability of the system to be effective (in other words, the capacity of the system to improve the health of the population, with beneficial effects in the economic and social area); reliability represents the capacity to provide confidence to the patient (to know that every patient can count on the healthcare system – which, in the current economic global conditions is a major challenge in Romania); finally, the validity of system means the availability of treating any patient who are looking for medical assistance. Only when these elements are known, the costs of medical services can be estimated.

According to some authors, "... level and trend research on health costs relate mainly to hospitals because of the essential role of these sanitary units on medical care and because of the fact that ambulatory medicine refer in particular the development value of medical prescriptions... the main difficulties in assessing the costs are financial and accounting" (Cicea & Busu, 2011).

The estimation of the medical services is based, in the European literature of specialty (France, 1968), on the method of rationalising the budgetary options (RCB, Rationalisation des Choix budgétaires). According to this method, the objectives are set based on the dimensions of the problem analysed and the means of achieving them are researched systematically from the point of view of the consequences and the costs incurred to obtain the expected results.

This method was utilised by the World Bank and the World Health Organisation in the Report for 1996 entitled "Investir dans la santé", a reference element in the international sanitary management. The report emphasises the priority actions and objectives of the sanitary system, the disadvantaged categories of population facing the disease, the vulnerability of some social groups, the relationship preventive – curative treatment. As for the protection of health, the people who solicit medical services want to get the most performing medical acts for the amounts paid, directly or indirectly. This is why, the sanitary managers must know the elements of the relation between the cost of the medical act and the advantage of the patient, respectively, the gain obtained, expressed in different

modalities (what could happen unless the medical intervention, taking into account the cost of the medical act).

The decisional factors in the public sanitary system need to evaluate the effectiveness compared to the costs of improving the health condition, namely the implications of the absence of the public medical act and the consequences of the private medical act. Furthermore, the decisional factors can provide information on the advantages (expressed in costs) of the medical interventions for the beneficiaries of medical care and for the providers of medical services.

Relationship in evaluating the effectiveness of health service sector follows the basic principle of efficiency evaluation in the economic area; according to this principle, the efficiency evaluation is based on the comparison between efforts for the realization of activities and the recorded results. In other words, efficiency evaluation is based on a ratio between the actually achieved effects and efforts.

The economists of the sanitary system need to use the information concerning the costs of the medical care in order to be able to improve the distribution of the available funds (Tanti-Hardouin, 1994). For example, at the level of the cost centres, the medical results could be analysed for each section of a hospital and the overruns or savings could be identified, in order to take measures for limiting the costs in excess until achieving the best cost – advantage rate.

The studies carried out are based on the following modalities of evaluating the efficiency of the medical services:

- the method of reducing the costs to the minimum, which consists in comparing the expenses of different medical services having equivalent consequences, also known as the “cost-cost method” derived from the cost-effectiveness analysis;
- the method cost-benefit which consists in establishing the relationships between the costs of the medical services and their consequences expressed in monetary value units; this method is widely used in the specialty literature as it emphasises the value of the human life, the estimation of gains / losses corresponding to the extension / shortening of life;
- the cost-utility method which consists in establishing the relations between the costs of the medical services and the consequences of qualitative nature, namely the aspects relative to life quality;
- the cost-effectiveness method consists in establishing the relations between the costs of the medical services and the consequences expressed in physical units, as for example the number of saved years or the number of saved patients through preventive medical acts.

If we try a basic comparison between all the above method, we consider useful to present the following picture :

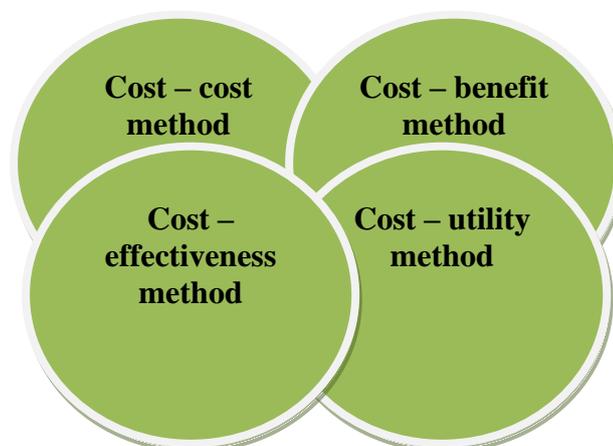


Figure no. 1 Relationship between efficiency evaluation methods in healthcare system

There are various works that concentrate on these methods (Cicea & Buşu, 2011; Cutler, 2007) in order to evaluate the efficiency of medical services.

According to some authors, „...measurement of efficiency is especially relevant in settings constrained by scarce resources and given the recent economic downturn and escalating healthcare costs... it allows a system to produce more and better at zero cost” (Hsu, 2010).

These modalities of assessing the effectiveness of the medical services represent the starting point of the managerial strategies, the programmes and projects of investments in the sanitary system. It is interesting to notice that the ethical aspects are excluded from these studies, as the medical services are given with priority to the active persons against the inactive persons (which is quite cynical).

The western-European approach is that the funds assigned for the health care represent either a long-term human investment or a financial “loss” in case of the inactive population. This so-called financial loss is compensated for by the health insurers from the contributions paid along the time. In fact, it is not a financial loss, but the use of the insurance mutual funds for illness risks, when the person becomes inactive.

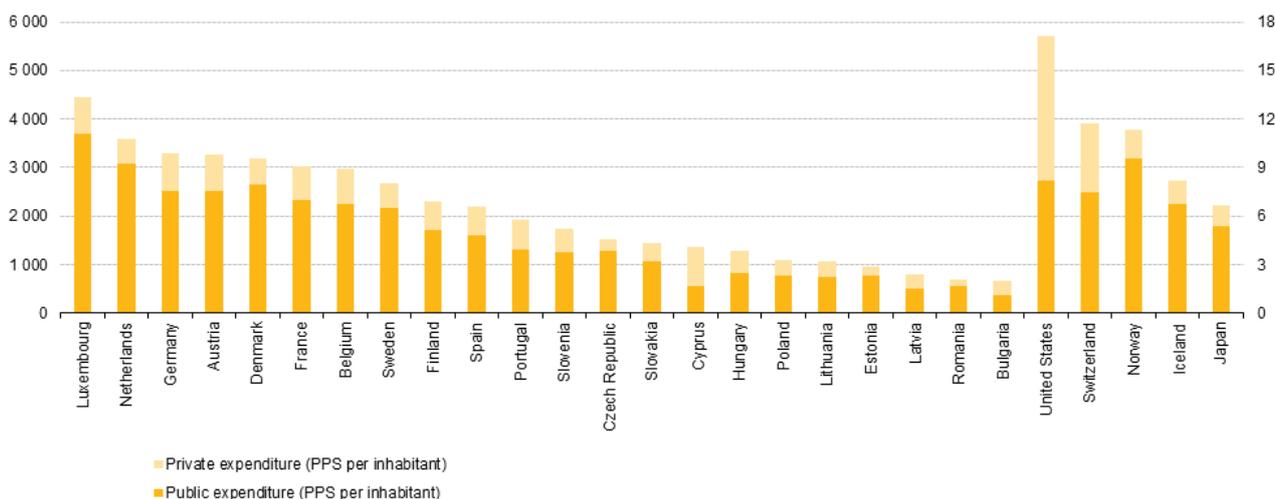
#### 4. ESTABLISHING THE DECISIONAL-STRATEGIC CHOICES IN A MULTIVARIANT ENVIRONMENT

In order to outline a successful strategy in healthcare system, it is important to analyze the significant variables in this field.

Among these, we can mention the following :

- a. The level of annual expenditure allocated to the healthcare system

It should be noted at this stage that Romania is ranked in one of the last places in European Union, with a lower expense per capita related to the healthcare system. For example, we consider useful to present the situation corresponding to year 2011.



Source : Healthcare statistics, Eurostat

Figure no. 2 Public and private expenditure per capita

Please note that the data for Bulgaria, Cyprus and Luxembourg are appropriate for year 2008, for Japan and Latvia are appropriate for year 2009 and for Denmark, Czech Republic and Iceland are appropriate for year 2010.

In this context (of a very low budgetary expenditure per capita in healthcare system in Romania), it is difficult to outline a managerial strategy which give equal importance to all aspects and subfields of the health system in Romania. Therefore, an important role is prioritization of limited resources so as to generate maximum effect.

b. Number of physicians per 1000 inhabitants

It is an important indicator, which is in close relationship with the previous variable (budgetary healthcare expenditures per capita). As a nation has a greater number of physicians per 1,000 inhabitants, the health system delivers a quality healthcare assistance and thus it is more effective. For example, we present the situation for this variable in the range 2009 - 2013, for the same countries analyzed above.

Country	Physicians (per 1000 inhabitants)	Country	Physicians (per 1000 inhabitants)
Luxembourg	2.8	Cyprus	2.3
Netherlands	2.9	Hungary	3.0
Germany	3.8	Poland	2.2
Austria	4.8	Lithuania	4.1
Denmark	3.4	Estonia	3.3
France	3.2	Latvia	2.9
Belgium	3.0	Romania	2.4
Sweden	3.8	Bulgaria	3.8
Finland	2.9	United States	2.5
Spain	3.7	Switzerland	3.9
Portugal	3.9	Norway	3.7
Slovenia	2.5	Iceland	3.5
Czech Republic	3.6	Japan	2.3
Slovakia	3.0		

Source : World bank ([data.worldbank.org](http://data.worldbank.org))

Table no. 1 Number of physicians per 1000 inhabitants (2009 – 2013)

This time, Romania is ranked in a middle position regarding the number of physicians per 1000 inhabitants.

c. Gross domestic product per capital

Another interesting variable of the healthcare system is represented by the GDP per capita for each nation (in some measure, it is correlated with the first variable, the level of expenditure for healthcare system). It is well known that a great level of GDP per capita means that the nation has the opportunity to increase the quality of the healthcare assistance, with great effects for the life expectancy and health status of the population. In the following chart we present the situation of the GDP per capita, for all 27 analyzed countries.

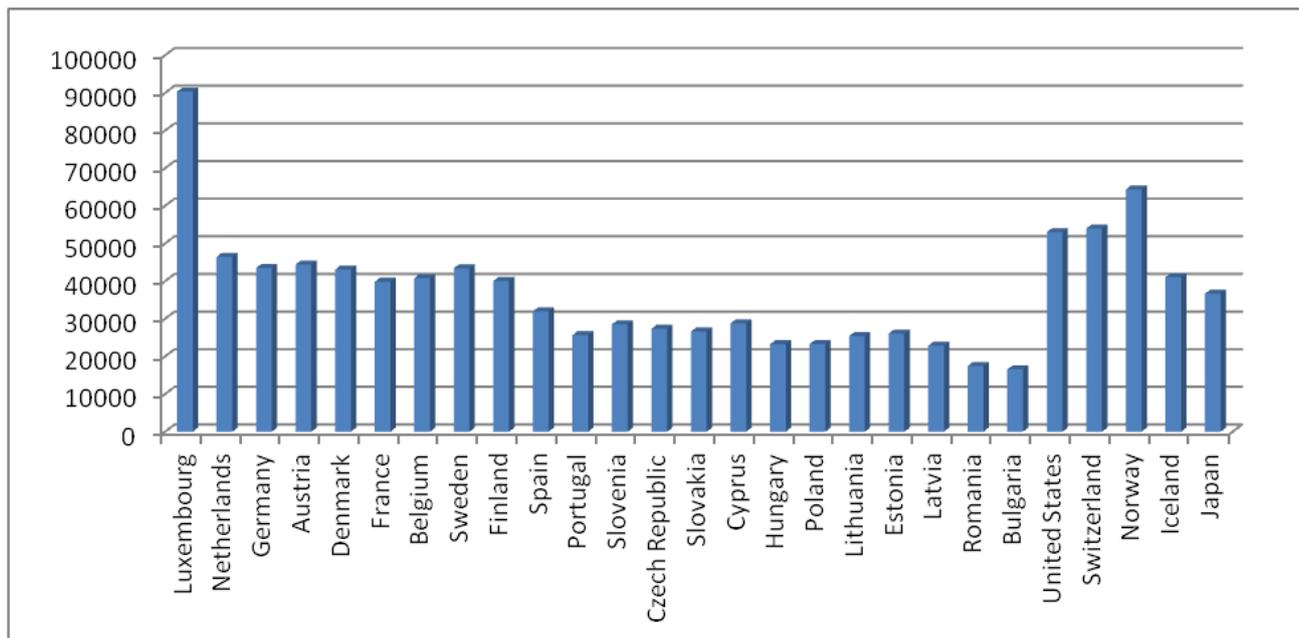


Figure no. 3 Gross domestic product per capita, 2013

Source : World Economic Outlook Database 2014, Internation Monetary Fund

If we analyze these two charts (from the first and third variable), we can observe that there is a little similarity between them. In fact, it is a normal thing that countries with a higher level of GDP per capital has also a higher level of expenditure for health system per capita.

Once these three suggestive variables are presented, it is very useful to observe that the decisional process is the competence of the political-governmental factors and consists in choosing an alternative of managerial strategy from a large number of variants analysed, based on economic, social or political criteria. The possible use of scientific criteria or assessing the alternative studied can justify the final decision, becoming an objective argument for excluding the other variants of strategies (Mougeat, 1999).

Once the decisional variant is adopted, the stage of implementing the managerial strategy follows, namely applying the specific programmes by mobilising the available resources in order to achieve the proposed objectives. The implementation of a new strategy of the sanitary system depends on its acceptance by the population and the medical staff. If the new strategy insures the improvement of the health condition of different social categories, then the specific programmes will be welcome with interest, inclusively by the medical staff. Likewise, implementing a new strategy implies the training of the staff in charge with accomplishing the specific programmes. Those persons establish the work procedures for the domains of medical care and for different time periods. The procedures for the standardisation of the specific tasks for implementing the strategy insure the possibility to

compare the effective results with the expected ones. This stage is particularly important in the general process of the implementation of a new strategy. According to the partial results obtained, some correction decisions can be adopted in order to achieve the assumed objectives.

The process of evaluation of an alternative strategy consists in determining the degree of achieving the proposed objectives. The evaluations are performed for each project pertaining to a strategy, for instance programmes for diagnosing the diseases, for medical treatments, surgical treatments, recovering and rehabilitation of health, prophylaxis, vaccination and immunisation, national health programmes, programmes for distinct domains of medical care. The evaluations use normative criteria and calibration standards for assessing the analysed strategies. The evaluations are either quantitative, in which case indicators of medical statistics are widely used, or qualitative, consisting in analysis of the cost-effectiveness type or epidemiologic surveys. For example, the surveys among the population benefiting from health programmes indicate the degree in which an improvement of the health condition was achieved. Thus, the evaluation of the national programmes for diabetes and nutrition diseases imply carrying out surveys among the persons with these diseases, obtaining in this way information regarding the number of people taking the treatment, the number of potential diseased people, including people not addressing medical staff, the typology of the treatment schemes, the balance of the specific medicines prescribed by the physicians and released by the pharmacies. The information obtained is processed, obtaining results regarding the effectiveness of the respective health programme, the degree of ensuring medical specialists, the organisation of diabetes practice in ambulatory treatment, the degree of equipping the specialized departments in hospitals, the financial resources appropriated for this disease and the social effects produced by these diseases.

The characteristics and the imperfections of the health care industry defines the establishing of the managerial methods able to reflect the quality of the decisions applied in the sanitary system, followed by corrective measures. The starting point in selecting the methods for the economic evaluation of the sanitary strategies and policies is the rationalisation of budgetary expenses for healthcare. The interpretation of financial aspects, of the funds appropriation for different health programmes emphasises the importance given to each domain, the value scale used, the quality and usefulness of the decisions taken. The choice of the methods to compare the alternative strategies determines the results of the evaluation; therefore, it is important to know who chose the method and what it consists of. For example, in the case of the evaluation of a curative healthcare policy based on x, y, z medication treatment, an analysis can be performed to compare it with a policy based on the placebo effect or with another policy based on treatment with new medicines. In this context, the policymakers must be identified, namely the value hierarchy of the alternatives, the hospitals which benefit of these treatments, the medicine factories, the insurance company financing the curative care, the necessary financial resources and the therapeutic effects. The final result depends on the comparative analysis and the wide consensus of the specialists.

The practical actions imply comparing the strategic alternatives based on specific criteria for each variant analysed, the description of the decisional consequences and their value hierarchy regarding the financial and medical aspects. For example, the therapeutic option X is compared to the therapeutic option Y using the economic criterion "expenses" and the medical criterion "possibility of healing". If the expenses necessary for the option X are lower than the expenses for option Y, then the strategy X is preferable to the strategy Y, under the financial criterion. If the probability of healing of the option Y is higher than the probability of healing of option X, then the strategy Y is preferable to the strategy X, on the account of the medical criterion. The example given is simplistic, but it highlights certain value aspects. In reality, things are much more complex when it comes to saving lives at any price! This is why therapeutic and evaluation protocols are used, as well as schedules with sets of specific criteria for the domain analysed.

The large diversity of the strategic alternatives and of the domains of healthcare determines the involvement of a significant number of sanitary policymakers, the negotiations turning to be rather

difficult and often contradictory. Hence, the necessity and the opportunity to elaborate nomenclatures for evaluation based on the protocols developed, having the majority consent of the policymakers. After establishing the evaluation method, the hierarchy of the strategic variants is created for each criterion and a general classification is achieved for defining the optimal variant (aggregate preferences).

Using the Pareto method in the previous example, the option X is preferable to or neutral to option Y if, and only if, X is preferred or neutral to Y for all the criteria considered. The option X is preferred to option Y if it generates reduced costs and if it has a higher probability of healing than the strategy Y. This method of aggregate preferences is generally accepted by the policymakers, except the situations in which an option is strictly preferred to another option, upon different criteria of evaluation.

## 5. CONCLUSIONS

The managerial approach of the strategies specific to the sanitary system is objectified in quantitative and qualitative evaluations supplemented with scientific interpretations of the results obtained and the dissemination of the useful information.

The strategic alternatives taken into account are meant to insure the reliability of the sanitary system tightly connected to the effectiveness and validity of the medical acts. The research aims at a complex and complete approach from the organisational, social, political, legal and medical ethics perspective. The paper is a continuation of previous collaboration of the two authors started in the book "The management of medical services" (2004) and continued in the research project "Social economics and efficiency within the public healthcare system services, in the process of adapting to the rules standards of the European community and area" (2009).

Undoubtedly, the issue of strategies in healthcare is very complex, closely related to variables that are found in this environment (most significant, we mentioned the level of healthcare expenditures, the number of physicians per 1,000 inhabitants, the Gross Domestic Product per capita). Besides the great complexity of this vital area of human activity (along with educational field), it should be mentioned that there is a subjective aspect related to the optimal strategy to be portrayed and implemented. This subjective aspect refers to the native qualities of managers acting in the health system and without which it is not possible to implement a successful strategy. In other words, managerial knowledge that any educational system offers to its customers is not enough; instead, a number of native attributes are required in order to make the difference between a successful manager and an ordinary one; these native abilities may subsequently represent the foundation for implementing successful strategies in the sphere of health services.

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