

PUBLIC-PRIVATE PARTNERSHIP AS A FOUNDATION OF THE FINANCIAL STABILITY OF THE STATE AND HOUSEHOLDS IN THE CONDITIONS OF HEALTH CARE FINANCING TRANSFORMATION IN UKRAINE

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Abstract: Among other mechanisms for maintaining the financial stability of state/local finances and household finances, the potential of public-private partnerships is significant. In this regard, the constructive interaction of the state and business in order to solve common financial, economic, and social problems is especially important. The article defines the role of public-private partnership in supporting the health care sector for providing the population with high-quality medical services and at the same time preserving the financial stability of the state and households; moreover, measures for its development are justified in the research. An assessment of the expenditures of the consolidated state budget for financing the industry, the degree of implementation of state programs and the results of self-assessment of the financial status of households for health care services in the conditions of the transformation of the mechanism of financing the industry and the Russian-Ukrainian war, under which the modern financial system of Ukraine functions, was carried out. The problems of implementation of the planned indicators of the state budget for the financing of the industry have been identified, which need to be solved. The advantages of public-private partnership for the state, private partners, and society are summarized. It is shown that the intensification of the process of implementation of projects/programs based on the principles of public-private partnership in the field of health care will ultimately contribute, other things being equal, to maintaining greater stability of household budgets and the state budget, increasing the efficiency of budget funds spending, as well as expanding the number of medical services and improving their quality. Measures for the development and support of public-private partnership are proposed, which will contribute to balancing the interests of the state, the private sector, and society to eliminate/solve problems in the field of health care under difficult conditions of war and the decline of economy, which will eventually become the basis for supporting the financial stability of the state/local budgets and finances of households and the private sector itself.

Keywords: public-private partnership; budget; health care; financing; household expenses; financial capacity; financial sustainability.

1 Introduction

Today, the consequence of Russia's full-scale military aggression on the territory of Ukraine was the aggravation of the socio-economic crisis, which provoked a significant shortage of financial resources, deepening imbalances in the country's financial system. The stability of the financial system of the state in the conditions of war and in the process of post-war recovery and European integration has become a priority of the state policy of Ukraine. After more than two years of fighting COVID-19 pandemic and the growing need for financing medical services and preventive measures, today the health care system (hereinafter referred to as the HCS) in Ukraine continues to be under increased stress. Difficulties in maintaining the stability of the financial system in general and its components, such as state/local finances and household finances, are exacerbated in the conditions of martial law in Ukraine, thus predisposing to the need to stimulate the development of effective mechanisms for mitigating risks for the social sphere, in particular, in the health sector and increasing availability of a wider list of medical services of appropriate quality for the population.

2 Literature Review

The state and problems of the development of public-private partnership (PPP) in the social sphere and in particular in the sphere of health care in countries with different levels of development, its role in reducing the burden on public finances and achieving the goals of sustainable development are investigated by Delmon, Jamali, Glassman and Chalkidou, Hammami, Ruhashyankiko, Yehoue, Lim, Piltiai, Tulai, Bloom, Craig and Mitchell, Kachula, Salnikova, Romenska, Zapatrina, and others.

In particular, D. Jamali investigated the mechanisms of PPP success and failure in developing countries using the example of Lebanon [8]. O. Tulai outlines a number of advantages of PPP in the field of health care, taking into account the peculiarities of the financial relations that arise between the state and business entities of the private form of ownership and the public sector [42].

A. Glassman and K. Chalkidou believe that it is important to build institutions for the rationalization of public spending in the field of health care, which will allow more reasonable spending of budget funds, in particular, for the purchase of effective drugs, vaccination coverage of children, compliance with transparency in the treatment process, etc. and at the same time, it will protect patients from ineffective treatment [5].

M.K. Lim cites the results of a reasonable PPP development policy in the field of health care in Singapore, which allows distributing the burden of financing between the state and the private sector and achieving national health care goals in terms of balancing efficiency and equity [13]. In another work, Lim emphasizes the need to conduct a reasonable policy of encouraging PPP in the field of health care based on the use of a tripartite model of its effective regulation [12].

A number of researchers emphasize the role of the private sector and determinants of PPP in the process of investing in infrastructure [3; 6], increasing the role of PPP in the process of implementing the Sustainable Development Goals, enshrined in UN documents [47], using the potential of the PPP mechanism to achieve public interests [45]. The researchers also study the countries experience of the operation of PPP projects in the social sphere as a whole, the organizational and economic aspects of the use of PPP, its financial mechanism [26], focus on problematic aspects and inconsistencies in legislation, etc.

However, the growing need for budget funds for the full functioning and development of HCS in Ukraine in the context of the transformation of the industry actualizes research on the role of PPP as a mechanism for supporting the financial stability of state/local budgets and the financial stability of households in the conditions of war and post-war reconstruction and requires scientific research to develop adequate financial decisions and measures.

The purpose of the article is to justify the role and directions of development of the PPP in the field of health care to provide the population with high-quality medical services and at the same time preserve the financial stability of the state and households in the conditions of financing transformation and post-war reconstruction.

3 Materials and Methods

In the research process, general and specific scientific methods based on a systemic approach were used: methods of analysis and synthesis, comparison and logical generalization. The raw data for statistical analysis are obtained from official sources.

4 Results and Discussion

Financial stability of the state and households in the conditions of the transformation of the financing of the healthcare system in Ukraine

The financial stability of state largely depends on the stability of state and local budgets and is associated with the risks of a significant increase in health care costs and, at the same time, limitations of fiscal space due to adverse factors. The risk factors causing a significant financial burden on the budget and the health care system include demographic changes (the rate of population aging, a decrease in the mortality rate in the elderly,

migration processes), an increase in the morbidity of the population and the need for long-term care, as well as an increase in the cost of medical services and medicines themselves, medical equipment, laboratory examination, etc. According to O.V. Stepanova's research, as a result of the growth of age-related expedited budget expenditures, latent fiscal risks arise, i.e., "factors that, compared to planned budget indicators, will require additional fiscal adjustment" [37]. In the conditions of the financial and economic crisis, pandemics and war, additional sharp spikes in budget expenditures for health care occur, as a result of which the imbalances of the budget system are aggravated, and the financial stability of state and local budgets decreases.

Traditionally, in Ukraine, the state takes care of the health care system, the industry was financed mainly through budget funds, which were directed to the maintenance of a wide network of medical facilities. During all the years of the country's independence, specific measures for its improvement were declared.

At the same time, the impetus for the effective reform of the health care system in Ukraine (HCSU) and the transformation of its financing mechanism was given by changes in the legal field and the formation of the National Health Service of Ukraine (NHCSU). Every citizen of Ukraine has acquired the right to receive services free of charge according to the approved standard list (package) in state and communal health care institutions, in accordance with the implemented medical guarantee program (MGP), and the number of MGP packages is dynamic and is supplemented every year. Also, the "Affordable Medicines" reimbursement program was introduced, the Public Health Center (PHCC) and the state enterprise "Medical Procurement of Ukraine" (MPU) were created, etc. NHCSU is empowered by law to implement state policy in the field of state financial guarantees of medical care for the population (under MGP), performance of the functions of the customer of medical services and medicines under MGP, submission of proposals to ensure the formation of state policy in the field of state financial guarantees of medical care for the population to the Minister of Health for consideration [23].

The structural restructuring of HCSU implies the allocation of budget funds at a certain level of the administrative division of country to finance the following types of medical care: emergency, primary, secondary (specialized), tertiary (highly specialized) based on the principle of bringing the provision of public services as close as possible to their potential consumer. Thus, at the district (city) level, funds are received and distributed according to the principle of "money follows the patient" for the provision of primary health care, including emergency, at the regional or state level - for the provision of secondary, tertiary, and emergency medical care. This 'demarcation' of medical care funding is aimed at improving the efficiency of using the potential of state and local health care institutions (HCI) and directing the financial flows of the state budget in accordance with the principle of the budget system' subsidiarity.

In the conditions of COVID-19 pandemic, there was a slowdown in the medical sector reform, and the large-scale military aggression of Russia against Ukraine and the introduction of martial law led to the application of an adaptive budget policy and a change in its priorities. Significant financial flows were aimed at overcoming the consequences of the pandemic, vaccination of the population, and starting from 2022, budget expenditures for financing state security and defense, as well as social expenditures became priorities.

With the beginning of war, the list of types of medical assistance was revised and supplemented. Currently, free services in state and communal health care facilities include: emergency medical care, primary medical care; specialized medical care; palliative care; rehabilitation assistance (at the same time, the state recognizes the right of every citizen to receive rehabilitation assistance during the provision of medical assistance, which is established by law) [24].

In the conditions of war, threats and risks of deepening financial instability in Ukraine experienced growth, the threat of budgetary imbalance has increased due to the narrowing of the fiscal space, the rapid raise of the budget deficit (the state budget deficit for 2023 is planned at the level of 20.6% of GDP); despite the compensatory flows of international financial assistance to balance the budget system, the accumulation of public debt accelerated. According to the forecast of the National Bank of Ukraine, as security risks decrease, economic growth in Ukraine will begin in 2024-2025, and in 2023 it will not exceed 0.3%.

The growing imbalance of the state budget and local budgets made it difficult to finance HCS, as a result of which the process of reforming the industry slowed down.

Budget expenditures on health care nominally increased, but at the same time, taking into account the rate of inflation, they actually have a downward trend (Table 1).

Table 1: Dynamics of expenditures of the consolidated and state budgets of Ukraine on health care (HC) for the period 2017-2021

Index	2017	2018	2019	2020	2021	Growth rate
Expenditures of the consolidated budget on health care, UAH million	1023924	106852	1233846	1757897	2041218	994
% in consolidated budget expenditures	97	93	94	11	111	146
Expenditures of the state budget on health care, million hryvnias	167294	22618	38667	1289237	1710065	923
% in state budget expenditures	19	23	36	97	115	95
The share of consolidated budget expenditures on health care in GDP	34	33	32	42	37	89

Source: calculated and compiled according to [35; 36].

The share of consolidated budget expenditures on health care in GDP for the analyzed period had the highest value in 2020 and 2021, which is explained by the increased needs of the industry during the coronavirus pandemic.

According to the Ministry of Finance of Ukraine, in 2022, health care expenditures accounted for 6.8% of the total expenditures of the State Budget of Ukraine, which is 4.7 percentage points less than in the previous year.

In 2023, it is planned to preserve the minimum wages of medical workers. Health care expenditures in 2023 are planned to total 206.8 billion hryvnias according to the consolidated budget of Ukraine, of which state budget expenditures with transfers amount to 176 billion hryvnias. The priority areas of financing are: implementation of the medical guarantee program (142.7 billion hryvnias), centralized procurement of medicines, medical products, modern equipment (10 billion hryvnias), strengthening of epidemic surveillance for infectious and non-infectious diseases (3.8 billion hryvnias), other expenses in the field of health care (19.6 billion hryvnias). In general, in 2023, compared to 2022, health care expenditures in national currency decreased by 10%. In the dollar equivalent, the reduction is about 40%, which reflects threats to the full provision of medical care. On a per capita basis, total government spending on health care in 2023 will decrease by \$43 (from \$159 to \$116) compared to the previous year. Compared to EU member states, this indicator is low. Thus, according to data from the World Health Organization (WHO), in 2019, public health care expenditures per capita in Hungary amounted to \$722, in Poland - \$724, in Lithuania - \$892, in the Czech Republic - 1,503 dollars, in Slovakia - 1,057 dollars. Also, in these countries, the share of the state in financing health care costs is higher than in Ukraine.

The largest item of health care expenditure in the state budget is MGP. UAH 142.7 billion is planned for its implementation in 2023 (the MGP budget for 2022 was UAH 157.3 billion), UAH 422 million - for the "restoration and development of a sustainable national model of the medical industry of Ukraine". [19].

Also, the State Budget of Ukraine for 2023 provides funds for an additional subsidy to local budgets to ensure the proper maintenance of health care facilities at the local level in the amount of 3.7 billion hryvnias, of which 2.9 billion hryvnias will be directed to local budgets (regional and budgets of territorial communities) [22]. The same procedure took place in relation to the distribution of an additional subsidy in the State Budget for 2022. In the difficult conditions of the war, HCSU adapts to modern realities and works in operational mode. In 2022 and 2023, the MGP is financed, which ensures greater stability of this level of medical care and reduces the burden on household budgets and their financial stability.

The issue of rational and more effective use of budget funds of HCl, improvement of budget planning is especially relevant in wartime conditions. According to the results of the third quarter of 2022, HCIs had unused 24.8 billion hryvnias on their accounts, which is 1.6 times more than at the beginning of the year. These are institutions of primary medical care (3 billion hryvnias, which is an increase of 1.8 times compared to the beginning of the year), emergency medical care (3 billion hryvnias, an increase of 10%), specialized medical care (18.8 billion hryvnias, an increase of 1.7 times). That is, in the conditions of martial law, there is a growing threat of unbalancing the budget system due to the disruption of communication and information flows, the impossibility of implementing MGP in temporarily occupied territories or territories recently liberated from the enemy, the growing need to deploy temporary mobile hospital facilities to replace destroyed ones, and the occurrence of other costs – that were practically impossible take into account in the budget planning process. In the situation of threats related to the provision of medical services, objective conditions for under-fulfillment of planned budget indicators and ineffective use of funds from the state and local budgets arise. Identified problems of implementation of the planned indicators of the state budget for financing the industry need to be solved.

In the structure of spending on HCSU by financial agents, the share of household spending on health care is almost at the same level as the share of the government, and in some years it exceeds it (Table 2).

Table 2: The structure of health care costs in Ukraine by financial agents, %

Financial agents	2017	2018	2019	2020	Changes 2022/2017
Total health care costs	100	100	100	100	-
Government	49.64	47.56	46.77	49.90	0.26
Private sector	49.46	51.67	52.50	49.65	0.19
Other private voluntary insurance	0.87	0.91	1.02	0.95	0.08
Household expenses	47.45	49.74	49.22	46.38	-1.07
Non-profit organizations serving households	0.01	0.02	0.04	0.03	0.02
Private firms and corporations	1.13	0.99	2.23	2.28	1.15
A whole other world	0.9	0.77	0.73	0.45	-0.45

Calculated according to [35]

The data in Table 2 show that the share of household expenditures in 2017-2020 in the total amount of health care expenditures is significant compared to other financial agents of the private sector, and in 2018-2019 it exceeded the share of the government.

O. Kirylenko et al. consider that an important component of the financial condition of households is their expenses, therefore, despite the growth of household expenses in Ukraine in absolute values more than threefold for the period of 2010-2020, their financial condition has not significantly improved [11].

Let us consider the structure of aggregate household expenses in Ukraine and the share of health care expenses in their composition (Table 3).

Table 3: Structure of total expenditure

	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018 ¹	2019 ¹	2020 ¹	2021 ¹
Average monthly total expenditure per one household, UAH	4048.9	4952.0	5720.4	7139.4	8308.6	9670.2	9523.6	1124.34
<i>Structure of household total expenditure, percent</i>								
Total consumption expenditure including health	91.6	92.9	93.2	92.9	92.0	91.3	91.4	91.3
Non-consumption total expenditure	3.6	3.7	4.2	3.8	4.0	4.1	4.3	4.7
For information: payment for housing, communal products and services	8.1	10.2	14.7	15.4	13.9	13.0	12.9	13.8

¹Excluding a part of temporarily occupied territory of the Donetsk and Luhansk regions.

In general, there is a clearly expressed trend of growth in consumer spending by Ukrainian households, in particular, on such a component as spending on health care - the purchase of medicines, medical products, etc. A significant increase in the inflation index (and consumer prices for these goods) reduces the financial capacity to purchase necessary goods for both the state and households, which affects their financial stability. Therefore, the vulnerability of households to financial costs related to health care (prevention/treatment) increases significantly. An excessive burden on household budgets in 2023 due to the need to buy medicine may become an additional factor in disrupting their financial stability and increasing the level of poverty. The tendency of decreasing financial stability of households is strengthened by the permission for public and communal health care facilities to independently establish the fees for services that are not covered by the MGP for medical care of the population, which increases the population's expenses for medical services, medicines, supplies, etc.

An important principle of reforming the health care financing system in Ukraine is the inadmissibility of: a) significant (catastrophic) household expenses in case of illness and b) refusal to receive necessary medical care due to the inability to pay for it at the time of receipt. Conclusions to what extent the implemented measures in the process of medical reform allow adherence to these principles can be made, taking into account the results of the self-assessment by the population of Ukraine of the level of availability of certain types of medical care in 2021 (according to the data of a sample survey of the households' living conditions) [28].

Analysis of the distribution of households according to the level of medical care availability, the possibility of purchasing medicines and medical supplies depending on the gender and age of the persons who make up the households allows making the following generalizations.

Among the surveyed households which were included in which any of the members during the last twelve months (as a percentage of the total number of households in the relevant age group), the following data were obtained:

- The number of those who needed medical assistance, purchase of medicines and medical supplies in all age categories ranged from 97.2% (men aged 35-59) to 99.1% (women aged 18-35);
- The number of those who, when needed, could not get medical help, buy medicine and medical equipment ranged from 16.0% (men 18-35 years old) to 30.4% (women 60+).

Among the surveyed households in which any of the members could not, if necessary, due to the too high cost of goods or services, buy medicine was in the range of 94.3% (women 18-35 years old)-98.4% (women 60+); those who could not purchase medical supplies was 96.6% (women under 18) - 100% (women 18-35); those who could not visit a doctor - 64.3% (women 60+) - 74.6% (men 35-59); those who could not visit a dentist - 93.7% (women aged 18-35) - 99.4% (women aged 35-59); those who could not afford prosthetics 88.2% (women 18-35 years old) - 100% (men 18-35 years old); those who could not afford medical examinations - 83.9% (women aged 18-35) - 92.0% (men aged 18-35); those who could not receive medical procedures - 92.3% (men 60+) - 98.5% (women 35-59); those who could not receiving treatment in a hospital - 87.8 (women under 18) - 91.2% (men 60+). The lowest among the considered indicators is the share of households that could not obtain medical assistance, purchase medicines and medical supplies when necessary, which was ranging from 16.0% (men 18-35 years old) to 30.4% (women 60+). On average, 97.8% of household members needed medical assistance, the purchase of medicines and medical equipment during the last twelve months (in each age group, this indicator was greater than 90%), and about 21% of households could not receive such assistance. There is a significant share of households in which any of the members could not purchase the necessary medical products, receive medical procedures, conduct medical examinations, visit a doctor, dentist, etc. due to the high cost of goods or services. The analysis covers the pre-war household survey but is likely that the situation has not improved in 2022. Taking into account the growth of unemployment in the conditions of the war [43], the financial capacity of households deteriorated.

Thus, in order to comply with the above outlined principles of reforming the health care financing system, improving the quality and availability of the provided medical services, it is necessary to implement effective mechanisms, taking into account that the implementation of numerous social and economic tasks of the country is associated with constantly growing limitations in the budget sphere. Among other mechanisms for ensuring the financial sustainability of state/local finances and household finances, as evidenced by the positive world experience of countries with different levels of development, the potential of state and private sector partnerships is significant. In this regard, their constructive interaction with the aim of solving common financial, economic, and social problems is especially important. After all, such a partnership is most widespread in the world precisely in the case of a budget deficit, crisis phenomena in the economy.

PPP as a basis for increasing the financial stability of the state and households and measures to activate it in the field of health care in Ukraine for post-war recovery

According to the definition of the UN European Economic Commission (UNECE), a public-private partnership (PPP) is a long-term contractual agreement of an innovative nature regarding the development of infrastructure and the provision of public services through the use of funds, experience, and motivation of the private sector in areas that usually constitute the field of government responsibility [7, p. 5].

The basis of partnership relations of the public and private sectors should be the coincidence of their interests in a certain industry or field of effort, which reflects the content of PPP. The PPP model in the world is perceived as an important mechanism that has been used recently in the global health context. Using this model, numerous international organizations form unified project charters to jointly achieve mutually agreed goals. PPP is presented as an ideal mechanism for synthesis of resources and maximization of benefits in numerous programs, at the same time it is important to coordinate/combine its implementation with solving the problems of sustainable development [36]. Most contemporary researchers agree that large-scale collective efforts and joint use of resources have greater potential to effect lasting change than any single organization can achieve alone [34].

The partnership of the state and business in the social sphere has its origins in the mid-1980s and was implemented as social investments. Social investment integrates private and public interests in the long term, satisfying the needs of both parties. Social activity and social responsibility of business in the last decade have become a necessary condition for its prosperity and are harmoniously woven into the strategic goals of development [16; 27], which allows private companies in crisis conditions, as a rule, to slightly reduce social partnership projects, rather than completely cancel them.

Bloom, Craig, and Mitchell define the modern role of the state and the private sector in the implementation of PPP in health care: the government should retain overall responsibility for regulation, taxation and quality control, while the private sector and other actors should include national interests as one of its key goals [2].

Delmon J. sees PPPs as part of a global shift in the role of government - from a direct provider of public services to a planner, contract manager and/or regulator that ensures the availability of local services that meet basic quality standards and are accessible to users and the economy. PPP, according to the researcher, can provide more efficient procurement through cheaper, better, faster and better quality, provide new sources of innovation, technological achievements and investments, including through project financing. Governments should initiate, encourage, and manage PPPs in the necessary sectors, balancing the distribution of PPP risks [3].

In such developed countries as Great Britain, Italy, Canada, France, among all spheres of the economy, the implementation of projects based on PPP in health care is a priority, which is determined by the policy of these states and the level of their socio-economic development. In other countries of the world (Austria, Belgium, Denmark, Australia, Israel, Ireland, Finland, Spain, Portugal, Greece, South Korea, Singapore, and others), there are also examples of successful use of this mechanism in health care - construction, reconstruction, modernization of medical centers, hospitals, etc. [47].

Statistical data show that the development of public-private partnership in EU countries and the world is characterized by positive dynamics, and the number of implemented projects in the field of health care is increasing. Thus, in Great Britain, thanks to the PPP, 107 hospitals of the National Health Care System were reconstructed in thirteen years; a partnership for the development, management, and maintenance of comprehensive medical care is implemented in Austria; in Denmark, the development of a national electronic health portal is carried out on the basis of PPP; in Romania, PPP enabled privatization of outpatient hemodialysis services; in Beijing, Hong Kong, and Shanghai construction of public hospitals and their management was implemented thanks to PPP [4]. In Kazakhstan, as of 2020, 864 PPP projects worth more than \$2.3 billion have been implemented, while about 20 percent of these projects belonged to the field of health care [4].

A successful practical example of PPP in the field of health care is the experience of Singapore. Singapore currently has high standards of healthcare delivery, but a significant share of healthcare spending is shifted to the private sector. The share of the government in the total expenditure on health care decreased during the years of independence from 50% (1965) to 25% (2000). Health care financing reforms in Singapore are aimed at increasing efficiency, are based on the predominance of individual responsibility over state responsibility, and apply flexible state response. Developed regional medical centers also serve foreign patients, competition is determined by price and quality, while medical care is available to citizens of the country, who pay part of their medical expenses, as well as additional money if they require a higher level of services. In fact, access to necessary care for the poor is guaranteed, and protection mechanisms against financial impoverishment due to catastrophic illness are also formed [2; 13].

Lim believes it is a sensible policy to encourage PPPs in the health sector to participate in the financing and provision of health care. For effective regulation of the process, according to the researcher, a tripartite model is needed, which will involve not only the government and suppliers, but also authorized consumers. Government should distance itself from the role of providers, and providers should compete and collaborate to create health care systems with higher value than what others can offer [13].

According to the current legislation in Ukraine in the field of health care, the use of PPP is allowed [21]. In Ukraine, a total of 193 contracts have been concluded on the terms of the PPP, of which only 18 are implemented today (9 concession agreements, 5 agreements on joint activities, 4 other agreements), the rest (162 agreements) are not implemented (116 are not functioning, 46 are terminated/expired, 13 are suspended in connection with Russia's armed aggression against Ukraine). In the field of health care, only two projects are being implemented on the basis of PPP - in Kyiv and Lviv regions (Table 4).

Table 4: The number of PPP projects implemented in the regions of Ukraine by sphere of activity as of January 1, 2023

Region	A	B	C	D	E	F	Total
Dnipropetrovska	1						1
Zhytomyrska	1						1
Zakarpatska	2	1					3
Zaporizhzhvska		1				1	2
Kyivska		1		1			2
Kirovohradska					1		1
Odeska		2			1		3
Lvivska				1			1
Poltavska			1				1
Khmelnytska						1	1
Chernihivska	1						1

Conventional designations: A - production, transportation and supply of heat and distribution of natural gas; B - collection, purification, and distribution of water; B – waste management, except collection and transportation; D - health care; E - tourism, rest, recreation, physical education and sports; F - others.

Thus, it is possible to state the initial stage of the PPP development in the field of health care in Ukraine, at which it is important to apply stimulating and supporting instruments and levers of state financial policy [9].

In general, in Ukraine, the importance of forming a partnership system as a constructive mechanism of interaction between state authorities, private capital, and the public sector in order to solve problematic issues in the field of health care and at the same time with the aim to reduce the burden on the budget and finances of households is growing. The role of PPP in Ukraine will grow to concentrate joint efforts to restore the medical industry damaged by the war. According to government estimates, about 14.6 billion euros are needed to restore the medical system according to preliminary calculations [40]. The use of the PPP mechanism will be appropriate from the point of view of modernization of the health care system in Ukraine, restoration of the destroyed medical infrastructure, improvement of quality and expansion of the list of medical services and access to medicines.

A decisive role will be played by the financial capacity of business entities and their willingness to participate in projects due to, as a rule, their high capital intensity, long implementation period, existence/emergence of various risks.

The state does not have enough funds for the implementation of investment projects approved for fulfillment in the field of health care, as evidenced by their insufficient funding (Table 5).

Table 5: The state of implementation of priority state investment projects in the field of health care

Name of the state investment project	The total cost of the project, thousand UAH	Funded as of January 1, 2021	The balance of the need, thousand hryvnias	Completion %
Construction of a modern medical and diagnostic complex of the National Children's Specialized Hospital "Okhmatdyt" (transitional since 2016)	4984492.47	3523060.1 Tender for the amount 39664810.24 UAH (year 2017)	1461432.26	70.68
Creation of a modern clinical base for surgical treatment of eye pathology (transitional since 2017)	562595.00	260704.00	301891.00	46.34
Construction of the medical and rehabilitation building of the State University "National Institute of Cardiovascular Surgery named after M.M. Amosov NAMNU" (transitional since 2017)	2837682.68	303441.87	2534240.82	10.69
Improvement of molecular genetic diagnostics of oncology diseases in Ukraine (start in 2020)	106124.56	1306.16	104818.41	1.23

Source: [10; 14]

Data in Table 5 demonstrate the unsatisfactory state of financing of priority state investment projects in the field of health care. Only the completion of these projects alone requires significant expenditures from the state budget. Therefore, the need to involve private business in the implementation of state investment projects/programs in the field of health care in Ukraine today is extremely great. The important advantages of such a partnership in HCSU are positive consequences for the state, the private partner, and for the whole society (Table 6).

Table 6: Positive aspects of the implementation of projects on the basis of PPP in HCSU

	Positive aspects
State	Creation of modern infrastructure, preservation of property of state/communal health care facilities; improving the quality of medical services, reducing budget costs for the construction, maintenance, and operation of health care facilities, sharing the risks associated with the implementation of the project with a private partner, saving and increasing the efficiency of spending budget funds, the possibility of prolonging costs over time, when there is not enough resource; reduction of time for project implementation, reduction of risks
Private partner	Acceleration of permitting processes and reduction of individual risks. Financial guarantees of the state, expansion/stabilization of business, reduction of financial risks, the possibility of implementing the project at the break-even level, obtaining a guaranteed income during the validity of the PPP agreement. The partner receives the right to provide non-medical and related services at market prices, can use tax or other benefits/incentives, if they

	are provided by the current legislation. The opportunity to enter a project with stable demand and financing guarantees.
Society	Expanding the list and improving the quality of medical services while maintaining their availability; balance between the price and quality of medical services, elimination of the corruption component in health care, reduction of the number of informal payments.

James Hope, director of the USAID Mission in Ukraine, reported that, according to the research of the USAID Project "Health Care Reform Support", for the years 2018-2021, the prevalence of informal payments in the country at the level of primary medical care decreased by three times and amounted to 21.4%, which is an achievement of the medical reform [44].

The signs corresponding to PPP are the following: 1) construction (new construction, restoration, reconstruction, capital repair, technical re-equipment) of a PPP object and/or management (operation, maintenance, etc.) of such an object; 2) a long period of relationship (from 5 to 50 years); 3) transfer of part of the risks to a private partner; 4) investment by a private partner in the PPP object.

Projects in the field of health care, which can potentially be implemented on the basis of PPP, are mainly aimed at expanding the range and improving the quality of service provision; they imply compliance with a certain level of social standards, as well as promoting the development of medical tourism.

Depending on the availability of state guarantees for social projects based on PPP, they are grouped into the following groups: 1) low-risk, with high investment attractiveness (they have state guarantees of minimum profitability) and 2) high-risk, with low investment attractiveness (there is a lack of state guarantees of profitability, which depends on consumer demand for services). In general, in both cases, projects in HCS are more risky and less profitable than in other areas [26], therefore less attractive for the private partner, which requires measures to encourage/support/stimulate them.

The goals of the project on the basis of the PPP should correspond to the priorities of the state (local) policy and the Sustainable Development Goals, with a description of how exactly the selected project will contribute to the achievement of the state (local) strategic program and individual Sustainable Development Goals, taking into account the UNECE Methodology for assessing public-private partnerships for the benefit of people in the interests of achieving the Sustainable Development Goals [46].

The private sector should also use the indicators of the Global Health Security Index (GHSI) in a specific country to find opportunities for partnerships with governments in the field of health care - such recommendations are presented by the developers of this index [1].

In the coming years, as the Ministry of Finance of Ukraine emphasizes, Ukraine will focus on ensuring the financial stability of medical care, transforming the network of healthcare facilities, developing human resources and improving public health. The priority will also be to strengthen medical services caused by the war - in particular, rehabilitation and prosthetics. Sources of funding for PPP projects can include: financial resources of a private partner; financial resources borrowed in accordance with the established procedure; funds from the state and local budgets; funds from other sources not prohibited by law.

A key aspect of positive changes in the cooperation between the state and business in Ukraine is an active state financial policy of supporting the development of PPP in the healthcare, which, according to the research of S.V. Kachula [9] will contribute to stimulating the concentration of society's financial resources in certain promising sectors of the economy, in particular, in the health sector in order to launch mechanisms for the preservation

and development of human capital, the development of priority social projects by combining funds from the state and local budgets and financial resources of the private sector on the basis of supporting the implementation of PPP projects. The provision of state credit, currency, tariff, social, and other guarantees for PPP projects should take place on the contractual basis specified in the partnership agreement, and in order to comply with the fiscal and debt parameters of the budget system, should not go beyond this agreement. The effectiveness of the state financial policy is measured by the creation of conditions for open competition or compliance with assumed financial obligations [9].

The process of Ukraine's integration into the European medical space gives the country the opportunity to participate in direct grants and joint action grants for EU state institutions. In 2022, Ukraine joined the European grant program EU4Health and submitted applications for participation in direct grants and joint action grants for EU state institutions. Also, Ukrainian public and patient organizations and associations (organizations) have already started submitting applications for small grants within the framework of EU4Health, which will contribute to the strengthening of health care in Ukraine.

As a result, balanced partnership relations of the state/local authorities with the private sector have a positive effect on the strengthening of social security, improving the quality of life of the population, and the successful development of territories and the country as a whole. The development of public-private partnership in Ukraine in the field of health care is important in view of the need to restore social infrastructure objects of considerable volume and value, in particular medical infrastructure, which suffered as a result of the war, due to a lack of budgetary resources and, on the other hand, in view of the growing need for social services and at the same time, a decrease in the financial capacity of a significant number of the population.

A systematic assessment of the financial sustainability of state/local budgets is important for the timely identification of budget imbalances and their causes [15; 17], which contributes to the adoption of reasonable management decisions of a current and strategic nature regarding the development of health care facilities, the provision of high-quality medical services and the improvement of the level of well-being of the population. Equally important measures are the preservation of the stability of household finances, one of the important factors in the violation of which can be health care costs.

Therefore, PPP is one of the promising mechanisms for the implementation of a number of projects in HCS and in reducing the burden on the budget and finances of households, especially in times of crisis and war. The development of PPP in the field of health care requires design of financial policy measures to stimulate and support important PPP projects. Effective measures to stimulate and support PPP projects in the field of health are proposed to be carried out taking into account the differentiation/zoning of territories/communities for financing: high-risk (temporarily occupied territories, front-line territories), potentially high-risk (located near front-line territories), moderately risky (all other), taking into account a number of indicators - the state of the medical infrastructure, the supply of medical personnel, migration processes, including the number of temporarily displaced persons, the unemployment rate, the consumer price index, the state of the fiscal space and local budgets, debt burden.

5 Conclusion

The main trends of the financial stability of the sector of public finances and household finances of Ukraine in recent years have been revealed. It is substantiated that in the conditions of the Russian-Ukrainian war, the risks of deterioration of financial stability in the country and the financial ability to finance health care system both at the expense of budget funds and household funds are exacerbated. The importance of taking into account the financial sustainability of the state, local, and household budgets

in the process of transforming the financing of HCS in Ukraine is due to the aggravation of the risks of financial losses in the conditions of war and the deterioration of the health of the population.

The important conditions that will contribute to the development of PPP in Ukraine, in each of its regions, as emerge from our research, are the following:

- Consistent implementation of state financial policy measures in the sphere of promoting the development of PPP in Ukraine based on the drawing up of the Concept of development of PPP in the social sphere for the medium and long term;
- Formation of priority directions, according to which projects can be implemented on the basis of PPP in the health care;
- Stimulation/support of business initiatives and the use of financial mechanisms/instruments of business involvement in the formation and implementation of socially significant programs in the field of occupational health and safety in the regions based on social partnership and the development of PPP mechanisms;
- Creation of institutional conditions for the activation of partnership relations between business and the government for the implementation of priority state/regional programs in the health care system on the basis of PPP.

For the dynamic development of PPP, taking into account the experience and trends of its successful development in the countries of the world, the following is necessary:

- Simplifying the procedures for submitting projects;
- Developing measures to neutralize the influence of the corruption component through online modes of submission of proposals, the fight against the shadow economy and potential corruption schemes;
- Establishment of shortened terms for consideration of business investment proposals related to the initiation of programs in the health care system and strengthening of control over this process;
- Development of incentives for businesses that implement programs in HCS at the regional level;
- Further popularization of PPP in society using various means of communication.

Territorial authorities and local self-governments, taking into account the perspective and necessity of cooperation with business for the restoration and development of medical infrastructure on an innovative basis, should be interested in long-term partnership relations for the implementation of regional/local projects/programs in health care by supporting and stimulating/encouraging business, activation integration of financial mechanisms and tools of socially responsible business based on the development of PPP. The implementation of the best world practices in Ukraine in the process of implementing regional social programs based on PPP, which involves projects and programs agreed with the community, the introduction of public control over their efficiency and effectiveness, is a perspective for further research.

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