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### FINANCING HEALTH CARE IN VARIOUS COUNTRIES

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#### *Abstract*

In this article, the authors consider the state of the health care system of various countries that were included in the sample based on their ranks on the index of quality of life of the population. Health care financing is directly related to ensuring the necessary level of quality of life for the population. The authors analyzed works of various scientists involved in this issue. They also considered the amount of funding for the health system that came from the state budget to maintain its functioning. The share of expenditures on the health system in the total expenditure of the country was estimated. Due to the importance of the full functioning of this system, the study of these aspects is a promising research area. Based on the results obtained, it was concluded that the amount of funding for the health system has a greater impact only on the quality of medical services, large amounts of funding for the health system do not guarantee a significant increase in the quality of life of the population, the main problem of health financing is the irrationality of its use. There is no direct relation between the amount of funding for the health system and the level of quality of life of the population.

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**Keywords:** Health care, financing, quality of life of the population.



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## 1. Introduction

Health financing issues are acute in all countries of the world. This situation is explained by the fact that health care is one of the key life sectors of the country's population. Health care financing is directly related to ensuring the necessary level of quality of life. Indicators of the quality of life of the population largely characterize the current state of the society, the region and the country as a whole. One of the main goals of the state is to provide a comfortable, safe and full-fledged life for its population. The country's health system has a significant responsibility in solving these tasks.

Financing various sectors of the country's functioning is particularly relevant in the context of limited available resources and the need to identify priority areas for the resource allocation. In this situation, the financing of the health system certainly meets all the indicators of significance for the country's population. However, the importance of this area in terms of funding varies from country to country. Therefore, it is important to consider approaches to financing the health system in different countries.

## 2. Problem Statement

Health system financing issues are of interest to researchers in various countries. Special attention is paid to health financing in countries with middle-income and lower income levels. It is noted that there are many unsuccessful ways to organize the financing of the health system (Rostampour & Nosratnejad, 2020).

A number of researchers have considered the impact of the financial crisis on the health system. It was revealed that the financial crisis has led to a significant reduction in funding for all areas of health care: from outpatient appointments to hospitalization. At the same time, there were no indicators of changes in the population health (O'Dwyer, Graever, Britto, Menezes, & Konder, 2019).

Other researchers have identified the fact that there is no single mechanism for financing the health system in different countries. It is noted that the distribution of funds to finance this area is not always fair. Often, when allocating funding, the issue of minimizing losses and improving the efficiency of the system is not raised (Onwujekwe et al., 2019).

It is also noted that one of the problems of financing the health system is not always its insufficient volume. In some cases, it consists of inappropriate use of allocated financial resources. At the same time, this aspect has the greatest impact on the financing of personnel in the health care system (Fahim et al., 2018).

## 3. Research Questions

As a part of this study, the authors selected several issues related to financing the health system for consideration. First of all, it is planned to make a sample of countries by indicators of the quality of life of the population. After that, it is necessary to compare the amount of funding for the health system in each specific country and show the share of funding in its total volumes. It is also important to pay attention to the possible relation between the volume of health care funding and the level of quality of life of the population.

#### 4. Purpose of the Study

The main research purpose is to study the system of health care financing in different countries with different levels of quality of life. On the basis of this information, it is possible to draw conclusions about the importance of ensuring sufficient funding for health care and possible consequences of its excess or shortage. Due to the importance of the full functioning of this system, the study of these aspects is a promising research area.

#### 5. Research Methods

The authors used the main theoretical research methods. The analysis of existing studies that affect the financing of certain sectors of the country's functioning, and in particular the health system, was carried out. Analyzed were studies of domestic and foreign scientists. A selection of countries with different living standards was also being carried out and the sample was formed. Then, the amount of funding for the health system in each of the selected countries was analyzed and their share in the total amount of funding was determined. These indicators were compared with each other and with the current level of quality of life of the country's population. The obtained data were summarized in the conclusions about the relation between the financing of the health system and the level of quality of life of the population.

#### 6. Findings

To assess the amount of funding for the health system, several countries of the world were selected, which are in different positions in terms of the quality of life of the population. The rating was divided into 4 roughly equal parts, with two selected countries in each of them. The analyzed list also includes Russia, which is on the 67th place from total 80 in terms of the quality of life of the population. Together with the population's quality of life index, the health index was also analyzed. The distribution of ranks and values of indicators can be seen in Table 01.

**Table 01.** Distribution of countries by population quality of life index at the beginning of 2020

Rank	Country	Quality of Life Index	Health Care Index
1	Denmark	192,67	80,00
2	Switzerland	192,01	75,79
...	...	...	...
25	Czech Republic	156,24	74,62
26	France	153,95	79,99
...	...	...	...
67	Russia	102,31	57,59
...	...	...	...
79	Bangladesh	70,03	42,80
80	Nigeria	55,65	51,59

Source: authors based on (Numbeo, 2020).

As can be seen from Table 01, leading positions in the quality of life index are occupied by countries such as Denmark and Switzerland. The value of the quality of life index of the population in these countries

is almost equal. The last two places are occupied by Bangladesh and Nigeria. At the same time, the value of the quality of life index of the population of Denmark exceeds the same indicator of Nigeria by almost 3.5 times. Considering the values of the health index indicator, we can say that the distribution of its values determines other places in the ranking for the considered countries. For example, according to the values of this index, Denmark occupies the 4<sup>th</sup> place, Switzerland – the 22<sup>nd</sup>, Czech Republic – the 12<sup>th</sup>, France – 5<sup>th</sup> place, Russia – the 59<sup>th</sup> place, Bangladesh – the 80<sup>th</sup>, and Nigeria – the 73<sup>rd</sup> (Numbeo, 2020). Based on this, we can conclude that, despite the great importance of the health system for the society, the state of this system does not always play a significant role in assessing the quality of life of the population. In this regard, the positions of countries in the ranking differ according to these two indicators.

The next stage was to consider the amount of funding for the health system in the selected countries. Table 02 shows the volume of health care funding in U.S. dollars and the share of this indicator in the total cost structure.

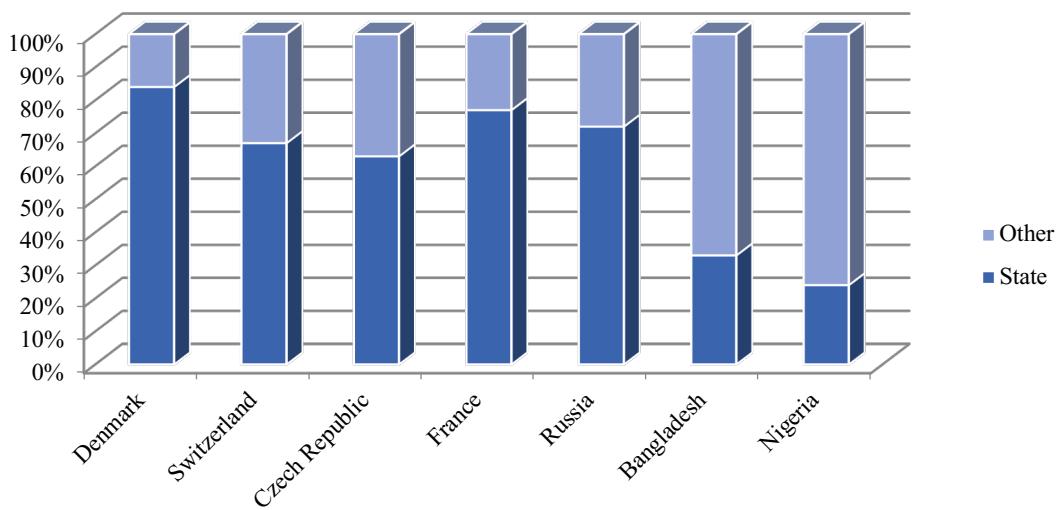
**Table 02.** Levels of health financing in different countries

Country	Health financing, billion \$	Share in the total cost volume, %
Denmark	23	10,6
Switzerland	53,8	20,1
Czech Republic	16,6	7,68
France	291, 9	11,3
Russia	21,57	3,2
Bangladesh	10,1	4,04
Nigeria	12,5	3,33

Source: authors based on (OECD, 2019; Novakova, 2019; Sturny, 2019; Ministry of Health of the Russian Federation, 2019)

According to the data presented in table 02, the largest amounts of health system funding are observed in France. At the same time, Switzerland is the closest in terms of funding to it, but the volume of health care funding in France exceeds the Swiss by almost 6 times. At the same time, if we consider the share of expenditures for financing the health system in the total amount of expenditures, Switzerland is the leader by this criterion. A fifth of the country's spending is directed specifically at providing the health system with financial resources. As a result, countries such as France, Switzerland and Denmark are leading in terms of funding. Russia is on 4<sup>th</sup> place among the countries under consideration, and the Czech Republic is on the fifth place. Nigeria and Bangladesh have the least amount of funding. Switzerland, France and Denmark lead the way in terms of the share of total costs, while the smallest share is allocated to maintaining the health system in Nigeria and Russia.

Noting the specifics of financing the health care system in these countries, it should be taken into account how much of the total funding belongs to the state, and what is the share of commercial organizations and patients themselves (Figure 01).



Source: authors.

**Figure 01.** Comparison of the distribution of sources of health care financing in its total volumes

Comparing the funding sources for the health system in the considered countries, it was found that the sources can be divided into three large groups: resources of the state, resources of commercial organizations (usually insurance companies) and resources of the population. Figure 01 shows the division into two groups: the state and others, where commercial organizations and the population were united. It can be seen that in Denmark the state finances the health care system by 84%, in Switzerland – by 67%, in the Czech Republic – by 63%, in France – by 77%, in Russia – by 72%, in Bangladesh – by 33%, and in Nigeria – by 24%.

The last research task was to determine the dependence between health system financing and the level of quality of life of the population. To do this, all the considered indicators were summarized in Table 03, which also reflected the rating of countries for these indicators.

**Table 03.** Comparison of countries ' positions in the ranking by various indicators

Country	Quality of Life Index	Health Care Index	Health financing, billion U.S. \$
Denmark	1	1	3
Switzerland	2	3	2
Czech Republic	3	4	5
France	4	2	1
Russia	5	5	4
Bangladesh	6	7	7
Nigeria	7	6	6

Source: authors.

The results presented in Table 03 clearly show that the amount of funding for the health system only partially affects the position of a state in the international ranking. For example, being on the first place in the population's quality of life index and the health index, Denmark has only the 3rd rank in terms of health financing. At the same time, France is on the second place by the health care index ranking due to large amounts of funding, against the fourth place in the ranking for the quality of life index of the population.

Being on the fifth place in terms of health care system financing, the Czech Republic remains the fourth position in the health care index, and on the third place in the index of quality of life of the population. Being on the last place in terms of the share of expenses for financing health care, Russia occupies the fourth position in terms of funding in general. At the same time, Russia's position in the rating on the population's quality of life index and the health care index does not change.

## 7. Conclusion

Based on the analysis results, several conclusions can be made:

- The amount of funding for the health care system has a greater impact only on the quality of medical services, and not on the quality of life of the population directly;
- Large amounts of funding for the health care system do not guarantee a significant increase in the quality of life of the population, so we can conclude that this indicator is not one of the leading indicators in assessing the quality of life of the population;
- One of the main problems related to the financing of the health care system is not so much the lack of its volume as the irrationality of its use;
- There is no direct correlation between the amount of funding for the health care system and the quality of life of the population. This is determined by the fact that health care is only one of the components used in assessing the quality of life of the population.

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