OECD AND UKRAINE: TRENDS IN HEALTH CARE FINANCING

The article examines current trends in healthcare financing in OECD countries and Ukraine. The focus is on assessing the dynamics of total healthcare spending and it is found that in 2020, the COVID-19 pandemic caused a significant increase in funding in all countries. In particular, only in 2019–2020, the share of healthcare costs in the GDP of OECD countries increased by 1 % on average. Thus, advanced countries, realizing the impact of the healthcare industry on the economy and well-being of the country as a whole, tried to maximally strengthen its financial stability in general and to epidemic challenges in particular.

The priority sources of health care financing were analyzed and it was found that the governments of the OECD countries diversify the sources of financing in the sector to protect their citizens from excessive financial burden and to ensure affordable and high-quality medical care. It was found that the direct costs of patients from OECR countries account for an average of 20 % of all health care costs, while in Ukraine the population finances more than 46 % of medical costs. It was noted that this indicator is threatening for the country, since the poor do not have access to medical care due to lack of funds and, as a result, the number of diseases, the level of disability, and mortality of citizens is increasing.

It was established that the priority sources of financing for one group of OECD countries (Denmark, Sweden, Norway, Great Britain, Canada, etc.) are budget funds, and for another (Germany, Japan, France, etc.) – funds from the mandatory health insurance system. In recent years, there has been a tendency to increase...
the share of mandatory health insurance in the structure of financing sources of OECD countries, which increased by 2 % on average and amounted to 39 %.

It was concluded that the Ukrainian health care system, in which the reform began in 2015, annually increases the amount of funding and has positive feedback from WHO and World Bank experts about the results of the reform. However, due to political changes in 2014 and economic constraints due to the COVID-19 pandemic, total health spending in dollar terms in 2020 did not reach the 2013 funding level. In addition, the war made adjustments to the activity of the industry, introducing a regime of maximum preservation of infrastructure, simplification of financing, and ensuring the availability of medical services. Despite this, the government developed a post-war healthcare recovery plan to revive destroyed facilities and radically transform the industry in peacetime.

Key words: health care; OECD countries; health care costs; sources of funding.

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ОЕСР Й УКРАЇНА: ТЕНДЕНЦІЇ У ФІНАНСУВАННІ ОХОРОНИ ЗДОРОВ’Я

У статті досліджено сучасні тенденції фінансування охорони здоров’я в країнах ОЕСР та Україні. Зосереджено увагу на оцінці динаміки загальних витрат на охорону здоров’я та з’ясовано, що у 2020 р. пандемія COVID-19 спричинила відчутне зростання обсягів фінансування у всіх країнах. Зокрема, лише за 2019–2020 рр. частка витрат на охорону здоров’я у ВВП країн ОЕСР у середньому зросла на 1 %. Отже, передові країни, усвідомлюючи вплив галузі охорону здоров’я на економіку та добробут країни в цілому, намагалися максимально підсилити її фінансову стійкість загалом і до епідемічних викликів зокрема.

Проаналізовано пріоритетні джерела фінансування охорони здоров’я й з’ясовано, що уряди країн ОЕСР диверсифікують джерела фінансування галузі з метою захисту своїх громадян від надмірного фінансового навантаження та задля забезпечення доступного і якісного медичного обслуговування. З’ясовано, що прямі витрати пацієнтів з країн ОЄСР становлять у середньому 20 % від усіх витрат на охорону здоров’я, тоді як
в Україні населення фінансує понад 46 % медичних витрат. Відзначено, що цей показник є загрозливим для країни, оскільки малозабезпечених верств населення не мають доступу до медичного обслуговування через відсутність коштів і, як наслідок, зростають кількість захворювань, рівень інвалідизації та смертності громадян.

Установлено, що приоритетними джерелами фінансування для однієї групи країн ОЕСР (Данії, Швеції, Норвегії, Великобританії, Канади та ін.) є бюджетні кошти, а для іншої (Німеччина, Японія, Франція й ін.) – кошти системи обов'язкового медичного страхування. В останні роки спостерігається тенденція по підвищенню частки обов'язкового медичного страхування в структурі джерел фінансування країн ОЕСР, яка в середньому зросла на 2 % і становила 39 %.

Зроблено висновок, що українська система охорони здоров'я, у якій з 2015 р. розпочато реформу, щорічно нарощує обсяги фінансування й має позитивні відгукки експертів ВООЗ та Світового банку про результати реформування. Проте через політичні зміни у 2014 р. й економічні обмеження внаслідок пандемії COVID-19 обсяг загальних витрат на охорону здоров'я в доларовому еквіваленті у 2020 р. не досягнула рівня фінансування 2013 р. Крім того, війна внесла корективи в діяльність галузі, запровадивши режим максимального збереження інфраструктури, спрощення фінансування та забезпечення доступності медичних послуг. Незважаючи на це, урядом розроблено повоєнний план відродження зруйнованих об'єктів та кардинальну трансформацію галузі в мирний час.

**Ключові слова:** охорона здоров'я; країни ОЕСР; витрати на охорону здоров'я; джерела фінансування.

**1. INTRODUCTION**

The effectiveness of the health care system significantly affects the level of health of the population, because if medical services are of high quality and accessible to citizens, then the health indicators of the population are better. Access to and quality of healthcare depends on the amount of healthcare funding, so the level of funding is one of the decisive factors for ensuring the resilience of healthcare systems during the threat of the epidemic of COVID-19 or the emergence of new threats to public health.

The COVID-19 pandemic has shown that by spending effectively on healthcare, the country makes investments, as stronger and more sustainable healthcare systems protect not only the population but also the economy. This period also showed the role and value of medical personnel: doctors, medical staff, and
long-term care staff, the shortage of which became a more serious problem than the lack of hospital beds or medical equipment. Therefore, one of the tasks of modern governments is to significantly increase the amount of healthcare funding; increase costs for medical workers and goods and services necessary for the prevention and treatment of diseases. However, such costs will improve the health of the population and the effectiveness of the healthcare system only if they are spent effectively.

The health care system is an institution responsible for the implementation of goals and objectives in the field of sustainable development, the center of attention of governments and society, and an important sector of scientific and analytical activity of scientists and specialists. A significant group of domestic scientists studied the experience of financing the health care systems of foreign countries. S. Boyko [1, 2], O. Stepanova [3], and N. Filipova [4, 5] studied the current trends in the financial and economic provision of health care in EU countries and Ukraine. G. Mulyar [6] studied the foreign experience of ensuring the implementation of the right to health care in the countries of the European Union. Scientists L. Alimova [7] and O. Visyannyk [8] considered investment experience and efficiency of health care systems in OECD and EU countries, and D. Havrychenko [9] – modern directions of health care reform in foreign countries.

Along with this, despite highlighting the foreign experience of health care financing and its comparison with Ukrainian practice, there is a need for further development and research of trends in health care financing in advanced countries, in particular those that are part of the OECD, for full provision Implementation of citizens’ rights to medical care in Ukraine and the world.

The Purpose of the Article is to assess the volume, dynamics, and structure of healthcare expenditures in the OECD countries and Ukraine to identify past and present trends and problems of financial support of the industry.

Research Methodology is based on dialectical, systemic, and institutional approaches, according to which the studied phenomena are considered in an inextricable connection and causality. In the research process, general scientific and special methods were used, including theoretical generalization, scientific abstraction, comparison, logic; structural and functional; induction and deduction; analysis and synthesis for the evaluation of healthcare activities in foreign countries and Ukraine.

2. RESEARCH RESULTS

Before the COVID-19 pandemic, the indicator of the share of healthcare expenditures in GDP for the countries of the Organization for Economic Coopera-
tion and Development (hereinafter – OECD) remained relatively stable. So, on average, about 8.8% of GDP, or almost 4 thousand dollars was allocated to medical services in 2018 per person. The top three according to this indicator included the USA – 16.9%; Switzerland – 12.2% and Germany – 11.2% [10]. In 2020, in almost all countries, despite significant restrictions on economic activity due to the onset of the pandemic, there was a sharp increase in healthcare costs and their share to 9.7% of GDP, which is 0.9% more than in 2019 (fig. 1).

In some countries, this indicator grew at an even faster pace, for example, in Italy from 8.7% to 9.7%, in Great Britain – from 10.2% in 2019 to 12.8% in 2020, in France from 11.1% to 12.4%, and in Slovenia from 8.5% to almost 10%.

The analysis of sources of financing showed that budget funds combined with mandatory health insurance funds in the OECR countries were on average close to all health care costs in 2019 (fig. 2). In the structure of financing sources

![Fig. 1. Health Care Costs of OECD Countries as a Share of GDP in 2019–2022, %](Based on [11])
of the OECD countries, mandatory health insurance funds are dominant, the share of which increased by 2% in 2019 and amounted to 39%.

![Fig. 2. The Structure of Healthcare Financing Sources in OECD Countries in 2019](image)

*Based on [11]*

Countries in which medicine is financed mainly through mandatory health insurance contributions include Germany (78%), Japan (78%), France (75%), Estonia (64%), Poland (59%), USA (58%). It is also known that Germany and Japan mainly used the mechanism of social health insurance, and France supplemented public health insurance with a system of private health insurance, which became mandatory under certain employment conditions in 2016. In turn, in the United States, federal and state programs such as Medicaid covered approximately a quarter of all healthcare costs in the United States in 2019 [10].

However, there are some OECD countries in which budget funds are the dominant source of health care financing. Such funds, as a rule, are formed at the expense of taxes, fees, and other revenues of the state, regional, and local budgets, which, through redistribution through the budgetary mechanism, are spent on the needs of the industry. These are countries such as Norway, Denmark, Sweden, Great Britain, and Canada, because it was from their budgets that 68% to 84% of the industry’s needs were financed, and the rest was mostly covered by direct payments from citizen-patients.

For Ukraine, for a long period, the lion’s share of medical needs was financed by budgets, however, over the last decade, the amount of public and state spending on health care has almost equalized. In particular, in 2020, government funds amounted to UAH 164.3 billion, and household expenses amounted to
UAH 152.8 billion, i.e. 49.9% and 46.4% in the structure of financing sources, respectively [12].

According to the methodological guidelines of the National Accounts of Health Care in Ukraine, national health care costs are formed at the expense of:

– state funds (funds from the state budget; funds from local budgets);
– non-state funds (funds of employers; funds of households; funds of non-governmental organizations serving households; others)
– funds from the rest of the world (funds from the Global Fund for AIDS, Tuberculosis, and Malaria; other donors) [13].

As can be seen from fig. 3, the total spending on health care in Ukraine during 2003–2020 in hryvnia equivalents increased more than 18 times.

![Fig. 3. Total Expenditures on Health Care in Ukraine for 2003–2020 Based on [11]](image)

*Based on [12]*

At the same time, the analysis of the dynamics of total healthcare costs in US dollars showed a slightly different situation. In particular, in fig. Figure 3 shows that the rapid growth of healthcare spending in Ukraine took place during 2013–2013 and 2013 amounted to almost 14.5 billion dollars. USA. However, after the political events in the country in 2014, as a result of which the hryvnia exchange rate fell, the amount of healthcare financing in 2015 was reduced by almost half compared to 2013, and in 2020 it amounted to USD 12.3 billion. USA.

In Ukraine, in 2016, the percentage of total health care expenses to GDP was 7.6 %, and in 2020 – 7.8%, which can be considered a fairly high value of
the indicator, since a similar level was observed in such countries as the Czech Republic and Israel – 7,5 %, Greece – 7,8 %. Due to the low volume of GDP in Ukraine, the number of medical expenses per capita was catastrophically low compared to other countries – 24 times less than in OECD countries and 63 times less than in the USA.

A detailed analysis of the structure of healthcare financing sources in Ukraine [12] made it possible to draw the following conclusions:

– state financial resources in 2020 accounted for almost 50 % of the total expenditure on health care, of which the State Budget of Ukraine accounted for 36,9 % or UAH 121.7 billion, and local budgets for 12,8 % or UAH 42,3 billion. 0,13 % or 0,4 billion UAH was financed by the Social Insurance Fund. Budget expenditures were mostly directed to the financing of medical assistance to the population, state-targeted and local healthcare programs, and fundamental scientific research;

– municipal government spending on health care for a long period occupied a dominant share in the structure of state financing and grew annually. For example, in 2015 their volume exceeded almost 8 times the expenditure on health care in 2003. However, in 2015, the transformational reform of the health care system in Ukraine began, which, according to the conclusions of international experts, was successful and corresponds to international practices of accessibility, quality, and efficiency of medical services. As a result of the introduction of the medical reform, starting in 2018, state budget expenditures on health care began to grow at a noticeably rapid pace, and in 2020, state budget funds exceeded the volume of local budget expenditures by 2,9 times. That is, over the past five years, it was possible to change the priorities of budget funding and the structure of budget expenditures for healthcare purposes.

– compared to OECD countries, the share of population spending on healthcare in Ukraine is not only high but also growing, in particular, from 38,5 % of total healthcare spending in 2003 to 49,2 % in 2019 and 46,4 % in 2020 [12]. This rate is much higher than the average for other lower-middle-income countries (38,4 %), although similar to the average for lower-middle-income countries in the European region [11].

The situation, when a large part of health care costs is paid for by citizens, is threatening. First of all, due to income inequality and the high poverty rate of the population in Ukraine, access to medical services is limited, and the risk of chronic diseases, disability, high mortality, and a decrease in the quality of life of the population increases. Between 2010 and 2019, the share of households spending more than 10 % of total consumption on health increased from 6,9 % to 7,8 %, and the share of households spending more than the «solvency»
threshold established by WHO in Europe increased from 11.5% to 16.7% [15]. Secondly, it is known that if the state funding sources cover less than 75% of the needs of the healthcare system, then such a system becomes unmanageable [15].

According to the conclusions of the joint report of the WHO and the World Bank, the implementation of the medical reform in Ukraine was successful, in particular, in the legal field – the concept of the reform was approved and the law «On State Financial Guarantees of Medical Services of the Population» was adopted; in the institutional sphere, the National Health Service of Ukraine (NHSHU) was created, which carries out strategic procurement of medical services; primary medical care providers work as autonomous business entities; hospitals are gradually becoming communal non-profit enterprises; a system of strategic purchases was introduced, etc. [17].

Foreign experts gave a positive assessment of the process of developing new approaches to the payment of inpatient medical care, namely the procedure for concluding contracts with providers of primary medical care and hospital medical care. After all, funding became available to those institutions that met the terms of the contract (personnel conditions, requirements for medical equipment, infrastructure, and the ability to provide medical care by the protocols). Also, global budget funding, which is linked to indicators of efficiency, morbidity, and provider capacity, was used to purchase 81% of specialized care under the health services program in 2020. In addition, the electronic health care system has become more sophisticated, as electronic medical records and referrals have been implemented, which has contributed to better coordination of patient routes [18].

However, the war, which began on February 24, 2022, and continues to this day, has put the achievements of the reform under serious threat. Considering the impact of such an emergency, WHO researchers identified three main conditions that will help industries function effectively in the difficult conditions of war, namely [19]:

– ensure the planning of ways to overcome long-term consequences based on the principles of comprehensive access to health care services (universal health coverage). Also, maximally support the main principles of the pre-war health care financing system and preserve the network of medical institutions;
– to ensure population access to basic medical services. That is, the financial resources of the state should be used to ensure the availability of medical services of acceptable quality without creating financial difficulties for patients;
– to adapt the main changes in the payment mechanisms of service providers, which were initiated at the beginning of the war, taking into account the post-war recovery. To this end, in March 2022, most payment methods were
replaced by a global monthly budget to ensure more predictable and stable funding.

3. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

Analysis of trends in healthcare financing in OECD countries showed that the biggest changes occurred in 2020 due to the impact of the COVID-19 pandemic. Even though the economies of these countries slowed during this period, healthcare spending in GDP increased by almost 1% compared to 2019 and was 9.7% of GDP. In some countries, the growth rate was even higher: Italy – by 1%, Great Britain – by 2.6% in 2020, France – by 1.3%, and Slovenia – by 1.5%. The governments of advanced countries have realized that it is extremely important to strengthen the financial stability and readiness of healthcare systems for epidemic challenges, as this negatively affects the economy and well-being of the country as a whole. States have tried to diversify the sources of funding for medical services in such a way as to protect citizens from the excessive burden on their budgets and to ensure affordable and high-quality medical care at the expense of budgets and health insurance. On the negative side, health spending in OECD countries continues to focus largely on treatment rather than disease prevention and health promotion, with far more being spent on hospitals than on primary care.

The Ukrainian healthcare system, which began a reform in 2015, has not yet reached the 2013 level of funding in dollar terms in terms of total spending on this industry in 2020. Also, a characteristic difference of Ukraine from OECD countries is the structure of health care financing sources, in which state funds (funds from the state and local budgets) make up 49.9%, and household funds – 46.4%. That is, Ukrainian patients feel a significant financial burden compared to their European neighbors.

The annual increase in the amount of funding and the positive feedback of WHO and World Bank experts on the results of the reform contributed to the development of the national healthcare system. However, the war made adjustments to the activity of the industry, introducing a regime of maximum preservation of infrastructure, simplification of financing and ensuring the availability of medical services. And yet, despite this, the country has already developed a post-war plan for the restoration of health care, which is not about the usual restoration of destroyed or destroyed objects, but about a radical transformation and improvement of the industry.
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