ORIGINAL



History of health care development in the Republic of Kazakhstan

Historia del desarrollo de la asistencia sanitaria en la República de Kazajstán

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ABSTRACT

Introduction: the urgent need to modernize Kazakhstan's healthcare system arises from deep-rooted economic crises and systemic challenges exacerbated during the transition to capitalism from Soviet-era centralized planning.

Objective: the research aims to analyze the stages of development of healthcare in the Republic of Kazakhstan since the country gained its independence.

Methods: to solve the set tasks the authors applied such methods of knowledge as historical, comparative, systemic, and method of political-legal analysis.

Results: research results consist in the formulation of the basic stages of development of public health in Kazakhstan, the definition of advantages and disadvantages of functioning of the given branch on each of them, and also in the designation of transformations and innovations in the public health sphere for last years.

Conclusions: the materials of this research can be applied in the applied and research spheres. In particular, the research may be of interest to the employees of the state authorities who are dealing with the problems of reforming the health care system in post-Soviet countries. In addition, the materials can be used in the work of scientists whose sphere of interest includes the formation of policy in the field of health care management.

Keywords: Medical Care; Reform; Modernization; Health Care System; Health Care; Government Program.

RESUMEN

Introducción: la urgente necesidad de modernizar el sistema sanitario de Kazajstán surge de las profundas crisis económicas y los retos sistémicos exacerbados durante la transición al capitalismo desde la planificación centralizada de la era soviética.

Objetivo: la investigación pretende analizar las etapas de desarrollo de la sanidad en la República de Kazajstán desde que el país obtuvo su independencia.

Métodos: para resolver las tareas planteadas los autores aplicaron métodos de conocimiento como el histórico, el comparativo, el sistémico y el método de análisis político-jurídico.

Resultados: los resultados de la investigación consisten en la formulación de las etapas básicas del desarrollo de la salud pública en Kazajstán, la definición de las ventajas y desventajas del funcionamiento de la rama

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Conclusiones: los materiales de esta investigación pueden aplicarse en las esferas aplicada e investigadora. En particular, la investigación puede ser de interés para los empleados de las autoridades estatales que se ocupan de los problemas de la reforma del sistema sanitario en los países postsoviéticos. Además, los materiales pueden utilizarse en el trabajo de científicos cuyo ámbito de interés incluya la formación de políticas en el campo de la gestión de la asistencia sanitaria.

Palabras clave: Atención Médica; Reforma; Modernización; Sistema Sanitario; Asistencia Sanitaria; Programa Gubernamental.

INTRODUCTION

All of the post-Soviet countries inherited the same type of healthcare systems, which for years worked under conditions of state ownership, centralized control, and mandatory planning. At the beginning of the 1990s, they all had almost equal starting opportunities, and since then, each has been moving in its direction. The sphere of healthcare of the Republic of Kazakhstan (RK), as well as other state sectors, has experienced a deep economic crisis in the post-Soviet period. Unfavorable tendencies which have appeared during the transition to capitalistic relations, namely deficiency of the state budget and system crisis seriously affected the system of the public health services functioning only at the expense of budgetary funds. The only correct way to overcome this crisis was to fully modernize the industry.⁽¹⁾ Therefore, with Kazakhstan gaining its independence, the process of decentralization began in the country. Thus, many functions from the Ministry of Healthcare of the Republic of Kazakhstan were transferred to the executive bodies of regions and cities of national importance. The regional and city health departments also received autonomy.

At the same time, the country began to reform the system of free universal health care.⁽²⁾ This process continues to the present time. The research relevance is predefined by the fact that the main aspects of the health care system of Kazakhstan require further improvement and only a detailed analysis of the reforms carried out by the state will allow for developing recommendations to improve the quality of medical services to the population. In the American and European scientific community, there are practically no works devoted to the topic of the development of the healthcare system in Kazakhstan. Western scientists in their works focus either on general features of modernization of the branch at a specific historical stage or on separate countries, in which qualitative changes in health care and treating certain diseases. For example, J.S. King argues for healthcare industry reform in response to the onset of the coronavirus pandemic, citing the United States as a case where numerous individuals faced barriers to COVID-19 treatment due to exorbitant health insurance costs.⁽³⁾

However, the issues of healthcare development in the RK are considered by many scientists from the former USSR (Union of Soviet Socialist Republics) countries. In this research, the authors attempted to consider all the main aspects of the formation and reforming of the healthcare system in independent Kazakhstan, which was not done in earlier works. In particular, N. Grazhevska et al. compare medical industry reforms in Ukraine and Kazakhstan.⁽⁴⁾ The authors emphasize that reforming the health care system is a complex process through which all the countries of the former Soviet Union pass with different speeds and degrees of success. Ukraine and Kazakhstan have chosen different directions of modernization of the sector, with both states not achieving the desired results at the moment. E. Baizhunussov characterizes the stages of development of the healthcare system in Kazakhstan since 1991.⁽⁵⁾ In the study, the scientist concluded that reforms in the medical sphere in Kazakhstan took place with a certain periodicity, but there is no consistency in this process.

A group of scientists G. Gulis et al. in their work tried to determine how economic, political, and social reforms in the Republic of Kazakhstan affected the life expectancy of citizens, child mortality, and the demographic situation in general.⁽⁶⁾ The researchers concluded that, despite the growth of investment in health care in recent years, the country still faces several problems. Kazakhstan continues to lag in life expectancy and health indicators when compared to other states of the Organization for Economic Cooperation and Development (OECD). Yo. Pena-Boquete et al. focused on the impact of the distribution of public expenditures by regions of Kazakhstan on reducing infant and child mortality.⁽⁷⁾ The researchers established that the state policy should be aimed at increasing the efficiency of health care expenditures and ensuring the allocation of more budgetary funds for primary health care (PHC), as well as for low-income groups, where a higher percentage of child mortality was recorded.

The object of research is the health care system as one of the elements of the social sphere, which is designed to ensure the availability and quality of medical care to citizens.

The research aims to highlight the main stages of development of the healthcare system of Kazakhstan from

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1991 to the present, as well as to characterize the state programs implemented by the Ministry of Healthcare of the Republic of Kazakhstan to improve the industry.

METHOD

Several general research methods were used throughout the research, such as analysis, synthesis, abstraction, mental modeling, and deduction. The authors also used special methods of research: historical, historical genetic, comparative, systemic, and the method of political-legal analysis. Thus, with the help of the historical method, it was possible to examine in detail the main directions of functioning of the sphere of health care in Soviet Kazakhstan and to highlight the key shortcomings of state management in this sphere during the Soviet period. Within the framework of the comparative method, the authors compared the main features of the development of the healthcare system in the Republic of Kazakhstan during the existence of the USSR and after the country gained its independence. The advantages and disadvantages of the "Semashko model" were highlighted, as well as the causes of the crisis of the industry at the end of the XX century were considered.

With the help of historical and genetic methods, the authors characterized the conditions of functioning of the industry in the 90s in the transition of all spheres of life from the socialist system to market relations, formulated the main directions of state policy to reduce infant and child mortality, combat infectious diseases, increase the life expectancy of citizens, and strengthen their health. The systematic method became the basis for considering the place of the healthcare sphere in the economic structure of the country. In particular, the expenditures on the industry in different historical periods were evaluated and the role of state programs in increasing the financing of the healthcare sphere was assessed. The method of political-legal analysis allowed to study of the normative-legal acts of the RK, regulating the property and organizational relations arising in the context of providing treatment and preventive care to the population and conducting sanitary-epidemic measures. Moreover, it included an analysis of changes in the legislative framework in the sphere of health protection over the past 30 years.

These scientific works were concluded in six main stages. In the first stage, the main principles of functioning of the healthcare system in the USSR were formulated, the advantages and disadvantages of the "Semashko model" were considered, and the prerequisites for the formation of Kazakhstan's model after independence were described. The second stage examined the first reforms of the sector after the independence of the Republic of Kazakhstan. Particular attention was devoted to the introduction of health insurance and the restructuring of the primary health care sector. In the third stage, the authors analyzed the reasons for the failure of the first reforms of the medical industry and also assessed the impact of the systemic economic crisis and state budget deficit on this process.

In the fourth stage, the impact of state programs on the modernization of the healthcare system in Kazakhstan from the early 2000s to the present was studied. In addition, the prospects of development of the industry for the next few years were assessed. Particular attention was devoted to the issue of the introduction of compulsory health insurance. In the fifth stage, the main principles of functioning of the health care system of Kazakhstan at the present stage were highlighted, and recommendations for improving public administration in this area were formed. In the sixth stage, the authors formulated the conclusions of the research and considered the prospects for further research into the development of the healthcare system in Kazakhstan and other post-Soviet countries.

RESULTS

Basic principles of the functioning of the healthcare system in Kazakhstan during the Soviet period

After Kazakhstan became a republic within the USSR in 1920, it received a model of health care, which was characterized by strict state regulation and centralized planning. One of its main features was full and free access to medical care for citizens.⁽⁸⁾ In the first decades of the Soviet period, the focus was on combating infectious diseases and building infrastructure in rural areas.⁽⁹⁾ In the 1950s and 1970s, the authorities focused on improving specialized and inpatient care. During this period, dozens of hospitals and polyclinics were commissioned in Kazakhstan. In the 1980s, the healthcare system began to deteriorate. This was caused by the fact that the sector had lesser priority compared to other sectors of the economy, which were considered to be more "productive".^(10,11,12) Moreover, problems related to the structure of health care delivery included a centralized system of management and budgeting, which did not allow those in charge of the sector any autonomy in the allocation of resources. The number of funds allocated was determined by such indicators as the number of employees and capacities, which did not help to create incentives to improve the efficiency and quality of medical care for citizens.⁽¹³⁾

The crisis of the political and socio-economic system in the USSR required changing the mechanisms of subsidizing the industry, applying updated methods in the management of the industry, as well as attracting not only the state but also other sources of investment. In the conditions of exaggeration in public opinion of the results of the USSR health care and leveling of its weaknesses, a serious dissatisfaction of the population

with the quality of medical care and the professional culture of the personnel has occurred. A crisis of trust in the sphere as a whole appeared.^(14,15) Therefore, in the last years of the USSR's existence, the state authorities were faced with the task of finding new ways of health care development. Improvement of the system of health protection of citizens was to be promoted by increasing the efficiency of medical workers, positive evaluation of their work by the result, and strengthening of the primary health care system.

Formation of the health care system in Kazakhstan after independence

After the collapse of the USSR and the proclamation of Kazakhstan's independence, there were no serious changes in the country's health care system. In the early 90s, the main priorities were given to economic and political reforms.⁽¹⁶⁾ However, at that time various options for modernizing the healthcare sector were discussed and implemented in several regions. They are concerned with the restructuring of the primary healthcare sector, the introduction of compulsory health insurance, new methods of payment for medical services, and the provision of paid assistance to the population. In their desire to increase the productivity of the healthcare system and increase the sector's potential, the government authorities attempted to change the way the sector was managed, organized, and subsidized. Among the significant shortcomings of the first reforms, the main one was the lack of a clear, well-thought-out, well-grounded strategy for modernizing the healthcare industry.⁽¹⁷⁾⁻⁽¹⁹⁾.

Moreover, the systemic crisis in Kazakhstan contributed to a decline in several public health and healthcare indicators. Experiencing economic problems during the period of transition to market relations, about 2 % of GDP (gross domestic product) was allocated from the budget to the health care system. This caused a significant reduction in the number of medical institutions and jobs, deterioration of material and technical base, and reduction of equipment of hospitals with medical equipment, products, and medical instruments.⁽²⁰⁾ Continuous shortage of medicines, and dressings, inadequate provision of laboratories, inability to provide rational nutrition to patients, and low income of medical staff did not allow to achieve the necessary quality and efficiency of medical care. In the second half of the 1990s, reforms moved at a faster pace. For example, in 1996 the country attempted to introduce compulsory health insurance. However, it was later abandoned because only 40 % of projected revenues were collected by the health insurance fund.⁽²³⁾

Among the reasons for abandoning this reform in Kazakhstan were the following: most organizations had no funds to pay contributions to the medical insurance fund due to huge debts; individual entrepreneurs and self-employed citizens, who accounted for about 25 % of the population at that time, did not pay contributions; the unemployment rate was growing; payment for providing medical services was carried out in different regions at their rates, which contributed to the fact that the fund had a serious debt to health care institutions.⁽¹⁷⁾ As a result, the officials were charged with corruption crimes and misuse of funds. The positive outcome of compulsory health insurance was the development of contractual relations in health care, the strengthening of quality control of medical care, and the introduction of new methods of payment for the performance of medical professionals.⁽⁵⁾ It can be concluded that the first reforms in Kazakhstan were accompanied by additional investment in the health care system. Although the overall level of expenditures remained quite low, if counted as a percentage of GDP, in real terms expenditures increased significantly, compared to the post-Soviet years, due to the overall growth of economic indicators.

The impact of state programs on the modernization of the healthcare system in Kazakhstan

In 1998, Kazakhstan launched the "People's Health" program. Its goal was to improve the state of health of citizens through the implementation of action plans that would facilitate a rapid transition to a qualitatively new level of provision of medical services to the population. As part of the program, the country has improved its health care management system, modernized the method of financing and economic relations, reformed the system of medical personnel training, improved the equipment of medical institutions, and created competition in the provision of services to citizens.⁽⁵⁾ However, there were flaws here as well. The regulated scheme of financing the industry did not allow the introduction of market mechanisms in medicine and drove large sums of money into the shadows. Significant changes in the healthcare system in Kazakhstan only occurred in the 2000s. For example, 2002 was declared the Year of Health in Kazakhstan and was crucial for the medical industry, as the problem of health protection was brought to the forefront. In particular, new committees were established in the country to regulate activities in the sphere of sanitary-epidemiological supervision, pharmacy, pharmaceutical industry, and medical services. At this stage, there were still some issues that required a revision of approaches to managing the system. Therefore, it was necessary to make changes in the funding scheme and improve the scope of management. For this purpose, new state programs were developed in Kazakhstan.

Thus, from 2005-2010 the country implemented a program of health care reform and development, which aimed to form a working concept and create a system of medical care based on the principle of shared responsibility between the state and the individual. The main objectives of this program were to reform medical education, form a new model of health care information and management system, strengthen maternal

and child health care, and reduce the incidence of socially significant diseases. In addition, it was planned to increase the financing of the industry to 4 % of GDP within five years. This program has helped Kazakhstan to achieve a unity of views on health policy on fundamental issues of modernization of the industry.

From 2011 to 2015, the "Salamatty Kazakhstan" program was implemented in Kazakhstan. It aimed to strengthen the health of the country's residents and create an effectively functioning healthcare system to ensure social and demographic development. The main focus was on the prevention, diagnosis, and treatment of socially significant diseases, as well as on the development of the Unified National Health System through the development of electronic services for the population, which are provided through a special web portal. At the same time, the construction of medical facilities in the country was actively pursued in these years. Moreover, to implement this program, it was necessary to increase the effectiveness of intersectoral and interagency cooperation on the issues of health protection of citizens. During the period of the "Salamatty Kazakhstan" program, there has been an increase in the birth rate, stabilization of the mortality rate, and an increase in the population.

From 2016 to 2020, the state program "Densaulyk" was implemented in the country. It aimed to consolidate previously achieved results and address health issues following new challenges and became the basis for the smooth development of the health sector until 2050. Among the main objectives of "Densaulyk" are to strengthen the health of citizens based on ensuring sanitary well-being, promoting, and encouraging healthy lifestyles, and ensuring accessibility and universal coverage of citizens with quality health services.⁽²⁴⁾ Since January 1, 2020, a system of compulsory health insurance was introduced in Kazakhstan. Thanks to its implementation the financing of the industry has doubled (from 1 trillion tenges in 2019 to 2.2 trillion tenges in 2021, of which more than 850 billion tenge - on obligatory medical insurance). And this, in turn, makes it possible to improve the availability of medical care. To receive medical care, citizens must pay contributions and deductions to the Social Health Insurance Fund. They are given access to a package of mandatory health insurance, in which they can get a consultation with a doctor and profile specialists, undergo tests, undergo various general clinical examinations, and undergo surgery. Citizens who do not contribute to the fund have access to a certain guaranteed free medical care, which includes emergency and urgent care, visits to the family doctor, treatment of socially significant and chronic diseases, as well as vaccinations.

A short review of Kazakhstan's health care system at the present stage and the prospects for the development of the industry

The healthcare system of the Republic of Kazakhstan is built following the type, traditional for the CIS (Commonwealth of Independent States) countries. The main authorized body is the Ministry of Healthcare, in 14 regions and two cities of national importance there are departments and departments of health care. The sector is financed both from the state and local budgets. The Ministry of Healthcare of the Republic of Kazakhstan is responsible for shaping the national health policy. The provision of medical care to citizens and the financing of the sector, to a greater extent, is delegated to the regional executive authorities and their subordinate health departments.⁽²⁵⁾ The Ministry of Finance of the Republic of Kazakhstan and the Ministry of National Economy of the Republic of Kazakhstan regulate funding and distribute money. Health care providers (autonomous, public, and private), professional organizations, and several scientific and practical societies are also participants in the health care system. Strategic planning in the field of health care is carried out at the level of the Ministry of Healthcare of the Republic of Kazakhstan and is approved by the government.⁽²⁶⁾

Medical and preventive care is provided by the public (80 %) and private (20 %) medical institutions. Currently, there are more than 50000 doctors and 130000 nursing staff working in Kazakhstan. Throughout the country, there are about 900 hospitals, about 8 thousand PHC facilities, and 100 medical organizations providing highly specialized care. There is also an extensive system of medical universities, colleges, and research institutes. At the moment, the efforts of state authorities are focused on providing more and more hospitals with high-tech medical and diagnostic equipment, developing human resources capacity at all levels, and increasing the financing of the industry through the introduction of the MHI system. Special attention is also devoted to the problem of introducing medical information and analytical systems aimed at automating the main processes of medical activity.

DISCUSSION

To analyze the periodization of the development of the health care system in independent Kazakhstan it is necessary to consider in what state the industry was at the time of the collapse of the USSR. Thus, V. Lebedev studies the transformations that took place in the conditions of modernization of the Soviet system of medicine at its different stages, considering the chronology of phenomena.⁽²⁷⁾ The author expresses the opinion that this branch is the most sensitive to changes. He explains this by the fact that the transformations of the health care system directly affect the state of health of the population. The issues are analyzed by S. Zatravkin et al.⁽²⁸⁾ Researchers study the process of reforming the Soviet health care system. At the same time, they note that all

the reforms in the USSR were ideologically grounded. The authors also focus on the fact that the USSR health care system was built primarily to treat citizens in the economic and military interests of the state, which forced doctors to care more about the ability of workers to work and the associated production costs rather than about the health of the people.

It also highlights the fact that during the Soviet years the health care system expanded in terms of the number of medical facilities, doctors, and maximum patient-count number, while the quality of medical care declined due to poor staff training, inadequate hospital equipment, and shortages of medications, instruments, and equipment. The healthcare system remained in this state from the early 1980s until the collapse of the USSR. This means that the post-Soviet states inherited a sector that needs systemic reform in the conditions of transition to market relations. The first steps of modernization of the healthcare system in Kazakhstan are studied by A. Zhatkanbayeva and D. Saipinov.⁽²⁹⁾ The authors argue that since the early 1990s, the country's health care has gradually adapted to the conditions of a market economy and has become a priority of state policy. Following researchers, Kazakhstan inherited a cumbersome healthcare system from the USSR, which was financed on a residual basis, and hospitals and polyclinics were equipped with outdated equipment. In this regard, from 1991 to 1996, the country's healthcare system was in deep crisis. The situation was worsened by the budget deficit, lack of proper financing, emigration of highly-qualified medical workers, low quality of services for patients, and as a result - a high mortality rate. A more active reform of the industry began in Kazakhstan in the early 2000s.

Peculiarities of healthcare system modernization in the Republic of Kazakhstan were the subject of scientific research by Sh. Devi.⁽³⁰⁾ The author argues that the government of Kazakhstan, using the economic potential of the country, directs it to improve the lives of citizens. In particular, this applies to the sphere of health care. But there are several problems related to the treatment of oncology, cardiovascular diseases, and infectious diseases. Moreover, in the 1990s, Kazakhstan experienced an outflow of highly qualified medics to economically developed countries, which harmed the development of the industry for several years. The analysis of state programs in the field of health care is carried out by B. Taitorina et al.⁽²⁴⁾ Researchers emphasize the main tendencies of development of the legislation in the RK, regulating the relations in the medical sector. The authors also note some difficulties in the functioning of the system due to corruption and staff turnover. They suggest solving the problematic moments through a comprehensive rethinking of the needs of the country's citizens, and as a result, through changes in the legislative framework in the sphere of health care.

The topic of accessibility of health care in the Republic of Kazakhstan was addressed by A. Shaltynov et al.⁽³¹⁾ The researchers evaluated this indicator employing the Service Availability and Readiness Assessment index. They concluded that in general across the country the indicator of healthcare accessibility is not less than 95 %. At the same time, the authors identified an imbalance between urban and rural areas. A. Avdeyev et al. study the experience of Kazakhstan in implementing a system of inpatient assessment of medical technologies.⁽³²⁾ Scientists note that at the moment it operates only based on the Medical Center of the Office of the President of the Republic of Kazakhstan. The introduction of the system in other medical institutions of the country is currently impossible due to the lack of highly qualified personnel in this area and the need for additional material and technical support and funding from the hospitals.

The development of e-health as a factor in improving the quality of medical services in Kazakhstan is studied by Z. Arynova and L. Baiguzhinova.⁽³³⁾ Researchers argue that e-health implies the use of information and communication technologies not only in the health care system itself, but also covers the management of this sphere, financial and economic, educational, and scientific aspects of the industry. The authors expect the active development of smart medicine in the future. However, at the moment, the pace of development of the digitalization of medicine in the Republic of Kazakhstan is slow for several reasons, including problems with the provision of equipment and Internet access. There are also difficulties in supporting the information security of medical systems. To solve these issues, the Ministry of Healthcare of the Republic of Kazakhstan needs to initiate the creation of medical start-ups, which would solve the issues of digitalization of health with less damage to the state budget.

Gulis et al. analyze the state of health in Kazakhstan, based on statistical data.⁽⁶⁾ Scientists focus on the main trends in the state of health of citizens and consider how these indicators are influenced by political, economic, and social changes in society. The authors also suggest priority areas improve the effectiveness of the country's health care system. The state of human resources determines the efficiency of the health care system, as well as the quality of medical care provided to the citizens. It is worth mentioning the work of A. Kharin et al. on the provision of human resources in the medical industry of Kazakhstan.⁽³⁴⁾ The authors analyzed the need for general practitioners in the Republic of Kazakhstan until 2030 based on the forecasting method. The study determined that there will be a surplus of doctors in the country in 2024. However, starting in 2027, there may be a shortage of specialists. Scientists concluded that the inflow of medical personnel does not cover the growing needs of the population in primary health care.⁽³⁵⁾ And this can hinder the health of the population.

Amagoh analyzes healthcare reforms in Kazakhstan, which were aimed at improving the efficiency of public

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services in this sector.⁽³⁶⁾ The researcher has identified a direct correlation between the economic well-being of the state and the level of development of the health care system in it. In addition, the researcher focuses on the issue of reforming the public sector, which is responsible for providing medical services to the population. The effectiveness of the reforms determines how the health indicators of the citizens will change. It can be concluded that the development of health care in the Republic of Kazakhstan is given proper attention. Despite this, reforms are implemented with varying levels of effectiveness. Therefore, only an integrated combination of social and legal aspects will contribute to improving the quality of medicine and strengthening the role of healthcare at the state level.

CONCLUSIONS

Since Kazakhstan declared independence in 1991 and as the country's economic performance has increased, more and more attention has been paid to the health of the population. At present, Kazakhstan is on par with Central European countries in terms of GDP per capita. At the same time, the rapid growth of the economy has not been accompanied by such notable indicators in the sphere of health care. To improve the accessibility and efficiency of medical services in Kazakhstan, several reforms were implemented, which, to varying degrees, affected the development of the healthcare system. The reforms were carried out with a certain periodicity and were not always consistent. As a result, Kazakhstan continues to lag behind the leading countries of the world in various health indicators. There are still unresolved problems in Kazakhstan concerning the financing of the industry, improving the efficiency of medical services, as well as ensuring equal access to them.

However, there has been some success in some spheres. At the moment, all citizens are entitled to free access to basic social benefits, the system of primary health care has been significantly strengthened, and initiatives have been implemented to modernize the mechanisms for providing medical services to citizens. In general, the reforms undertaken in the health care system in Kazakhstan are being implemented in the right direction. But the influence of the Soviet legacy in the form of insufficient funding, the comparative focus on the treatment of infectious diseases, and the limited provision of services have been only partially overcome. The perspective for further scientific research on this topic is to consider the experience of other countries in the modernization of the healthcare system. In particular, of interest to researchers are those post-Soviet states that have chosen a different model for reforming the industry. Furthermore, this research can be used as a reference point for the formation of effective state policy in the field of improving the health of citizens and ensuring the financial sustainability of the industry.

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