Received: 30 May 2021 / Accepted: 28 July 2021 / Published online: 31 August 2021

DOI 10.34689/SH.2021.23.4.020

UDC 614.255.5

THE MARKET OF MEDICAL SERVICES FOR COMPULSORY MEDICAL INSURANCE: CURRENT STATE, OPPORTUNITIES AND RISKS OF MEDICAL ORGANIZATIONS

Askar R. Eskaliev [1],

Natal'ja E. Glushkova [2], https://orcid.org/0000-0003-1400-8436

Almagul' A. Kauysheva [2], https://orcid.org/0000-0002-5341-3189

Asel' A. Nauryzbaeva[3],

Saltanat S. Kyrykbaeva[4], https://orcid.org/0000-0001-6151-6025

[1] RSE "Hospital of the Medical Center of the Office of the President of the Republic of Kazakhstan", Nur-Sultan c., Republic of Kazakhstan;
[2] Kazakhstan Medical University "Higher School of Public Health", Almaty, Republic of Kazakhstan;
[3] Ministry of Health of the Republic of Kazakhstan, Nur-Sultan, Republic of Kazakhstan;
[4] NCJSC «Semey Medical University», Semey city, the Republic of Kazakhstan.

Abstract

Relevance: The main issues of the medical services market in Kazakhstan are low government spending on health care, as a result, low tariffs for medical services, a lack of qualified personnel, which affects the nature of the redistribution of medical care between the public and private health sectors. Due to the implementation of compulsory social health insurance, the medical services market is undergoing structural changes, which requires an adequate assessment of the current state.

Objective: The aim of this project was to study the trends and issues in the field of healthcare in the context of compulsory health insurance to determine ways of regulation of a market balance and improve the quality of medical services.

Materials and methods: The object of the study was medical service providers – the private and public health sectors. The study is observational, cross-sectional, continuous for the study group at the stage of examining the indicators of private medical organizations providing compulsory social health insurance. Furthermore, the statistical indicators of the health care system for the period from 2015 to 2019, as well as official sources of legal and industry information were studied.

Results: Analysis of current spending on health care shows both an increase in public and spending by 2.8 and 4.1, respectively. For the period from 2015 to 2019, the use of private healthcare increased by an average of 23.6% and there has been a high rate of integration of the private sector into primary health care. This allows the private health sector to be considered a full-fledged participant in the medical services market in the Republic of Kazakhstan, which attracts private investment in the health care system.

Conclusion: Private healthcare has a high potential for further growth, provided that the policy of attracting it to the fulfillment of government orders and ensuring a barrier-free environment under compulsory social health insurance are maintained. The introduction of compulsory social health insurance and the provision of a unified approach to assessing the quality of services provided by all providers of medical services within the framework of the compulsory social health insurance ensures equal conditions for competition.

Key words: *medical service, private health care, compulsory social health insurance.*

Резюме

РЫНОК МЕДИЦИНСКИХ УСЛУГ В УСЛОВИЯХ ОБЯЗАТЕЛЬНОГО МЕДИЦИНСКОГО СТРАХОВАНИЯ: СОВРЕМЕННОЕ СОСТОЯНИЕ, ВОЗМОЖНОСТИ И РИСКИ МЕДИЦИНСКИХ ОРГАНИЗАЦИЙ

Аскар Р. Ескалиев [1],

Наталья Е. Глушкова [2], https://orcid.org/0000-0003-1400-8436

Алмагуль А. Кауышева [2], https://orcid.org/0000-0002-5341-3189

Асель А. Наурызбаева[3],

Салтанат С. Кырыкбаева[4], https://orcid.org/0000-0001-6151-6025

[1] РГП на ПХВ «Больница Медицинского центра Управления делами Президента Республики Казахстан»), г. Нур-Султан, Республика Казахстан;
[2] ТОО «Казахстанский медицинский университет ВШОЗ», г. Алматы, Республика Казахстан;

[3] Министерство здравоохранения Республики Казахстан, г. Нур-Султан, Республика Казахстан;
[4] НАО «Медицинский университет Семей», г. Семей, Республика Казахстан.

Актуальность. Основными проблемами рынка медицинских услуг в Казахстане являются низкие государственные расходы на здравоохранение, как следствие – низкие тарифы на медицинские услуги, нехватка квалифицированных кадров, что влияет на характер перераспределения медицинской помощи между государственным и частным секторами здравоохранения. В связи с свведением обязательного социального медицинского страхования рынок медицинских услуг претерпевает структурные изменения, что требует адекватной оценки текущего состояния.

Целью данного исследования являлось изучение тенденций и проблем деятельности сектора здравоохранения в условиях обязательного медицинского страхования для определения способов регулирования, создания баланса рынка и повышения качества медицинских услуг.

Материалы и методы: Объектом исследования явились поставщики медицинских услуг – частный и государственный сектор здравоохранения. Исследование является обсервационным, кросс-секционным, сплошным для исследуемой группы объектов на этапе изучения показателей частных медицинских организаций, оказывающих медицинские услуги в условиях обязательного социального медицинского страхования; изучены статистические показатели системы здравоохранения за период с 2015 г. по 2019 г., а также официальные источники правовой и отраслевой информации.

Результаты: Анализ динамики текущих расходов на здравоохранение показывает как рост государственных расходов в 2,8 раза, так и частных – в 4,1 раз. За период с 2015 по 2019 гг. в частном секторе наблюдается рост потребления услуг в среднем на 23,6%, а также высокий темп интеграции частного сектора в первичную медико-санитарную помощь. Это позволяет считать частный сектор здравоохранения полноправным участником рынка медицинских услуг в Республике Казахстан, что позволяет привлечь частные инвестиции в систему здравоохранения.

Заключение: Частный сектор имеет высокий потенциал дальнейшего роста при условии сохранения политики привлечения его к выполнению государственного заказа и обеспечения безбарьерной среды в условиях обязательного социального медицинского страхования. Внедрение обязательного социального медицинского страхования и обеспечение унифицированного подхода к оценке качества оказываемых услуг всех поставщиков медицинских услуг в рамках ОСМС позволяет обеспечить равные условия для конкуренции.

Ключевые слова: *медицинская услуга, частное здравоохранение, обязательное социальное медицинское страхование.*

Түйіндеме

МІНДЕТТІ МЕДИЦИНАЛЫҚ САҚТАНДЫРУ ЖАҒДАЙЫНДА МЕДИЦИНАЛЫҚ КӨРСЕТУ РЫНОГІ: МЕДИЦИНАЛЫҚ ҰЙЫМДАРДЫҢ ЗАМАНАУИ ЖАҒДАЙЫ, МҮМКІНДІКТЕРІ МЕН ТӘУЕКЕЛДЕРІ

Аскар Р. Ескалиев [1],
Наталья Е. Глушкова [2], https://orcid.org/0000-0003-1400-8436
Алмагуль А. Кауышева [2], https://orcid.org/0000-0002-5341-3189
Асель А. Наурызбаева[3],
Салтанат С. Кырыкбаева[4], https://orcid.org/0000-0001-6151-6025

[1] «Қазақстан Республикасы Президентінің іс Басқармасы Медициналық орталығының ауруханасы» ШЖҚ РМК, Нұр-Сұлтан қ., Қазақстан Республикасы;
[2] «ҚДЖМ Қазақ медициналық университеті» ЖШС, Алматы қ., Қазақстан Республикасы;
[3] Қазақстан Республикасы Денсаулық сақтау министрлігі, Нұр-Сұлтан қ., Қазақстан Республикасы;
[4] «Семей медицина университеті» КеАҚ, Семей қ., Қазақстан Республикасы.

Өзектілігі: Қазақстандағы медициналық қызметтер нарығының негізгі мәселелері денсаулық сақтауға жұмсалатын мемлекеттік шығындардың төмендігі, соның салдарынан медициналық қызметтерге арналған тарифтердің төмендігі, білікті кадрлардың жетіспеушілігі болып табылады, бұл медициналық көмекті мемлекеттік және жеке денсаулық сақтау секторлары арасында қайта бөлу сипатына әсер етеді. Міндетті әлеуметтік медициналық сақтандырудың енгізілуіне байланысты медициналық көрсетілетін қызметтер нарығы құрылымдық өзгерістерге ұшырауда, бұл ағымдағы жай-күйді барабар бағалауды талап етеді

Зерттеудің мақсаты реттеу тәсілдерін айқындау, нарық теңгерімін құру және медициналық көрсетілетін қызметтердің сапасын арттыру үшін міндетті медициналық сақтандыру жағдайындағы денсаулық сақтау секторы қызметінің үрдістері мен мәселелерін зерделеу болып табылады.

Материалдар мен тәсілдер: Зерттеу нысаны медициналық қызметтерді жеткізушілер - жеке және мемлекеттік денсаулық сақтау секторы болды. Зерттеу Міндетті әлеуметтік медициналық сақтандыру жағдайында медициналық

қызмет көрсететін жеке медициналық ұйымдардың көрсеткіштерін зерделеу кезеңінде зерттелетін объектілер тобы үшін обсервациялық, кросс-секциялық, тұтас болып табылады; 2015 жылдан бастап 2019 жылға дейінгі кезеңдегі денсаулық сақтау жүйесінің статистикалық көрсеткіштері, сондай-ақ құқықтық және салалық ақпараттың ресми көздері зерделенді.

Нәтижелер: Денсаулық сақтауға арналған ағымдағы шығындар серпінін талдау мемлекеттік шығындардың 2,8 есе, сондай – ақ жеке меншік шығындардың 4,1 есе өсуін көрсетеді. 2015 жылдан бастап 2019 жылға дейінгі кезеңде жеке секторда көрсетілетін қызметтерді тұтынудың орташа есеппен 23,6%-ға өсуі, сондай-ақ жеке сектордың алғашқы медициналық-санитариялық көмекке интеграциялануының жоғары қарқыны байқалады. Бұл денсаулық сақтаудың жеке секторын Қазақстан Республикасындағы медициналық қызметтер нарығының толық құқықты қатысушысы деп санауға болады, бұл денсаулық сақтау жүйесіне жеке инвестицияларды тартуға мүмкіндік береді.

Қорытынды: Міндетті әлеуметтік медициналық сақтандыру жағдайында мемлекеттік тапсырысты орындауға және кедергісіз ортаны қамтамасыз ету саясаты сақталған жағдайда жеке сектордың одан әрі өсу қабілеті жоғары болады. Міндетті әлеуметтік медициналық сақтандыруды енгізу және МӘМС шеңберінде барлық медициналық қызмет көрсетушілердің сапасын бағалауға біріздендірілген тәсілді қамтамасыз ету бәсекелестік үшін тең жағдайларды қамтамасыз етуге мүмкіндік береді.

Түйінді сөздер: *медициналық қызмет, жеке Денсаулық сақтау, міндетті әлеуметтік медициналық сақтандыру.*

Bibliographic citation:

Eskaliev A.R., Glushkova N.E., Kauysheva A.A., Nauryzbaeva A.A., Kyrykbaeva S.S. The market of medical services for compulsory medical insurance: current state, opportunities and risks of medical organizations // *Nauka i Zdravookhranenie* [Science & Healthcare]. 2021, (Vol.23) 4, pp. 180-189. *doi 10.34689/SH.2021.23.4.020*

Ескалиев А.Р., Глушкова Н.Е., Кауышева А.А., Наурызбаева А.А., Кырыкбаева С.С. Рынок медицинских услуг в условиях обязательного медицинского страхования: современное состояние, возможности и риски медицинских организаций // Наука и Здравоохранение. 2021. 4(Т.23). С. 180-189. *doi 10.34689/SH.2021.23.4.020*

Ескалиев А.Р., Глушкова Н.Е., Кауышева А.А., Наурызбаева А.А., Кырыкбаева С.С. Міндетті медициналық сақтандыру жағдайында медициналық көрсету рыногі: медициналық ұйымдардың заманауи жағдайы, мүмкіндіктері мен тәуекелдері // Ғылым және Денсаулық сақтау. 2021. 4 (Т.23). Б. 180-189. *doi 10.34689/SH.2021.23.4.020*

Relevance

Access to health care is an important issue that has an influence on shaping the political image of most countries. In many high, middle, and low income countries, the provision of affordable health care is one of the crucial issues. It is of critical importance, given that a large number of people in different countries do not have sufficient financial resources to access healthcare services.

The Republic of Kazakhstan, like many other foreign countries, responsibly assumes the obligations of the provider of social guarantees for the population and is considering ways to improve this situation in the country. On November 16, 2015, the law “On Compulsory Social Health Insurance” was adopted. This law is intended to regulate public relations after the introduction of the norms of the system of compulsory social health insurance (hereinafter referred to as the CSHI), which protects the rights of patients in healthcare, indicated in the Constitution of the Republic of Kazakhstan (hereinafter referred to as the RK), as one of the basic rights.

The main issues of the medical services market in Kazakhstan are low government spending on healthcare, a shortage of qualified personnel, low tariffs for medical services for both public and private medical organizations, which affects the redistribution of medical care between the public and private healthcare sectors. Identifying trends and problems in both health sectors will help determine ways to regulate the balance of the market to improve the quality of medical services under compulsory health insurance (CHI).

Objective

Identify trends in the formation of the modern market for medical services in the Republic of Kazakhstan for the period of 2010-2019 and to determine the probabilistic trends of its further development for the prospective period in the context of CHI.

Materials and methods

The object of the research is the providers of medical services – the private and public health sectors. The subject of the research is medical services in the private and public health sector of the Republic of Kazakhstan.

The study is observational, cross-sectional, continuous for the study group of objects at the stage of studying the indicators of private medical organizations providing medical services under CHI, as well as retrospective when studying statistical indicators for the period from 2015-2019. At various stages of the research, the following methods were used: content analysis; statistical; analytical; method of mathematical modeling.

The data were processed using Microsoft Excel and SPSS Statistics (version 23). $p = 0.05$ was taken as statistical significance value. Descriptive statistics (frequencies, percentages) and graphs were used to evaluate the results and draw conclusions.

Descriptive statistics for quantitative data are presented using the sample mean and standard deviation. The values of qualitative features are presented as frequency characteristics. To analyze the results obtained, contingency tables were used. All data used for the analysis

were verified by us for compliance with the law of normal distribution.

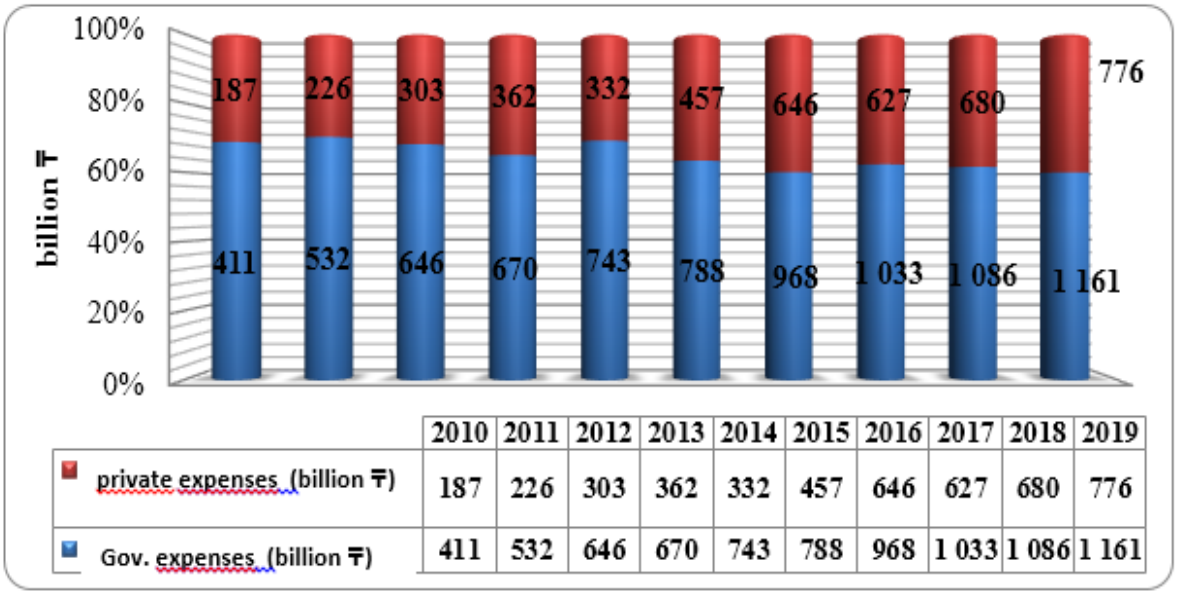
Results

During the study, we carried out a comprehensive analysis on the integration of the private sector into the healthcare of the Republic of Kazakhstan during the formation of the modern market of medical services. We determined its contribution to the main indicators of healthcare in the Republic of Kazakhstan. We also analyzed the main performance indicators of health care providers participating in the CHI in outpatient care.

When analyzing the dynamics of finances in Kazakhstan, it was revealed that for the period from 2010 to 2019, the gross domestic product (hereinafter – GDP) in Kazakhstan increased by 3.2 times. Total spending on health care also shows an increase in absolute terms by 2.3 times. Since 2010 in terms of the GDP, there has been a decrease in basic financing of health care by 25%, which in 2019 took up 3% of GDP.

The structure of current expenditures on health care consists of private and government expenditures (Figure 1).

Figure 1. Current expenditure on health care.



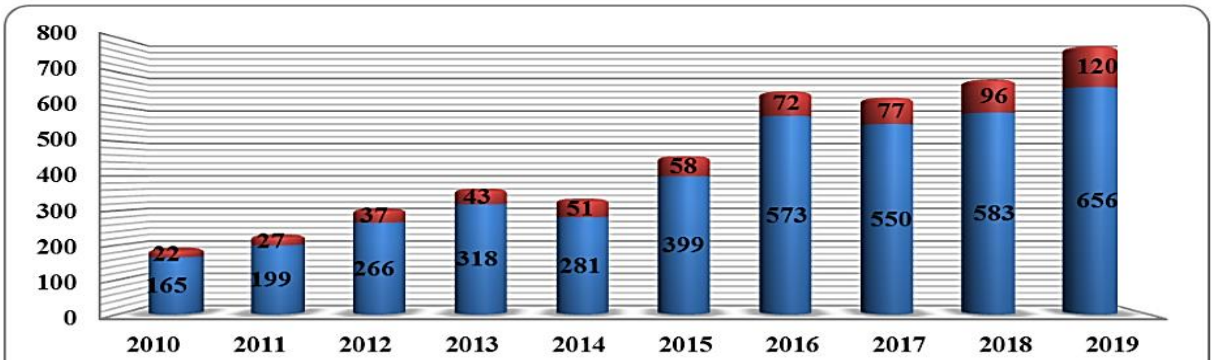
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
private expenses (billion ₸)	187	226	303	362	332	457	646	627	680	776
Gov. expenses (billion ₸)	411	532	646	670	743	788	968	1 033	1 086	1 161

Analysis of the dynamics of current spending on health care shows an increase in both public spending by 2.8 times, and private – by 4.1 times. The average growth rate of private health spending from 2010 to 2019 was 119%. The average growth rate of government spending over this period was 113%, which is 1.5 times lower than the growth rate of private spending. In 2010, private expenses took up 31% of current expenses and in 2019 - 40%, which is 30% more than the base indicator.

Private spending on health care has also undergone some changes during this period. Over the period from 2010 to 2019, there has been an increase in private payments by 4 times in absolute terms. The proportion of deductions from enterprises and voluntary health insurance at the beginning of the period (in 2010) was 13.3%, by 2019 the figure increased by 37%, amounting to 18.2%. In absolute terms, the indicator has grown 5.5 times over 10 years. The dynamics of direct payments (private spending on health care) for the same period shows an increase in absolute terms by 4 times, the proportion of direct payments at the end of the study period was 84%, having decreased by 3.5% (Figure 2).

Currently there are more than 1,500 private clinics of various profiles in Kazakhstan, where 15263 doctors and 21392 nurses are working as of the beginning of 2020 (statistical collection of the Ministry of Health of the Republic of Kazakhstan 2019). In total, at the beginning of 2020, outpatient and polyclinic care was provided by 3204 medical organizations, of which 1178 are private. We have calculated the dynamics of development of the private health sector over 10 years (the period from 2012 to 2019). The main indicators characterizing the absolute and relative changes in the series of dynamics are: absolute increase / decrease, growth rate, growth rate, absolute value of one percent increase / decrease. We calculated the indicators of dynamic changes for the period from 2012 to 2019 for private medical organizations of the Republic of Kazakhstan, which show the intensity of the change in their number in relation to the initial value (for 2012). For the calculation, both chain and basic methods were used. In 2019, the number of private medical organizations increased by 16, or 1.4%, compared to 2018. The minimum growth was recorded in 2014 (-9). The maximum growth and growth rate is observed in 2017 – 158 more private medical organizations. For the period from 2012 to 2019, the number of private medical organizations in the Republic of Kazakhstan increased by 266 units, or by 29.2%. During the study period, there is an increase in the growth rate and increment as well as the content of 1% increase throughout the study period, which characterizes the process as developing.

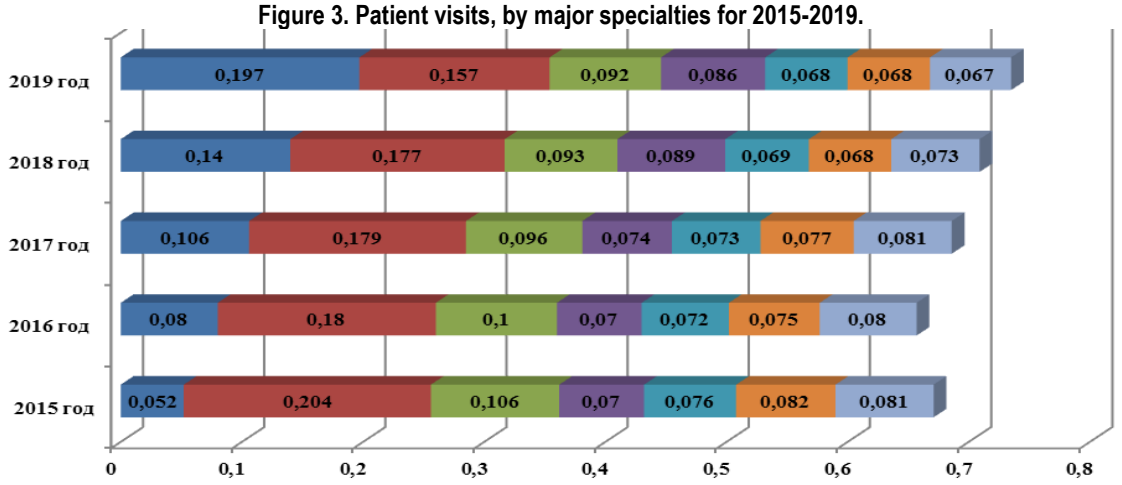
Figure 2. Voluntary health insurance and direct payments (dynamics).



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
private spending (bil., ₸)	22	27	37	43	51	58	72	77	96	120
direct payments (bil., ₸)	165	199	266	318	281	399	573	550	583	656

To analyze the dynamics of visits to private medical services in certain specialties and the provision of medical services, we have identified medical services that are most in demand in regions. An analysis of visits to private medical organizations for the period from 2015 to 2019 (Form 30) was carried out, after which the most visited specialties in the private health sector were identified. With this analysis we were able to determine a list of specialties that have considerable statistically significant differences from the average indicator in regions of the Republic of Kazakhstan. In this regard, a number of specialties have been identified that are potentially suitable for expanding the range of services provided by private medical organizations in the medical services market in each individual region (Figure 3).

Figure 3. Patient visits, by major specialties for 2015-2019.



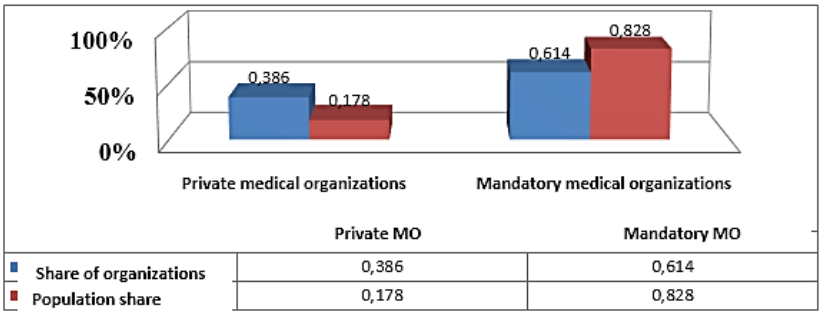
Content analysis of the available information resources showed that the normative regulation of the liberalization of the medical services market has been maintained for a decade, and has received special attention in the last 5 years, starting in 2016. In the state program for the development of health care for the period 2016-2019, the section "Development of infrastructure and public-private partnership (PPP)" was highlighted, which means that the Ministry of Health of the Republic of Kazakhstan is purposefully prioritizing the possibilities of liberalizing the market for medical services and developing the private sector in health care. Private medical organizations providing primary healthcare (PHC) in 2019 took up 36.2% of all providers. To support the liberalization of the medical services market, the Roadmap "Deregulation, Reducing Barriers to Business and the Development of the Private Healthcare Sector" [10] was developed for the growth of PPP in the healthcare system for the next period until 2022.

Ministry of Health of the Republic of Kazakhstan supports the active participation of the private sector in health care. As of today, health care organizations and individuals engaged in private medical practice and pharmaceutical activities are identified by the Order of the Ministry of Health of the Republic of Kazakhstan dated December 8, 2020 No. RoK DSM-242/2020 "On approval of the rules for the procurement of services from healthcare entities for the provision of medical care within the guaranteed volume of free medical care and (or) under compulsory social health insurance". Furthermore, definition

of a legal entity performing activities in the field of health care for a "health care organization" is given.

Analysis of the main performance indicators of medical service providers participating in compulsory social health insurance (CSHI) in outpatient care, revealed the following: as of 2020, the Fund concluded contracts with 1,258 service providers, of which 657 medical organizations are state-owned (52%) and 601 private (48%). There is a tendency for the growth of private medical organizations interested in cooperation with the Fund and the provision of services within the framework of the compulsory health insurance [12]. At the end of 2020 and as of 02/01/2021, 77 medical organizations were identified in the database of excluded entities, of which 38 state utilities on the right of economic management of the regions, as well as 39 private medical organizations. According to the data of the Compulsory Health Insurance Fund, non-governmental organizations providing medical services are most widely represented in cities of Republican significance: Astana (20 out of 35 (57.1%)), Almaty (36 out of 73 municipalities (49.3%), and Shymkent (14 out of 25 (64.1%)), providing the private sector from 50 to 65% of the need for medical facilities. In the regions, medical care is provided mainly by state clinics. The largest percentage of private medical organizations in the regions is noted in Kyzylorda (8 out of 21 (38.1%)), Mangistau (10 out of 22 (45.5%)), and Turkestan (19 out of 41 (46.3%)) regions. The lowest proportion of private medical clinics is presented in North Kazakhstan (1 out of 17 (5.9%)), West Kazakhstan (3 out of 24 (12.5%)), and Kostanay (5 out of 31 (16.1%)) regions. The ratio of public to private medical healthcare organizations in the regions of the Republic of Kazakhstan is 1: 1.6. Analysis on private sector services shows a slightly different picture compared to the analysis on the number of medical organizations. According to the Social Health Insurance Fund, 19,182,344 people are attached to medical organizations providing primary health care in 2021, of which 15,801,699 people (82.4%) are served in state clinics in primary organizations. Accordingly, 3,380,645 patients (17.6%) are assigned to private clinics. The ratio of the number of patients attached to private clinics to that in public ones is 1: 6. The public sector serves 82.8% of the population of the Republic of Kazakhstan, while the private sector serves 17.2% of the total population of the Republic of Kazakhstan (1 out of 6) (Figure 4).

Figure 4. Participation of medical organizations in the Mandatory Social Health Insurance of the Republic of Kazakhstan.



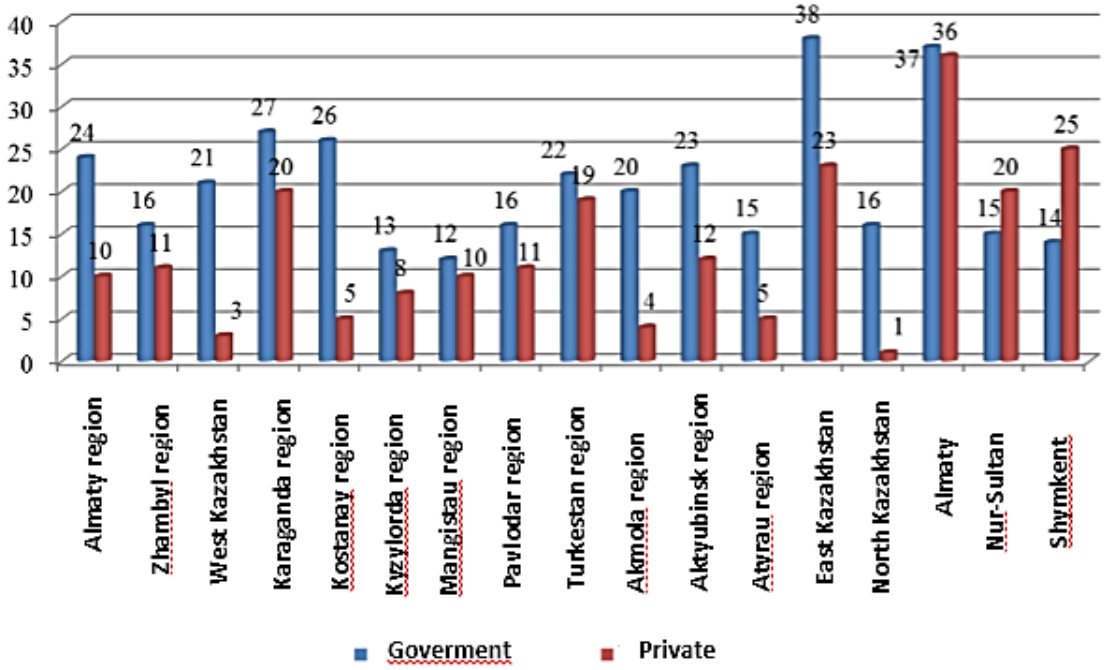
**** According to Social Health Insurance Fund data as of 01.02.2021***

Discussion

When analyzing the main factors in providing the population with equal access to medical services, the following main components were studied: health care financing and expenditure. Regarding the first aspect, it should be noted that more than 70% of health care expenditures are financed by government, primarily tax revenues and social security contributions. Throughout the world, medical care is provided through both public and private providers. In countries where healthcare financing comes from government budgets, out-of-pocket expenses are usually low. Similarly, “pocket money” is usually low in countries where health care is largely financed by private funds in the form of private voluntary insurance (for example, in the USA). It should be noted that out-of-pocket health expenditure is high in countries with underfunded public health and low levels of private voluntary health insurance (e.g. India, Afghanistan, Sudan). The second aspect relates directly to the consumable part. Statistics have shown that high-income countries spend 1.5-2 times more on health care than low-income countries. In low- and middle- income countries, the share of funding allocated by the government is much lower and the rise in individual spending is much higher (over 50% of total spending in many countries). In 2019, the average health expenditure per capita around the world was $ 1,099. However, in low-income countries, the average was only $ 40 per person, while in high-income countries it was $ 3,313 per person, which is more than 80 times higher. Private health care spending by 2019 was US $ 3.4 trillion, or 41% of global health care expenditure, most of which came from out-of-pocket household spending, while health spending (from external assistance) was only 0.2 % of global expenses. It should be noted that health care spending remains unequal across countries, and the impact of the COVID-19 pandemic on healthcare spending is catastrophic given its devastating impact on health and economies around the world.

Regarding health care financing system of the Republic of Kazakhstan, it is worth noting that according to the International Monetary Fund (IMF), our country is included in the group of successful countries with transitional economy. However, an increase in social spending in recent years has led to a further reduction in the share of health care in the country's budget.

Figure 5. The number of medical organizations in outpatient care participating in the provision of medical care within the framework of the compulsory health insurance for 2020.



Source: Social Health Insurance Fund data

This is well reflected by the indicators in 2009-2018, when budget expenditures on health care increased by 2.6 times, and general expenditures – by 2.1 times. These figures show how difficult it is for the government of Kazakhstan to finance medical care on their own, without the participation of private organisations and the population. To ease the situation, an insurance program has been introduced in Kazakhstan, based on the joint responsibility of citizens for their own health. In 2015, the legislative act of the Republic of Kazakhstan "On compulsory social health insurance" was adopted, which determined that public and private clinics can compete for patients on equal terms, interacting with a single purchaser of medical services, which also controls the quality of service. After the introduction of amendments to this law, the Social Health Insurance Fund was created. That is, the innovation in the strategy of this policy lies in the mandatory collection of insurance premiums from both employers and citizens. It should be noted that from 2018 to 2020, only employers and entrepreneurs paid contributions in the amount of 1.5% of wages, and in 2021, employees are charged 1%. Next year (2022) employers and workers will pay 3% and 2 %, respectively. However, according to experts' analysis, the proportion of people who can afford this is not sufficient to successfully maintain this model. Of the 18.5 million people, the government will have to pay for 11 million, mainly children and the elderly, whose numbers are growing due to high birth rates and increased life expectancy. The government supports 15 groups of people, such as pensioners, children, people with disabilities, the unemployed, pregnant women and families raising children with disabilities, and others. In 2020, the state's contribution was 1.4%, in 2021 – 1.6%, and in 2022 – 1.8%.

An analysis of the integration of the private sector into healthcare in the Republic of Kazakhstan over the 10 years, preceding the mandatory social health insurance (MSHI), revealed that the maximum growth and rate of increase is observed from 2016 to 2018, showing an increasing trend. Analysis of indicators by region allows us to draw the following conclusions:

Analysis of indicators by region allows us to draw the following conclusions:

1) The average growth rate of the number of private medical organizations in the Republic of Kazakhstan compared to the base period for 10 years was 114%. The highest average growth rate is observed in the city of Nur-Sultan (280%), Pavlodar region (145%) and West Kazakhstan region (136%).

2) The highest average growth rate is observed in the same regions.

3) In the Mangistau region, since 2013, there has been a significant decrease in the rate of liberalization of the medical services market, as evidenced by the stagnation and regression of the average growth rate and the minimum recorded value of the growth rate and a decrease in the indicator value by an average of 45% compared to the base period.

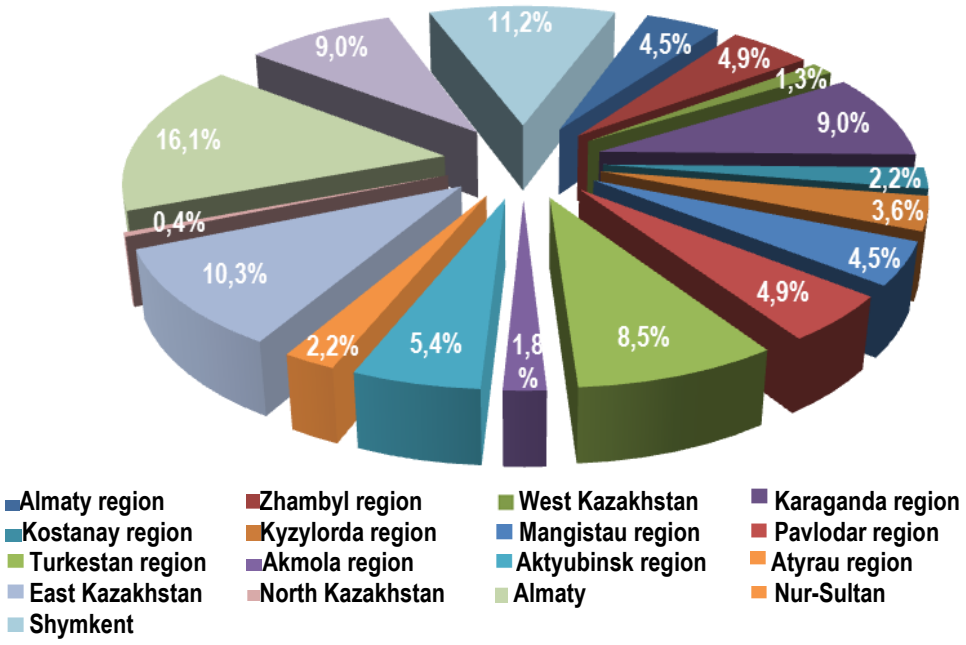
4) Similar trends are observed in the North Kazakhstan, Turkestan and Akmola regions, where there is a decrease in the growth rate and increase in the number of private medical organizations.

5) The rate of increase in the indicator for the ten-year period during the study shows an increasing trend in the statistical series, which indicates the acceleration of the process of liberalization of the medical services market with the development of private medical organizations.

As for the structure, it should be noted that for the period from 2015 to 2019, in the private sector, there is a 4-fold increase in family practitioner visits and 18.7% increase in visits to pediatricians, a decrease in the proportion of visits to a general practitioner and obstetrician-gynecologists, by 23.1% and 13.3%,

respectively. Such trend can be explained by a shift in emphasis on primary health care and expanding the competencies and specifics of the activities of GPs. At the same time, during this period, the network of subcontracting relations has significantly expanded, which creates a barrier-free environment for external referrals, including consultations from any public or private medical organization that provides services under a government order with a focus on the patient's desire. According to the SHIF, in Kazakhstan as a whole, the average number of people attached to a medical organization per 1 MO is twice as much in public medical organizations compared to private ones, based on historical aspects. In a number of regions of the Republic of Kazakhstan (Karaganda, Mangistau, Pavlodar, Akmola, and East Kazakhstan), there is a practical parity in this indicator. However, in North Kazakhstan region this indicator is different. This is explained by the fact that the private sector in the region is represented only by one private medical organization, while 16 medical organizations provide medical care in the public sector, which is used by 95.4 % of the population. This indicator characterizes the above regions as areas with large private medical organizations serving more than 30,000 people. The data indicate that in some regions (Almaty, West Kazakhstan, Turkestan, and Aktobe), the load per 1 MO in the public sector significantly exceeds this indicator in the private health sector of the region. The proportion of the population served by the public sector in these regions ranges from 85.1% to 95.2%, almost completely covering the need for medical care. According to the assessment, in these regions, the private health sector participating in the compulsory health insurance is represented mainly by small entities. In Kazakhstan, the average number of people attached to 1 organization in state medical organizations is by 1.8 times higher than that in private medical organizations. In Almaty region, the average number of people attached to 1 organization in the public sector is 6 times higher than that in private ones. On the contrary, in Pavlodar, Akmola and Pavlodar regions this indicator is higher in private organizations compared to state ones. The distribution structure of the pool of private sector medical organizations by region shows that 1/3 of them (81 out of 223) is located in cities of republican significance, 9% of which are located in Nur-Sultan and 16.1% pool of the private sector is concentrated in Almaty. Among the regions, East Kazakhstan (10.3%) takes the leading position in the number of private medical organizations, followed by Karaganda (9%) and Turkestan (8.5%) regions (Figure 6). The lowest proportion (from 0.4% to 1.8%) is observed in the North Kazakhstan, West Kazakhstan, and Akmola regions.

Figure 6. The structure of the private sector pool in the MSHI of the Republic of Kazakhstan



It is worth noting that in some regions, the public sector is represented by very large medical organizations with the number of attached population exceeding 100,000 people, turning it into an environment with barriers for the private sectors, especially in the ambulatory and polyclinic care. These regions include: Turkestan region – 3 medical organizations (2 of which are central regional hospitals); Mangystau region – 1 MO; Kostanay region – 1 MO (city polyclinic); Zhambyl region –1 MO (central regional hospital); Almaty region – 7 MOs (central regional hospitals). This aspect requires both a separate study and a comprehensive assessment of the health status of the population of these regions (according to the main criteria) and a pharmaco-economic analysis of activities. Analysis of outpatient care visits in the private sector for 2015-2019 indicates a high rate of integration of the private sector into medical services provided within the framework of the compulsory health insurance. During the study period, the total number of visits to private medical organizations has increased by 50%. During the same period, there has been a change in patient visits to the private sector: an increase in visits to general practitioners by 4 times and to pediatricians by 18.7% in relation to the base period. There was a 23% decrease in the number of visits to GPs, to

obstetrician-gynecologists by 13.3%, and a significant decrease in visits to ophthalmologists, neuropathologists, otolaryngologists, dermatovenerologists, and radiation diagnostics doctors.

The proportion of private medical organizations where 2,000 – 30,000 people are attached is 82.5% (184 out of 223). Among private medical organizations in the regions, along with large providers of compulsory health insurance services, there are also small medical organizations where less than 2000 people are attached: Almaty region - 2 out of 10 (20%); Kyzylorda region - 1 out of 8 (12.5%); Turkestan region - 2 out of 19 (10.5%); Almaty city - 5 out of 36 (13.9%) and Shymkent city – 3 out of 25 (12%). This fact testifies to the liberalization of the medical services market through the involvement of a separate private medical practice. The analysis revealed that medical services under compulsory health insurance in outpatient care in the Republic of Kazakhstan are provided by 578 medical organizations, of which 223 (38.6%) are private. 65% of public sector healthcare organizations is represented by large medical organizations. 86.4% of the population is served by state medical organizations.

Analysis of the dynamics of current spending on health care from 2010 to 2019, according to the data of the National Health Accounts, shows an increase in both public expenditures - by 2.8 times, and private - by 4.1 times. The average growth rate of private health expenditure was 19%. During this period, there has been a significant increase in the total financing of the health care system in absolute terms, especially a significant rise in private health expenditure, which requires attention from political institutions. The introduction of compulsory health insurance from 2020 in the Republic of Kazakhstan reduces the burden on the patient in terms of direct out-of-pocket payments from 42% to 30% and minimizes the financial risks of citizens in case of the need for high-tech and expensive treatment. For the period from 2012 to 2019, the number of private medical organizations in the Republic of Kazakhstan increased by 1/3 (by 29.2%). Since 2013, in Mangystau, North Kazakhstan, Turkestan, and Akmola regions, there has been a significant decrease in the liberalization of the medical services market, as evidenced by the stagnation and regression of the average growth rate, as well as a decrease in the growth rate by 40% on average compared to the base period.

Conclusion

To summarize this review of the health care market, it should be noted that as countries get richer, per capita health spending tends to increase. As per capita income increases, the proportion of personal spending and external funding declines. As the contribution of these sources decreases, the proportion of government funding increases. The introduction of compulsory health insurance in 2020 in the Republic of Kazakhstan will reduce the burden on the patient in terms of direct payments, as well as increase the level of funding for healthcare in the country to strengthen infrastructure and resource provision. Compulsory health insurance can be considered as a tool to meet the ever-growing demand for an increase in funding for medicine and its systemic underfunding. The main goal of introducing health insurance in Kazakhstan is to reduce out-of-pocket payments from 42% to 30% and minimize the financial risks of citizens in the event of a sudden and urgent need for high-tech and expensive treatment.

The private health sector plays a key role in the healthcare system and its support is essential to achieve the ultimate successful outcomes in the healthcare of the population in any country. In Kazakhstan, the private sector receives sufficient support, both legally and strategically, providing equal access to the placement of state orders under CHI. It is a full participant in the medical services market and has sufficient potential for further growth. Further liberalization of the medical services market, provided that the policy of ensuring barrier-free entry and full-fledged activity is maintained, will ensure a competitive environment, the result of which is an increase in the quality of medical care and an improvement in the health status of the population of the Republic of Kazakhstan. Over the past decade, there have been positive trends in Kazakhstan in the growth of the number of private medical organizations in almost all regions as a result of the liberalization of the medical services market. This process is especially noticeable in cities of republican significance and large regions.

The introduction of the CSHI and the provision of a unified approach to assessing the quality of the services by all providers of medical services by the Social Health Insurance Fund (SHIF) through the monitoring of individual indicators allows to maintain equal conditions for competition between medical organizations, regardless of the form of ownership. However, there is inconsistency in the assessment of indicators of the activities of PHC organizations (the assessment goes beyond the extensiveness of the indicator, etc.), which is a methodological flaw on the part of the evaluating party. The SHIF ensures that health care providers, regardless of their ownership form, have access to participation. The SHIF regularly monitors the performance of all health care providers based on indicators of structure, process and results.

The integration of the private sector into the health care system ensures the effectiveness of health care of the Republic of Kazakhstan, significantly reducing the burden on the state budget. The compulsory health insurance system provides an increase in the financing of health care, creating a stable growth in the resource supply of the system, and better access to medical care and health preservation for the population of the Republic of Kazakhstan. In general, over the ten-year period under study, the integration of the private health sector and liberalization of the medical services market has advanced significantly. If the current trend continues, it is expected that by 2025 the number of private medical organizations will grow by 20% and will reach about 1400 by the end of this period (95% CI (1386; 1414)).

The activities of private medical organizations during the COVID-19 period are subject to both general risks characteristic of the entire health care system, such as an increase in resource intensity, stagnation in the main business processes (rehabilitation, prevention, diagnostics), and risks specific to the private sector – a decrease in the use of paid healthcare services, an increase in tariffs for life support and the cost of operating fixed assets, which result in budget deficit.

Contribution of the authors:

All authors were equally involved in the research and writing of this article.

The authors declare that there is no conflict of interest.

The authors claim a lack of funding.

This article and parts of the materials of the article were not previously published and are not under consideration in other publishers.

Литература:

1. Social Health Protection An ILO Strategy towards Universal Access to Health Care. 2021. http://www.ilo.org/secsoc. (Дата обращения: 18.04.2021)

2. Внедрение ОСМС в Казахстане: Актуальные вопросы – Жайық Үні. http://zhaikuni.kz/vnedrenie-osms-v-kazahstane-aktualnye-voprosy/. (Дата обращения: 17.04.2021).

3. Global Health Expenditure Database. https://apps.who.int/nha/database. (Дата обращения: 17.04.2021).

4. Barriers to Entry - Types of Barriers to Markets & How They Work. https://corporatefinanceinstitute.com/-resources/knowledge/economics/barriers-to-entry/. (Дата обращения: 20.04.2021

5. Morgan David, Michael Gmeinder, Jens Wilkens. An OECD Analysis of Health Spending in Norway." OECD 2017. Publishing. https://doi.org/10.1787/63302bbf-en. (Дата обращения: 20.04.2021).

6. Health Expenditure - OECD. https://www.oecd.org/els/health-systems/health-expenditure.htm. (Дата обращения: 24.03.2021).

7. Обзор по Казахстану. https://www.vsemirnyjbank.org/ru/country/kazakhstan/overview#3. (Accessed April 19, 2021).

8. Экспресс-Информация. https://stat.gov.kz/-official/industry/11/statistic/6. (Дата обращения: 19.04.2021).

9. Об Обязательном Социальном Медицинском Страховании - ИПС 'Әділет'" http://adilet.zan.kz/-rus/docs/Z1500000405. (Дата обращения: 19.04.2021).

10. Дорожная Карта «Дерегулирование, снижение барьеров для бизнеса и развития частного сектора в здравоохранении». 2017. Казахстан. http://rcrz.kz-/images/pr4-DK1.pdf. (Дата обращения: 19.04.2021).

11. О Внесении изменений в приказ министра здравоохранения Республики Казахстан от 14.10.2009 г. №526 'Об Утверждении Перечня Заболеваний, Лечение Которых Запрещается в Негосударственном Секторе Здравоохранения' - ИПС «Әділет» http://adilet.zan.kz/-rus/docs/V1500012103. (Дата обращения: 19.04.2021).

12. Оценка деятельности поставщиков медицинских Услуг. https://fms.kz/zakupki/otsenka-deyatelnosti-postavshchikov-meditsinskikh-uslug/. (Дата обращения: 17.04.2021).

References:

1. Social Health Protection An ILO Strategy towards Universal Access to Health Care." http://www.ilo.org/secsoc. (Accessed April 18, 2021).

2. Vnedrenie OSMS v Kazakhstane: Aktual'nye Voprosy – Zhaiyқ Yni." [Implementation of compulsory health insurance in Kazakhstan: Topical Issues - Zhaiyk Oni]" http://zhaikuni.kz/vnedrenie-osms-v-kazahstane-aktualnye-voprosy/. (Accessed April 17, 2021). [in Russian]

3. Global Health Expenditure Database" https://apps.who.int/nha/database. (Accessed April 17, 2021).

4. Barriers to Entry - Types of Barriers to Markets & How They Work. https://corporatefinanceinstitute.com/-resources/knowledge/economics/barriers-to-entry/. (Accessed April 20, 2021).

5. Morgan, David, Michael Gmeinder, and Jens Wilkens. 2017. An OECD Analysis of Health Spending in Norway. OECD Publishing. https://doi.org/10.1787/63302bbf-en. (Accessed April 20, 2021).

6. Health Expenditure - OECD." n.d. Accessed March 24, 2021. https://www.oecd.org/els/health-systems/health-expenditure.htm.

7. Obzor Po Kazakhstanu [Kazakhstan Overview] https://www.vsemirnyjbank.org/ru/country/kazakhstan/overview#3. (Accessed April 19, 2021).

8. Ekspress-Informatsiya [Express Information] https://stat.gov.kz/official/industry/11/statistic/6. (Accessed April 19, 2021).

9. Ob Obyazatel'nom Sotsial'nom Meditsinskom Strakhovanii - IPS «Әdilet» [On Compulsory Social Health Insurance - IPS «Adilet»] http://adilet.zan.kz/rus/docs/Z1500000405. (Accessed April 19, 20210. [in Russian]

10. Dorozhnaya Karta «Deregulirovanie, Snizhenie Bar'erov Dlya Biznesa i Razvitiya Chastnogo Sektora v Zdravookhranenii» [Roadmap «Deregulation, Lowering Barriers to Business and Private Sector Development in Healthcare»]. 2017. Kazakhstan. http://rcrz.kz/images/pr4-DK1.pdf. [in Russian]

11. O Vnesenii Izmenenii v Prikaz Ministra Zdravookhraneniya Respubliki Kazakhstan Ot 14 Oktyabrya 2009 Goda № 526 «Ob Utverzhdenii Perechnya Zabolevanii, Lechenie Kotorykh Zapreshchaetsya v Negosudarstvennom Sektore Zdravookhraneniya» - IPS 'Әdilet [On Amendments to the Order of the Minister of Health of the Republic of Kazakhstan dated October 14, 2009 No. 526' On the Approval of the List of Diseases, the Treatment of Which is Prohibited in the Non-State Sector of Health'' – IPS Adlet]. http://adilet.zan.kz/rus/docs/V1500012103. (Accessed April 19, 2021). [in Russian]

12. *Otsenka Deyatel'nosti Postavshchikov Meditsinskikh Uslug* [Evaluating the Performance of Healthcare Providers]. https://fms.kz/zakupki/otsenka-deyatelnosti-postavshchikov-meditsinskikh-uslug/. (Accessed April 17, 2021). [in Russian]

Coresponding Author:
Saltanat S. Kyrykbaeva - Director of the Department of Science SMU, NCJS.
Postal address: Semey, Kazakhstan, 071400, Amangeldy str., 49;
Phone number: +7 (775) 5379757,
E-mail: kyrykbayeva.s@gmail.com