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**FORMATION OF CLUSTERS OF MEDICAL INSTITUTIONS AS
AN ADMINISTRATIVE TOOL OF MANAGEMENT IN THE
INDUSTRY OF HEALTH CARE IN THE CONDITIONS OF
DECENTRALIZATION**

The health care management system involves the application of administrative methods of managing medical facilities, which are a tool of state regulation in the field of health care. The transformation of the health care system through medical reform is aimed at providing citizens of Ukraine with equal access to quality medical services and reorienting the system so that the patient is at its center. The article examines the management of health care institutions in the process of reform, finds out the relevant issues of the infrastructural stage of the medical reform and the effective functioning of medical institutions in conditions of decentralization. Attention is focused on the transformation of the health care system in the form of the formation of clusters of medical institutions, which is proposed by the Ministry of Health of Ukraine and aims to improve the quality and availability of medical care through the creation of a new network of medical institutions in accordance with the principle of hospital districts. The structure of the cluster distribution of medical institutions within the

framework of the medical reform and the characteristics of a capable network of medical institutions in the Odesa region are considered. The significance of the division of territories into hospital clusters in the process of balancing the advantages and disadvantages of decentralization and the maximum approximation to the modern European system of providing medical care is emphasized. A promising direction of further research on this issue is to solve the problem of «community hospitals», which are not included in the capable network of the hospital district (region) and, due to uncertainty, create a risk of reducing the availability and quality of medical care for residents of territorial communities.

Keywords: health care, public administration, medical reform, decentralization, clusters.

ФОРМУВАННЯ КЛАСТЕРІВ МЕДИЧНИХ ЗАКЛАДІВ ЯК АДМІНІСТРАТИВНИЙ ЗАСІБ УПРАВЛІННЯ В ГАЛУЗІ ОХОРОНИ ЗДОРОВ'Я В УМОВАХ ДЕЦЕНТРАЛІЗАЦІЇ

Система менеджменту охорони здоров'я передбачає застосування адміністративних методів управління медичними закладами, що представляють собою інструмент державного регулювання у сфері охорони здоров'я. Трансформація системи охорони здоров'я шляхом проведення медичної реформи має на меті забезпечення громадян України рівним доступом до якісних медичних послуг та переорієнтації системи так, щоб у центрі її був пацієнт. У статті розглянуто управління закладами охорони здоров'я в процесі реформування, з'ясовано актуальні питання інфраструктурного етапу медичної реформи та ефективного функціонування медичних закладів в умовах децентралізації. Акцентовано увагу на трансформації системи охорони здоров'я у вигляді формування кластерів медичних закладів, яка пропонується Міністерством охорони здоров'я України та має на меті підвищення якості та доступності медичної допомоги за рахунок створення нової мережі медичних закладів згідно з принципом госпітальних округів. Розглянуто структуру кластерного розподілу медичних закладів в рамках медичної реформи та характеристику спроможної мережі медичних закладів в Одеській області. Підкреслено значення поділу територій на госпітальні кластери у процесі збалансування переваг та недоліків децентралізації та максимального наближення до сучасної європейської системи надання медичної допомоги. Перспективним напрямом подальших досліджень за цією проблематикою є вирішення проблеми «лікарень громад», які не включені в спроможну мережу госпітального округу (області) та внаслідок невизначеності створюють ризик скорочення доступності та зниження якості надання медичної допомоги мешканцям територіальних громад.

Ключові слова: охорона здоров'я, державне управління, медична реформа, децентралізація, кластери.

Formulation of the problem in general. Today, the healthcare industry in Ukraine is in a state of crisis. The main reasons for this were changes in the socio-economic system of the state; low wages of medical workers; dissatisfaction of patients and the entire society with the quality and efficiency of medical care; a long period of reform without the allocation of appropriate funds, i.e. without significant economic and political support; non-standard operating conditions of

medical institutions under martial law. The issues of transforming the network of medical facilities and increasing the efficiency of their work with the use of modern monitoring tools for making management decisions and long-term strategic planning, interaction with neighboring communities, expanding the coverage of the population and bringing the most effective types of medical care closer to people are becoming especially relevant now.

Analysis of previous research and publications. The problems of increasing the efficiency of management of health care institutions using administrative methods and their importance for the development of medical institutions and their economic growth have become the subjects of research by such scientists as: I. Yaremko [1], S. Marchenko [2], O. Martyniuk, V. Borshch, M. Danylo [8]. However, insufficient attention has been paid to the problems of effective management of medical institutions within the framework of decentralization and the formation of a capable network of health care institutions based on the cluster principle based on their roles in the hospital district.

Formulation of the goals of the article. The main goal of the article is to justify the need to increase the efficiency and ensure the sustainability of health care systems at the municipal level by implementing clustering of the structure of medical institutions in conditions of economic instability.

Presenting main material. State management in the field of health care in the conditions of the modern, non-standard situation for the functioning of medical institutions involves the use of subject-object relations with the allocation of individual functions:

- state administration in the medical field is both a tool and a form of manifestation of public interests;
- the organizational and management components of each health care institution are directly affected by changes in legislative and state mechanisms that have taken place recently;

– the objects of influence in the field of management at the state level in the field of health care are certain social relations and relations in the organizational system itself, that is, relations between various state authorities and medical institutions [1].

One of the most important measures of state management of health care institutions and the new infrastructural stage of medical reform in Ukraine is the proposed clustering of medical institutions, which takes place in emergency conditions of martial law.

The Russian invasion made significant adjustments in the life of every Ukrainian. Enormous changes did not escape the sphere of health care, a significant part of medical institutions completely suspended their activities, and some partially lost their functionality compared to the pre-war state [2].

Among the main factors that influenced the reduction of the scope of activities of health care institutions and the cessation of work during the war, it is possible to single out:

- loss of property and resources as a result of military and occupation actions;
- loss of suppliers, shortage of medical workers due to their forced relocation or mobilization;
- problems with the supply and shortage of medicines and medical products that were purchased in areas where active hostilities were taking place;
- problems with fuel supplies and power outages;
- inflation and an increase in the NBU discount rate to 25%, which affected pricing in the medical industry [3], etc. However, the Ukrainian health care system withstood the heavy load thanks to medical workers who continued to work and managers who responded to the situation in a timely and effective manner by changing the specifics of work. Despite all the difficulties, the vast majority of healthcare facilities continue their activities. Those who cannot work to the full extent try to provide medical care partially or with certain limitations. There are many cases of relocation of medical facilities to the safest regions of

Ukraine (Zakarpats'ka, Rivnens'ka, Ivano-Frankivs'ka, Volyns'ka, L'vivs'ka, Chernivets'ka, Ternopil's'ka i Khmel'nyts'ka regions). The state provides assistance with the selection of the location for the institution, transportation of equipment, purchase of medicines, drugs and medical products [4].

Due to the war in Ukraine, there was a serious displacement of the population and the relocation of medical facilities from the occupied territories, which are often located in the nearest regions.

The restoration and development of the network of medical facilities in the de-occupied territories is based on the principle of hospital clusters. The Ministry of Health and regional councils are working not only to restore the operation of hospitals in the liberated territories, but also to launch a new infrastructural stage of the reform of the health care system.

The new network of medical institutions will be created according to the principle of hospital districts and will be divided into overcluster, cluster, general and primary medical care centers. Thus, in the Odesa region, 22 hospitals were included in the hospital district. Out of them, 2 medical institutions will be designated as super-cluster, 9 more hospitals will become cluster in the region and 11 will be general (Figure).

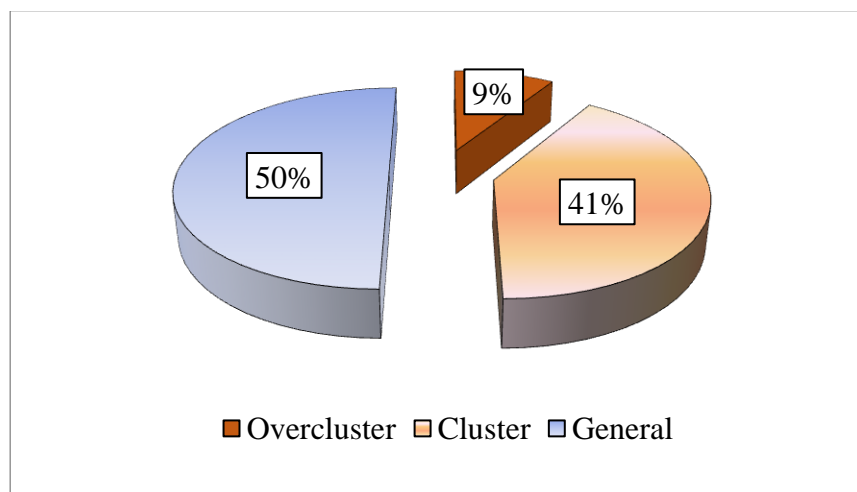


Figure. The structure of the cluster distribution of medical institutions in the Odesa region within the framework of the reform

Source: authors' development based on [5]

The advantages of this principle lie primarily in the improvement of the system of distribution of functions between health care institutions. The division of medical institutions according to the administrative principle applied earlier is a consequence of the outdated Soviet system of medicine, which involves duplicating the functions of health care institutions and providing patients with the same services of low quality, regardless of their level of complexity.

The application of the system of hospital districts provides for several levels of medical care depending on the complexity of each individual case and the severity of the patient's condition. The patient must be transported not to the nearest hospital in terms of territorial location, but to the appropriate institution that can provide the necessary type of care. Patients in the most critical condition must be transported to powerful intensive care units of the highest level with express laboratory and monitoring systems. Bringing less complex services closer to the patient and concentrating high-tech services for more difficult cases will improve the provision of medical care.

Overcluster hospitals should be equipped with the latest modern equipment as much as possible and provide the patient with the widest possible range of medical services. In a cluster medical institution, the patient will have the opportunity to receive medical services for the most common diseases. General hospitals will provide basic medical services for patients of one or more communities (table) [5].

The division of territories into hospital clusters is a means of balancing the advantages and disadvantages of decentralization: each territorial community will be assigned to a certain hospital cluster and will take into account the role of its health care institution in the work of the entire system. With the help of hospital planning, each territorial community is oriented to the place and type of medical services that the residents of the community should receive, as well as to the cases of involving the services of other communities.

Table

An efficient network of medical institutions in the Odesa region

Cluster type	Number of medical facilities	Characteristic
General Hospital	11	Will provide only basic (simplest) medical services for patients of one or more communities. The general hospital will be located at the rate of 1 medical facility per 50-80 thousand population.
Cluster hospital	9	Will provide medical assistance to the patient for the most common diseases in medium and severe cases. Cluster medical facilities will be located at the rate of 1 medical facility per 150,000 population. The travel time to such a hospital will be about an hour.
Overcluster hospital	2	Will provide medical care for the most difficult patients in the most difficult cases. The hospital will be maximally equipped with modern equipment and will have the widest range of services. In each hospital district (region) there will be 2 supercluster hospitals - adult and children's.

Source: authors' development based on [5]

Such a system is the basis of the organization of hospital networks in the countries of the European Union, where the most important indicators in the activity of the medical system are considered to be: shortening the length of stay in the hospital, reducing the number of inpatient beds, improving the results of treatment. The Ukrainian medical system of cluster distribution is also aimed at achieving these indicators, which will make it possible to get as close as possible to the modern European system of providing medical care [6, 7].

Despite the fact that the administrative reform and health care reform are focused on people's needs, the provision of safe, high-quality and affordable services, at the same time, there are significant contradictions and numerous

contradictions in both of these reforms, especially at the level of medical institutions in small towns and territorial communities.

The medical reform involves both decentralization and concentration (that is, centralization) of medical services. Due to the lack of a conceptual apparatus of «community hospitals», which are not included in the capable network of the hospital district (region), managers and owners of such hospitals are unable to determine their role and place in the model of providing medical services, evaluation tools and tools for ensuring the financial stability of medical institutions. This gradually puts them in a state of uncertainty and can cause a significant reduction in the volume of important medical services for community residents, and, as a result, a significant reduction in financial income [8]. The results of such a situation usually lead to the adoption of unjustified management decisions on the ground, reduction of the number of personnel, inhibition of other processes in medical institutions, which carries the risk of reducing the availability and quality of medical care for residents of territorial communities [9]. The number of such medical facilities – «community hospitals» with a population of 10,000 to 40,000, which are not included (according to the previously planned modeling of hospital districts) in the capable network, is more than 35%, and more than 12 million people live in their territories.

Therefore, further scientific developments in this direction should be aimed at solving the problem of community hospitals and determining their place in the process of clustering.

Conclusions. The conducted research allows us to come to a conclusion about the expediency of implementing a cluster policy in health care institutions, which is the most important step in the new infrastructural stage of the medical reform. In the conditions of clustering of the medical industry, the development and modernization of the national health care system is accelerating.

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