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Proces podejmowania decyzji w sektorze ochrony zdrowia

The process of decision-making in the health care sector

Streszczenie

Podjęcie decyzji jest najprostszym i najbardziej skutecznym mechanizmem zmiany otaczającej nas rzeczywistości, wyznaczenia sobie celu i nadania życiu nowego kierunku, w którym będziemy zmierzać. W systemie ochrony zdrowia, który jest jednym z najbardziej złożonych strukturalnie i funkcjonalnie systemów, podejmowanie decyzji należy do trudnych i ważnych wyborów społecznych, gdyż dotyczy najwyższych wartości dla człowieka, jakimi są zdrowie i życie. Uwarunkowania te sprawiają, że w tym szczególnie ważnym sektorze gospodarki decyzje powinny być podejmowane ze szczególną troską i rozważą. Determinuje to racjonalność w tym procesie, wymienianą jako jeden z podstawowych walorów sprawnego i skutecznego działania.

Abstract

The process of decision-making is the simplest and the most effective mechanism of changing the surrounding reality, defining the target, and of giving our life a new direction which we are going to follow. In the health care system, which is one of the most structurally and functionally complex systems decision-making is a difficult and important social choice as it influences the most essential human values: health and life. These conditions influence the fact that, in this particularly important sector of the economy, all decisions should be made with particular care and prudence. It determines the rationality of the process, which is always mentioned as one among other basic values of efficient and effective operation.

Słowa kluczowe: zarządzanie, podejmowanie decyzji, racjonalność, systemy informatyczne.

Key words: managing, decision-making, rationality, information technology systems.

THE PROCESS OF DECISION-MAKING IN THE HEALTH CARE SECTOR

An important part of the whole organization managing system is the decision-making stage. In the literature of the subject the notion of decision is not given unequivocally but the substance always remains the same. The theoreticians of organization and managing describe the notion of decision as: I. Bross – the choice of rational action; C. Colbe – the choice among action alternatives which is the closest to the accepted criteria of the choice; P. Drucker – the judgment (concerning the decision-maker) including risk [1]. Then we can point to the fact that a decision is the effect of the decision-maker choice which takes the form of the preferred solution [2]. While making decisions we organize chaos which is the synonym of uncertainty. The essence of the decision making-process gives a new, preferred shape to the present reality. Therefore, decision-making process can be seen as the process of linking the past with the future. A very important role in this situation is played by special conduct methods, which are directed to the choice-making in order to make the best possible decision. The skill of effective managing can be mostly seen in the process of decision-making. The rationality is enumerated as one of the basic values of the effective and efficient work. The term rationality originates from the Latin word “ratio” which means “reason”, “cause”, “justification”, “calculation”, “index”, “regard”, “interest”, “system”, “rule”, “method” [3]. In management sciences, while these terms are explained from one point of view we can understand them as rationalization seen as a social process which is currently developing and including more and more life forms of the individuals and groups, the forms which are undoubtedly more and more complex, or as a rationalization of people’s activity which is the principal directive of any development and the technique of using this directive – in both cases the cognitive and efficiency threads of rationalization are taken into consideration [4]. The rationalization of the decision-making process is conditioned by three basic elements: the information gathered, the decision-maker’s skills which consist in acquiring the gathered information and transforming it into decisions; the intention to make a rational decision – the rule of maximizing the effect [5]. Rational behavior is difficult to be described unequivocally. However, we can point to the fact that the rational behavior is this of a man who follows consistent decisions and, as a result, his behavior is also consistent. Moreover, he does not act when influenced by a given impulse, but with a reflection concerning the possible consequences of his acts. He also uses effective methods and wants to achieve the given aims, he follows a choice of methods and knowledge. What is more, he follows accepted preferences or acts according to a given hierarchy of values, motives which are accepted by a given social group. The rational decision-making process consists of four stages:

1. defining the problem;
2. working out the methods of solving the problem;
3. assessment of the possible ways of solving the problem and the choice of the best of them;
4. introducing the decision, monitoring the realization and assessment of its accuracy.

The main factors influencing the increase of the rationality in the decision-making process performed by a manager are: knowledge of the mission and strategic aims of the company; ability to define strategic decisive problems; ability of decision-making, refusal of changing decisions while in the course of realization and thereby creating the image of a determined leader; ability to gather information and knowledge from various sources; using information technology systems which are helpful in making decisions, limited delegating of decisive abilities; operating with different styles of decision-making; taking into consideration various methods and techniques of a creative problem solving; using the decision-making rule which is suitable to the character of the decision, assessment of the decision accuracy, developing the knowledge of rules, methods and techniques of the decision-making manager [6]. If a manager uses the model of the rational decision-making process, his actions are organized, structured, concise and purposeful, which positively influences the work improvement in an organization. On every level of this process we know how much time and energy it requires. In a case of missed decisions it is easier to identify the stage which was faulty and to counteract further similar incorrectness. It can lead to a general conclusion that a manager, using the model of the rational decision-making, economizes time and energy, which leads to the increase of his effectiveness and efficiency.

Decision-making process in the sector of health care is a difficult social choice. It results from the fact that maintaining good health and life is the greatest value for a man, the needs in this field are often fundamental and they decide about the citizens’ sense of security. Essentially, decisions in the health care sector concern the important, difficult and sensitive sphere of social life. What is more, they are often burdened with a certain degree of risk and uncertainty. That is why the rational decision-making process is so important in this system, which is the duty of choosing and obliging an effective action. It implies all possible efforts and choosing of the proven and effective methods of acting in the rational decision-making process, which is one of the most complex structural and functional systems. It operates together with other market systems which we should enumerate: political, economic and social. The decision-making process, while being used in the sector of health care, consists of numerous levels. This fact results from the segmental system construction. The process concerns also numerous subjects possessing specific and responsible functions resulting from the task range. The highest place in the hierarchy of the system is taken by the central level, where the “macro” decisions are taken. They influence the shape and rules of the functioning of the health care system. The subjects included in this level are: MZ (the Ministry of Health), the NFZ (the National Health Fund) headquarters, the national administrative authorities, the central legislative assembly, the central supervisory body. The activities performed on this level are particularly the following ones: long-term planning, creating Polish standards, validating of the activity plans for the particular institutions responsible for implementing the effective strategies in the field of public health; controlling the validated plans and observing the effective law; analyzing the effectiveness of the system and its modification thanks to

legislative actions; coordination and cooperation of the national system with international subjects. Ensuring the health safety for the citizens is a very important and responsible task which should be performed by the national authority. The country, performing its constitutional duty and being the main organizer and coordinator of the health care system, should organize its activity in such a way that the system could operate ably and irreproachably. It should also precisely define the range of benefits financed from the public funds as well as clear and unambiguous formal criteria for the people who can apply. Moreover, it should react quickly and flexibly in case of the needs and comments of the citizens, because the basic aim of the health care system is maintaining and improving the citizens' health condition. However the citizens are individually responsible for their own health condition; there is a special need they want to be satisfied by their country, and this is the need in the case of a threat for health or life. As regards the case, the country conducts a large scale health policy, fulfilling its duty of a guarantee concerning the realization of health benefits so that a citizen can obtain the benefits on a given level and in the due time, taking into consideration the medical point of view. This is why the actions of the country in this respect must be responsible, and the decisions should be taken with special care and attention. Below, in the hierarchy of the health care system there is a regional level on which the "mezzo" decisions are made. Those decisions often practically tell us about the effectiveness of the regional health politics. In the panel of subjects at this level we can find: local government authorities on the level of voivodeship and district; administrative government authorities on the level of voivodeship; voivodeship sections of the NHF; local government authorities comprising medical specialists. As a rule, on this level the following activities take place: planning and operational managing; contracting and cost settlement of the performed health benefits; coordination of the local health care units work; realization of health plans; monitoring of the citizens' health condition; monitoring, satisfying and coordination of the regional needs. The regional development is a form of the modern country development that consists in using the local conditions and local variety in order to realize macro-economic aims, or encouraging the society to be more active while facing problems and issues which indirectly touch them; also in taking care about the economic, social and cultural diversity, as well as taking care by the country about the equal chances for all citizens regardless the region of their residence [7]. Especially on this level we can find the indexes created fast and representing the conditions of incidence and mortality among the citizens. On the basis of the segregated information from all the voivodeships health programs are created. They promote a healthy lifestyle, stimulate the social awareness in the field of health, and prevent incidence as well as premature mortality. The lowest level of the health care system is the local level, on which the "micro" decisions are made. These are concentrated on satisfying the current health needs of citizens, which is also connected with monitoring of those needs. The subjects involved at this level are: local government administration bodies of the municipality level, health care units, and patients. This level is the closest to the patients and it can often precisely notice their social and

health problems. As a result, at this level there is the most credible information thanks to which it is possible to determine precisely what kind of tools should be used in order to satisfy the notified social need in the field of the given health benefits. The fact that the process of decision making in the health care sector takes place on several levels and by many interrelated subjects results in dependent links among them. Particularly these links concern the way of transferring decisions and they create a network of mutually penetrating and completing relationships. As a consequence, they create the totality of the system. Additionally, the process of decision-making in the health care system is influenced by internal as well as external environment, and also the measures and indexes that reflect the parameters which have been characteristic for the system and its trends for years nationwide and internationally and which particularly create the health policy of the country.

The status of a decision-maker, a manager, plays an important role in the whole process of decision-making in the health care system. This process depends, in fact, on his/her qualifications, abilities and talents. Every organization needs good managers because they are the main creators of its success. Peter Drucker claims that: independently on the workplace of a good manager, no matter if it is business or a hospital, a government agenda or a trade union, university or the army, he/she is supposed to do what should be done; intelligence, imagination and knowledge constitute the basic value, but it is only the effectiveness which can change them into results, they themselves can only set boundaries of what can be done [8]. The distinguished role of a manager in the health care system was started with the reform of the system in the nineties. The reform caused an important change into the rules and mechanisms of the system's functioning. Especially the reform has transformed the management methods which concern the public units of health care. These conditions made the directors of public health care units change from passive administrators into active managers, all this in order to face the continuously greater competition [9]. The fact has also determined their willingness to acquire new skills and to broaden knowledge, as well as to apply better tools in order to make the process of decision-making more efficient. In fact, the managers of the health care system are supposed to make decisions which are followed by a success, which, today more than ever before, depend on their qualifications and knowledge. The necessity of development of the vocational skills in the case of health care system managers is a result of the changing conditions in the health system functioning, in which there is a tendency to reduce expenses simultaneously with the demand of better effectiveness of the health care units and to reduce the costs of their functioning. The next condition is the lack of patients' satisfaction because of a reduced possibility of using the health benefits, as well as the dissatisfaction of doctors and workers resulting from the present shape of the health care system. Moreover, as the managers of health care system dispose of public means, they are supposed to make decisions in accordance with social justice and economic effectiveness. This is the reason of the need, of improving their vocational skills. The fields of development particularly concern the following issues: general rules of managing in the health care system

units which function in the present economic reality; management of human resources and the skill of managing the staff, organizing the teamwork, building positive relationships, motivating the employees; managing the changes, planning and solving problems, time organization, communication and negotiating in the field of diplomacy concerning interpersonal relationships; knowledge of information technologies, health care financing, health insurance system. The effectiveness in an organization is, first and foremost conditioned by effective managing. This notion means the ability to choose suitable targets, as those which are important to be achieved. This effectiveness in organization should be assured by a manager. Effective manager, facilitates transforming of resources into products, and activities into results. The effectiveness in action is important, which means the ability to choose adequate objectives, necessary for the organization to function and develop efficiently, as well as the factors which will be useful for the organization in the future.

Nowadays, the changes concerning the health care system conditioned by aging population, diagnosing of new illnesses, achievements in medical science and introducing new technologies, constitute the reason for launching new national activities in order to improve the effectiveness in such a way as to reach and stabilize the health security of the citizens. They are intended for implementation of the most modern tools which give the possibility of taking decisions in a rational way and of realizing the national policy effectively. Particularly the information technology systems have priority in the health care system. This fact has been underlined and regulated in numerous strategic documents of this sector. The information technology system constitutes an integrated tool which is based on modern information technologies serving to gather, transform and exchange data including the whole organizational process concerning the patient service in the administrative and clinical aspects. It implies new possibility of improving the managing, reducing costs, and, which is the essential, the improving organization of health benefits. It makes support for everyday medical activity possible, as well as planning and organizing this activity and supporting the therapeutic-diagnostic process, as well as the scientific and didactic process. The Center for

Health Information Systems carried out a survey, "Inventory of resources and ICT potential of health care facilities as factors of partnership to Health Care Informatization Program of the Ministry of Health" The purpose of the survey was to identify the activity of hospitals in the area of information technology as a factor in partnership in the carried out projects, on healthcare informatization. The survey included all hospitals, of which only 187 were active participants, which is presented in Table 1. However, Table 2 presents the condensed information in regard to data in specialized medical software and the use of a computer system for management purposes. The survey results show that this is an integrated system of hospitals and hospital administration, data storage and on the approach to their system as a tool to support information management functions in the hospital. Moreover, these results indicate the presence in the health system of several distinct groups of hospitals using IT systems in the entire process of managing the unit, including the partnership of definitely capable data transmission (ICT) and EDP system (Table 1 and 2).

Taking steps aiming to introduce information technology into the health care system becomes inevitable because of the fast development of the technological progress and increasing huge mass of information. Nowadays, information has become a valuable product on the market. Information has become the forth, after work, land and capital, factor of production, and thus a subject of planning, control and coordination. Moreover, it belongs to the group of immaterial resources which have a particularly big competition potential. These days, information plays an important role in creating an organization. Its structure can be divided into four elements, such as: contents of information, meaning what we want to pass on; contents carrier, which means an object on which the information has been recorded, such as conventional signs, for example letters, numbers, a picture; way of transferring information, which means a technical solution of its transfer to the recipient. The information value, taking into consideration the administrative aims, depends on its usefulness and validity. Useful information which can be used in the managing process, and especially in the case of decision-making process, must be unambiguous, complete, reliable, valid and consistent. A well made decision is at least

TABLE 1. Hospitals included in the survey with regard to the founding organ.

The founding organ		Questionnaire sent by founding organs in absolute numbers and in %		Hospitals according to founding organs in Poland in %
Local government units/Units of local government including/therein		150	84.27 %	73.10%
	The Province/Region	55	30.90%	
	The District	76	42.70%	
	The Municipality (Community) /The Municipality of the District rights	19	10.67%	
The Minister of Health		3	1.69%	0.40%
The Minister of National Defense/Ministry of National Defense		3	1.69%	2.00%
The Ministry of Internal Affairs and Administration and other central organs		9	5.06%	
A non-state entity		13	7.30%	19.30%
The Medical University		9	5.06%	5.20%
Overall		187	100.00%	100%

Source: Results of the report, „Resources and ICT potential of health care institutions and their participation in the ICT area” were implemented in the project „The experience and ICT resources of health care facilities as factors of the partnership in Health Care Informatization Program (PIOZ)”

TABLE 2. Function of data transmission in a specialized medical software and computer system integration and the use of hospital information system for management purposes.

Software		Hospitals that have filled in the survey, together	The level of integration of hospital information system and use it for management purposes					
Type/Model	The function of data transmission		The white system integrated with the gray system	The lack of integration of white and gray system	Declaration of having data warehouse	The lack of data storage	The overwhelming statement that the computer system is used for management purposes	The declaration that the system does not or rather not used for management purposes
For operating the movement of patients	There is no	10.70%	1.72%	15.45%	0.00%	13.89%	4.35%	17.39%
	Without the transmission	11.23%	6.9%	13.82%	10.81%	11.81%	8.7%	8.70%
	With transmission of	74.87%	91.38%	70.73%	89.19%	74.31%	85.51%	60.87%
For operating the JGP	There is no	5.35%	0.00%	8.13%	2.70%	6.25%	4.35%	4.35%
	Without the transmission	12.83%	5.17%	17.07%	0.00%	16.67%	8.70%	13.04%
	With transmission of	78.61%	94.83%	74.80%	97.30%	77.08%	85.51%	69.57%
For creating of medical records	There is no	16.04%	3.45%	22.76%	0.00%	20.83%	10.14%	21.74%
	Without the transmission	14.97%	8.62%	18.70%	13.51%	15.97%	8.70%	17.39%
	With transmission of	65.78%	87.95%	58.54%	86.49%	63.19%	79.71%	47.83%
For the registrating the patients	There is no	9.09%	3.45%	12.20%	0.00%	11.81%	4.35%	21.74%
	Without the transmission	14.97%	10.34%	17.89%	13.51%	15.97%	14.49%	4.35%
	With transmission of	72.73%	86.21%	69.92%	86.49%	72.22%	79.71%	60.87%
For keeping waiting lists	There is no	10.70%	1.72%	15.45%	0.00%	13.89%	13.04%	4.35%
	Without the transmission	12.83%	8.62%	15.45%	10.81%	13.89%	5.80%	13.04%
	With transmission of	73.26%	89.66%	69.11%	89.19%	72.22%	79.71%	69.57%
For the supply and management of medicines	There is no	10.70%	1.72%	15.45%	2.70%	13.19%	1.45%	21.74%
	Without the transmission	27.27%	12.07%	35.77%	16.22%	31.25%	20.29%	34.78%
	With transmission of	58.82%	86.21%	48.78%	81.08%	55.56%	76.81%	30.43%
For laboratory	There is no	32.62%	18.97%	40.65%	16.22%	38.19%	17.39%	47.83%
	Without the transmission	20.32%	15.52%	23.58%	16.22%	22.22%	21.74%	17.39%
	With transmission of	43.85%	65.52%	35.77%	67.57%	39.58%	59.42%	21.74%
For the diagnosis (image data of)	There is no	37.97%	24.14%	46.34%	13.51%	45.83%	26.09%	65.22%
	Without the transmission	17.65%	22.41%	16.26%	18.92%	18.06%	17.39%	13.04%
	With transmission of	41.18%	53.45%	37.40%	67.57%	36.11%	55.07%	8.70%
For medical statistics	There is no	1.07%	0.00%	1.63%	0.00%	1.39%	0.00%	4.35%
	Without the transmission	13.37%	5.17%	17.89%	5.41%	15.97%	10.14%	4.35%
	With transmission of	82.35%	94.83%	80.49%	94.59%	82.64%	88.41%	78.26%

Source: Results of the report, "Resources and potentials of health care institutions in the field of information and their participation in the ICT area" carried out by the project "The experience and resources of health care facilities information technology as factors of the Partnership Program for Health Information".

80% of information, 10% of inspiration and 10% intuition. In the health care system we can notice the special role and value of the information which constitutes the basis of the activities that take place, and which have influence on human health and life. It also constitutes the basis of making management decisions, in particular determining the priorities among the taken actions, as well as allocations of financial resources. Using the information technology achievements in the field of health care is the key to increasing the quality of medical service, increasing its availability, and also making rational health national politics. Data gathering, transforming and storing in a traditional way results in a long time of waiting for the information, engaging numerous employees in the process of data gathering and aggregating and it often constitutes a problem in the case of a necessity of

using the stored information. Health protection is the area of life where human health or life can often depend on the time of gathering information. This is the reason why development and improvement of the electronic information circuit using information technology are of great importance. The efficiency of functioning of the health care system, and thus its units, mainly depends on the quick decision making, and this factor depends on the information availability. This is the reason for developing tools which will let gather information easily. The information which is thus the statistical data is used in order to determine health indexes, on the basis of which decisions concerning rational health politics and directions for planning actions concerning health care will be made. It is important to make health care system decision-makers aware of the fact that using the most modern

information technology tools facilitates the rationality in the decision making process and it influences the knowledge usage in order to improve the quality of the social life. When observing good practice of different countries which use information technology systems it is necessary to point that the implementation of this tool constitutes today a necessary condition of effective functioning in the case of the health care system. Changing conditions of its functioning make health care managers search for modern solutions and tools which will let to gaining the competition advantage. Expert usage of information technology tools has today a real and indirect influence on the effectiveness of functioning of public health care units and optimizing the costs of their activity, which is manifested in rational managing decision-making. The usage of information technology in the health care system can become the driving force of the proper development of this sector, and thus contributes to a better realization of the health policy objectives.

The system transformation which has been started in the nineties introduced a new attitude towards managing. It has also changed the way of thinking and the earlier point of view of the decision-makers in this sector. Nowadays the new managing attitude in the health care sector has become a necessity because of globalization, demographical changes, competition on the medical market and development of information technology. The activities taking place in the health care system are directed towards the minimization of functioning costs because of the limited quantity of accessible financial resources and, at the same time, improving the quality of the offered health service for the patient. These conditions determine the necessity of facing numerous challenges and rational decisions by the managers of public health care units so as to meet the system tendencies directed towards maximizing the effect and, at the same time, minimizing costs that are necessary to reach it. Moreover, new achievements in the field of public health aim to diminish the citizens' morbidity and premature mortality. The emerging necessity of accomplishing economic, social and marketing analysis in order to offer the health benefits which are best adjusted to the reported social needs implies the rationality of the decisions which are made thanks to the usage of effective tools in the form of information technology systems. This assessment shows that decision-making process in the health care system needs a rational attitude as well as care and sensibility of the decision-makers. It also requires the implementation of some innovative changes which help managing in this sector. It is necessary to remember that the human interest must always be the main aim of the whole technical progress (Albert Einstein).

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