

IMPROVING HEALTHCARE MANAGEMENT THROUGH KNOWLEDGE ECONOMY (PERSPECTIVES FOR BULGARIAN REALITY)

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Abstract. The objectives of this article are to identify the key components needed for advancing the healthcare management through implementation of some tools of knowledge economy and to describe the possible approaches that the organizations have implemented so far, and what should be done. The author proceeded a research of the environment of some hospital facilities in order to identify some principles for the implementation of sustainable management improvement in the health conditions of selected Bulgarian health facilities. This is possible by conducting in-depth interviews with experts on the issues of the present exhibition and hospital managers. Drawing on health management literature and practice and available information on the knowledge economy, interviewees described different approaches to improving management which include important key components.

Keywords: health care; health care management; knowledge economy

JEL: D22; L20; M21

1. Introduction

In the conditions of the knowledge-based economy, the human factor and its supply of knowledge, skills, competences, habits, mobility and motivation are the main source of competitive advantages for any organization. The accumulated intellectual abilities and specific knowledge of the healthcare organization, personnel serve to strategically increase the added value of services, for high incomes and benefits (Vasilev, 2015, p. 13-26). In addition, the highly qualified staff has analytical capabilities for fast and high-quality implementation of the set health and managerial goals and tasks, which gives flexibility and timely actions to the enterprise in accordance with the competitive situation with other facilities and in state environment (Vasilev, 2019).

The healthcare variations that exist in society are evidence of managing differences in access to health care and treatment, as well as the social conditions and physical environment in which people live (Doherty, Johnson & McPheron, 2022).

On the other hand, a key factor for improving the management of the healthcare organization are competencies concerning the ability to build the strategic vision, develop long-term plans and effectively transmit them to employees so that they have the opportunity to act when necessary. These lead competencies in healthcare organizations are closely linked to the capacity to engage experts as an important factor in characterizing the highly effective organizations (Vainieri, Ferrè & Nuti, 2019).

The purpose of this paper is to identify the components needed for progressing the healthcare management through implementation of some tools of knowledge economy and to observe the possible approaches that the organizations have implemented so far. The author conducts a study of the environment of six Bulgarian hospitals (three municipal and three private) in order to identify some principles for implementing the improvement of sustainable management in them. This is made possible by conducting in-depth interviews with twelve experts on the subject of the present exhibition and hospital managers (four managers of a specialized health clinic were interviewed; three surgeons - professors from municipal and private health facilities and two human resources, and all twelve answered fully of the twenty questions asked).

2. Healthcare management conception

Health insurance systems around the world are subject to constant development and change. These processes are dictated by the society's desire to achieve stability, sustainability, high quality and efficiency of healthcare.

Systematic studies of the state of public health in Bulgaria are the basis of scientific theories, concepts and methods in which the object of study is human health, and the field of healthcare is seen as a system of multiple, interrelated elements united into a single whole. In other words, the object of these studies is the complex, dynamic a system consisting of many correlative elements, properties, categories, which is also managed by services, units, sectors and divisions. This set of interconnected elements is seen as a whole, with its characteristic internal and external connections with the environment (Ivanov, 2023).

Methodologically, it is important to distinguish the concepts entity and subject of the study of the economics of health care, as well as their use in the organizational management practice of health care. Health, as an object of study – this is a reality that is studied and protected and for which the scientific research related to its exploration is dynamically changing. The subject of study health, of its protection and management, is formed by the researcher and healthcare organizer himself, who is a specialist in the field of management.

A person's health has both various characteristics, properties, parameters, functions. This implies creating specific mechanisms, which are interrelated and consistent with the factors of the environment. Finding the specific shapes for the realiza-

tion of this process is particularly important for the structuring of an appropriate system of organization and health care management.

Therefore, reforming the health care system lies within the system itself, because it is related to the expediency of its functioning. An essential feature of this system is that it is not just a system, but a self-organizing system possessing multiple individual characteristics, functions and connections.

The economic aspects of health care can be presented in three ways:

- Theory of the formation of human health.
- System analysis, as a methodology of the study of health and organization of the system by healthcare.

- System engineering, as medical prophylactic and ecological-hygienic practice.

Economic theory in relation to the preservation of human health covers:

- Methods of systematic study of the environment (phenomena and factors) and its influence on individual and public health, of the processes of reforming the medico-social system;

- Services, sectors, sub-sectors of healthcare with profiled specializations and assignments (prophylactic, curative-diagnostic, curative-healing, pharmaceutical, sanitary and hygienic, insurance, sanatorium-resort, etc.).

All of them are studied, reformed and developed from the position of a comprehensive perception of the processes of protecting human health, manifesting the general and private regularities and are used to analyze and reform the current health care systems.

The overall process for solving these questions is based on a unified understanding of the nature, role and importance of human health and its connection with environmental features. In this way, it is possible to comprehensively study and solve problems, to highlight priorities and to optimize the main parameters of health care.

If through the complex approach they are made the strategy and tactics, the methodology and methods are developed through the systematic. The systemic approach has a place in health care as a system consisting of components of health (biophysical, social, psychological, genetic, etc.), as well as a regular structuring of functional organizational institutions (services, units, sectors) (Engle et al., 2021).

Obtaining objective knowledge about health and its storage requires the use of the general efforts of specialists from all these healing, medical-diagnostic, ecological-nature-preserving processes to achieve the common strategic goal. Only under these conditions, as a result of the complex approach, one can get a whole palette of social-production processes and it matters for the efficient solving the complex management tasks of healthcare (Veenstra et al., 2022).

The functional-structural approach in the system of health care, is part of the system approach, from point of view of its functions and structure. This follows from the nature of interrelationship between function and structure as it is considered for the philosophical categories – content and form. In other words, the

function is the content and the structure is that the scope of the health care system, as typical interconnections of the dialectical opposites, the overcoming of which appears source of development and economic exploration.

The change in the needs of patients, users of medicines and medical devices character, the changes of the system of interaction of health and healthcare, leads to a change in their functions as well. In turn, this leads to a change in the structure and to its reformation and renewal. But the structure of population health (incidence, disability, mortality, demographic collapse, etc.), renders a decisive role in the functioning of the system by healthcare (Gupta et al., 2024).

Thus, the functional-structural approach in the study of health and health care, is based on the interdependence of the function and the structure in the processes of development and reformation of healthcare.

– Features of the functional-structural approach:

– Accounts for the dialectical interconnectedness of the functions and structure of the studied systems of health and healthcare;

– It is characterized by completeness of analysis (decomposition) and synthesis (restoration of the whole) of multicomponent health systems and health care and the organic binding of these two systems with medico-social knowledge;

– Takes into account material, energy, resource and information links between these components, and so is their relationship with the environment;

– Examines the above complex systems in dynamics;

– It characterizes the unity of interdisciplinary and special knowledge, which apply in the modern use of health and healthcare systems.

The systems approach identifies the most important factors, affecting both the state of health and the health care system. As far as strict implementation of the system approach requires not only determination of the actual factors, but also of the subsystems (economic, social, ecological-hygienic, political etc.), it is appropriate to use the situational approach. Key in this situation remain: determination of goals, interests and needs of all interrelated entities, as in the sphere of healthcare and beyond. The goal is unification in a single system of the system-forming, integrators factors with divisional structures in healthcare. This is necessary because The fragmented parts of this system cannot always serve to optimize the processes of prevention and medical aid to the population, while in a unified form, they are separated into a new systematic and integrated unit (Sullivan et al., 2018).

Bringing health care issues together with the logic of the systems approach, gives a characteristic of public health not only as current but as predictable state of the subject of the public health, having the will and ability to change. The temporary ones' forecasting horizons, largely depend on the current state of health care and related sciences. They inevitably affect the efficacy of the developed strategies in this area.

The research was conducted before implementing the approaches listed above and then new interviews were conducted with the same experts to verify the results. They show that after implementing all the approaches listed here, healthcare facilities have improved their unit management and administration.

3. Knowledge-based economy as a factor for improving the management of health care services

In modern healthcare, the information becomes a defining resource. The diagnosis of the disease, the choice of methods and means of treatment are determining and dependent on knowledge of the history of the disease, information about previously used methods of treatment of similar diseases, data from the made analyzes and last but not least information about the capabilities of the patient.

In this new world of information and communication technologies, knowledge is all around us. The society and economy in which we live require knowledgeable and capable people who have to work and implement their ideas in a qualitatively new environment (Stoycheva & Vitliemov, 2024, pp. 42 – 51). Medical staff, as the bearer of knowledge and skills, becomes a major factor in the competitiveness and prosperity of society, profoundly and systematically transforms economic theory and practice in one.

In the economic literature, four main pillars of the knowledge-based economy (Yalamov & Stefanov, 2004, pp. 3 – 4) are justified and they can be successfully applied in the management of health institutions:

- Turning knowledge into a factor of production;
- Well-developed information infrastructure;
- Creative and well-trained human capital – Increasing the role of the human factor and lifelong learning;
- Modernization of the information infrastructure and implementation of information and communication technologies.

Increasing the role of knowledge in healthcare processes is invariably associated with the development of information and communication technologies. It is through them that a huge array of data is acquired, which, as a result of human abilities, is transformed into knowledge. Therefore, the most important resource for ensuring process development is not so much information as knowledge, i.e. the information absorbed by the person and existing in his consciousness (Rathert et al., 2024).

In the knowledge economy related to improving health services management, both the relations between organizations and the structures of themselves are changing. They are often forced to renew their business model – to imbue their services, markets, distribution channels, organizational structure, culture, etc. with forward thinking. In the knowledge economy, the fundamental principles of business are specific. The nature of work and the demands on the workforce are changing. Intellectual property is becoming the main capital of every healthcare organization, and the leaders are the these offering high-tech services.

The expansion of the new informational, knowledge-based economy breaks the traditional corporate logic, changes the guidelines by which organizations are guided in their activities. The ability to use information flows, the production of new information and the provision of its commercial distribution are becoming the main factors for the success of modern healthcare organization. Facilities whose service provided strategy does not start from the maximum use of the intellectual potential of their workers are uncompetitive in the current conditions. Intellectual resources, intellectual or human capital, belong to the most fluid and indefinite categories used in economic and sociological research.

Along with the main features of the health activity, management and marketing as management concepts, closely related to their business strategy and practice, are evolving significantly. Currently, for successful functioning and profitable activity and relations, the most adequate and most effective would be the combination of the positive features of public and private healthcare organizations. In this way, disadvantages are mutually neutralized and competitive advantages are multiplied in a sustainable perspective in front of foreign organizations.

The research was conducted before the implementation of the tools listed above and then new interviews were conducted with the same experts to verify the results. They show that after implementing some tools of the knowledge-based economy, healthcare facilities have improved communication between their departments and other interested parties (stakeholders), and this has had a positive impact on the management of the overall organization.

4. Discussion of results and recommendations for development

A main criterion for evaluating health care in a given country is whether the health policy creates guarantees for effective, affordable and socially acceptable health care for the entire population. The results show that top management competencies are positively related to organizational performance. On the other hand, competencies are closely related to the information sharing process developed in healthcare organizations. More importantly, these competencies have a significant role on whole performance, and outcomes are conciliate by the use of information sharing instruments such as comparative analysis of performance effects.

The study shows which are the most important aspects for improving the management of healthcare facilities. Based on in-depth interviews with experts and current unit managers, they all agree that the improvement and development of the health system and management is based on the following several key factors: 1) communication, engagement and collaboration with stakeholders; 2) dedicated and committed management; 3) commitment to improving quality and patient safety; 4) integrated organizational structure; 5) continuing training and education of personnel in the disciplines in question and 6) effective data collection and analysis.

– Communication, engagement and collaboration with stakeholders-ongoing, transparent communications and collaboration across stakeholder groups employees, patients, families, and caregivers help identify, promote, and sustain improvement around new norms and behaviors within the organization. Direct connection with community stakeholders and listening to their needs lay the foundation for effective partnerships that will be instrumental in facilitating management within and outside an organization's walls.

– Dedicated and committed management-to prioritize health management, it is critical to have dedicated specialists and managers capable of leading the organization through any turbulence. Sustaining improvement requires leaders to commit financial and human resources to ongoing efforts and to serve as example for the transformation efforts.

– Commitment to quality improvement and patient safety-both quality and safety improvement involve creating high-value and safe patient experiences across all populations. Focusing on identifying and narrowing gaps in quality and safety for different segments of a population is an important step, which can also serve to engage staff at all levels of an organization in innovative health care services.

– Integrated organizational structure-a health care organization must have endurance for the work of integrating organization-wide improvements and commitment to identifying and eliminating internal treads.

– Continuing training and education of personnel in the disciplines in question-employees and managers often need to learn new skills and acquire a shared terminology when healthcare facility is undergoing improvement of management. From coaching on individual self-awareness to large-scale team building activities, continuous training and education can empower staff to act on a common vision and is a vital step toward institutionalizing new approaches.

– Effective data collection and analytics-building a data infrastructure to collect patient information and their individual social needs can help a provider organization better understand the communities it serves. Health care facilities and their managers should have an understanding of how to analyze patient-level data alongside contextual information on community resources and needs is important.

This qualitative, exploratory study was designed to synthesize published research on improving the management of healthcare organizations through the experiences of healthcare experts and executives to convey past experiences and visualize lessons learned. After scanning the peer-reviewed literature focusing on the key components needed to implement systemic improvement in the healthcare environment, we can conclude that the role of improved management of healthcare facilities is heading for a bright future of development and growth.

5. Conclusion

Unfortunately, there is no universal approach to improving healthcare management. A good start are the tools implementing the knowledge economy, because they support the correct making of important management decisions.

Making the decisions about which key factors require the attention differs it be contingent on the internal and external environment of the healthcare facility. Studying and understanding the internal and external environment and select which tools will be more efficient is essential.

As many healthcare organizations seek to develop more systematic and efficient approaches to address inconsistencies, perspective vision and commitment are needed to achieve sustainable healthcare management development.

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