

Vasyl I. Nadraga¹

MODERNIZATION OF HEALTHCARE SYSTEM OF UKRAINE IN THE CONTEXT OF RISKS DURING TRANSFORMATION OF DEMOGRAPHIC STRUCTURES

The paper analyzes the interrelation between demographic aging of population and the modernization of the healthcare system. One of the key objectives of the health care system is to provide that kind of regime for aging, which would postpone age-related diseases for most of population in Ukraine.

Keywords: social risks; aging; health; healthcare system.

Василь І. Надрага

МОДЕРНІЗАЦІЯ СИСТЕМИ ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ В КОНТЕКСТІ РИЗИКІВ ТРАНСФОРМАЦІЇ ДЕМОГРАФІЧНИХ СТРУКТУР

У статті проаналізовано особливості взаємозв'язку демографічного старіння населення та процесу модернізації системи охорони здоров'я. Зазначено, що одним з головних завдань розвитку системи охорони здоров'я має стати забезпечення такого режиму старіння, який уможливить пізніші терміни початку вікових захворювань для більшої частини населення України.

Ключові слова: соціальні ризики; старіння; здоров'я; система охорони здоров'я.

Табл. 1. Рис. 2. Літ. 18.

Василий И. Надрага

МОДЕРНИЗАЦИЯ СИСТЕМЫ ЗДРАВООХРАНЕНИЯ УКРАИНЫ В КОНТЕКСТЕ РИСКОВ ТРАНСФОРМАЦИИ ДЕМОГРАФИЧЕСКИХ СТРУКТУР

В статье проанализированы особенности взаимосвязи демографического старения населения и модернизации системы здравоохранения. Отмечено, что одной из главных задач развития системы здравоохранения должно стать обеспечение такого режима старения, при котором станут возможны более поздние сроки начала возрастных заболеваний для большей части населения Украины.

Ключевые слова: социальные риски; старение; здоровье; система здравоохранения.

Introduction. Demographic processes are one of the decisive factors in social risks actualization in Ukraine. However, due to their considerable inertia, they are difficult to be influenced by management. Therefore, they should be regarded as a derivative of the process of social transformations. Under difficult conditions of various social risks' actualization in Ukrainian society, premature mortality plays a key role in population losses. The analysis of their principal components will enable determining the reserves to increase life expectancy in Ukraine in order to develop the scientific basis for efficient demographic policy.

Today, almost all developed countries have recognized that one of the major challenges posed by aging to society is the task of building a healthcare system adequate to new demographic realia. The key threat factor to the existing healthcare systems is the increasing demand for healthcare services on the background of reducing opportunities to attract financial resources due to the decrease of the share of the population of employment age.

¹ Institute of Demography and Social Studies of the National Academy of Sciences of Ukraine, Kyiv, Ukraine.

Formation and reproduction of public health occurs in all spheres of human life. It is the reflection of specificity of the population life quality, its working and living conditions. It is quite difficult to establish realistic and objective hierarchy of health or illness factors despite known and identified by the WHO risk factors of disease, as certain medical and demographic characteristics are the result of long-term and cumulative over time impacts of specific conditions and circumstances that contribute or vice versa undermine the viability of population.

Recent research and publications analysis. E. Libanova, having examined the demographic shifts during 22 years of Ukraine's independence in the context of social development, came to following important conclusions: the lack of the typical for this period fundamental regime changes in mortality observed in most of Eastern Europe; a large-scale migration outflow which was significant for demographic development of the country; rapid demographic aging; depopulation; territorial demographic degradation; depopulation. In the future, further aging and depopulation of Ukraine is likely to occur (Libanova, 2014).

V. Nykyforenko focused on the relationship between life quality and the level of socioeconomic development of the country – the author notes that economic, social and human development under the influence of certain needs actually provides social and economic development of the system (Nykyforenko, 2012).

E. Boychenko rightly considered the status of public health, not only as one of the most important indicators of life quality, but also as an indicator of social development of a country, the reflection of its economic status. An additional factor in the integration of healthcare into the social orientation of economic policy is the actual population health. According to the results of the current research only three-quarters of Ukraine's population can be considered healthy (Bojchenko, 2010).

N. Levchuk examined and analyzed the phenomenon of depopulation in Ukraine. He considered it as an absolute decrease in population by the excess of deaths over births when the next generation is smaller in size than the previous ones. He pointed out that this process has significant social and economic consequences for the state by bringing instability to society (Levchuk, 1996).

The object of J. Kurylo's and A. Rudnytsky's researches was the loss of population from non-natural mortalities (alcohol poisoning, drowning, suicide, car accidents etc.) among the workable age residents. The authors searched for real enforcement measures to change the lifestyles and attitudes of our citizens to their lives and health. Having analyzed these irreversible medical and population losses, the authors connected them with "the complexities of urbanization and the shadow side of scientific and technological progress" and the moral degradation of some society members (Kurylo and Rudnytskyi, 1996).

D. Melnychuk argues that the current situation in Ukraine can be characterized as an acute demographic crisis. It is a deep disproportionately reproduction rate of population aged over 60 years. Ukraine is one of the oldest countries. Demographic aging in Ukraine occurs not only because of the progress in life expectancy (which has been and remains short by European standards), but mainly it is the result of a catastrophic decline in fertility on the background of worsening of the reproductive citizens' health and their emigration (Melnichuk, 2014).

Unresolved issues. According to the results of the analysis, the prolonged crisis in healthcare and unfavorable dynamics of mortality in Ukraine has become the subject for research by a number of leading national demographers. However, the key questions in the analysis of premature mortality in Ukraine, which have been considered in many scientific researches, do not solve all the problems associated with deep crisis in healthcare. Therefore, they require further studies.

Key research findings. According to the United Nations, the problem of population aging today has become a global issue of human development. In 1950, 200 mln of elderly people lived on the planet. In 2012 there were more than 810 mln of elderly people already. According to the demographic projections, in 15 years this figure will exceed 1 bln and in 35 years it will be more than 2 bln. In Ukraine, the proportion of population aged 60 years and over is 20.4%; the number of people aged over 75 years is about 3.5 mln. By the middle of this century in Ukraine the proportion of people aged over 60 is expected to have been increased to 38.1%, while the number of persons aged 80 years and over will increase 3.5 times (unfpa.org.ua, 2012).

One of the options for the assessment of budget social costs states that from 2004 to 2050 in the EU countries the total additional public expenditure on pension security, healthcare, long-term care and social services for the elderly will be 3–4% of GDP (eur-lex.europa.eu, 2003).

In the early 2000s in developed countries, the proportion of healthcare expenditures was 10.3–11.3% of GDP, in transition economies it was 5.7–5.9%. The corresponding rates in African countries (5.4–5.6%) were close in value, slightly higher – in West Asia (6.3–6.9%), Latin America and the Caribbeans (6.6–7%). During this period the least costs on these needs were in South-East Asia (4.3–4.6% of GDP) (worldbank.org, 2000).

In Ukraine, health expenditures (in % of GDP) are slightly higher than the average index for transition economies, but they have never reached the level of developed countries (Figure 1).

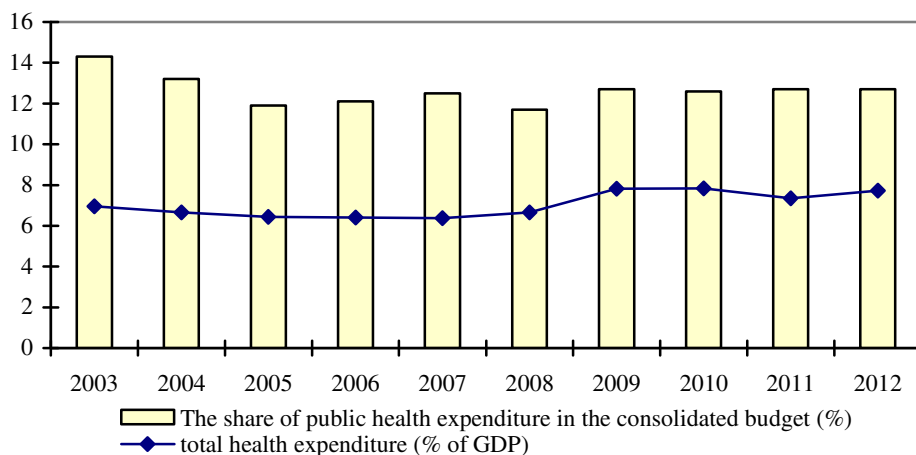


Figure 1. The share of public health expenditure in total costs of the consolidated budget (%) and total health expenditure (% of GDP), constructed by the author according to the State Statistics of Ukraine data

The introduction to the National Health Accounts, which were announced in 2013 by the State Statistics, tells that the current increased spending on healthcare in Ukraine is determined by largely population aging and the need to use costly medicines and technologies in response to expectations of patients regarding the possibilities of contemporary medicine (ukrstat.gov.ua, 2012). However, the existing macro-economic, demographic and financial constraints as to increase the funding of the existing health systems raise the question of its reform in order to minimize the negative effects of the current demographic trends on the overall economic development.

A vivid illustration of population's aging influence on the functioning of the healthcare system are the following empirical data: consumption of treatment services by elderly prevails over the corresponding figure for workable people by 3–5 times (Casey, 2003). In general, a third or a half of all resources allocated to healthcare are spent on the elderly in the OECD countries (Anderson, 2001).

In Ukraine the difference in the levels of the incidence and the spread of diseases among the working people and the people after working age indicates an increased burden on the healthcare system which is caused by population aging. According to the official data of the State Statistics Service, in 2013 the overall spread of diseases among older people (women 55 years and older, men – 60 years and older) prevailed in a younger age group almost 2 times (280358 were registered and 142004 cases of disease per 100000 people, respectively). Herewith, the diseases of blood circulation system among the elderly were bigger than the corresponding figure in younger age groups by 3.9 times, the number of reported tumors was 2.8 times higher, recorded diseases of the musculoskeletal system and connective tissue – 2.2 times, diseases of the endocrine system, eating disorders, metabolic disorders – 2.1 times higher (Table 1).

Table 1. The number of reported cases of certain diseases in Ukraine among the working-age population¹⁾ and the population older than working²⁾ (per 100000 individuals of the corresponding age, 2013), constructed by the author according to the State Statistics of Ukraine data

Class of disease	Working age population	The population above working age
Tumor	3246	9089
Diseases of the endocrine system, eating disorders, metabolic disorders	6887	14,186
Diseases of blood circulation system	36,820	145 204
Respiratory diseases	23,033	21400
Diseases of the digestive system	15,421	26,987
Diseases of the musculoskeletal system and connective tissue	7485	16,691

¹⁾ Women aged 18–54 years, men – 18–59 years.

²⁾ Women aged 55 and older, men – 60 years and older.

It should be noted that the burden of financial costs (both for the government and for households) on healthcare is caused both by quantitative and qualitative incidence rates of the elderly. For example, cancer treatment is one of the most expensive health care services, and diseases of blood circulation system are chronic conditions and thus they require prophylactic treatment for a long time. Overall this "distracts" a

significant part of the resources from the healthcare system and from households private.

However, the actual amount of public spending in this field can be honestly described as "survival". It has been mentioned above that aging of population in Ukraine, as well as in developed countries (but of lower rates), occurs due to increase in life expectancy. This process can occur under several scenarios. Firstly, when the increase in life expectancy is accompanied by an increase in healthy life expectancy, or when the positive trend of the healthy life expectancy outstrips the dynamics of the first one. It is the so-called "compression of incidence", which under other equal circumstances results in reduction in health care costs (Fries, 1983). Secondly, it is possible, when much of the population lives much longer life, it is the co-called "prolongation of the process of dying". This, consequently, increases the burden on the healthcare system (Gruenberg, 1977). In case when the number of years lived in poor health remains unchanged, we can talk about the establishment of "dynamic balance" (Manton, 1988), which does not affect the amounts of financing and the intensity of healthcare use.

Except for demographic factors, the expenditures in the healthcare sector are significantly affected by the possibilities of state budget, the general level of wages in a country (as a factor of formation of households solvency) and in this particular field (as a factor of direct public expenditures formation) as well as state policy healthcare, including the promotion of high-technologies use in therapy and newly developed medicines.

Concerning the situation in Ukraine, we can say that except for demographic factors, the healthcare system funding, which was established during the years of independence, has a significant risk of stability its operation. On the one hand, the share of public expenditures is significant. In 2012 it was 57.2% (Figure 2) and it was close to public spending on healthcare in countries with income above average, while in the countries with incomes below average, the state covers on average 44% of all health spending, in low-income countries only about 29% (Gottret, 2006).

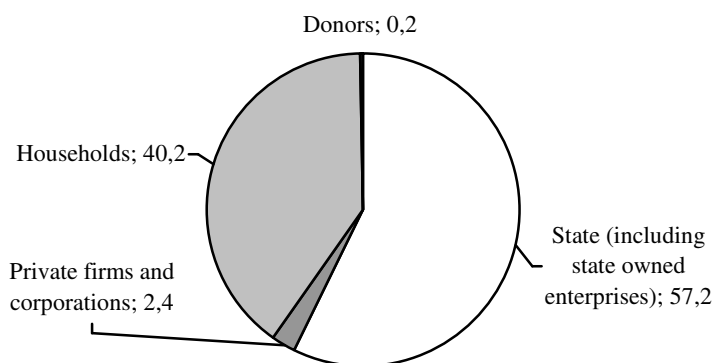


Figure 2. **Distribution of total health spending in 2012 by sources of funding, %**, constructed by the author according to the State Statistics of Ukraine data

On the other hand, in private resources allocated on healthcare in Ukraine, the share of household expenditures which was 94% in 2012, is extremely high (while

employers contributed to this "fund" 5–6% of their income, non-profit organizations which serve households – 0.04–0.07%) (ukrstat.gov.ua, 2012).

Under such circumstances, for population with low income (primarily the elderly people) the access to medical care, which they usually need more than any other group of citizens, is reduced. This is confirmed by the results of "Elderly men and women in Ukraine: quality of life and social well-being": 57.1% of the respondents said that in 2012 they were unable to buy necessary medicines, 56.9% – were unable to pay for medical services, 40.6% of the respondents did not receive medical care by contacting a clinic/hospital due to the lack of money.

Direct healthcare cost is not the only section of public funding for social services provided to the elderly. One of the most serious social and economic risks caused by demographic factors is the increase in public spending on long-term care for elderly. Undeniable consequences of population aging is the increase of persons with disabilities and chronic diseases.

During the last decade in European countries in order to save money, a long care for such individuals is increasingly transferred from general hospitals to specialized institutions. Experts predict the increase in this trend (Kardamanidis, 2007).

Also one of the most promising areas in reducing spending on social services for the elderly is to reduce the duration of their stay in hospitals by means preventing chronic diseases and expanding the range of services for home care provided by social security services.

Considering how traditional Ukrainian society is, the majority of older people prefer to get help from social welfare services when they get into difficult situations, rather than staying in specialized nursing homes for the elderly. Thus, 67.3% of the survey respondents "Older men and women in Ukraine: quality of life and social well-being" believe that if a single elderly person is unable to perform household duties, it is better for him/her to live at home, being taken care of social workers (only 13.7% of people think that in this case it is better to move into a specialized boarding house for the elderly). Moreover, 51.6% of the respondents reported they exclude an opportunity to stay in such specialized boarding-houses, 32.6% of them hope it will not happen to them. It should be mentioned that such kind of rejection of specialized institutions by the respondents is mainly caused by the widespread idea that in a family children or other relatives should take care of weaken members, but not because of poor conditions of older persons in nursing homes. Thus, only 16.2% of the respondents agreed that specialized boarding houses is a good option for accommodation for older people with limited possibilities to self-service, if service in such institutions is really of high quality. But 41.4% of the respondents believe that it is the worst thing that can happen to a man in the last years of her/his life.

However, in Ukraine, as well as in other countries an increasing economic participation of women, large-scale migration from rural settlements to cities, an increasing number of nuclear families and families without children prevent providing traditional family-based care for the elderly.

Conclusions. Summarizing the above, we can state that the most important task of healthcare today is to ensure that kind of the aging regime, when there will be a postponed beginning of diseases for most of population, including the reduced spread of diseases caused by lifestyle.

A growing number of people with chronic conditions actualizes the issue of establishing a system of effective and timely prevention of the most common among the elderly diseases (hypertension, dementia, arthritis, osteoporosis, obesity, diabetes) to prevent the crisis, the settlement of which requires hospital treatment. However, while organizing a modern system of long-term care it should be taken into account that the vast majority of older people in Ukraine prefer to stay at home and benefit from social welfare services but not to live in a specialized boarding house.

The recognized global approach to the prolongation of healthy life expectancy of older people is the realization of the WHO strategy on healthy aging (euro.who.int, 2012) for the following priority strategic areas: healthy aging by providing healthcare for life, providing a friendly environment for the elderly, the reorientation of healthcare system and long-term care to meet the needs of aging population, scientific researches in the field of gerontology, monitoring and evaluation of health and functional status of the elderly, to determine the level of access to health and social services. A comprehensive policy on the elderly should be based on the principles of healthy aging, significantly improving the quality of life and reducing public health costs.

On the one hand, the growth of health care costs in many countries is caused not only by demographic factors. On the other hand, increased investments in healthcare system is the most necessary measure to expand citizens' access to healthcare throughout the life and increasing the duration of healthy life of the aging population.

References:

- Бойченко Е.Б. Соціально-економічна оцінка стану здоров'я населення (на прикладі Донецького регіону) // Схід.— 2010.— №3.— С. 13—17.
- Курило І.О., Рудницький О.П. Смертність від нещасних випадків і зовнішніх дій та її вплив на тривалість життя в Україні // Демографічні дослідження: Збірник наук. праць Ін-ту економіки НАН України. — Вип. 18. — К., 1996. — С. 37—42.
- Левчук Н.М. Депопуляція та її вплив на віковий склад населення України // Демографічні дослідження: Збірник наук. праць Ін-ту економіки НАН України. — Вип. 18. — К., 1996. — С. 72—80.
- Либанова Э.М. Демографические сдвиги в контексте социального развития // Демография та соціальна економіка.— 2014.— №1.— С. 9—23.
- Мельничук Д.П. Демографічні детермінанти формування та використання людського капіталу в Україні: диференційний аналіз та прогноз // Соціально-економічні проблеми і держава.— 2014 // sepd.tntu.edu.ua.
- Національні рахунки охорони здоров'я (НРОЗ) України: Статистичний бюлетень, 2012 // www.ukrstat.gov.ua.
- Нукифоренко В.Г. Якість життя населення регіону: те онографія. — Одеса: Атлант, 2012. — 225 с.
- Стратегия и план действий в поддержку здорового старения в Европе, 2012—2020 гг. // www.euro.who.int.
- Ageing in the twenty-first century: a celebration and a challenge // United Nations Population Fund (UNFPA) and HelpAge International // www.unfpa.org.ua.
- Anderson, G., Hussey, P. (2001). Comparing health system performance in OECD countries. Health Affairs, 20: 219—232.
- Casey, B., Oxley, H., Whitehouse, E.R. et al. (2003). Policies for an ageing society: recent measures and areas for further reform. Paris: OECD Publication. 102 p.
- European Commission. Commission communication: The demographic future of Europe — from challenge to opportunity // eur-lex.europa.eu.
- Fries, J. (1983). The compression of morbidity. Milbank Memorial Fund Quarterly, 61: 397—419.
- Gottret, P., Schieber, G. (2006). Health Financing Revisited: A Practitioner's Guide. Washington, D.C.: World Bank. 310 p.

- Gruenberg, E.* (1977). The failures of success. *Milbank Memorial Fund Quarterly*, 55: 3–24.
- Kardamanidis, K. et al.* (2007). Hospital costs of older people in New South Wales in the last year of life. *The Medical Journal of Australia*, 187(7): 383–386.
- Manton, K.* (1988). A longitudinal study of functional change and mortality in the United States. *Journal of Gerontology*, 43: 153–161.
- World Development Indicators Online // www.worldbank.org.

Стаття надійшла до редакції 6.11.2014.