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# FEATURES OF RESOURCE DISTRIBUTION IN HEALTHCARE SYSTEM MANAGEMENT

This scientific article explores the features of resource allocation in the management of the healthcare system. The issue of transparency in resource allocation is an important challenge for the effective functioning of the healthcare system. A pandemic such as COVID-19 is an example of such a situation, which further highlights the problem of resource allocation in healthcare system management. During the pandemic, there is a need to efficiently allocate medical resources such as medicines, medical equipment and personnel to meet the growing demand for medical care. In this regard, this article analyzes the impact of the pandemic on the living conditions of citizens and social development, paying significant attention to issues of social justice and the risks of social inequality. It also proposes a range of economic and institutional reform measures aimed at promoting transparency and accountability in health care management and improving the equity and efficiency of health care services. The article uses the SWOT analysis method to identify the main problems and potential risks in the healthcare sector. Statistical data on corruption and its impact on the quality of medical services and the availability of medical care were used to analyze the management of the healthcare system and the prospects for distribution relations. The study has important implications for understanding the problem and developing effective management strategies in healthcare.

Key words: Corruption, Healthcare, Public Administration, Social and Economic Policy, Kazakhstan.

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## Денсаулық сақтау жүйесін басқарудағы ресурстарды бөлу ерекшеліктері

Бұл ғылыми мақала денсаулық сақтау жүйесін басқарудағы ресурстарды бөлу ерекшеліктерін зерттейді. Ресурстарды бөлудегі ашықтық мәселесі денсаулық сақтау жүйесінің тиімді жұмыс істеуі үшін маңызды міндет болып табылады. COVID-19 сияқты пандемия осындай жағдайдың мысалы болып табылады, ол денсаулық сақтау жүйесін басқаруда ресурстарды бөлу мәселесін одан әрі көрсетеді. Пандемия кезінде медициналық көмекке өсіп келе жатқан сұранысты қанағаттандыру үшін дәрі-дәрмек, медициналық жабдықтар және персонал сияқты медициналық ресурстарды тиімді бөлу қажеттілігі туындады. Осыған байланысты бұл мақалада әлеуметтік әділеттілік пен әлеуметтік теңсіздіктің қауіп-қатерлеріне елеулі назар аудара отырып, індеттің азаматтардың өмір сүру жағдайлары мен әлеуметтік дамуына әсері талданады. Ол сондай-ақ денсаулық сақтауды басқарудағы ашықтық пен есептілікті арттыруға және денсаулық сақтау қызметтерінің әділдігі мен тиімділігін арттыруға бағытталған бірқатар экономикалық және институционалдық реформалау шараларын ұсынады. Мақалада денсаулық сақтау саласындағы негізгі проблемалар мен ықтимал тәуекелдерді анықтау үшін SWOT талдау әдісі қолданылады. Сыбайлас жемқорлық және оның медициналық қызметтердің сапасына және медициналық көмектің қолжетімділігіне әсері туралы статистикалық деректер денсаулық сақтау жүйесін басқаруды және бөлу қатынастарының перспективаларын талдау үшін пайдаланылды. Зерттеу проблеманы түсінуге және денсаулық сақтаудағы тиімді басқару стратегияларын әзірлеуге маңызды әсер етеді.

**Түйін сөздер**: сыбайлас жемқорлық; денсаулық сақтау; мемлекеттік басқару; әлеуметтікэкономикалық саясат; Қазақстан. Т.М. Жарлыгасинов<sup>1</sup>, С.Т. Купешова<sup>1</sup>, Р.М. Рузанов<sup>2</sup>, К.Н. Абдуллаев<sup>1</sup>

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# Особенности распределения ресурсов в управлении системой здравоохранения

Данная научная статья исследует особенности распределения ресурсов в управлении системой здравоохранения. Проблема прозрачности в распределении ресурсов является важным вызовом для эффективного функционирования системы здравоохранения. Пандемия, такая как COVID-19, является примером такой ситуации, которая еще более актуализирует проблему распределения ресурсов в управлении системой здравоохранения. В условиях пандемии возникает необходимость эффективно распределять медицинские ресурсы, такие как медикаменты, медицинское оборудование и персонал, чтобы удовлетворить растущий спрос на медицинскую помощь. В связи с этим, в данной статье проанализированы влияния пандемии на условия жизни граждан и общественное развитие, значительное внимание уделяется вопросам социальной справедливости и рисков социального неравенства. Также предлагается ряд мер экономических и институциональных реформ, направленных на обеспечение прозрачности и подотчетности в управлении здравоохранением и повышение справедливости и эффективности медицинских услуг. В статье применен метод SWOT-анализа для выявления основных проблем и потенциальных рисков в сфере здравоохранения. Статистические данные о коррупции и ее влиянии на качество медицинских услуг и доступность медицинской помощи были использованы для анализа в управлении системой здравоохранения и перспектив распределительных отношений. Исследование имеет важное значение для понимания проблемы и разработки эффективных стратегий управления в сфере здравоохранения.

**Ключевые слова:** коррупция; здравоохранение; государственное управление; социально-экономическая политика; Казахстан.

#### Introduction

Today, countries are coping with varying degrees of success in coping with the effects of the COVID-19 pandemic, with a severe blow to primary livelihoods that has reversed what little development progress has been made in recent years. Not only peripheral countries, but also developed societies faced the negative consequences of the pandemic. As a result of the coronavirus pandemic, poverty rates are projected to rise for the first time since 1998, and more than 60 million people could be pushed into poverty and destitution (World Bank Report, 2022).

Kazakhstan in a pandemic in its problematic practices in the healthcare sector is not much different from other countries in the world. The rhetoric of the problem context is similar all over the world. Another question is the degree of manifestation of these social problems, as well as their interpretation in the assessments of public consciousness.

The shadow flourishing of corrupt practices as an informal norm of interactions between users and providers of healthcare services causes negative processes that provoke numerous social problems.

In the official expert discourse regarding corruption precedents in the context of a pandemic

situation, it was stated that in order to fulfill the instructions of the Head of State, taking into account the recommendations of GRECO aimed at preventing cases of corruption in Kazakhstan during the COVID-19 pandemic, in all regions of the Republic of Kazakhstan, the anticorruption Agency of the Republic of Kazakhstan in close cooperation with the «Adaldyq alańy» project and members of the special monitoring group, 1,500 verification activities were carried out covering 8,720 pharmacies, 432 warehouses, 486 hospitals and polyclinics. As a result of the measures taken, 296 violations were suppressed. Of these, 221 cases of overpricing of medicines, 12 cases of illegal sale of masks, and 4 cases of lack of a license, etc. (National Anti-Corruption Report, 2020).

Nowadays, corruption is a serious problem in many areas, including the healthcare sector. Its negative impact on the healthcare system can lead to serious consequences for society and the economy. In this article, the authors analyzed the impact of corruption on the healthcare system and considered the prospects for the development of distributive relations, if corruption manifestations are reduced. Examples of successful anti-corruption programs in healthcare have also been analyzed, which have allowed our country to achieve

significant improvements in the availability and quality of medical services for the population. The authors considered the possibilities of using new technologies to increase the transparency and efficiency of the healthcare system.

#### Literature review

Healthcare in general plays a critical role in the development of a country and has a huge impact on the quality of life of the population, economic growth and social well-being. It is one of the main elements of the structure of the social sphere and has the main goal of preserving the health of citizens, ensuring their greater productivity, physical activity, and increasing their ability to learn. In addition, its goal is to maintain the health of the population, which reduces the number of diseases and increases life expectancy, which in turn helps to increase the labor force and social activity of the population. Infectious disease control, access to health care, and advances in medical technology are reducing mortality, especially among children and mothers, thereby reducing labor losses and increasing economic productivity. All of this adds up to reducing inequality, improving education levels and generally promoting economic growth. In other words, by influencing the level of health of citizens, the healthcare sector creates a multifaceted effect on the economic and social components of the country.

The topic of resource allocation in managing the healthcare system is relevant for many countries, including Kazakhstan and foreign countries. Research and publications on this topic usually address various aspects, such as optimizing the allocation of financial, human and infrastructural resources, improving the availability and quality of health care, and effective planning and management of the health system. Foreign and Kazakh authors conduct research and write articles that include analysis of healthcare financing models, assessment of the effectiveness of various resource management methods, and the use of technology and innovation to optimize the healthcare system.

Many scholars were involved in assessing both the economic features of the development of Kazakhstan and its healthcare sector. A. A. Nurpeisova, L. K. Smailova, B. Z. Akimova and some other scholars (2021) carried out a detailed examination of the modern features of the development of Kazakhstan, based on its innovative strategy for the subsequent formation of the economy. Scholars have revealed the essence of

the concept of innovation and identified the main reasons for the country's lagging behind other states in this area. The difficulties in the healthcare sector in Kazakhstan, which arose, among other things, due to the consequences of the COVID-19 crisis, were studied by U. A. Haruna, O. A. Amos, D. Gyeltshen (2022). Although scholars assess the policy pursued by Kazakhstan during the pandemic in a positive light, they write that the subsequent state policy should still be aimed at preventing its consequences. G. Gulis, A. Aringazina, Z. Sangilbayeva and other scholars (2021) assessed the health status of the population of the Republic of Kazakhstan. They noted the existence of public health problems that lead to unsatisfactory results in the indicators of the standard of living of the population, as well as a lack of investment in this area. I. Seleznev, R. Alibekova and A. Clementi (2020) studied and described the role of meeting the needs of the population in the context of the health services provided to them. Scholars have shown that the level of healthcare services delivery largely depends on the quality of their provision, which is why it should also be kept at a high level.

The relationship between health and economic growth in 40 Asian countries using quantile regression methods was assessed by C.-F. Wu, T. Chang, C.-M. Wang and some other scientists (2021). The findings suggest that as countries increase health care spending, their impact on economic growth may not necessarily increase. The positive impact of health care spending on economic growth is observed at certain levels of economic growth, while the negative impact is observed in countries with high health care spending. The study confirmed the importance of community-based universal health coverage in low- and middle-income countries to address poverty issues. Therefore, governments should focus on efficient resource allocation and health management for human health. Although the relationship between health and economic growth varies depending on a country's health status and economic development, understanding it is critical for policymakers, especially in the context of globalization and its impact on international trade and productivity. M. M. Ridhwan, P. Nijkamp, A. Ismail and L. M. Irsyad (2022) also concluded that government authorities should pay more attention to the health sector, since the presence of a healthy population not only contributes to economic activity, but also increases labor productivity and promotes sustainable growth.

The articles by Lovarya M., Kvamina M. and Fajanta D. analyze how corruption affects the

distribution of resources and access to health services, as well as how these problems can be solved. In turn, the attention of many Kazakh scientists is focused on developing packages of recommendations for strengthening and developing anti-corruption legislation in Kazakhstan (Smagulov, 2012:15-18; Rakhmetov, 2017:103-109; Seitkhozhin, 2014:164).

Works of sociological direction are also presented in Kazakhstan studies. Thus, Raisov (2010:45), based on a sociological analysis of modern trends necessary to achieve results in the fight against corruption, developed a package of specific economic, organizational, moral and psychological recommendations.

These articles analyze the origins and patterns of the formation and development of corruption, and study in detail the socio-economic, legal, cultural, moral and ethical prerequisites for corrupt actions (Abdrasilov, 2016:176).

In general, studying various sources of information will help to understand in more detail the problem of resource allocation in the healthcare system and possible ways to solve it.

#### Materials and methods

Corruption is a serious social problem that has a negative impact on the healthcare system. It can lead to unfair distribution relationships, limited access to health services, and increased costs for patients. To analyze the impact of corruption on the healthcare, the study both its manifestations and mechanisms to combat it. It is also important to consider the social and economic factors that can contribute to the development of corruption in healthcare.

Statistical data on corruption and its impact on the quality of medical services and the availability of healthcare were used to analyze the corruption on the healthcare system and the prospects of distributive relations. The authors also applied economic methods to assess the economic impact of corruption on the healthcare system. Thus, various aspects of the impact of corruption on the healthcare system were analyzed, such as the availability and quality of medical care, healthcare costs.

The authors made conclusions about the prospects for the development of distributive relations in the healthcare system if corruption manifestations are reduced.

The problem of corruption in the healthcare system has a negative impact on distributive relations and can lead to uneven access to medical services. Corruption also increases the cost of medical services and reduces the quality of medical care provided. The solution to this problem can be increased control

and transparency in the healthcare system, as well as the creation of effective anticorruption mechanisms to ensure a more equal distribution of resources and services in healthcare.

When writing this article, the authors used the SWOT analysis method to identify corruption in the healthcare. In this case, SWOT analysis will help identify problem areas and potential risks, as well as identify opportunities for improving the healthcare system and reducing corruption in this area.

#### Results and discussion

The report «The Ignored Pandemic Behind COVID-19: The impact of corruption on healthcare service delivery», by Daniela Cepeda Cuadrado, presents Transparency International (TI)'s vision of a wide range of illegal activities identified by its experts of this institution as corrupt or contributing to such.

These include «informal payments», «theft and embezzlement», «truancy», «some specifics of the provision of services», «favoritism», «data manipulation».

A special place in the report « The Ignored Pandemic Behind COVID-19: The impact of corruption on healthcare service delivery» is occupied by risk prediction when introducing a COVID-19 vaccine. And human rights topics are mandatory in modern international analytics. In this paper, she addresses the implications of COVID-19 for human rights, equity and gender equality.

Further, it is stated that in 2020 the world collapsed into the COVID-19 pandemic, which determined the crisis in the healthcare systems of all countries of the world.

Save the Children conducted a study that surveyed 25,000 respondents in 37 countries. It was revealed that 90% of the families surveyed experienced significant difficulties in accessing medical care and medicines. Many households spent a significant portion of their income on medical services and drugs. For many families, due to high prices, medical services and medicines were not available (Burgess, 2020:26).

In the UK and the US, the impact of the pandemic has largely affected the most vulnerable categories of the population, blacks, Asians, and representations of other minorities of ethnic origin. In the English-language human rights and other international literature, regarding the fight against corruption, other controls over justice and manifestations of social inequality, experts use exactly this wording «Black, Asian and minority ethnic», which is accumulated in the abbreviation «BAME».

Table 1 – SWOT Analysis of the Impact of Corruption on the Healthcare System in the USA and Europe

Strengths:	Weaknesses:		
The existence of independent oversight bodies that can play an important role in combating corruption in the healthcare system.	The absence of a vital human habit to comply with the		
Active citizenship, capable of identifying and accusing those who are trying to circumvent the laws of corruption violations.	laws and norms of ethical behavior among officials and residents of some regions.		
Opportunities:	Threats:		
The emergence of an anti-corruption movement in various countries can encourage action at the state level, explaining through legislation an active fight against the spread of corruption.	Corrupt socio-economic, government, educational and other institutions can constitute biased forces that will counteract the transparency of the healthcare system in regions with a lack of major financial innovations.		
Modern means of communication and information technology in a certain way can contribute to more natural, efficient and transparent methods of paying healthcare bills.	The lack of funding from the government and society can lead to a deterioration in the national situation in general protection of the rights of citizens.		
Building the foundations of new market-based health systems can help reduce corruption.			
Note: Compiled by the authors			

This insight paper from Transparency International highlights that many of BAMEs are in the health and social care, retail and public transportation industries. That is, these citizens of Great Britain and the United States most affected by the pandemic, as indicated in the study of the international organization Save the Children, are employed precisely in those areas that were not closed for lockdowns but provided vital areas of society.

A study found that in Sao Paulo, Brazil, black youths in their 20s are twice as likely to die from COVID-19 than their white peers. It is indicated that in Sweden, mortality among children born outside the country is several times higher than among children born in Sweden.

The authors of the study, having recorded the above facts of increased vulnerability, write that «despite the fact that there is no evidence yet», nevertheless, they believe that ethnicity plays a role in the results of the impact of Covid-19, to which the most vulnerable layers, which previously, social inequality had already been painfully touched (Transparency International Global Health Programme's, 2020).

Analyzing the impact of the pandemic on the living conditions of citizens and social development in international analytical materials from Transparency International (TI), considerable attention is paid to issues of social justice and the risks of social inequality.

Table 2 - SWOT Analysis of the Impact of Corruption on the Healthcare System in the Republic of Kazakhstan

Strengths:	Weaknesses:
- There is strong public and government interest in fighting corruption in healthcare Existence of legislation and mechanisms to control corruption in the healthcare system Some medical institutions and professionals work honestly and efficiently.	- Corruption is a widespread problem in the healthcare system, which leads to poor quality of services and public distrust in medical institutions and staff.  - Insufficient funding of the healthcare system and low salaries of medical workers can stimulate corruption.  - Lack of transparency and accountability in the allocation of budgetary funds in the healthcare system can contribute to corruption.
Opportunities:	Threats:
- Strengthening the role of civil society and the media in the fight against corruption in healthcare The development of e-health and the introduction of new technologies can increase the transparency and efficiency of the health system New reforms in the healthcare system may provide opportunities for better control of corruption.	- The low level of awareness and education of citizens on corruption issues can make it difficult to fight this problem Intervention of corruption structures and organizations in the work of the healthcare system can hinder effective control over corruption manifestations.
Note: Compiled by the authors	1

According to a survey conducted Transparency International Kazakhstan in 2020, citizens experienced violations and corruption in state bodies with the following frequency (Shiyan, 2021:586): Public hospitals and polyclinics – 156 (27.2%); Police – 55 (9.6%); Department of Land Relations - 50 (8.7%); PSCs (Government for Citizens) -44 (7.7%); State kindergartens -42(7.3%); Employment center – 32 (5.6%); State colleges – 28 (4.9%); Public schools – 25 (4,469); Military commissariats – 24 (4.2%); Tax Service - 24 (4.2%); State universities - 22 (3.8%); Department of Urban Planning Control – 12 (2.1%); Office of the Akimat of your district -11 (1.9%); Department of Employment and Social Protection – 11 (1.9%); Court – 11 (1.9%); Customs Service – 11 (1.9%); Prosecutor's Office — 7 (1.2%); Migration Service/Police – 4 (0.7%); Agency for Civil Service Affairs -3 (0.5%); Department of registration of acts of civil status -2 (0.3%). Total: 752 (100%).

According to the monitoring of the state of corruption in Kazakhstan, at the end of 2020, in general, there is a positive picture regarding the willingness of citizens to assist in the fight against corruption. Of the 7,200 respondents, 60% said they were ready to assist in the fight against corruption, 29% refused, 11% found it difficult to answer. At the same time, almost 70% named not to give bribes as the main tools for fighting corruption. Further, 32.1% are ready to declare the facts of corruption, 19.3% – propaganda of anti-corruption culture, 7.9% - inclusion in public anti-corruption organizations, 0.3% - still found it difficult to answer. In the regional context, the following regions turned out to be the readiest to fight corruption: Aktobe (83.5%), Atyrau (74.7%), Nur-Sultan (77.5%), Almaty (68.9%), Karaganda (67.5%), Kostanay (65.9%),

Kyzylorda (63.8%), Almaty (64.2%), North Kazakhstan (60.0%) regions. The remaining regions of Kazakhstan had indicators ranging from 41.7% to 57.7% (Ruzanov et al., 2022:122-128).

During the coronavirus pandemic, healthcare workers may experience social pressure from «their group» to give preference to them, ignoring legal norms and principles. For example, nurses may give priority to caring for their family or friends, rather than those who are more in need of help, since «putting family first» can be an important norm in their mental context. Such social norms should be considered in a special way, but if they are still used to justify the behavior of a healthcare worker, it will make it difficult to develop effective measures to ensure equitable access to health services. There are few news articles in the media about this phenomenon during the COVID-19 epidemic, however, this does not negate the actual prevalence of this form of corruption in the healthcare system.

Insufficient attitude to the system of remuneration of medical workers in healthcare has also led to corruption in this area. Doctors should receive high pay for their work and at the same time value their reputation and workplace. During the pandemic, the consequences of insufficient funding also led to sad events.

It is worth noting that the state has responded to this problem and has set the task of gradually increasing the salaries of doctors, starting from 2020, and by 2023 it is planned to increase the salary level several times (table 3). In 2021, expenses in the amount of more than 222 billion tenge are planned to increase the salaries of 247 thousand medical workers, in 2022 – 362 billion tenge, in 2023 – 557 billion tenge.

Table 3 – Planned salary increases for medical workers until 2023, tenge

Average salary	2019 year	2020 year	Growth by 2019	2021 year	Growth by 2020	2022 year	Growth by 2021	2023 year	Growth by 2022
Doctor	189292	246080	30%	319903	30%	415875	30%	561431	35%
Average staff	120459	144551	20%	173461	20%	190807	10%	209888	10%

However, prevention alone will not be effective. Corruption is a complex phenomenon that can flare up at any opportunity. Therefore, the availability of appropriate punishment mechanisms is of key importance. Even though the citizens of the country have witnessed how high-ranking officials of Kazakhstan and other states were brought to court, arrested or removed from

office on charges of corruption, there are not common situations when those who were engaged in corruption at the time of providing services were punished. For the response to COVID-19 to be effective, all participants must be held accountable for their actions.

According to the results of a survey conducted by Transparency International Kazakhstan in 2020,

citizens were faced with the fact that violations and corruption in state bodies are headed by state hospitals and polyclinics -156 (27.2%). Only then comes the police -55 (9.6%), the land relations Department -50 (8.7%), the Government for citizens -44 (7.7%), etc.

The report's key messages focus on how the pandemic has limited the progress that could be made in 2020 to reduce poverty, end hunger, achieve universal health coverage and ensure education for all. The poorest and most vulnerable are the hardest hit by the pandemic. D. Cuadrado formulates this provision in the report with reference to the

materials of the UN Department of Economic and Social Affairs on the impact of COVID-19 on the achievement of the Sustainable Development Goals (UN/DESA Policy Brief #81, 2020).

Based on a study assessing the extent of corruption in the context of a pandemic through the lens of North American and European analysts, it was found that this expert pool is quite unanimous in the conclusion that corruption in the provision of medical services during the COVID-19 pandemic is more widespread than ever and especially harms vulnerable groups.

Table 4 - Levels of Correlation Between Relevant Indicators of Living Standards and Corruption in Different Countries

Countries	Corruption Perceptions Index/ Human Development Index	Corruption Perceptions Index/ Education index	Corruption Perceptions Index/ Lifespan	Corruption Perceptions Index/ Income index	
USA	-0,263	0,444	0,752	-0,722	
Germany	0,578	0,185	0,362	0,455	
Russia	0,177	0,571	0,004	0,295	
Kazakhstan	0,705	0,804	-0,026	0,687	
Finland	-0,699	-0,572	-0,716	-0,443	
South Korea	0,655	-0,843	0,701	0,689	
China	0,665	-0,372	0,662	0,629	
Note: Compiled by the authors					

The level of correlation between relevant indicators of living standards and corruption in different countries can be measured using different methodologies. Here are some of the main methods that can be used in studying this relationship: 1. Statistical analysis: This method involves collecting data on indicators of living standards and corruption in different countries, and then using statistical methods to identify the relationship between them. For example, the Pearson or Spearman correlation coefficient may be used to measure the strength of the relationship between these variables. 2. Country Ranking: In this approach, countries are ranked according to their standard of living and corruption, and then the relationship between the ranks is analyzed. This may include the use of a rank correlation coefficient such as the Kendall coefficient. 3. Regression analysis: This method allows you to evaluate the impact of living standard indicators on the level of corruption, considering other factors. Regression models can be built to determine the extent to which changes in living standards are associated with changes in the level of corruption.

It is important to note that any correlation analysis does not necessarily indicate a causal relationship between indicators. The correlation may be the result of various factors or circumstances, and more research and contextual analysis is required to better understand the relationship between living standards and corruption.

As can be seen from Table-4, the correlation values between the corresponding indicators can vary greatly from country to country, taking both positive and negative values. So, for example, there is a clear positive relationship between the values of the Corruption Perceptions Index and human development in Kazakhstan, while in Finland and the USA it is negative. However, it should be noted that this does not necessarily indicate the absence of a relationship between the respective indices, since many factors influence the standard of living in the country, as well as the perception of corruption.

The data in Table-4 clearly show that the correlation values between the CPI and the HCI are most correlated with countries such as Kazakhstan, South Korea and China, geographically located in

Asia and developing rapidly. In the Republic of Kazakhstan, a strong correlation is noted with all indices, except for the level of life expectancy, which can be explained by the onset of the COVID-19 pandemic and its negative consequences. It should be noted that this event negatively affected the possibility of conducting this study due to the rather low probability of its occurrence.

Transparency International Global Health Program in its report for 2020 pays considerable attention to informal payments as one of the types of corruption manifestations. Experts point out that such payments are not always illegal, corrupt or harmful. Such a behavioral phenomenon can be encouraged by cultural norms, habits. Also, an important determinant is the low wages of medical personnel and other socio-economic reasons.

In a pandemic, many of the signals received by Transparency International ALAC concern patients paying bribes for personal protective equipment and tests for COVID-19.

The Organization for Economic Co-operation and Development (OECD), analyzing the impact of the COVID-19 pandemic on the collapse of economic activity and a critical increase in unemployment, expressed concern that the pandemic provoked the most powerful employment crisis since the Great Depression of 1929.

Corruption during a pandemic makes it unattainable to receive medical services for the poor.

The international expert pool from the Transparency International Global Health Program notes the fact of giving bribes and informal payments in connection with compliance with the rules of social distance.

From Uganda, Cameroon, there were reports that foreigners bribed officials to circumvent the rules and restrictions adopted in the country (Kos et al., 2020:16).

So, in Uganda, all arriving foreigners were charged with staying «without getting out» in hotels prescribed for quarantine. But the quality of service at the hotel was so unsatisfactory, and the prices were high, that many enterprising foreign citizens found workarounds to avoid quarantine by paying at their own expense for poor service in a Ugandan hotel. This is the type of initiatives of foreign citizens who got into the «hotel» quarantine in Uganda», it is estimated by the Transparency International Global Health Program as corrupt (Ssentongo, 2021:94).

Also, representatives of the above-mentioned international expert pool indicate that, perhaps, people do not report facts of corruption, as they

fear reprisals from country authorities and the government.

The Global Corruption Barometer (GCB) revealed this feature in 30 percent of respondents in the Middle East and North Africa region. Such precedents have also been identified in Europe and Central Asia. In Latin America, 28 percent of those who reported bribery experienced subsequent retribution. Also, international experts explain the fact that many people do not speak out about corruption, so as not to be criticized and be excluded from access to medical services after such a report (The Global Corruption Barometer, 2021).

In Mexico, Zimbabwe and Nigeria, at the initiative of international anticorruption organizations and their financial support, the corruption consequences of the COVID-19 pandemic were studied in a gender-feminist aspect. It was studied what illegal corruption schemes involve women in these countries. It is especially emphasized that it is almost impossible for women in Mexico, Zimbabwe and Nigeria to refuse extortionists. In the absence of money, Mexican, Zimbabwean and Nigerian women are drawn into the sextortion by the extortionist. This kind of corrupt practices in these countries against women took place even before the pandemic. COVID-19 didn't stop sextortion ransomware. In the Mexican Denuncia Corrupción Coronavirus (Report Coronavirus Corruption), 340 complaints were registered, of which 72% were related to bribery, and 10%, i.e. 34 complaints were specifically related to sextortion (Perez, 2020:12).

Media reports include sextortion cases from Nigeria, which provide details of Nigerian women who were detained by the police for minor violations of the COVID-19 rules and then subjected to sextortion by the police while in custody.

Information about the facts of sextortion against women is presented by the Zimbabwean ALAC. A source from Zimbabwe states that this type of extortion has been recorded in situations of obtaining access to water. Emphasized that water is necessary for handwashing, which is necessary to stop the spread of the virus.

These are the corrupt facts of informal payments during the pandemic that were identified in some countries in international analytical reviews from anticorruption organizations at the transnational level.

Hong Kong can serve as an example of a successful fight against corruption in healthcare. In 2017, they launched the «Integrated Anti-Corruption Mechanism in Healthcare» program, which included training medical professionals

in ethics, strengthening control over medical institutions and their employees, and publishing information on healthcare spending. As a result, the number of complaints about corruption in healthcare has decreased and the level of trust in the healthcare system has increased.

Table 5 - Recommendations of International Organizations on the Organization of Anti-Corruption Measures in the Healthcare System

Recommendations	for decision makers	Recommendations for civil society		
The need for healthcare leaders to recognize the negative impact of corruption on the quality of the healthcare system.	Vigilance and the need to be mindful of the political and bureaucratic context.	Citizen vigilance. Be informants. Report all facts of corruption.	Advocate for whistleblower protection mechanisms.	
Integrating Anti-Corruption Approaches into Broader Efforts to Strengthen Health Systems.	Invest in prevention and enforcement for strong sanctions and penalties.	Changes in social norms, socio-cultural traditions that provoke favoritism and informal payments during targeted conversations between NGOs and the population according to a questionnaire from international experts Transparency International.	Development of accountability and feedback mechanisms at	
Honest monitoring of the indi «Theft and embezzlement», « «Manipulati			and feedback mechanisms at the local level.	

For each type of corrupt behavior in the context of a pandemic in global anticorruption organizations, data has been collected from all countries of the world.

### Conclusion

Note: Compiled by the authors

Kazakh scientists emphasize that the healthcare systems of different countries regularly experience periods of lack of access to medical services for one or another part of the population. The most common problematic positions in healthcare practices around the world include the following.

First, the imbalance between the availability of compulsory health insurance and actual access to medical services. Most of the population may have insurance, as such, but the number of medical services available under it may be very limited.

Also, direct access to treatment is directly dependent on the number of places. Citizens who have a medical insurance certificate are forced to wait in line for planned treatment for a long time.

Secondly, a problematic aspect in healthcare systems at the global level is an increase in spending on medical services, which determines a certain budget deficit, leads to an increase in taxation and may affect the reduction of social benefits.

Thirdly, within the framework of budgetary healthcare models, potential patients are limited in their ability to quickly and unrestricted access to the medical care services that are relevant to them. At the same time, there is a rationing of services and restrictions in the choice of a specialist.

Fourth, in healthcare models dominated by the private sector, the problem of inequality and injustice in access to medical services and their cost is actualized. In such models, the sector of vulnerable groups of the population not covered by medical services is quite clearly indicated, which affects, in general, the degree of social protection of citizens.

In effective healthcare systems, market mechanisms, state support and joint and several responsibilities of the population itself for their health, including participation in paying for medical services, are integrated and synergistically interconnected.

The choice of a healthcare model that is optimal in terms of efficiency for a particular political system should be based on a fundamental scientific analysis of the potential efficiency resources contained in the selected model versions of healthcare practices.

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#### References

- 1. Burgess M. The hidden impact of COVID-19 on children: A Global Research Series. London: Save the Children International, 2020. p. 26.
  - COVID-19 has shone a light on racial disparities in health // The Economist. 2020. P. 4-5.
- 3. Gulis, G., Aringazina, A., Sangilbayeva, Z., Zhan, K., Leeuw, E. D. and Allegrante, J. P. (2021). Population Health Status of the Republic of Kazakhstan: Trends and Implications for Public Health Policy. *International Journal of Environmental Research and Public Health*, 18 (22), 1-10. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8621160/
- 4. Haruna, U. A., Amos, O. A., Gyeltshen, D., Colet, P., Almazan, J., Ahmadi, A., Sarria-Santamera, A. (2022). Towards a post-COVID world: Challenges and progress of recovery in Kazakhstan. *Public health challenges*, 1 (3), 1-7. https://onlinelibrary.wiley.com/doi/full/10.1002/puh2.17
- 5. How corruption is making people sick // URL: https://www.transparency.org/en/news/how-corruption-is-making-people-sick
- 6. Impact of COVID-19 on SDG progress: A statistical perspective // URL: https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-81-impact-of-covid-19-on-sdg-progress-a-statistical-perspective/
- 7. Kos D., Richard S., Wasserstrom J. (2020). Minimizing bribery and corruption in the time of COVID-19. International Anti-corruption Academy. 16 p.
- 8. Nurpeisova, A. A., Smailova, L. K., Akimova, B. Z., Borisova, E. V. and Niyazbekova, S. U. (2021). Condition and Prospects of Innovative Development of the Economy in Kazakhstan. *Socio-economic Systems: Paradigms for the Future*, 314, 1773-1779. https://link.springer.com/chapter/10.1007/978-3-030-56433-9 184
  - 9. Perez M. (2020). Registran unas 340 denuncias por actos indebidos durante la pandemia. El Economista. P.12.
- 10. Police detain cop over alleged rape of widow in Rivers // URL: https://www.premiumtimesng.com/regional/south-south-regional/406101-police-detain-cop-over-alleged-rape-of-widow-in-rivers.html?tztc=1
- 11. Ridhwan, M. M., Nijkamp, P., Ismail, A. & Irsyad, L. M. 2022. The effect of health on economic growth: a meta-regression analysis. *Empirical Economics*, 63, 3211–3251. https://link.springer.com/article/10.1007/s00181-022-02226-4
- 12. Seleznev, I., Alibekova, R., Clementi, A. (2020). Patient satisfaction in Kazakhstan: Looking through the prism of patient healthcare experience. *Patient Education and Counseling*, 103 (11), 2368-2372. https://www.sciencedirect.com/science/article/pii/S0738399120302457
  - 13. Ssentongo J.S. (2021). Quarantined: My Ordeal in Uganda's Covid-19 Isolation. Ubuntu Reading Group. 94 p.
- 14. The Ignored Pandemic Behind COVID-19: The impact of corruption on healthcare service delivery // URL: http://ti-health.org/wp-content/uploads/2020/12/The-Ignored-Pandemic-Behind-COVID-19-the-impact-of-corruption-on-healthcare.pdf
- 15. Transparency Kazakhstan. Monitoring corruption in Kazakhstan for 2020 // 2020 жылғы Қазақстандағы сыбайлас жем-корлық жағдайының мониторингі// Мониторинг состояния коррупции в Казахстане за 2020 год, под ред Шиян О.В. Казахстан, Алматы, 2021. 586 с.
- 16. Wu, C.-F., Chang, T., Wang, C.-M., Wu, T.-P., Lin, M.-C., Huang, S.-C. 2021. Measuring the Impact of Health on Economic Growth Using Pooling Data in Regions of Asia: Evidence from a Quantile-On-Quantile Analysis. *Brief research report article*, 9, 1-7. https://www.frontiersin.org/articles/10.3389/fpubh.2021.689610/full
- 17. Всемирный банк: более 60 млн человек в мире окажутся за чертой бедности // URL: https://rg.ru/2020/05/19/vsemirnyj-bank-bolee-60-mln-chelovek-v-mire-okazhutsia-za-chertoj-bednosti.html
- 18. Национальный доклад о противодействии коррупции за 2020 год // URL: https://www.gov.kz/memleket/entities/bko-burlin/press/article/details/48775?lang=ru
- 19. Основы антикоррупционной культуры: учебное пособие, под общей редакцией д.б.н., профессора Б.С.Абдрасилова. Астана: Академия государственного управления при Президенте Республики Казахстан, 2016. 176 с.
- 20. Раисов У.Е. Коррупция и ее социальные последствия (социологический анализ): автореф. дис.... канд. социолог. наук / У.Е. Раисов; Каз. гуманит.-юрид. ун-т. Алматы, 2010. 45 с.
- 21. Рахметов С.А. О ходе имплементации нормы международных конвенций по вопросам борьбы с коррупцией в уголовном законодательство Республики Казахстан // Вестник Института законодательства Республики Казахстан Алматы, 2017. № 2 (47). С. 103-109.
- 22. Рузанов Р.М., Сатыбалдин А.А., Досманбетова М.С., Жарлыгасинов Т.М. Анализ социокультурных факторов коррупции в Казахстане // Адам элемі. 2022. № 1 (91). С. 128-144.
- 23. Сейтхожин Б.У. Квалификация коррупционных преступлений: теория и практика применения. Караганда, 2014. 164 с.
- 24. Смагулов А.А. Антикоррупционная политика Республики Казахстан // Вестник Института законодательства Республики Казахстан Алматы, 2012. № 2 (26). С. 15-18.

#### References

- 1. Burgess M. (2020). The hidden impact of COVID-19 on children: A Global Research Series. London: Save the Children International. p. 26.
  - 2. COVID-19 has shone a light on racial disparities in health // The Economist. 2020. P. 4-5.
- 3. Gulis, G., Aringazina, A., Sangilbayeva, Z., Zhan, K., Leeuw, E. D. and Allegrante, J. P. (2021). Population Health Status of the Republic of Kazakhstan: Trends and Implications for Public Health Policy. *International Journal of Environmental Research and Public Health*, 18 (22), 1-10. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8621160/
- 4. Haruna, U. A., Amos, O. A., Gyeltshen, D., Colet, P., Almazan, J., Ahmadi, A., Sarria-Santamera, A. (2022). Towards a post-COVID world: Challenges and progress of recovery in Kazakhstan. *Public health challenges*, 1 (3), 1-7. https://onlinelibrary.wiley.com/doi/full/10.1002/puh2.17
- 5. How corruption is making people sick // URL: https://www.transparency.org/en/news/how-corruption-is-making-people-sick
- 6. Impact of COVID-19 on SDG progress: A statistical perspective // URL: https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-81-impact-of-covid-19-on-sdg-progress-a-statistical-perspective/
- 7. Kos D., Richard S., Wasserstrom J. (2020). Minimizing bribery and corruption in the time of COVID-19. International Anti-corruption Academy. 16 p.
- 8. Nacional'nyj doklad o protivodejstvii korrupcii za 2020 god. [National Anti-Corruption Report for 2020] // URL: https://www.gov.kz/memleket/entities/bko-burlin/press/article/details/48775?lang=ru
- 9. Nurpeisova, A. A., Smailova, L. K., Akimova, B. Z., Borisova, E. V. and Niyazbekova, S. U. (2021). Condition and Prospects of Innovative Development of the Economy in Kazakhstan. *Socio-economic Systems: Paradigms for the Future*, 314, 1773-1779. https://link.springer.com/chapter/10.1007/978-3-030-56433-9 184
- 10. Osnovy antikorrupcionnoj kul'tury: uchebnoe posobie, pod obshhej redakciej d.b.n., professora B.S.Abdrasilova [Fundamentals of anti-corruption culture: textbook, under the general editorship of Doctor of Biological Sciences, Professor B.S. Abdrasilov]. Astana: Akademija gosudarstvennogo upravlenija pri Prezidente Respubliki Kazahstan, 2016. 176 s.
  - 11. Perez M. (2020). Registran unas 340 denuncias por actos indebidos durante la pandemia. El Economista. P.12.
- 12. Police detain cop over alleged rape of widow in Rivers // URL: https://www.premiumtimesng.com/regional/south-south-regional/406101-police-detain-cop-over-alleged-rape-of-widow-in-rivers.html?tztc=1
- 13. Raisov U.E. (2010). Korrupcija i ee social'nye posledstvija (sociologicheskij analiz): avtoref. dis.... kand. sociolog. nauk [Corruption and its social consequences (sociological analysis): abstract of the thesis of a candidate of sociological sciences] / U.E. Raisov; Kaz. gumanit.-jurid. un-t. Almaty, 2010. 45 s.
- 14. Rakhmetov S.A. (2017). O hode implementacii normy mezhdunarodnyh konvencij po voprosam bor'by s korrupciej v ugolovnom zakonodatel'stvo Respubliki Kazahstan [On the implementation of the norms of international conventions on fighting corruption in the criminal legislation of the Republic of Kazakhstan] // Vestnik Instituta zakonodatel'stva Respubliki Kazahstan Almaty, 2017. № 2 (47). S. 103-109.
- 15. Ridhwan, M. M., Nijkamp, P., Ismail, A. & Irsyad, L. M. 2022. The effect of health on economic growth: a meta-regression analysis. *Empirical Economics*, 63, 3211–3251. https://link.springer.com/article/10.1007/s00181-022-02226-4
- 16. Ruzanov R.M., Satybaldin A.A., Dosmanbetova M.S., Zharlygasinov T.M. (2022). Analiz sociokul'turnyh faktorov korrupcii v Kazahstane [Analysis of socio-cultural factors of corruption in Kazakhstan] // Adam əlemi. − 2022. − № 1 (91). − S. 128-144
- 17. Seitkhozhin B.U. (2014). Kvalifikacija korrupcionnyh prestuplenij: teorija i praktika primenenija [Qualification of corruption crimes: theory and practice of application]. Karaganda, 2014. 164 s.
- 18. Seleznev, I., Alibekova, R., Clementi, A. (2020). Patient satisfaction in Kazakhstan: Looking through the prism of patient healthcare experience. *Patient Education and Counseling*, 103 (11), 2368-2372. https://www.sciencedirect.com/science/article/pii/S0738399120302457
- 19. Smagulov A.A. (2012). Antikorrupcionnaja politika Respubliki Kazahstan [Anti-corruption policy of the Republic of Kazakhstan] // Vestnik Instituta zakonodatel'stva Respubliki Kazahstan Almaty, 2012. № 2 (26). S. 15-18.
  - 20. Ssentongo J.S. (2021). Quarantined: My Ordeal in Uganda's Covid-19 Isolation. Ubuntu Reading Group. 94 p.
- 21. The Ignored Pandemic Behind COVID-19: The impact of corruption on healthcare service delivery // URL: http://ti-health.org/wp-content/uploads/2020/12/The-Ignored-Pandemic-Behind-COVID-19-the-impact-of-corruption-on-healthcare.pdf
- 22. Transparency Kazakhstan. Monitoring corruption in Kazakhstan for 2020 // 2020 zhylfy Қаzaқstandaғy sybajlas zhemқorlyқ zhaғdajynyң monitoringi// Monitoring sostojanija korrupcii v Kazahstane za 2020 god, pod red Shijan O.V. Kazahstan, Almaty, 2021. 586 s.
- 23. Vsemirnyj bank: bolee 60 mln chelovek v mire okazhutsja za chertoj bednosti. [World Bank: More than 60 million people in the world will be below the poverty line] // URL: https://rg.ru/2020/05/19/vsemirnyj-bank-bolee-60-mln-chelovek-v-mire-okazhutsia-za-chertoj-bednosti.html
- 24. Wu, C.-F., Chang, T., Wang, C.-M., Wu, T.-P., Lin, M.-C., Huang, S.-C. 2021. Measuring the Impact of Health on Economic Growth Using Pooling Data in Regions of Asia: Evidence from a Quantile-On-Quantile Analysis. *Brief research report article*, 9, 1-7. https://www.frontiersin.org/articles/10.3389/fpubh.2021.689610/full