DEVELOPMENT OF THE FINANCIAL MECHANISM FOR PROVIDING THE STATE GUARANTEES OF POPULATION MEDICAL SERVICE: FOREIGN PRACTICE

Scientific research consists of substantiation and development of conceptual foundations and recommendations for the development of a financial mechanism for providing state guarantees of medical care to the population based on foreign practice. The paper substantiates the relevance of building an effective financial mechanism for ensuring state guarantees of medical care for the population for the Ukrainian medical sphere: the need to reform the healthcare system in Ukraine; changing the paradigm of financing the medical industry; financing of the medical industry is experiencing critical problems; catastrophic situation in ensuring the provision of specialized and highly specialized inpatient care; imperfection of mechanisms for ensuring financing of the health care system of Ukraine.

In this work, the author examines in detail the features of the three main models of healthcare at the global level, classifies the healthcare systems of leading countries according to three main models, systematizes in tabular form the practice of six countries - Israel, Sweden, France, the USA, Great Britain Germany, in which these models received the most bright embodiment.

The aim of the work consist of studying the general principles of financing models and organization of the health care system in the coordinates of globalization changes and European integration; analysis and characterization of the financial mechanism that provides state guarantees in the field of medical care. Applied aspects are based on the systematization of the instrumental base for modelling the financial mechanism for providing state guarantees of medical care to the population, taking into account foreign experience.

In the work, the author analyzed the calculations of the ratio of costs and indicators of the effectiveness of the health care system in 2020, the analytical dependence of average life expectancy on per capita expenditures in the health sector, % of GDP.

The analysis carried out on the selected research issues provides a conceptual basis for the formation of an effective financial mechanism for budget policy in Ukraine to ensure state guarantees of medical care for the population; forms a platform for the development of macroeconomic stabilization policy. The prospects for further research are the improvement of the issues of the mechanism for the effective functioning of the public sector and the implementation of integrated management analysis.

Key words: financial mechanism, state guarantees, healthcare system, consumer health index, healthcare models, financial support, insurance model.

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РОЗБУДОВА ФІНАНСОВОГО МЕХАНІЗМУ ЗАБЕЗПЕЧЕННЯ ДЕРЖАВНИХ ГАРАНТІЙ МЕДИЧНОГО ОБСЛУГОВУВАННЯ НАСЕЛЕННЯ: ЗАРУБІЖНА ПРАКТИКА

Наукове дослідження полягає в обґрунтуванні та розробці концептуальних засад та рекомендацій щодо розбудови фінансового механізму забезпечення державних гарантій медичного обслуговування населення на засадах зарубіжної практики. У роботі обґрунтовано актуальність побудови діючого фінансового механізму забезпечення державних гарантій медичного обслуговування населення для Української медичної сфери полягає у наступному: необхідність реформи системи охорони здоров'я в Україні; зміна парадигми фінансування медичної галузі; фінансування медичної галузі зазнає критичних проблем; катастрофічна ситуація в забезпеченні надання спеціалізованої та високоспеціалізованої стаціонарної допомоги; недосконалість механізмів забезпечення фінансування системи охорони здоров'я в Україні.

У роботі автор детально розглядає особливості трьох основних моделей охорони здоров'я на глобальному рівні, наводить класифікацію систем охорони здоров'я провідних країн згідно за трима основними моделлю, систематизовано в табличній формі практика шести країн - Ізраїль, Швеція, Франція, США, Великобританії Німеччина, в яких зазначені моделі отримали найбільше яскраве втілення. Метою роботи є дослідження загальних засад моделей фінансування та організації системи охорони здоров'я в координатах глобалізаційних змін та Європейської інтеграції; аналіз та характеристика фінансового механізму, який забезпечує державні гарантії у сфері медичної допомоги. Прикладні аспекти ґрунтуються на систематизації інструментальної бази моделювання фінансового механізму забезпечення державних гарантій медичного обслуговування населення, враховуючи зарубіжний досвід.

У роботі автором здійснено аналіз розрахунків співвідношення витрат та індикаторів ефективності системи охорони здоров'я в 2020 цикл, аналітична залежність середньої тривалості життя, витратами на душу населення на сферу охорони здоров'я, % від ВВП. У процесі реформування сфери охорони здоров'я України розглядається можливість запровадження загальнообов'язкового медичного страхування та використання змішаної бюджетно-страхової системи фінансування галузі; використання системи громадського контролю сфери охорони здоров'я. Впровадження дієвої системи громадського контролю за галузю охорони здоров'я України сприятиме стабілізації демократичного громадського суспільства, а, таким чином, підтримати роботи боротьби з хворобами.

Проведений аналіз за обраною проблематикою дослідження забезпечує концептуальну основу формування дієвого фінансового механізму бюджетної політики в Україні щодо забезпечення державних гарантій медичної
Problem setting

In any country, the choice of the optimal health care model has the fundamental importance to ensure more efficient use of resources and improve the quality and availability of health care. The world has accumulated significant experience in the area of building and optimizing models of financing and organization of health care. Thus, the leading countries are consistently striving to expand the coverage of the population with free medical care, rationalize sources of financing and methods of allocating funds, methods of managing the health care system in order to increase its efficiency and eliminate duplication of costs [1]. Despite the fact that none of the existing healthcare models in the world can claim to be universal, the analysis of the parameters of these models, their strengths and weaknesses, as well as generalization of the experience of specific countries is important in reforming and optimizing the current healthcare model in Ukraine.

The urgency of building an effective financial mechanism to ensure state guarantees of medical care for the Ukrainian medical sphere is:

- reform of the health care system in Ukraine;
- changing the paradigm of financing the medical sector;
- financing of the medical sector is experiencing critical problems;
- catastrophic situation in providing specialized and highly specialized inpatient care;
- imperfect mechanisms for financing the health care system in Ukraine.

The world has accumulated significant experience in the field of building and optimizing models of financing and organization of health care. Thus, the leading countries are consistently seeking to expand the coverage of the population with free medical care, rationalize funding sources and methods of distributing funds, methods of managing the healthcare system in order to increase its efficiency and eliminate duplication of costs. Despite the fact that none of the health care models existing in the world can claim to be universal, the analysis of the parameters of these models, their strengths and weaknesses, as well as the generalization of the experience of specific countries is important in reforming and optimizing the current health care model in Ukraine. A comprehensive analysis of healthcare systems financed from universal health insurance funds can serve as a good basis for developing mechanisms for transferring healthcare in Ukraine to insurance principles, guaranteeing in practice the freedom of choice of an insurance and medical organization by a patient, improving the efficiency of healthcare management, strengthening financial control by insurance companies over medical institutions.

Recent publications analysis

The work of many domestic and foreign scientists is devoted to the formation of the budget and its impact on the socio-economic development of the country. At the current stage of the national economy development of Ukraine it is very important to show the role of budget policy in the macroeconomic stability of the state, because it depends on the implementation of the Presidential Program of Economic Reforms for 2019-2022.

The work of many foreign and domestic scientists and specialists is devoted to the study of problems associated with the financial and economic mechanisms which ensure state guarantees in the area of medical care. A wide range of issues related to research in the area of medical services market and financial system of health care. For example, Karpenko and Zhylinska (2019) research the human development in the context of provision of the social safety of society. Golovanova and Krasnov (2015) present actual problems of medical insurance development during the period of market reform. Thomson and Jun (2018) explore International Profiles of Health Care Systems, etc. However, some issues, in particular, development of the financial mechanism for providing the state guarantees of population medical service remain insufficiently explored. There is a need to improve and expand the study of this issue. In addition, the domestic scientific literature is insufficiently studied issues related to the development of local budgets in the context of systemic transformations in the economy and public administration, taking into account financial aspects and changing the role of local governments in ensuring socio-economic development.

The goal of this work

The aim of the paper is to study the general principles of models of financing and organization of the health care system in the coordinates of globalization changes and European integration; analysis and characterization the financial mechanism which ensures state guarantees in the area of medical care; systematization in tabular form the practice of six countries − Israel, Sweden, France, USA, UK, Germany, in which the above models received the brightest embodiment. In the article authors propose the main directions of organizational principles of improving public administration of the health care financial system in Ukraine.

General theoretical and economic-statistical methods were used in solving the tasks. The methodological basis forms a number of the following methods: scientific abstraction, classification and systematization − to identify the main components of health systems of leading countries according to three basic models; methods of
dialectical and formal logic, analysis and synthesis, systematic approach, decomposition method – for the development of managerial tools and methodological support for the modelling the financial mechanism for providing the state guarantees of population medical service and the budgetary efficiency system in Ukraine’s state policy. The application of an interdisciplinary approach allowed to comprehensively consider the legal regulation of the development of public health management, as well as the laws and principles of reforming the mechanisms of public health management in Ukraine in the context of the European dimension. The systematic approach was used to develop and justify modern improvements in the mechanisms of public management of the health care system in Ukraine, taking into account foreign experience in the formation of mechanisms for public management of the health care system.

**Key research findings**

A comprehensive analysis of health care systems financed from universal health insurance funds can serve as a good basis for the development of mechanisms for transferring health care in Ukraine to insurance principles, guaranteeing in practice the patient’s freedom of choice of an insurance and medical organization, improving the efficiency of health care management, strengthening financial control by insurance companies over medical institutions [2].

It seems expedient to start the research by studying the *features of the three basic healthcare models*. In modern conditions, all health care models can be roughly divided into three types: budgetary (state), insurance (social insurance), private (non-state, or market).

The characteristic feature of the first model, which is known as the Semashko-Beveridge model, is the significant role of the state. Tax revenue is the main source of funding. Medical services for the entire population are provided free of charge. The share of total expenditures from public sources in GDP is usually 8–11%. Private insurance and copayments play a complementary role. The main funding channel is the state budget [3].

The second model, known as the Bismarck model, is often referred to as a regulated health insurance system. It is based on the principles of the mixed economy, combining the medical services market with a developed system of government regulation and social guarantees. Compulsory health insurance programs cover the entirety or almost the entire population with the state's complicity in financing insurance funds. As in the budget model, the state covers more than 70% of the costs of medical services, but the total government spending on health care, as a rule, is slightly higher than in the budget model, already amounting to 9–13% of GDP. Private non-profit or commercial insurance funds or companies play a decisive role in the allocation of funds, the role of the market in meeting the needs of the population for medical services is high, and patients have significant freedom in choosing insurance companies and service providers [3].

The private health care model is characterized by the provision of medical services mainly on a paid basis, at the expense of private insurance and personal funds of citizens. There is no unified system of state health insurance. The market plays the key role in meeting the needs for medical services. The state assumes only those obligations that are not satisfied by the market, that is, it covers medical care for socially vulnerable categories of citizens - the unemployed, the poor and pensioners.

The Fig. 1 shows the classification of health systems in leading countries in accordance with three main models - budgetary, insurance and private.

![Fig. 1: Classification of health systems of leading countries according to three basic models](source: systematised by the author [2–4])

Let’s explore the experience of Germany. Germany is the classic example of a social insurance model. Funding sources are distributed as follows: social health insurance - 60%, private health insurance - 10%, state budget - 15% and personal funds of citizens - 15% [4].

Known as sickness funds (Krankenkassen, German), organizations and associations of sickness funds form the backbone of the Social Health Insurance (SHI) system. They establish self-regulatory structures that manage funding and service delivery to the extent guaranteed by compulsory health insurance law. The health insurance
funds have the status of private non-profit organizations; they are engaged in insurance of risks associated with illness [5].

In the Table 1 there is systematization the foreign experience of financial support of medical care state guarantees.

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
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<tbody>
<tr>
<td>Israel</td>
<td>The country’s health care is based on compulsory health insurance. About 5% of the population is uninsured. At the same time, there is financing of about half of medical expenses by consumers - about a third - personal payments and 18% - through insurance contributions to insurance funds due to illness. For certain types of services there is commercial insurance by private insurance companies.</td>
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<tr>
<td>Sweden</td>
<td>Medicine in Sweden is free for the population. It is financed by state and municipal funds and insignificant contributions from citizens. Sources of funding: taxes, state social insurance system and private funds. When a citizen pays 110 euros, medical care is provided free of charge. Absolutely free medical care is provided to children and pregnant women.</td>
</tr>
<tr>
<td>France</td>
<td>Compulsory health insurance system prevails. Collective agreements cover the rest. Employers pay a tax of 12.8% of salary for each employee; 0.75% is paid by the employee.</td>
</tr>
<tr>
<td>USA</td>
<td>Funding for health care is provided by private insurance. The federal government guarantees health insurance for the elderly and the poorest. 46% of the funding is provided by the federal and state governments. Employers pay 27% of benefits. The other 27% are from private individuals. More than 15% of Americans are uninsured.</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Health care budgeting system. 90% of the budget consists of taxes. 7.5% - employer contributions. Patients pay 10% of the cost of treatment. All funds are collected in the central budget and distributed from top to bottom along the management vertical. Deficits in the health care area are partially offset by private insurance and an increase in paid health care.</td>
</tr>
<tr>
<td>Germany</td>
<td>The basic principle is that the government is not responsible for financing health care. There is a decentralized health insurance system. Medicine is financed from 3 sources: insurance premiums of entrepreneurs - tax deductions; earnings of employees - deductions from wages; funds from the state budget.</td>
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The next step we are going to research the practice of France in medical area. The French healthcare system is a prime example of a social insurance model. It is financed by 50% from social health insurance. 20% from private health insurance; the state budget covers 10% of all costs, and personal funds of citizens - 20%. Coverage of the population by social health insurance programs is 96%. Public spending on health care is 9.7% of GDP, total - 12.5% of GDP. The funds are accumulated in the state social health insurance fund, from where they go to private non-profit universal health insurance funds that manage the financing of health facilities. The form of healthcare management is decentralized. Regional health authorities are responsible for organizing inpatient and outpatient care in both public and private medical institutions. The market for medical services is developed; private insurance plays an important complementary role. In France, institutions of various forms of ownership are combined with a predominance of private ones. Payment for medical services in hospitals is made by the method of clinical statistical groups and the global budget. Outpatient care is paid by the method of fee for the service and the result. French medicine covers both public and private hospitals, as well as the services of specialized doctors and other medical specialists who serve every resident of France, regardless of status, income, and age. This policy makes French medicine accessible even to foreigners visiting the country for the purpose of treatment or permanent residence, business or study.

Aetna International is one of the largest international healthcare providers with comprehensive healthcare management solutions worldwide, including France. The French jurisdiction has a high-quality healthcare system that offers universal coverage for all citizens, regardless of age or economic situation. It consists of an integrated network of public and private services, including physicians, hospitals and specialized providers. Residents are covered by compulsory French health insurance contributions. Optional private insurance is available for those who wish to receive additional services.

The Ministry of Social Affairs and Health (Ministere de Solidarites et de la Sante) administers public health in France, including primary and secondary health care provided by various providers. Medicine in France offers a high level of preventive healthcare, with affordable services including addiction prevention, regular medical check-ups and the promotion of physical activity and healthy eating.

Medicine in France is ranked 11th in the European Consumer Health Index 2020 and has been praised for its effectiveness and results achieved. For example, the country has the lowest death rate from heart disease in Europe, although it has been criticized for its over-reliance on prescription drugs. In the Table 2 you can see the correlation between spending and health system performance indicators in 2020.

If we compare the cost of health care per capita, we have data basic for 2021.
- the United States spent 10.8 thousand dollars USA.
- Germany - 5.3 thousand dollars USA.
- Great Britain - 4.1 thousand dollars USA.
- Czech Republic - 2.8 thousand dollars USA.
- Hungary - 1.2 thousand dollars USA.
- Poland - 0.7 thousand dollars USA.
- in last place is Ukraine - 0.09 thousand dollars USA.
The main proposals for improving the financial mechanism for providing state guarantees of medical care include:

1. Clear definition of those medical services that must be 100% guaranteed by the State. Narrow the list of services financed from the State budget;
2. Conduct an audit of the real cost of medical services on the basis of analytical checklists. Which must be completed within 3 months for each patient of the hospital and calculated by the economic department at real cost;
3. It makes sense to add to the available sources of funding for medical services: health insurance, financing of medical services for their employees by type of "corporate client", expanding the range of services that can be considered paid services.

Singapore is best in Bloomberg’s second annual ranking of countries with the most efficient health care while the U.S. remains near the bottom. The ranking evaluates health care costs as a share of GDP and per capita, as well as life expectancy and improvements from last year.

Ukraine’s spending on healthcare is the lowest among European countries. The scarcity of public resources in this sector is partly due to their inefficient use. Most of the funds go to the maintenance of hospitals, and not to cheaper measures for disease prevention.

This conclusion was made by the authors of a study conducted under the auspices of the United Nations Development Program (UNDP), the World Bank and the Kiev School of Economics. “Public healthcare spending in Ukraine is $77 per capita (as of 2020) and is the lowest among European countries” [10].

The author believes that the Ukrainian authorities allocate a little bit funds from the budget for disease prevention. In general, the country has one of the largest, unnecessarily cumbersome inpatient health infrastructures in Central Europe. So throughout Ukraine, there are 0.4 hospitals, 7.4 beds, 4.4 doctors and 8.6 nurses per 1,000 people. Budget expenditures on hospitals are mostly spent on medical salaries and utilities. Almost nothing is left for medicines and equipment. On average, less than 25% of drug needs are covered by public funds in hospitals. 63 percent of doctors in Ukrainian hospitals ask patients to buy medicines at their own expense. At the same time, the salary of medical personnel is also significantly lower than that of their European counterparts. As a result, about 3 out of 10 doctors are forced to work part-time, which, of course, affects their productivity and the quality of services for the population [11].

In addition, a hidden parallel system of cash payment for medical services has taken root in the country. This practice prevents the poor from receiving quality health care. Public funding of the health care system accounts for only about half of total health care spending. At the same time, an opaque system of payment for services in cash operates. Based on the results of the study, many domestic authors presented a number of recommendations for improving the quality of services and increasing the efficiency of healthcare spending. Experts believe that accelerating the reform of the health care system will help move towards a new form of financing for medical care. “Clear definition of health care packages, along with the introduction of contracting mechanisms between patients and doctors, will help to better allocate available public resources to provide guaranteed health care to citizens”.

There are some suggestions for improving the current situation with the organization and financing of medical care for SARS-COV2-19 SARs:

1. As part of the Presidential program "Large-scale construction" in all hospitals to build infectious-boxed wards for patients with COVID - 19 during an outbreak. Boxed wards are effective and necessary at all times, both during and outside the epidemic, because they can accept patients with various infectious diseases at the same time.
2. Infectious disease hospitals should be left as first-wave hospitals treating patients with the coronavirus infection COVID-19, for the entire period until the epidemiological situation in general changes;
3. Provide all hospitals with flow oxygen and oxygen concentrators, which will provide assistance to patients and quickly reformat the admission department for patients with COVID-19 without compromising the operation of the hospital as a whole;
4. Exclude a separate package "Treatment of patients with acute respiratory viral disease - SARS COVID - 19" from the list of SGP and leave the general package "Inpatient treatment of adults and children without surgery"
Conclusions

So, budget mechanism – the complex of developed and legally established in the state forms and methods of creating and using financial resources to regulate social and economic processes, and the main purpose of this regulation is to provide financial rates and proportions of economic development and social guarantees to the population. Thus, the analysis of foreign experience allows us to draw the following conclusions:

1. There are no specific models in their pure form in any country.
2. No model is versatile.
3. In any of the models, there is only one dominant source of funding.
4. In the budgetary and insurance models, the state provides more than 70% of all expenses.
5. The most important factor in the sustainability of systems is the coverage of the population with free medical services, the absence of duplication of costs, the efficiency of resource use and the availability of medical services.
6. No country can meet all health needs from public funds without private insurance and / or co-payments.
7. No specific models in their pure form in any country.

The study of the existing organizational and methodological basis for the functioning of the system of medical care for the population of primary, secondary and tertiary levels in Ukraine and the regulatory and legal support for financing the domestic system of medical care for the population showed that the basis for the provision of medical care in Ukraine is clearly regulated by the relevant laws and is divided into three levels according to the level specialization of care (from general to highly specialized).

It includes emergency, palliative care and medical rehabilitation. The characteristics of each link, their relationship and the conditions for providing free, state guaranteed, medical care are clearly defined. Today, there are a large number financial mechanisms for providing state guarantees of medical care at all levels of medical care in Ukraine. Every year the Cabinet of Ministers issues resolutions on certain issues of medical guarantees, which expire on January, 1 next year, and every year the National Health Insurance Fund presents new medical guarantee programs with new requirements.

The analyzed foreign experience of financial provision of state guarantees of medical care for the population found that medicine, in general, is a very valuable industry and its maintenance from "one pocket" is almost impossible, therefore, in most countries there is a mixed form of financing. The most effective combination of health insurance and receipt of funds from the state budget, implemented through the following types of health care financing: state, municipal - compulsory and voluntary health insurance and a mixed form. These types are practically not used separately in any state, however, depending on the state, one or another form of financing may have a dominant position.

In order for the insurance model to work in Ukraine, it is necessary:

1. Gradually increase the share of public health spending to 10% of GDP.
2. Complete the transition to truly single channel financing. Stop the practice of an intermediary in transferring money from the budget to the territorial health insurance funds.
3. Change the insurance companies, increasing the role of the latter in the management of health care resources.
4. Move away from budget financing, put into practice the principle “money follows the patient”.

The problem of functioning of the financial mechanism of providing state guarantees of medical care in Ukraine is as follows: the structure of providing state guarantees in different areas is uneven. Deficiencies in the financial provision of state guarantees lead to an outflow of staff from hospitals, reducing the quality of medical care. The proposed ways to improve the financial mechanism of state guarantees of medical care by improving the organizational framework are that it is necessary to clearly define those medical services that should be fully guaranteed by the State. It makes sense to add to the available sources of financing of medical services additional sources, namely - health insurance, financing of medical services for their employees by type of "corporate client", expanding the range of services that can be considered paid. Improving efficiency is also the key for improving the results of the reform and creating opportunities to support priority actions, in particular through the restructuring of hospitals. In the process of reforming the health care sector of Ukraine, the possibility of introducing compulsory health insurance and using a mixed budget insurance system to finance the industry is being considered; use of the
The introduction of an effective system of public control over the health sector of Ukraine will contribute to the establishment of a democratic civil society, as well as counteract the work of bureaucratic mechanisms.

References
11. Kontseptsiiu reformy finansuvannia systemy okhorony zdorovia Ukrainy vyneseno na hromadske obgovorenня [The concept of reforming the financing of the health care system of Ukraine has been submitted for public discussion.]. Rezhym dostupu: http://apipm.org.ua/kontseptsiiu-reformy-finansuvannya-sistemi-okhorony-zdorov-ya-ukrayinivineseno-na-gromadske-obgovorennya/

Paper received : 06.01.2022
Printed : 31.01.2022