ECONOMIC JUSTIFICATION OF CORRUPTION RISKS IN THE FIELD OF HEALTHCARE

Mykhailo Anishchenko¹, Viktor Oharenko²

Abstract. The purpose of the article is to identify the most common corruption offenses in the healthcare sector and their impact on the country's economy, and also to outline the main directions of the state anti-corruption policy in this area. Methodology. The research is based on the study of international treaties ratified by Ukraine, as well as domestic legal acts regulating the activities of the medical sector in the area of combating and preventing corruption. Results. The article analyzes the main directions of anti-corruption policy in the national healthcare system and determines their impact on the economy of the country. It is noted that corruption in this area is inherent in all socio-economic systems of the world, however, it is most widespread in the process of transformation of the economic and social environment. Corruption can manifest itself in various mechanisms. The author analyzes the monitoring of corruption risks in the field of security by Transparency International, which annually determines the Corruption Perceptions Index (CPI), and the European Commission. It is theoretically proven that a decrease in the score of the Corruption Perceptions Index leads to an outflow of capital from the country (one point corresponds to 0.5% of the country's gross domestic product). Using the examples of the United States of America, the Federal Republic of Germany, and Denmark, the paper examines the most common forms of corruption in the healthcare sector, as well as the positive experiences that should be implemented in order to improve the level of economic development of the country. The main corruption risks in the healthcare sector were analyzed. The role of the NAPC and the NABU in combating and preventing corruption in the healthcare sector is revealed. Practical implications. The article outlines the main steps that need to be taken to introduce changes in the direction of anti-corruption activities in private healthcare institutions. The role of the electronic system of public procurement of goods, works and services “ProZorro” in combating and preventing corruption in the healthcare sector is determined. The analytical data of the Independent Anti-Corruption Commission are studied. Value/originality. It is theoretically substantiated that the key task of the state anti-corruption policy in the healthcare sector is to develop and implement mechanisms for detection, prevention and elimination of conditions that facilitate the emergence and spread of corruption, the impact of which on the country's economy is quite dangerous, as it significantly impairs the effectiveness of the state's economic policy. The article highlights the consequences of corruption in the healthcare sector for the country's economy: expansion of the shadow economy; violation of competitive mechanisms; inefficient use of budget funds in the distribution of public contracts and benefits; price increases due to "corruption costs"; and deterioration of the investment climate. The article outlines the main areas of anti-corruption policy in the healthcare sector, including: an effective system of control and transparency; analysis of the causes of corruption; a high level of legal awareness and culture of citizens; involvement of specialists and scientists in the areas of activity in the preparation of relevant regulatory documents; improvement of the electronic healthcare system and, consequently, further automation of workplaces; change of the financing system; improvement of the anti-corruption policy in the healthcare sector as a component of the overall anti-corruption policy; implementation of positive international experiences.

Key words: economy, healthcare, corruption risks, anti-corruption, economic instruments.

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1. Introduction

Healthcare is a priority area for the development of the Ukrainian state, because human resources are the basis of the intellectual and labor potential of the country, which, in turn, improves the level of its economy. "The economy is the environment where officials enter into corrupt relationships, where corruption is nourished, and where profits are greatest. The reverse effect of corruption on the economy is particularly dangerous because it reduces the effectiveness of the state's economic policy... encourages officials to solve their problems outside the legal sphere." (Blank, Batrakova, 2016)

At present, due to the lack of adequate funding of the healthcare sector in Ukraine, as well as the imperfect marketing policy of insurance companies, such insurance as healthcare is developing at a rather slow pace (Bilyk, Novikova, 2016). Underfunding of the healthcare sector in times of economic and political instability fosters corruption.

And this is despite the fact that the healthcare sector is "a rather complex system with different actors who may have diametrically opposed interests, different processes (existing in both vertical and horizontal relations), different objects (tangible and intangible, etc.)." (Demchenko, 2019) Thus, corruption in the national healthcare system is possible in its various mechanisms. For example, in February 2017, the Economic Crime Department of the National Police in Kyiv uncovered a criminal scheme to embezzle budget funds allocated for the purchase of hemodialysis kits for Kyiv patients in the amount of 92 million UAH (Ukraine remains most corrupt country in Europe, 2017). The Zaporizhzhia Regional Clinical Hospital purchased ambulances with a subsidy from the state budget, which could not be used for their intended purpose. As a result, the state suffered losses totaling more than 13 million UAH (90% of abuses uncovered by NABU in the social sphere relate to healthcare, 2018). In 2019–2020, an employee of the State Expert Center for Insulin and Diabetes Medicines received more than 4 million UAH from the manufacturer (Policy brief on corruption in public procurement of medicines in 2019–2020, 2020).

According to the Principles of the Anti-Corruption Strategy for 2021–2025, the healthcare sector is identified as one of the most important sectors in the fight against corruption ("On the Principles of State Anti-Corruption Policy for 2021–2025"). "The greatest harm of corrupt relations is that they break all existing legal procedures for resolving any situation and establish new patterns of behavior, creating a false, "schematic", virtual reality that exists outside the legal field." (Rohatiuk, 2019) This criminal reality develops in parallel with the existing legal system and, most disastrously for the country's economy, it begins to compete with it, attracting more and more interested citizens to its level (Lehka, 2020). "The social danger of corruption lies in the fact that it leads to the slowing down of socio-economic reforms, increases social tensions in society, significantly reduces the level of social protection, and creates an illegal lifestyle." (Smetanina, 2017)

Therefore, in the current economic and social crisis, the issue of anti-corruption policy in the healthcare sector should not be considered as a separate, sectoral, specialized phenomenon, but as part of the general anti-corruption policy.

Certain aspects of combating corruption in the healthcare sector (public procurement, anti-corruption strategies and plans, liability) have been studied by T. Batrakova, O. Bilyk, M. Blank, I. Demchenko, T. Krupytska, O. Lehka, R. Nasirov, V. Pashkov, V. Predborskij, I. Rohatiuk, N. Smetanina and other scholars. At the same time, given the ongoing economic reforms and continuous improvement of domestic legislation in this area, the issue of economic justification of corruption risks in the healthcare sector requires additional study, which has actualized the need to study this topic.

2. Place and role of the healthcare sector in the national economy

The healthcare sector is one of the most important social spheres of society. However, health care activities are defined as a type of economic activity – 17. Section Q. Healthcare and social assistance of the Classifier of Economic Activities (CEA) DK 009:2010, which came into force on January 1, 2012 according to the Order of the State Committee for Technical Regulation and Consumer Policy No. 457 dated October 11, 2010 (Classification of economic activities DK 009:2010, 2010).

The healthcare sector is linked to economic sectors and types of economic activity in the following areas: agriculture (CEA Section A) – the use of plant and animal natural resources, crop products, breeding of farm animals as raw materials for the production of medicines, medical equipment, and so on; manufacturing (CEA Section B-E) – preparation and processing of raw materials, manufacturing of products, supply of energy resources to support the activities of institutions, establishments, bodies, organizations, etc. in the healthcare sector; construction (CEA Section F) – construction, repair, expansion, reconstruction of medical facilities, etc.; wholesale and retail trade, repair of motor vehicles (CEA Section G) – supply of medical equipment, pharmaceuticals, etc., repair of motor vehicles on the balance sheet.
of medical institutions, and so forth; transport (CEA Section H) – ambulance organization, etc.; financial and insurance activities (CEA Section K) – healthcare financing, insurance medicine, and the like; professional, scientific and technical activities (CEA Section M); education (CEA Section P) – conducting research in the healthcare sector, training of specialists, etc. For example, in terms of financial and insurance activities, depending on the predominant sources of funding in modern conditions, all healthcare models can be divided into three types: budgetary (state), insurance (social insurance), and private (non-state or market) (Slavitych, Hupalo, 2014). The comparative characteristics are presented in the form of a table (Table 1).

At present, none of the economically developed countries has these models in their pure form. In Ukraine, in accordance with the Order of the Cabinet of Ministers of Ukraine "On Approval of the Concept of Healthcare Financing Reform" of 30.11.2016 No. 1013-p, a model of state solidarity health insurance is proposed, which takes into account the best modern practices and experience of transforming healthcare systems in the world, in particular in Central and Eastern Europe. The main source of funding for the revamped healthcare system remains the state budget of Ukraine, which is derived from national taxes. Payments for the treatment of an individual are not tied to the amount of their individual contributions (On Approval of the Concept of Healthcare Financing Reform: Order of the Cabinet of Ministers of Ukraine of 30.11.2016 No. 1013-p).

In the second half of the twentieth century a new branch of economics, health economics, was formed in the world, and with the independence of Ukraine, on the basis of market economy principles. At the same time, the relationship between healthcare and the economy of the entire country’s economy is considered in two main aspects: 1) the impact of health and healthcare on the level of well-being of the population and economic development; 2) the impact of economic development of society on the state of human health and healthcare. Healthcare has an impact on the development of the country’s economy through increased labor productivity by reducing morbidity, mortality (primarily in the working age), temporary and permanent disability, and improving overall health. On the other hand, the well-being of society affects the health of people.

Society’s spending on healthcare development is not only socially important, but also economically important. The richer the state, the more money it

| Table 1  
| Healthcare financing models |

<table>
<thead>
<tr>
<th>Financing model</th>
<th>BUDGET (state or Semashko-Beveridge system)</th>
<th>Social Health Insurance Model (Bismarck system)</th>
<th>PRIVATE (non-state or market)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main characteristics</td>
<td>The state plays a significant role. The state is the main purchaser and provider of healthcare, ensuring that most of the public need for healthcare services is met. The system of budgetary financing of healthcare is based on the principle of free of charge. The state strictly controls most aspects of the market for medical goods and services, and sets the rules for admission and access to the market.</td>
<td>It is based on the principles of a mixed economy, combining the healthcare market with a developed system of state regulation and social guarantees. It provides for universal health insurance and is financed by money paid by insurers to special funds.</td>
<td>Medical services are provided mainly on a fee basis, at the expense of private insurance and citizens' own funds. There is no unified system of state health insurance.</td>
</tr>
<tr>
<td>Advantages/ disadvantages</td>
<td>Free and public accessibility, planned development, preventive orientation</td>
<td>The most technologically advanced and operational, allowing for a number of funding sources</td>
<td>The least accessible to the population, with little focus on prevention, but at the same time the most dynamic and technologically advanced due to the pronounced competition between healthcare providers</td>
</tr>
<tr>
<td>Countries, where the model prevails</td>
<td>United Kingdom, Ireland, Denmark, Portugal, Italy, Greece, Spain</td>
<td>Germany, France, Japan, Canada, Netherlands, Austria, Belgium, Switzerland</td>
<td>USA, Israel</td>
</tr>
</tbody>
</table>

Source: compiled by the authors
can allocate to healthcare, occupational safety and health, and improvement of the environment and living conditions, which will lead to better health, lower morbidity, lower mortality and disability rates, and an increase in the period of active working life.

One of the key elements of social and economic development of a society is healthcare. The effectiveness of healthcare as a service industry lies in the fact that by protecting and restoring human health, which is the main component of the society’s productive forces, it contributes to the growth of the country’s national income and the welfare of the people. This is the most important contribution of healthcare to the economy.

One of the consequences of healthcare activities is a change in the economic situation of healthcare workers. The economic performance of healthcare institutions in general depends on the quantity and quality of their labor. A modern doctor should consider his work not only from a professional point of view, but also from an economic one, understanding the issues of public, insurance and private financing of medicine, pricing, etc. Knowledge of economic laws is necessary in the work of practicing physicians, since in a market economy they are sellers of medical services, choosing rational schemes for examination and treatment of patients. A doctor should be able to assess the economic efficiency of his activities in medical and other healthcare institutions, facilities and organizations.

3. Manifestations of corruption in the healthcare system

According to Transparency International, which annually determines the Corruption Perceptions Index (CPI), Ukraine received 32 points out of 100 in 2021 (122nd place out of 180 countries in the CPI) (Corruption Perceptions Index, 2021). “Taking into account even this index, we can understand corruption as a phenomenon that has become not only criminal, but also, unfortunately, social.” (Corruption in the medical sector..., 2018) And this is despite the fact that a decrease in the Corruption Perceptions Index score leads to capital outflows from the country (one point equals 0.5% of the country’s gross domestic product).

In 2021, the Sociological Group "Rating" conducted a survey among the population of Ukraine (aged 18 and older), according to which 21% of respondents identified bribery and corruption as the main problematic issues in the healthcare sector (Sociological Group "Rating", 2021). Over 70% of respondents confirmed that they had been involved in corrupt practices at least once (Table 2).

As can be seen, the initiators of the vast majority of corruption situations are healthcare workers who provide medical services. At the same time, as I. S. Demchenko, corruption exists not only in the public sector... the private sector is also an active participant in corrupt relations (Corruption in the medical sector ..., 2018). However, according to the study of Anishchenko M. A., the created special anti-corruption body – the National Agency for the Prevention of Corruption (NAPC) ensures the organization of work "in state healthcare institutions, recommends the establishment of these institutions in municipal healthcare institutions and does not regulate the issue of anti-corruption activities in private healthcare institutions at all" (Anishchenko, 2019).

O. I. Bilyk and O. V. Novikova in modern conditions, corruption in the field of medicine is divided into the following main levels: 1) from a patient to a doctor or other healthcare worker; 2) within a hospital – from employees of medical institutions to hospital management; 3) at the state level in relation to public procurement of medicines; 4) within the corruption of the system as a whole. The main reasons for the flourishing of corruption schemes are economic: low funding of medical institutions, mismatch between the remuneration of doctors and the difficulty of their work, high costs of medical education, and the need to spend money on improving the quality of knowledge in the field of medicine (Bilyk, Novikova, 2016).

Table 2

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<tr>
<th>The most common corruption situations</th>
<th>On one’s own initiative</th>
<th>On request</th>
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<tbody>
<tr>
<td>1. Medical services for patient treatment, surgeries</td>
<td>21,7%</td>
<td>69%</td>
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<tr>
<td>2. Improving the conditions of inpatient stay in a medical facility</td>
<td>19,6%</td>
<td>70,4%</td>
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<tr>
<td>3. Passing a medical examination</td>
<td>22,5%</td>
<td>57,6%</td>
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<tr>
<td>4. Issuing certificates, sick leave certificates</td>
<td>18,4%</td>
<td>55,2%</td>
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<tr>
<td>5. Issues related to childbirth</td>
<td>22,2%</td>
<td>57%</td>
</tr>
<tr>
<td>6. Getting the “necessary” prescription</td>
<td>16,9%</td>
<td>56,1%</td>
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<tr>
<td>7. Obtaining COVID-certificate of vaccination without vaccination; certificates of negative results of the PRL test</td>
<td>14,9%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Source: based on the survey conducted by the Sociological Group Rating “Assessment of the Healthcare Sector in Ukraine” (March 24-28, 2021)
This research is based on the assumption that corruption in the healthcare sector is not a separate, independent process, but an element of the overall corruption system. Therefore, the growth of corruption both within the state and in a particular sector leads to the following economic consequences: inefficient distribution and use of public funds and resources, growth of the shadow economy (over 50%), blocking of foreign investment, etc. Moreover, with the total shadowing of economic processes, corruption can become a structuring element of public administration.

According to experts, one of the main reasons for the emergence and existence of the shadow economy in Ukraine is low wages and high payroll taxes. For $1 in hourly wages, an average Ukrainian worker produces about 3 times more GDP than a similar American worker. This indicates unfair exploitation of hired labor. For a meager salary, our employees are forced to buy goods and services at world prices (Predborskyi, 2009).

It is clear that corruption cannot be completely eliminated, but it can and should be fought by implementing a system of administrative, organizational and legal measures. Thus, in each area of the shadow economy, it is necessary to look for different ways of unshadowing, because the specificity of the industries does not allow everything to be brought under the same standards. In the healthcare sector, such measures may include: creation of information websites where every citizen can get acquainted with the current legislation, existing programs, a list of free and paid services, etc.; organization of a telephone multichannel hotline for various issues, reports of corruption, etc.

In the functioning of the healthcare system, it is possible to distinguish its components and directly related activities where the likelihood of potential corruption risks is quite high. In particular, these include: the regulatory framework for the organization and implementation of activities in the healthcare sector; activities of public authorities, officials, medical and other personnel of healthcare institutions; public procurement. As can be seen, it is the last item that is closely related to the economic system of the state.

Public procurement is an important tool for solving particularly important social and economic tasks. The legal regulation of public procurement in Ukraine is carried out by the Law of Ukraine "On Public Procurement" of 15.12.2015, which defines the legal and economic principles of procurement of goods, works and services to meet the needs of the state, hromadas and amalgamated hromadas... in order to ensure efficient and transparent procurement, create a competitive environment in the field of public procurement, prevent corruption in this area, and develop fair competition (Law of Ukraine "On Public Procurement", 2015).

Healthcare is one of the largest procurement segments in Ukraine: in 2023, the state budget is expected to allocate more than 8.2 billion UAH for the procurement of medical equipment, medicines, etc. (Public procurement, 2023).

When determining the optimal model of state regulation of prices for the main subject of procurement in the healthcare sector, it is necessary, first of all, to ensure the balance of public and private interests in economic relations, as well as to eliminate grounds for corruption abuse by public authorities. In other words, the search for compromises and differentiations between regulation and deregulation, which are the driving forces behind the development of an efficient, multi-structured economy, deserves attention. Since the level of prices for medicines, medical devices, medical equipment, medical and social services determines the amount of public funds spent and the volume of goods and services purchased in kind in economic procurement relations, regulatory measures will eliminate the practice of uncontrolled, often unjustified price increases by procurement participants, reduce the likelihood of procurement at inflated prices, and promote the availability of healthcare for citizens.

Despite all the imperfections and shortcomings in the electronic tender system, experts agree that e-tendering can significantly reduce corruption in the tender sector (Krupytska, 2008).

4. International experience of fighting corruption in the healthcare sector: aspects to be adopted

Corruption in the healthcare sector, which directly affects the decline in economic development, is not a unique Ukrainian phenomenon. The healthcare sector in the vast majority of countries is considered one of the most corrupt institutions of the state apparatus (10 to 25% of public procurement costs are lost due to corruption) (Pashkov, 2019). In particular, according to Medicare, 243 people were prosecuted for corruption in the United States during the year. The most common corruption crimes include overbilling for medical services, performing procedures without clinical indications, kickbacks, and abuse of relationships with the industry (Nesterenko, 2020). According to the European Commission, which monitored corruption risks in the healthcare sector, the main cases that increase the level of corruption risks in the healthcare sector include: bribery in the provision of medical
services; corruption (in public procurement, marketing relations, reimbursement of medicines); and abuse of office (International Experience in Combating Corruption in the Security Sector: Implications for Ukraine, 2015).

An analysis of international experience in preventing and combating corruption shows that there is no single approach. Only a combination of strategy and best international practices can be effective. The US system of combating corruption in the healthcare sector based on the principle of health insurance (which ensures transparency of payments and all payment transactions made by doctors and transferred to healthcare institutions) is noteworthy. This system also helps to prevent corruption risks when prescribing “unnecessary procedures” (the doctor provides recommendations that are authorized by the insurance company; the insurance company analyzes their feasibility and only then approves them) (Nesterenko, 2020). Thus, questionable recommendations of doctors are excluded from the list.

The experience of the Federal Republic of Germany (FRG) is also interesting for implementation (the functions of preventing and detecting corruption are assigned to general public administration bodies), which, unlike Ukraine, does not fight corruption but prevents it. Among the main tasks of Germany in this area is the destruction of the financial base of criminal groups (confiscation of property and creation of an appropriate regulatory framework). Banking institutions are obliged to provide law enforcement with information on transactions with money in excess of 20 thousand DM. Germany has also created a register of corrupt companies (a company that is included in such a register will not only be immediately deprived of the right to fulfill any government orders, but will also be subject to additional attention from law enforcement agencies).

The approach to preventing corruption is also applied in Denmark, which, according to the Global Competitiveness Index, has been ranked first among the countries with the lowest level of corruption for several years. In particular, in Denmark, the policy of preventing corruption is a key component of the de-shadowing of economic relations at many levels (the activities of all authorities are aimed at preventing corruption in various sectors of the economy. For example, the Danish International Development Agency (DANIDA) obliges legal entities that are members of this association to include "anti-corruption clauses" in foreign trade contracts, and an additional condition is the signing of a declaration of non-corruption. In addition, the parties sign a non-bribery pledge in declarations for each transaction in all institutions. Special anti-corruption employment contracts are concluded, according to which the employee undertakes not to accept or offer bribes. In case of violation of these conditions, the employer may dismiss the employee by making a note in the personal file or in the characteristic, which will inform the company about the person who was found to have engaged in corrupt practices (Who is better at fighting corruption? The leading countries, 2021).

5. Economic instruments to combat corruption in the healthcare sector

The study of corruption risks in the healthcare sector from an economic perspective primarily concerns the following components: public procurement, export/import of medical products;

Table 3

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<tr>
<th>Economic instruments to combat corruption in the healthcare sector</th>
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<td><strong>Part of the healthcare system</strong></td>
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<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Public procurement</td>
</tr>
<tr>
<td>Export/import of goods</td>
</tr>
<tr>
<td>Insurance</td>
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<tr>
<td>Social security</td>
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Source: compiled by the authors
health insurance; social security of employees, etc. Based on the research of domestic and foreign experts, as well as on personal experience, it is possible to outline economic instruments for combating corruption in each of these components (Table 3).

6. Conclusions

To sum up, further effective development of the national economy is impossible without overcoming corruption, which today has a rather pronounced and well-established structure. Corruption undermines the state's economic policy and creates the basis for the growth of the shadow economy. Corruption is a threat to the economic security of the state, which makes it impossible to achieve the set goals. The main consequences of corruption in the healthcare sector on the country's economy include the following: expansion of the shadow economy, violation of competitive mechanisms, inefficient use of budget funds in the distribution of public contracts and services, price increases due to "corruption costs", and deterioration of the investment climate. Therefore, the key task of the state anti-corruption policy in the healthcare sector is to develop and implement mechanisms for detecting, preventing and eliminating conditions that facilitate the emergence and spread of corruption.

In recent years, Ukraine has taken significant steps to improve the existing and adopt a new regulatory framework governing issues related to corruption, including in the healthcare sector (a special Law of Ukraine "On Prevention of Corruption", a number of articles of the Code of Administrative Offenses and the Criminal Code of Ukraine that establish legal liability for corruption-related offenses and crimes).

Effective work to overcome corruption in the healthcare sector requires a multi-faceted state anti-corruption policy using economic, legal, administrative and social means.

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