THE IMPACT OF THE CRISIS ON THE MECHANISMS OF PUBLIC MANAGEMENT IN THE FIELD OF HEALTH CARE: AN OVERVIEW OF THE PROBLEM

Abstract. This article examines the impact of the crisis caused by the Russo-Ukrainian war on the transformation of public administration mechanisms in the health care sector. The paper states that war, as a factor of societal crisis, significantly influences all aspects of social life, causing profound changes in social, economic, political, and cultural spheres. The negative consequences of the war are manifested in the destruction of medical infrastructure, loss of human capital, increased expenses, decreased accessibility and quality of medical care, disruption of normal functioning of management institutions and national services, as well as psychological and social discomfort among medical workers and citizens. However, despite these negative consequences, the crisis situations arising from the war also stimulate the search for and implementation of new approaches in management, which can help overcome challenges and adapt to changed living conditions. The article presents the structure of public administration mechanisms in the health care sector. The author argues against the unequivocal definition of state administration mechanisms as identical to those of public administration. The author emphasizes the uniqueness that characterizes both the health care sector and the field of public administration and proposes that public administration mechanisms in the health care sector should include: strategic planning, normative-legal provision, financing and budgeting, organization of medical services provision, monitoring and evaluation, quality and safety assurance of medical aid, promotion of a healthy lifestyle, public participation in decision-making, use of innovative technologies, international cooperation, personnel training and development, and ethical-legal mechanisms. The article presents statistical data characterizing the critical condition of the health care sector caused by the Russo-Ukrainian war, based on which the author systematically addresses challenges in the health care sector under war conditions. Relying on the analysis of statistical data, sociological research, and management experience, the author substantiates ways to transform public administration in the health care sector, the main ones being: raising requirements...
for leadership and management skills; flexibility and adaptability in management; increasing transparency and communication; decentralization of management decisions; development and implementation of readiness plans for crises; risk assessment and management; post-crisis analysis; integration of different sectors of society; use of information technologies; integration of international experience and development of international cooperation.

Keywords: crisis, crisis phenomena, mechanisms of public administration, health care sector, changes, Russo-Ukrainian war.

Заславський Дмитро Юрійович аспірант кафедри соціально-гуманітарних наук, Національний університет «Одеська політехніка», проспект Шевченка, 1, м. Одеса, 65044, тел.: (096) 305-03-29, https://orcid.org/0009-0003-0900-8500

ВПЛИВ КРИЗИ НА МЕХАНІЗМИ ПУБЛІЧНОГО УПРАВЛІННЯ СФЕРОЮ ОХОРОНИ ЗДОРОВ’Я: ОГЛЯД ПРОБЛЕМИ

Анотація. В статті досліджується вплив кризи, спричиненої російсько-українською війною на трансформацію механізмів публічного управління сферою охорони здоров’я. В статті констатовано, що війна як фактор суспільної кризи накладає значний вплив на всі аспекти суспільного життя, викликаючи глибокі зміни в соціальній, економічній, політичній та культурній сферах. Негативні наслідки війни маніфестуються у руйнуванні медичної інфраструктури, втраті людського капіталу, зростанні витрат, зниженні доступності та якості медичної допомоги, порушенні нормального функціонування інститутів управління та національних служб, а також у психологічному та соціальному дискомфорті медичних працівників і громадян. Однак, попри ці негативні наслідки, кризові ситуації, що виникають внаслідок війни, також стимулюють пошук та впровадження нових підходів в управлінні, які можуть сприяти подоланню викликів та адаптації до змінених умов життя. В статті наведена структура механізмів публічного управління сферою охорони здоров’я. Автором висловлюється аргумент проти однозначного визначення механізмів державного управління як ідентичних механізмам публічного управління. Автор наголошує на унікальнісці, яка характеризує як сферу охорони здоров’я, так і сферу публічного управління, і висуває думку, що до механізмів публічного управління сферою охорони здоров’я мають бути включені: стратегічне планування, нормативно-правове забезпечення, фінансування і бюджетування, організацію надання медичних послуг, моніторинг та оцінка, забезпечення якості та безпеки медичної допомоги, популяризація здорового способу життя, громадська участь у прийнятті рішень, використання інноваційних технологій, міжнародна
співпраця, підготовка і розвиток кадрів, етично-правовий механізм. В статті наведені статистичні дані, які характеризують критичний стан сфери охорони здоров’я, спричинений російсько-українською війною, на основі чого автором систематизовано виклики в сфері охорони здоров’я в умовах війни. Опираючись на аналіз статистичних даних, соціологічних досліджень та управлінського досвіду, автор обґрунтовує шляхи трансформації публічного управління сфери охорони здоров’я, основними з яких є: підвищення вимог до лідерства та управлінських навичок; гнучкість та адаптивність управління; збільшення транспарентності та комунікації; децентралізація управлінських рішень; розробка та імплементація планів готовності до криз; оцінка ризиків та управління ними; посткризовий аналіз; інтеграція різних секторів суспільства; використання інформаційних технологій; інтеграція міжнародного досвіду і розвиток міжнародної співпраці.

Ключові слова: криза, кризові явища, механізми публічного управління, сфера охорони здоров’я, зміни, російсько-українська війна.

Problem statement. Research on the impact of crises on public administration mechanisms in the health care sector plays a crucial role in developing effective response strategies and adapting to unpredictable changes that threaten the stability and efficiency of the health care system. Amidst Russian aggression and constant changes in the geopolitical environment, as well as the intensification of socio-economic and environmental global challenges, health care crises can take various forms, depending on their causes, scale, duration, and impact on the population's viability and access to medical services.

The fundamental importance of this research lies in identifying and analyzing the changes that crisis situations introduce to traditional management mechanisms, decision-making processes, resource allocation, and interactions between different levels of management and stakeholders. This includes assessing the health care system's ability to adapt to extreme conditions while ensuring the continuity and quality of medical services.

Analyzing the impact of crises helps to identify weaknesses and vulnerabilities in health care systems and promotes the development of strategies to eliminate or minimize them through innovative approaches, the introduction of cutting-edge technologies, and the improvement of the legal framework. Moreover, the study contributes to understanding the role of the public and its participation in public administration processes, which can significantly enhance the effectiveness of crisis response and the recovery of the health care system.

Analysis of recent research and publications. Various aspects of the impact of crisis phenomena on changes in the public administration system of the health care sector have been explored in the works of scholars such as M.M. Bilynska [2],
Objective. To investigate the impact of crisis phenomena on public administration mechanisms in the health care sector under contemporary challenges.

Presentation of the Main Material. In modern science, a crisis is understood as rapid unstable development of a system, accompanied by the emergence and disappearance of structures, alternation of stages of organization, order, consolidation, integration of system elements, and stages of their destruction, chaos, and disappearance.

In the Ukrainian language dictionary, a crisis is defined as «a sharp change in the usual state of affairs; a breakdown, an exacerbation of the situation» [8].

Most domestic scholars interpret a crisis as «a serious threat to the basic structures or fundamental values and norms of the system, which under conditions of limited time and unpredictable circumstances necessitates emergency decisions» [7, p.95]. And, since «the mechanism of public administration in the health care sector represents a system of strategic and tactical goals of the state's socio-economic policy, methods, bases, principles, instruments, functional subsystems (target, supporting, evaluative), by means of which the adjustment of the interaction of subjects of the institutional structure of health care is carried out to achieve socially significant results of their activity» [10, p.52], it follows that public administration mechanisms in the health care sector are of significant importance in responding to crisis situations that threaten the population's health and the socio-economic well-being of the state. As crises often come with rapid changes in conditions and a high level of uncertainty, the presence of flexible yet structured management mechanisms that can adapt to changing circumstances and provide an effective response to crisis phenomena is crucial. Responding to crises often includes reallocating resources, activating interdepartmental interaction, and engaging additional expert knowledge. Such an approach requires a high level of coordination, promptness, and flexibility in decision-making from public administration bodies.

In domestic scientific literature, there has long been a conflation of the structures of state and public management mechanisms. According to Radchuk T.M., public administration mechanisms are political, economic, organizational, motivational, and legal means through which the managing subject (public authorities and local self-government bodies) influences the objects of management. This structuring completely coincides with the view of most scholars on the mechanisms of state administration [12, p.125].

Our view, although both concepts often overlap in practical application, there are important differences between them (Table 1).
### Table 1.

<table>
<thead>
<tr>
<th>Area of Differences</th>
<th>State Administration</th>
<th>Public Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope of Application</strong></td>
<td>Focused on the activities of state authorities and their structural units, which carry out management activities within the executive branch. It is aimed at implementing laws, regulatory acts, and policies within the state.</td>
<td>Has a broader scope of application and encompasses not only the activities of state bodies but also interaction with civil organizations, the private sector, non-profit organizations, etc. This term includes a wide range of measures aimed at meeting social needs and interests.</td>
</tr>
<tr>
<td><strong>Methodology and Tools</strong></td>
<td>Traditionally relies on hierarchical power structures, formal procedures, and normative-legal regulation. Its toolkit includes legislative acts, administrative decisions, control, and supervision.</td>
<td>Uses more flexible approaches and innovative management methods, such as partnerships between the state and the private sector, public participation in decision-making, openness and transparency in management, efficiency, and effectiveness.</td>
</tr>
<tr>
<td><strong>Management Objectives</strong></td>
<td>Focused on ensuring stability, law and order, protecting the rights and freedoms of citizens, and realizing national interests.</td>
<td>Aims to ensure the effectiveness of management decisions and a high level of satisfaction of social needs, implementation of democracy principles, accountability to the public, as well as stimulating public participation in management.</td>
</tr>
<tr>
<td><strong>Responsibility and Accountability</strong></td>
<td>Characterized by a vertical system of responsibility, where responsibility is distributed from lower to higher levels of the power hierarchy. Accountability entails compliance with legislation and internal regulations.</td>
<td>Promotes a more horizontal distribution of responsibility, with an emphasis on involving stakeholders and accountability to the public. This includes transparency in decision-making processes and active citizen participation in the oversight of management activities.</td>
</tr>
<tr>
<td><strong>Public Participation</strong></td>
<td>Traditionally relies less on direct citizen participation in decision-making, focusing more on the implementation of existing policies and legislation.</td>
<td>Actively promotes the involvement of citizens and civil organizations in discussions, policy formation, and oversight of management activities. This is aimed at increasing the legitimacy of management decisions and ensuring they meet the real needs of society.</td>
</tr>
</tbody>
</table>

Public administration mechanisms in the health care sector encompass a wide range of tools, methods, principles, and approaches applied to ensure effective
organization of medical services, disease prevention, improvement of the population's quality of life, and response to public health threats.

In the scientific-analytical report «Institutionalization of Public Administration in Ukraine», a team of authors notes that the mechanism of public administration in the health care sector «is a set of national decisions or commitments regarding the protection and improvement of the physical and mental health and social welfare of the population, which is an important component of their national wealth, protection of the gene pool of the Ukrainian nation» [2, p.21].

Based on this, the impact of a crisis should be considered with respect to the functioning of the following public administration mechanisms in the health care sector:


2. Normative-legal regulation - establishing a normative-legal base for regulating the activities of health care entities, ensuring the quality of medical services, protecting patients' rights, and controlling compliance with medical standards.

3. Financing and budgeting - providing financial resources for the health care system through the state budget, insurance, private contributions, etc., as well as the effective allocation of these resources among different levels of medical care and institutions.

4. Organization of medical services - development and implementation of medical service organization models, which include primary, specialized medical care, rehabilitation, emergency medical assistance, etc.

5. Monitoring and evaluation - systematic collection and analysis of data on the population's health status, the quality of provided medical services, and the effectiveness of resource use with the aim of evaluating the health care system's goals achievement and improving its activities.

6. Ensuring quality and safety of medical care - development and implementation of standards and protocols for medical services, certification of medical institutions and professionals, accreditation of facilities, monitoring of treatment side effects and medical errors.

7. Promotion of a healthy lifestyle - implementation of educational programs aimed at informing the population about the importance of disease prevention, proper nutrition, physical activity, avoiding harmful habits, etc.

8. Cooperation with the private sector and civil organizations - involvement of non-governmental institutions, charitable foundations, volunteer organizations in cooperation in the health sector to expand access to medical services and improve their quality.
9. Innovation and the use of new technologies - implementation of digital solutions, such as electronic medical records, telemedicine, artificial intelligence in diagnostics and treatment, contributing to the efficiency and accessibility of medical care.

10. International cooperation and experience exchange - participation in international programs, cooperation with international health organizations to exchange knowledge, experience, and best practices in health care.

11. Training and development of personnel - ensuring an education system and professional development of medical workers, including training, qualification improvement, specialization, and residency to prepare highly qualified specialists in the health sector.

12. Ethical-legal mechanisms - ensuring compliance with ethical norms and rules in medical practice, protecting patients' rights, confidentiality of medical information, and preventing discrimination in providing medical services.

These mechanisms together form a comprehensive approach to health care management, aimed at ensuring quality, accessible, and effective medical assistance to the population, strengthening community health, and improving people's quality of life.

Crises require public administration to implement extraordinary measures, often under conditions of limited resources and increased attention from the public and media. The impact of crises on public administration can be viewed through the prism of:

1. Increased demands on leadership and management skills. Crisis situations require strong leadership capable of quickly assessing the situation, making decisions, and motivating the team for effective interaction.

2. The necessity for adaptability. Crisis conditions often require deviation from standard procedures and the search for new, innovative solutions to emerging problems.

3. Strengthening cooperation between different levels of government and sectors of society. Effective crisis response often depends on coordinated work between government agencies, the private sector, non-profit organizations, and civil society.

4. Increasing transparency and communication. In crisis conditions, it is important to maintain open dialogue with the public, provide access to current and reliable information, and ensure feedback.

5. Developing and implementing crisis preparedness plans. Preparation for potential crisis situations through the development of comprehensive action plans and conducting drills helps to mitigate the negative effects of a crisis.

6. Risk assessment and management. Identifying potential risks, evaluating their probability and impact, and developing strategies to minimize or manage them is an important part of public administration.
7. Post-crisis analysis and conclusions. Detailed post-crisis analysis of actions and decisions taken during the crisis to evaluate the effectiveness of the measures taken and make adjustments to preparedness and future management plans. This promotes organizational learning and strengthens the resilience of the public administration system.

8. Development and use of digital technologies for crisis management. Digital technologies, information systems, and social media can significantly improve crisis response efficiency by simplifying data collection, situation analysis, resource allocation, and communication with the public.

9. Integration of international experience and cooperation. Crises often transcend national borders, so exchanging experiences, international cooperation, and coordination of actions at the international level are necessary for effective management and overcoming common challenges.

Overall, crises reveal the need for continuous development and adaptation of public administration systems, highlight the importance of a proactive approach to risk management and preparedness for unforeseen events, and reinforce the value of solidarity, cooperation, and collective responsibility in society.

The Russo-Ukrainian war has a significant impact on strategic planning and decision-making in Ukraine's health care sector, exacerbating existing challenges and creating new ones. This war has led to a series of serious consequences for the health care system, requiring comprehensive analysis and response at various levels of management.

Given the uncertainty and justified confidentiality of some official statistical data, we can only analyze statistics for the first year of the war. According to the expert community, as of February 2023, more than 200 medical facilities in Ukraine have been destroyed, and 1218 have been damaged. Specifically, 540 hospitals have been partially destroyed, 173 completely, and 593 pharmacies have also been damaged. At least 98 people have died, and 134 have been injured, including approximately 18 deceased medical workers and 56 seriously injured [1].

According to the Ministry of Economy and the KSE Institute, as of December 2022, the total direct documented damages to Ukraine's infrastructure due to the full-scale invasion reached $137.8 billion (replacement cost), with direct damages from the destruction or damage of health care facilities amounting to $1.7 billion. The Ministry of Health estimates that rebuilding Ukraine's health care system will require between 14.6 to 20 billion euros [14].

According to the International Organization for Migration (IOM) as of August 2022, over 10 million people have become displaced: about 6.5 million internally displaced persons (IDPs), and another 4 million have left Ukraine [13].

Not only patients but also doctors moved to other regions or left the country due to the war, which also affected the medical system's operation. Primarily, this
led to the redistribution of specialists within the country, with a large number of internally displaced medical workers finding employment in other cities. In the first three months of the war (compared to the previous three), there was a sharp demand for doctors in Lviv, Ivano-Frankivsk, and Dnipro, i.e., in the regions of the largest population migration from the occupied territories. Western Ukraine was oversaturated with specialists at the beginning of the war, while the East and South, along the front line, observed, and still observe, a shortage of medical workers.

According to the Ministry of Health, the problem of a critical shortage of doctors for Ukraine is currently not present, as a significant outflow of specialists has not been observed, with only 1% of medics having left the country [9]. Moreover, there is now a potential opportunity to attract foreign medical workers willing to work in Ukraine on a voluntary basis. This possibility has been provided according to the Law of Ukraine of 29.07.2022 No. 2494-IX "On Amendments to Some Laws of Ukraine Concerning the Improvement of Accessibility of Medical and Rehabilitation Assistance During the Period of Martial Law." However, such a step should be considered only as auxiliary, as the state's policy should not only aim at resource provision for the sector but primarily at stabilizing the sector's labor market by offering comprehensive support for the employment of internally displaced persons, including medical workers. Furthermore, it is anticipated that foreign specialists will only provide medical services on a temporary basis, which will soon require a return to addressing the staffing issue in the health care sector.

As of the end of September 2022, 4,050 internally displaced medical workers have taken the opportunity to find employment in another medical facility. The majority of them were registered in Dnipropetrovsk, Kharkiv, and Poltava regions. The Ministry of Health also created a job search portal for medical workers. However, the available vacancies mostly concern doctors. However, there is a lack of current information about the exact number of medical workers available in the country, as such an account is not centrally and systematically conducted under war conditions [14].

The WHO emphasizes the importance of restoring the personnel resources of the health care sector, recommending the development of personnel policy considering the return of medical staff, as well as the creation of a digital register of medical workers [11].

The motivation of medical workers needs improvement against the backdrop of increased demand for medical services. Specifically, this concerns establishing competitive remuneration. The issue is especially relevant due to the systemic problem of a shortage of junior medical staff throughout all the years of Ukraine's independence and considering the increased workload on the health care sector during the war [14].
Addressing the staffing issue should be directed not only at preserving the existing potential but also at training medical workers for the needs of wartime and post-war periods, especially in the fields of physical rehabilitation and mental health provision [9].

The challenges faced by the health care sector in wartime conditions can be systematized as follows:

1. Accessibility and quality of medical care. The war leads to a significant increase in the number of people needing medical care, creating additional strain on existing medical facilities, which may already suffer from a deficit of resources and personnel. Due to the aforementioned challenges, the quality of medical services may significantly deteriorate. A shortage of medical workers, limited resources, and an overburdened system can lead to lower care standards, delays in providing medical assistance, and an increased risk of medical errors. In wartime, services providing specialized treatment, such as oncological support, psychiatric help, and rehabilitation, become particularly vulnerable. Limited access to such services can have long-term consequences for public health. Destroyed infrastructure, deteriorated sanitary conditions, and high concentrations of people in temporary shelters or refugee camps can contribute to outbreaks of infectious diseases. This poses a challenge for the health care system to ensure vaccination, monitoring, and disease control. Internally displaced persons and refugees may face difficulties accessing medical care in their new places of residence. There is a need to adapt medical systems to serve a large number of displaced persons, providing them with medications, vaccination, and specialized medical care.

2. Resource reallocation. The war requires the redistribution of financial, material, and human resources. A significant portion of health system resources was directed towards meeting urgent needs, such as treating the wounded, psychological support, and medical service for internally displaced persons. This has impacted the health care system's ability to provide routine services to the population.

3. Stress on medical personnel. The war creates significant psychological and physical stress for medical workers operating in extreme conditions. This requires health authorities to take measures to support and maintain the well-being of medical personnel, including through psychological support and rotation to prevent burnout.

4. Adaptation to changing population needs. The war causes changes in the population's medical service needs, especially with an increase in injuries, psychological disorders, and chronic diseases due to stress and worsening living conditions.

5. Infrastructure challenges. Military actions have led to damage, destruction, and elimination of medical infrastructure, including hospitals, primary health care centers, laboratories. Rebuilding such infrastructure and ensuring uninterrupted access to medical services in or near conflict zones presents a significant challenge.
The development of mobile medical teams and the use of field hospitals have become part of the response to this challenge.

6. Mental health and psychosocial support. An increase in mental disorders, including post-traumatic stress disorder, depression, and anxiety among civilians and military personnel, necessitates a significant expansion of mental health services and psychosocial support. This requires the health care system to integrate psychiatric help into primary medical care and develop specialized support programs.

7. Provision of medications and medical supplies. Logistical challenges caused by military actions can complicate the supply of medications and medical materials, especially to besieged or hard-to-reach areas. Strategic stockpiling planning, diversification of suppliers, and the use of alternative delivery routes become key elements in ensuring the continuity of treatment.

8. International cooperation and humanitarian aid. Support from the international community through humanitarian aid, medical missions, and health care cooperation is critically important for supporting the health care system of a country experiencing war. International organizations and foreign governments can provide not only financial but also technical support, sharing knowledge and experience.

9. Long-term strategic planning. Considering the potentially prolonged nature of the military conflict and its consequences, it is necessary to develop a long-term strategy for the recovery and development of the health care system. Plans and the Health Care Sector Development Strategy were developed by the Ministry of Health on the eve of the war. However, the war has made its adjustments to the plans for gradual development. Now, the strategy requires not only the restoration of infrastructure and services but also the modernization of the health care system, implementation of innovative approaches to medical care, upgrading the qualifications of medical personnel, and ensuring access to medical services for all segments of the population, especially for vulnerable groups, and incorporating the unique experience Ukraine has in conducting modern warfare and organizing medical services under these conditions.

10. Accounting for the socio-economic consequences of the war and strengthening intersectoral cooperation. Strategic planning in the health sector should also take into account the socio-economic changes caused by the war, including increased poverty, unemployment, internal displacement of the population, and other factors that may negatively affect the population's health. Effective social programs aimed at supporting vulnerable groups and reducing poverty are important for ensuring overall well-being and public health. The challenges posed by the war to the health care system require close interaction between different sectors of society, including education, social protection,
economy, infrastructure, and defense. The development and implementation of intersectoral programs can contribute to a comprehensive approach to addressing health care and social welfare issues.

Considering the multitude of challenges that the war presents to the country and its population, it is crucial to ensure adequate funding not only for direct military needs but also for meeting basic humanitarian needs, such as medical care, housing, nutrition, education, and psychosocial support. This includes support for internally displaced persons, treatment of the wounded, rehabilitation, and other services that will help ensure the recovery of the population and the country's economy in the post-conflict period.

Ensuring transparency in resource utilization, engaging the public in discussing funding priorities, and strong coordination among all stakeholders, including the government, non-profit organizations, the private sector, and civil society, are key success factors in adapting financing mechanisms and resource provision to meet the challenges arising in wartime conditions.

It is also necessary to ensure adequate funding for science and innovation to develop new technologies and methods for solving problems arising from military actions. This may include developing new medical technologies, methods for reconstructing destroyed infrastructure, and improving communication and information systems to support coordination of actions and crisis response.

Considering all these aspects, strategic planning and decision-making in the health sector in the context of the Russo-Ukrainian war require a comprehensive approach capable of adapting to rapidly changing circumstances. Such an approach requires not only responding to the immediate needs caused by the war but also planning for future development and strengthening the health care system's resilience to future challenges [15].

Conclusions. The impact of the war on the quality and accessibility of medical services has profound and lasting dimensions. From infrastructure damage and medical personnel deficits to changing medical priorities and increasing needs for psychosocial support—the challenges are significant. Effective response to these challenges requires a flexible approach, integration of efforts at all levels of management, and active international support. It is important to provide not only immediate assistance and support in wartime conditions but also to plan long-term strategies for recovery and development of the health care system to ensure its resilience to future challenges.

References:
1. Andreasian H. (2023). Medytsyna pid viini: z yakymy vyklykamy styknulasia medychna syste-
y-medichna-sistema [in Ukrainian]


Література:
3. Гавриченко Д.Г. (2022). Теоретичні підходи реформування механізмів публічного управління у сфері охорони здоров’я. Публічне управління та регіональний розвиток. №1. 68-85. DOI: 10.34132/pard2022.15.03
8. Криза. Словник української мови. URL: https://slovnyk.ua
