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THE MIGRATION INFLUENCE ON THE FORECASTING OF HEALTH CARE BUDGET EXPENDITURES: CASE OF UKRAINE

The start of a full-scale Russian-Ukrainian war caused the largest wave of migration in the 21st century. As a result of Russia's invasion, over three million refugees, mostly women, children, and the elderly, rapidly crossed into Poland. In total, more than five million Ukrainian citizens left for EU countries within a few months of the outbreak of the war. Since the COVID-19 epidemic had not yet been brought under control at the time of the migration wave, and the level of vaccination in Ukraine was one of the lowest in Europe, this situation posed a significant epidemiological risk.

In our article [1] we discussed few research questions: 1) what will be the total impact of demographic trends on the amount of public spending on health care, taking into consideration changes in the age structure of the population and the projected decrease in the overall size of the permanent population of Ukraine due to migration; 2) what is the net impact of changes in the age structure, under the influence of population migration, on the total volume of health care expenditure?

The input data included the medium-term demographic forecasts of international organizations, UN IOM Ukraine data on population migration (number of immigrants from Ukraine and its dynamic), and the results of surveys by the Gradus and Kyivstar companies regarding the potential return to Ukraine after the cessation of hostilities. The main source of macroeconomic forecasts in this case was the official forecast for 2022-2024 from the National Bank of Ukraine, forecasts from the World Bank and from the European Bank for Reconstruction and Development. The database of the State Statistics Service of Ukraine (with dynamic of population by all age groups), as well as the data of consolidated budgets (with dynamic of expenditure on health care), were used as input information regarding the actual indicators for the period until 2021.

We need to consider three alternative scenarios: pessimistic, basic, optimistic (table 1). The first two scenarios are also valuable in that they make it possible to assess the “pure” impact of demographic trends, i.e., no increase in expenditure per 1 person of the base subgroup is assumed.

Table 1 – The volume of public expenditure on health care according to the scenarios, UAH million

Indicators Scenarios	Expenditure in actual prices	Growth in expenses	Real expenses	Growth in real spending
Pessimistic				
2022	137,994	-19.1%	80,163	-35%
2023	173,323	-11.9%	80,163	-30%
2024	254,833	47.0%	96,135	20%
Realistic				
2022	137,994	-19.1%	80,163	-35%
2023	196,570	42.4%	91,352	14%
2024	233,754	18.9%	96,135	5%
Optimistic				
2022	138,547	-18.7%	80,163	-35%
2023	240,080	73.3%	115,758	44%
2024	288,172	20.0%	121,165	5%

Source: authors' calculations

Comparing the forecasting results under different scenarios allows us to draw the following conclusions [1; 2; 3]:

1. The net effect of changes in the structure of the population during the entire forecast period will be positive in the sense that, compared to the structure that existed at the end of the base period, the age structure of the population in each subsequent year will require more and more expenditure due to the aging of the population.

2. The total impact of demographic processes (depopulation and population aging, migration) will be negative in the sense that the total volume of expenditure (provided there is no real increase in expenditure per person) will be reduced due to the predominant negative impact of depopulation and migration over the positive impact of aging.

3. The impact of changes in the age structure of the population will increase due to the acceleration of the population aging process.

4. The impact of migration creates a significant change in health care costs, which requires management bodies to monitor the situation promptly and make appropriate changes in budget costs.

All three scenarios are realistic, as they assume the functioning of the government in wartime and its recovery after victory, which is primarily reflected in assumptions about the amount of expenditure per 1 person of the base subgroup. Undoubtedly, the formation of high-quality scenario forecasting, which could become the basis for planning budget expenditure for the medium and long term, requires a more thorough study of the factors affecting real growth in health care expenditure. At the same time, the global experience of long-term forecasting indicators of health care systems shows that the rate of economic growth is the most important factor in the real growth in the quality and volume of medical services, those provided at the expense of the government itself. Therefore, the forecast built according to these scenarios can be considered quite realistic given the conditions of the economic growth rate forecasts adopted by the NBU. Expenditure on health care within the planned scenarios will fluctuate between 3-4% of GDP with a slight upward trend. In the case of a likely deficit in the state's budget, it is relevant to seek additional financial sources that accumulate the level of expenses on health care according to each scenario.

Information sources:

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ЦИФРОВІЗАЦІЯ ПІДГОТОВКИ КАДРІВ ЯК ГОЛОВНИЙ КОНКУРЕНТНИЙ РЕСУРС

Стимулом сучасної цифрової трансформації виступає можливість залишитися конкурентоспроможним на внутрішньому і глобальному ринках. На даний момент українські підприємства відчують дефіцит кваліфікованих кадрів при зростанні обсягів