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# COMPETITIVENESS AND DEVELOPMENT TRENDS OF THE MODERN MARKET OF MEDICAL SERVICES IN THE REPUBLIC OF KAZAKHSTAN

This article reflects the main directions of development of the health care system of the Republic of Kazakhstan. To effectively manage health care, as well as to ensure that citizens exercise the rights and obligations guaranteed by the state, a common understanding, including in law enforcement practice, of legal norms in the field of health care is necessary.

The analysis of the healthcare system showed the presence of systemic problems that need to be solved with the help of economic levers and increasing the competitiveness of medical organizations. These problems directly affect not only the healthcare system, but also the country's economy as a whole.

**Keywords**: competitiveness, health care, economic growth, efficiency, social problems, systemic crisis, educational programs, international healthcare system, quality system, Kazakhstan.

**Кілт сөздер:** бәсекеге қабілеттілік, денсаулық сақтау, экономикалық өсу, тиімділік, әлеуметтік мәселелер, жүйелік дағдарыс, білім беру бағдарламалары, денсаулық сақтаудың халықаралық жүйесі, сапа жүйесі, Қазақстан.

**Ключевые слова:** конкурентоспособность, здравоохранение, экономический рост, эффективность, социальные проблемы, системный кризис, образовательные программы, международная система здравоохранения, система качества, Казахстан.

JEL classification: I 15

Introduction. Mechanisms have been implemented to increase the independence of management of public medical organizations. Elements of corporate governance have been introduced in state medical organizations: supervisory boards with the participation of independent directors have been created, practices have been introduced to independently determine the level of salaries of medical workers and independently determine the staffing table. The rating of state medical organizations is conducted in terms of management indicators, clinical and scientific activities, as well as the level of corporate governance.

With the introduction of compulsory health insurance, the role of the medical community in ensuring the quality of medical care increases. An institutional mechanism for improving the quality of medical services has been implemented by creating an advisory and advisory body – the Joint Commission on the Quality of Medical Services. More than 30 standards for the organization of medical care have been introduced, over 1300 clinical protocols based on evidence-based medicine have been approved. Health technology assessment is underway.

The purpose of the study is to determine the

main trends in the development of the healthcare system.

The methods and techniques of systemic, comparative, functional, economic and statistical structural analysis and synthesis, observation, interviews, questionnaires, the method of hierarchical decomposition and organizational design were used as a methodological basis for the study.

Maintaining and promoting health presupposes the active care and responsibility of a person for their physical and mental well-being. In order for people to change behavior in favor of health, measures will be taken to increase the literacy of the population on health issues. Aculture of healthy life will be formed through the channels of information exchange that are most in demand for each target audience. For example, projects will be implemented in the media to promote a healthy lifestyle. Mass events are planned to protect the health of citizens and the formation of a healthy lifestyle, rejection of risky behavior and bad habits.

**Literature review.** The theoretical basis of the work is the scientific works of domestic, as well as scientists and practitioners from near and far abroad in the field of competition and competitiveness, economics, management and marketing, as well as economics and healthcare organization.

A significant contribution to the development of competition theory was made by J.M. Clark [1], M. Porter[2], P. Samuelson[3], F.A. Hayek [4]. and others. Among Kazakhstani researchers W.B. Baimuratov [5], R.T. Dulambaev [6], E.S. Karibzhanov [7], G.A. Kaliev [8], N.K. Mamyrov [9] and others. In the works of these scientists, mathematical models, theories and various forms of competitive relations were described. Competition issues in the healthcare sector were not considered by these researchers.

Despite the significant number of works dedicated to the general theoretical issues of the competitiveness of various institutions, at the moment there is no coherent theory of the competitiveness of economic entities in the field of health care.

**Main part.** With the aim of a continuous quality management system, a national accredita-

tion system for medical organizations has been introduced that meets international standards (International Society for Quality in Healthcare, ISQua). Today, 30% of medical organizations – suppliers of the FSMS – have national accreditation. Seven leading medical organizations in the country are internationally accredited by JCI.

At the legislative level, state regulation of prices for medicines is enshrined, and a transition to reference pricing has been made. To achieve the strategic goal of increasing the availability and quality of medicines, the procurement procedure for medicines within the guaranteed volume of medical care has undergone a number of organizational innovations: the procurement is carried out online in open access for the entire population. 49 long-term contracts were concluded with 30 domestic manufacturers for more than 1,500 names of medicines and medical devices, which made it possible to save money on expensive logistics and expand procurement volumes. For the rational use of medicines, the Kazakhstani national formulary is supported, developed with the participation of Kazakhstani and international experts and containing medicines with proven clinical efficacy.

In preparation for compulsory health insurance, medical information systems have been introduced, paperless maintenance of medical records is being introduced. Electronic health passports for the country's population have been generated. Centralized registers have been formed, which are necessary for the exchange of data on the provided medical care. Standards have been approved to ensure uniform approaches to the formation of an IT architecture for digital healthcare. The development of the healthcare integration platform was completed. The development of information systems has expanded the range of automated government services, reduced paperwork in medical organizations, and improved the quality of information about medical and pharmaceutical services.

Private spending in 2018 amounted to 679.5 billion tenge, or 1.2% of GDP, or 38.5% of current health spending. Compared to OECD count-

ries, where the share of private spending in current health spending is 26.8%, this figure is high. Compared to 2017, private spending increased by 8.4% in 2018. Direct payments by the population for health services account for 33% of current expenditures (86% in private expenditures). A large share of payments by the population for health services is the cost of drug provision 353 billion tenge (60.7%).

At the end of 2018, the percentage of equipping state healthcare organizations with medical equipment was 72.5%. 272 healthcare organizations require major repairs. The deterioration of medical equipment was 37%, only 55% of all medical equipment is 100% used.

At the beginning of 2019, the availability of computers in healthcare organizations is 94.1%. At the level of cities and regional centers, 65.8% of healthcare organizations are provided with access to the Internet.

In healthcare organizations of the republic, the introduction of medical information systems (hereinafter – MIS) amounted to 65.1%.

At the regional level, MIS created and filled in 16.3 million electronic health passports, which is 89% of the total population [9].

Measures will be taken annually to promote healthy nutrition among the population. Promotion of rational nutrition is provided; increasing the availability of healthy food, food control in educational institutions.

To assess progress and the current situation according to the WHO methodology, epidemiological studies will be conducted in 2021 and 2025 to assess risk factors for non-communicable diseases, tobacco use, and alcohol consumption.

Thus, the effectiveness of measures taken in the field of public health will be assessed through studies that will determine the objective state of people's health and have timely statistical information about Kazakhstan in world databases [10].

The state, represented by the authorized body for control and quality assurance of the safety of goods and services, will play a key role in the verification and registration of medicines, food additives, genetically modified organisms and new food products. Monitoring and control of the quality and safety of food products, including falsified and genetically modified products, will be provided.

Monitoring of the roadmap for the implementation of the International Health Regulations (hereinafter – IHR) and the global health program for 2019-2023 will continue [11].

To improve preparedness for responding to public health emergencies, training will be provided for employees of transport hubs for initial screening [13].

Modern technologies for the utilization and processing of industrial and solid domestic waste will be introduced with the involvement of investors. The reporting by the authorized body in the field of healthcare on medical waste in the state cadastre of waste will be monitored in order to comply with safety and environmental standards.

Measures will be taken to improve the efficiency of management, prevention, diagnosis and treatment of infectious diseases.

According to the international obligations of Kazakhstan, an interdepartmental program (roadmap) will be implemented to curb antimicrobial resistance. Interaction with WHO and other international organizations on the problems of antimicrobial resistance will continue.

Work will continue to cover the population with immunization, including through information and explanatory work to reduce the population's refusal from preventive vaccinations. The introduction of vaccination against human papillomavirus (hereinafter – HPV) in the List of infectious diseases against which preventive vaccinations are carried out will be considered.

Within the framework of international commitments, coverage of antiretroviral therapy for people living with HIV infection will be increased, with the provision of necessary medical care within the framework of the guaranteed volume of medical care. Preventive measures to contain HIV infection in the concentrated stage will continue.

#### Strengths

- 1) wide coverage of the population with health services;
- 2) effective control of healthcare costs;
- 3) standardization of clinical activities;
- 4) single procurement of medicines and medical devices (reduction of the procurement cost of medicines and medical devices within the guaranteed volume of medical care):
- 5) digitalization of healthcare;
- strategic partnership of medical universities with leading foreign universities.

#### Weak sides

- 1) insufficient level of literacy of the population on health issues (the degree of influence of behavioral risk factors on health);
- 2) uncompetitive salaries of medical workers in the public health sector;
- 3) the aging infrastructure of medical organizations and insufficient medical equipment;
- 4) the imbalance of personnel in the health care system;
- 5) non-uniform level of service and quality of medical care;
- 6) imperfection of information technology.

# Healthcare SWOT Analysis

#### Capabilities

- 1) introduction of artificial intelligence and complete digitalization;
- 2) mobile and web applications for informing and involving the population in protecting their own health;
- 3) WHO Healthy Cities Initiative;
- 4) increasing the level of literacy of the population on health issues and reducing behavioral risk factors;
- 5) development of personalized medicine;
- 6) introduction of innovative treatment methods and technologies, including in the field of biopharmaceuticals;
- public-private partnership in healthcare;
- Spincrease in health care financing.

#### Threats

- 1) the outflow of highly qualified personnel from the country;
  - 2) pollution of air, soil and water;
- 3) pandemics of infections and their rapid spread;
- 4) an increasing burden of noncommunicable diseases; 5) irrational use of medicines, antimicrobial resistance:
- misinformation of the population through unreliable sources, refusal of the population to vaccinate;
- decrease in patient compliance (non-compliance with the recommendations of medical professionals).

# Picture 1. **Healthcare SWOT Analysis\***

\* Based on author research

The main directions for the development of primary health care will be implemented until 2022 with the subsequent maintenance of primary health care through priority funding. Primary health care and public health spending will be increased to

60% of total health funding. The indicator will be the share of expenditures on outpatient and polyclinic care (hereinafter referred to as APC) and public health within the guaranteed volume of medical care and compulsory health insurance.

Table 1

№	Resultsindicators	Unitrev.	2018	2019	2020	2021	2022	2023	2024	2025
1	2	3	4	5	6	7	8	9	10	11
	Implementation of compulsory health insurance and promotion of voluntary health insurance to achieve universal health coverage									
1.	Share of total health spending in GDP	%	3,2	3,7	3,9	4,2	4,4	4,9	5,0	5,0
2.	Share of expenditures in healthcare due to compul- sory health insurance	%	-	1	6,2	7,5	9,9	11,1	12,2	13,6

The achievement of Healthcare system objectives\*

1	2	3	4	5	6	7	8	9	10	11
3.	Share of private household spending in total health spending		38,5	36,2	34,0	32,2	30,7	27,1	26,9	26,9
4.	The share of expenses for AMS and OZ within the guaranteed volume of me- dical care and compulsory health insurance	%	1	49,4	58,1	58,9	59,7	59,6	59,8	60.0
Improving the investment climate in the medical industry										
5.	The level of equipment of medical organizations with medical equipment		69,5	73	77	82	86	92	100	100
6.	Depreciation rate of buildings of medical organizations	%	59,7	57	55	52	47	44	41	38
7.	Share of private investment in healthcare	%	37	36,2	38,9	42,8	44,0	43,5	43,2	41,3
Goodgovernanceinhealthcare										
8.	Share of FMSS accredited healthcare providers	%	30	35	40	45	50	55	60	70
9.	Percentage of healthcare organizations that have received at least 4 stars in the management rating	%	37	38	39	40	41	42	43	45

\*Note: based on [12]

For coordination and methodological support of medical organizations in each region of the country, regional centers of the best practices of primary care (hereinafter referred to as CLP) will be developed. CCPs will develop and implement new technologies in the provision of primary health care services. Based on international experience, the Community Health Program will be developed and implemented to involve the population in health issues, including with the support of non-governmental organizations. This program will effectively organize sanitary and preventive work. The issue of attracting and training health education workers will be worked out. For example, representatives of the population with secondary education can be involved in paid work in PHC organizations as health education workers. For this, the experience of countries with similar economies and socio-demographic picture in attracting health educators will be studied. Such workers in a number of countries around

the world are actively involved in improving the literacy of the population on health issues and are involved in the timely receipt of health services by people.

Technologies will be introduced to facilitate decision-making regarding the health of an individual, groups of people, and the country's population as a whole. Innovative technologies for processing data arrays will be used to search for patterns, correlations, and cause-effect relationships in relation to public health, personalized medicine, and the effectiveness of the health care system. Tools will be introduced to generate and assess indicators of disease burden, disease prevalence and risk factors.

From 2020, a full-fledged transition to the system of compulsory social health insurance is planned, which will ensure the expansion of the list and volume of medical care and drug provision for citizens of the country, increase the availability of medical care for the most vulnerable categories

of citizens (children, the elderly, and other benefit categories of citizens), as well as will create financial mechanisms to protect the population from unexpectedly high costs associated with the provision of expensive medical care, will create conditions for the modernization of medical organizations [14].

Taking into account the compulsory health insurance, the new model of financing the health-care industry will be brought to 5% of GDP by 2024. At the same time, the volume of public spending on health care in relation to the state budget will rise from 9.3% in 2019 to 13.1% by 2024. By contrast, the share of private health spending in total health spending will decline from 36.2% in to 26.9% by 2025.

Additional health spending will be used to expand preventive measures (from 4% to 10% by 2024) and the development of outpatient care and public health services (up to 60% of total spending).

Achievement of these objectives will be ensured by creating sources of sufficient funding, equitable and effective pooling of risks on the basis of joint responsibility for health, strategic procurement of health services, and monitoring the quality of health care delivery and results.

The effectiveness of the functioning of the compulsory social health insurance system will be ensured, including by expanding work to involve the population in the compulsory social health insurance system, especially the category of self-employed citizens.

A set of measures to improve the mechanisms for financing medical care will include a constant increase in the efficiency of the processes for calculating and predicting the volume of medical care, taking into account the needs of the population and international experience.

A set of measures to improve the quality and efficiency of management of health care entities will include the introduction of modern mechanisms for managing organizations, including project management, risk management, management aimed at achieving results, financial management, development of leadership skills, etc.

Project management tools will be introduced at all levels of the Program implementation, including by opening project offices in all areas of the Program, which will increase the efficiency, timeliness and quality of projects being implemented.

The project approach to the implementation of the Program provides for the formation of a project infrastructure, consisting at the republican level of the Program Management Board, the Program Expert Council, the Program Management Office and the Situation Center. A charter and a program management plan will be developed for effective implementation of projects.

Conclusion. Interaction with international organizations will continue to harmonize the regulatory framework, taking into account the undertaken obligations in the field of healthcare, promoting the main initiatives of Kazakhstan abroad (promoting the Astana declaration), as well as ensuring the transfer of knowledge and new technologies to the healthcare sector.

In particular, cooperation with the OECD will continue on the development of national health accounts, improving the system for collecting and analyzing administrative data, patient safety and improving the quality of medical services and, in general, on the development of the health system.

Cooperation with UN organizations (UNFPA, UNICEF, UNDP) will continue on the implementation of the set tasks of the UN SDGs, the introduction of a patronage medical system, the development of adolescent services and school medicine.

Collaboration with WHO on programs aimed at protecting and strengthening public health, antibiotic resistance programs, disease prevention, and ensuring universal health coverage will be strengthened.

Cooperation with the US Food and Drug Administration in terms of introducing international practices in the field of quality control of goods and services will become promising.

For the effective management of healthcare, as well as ensuring the implementation by citizens of the rights and obligations guaranteed by the state, a common understanding, including in law enforcement practice, of the legal norms in the field of healthcare is necessary.

For these purposes, unified comments to the Code of the Republic of Kazakhstan "On the health of the people and the health care system" will be developed and implemented with an exhaustive explanation of each norm.

The health indicators of the population of the Republic of Kazakhstan largely reflect the complexities of socio-economic transformations and health care reforms. Despite some positive demographic changes (population growth in Kazakhstan, life expectancy reached 70 years), there are still very high losses from injuries, from diseases of the circulatory system, and malignant neoplasms. Among the key economic, social, environmental and political determinants of health, the following are highlighted: growth of life expectancy, aging of the population, social inequality and property stratification of society; uneven development of regions; environmental degradation and anthropogenic impact on the environment; political component in the development of health care; lifestyle change. Thus, the presented problems affect the health of the nation as a whole.

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## ҚАЗАҚСТАН РЕСПУБЛИКАСЫНДА МЕДИЦИНАЛЫҚ ҚЫЗМЕТТЕРДІҢ ЗАМАНАУИ НАРЫҒЫН ДАМЫТУ ҮРДІСТЕРІ

#### Андатпа

Бұл мақалада Қазақстан Республикасы денсаулық сақтау жүйесінің негізгі даму бағыттары көрсетілген. Денсаулық сақтауды тиімді басқару, сондай-ақ азаматтардың мемлекет кепілдік берген құқықтар мен міндеттерді жүзеге асыруын қамтамасыз ету үшін денсаулық сақтау саласындағы құқықтық нормаларды, оның ішінде құқық қолдану практикасында бірыңғай түсіну кажет.

Денсаулық сақтау жүйесінің талдаушылары жүйелік проблемалар бар екенін көрсетті. Бұл проблемалар денсаулық сақтау жүйесіне ғана емес, жалпы ел экономикасына тікелей әсер етеді.

#### А.Е. Рахимбекова, А.М. Казыбаева

# КОНКУРЕНТОСПОСОБНОСТЬ И ТЕНДЕНЦИИ РАЗВИТИЯ СОВРЕМЕННОГО РЫНКА МЕДИЦИНСКИХ УСЛУГ В РЕСПУБЛИКЕ КАЗАХСТАН

#### Аннотация

В данной статье отражены основные направления развития системы здравоохранения Республики Казахстан. Для эффективного управления здравоохранением, а также обеспечения реализации гражданами прав и обязанностей, гарантированных государством, необходимо общее понимание, в том числе в правоприменительной практике, правовых норм в сфере здравоохранения.

Анализ системы здравоохранения показал наличие системных проблем которые необходимо решить с помощью экономических рычагов и повышения конкурентоспособности медицинских организации. Данные проблемы напрямую затрагивают не только систему здравоохранения, но и экономику страны в целом.

