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**MANAGEMENT OF FINANCIAL STABILITY OF HEALTHCARE
FACILITIES IN THE SYSTEM OF GOVERNMENT PRICE
REGULATION**

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МЕНЕДЖМЕНТ ФІНАНСОВОЇ СТІЙКОСТІ ЗАКЛАДІВ ОХОРОНИ ЗДОРОВ'Я В СИСТЕМІ ДЕРЖАВНОГО РЕГУЛЮВАННЯ ЦІН

The article examines the problems of financial stability management in healthcare facilities under conditions of state regulation of prices and tariffs in Ukraine. The relevance of the study is due to the chronic mismatch between the tariffs of the National Health Service of Ukraine and the actual cost of medical services, which leads to financial deficits, personnel risks, and a decline in the quality of medical care. The purpose of the article is to substantiate the impact of state pricing mechanisms on the financial stability of healthcare facilities and to identify management approaches to ensuring it in the current socio-economic conditions.

The study uses methods of analysis and synthesis, systematic and comparative analysis, economic and logical generalization, as well as PEST analysis to assess the impact of political, economic, social, and technological factors on the functioning of healthcare facilities. The economic essence of pricing for medical services is revealed, the structure of direct and indirect costs of

healthcare facilities and the peculiarities of tariff formation in the system of state financial guarantees are analyzed.

It justifies that the application of average tariffs and the capitation financing model without taking into account the actual intensity of treatment, regional differences, inflationary processes, and military risks transforms pricing from an instrument of financial stabilization into a mechanism for containing costs. It has been proven that the capitation rate at the primary level of medical care in Ukraine performs the function of budget control rather than full reimbursement of costs, which deepens the financial gap between the needs of the system and the volume of its financing.

The consequences of the transformation of municipal non-profit enterprises into municipal non-profit associations are considered from the perspective of strategic management and social responsibility. Management approaches to optimizing the financial management of healthcare facilities are proposed, based on reasoned partnership communication with the National Health Service of Ukraine, linking funding to the real cost and quality of medical services, and taking into account the needs of the community. It is concluded that state regulation of drug prices is an important compensatory factor, but it cannot independently eliminate systemic imbalances in tariff policy in healthcare.

У статті досліджено проблеми менеджменту фінансової стійкості закладів охорони здоров'я в умовах державного регулювання цін та тарифів в Україні. Актуальність дослідження зумовлена хронічною невідповідністю тарифів Національної служби здоров'я України реальній собівартості медичних послуг, що призводить до фінансових дефіцитів, кадрових ризиків і зниження якості медичної допомоги. Метою статті є обґрунтування впливу механізмів державного ціноутворення на фінансову стійкість закладів охорони здоров'я та визначення управлінських підходів до її забезпечення в сучасних соціально-економічних умовах.

У дослідженні використано методи аналізу і синтезу, системного та порівняльного аналізу, економіко-логічного узагальнення, а також PEST-

аналіз для оцінки впливу політичних, економічних, соціальних і технологічних чинників на функціонування закладів охорони здоров'я. Розкрито економічну сутність ціноутворення на медичні послуги, проаналізовано структуру прямих і непрямих витрат закладів охорони здоров'я та особливості формування тарифів у системі державних фінансових гарантій.

Обґрунтовано, що застосування усереднених тарифів і капітаційної моделі фінансування без урахування реальної інтенсивності лікування, регіональних відмінностей, інфляційних процесів і воєнних ризиків трансформує ціноутворення з інструменту фінансової стабілізації у механізм стримування витрат. Доведено, що капітаційна ставка на первинній ланці медичної допомоги в Україні виконує функцію бюджетного контролю, а не повного відшкодування витрат, що поглиблює фінансовий розрив між потребами системи та обсягами її фінансування.

Розглянуто наслідки трансформації комунальних некомерційних підприємств у комунальні некомерційні товариства з позицій стратегічного менеджменту та соціальної відповідальності. Запропоновано управлінські підходи до оптимізації фінансового менеджменту закладів охорони здоров'я, що базуються на аргументованій партнерській комунікації з НСЗУ, прив'язці фінансування до реальної собівартості та якості медичних послуг, а також урахуванні потреб громади. Зроблено висновок, що державне регулювання цін на лікарські засоби є важливим компенсаторним чинником, проте не здатне самотійно усунути системні дисбаланси тарифної політики в охороні здоров'я.

Keywords: *healthcare pricing, financial stability, financial management, state price regulation, NHSU tariffs, capitation model, healthcare facilities.*

Ключові слова: *ціноутворення в охороні здоров'я, фінансова стійкість, фінансовий менеджмент, державне регулювання цін, тарифи НСЗУ, капітаційна модель, заклади охорони здоров'я.*

General statement of the problem and its connection with important scientific or practical tasks. Let us provide a generalized definition of pricing in healthcare that combines key points from Ukrainian scientific publications: it is the process of determining the cost of services that covers expenses (salaries, materials, taxes) and ensures profit, taking into account demand and competition, using various methods, such as cost-based (full costs, markups) and market-based (demand price), to balance affordability for patients and financial sustainability for healthcare facilities. From this perspective, it would seem to be the optimal path to the well-being and prosperity of a healthcare facility. Why, then, do we encounter a whole range of problems and issues in real life that have been difficult to solve for decades?

Analysis of recent studies and publications. The price of medical services is a monetary form of accounting and reimbursement for the labor, material, financial, and other resources that a healthcare facility spends on the production of a unit of service, the payment of taxes, and ensuring its own profit, as well as the ability of potential patients to receive and pay for these services. The prices of medical services should cover the costs incurred by the healthcare facility in providing them. At the same time, facilities can adjust prices to promote their services on the market, respond to changes in market conditions, stimulate demand, and expand the range of services [3]. Currently, only private healthcare facilities have such opportunities.

Before developing a pricing strategy, a healthcare facility must analyze all factors that influence this decision. The price of a service depends on costs, demand, the competitive environment, and, in Ukraine, the policies of the National Health Service. For patients, this means that the price of a service depends not only on its complexity, but also on the economic conditions in the country and the level of budgetary funding for the healthcare facility. [1]

Formulation of the article's objectives. The primary objective of this article is to critically analyze the systemic disconnect between the actual economic costs of medical services and the state-regulated pricing mechanisms currently

employed by the National Health Service of Ukraine (NHSU). By examining the transition of healthcare facilities from municipal enterprises to non-profit companies, the study aims to evaluate the strategic risks and benefits of increased financial autonomy versus the potential loss of social orientation. Furthermore, the article seeks to identify the limitations of the capitation model in primary care—particularly under the pressures of inflation and wartime demographics—and to provide a strategic framework for partnership-based communication with the NHSU. Ultimately, the goal is to propose optimized financial management strategies that balance the survival of healthcare facilities with the necessity of affordable, high-quality patient care.

Presentation of the main research material. The direct and indirect costs of a healthcare facility form the actual cost of medical services. Direct costs include the salaries of healthcare facility staff, including medical, technical, administrative, and other personnel. They also include the cost of medicines, reagents for laboratory tests, and other consumables, such as syringes, intravenous systems, dressing materials, etc. In hospitals, direct costs also include food and patient care.

Indirect costs include depreciation of equipment, maintenance and furnishing of premises, and utility bills. Administrative costs, such as information systems, management, accounting and planning and economic services, statistical and analytical services, etc.

These costs form the basis for pricing and tariffs in the state guarantee system. Here, attention should be paid to the main problems of healthcare facilities in the NHSU financing mechanism, which consist of tariffs that do not correspond to the actual cost of services, instability of payments, and the lack of a clear quality control system. This creates a financial deficit, staffing risks, and inequality between institutions of different levels.

The NHSU applies “weighted average” tariffs that are not based on cost and often do not cover the actual costs of treatment (salaries, medicines, energy).

There is often inequality between packages, with some services being better funded than others, which are significantly below actual costs. Also, the rates don't take into account regional differences (like extra costs in rural communities). [4]

The price offered by the NHSU doesn't match the real situation because it's based on the “available budget” rather than actual costs. The NHSU first has a fixed amount of budget funds and then distributes it among services and packages. Therefore, the NHSU price is determined by the amount of funds they have, not by actual costs; an average model is used, not the actual costs of the healthcare facility.

Tariffs, which are a system of payment rates, are formed on the basis of an average “reference” healthcare facility, as well as average costs, without taking into account regional differences, building wear and tear, staff shortages, martial law, etc. However, no real healthcare facility is ever “average.” In this situation, even if a healthcare facility proves its actual costs, has an audit, and submits specific calculations, their actual costs are not decisive for the NHSU, because it is not obliged to take individual costs into account. At the moment, there is no “bottom-up” mechanism.

The NHSU tariffs often do not cover or only partially cover the depreciation of buildings and equipment, capital repairs, energy at real prices, IT infrastructure, security and reserve costs, staff training, etc.

Also, the fact that personnel costs are growing faster than tariffs, the minimum wage is increasing, additional payments and allowances are growing, and there is a shortage of personnel, etc., does not work in favor of healthcare facilities.

At the same time, NHSU tariffs are rising slowly or fragmentarily and often do not cover the actual wage fund. This situation forces healthcare facilities to use funds from other items to pay wages.

This political and social environment forces the NHSU to balance between society's expectations of free healthcare, budget constraints, and political decisions.

Therefore, economic logic often gives way to political logic, and tariff increases come with political risks.

It should also be emphasized that, due to the lack of a real indexation mechanism, tariffs are not automatically indexed to inflation and do not respond to price jumps (electricity, fuel). In reality, costs are rising every month, while tariffs are “frozen.”

The price also does not take into account the varying levels of complexity of the work. The same package is paid for in the same way, although the complexity and risks are different in a small village, in a frontline zone, or in an overloaded urban healthcare facility.

Thus, we can conclude that the main systemic reason for this gap is that the NHSU does not purchase real medical services, but rather a “budget-friendly model” of them. The consequences of this policy are chronic financial deficits in healthcare facilities, hidden subsidies (local budgets, charity), degradation of material resources, demotivation of staff, and formal free services at the expense of quality or at the expense of the patient.

As for pricing in primary healthcare, it is not market-based in the classical sense, but rather state-regulated.

Pricing at the primary healthcare level is a process of determining the cost of medical services based on the capitation principle of financing, whereby payment is made for the number of people covered, taking into account adjustment coefficients, rather than for the volume of services provided. If, in tariff-based calculation, payment is made on a case-by-case basis — paying for the care provided — then in capitation, payment is made for potential care.

The capitation rate is a fixed amount that the National Health Service of Ukraine (NHSU) pays to a healthcare facility for each declared patient for a certain period (usually a year), regardless of how many times the patient actually sought medical care. The state (through the NHSU) pays the facility a fixed amount for each patient who has signed a declaration with a primary care physician. The capitation rate includes the remuneration of medical staff and basic primary care

services: consultations with a family doctor and pediatrician, prevention, basic diagnostics, monitoring of chronically ill patients, issuing referrals, prescriptions, medical certificates, etc. The capitation rate may cover consumables, administrative costs, and partially cover utilities and facility maintenance. However, not all actual healthcare facility costs are fully covered, which creates a financial gap.

Regardless of how many times the patient visits, the payment will be the same. To bring the payment closer to the actual costs, but without an individual tariff for each service, the National Health Service of Ukraine introduces adjustment coefficients that depend on the patient's age, the type of locality—rural or urban—and the type of doctor—whether it is a family doctor, pediatrician, or therapist. However, these coefficients only partially compensate for the actual differences in workload and costs.

This payment system focuses on responsibility for the patient rather than increasing the number of medical services, encourages prevention rather than encouraging an increase in visits, supports the reduction of excessive prescriptions, etc., and, as a result, optimizes budget expenditures.

Thus, the income of a healthcare facility is determined as the number of declared patients multiplied by the capitation rate and adjustment coefficients. Therefore, the capitation rate is a tool for budget control, not full reimbursement of the actual cost of medical care. It does not take into account the actual intensity of treatment, pays the same for “healthy” and “chronically ill” patients, creates a risk of underfunding during high workloads, and discourages working with complex patients without additional payment mechanisms.

In classical health economics, capitation is effective under conditions of stable demographics, predictable morbidity patterns, uniform workload for doctors, full cost coverage by tariffs, strong quality control mechanisms, additional incentives for complex patients, etc.

Under these conditions, doctors are interested in prevention, the state controls costs, and the system is financially balanced.

In Ukraine, the capitation rate does not fully account for salaries, ignores depreciation, does not compensate for price increases, and does not cover war risks. It ceases to be payment and becomes a “survival limit.” A doctor may have 600 or 2,500 patients, a significant proportion of whom are elderly and have chronic diseases. There is no mechanism for real risk equalization. As a result, the project calculations feature an “average patient,” but in practice, we have an excessive workload without additional payments.

Even adjustment coefficients do not save the situation, as they are quite limited, do not take into account multimorbidity, and do not compensate for the complexity of patient management. As a result, healthcare facilities are forced to effectively subsidize complex patients.

There are also certain problems with the motivational factors of pricing. Ideally, the model should financially incentivize high quality and financially penalize poor quality of medical services.

In Ukraine, however, quality indicators are weakly linked to financial incentives, and doctors see no direct financial benefit from the quality of their work. The main incentive and requirement is to stay within the tariff.

The key advantage of capitation is its predictability. In today's Ukraine, due to the war, this is becoming a major problem: mass population movements, rapid changes in declarations, unpredictable types and volumes of services, etc. In Ukraine, there are almost no risk compensation funds, no additional payments for complex cases, and no effective integration with pay-for-performance. In fact, in Ukraine, capitation is used as a cost-saving tool rather than a tool for managing public health.

Thus, we can conclude that the capitation model of financing primary health care, which is effective in a stable environment and with full reimbursement of costs, in Ukraine it operates in conditions of chronic underfunding, demographic instability, and limited risk differentiation, which leads to a gap between the theoretical advantages of the model and its practical implementation, transforming

capitation from a tool for encouraging prevention into a mechanism for containing costs.

Looking at this situation from a strategic management perspective, using PEST analysis, we can illustrate the following.

The main political influence on the pricing and financing of healthcare facilities lies in the transformation of healthcare facilities from municipal non-profit enterprises into commercial companies. On August 28, 2025, the Commercial Code of Ukraine ceased to be in force and a special law was enacted, which will determine the legal and organizational basis for the activities of legal entities of certain organizational and legal forms and associations of legal entities during the transition period [2].

As a result, municipal non-profit enterprises must be transformed into municipal non-profit companies between August 28, 2025, and August 28, 2028. The economic component of such an analysis shows that the latter can operate effectively and with positive financial results, but does not have the right to distribute profits among owners or founders — all funds go towards the development and provision of medical services. Such a company may receive funds from the provision of legally permitted paid services, grants, donor assistance, sponsorship contributions, as well as from the state or local budget. All these receipts will be accounted for as income to finance activities, not as profit in the classical commercial sense.

The social analytical component of strategic analysis emphasizes certain risks for patients. Although transforming into a non-profit municipal corporation provides more freedom in conducting business, it also reduces social guarantees and community control. This means the possibility of attracting investment and making a profit, but also the risk of commercialization of medical services. The fact that the word “non-profit” is in the name of the association creates the illusion of a certain altruism. The association can generate considerable profits, but these profits cannot be directly distributed among the members of the association. However, the interest in maximizing profits remains, as these profits can be used to

develop the association and generate even greater profits in the future. Indirectly, this contributes to the well-being of the association's members. Therefore, the risk of a decrease or loss of social orientation remains, which will lead to a decrease in access to free services and an increase in prices for certain services that the company will provide outside the scope of the NHSU medical services package. Another social risk will be a decrease in the level of community control, as decisions will be made by the owners rather than the local council.

As for the technical component of the analysis of such a transformation, it involves certain legal complications. In particular, this transformation requires changes to the charter, re-registration of property, resolution of issues with employment contracts, renewal of licenses, etc.

Therefore, based on the results of the PEST analysis, we can conclude that transforming a municipal non-profit enterprise into a municipal non-profit association may be beneficial for institutions seeking to attract investment and expand the range of paid services and increase their prices, but it may reduce guarantees for patients and the community. Therefore, the decision must take into account the balance between economic benefits and social responsibility.

Below, we will focus on strategic, reasoned, and flexible mechanisms for optimizing financial management for the development of a healthcare facility.

At present, this is the most effective way to communicate with the National Health Service of Ukraine (NHSU) regarding the financing of healthcare facilities. All requirements must be based on the actual needs of the community for medical services and data on the volume of services provided. The facility must objectively assess all components of the cost of medical services mentioned above and also take into account the financial capabilities of the NHSU. In addition, it should be emphasized that funding should stimulate not only the quantity but also the quality of medical services, which requires retaining qualified personnel, which in turn requires competitive wages and, undoubtedly, modernization of equipment, digitization, and energy-saving measures. If there are certain regional or demographic characteristics, this also necessitates initiating tariff adjustments in

line with the actual cost, backing up each requirement with specific figures. The quality of medical services is stimulated by funding for prevention programs, telemedicine, mobile clinics, and infrastructure development, rather than just partial compensation for current expenses. It should be shown that adequate funding directly affects the availability and quality of care. When communicating with the National Health Service of Ukraine, several scenarios can be worked out, such as minimum (basic funding), optimal (taking into account development), and promising (with innovations). The position of partnership communication is not to demand, but to offer joint solutions to problems.

A certain balance between healthcare facility costs and NHIF payments will be influenced by the fact that on February 12, 2024, the National Security and Defense Council of Ukraine adopted a resolution “On Additional Measures to Ensure the Availability of Medicines for Ukrainians,” which contains a clear step-by-step plan to reduce and stabilize prices for medicines [4].

To implement this decision, the government regulated markups on medicines and banned the practice of marketing payments. Thus, from March 1, 2025, the maximum supply and distribution markups charged by drug distributors to wholesale prices for all drugs cannot exceed 8% of the wholesale price [5].

These decisions will significantly improve the availability of medicines on the national market for all categories of the Ukrainian population.

Conclusions

Pricing in healthcare should ensure a balance between cost recovery, financial stability of healthcare facilities, and accessibility of services. However, in practice, this balance is systematically disrupted in Ukraine. The National Health Service of Ukraine (NHSU) sets its rates based on the available budget, ignoring regional, staffing, infrastructure, and military differences, rather than on the actual cost of medical services, which leads to chronic underfunding of healthcare facilities.

The capitation model of financing primary health care in Ukraine serves as a budget constraint rather than full reimbursement of costs, creating risks of

overloading doctors and underfunding complex patients. The lack of automatic tariff indexation, inflation compensation, and risk equalization mechanisms widens the financial gap between the system's needs and its funding.

Transforming non-profit municipal enterprises into non-profit municipal companies can increase the financial flexibility and investment attractiveness of a healthcare facility, but at the same time carries the risks of commercialization and a reduction in social orientation.

Effective financial management of a healthcare facility requires partnership-based, reasoned communication with the National Health Service of Ukraine, linked to actual costs, quality of services, and community needs. State regulation of drug prices is an important compensatory factor, but it does not in itself eliminate the systemic problems of tariff policy.

The most significant **prospects for further research** lie in the development of a “bottom-up” pricing methodology that can reconcile the rigid budget constraints of the NHSU with the volatile, real-world costs of medical services. Research is needed to create a dynamic indexation model that automatically adjusts tariffs based on inflation, energy price surges, and regional risk factors, particularly in frontline or rural areas. Additionally, as healthcare facilities transition into municipal non-profit companies by 2028, longitudinal studies should be conducted to monitor the balance between their financial sustainability and social accessibility, ensuring that the drive for “profit-for-development” does not inadvertently lead to the commercialization of essential care. Finally, exploring the integration of Pay-for-Performance (P4P) metrics into the capitation model could provide a roadmap for moving away from simple cost-containment toward a system that financially rewards clinical quality and preventive outcomes.

Література

1. Гусак Н. Тарифна політика НСЗУ не має формуватися із собівартості медичних послуг, це міф. *LB.ua*. 2026. 29 січ. URL:

https://lb.ua/health/2026/01/29/719436_tarifna_politika_nhsu_maie.html (дата звернення: 10.02.2026).

2. Про особливості регулювання діяльності юридичних осіб окремих організаційно-правових форм у перехідний період та об'єднань юридичних осіб : Закон України від 21.11.2024 № 4196-IX. *Відомості Верховної Ради України*. 2025. № 28-29. Ст. 94. URL: <https://zakon.rada.gov.ua/laws/show/4196-20#Text> (дата звернення: 10.02.2026).

3. Методи встановлення цін на медичні послуги: пам'ятка. *Головна медична сестра : портал*. URL: <https://medplatforma.com.ua/article/16240-metodi-vstanovlennya-tsin-na-medichni-poslugi-pamyatka> (дата звернення: 10.02.2026).

4. Про додаткові заходи щодо забезпечення доступності лікарських засобів для українців : Рішення Ради національної безпеки і оборони України від 12 лют. 2025 р. : введено в дію Указом Президента України від 12 лют. 2025 р. № 82/2025. URL: <https://zakon.rada.gov.ua/laws/show/n0006525-25#Text> (дата звернення: 10.02.2026).

5. Про рішення Ради національної безпеки і оборони України від 12 лютого 2025 року «Про додаткові заходи щодо забезпечення доступності лікарських засобів для українців» : Указ Президента України від 12 лют. 2025 р. № 82/2025. URL: <https://www.president.gov.ua/documents/822025-53781> (дата звернення: 10.02.2026).

References

1. Husak, N. (2026), “Tariff policy of the NSZU should not be formed from the cost of medical services, it is a myth”, *LB.ua*, available at: https://lb.ua/health/2026/01/29/719436_tarifna_politika_nhsu_maie.html (Accessed 10 Feb 2026).

2. The Verkhovna Rada of Ukraine (2025), “On the specifics of regulating the activities of legal entities of separate organizational and legal forms in the transition period and associations of legal entities”, *Vidomosti Verkhovnoi*

Rady (VVR), vol. 28-29, p. 94, available at: <https://zakon.rada.gov.ua/laws/show/4196-20#Text> (Accessed 10 Feb 2026).

3. Medplatforma (2025), “Methods of setting prices for medical services: a memo”, available at: <https://medplatforma.com.ua/article/16240-metodi-vstanovlennya-tsin-na-medichni-poslugi-pamyatka> (Accessed 10 Feb 2026).

4. National Security and Defense Council of Ukraine (2025), Decision “On additional measures to ensure the availability of medicines for Ukrainians”, available at: <https://zakon.rada.gov.ua/laws/show/n0006525-25#Text> (Accessed 10 Feb 2026).

5. President of Ukraine (2025), Decree “On the decision of the National Security and Defense Council of Ukraine dated February 12, 2025 “On additional measures to ensure the availability of medicines for Ukrainians”, available at: <https://www.president.gov.ua/documents/822025-53781> (Accessed 10 Feb 2026).

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