UDC911.3:61

DOI: 10.18524/2303-9914.2023.2(43).292737

O. H. Parkhomenko, PhD student
N. E. Nefedova, PhD (Geography), Docent
O. I. Nikolayeva, PhD (Geography), Senior Lecturer
Odesa I. I. Mechnikov National University,
Department of Economic and Social Geography and Tourism
Dvorianskaya St., 2, Odessa, 65082, Ukraine
geotourism@onu.edu.ua

MORTALITY OF THE POPULATION OF UKRAINE, MODERN TRANSFORMATIONS, SOCIAL AND ECONOMICAL FACTORS

The demographic situation in Ukraine remains extremely tense, the mortality rate of population is the largest in Europe. The aim of the research is to conduct a spatial – temporal analysis of the population's mortality trend and identify the socio-economic reasons that set the direction for these trends. Mortality is an extremely informative indicator of public health in particular and level of socio-economic development of the country as a whole. For mortality affects the whole complex of factors: demographic, socio-economic, medical, natural biological, political, environmental, ethnic, etc. Ukraine is characterized by a relatively low life expectancy – 63 years for men and 74 years for women. There is an increase in morbidity in almost all types of diseases and insufficient level of development of medicine and health. In the modern mortality structure 82% of cases of deaths of Ukrainians are due to two reasons: diseases of the circulatory system and neoplasm. More than 53% of the population of Ukraine suffers from diseases of the circulation system, of which 9.3 million are persons of working age. The mortality rate from the disease of the circulatory system at the present stage has significant regional differences. The maximum level is observed in the South-Eastern industrial regions of Ukraine. The fight against premature mortality requires from the state of the target approach, understanding the regional specificity, inter-sectoral cooperation. The relevant national strategies should be developed; a number of necessary, possibly extraordinary, measures are required to overcome the above reasons for a high mortality rate.

Keywords: demographic situation, mortality rate, life expectancy, level of socio-economic development.

INTRODUCTION

An important and demonstrative indicator of the quality of society, strength and efficiency of the state in the world is the human development index, which is an important indicator of mortality – an indicator of socio-demographic well-being: leads to loss of working and reproductive capacity, reduced natural population growth, measures political prestige of the country, its ranking in the world. Nobel laureate in Economics in 1998 Amartya Kumar Sen called mortality a key criterion for the

country's success. The mortality rate is a reflection of society's ability to transform available economic resources into the most important product – the health of the nation. A simple mortality indicator or an integrated indicator of life expectancy, calculated on the basis of available mortality data, can say more about the level and direction of society than complex macroeconomic indicators (Polischuk, 2015; Polischuk, Krasnovs'kyj, Andreieva, 2015).

Many studies have been devoted to spatial analysis of life expectancy in different regions, socio-economic factors that affect mortality rates. Thus, Kotivsk A.A. and Lobova I.A. pointed out that diseases of the circulatory system are an urgent medical and social problem in the healthcare sector in most countries of the world (Kotivska, Lobova, 2012). The mortality rate from circulatory diseases in Ukraine is one of the highest among European countries, this is confirmed by the negative statistics of high mortality among men under 65 years of age from coronary heart disease, which in Ukraine is 6 times higher than in Germany, and among women of the same age – 8 times (WHO reveals, 2021).

Pichura V. I. analyze the relationship between the morbidity of the population and the ecological and demographic aspects of land use in the territory of the Dnieper Basin and came to the conclusion that the load on the landscape of the Dnieper River Basin, which is determined by the agricultural development of the territory and the plowing of land with increased "chemization" of agricultural production, the products of which as a result of erosion processes accumulate in water bodies and enter the human body with drinking water, has a significant negative impact on the spatial and temporal trend of changing demographic indicators: increase in mortality and decrease in the birth rate of the population (Pichura, 2017).

Mezentseva, N. I., Batichenko, S. P., Mezentsev, K. V. (2018) in their monograph analyze medical and geographical studies in the world and in Ukraine in the late twentieth century – early XXI century. It describes the factors and regional differences in morbidity and public health, reveals trends and features of the dynamics of the spread of various types of diseases in the regions of Ukraine. The regions of Ukraine were typed according to the spread of diseases and the level of morbidity of the population.

Specialists of the Ptoukha Institute of Demography and Social Studies have published a collective monograph "Population of Ukraine. Demographic trends in Ukraine in 2002–2019", which noted that demographic indicators of life expectancy and mortality by gender and age groups and causes are a reflection of the socioeconomic state of society (The population, 2020). They allow you to identify pain points in the field of ecology, medicine, human behavior, and so on.

In another study (Vlasenko, Shovkun, Andriychuk, Lavryk, 2022), the authors noted that the physical and geographical conditions of the territory, namely the location of areas with high morbidity rates within the deposits of significant mineral deposits, determine the following group of factors of diseases of the circulatory

systems. These include a significant number of industrial enterprises that are confined to mining sites, sedentary work in enterprises, and the age of the population.

The demographic situation in Ukraine remains extremely tense, and the rate of population decline is the highest in Europe. During the years of independence, the population decreased by 10.7 million people and on January 1, 2021 amounted to 41.5 million (State Statistics, 2021). The process of depopulation continues. The natural increase since 1991 has remained negative to this day, not only under the influence of low birth rates but also high mortality rates. Mortality, in turn, is an extremely informative indicator of the health of the population in particular and the level of socio-economic development of the country as a whole. One of the factors influencing mortality is the primary morbidity of the population, which remains consistently high in Ukraine. All of the above determines the relevance of the study of changes in indicators and structure of morbidity and mortality, as well as their territorial features.

The aim of the research is to conduct a spatial – temporal analysis of the population's mortality trend and identify the socio-economic reasons that set the direction for these trends.

MATERIAL AND METHODS

The information base for the study was the statistical data of the State Statistics Service of Ukraine, statistical yearbooks, scientific articles, abstracts, conference reports for the period of 2009–2021. The methods used in the study caused by the interdisciplinary status of the chosen topic, the need to use the methodical arsenal of social geography, medical and methods of statistical analysis. The traditional methods of the comparative geographical analysis also were used to identify regional differences in the distribution of various types of morbidity in the population.

RESULTS

Mortality in Ukraine according to the State Statistics Committee in 2020 amounted to 616.8 thousand people (State Statistics, 2021). Mortality, as well as other demographic indicators, is influenced by a number of factors: demographic, socio-economic, medical, natural-biological, political, environmental, ethnic and so on. At different stages of historical development, some of them become crucial.

As can we see from Table 1 and Fig. 1, the dynamics of mortality in Ukraine is wavy. The probable reasons for this situation are the deteriorating socio-economic and political situation in Ukraine, which was caused by the decline in production, economic crises and, consequently, a decrease in the welfare of the population; features of gender and age structure of the population, relatively low life expectancy – 63 years for men and 74 years for women; increase in the incidence of almost all types of diseases, insufficient level of development of medicine and health care. There has been a clear downward trend in mortality in Ukraine since 2005, but its absolute and relative indicators remain among the highest in Europe.

Table 1

Dynamics of mortality of the population of Ukraine*

№	Year	Number of deaths (thousand people)	Mortality rates by gender and age groups by region (at 100,000 people of the appropriate age)
1	2005	781 961	1 666,4
2	2006	758 092	1 626,5
3	2007	762 877	1 646,7
4	2008	754460	1 637,4
5	2009	706739	1 540,6
6	2010	698 235	1 528,2
7	2011	664 588	1 459,8
8	2012	663 139	1 460,2
9	2013	662 368	1 461,9
10	2014	632 296	1 476,2
11	2015	594796	1 493,3
12	2016	583 631	1 477,1
13	2017	574 123	1 453,9
14	2018	587 665	1 485,7
15	2019	581 114	1 472,7
16	2020	616835	1 597,2

^{*} Compiled by the authors according to the State Statistics Service of Ukraine

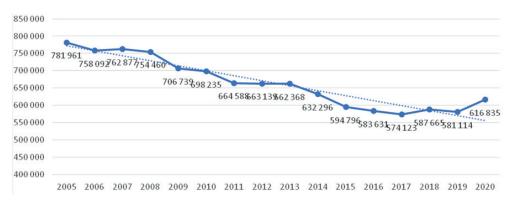


Figure. 1. Dynamics of the number of deaths in Ukraine in the period 2005–2020 (thousand people).

The twentieth century was marked by numerous important demographic processes, one of which was the epidemiological transition. Reducing mortality from infectious diseases has significantly reduced the mortality of children, young people and middle-aged people. With the help of modernization of medicine, significant progress has been made in saving people's lives, reducing the number of deaths from infectious diseases. Despite the fact that Ukraine belatedly entered the path of epidemiological transition, by the early 60's Ukraine in terms of mortality in total for all reasons almost overtook the countries of Western Europe. And if such a positive trend in the evolution of the decline in mortality in Ukraine persisted, the population in 2020 could be 10% higher. However, overcoming the second stage of the epidemiological transition – reduction and redistribution towards the elderly of mortality from diseases of the circulatory system, tumors and other chronic diseases is not yet complete. The share of the class "Diseases of the circulatory system" in the structure of causes of death is still high.

The structure of causes of mortality in Ukraine in 2020 is presented in Table 2 and Fig. 2. Significantly increased the number of deaths from diseases of the circulatory system, in 2020 their share was 69.0% against 52.1% in 1991, which is 408.2 thousand people, which is more than the total number of deaths from cancer, tuberculosis, AIDS (Center for Health, 2021).

 $\label{eq:table 2} Table\ 2$ The structure of causes of death in Ukraine in 2020 $^\circ$

Cause of death	Number of people
Class I. Some infectious and parasitic diseases A00-B99	6980
Class II. Neoplasms C00-D48	77 880
Class VI. Diseases of the nervous system G00-G98	4254
Class IX. Diseases of the circulatory system I00-I99	408 163
Class X. Respiratory diseases J00-J98	16479
Class XI. Digestive diseases K00-K92	24 167
Class XX. External causes of death V01-Y89	28 635
Other external causes of death W20-W64, W75-W99, X10-X39, X50-X59, Y35, Y40-Y89	3 063
COVID-19, virus identified U07.1	20 583
COVID-19, virus not identified U07.1	701
Total deaths	616835

^{*} Compiled by the authors according to the State Statistics Service of Ukraine

The structure of mortality is traditionally formed by endogenous (diseases of the circulatory system, tumours and others) and exogenous (external causes of death, diseases of the respiratory system, digestion, some infectious and parasitic diseases) causes of death. In the current structure of mortality, 82% of deaths of Ukrainians are due to two reasons: diseases of the circulatory system and tumours.

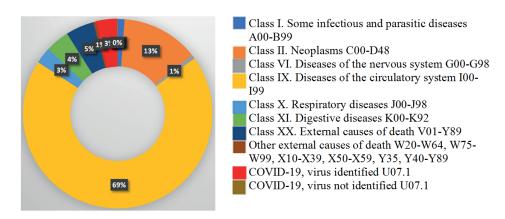


Figure 2: Major causes of death in Ukraine (2020)

The share of the class "Diseases of the circulatory system" in the structure of causes of death is still high. According to the Health Impact Assessment published by the WHO, 7 out of 10 leading causes of death in the world are non-communicable diseases. In 2000, the list of leading causes of death included only four non-communicable diseases (Center for Health, 2021). The new data cover the period from 2000 to 2019.

These data clearly demonstrate the need to increase global attention to the prevention and treatment of cardiovascular disease, cancer, diabetes and chronic respiratory diseases, as well as injury prevention in all regions of the world in accordance with the UN Sustainable Development Agenda.

The first position in the list of ten leading causes of death is still occupied by cardiovascular diseases; in the 2019 diabetes and dementia were included in the list for the first time. Heart disease has been the leading cause of death not only in Ukraine but worldwide for 20 years. However, they have never taken so many lives as today. Since 2000, the number of deaths from cardiovascular disease in the world has increased by more than 2 million and in 2019 reached almost 9 million.

Diseases of the circulatory system include atherosclerosis (formation of fatty deposits on the inner lining of the blood vessel, which leads to its narrowing or blockage), coronary heart disease (coronary atherosclerosis), cerebrovascular disease, which lead to stroke (acute cerebral palsy), to myocardial infarction (one of the forms of necrosis of the heart muscle). According to WHO statistics, cardiovascular disease is currently the leading cause of death in developed countries

(Center for Health, 2021). Of concern is the steady decline in the age of patients with diseases of the circulatory system, increasing the number of cases where the age of the patient with myocardial infarction does not exceed 23–25 years. Most often, heart disease is observed in men of working age. About 24.3 million people suffer from diseases of the circulatory system, is more than 53% of the population of Ukraine, of which 9.3 million are people of working age. The most common of the diseases of the circulatory system is hypertension, which accounts for 11.7 million people, among them of working age – 5.0 million (State Statistics, 2021). If blood pressure exceeds normal values by 50%, then, in the absence of treatment, life expectancy is reduced by several years. Nowadays, there is no doubt that high blood pressure is a pathological condition that leads to serious complications such as hypertensive crises, cerebrovascular disorders, congestive heart or kidney failure, damage to the aorta, peripheral arteries and retinal vessels. In addition, hypertension is considered as an independent and significant factor in the development and progression of atherosclerosis (Kvasha, 2008).

As can we see from the Table 3, the mortality rate from the disease of the circulatory system at the present stage varies from 37225 in the Dnipropetrovsk region to 8952 – in the Chernivtsi region, that is, there is significant regional differences. In Ukraine for 2020, it is amounted to 408163 people, it's maximum level was observed in Dnipropetrovsk, Donetsk and Kharkiv regions. This can be partly explained by the influence of the ecological situation, industrial regions, and a high proportion of elderly people. Low and lower than the average mortality rate of blood circulation system is traditionally observed in the western and southern regions of Ukraine. The analysis of the modern demographic indicators such as life expectancy, age structure and fertility rate of the population in Ukraine and their geographical differences are presented in article (Yavorska, Sych, Hevko, Shorobura, Dolynska, 2021).

CONCLUSIONS

The dynamics of mortality of Ukraine has a wave-like character. The number of deceased blood circulation systems has increased. At the present stage, they remain the main cause of deaths in Ukraine and make up 69%. For the future of radical changes in mortality, Ukraine will not be held, and will continue to remain a country with a high mortality rate. The accelerated aging of the population against a background of low fertility and depopulation is one of those demographic phenomena that embodies not only modern problems with the reproduction of the population in Ukraine, but also have a long-term impact on all aspects of society's life. The main economic and demographic consequences will reduce the number and share of labor-intensive contingents, and therefore – the formation of a certain labor deficit, an increase in demo-economic (and, respectively, tax) load on the working age population, reduction of financial opportunities for social security in the conditions of general growth in demand on social services by elderly, lonely, poor citizens. The effects of aging will eventually depend on the measures being developed and implemented to

Table 3 The number of deaths from diseases of the circulatory system in 2020

Oblast**	The number of deaths, people
Ukraine	408 163
AR Krym	no data
Vinnytska	18413
Volynska	9 629
Dnipropetrovska	37225
Donetska	24335
Zhytomyrska	14766
Zakarpatska	9885
Zaporizka	18378
Ivano-Frankivska	13 129
Kyivska	21 458
Kirovohradska	10379
Luhanska	10327
Lvivska	21 815
Mykolaivska	12168
Odeska	21 982
Poltavska	17089
Rivnenska	10959
Sumska	12596
Ternopilska	11416
Kharkivska	30 072
Khersonska	10162
Khmelnytska	12533
Cherkaska	14299
Chernivetska	8952
Chernihivska	14028

^{*} Compiled by the authors according to the State Statistics Service of Ukraine **source used for area names (Toponymic guidelines, 2011)

solve complex problems associated with it. The fight against premature mortality requires from the state of the target approach, understanding the regional specificity, inter-sectoral cooperation. Among the priority events note: raising the level of socioeconomic and environmental quality of life – ensuring the stability and confidence in the future; change of worldview and culture towards a healthy way of life of citizens, control of tobacco and alcohol usage, road safety; improving the ability of a national health system to help people remain able to work and preserve, strengthen health, improving the quality and accessibility of medical care to the relevant modern level. The relevant national strategies must be developed, possibly unusual, measures to overcome the above reasons for the high mortality rate, and the effective completion of transformations in the field of healthcare that should be used in further research.

REFERENCES

Center for Health Statistics Ministry of Health of Ukraine. (2021). Retrieved from: http:// medstat.gov.ua/ukr/statreports/access.html?id=6 [in Ukrainian]

Kotivska, A.A., Lobova I.O. (2012). Doslidzhennia sotsialnoepidemiolohichnykh pokaznykiv naselennia Ukrainy vnaslidok khvorob systemy krovoobihu na derzhavnomu ta rehionalnomu rivniakh (Study of socio-epidemiological indicators of the population of Ukraine due to diseases of the circulatory system at the state and regional levels). *News of Pharmacy*. No. 4 (72). P. 62–65. [in Ukrainian]

Kvasha, O. Oh. (2008). Populiatsiina otsinka vnesku faktoriv ryzyku sertsevo-sudynnykh zakhvoriuvan v smertnist za danymy 20-richnoho perspektyvnoho doslidzhennia (Population assessment of the contribution of risk factors for cardiovascular disease in mortality according to a 20-year long-term study). Author's ref. thesis. Dr. Med. Sciences. Kiyv. 40 p. [in Ukrainian]

Mezentseva, N. I., Batichenko, S. P., Mezentsev, K. V. (2018). Zahvoryuvanist i zdorov'ya naselennya v Ukrayini: suspilno-geografichniy vimir: monohrafiia (Morbidity and health of the population in Ukraine: socio-geographical dimension: monograph). Kyiv: SE "Print Service". 136 p. [in Ukrainian].

Pichura, V.I. (2017). Analiz zakhvoriuvanosti naselennia ta ekoloho-demohrafichni aspekty zemlekorystuvannia na terytorii baseinu Dnipra. (Analysis of population morbidity and ecological and demographic aspects of land use in the territory of the Dnipro basin). *Bulletin of the Zhytomyr National Agroecological University*. No. 2(1). P. 95–104. [in Ukrainian]

Polischuk, M. (2015). Bez nadii na dovhe i zdorove zhyttia (Without hope for a long and healthy life). Retrieved from: https://www.live.pravda.com.ua. [in Ukrainian]

Polischuk, M. Ye, Krasnovs'kyj, K.S., Andreieva, T.I. (2015). Zminy pokaznykiv smertnosti v Ukraini za ostanni 50 rokiv. (Changes in mortality in Ukraine for the past 50 years). Retrieved from: https://www.ridna.ua. [in Ukrainian]

Derzhavna sluzhba statystyky Ukrainy (State Statistics Committee of Ukraine) (2021). Retrieved from: http://www.ukrstat.gov.ua. [in Ukrainian]

Naselennia Ukrainy. Demohrafichni tendentsii v Ukraini u 2002–2019 rr. (The population of Ukraine. Demographic trends in Ukraine in 2002–2019) (2020). Editor: Gladun O.M. Publisher: National Academy of Sciences of Ukraine: Ptoukha Institute of Demography and Social Studies. 174 p. [in Ukrainian]

Toponymic guidelines for map and other editors, for international use: Ukraine (2011) State Service of Geodesy, Cartography and Cadastre. Kartographia, Kyiv. Retrieved from: https://unstats.un.org/unsd/geoinfo/ungegn/docs/Toponymic%20guidelines%20PDF/Ukraine/Verstka.pdf

Vlasenko, R. P., Shovkun, T. M., Andriychuk, T. V., Lavryk, O. D. (2022). Spatial Analysis and tendencies of the incidence of heart diseases of the population of Ukraine. Odesa National University Herald. Series: Geography & Geology T. 27. Vol. 2(41). C. 124–136. DOI: 10.18524/2303–9914.2022.2(41).268711

World Health Organization. (2021). Health Impact Assessement. Retrieved from: https://www.who.int/health-topics/health-impact-assessment#tab=tab_1.

WHO reveals leading causes of death and disability worldwide: 2000–2019. (2021). World Health Organization. Retrieved from: https://www.who.int/news/item/09–12–2020-who-reveals-leading-causes-of-death-and-disability-worldwide-2000–2019

Yavorska, V., Sych, V., Hevko, I., Shorobura, I., Dolynska, O. (2021). Modern Demographic Processes in Ukraine, Factors of Influence // SHS Web of Conferences. Vol. 100. DOI: https://doi.org/10.1051/shsconf/202110005001

СПИСОК ВИКОРИСТАНОЇ ЛІТЕРАТУРИ

Центр медичної статистики MO3 України. URL: http:// medstat.gov.ua/ukr/statreports/access.html?id=6 (дата перегляду: 15.04.2022)

Котівська А.А., Лобова І.О. Дослідження соціальноепідеміологічних показників населення України внаслідок хвороб системи кровообігу на державному та регіональному рівнях. Вісн. фармації. 2012. № 4 (72). С. 62–65.

Кваша О.О. Популяційна оцінка внеску факторів ризику серцево-судинних захворювань в смертність за даними 20-річного перспективного дослідження: автореф. дис. . . . д-ра мед. наук. К., 2008. 40 с.

Мезенцева Н.І., Батиченко С.П., Мезенцев К.В. Захворюваність і здоров'я населення в Україні: суспільно-географічний вимір: монографія. Київ: ДП "Прінт Сервіс", 2018. 136 с.

Пічура В.І. Аналіз захворюваності населення та еколого-демографічні аспекти землекористування на території басейну Дніпра. Вісник Житомирського національного агроекологічного університету. 2017. № 2(1). С. 95–104.

Поліщук М. «Без надії на довге і здорове життя». Українська правда життя. URL: http://live.pravda.com. ua (дата перегляду 11.10.2022)

Поліщук М. Є., Красновський К. С., Андреєва Т. І. Зміни показників смертності в Україні за останні 50 років. Світоглядний портал «Рідна країна» URL: http://ridna.ua (дата перегляду 04.09.2023)

Державна служба статистики України. URL: http://www.ukrstat.gov.ua

Населення України. Демографічні тенденції в Україні у 2002—2019 рр.: кол. моногр. / за ред. О.М. Гладуна; НАН України, Ін-т демографії та соціальних досліджень імені М.В. Птухи. Київ, 2020. 174 с.

Toponymic guidelines for map and other editors, for international use: Ukraine (2011) State Service of Geodesy, Cartography and Cadastre. Kartographia, Kyiv. URL: https://unstats.un.org/unsd/geoinfo/ungegn/docs/Toponymic%20guidelines%20PDF/Ukraine/Verstka.pdf (дата перегляду 10.10.2023)

Vlasenko R. P., Shovkun T. M., Andriychuk T. V., Lavryk O. D. Spatial Analysis and tendencies of the incidence of heart diseases of the population of Ukraine. Вісник ОНУ: Географічні та геологічні науки. Т. 27, вип. 2(41). С. 124—136. DOI: 10.18524/2303—9914.2022.2(41).268711

World Health Organization. (2021). Health Impact Assessement: URL: https://www.who.int/health-topics/health-impact-assessment#tab=tab 1. (дата перегляду 10.08.2023)

WHO reveals leading causes of death and disability worldwide: 2000–2019. (2021). World Health Organization. ". Retrieved from: https://www.who.int/news/item/09–12–2020-who-reveals-leading-causes-of-death-and-disability-worldwide-2000–2019 (дата перегляду 01.08.2022)

Yavorska, V., Sych, V., Hevko, I., Shorobura, I., Dolynska, O. (2021). Modern Demographic Processes in Ukraine, Factors of Influence // SHS Web of Conferences. Vol. 100. DOI: https://doi.org/10.1051/shsconf/202110005001

Надійшла 20.10.2023

О. Г. Пархоменко, аспірант

Н. €. Нефедова, к. геогр.н., доцент

О.І. Ніколаєва, к. геогр.н., ст. викладач

Одеський національний університет імені І. І. Мечникова кафедра економічної та соціальної географії і туризму пров. Шампанський, 2, м. Одеса, 65015, Україна geotourism@onu.edu.ua

СМЕРТНІСТЬ НАСЕЛЕННЯ УКРАЇНИ, СУЧАСНІ ТРАНСФОРМАЦІЇ, СОЦІАЛЬНО-ЕКОНОМІЧНІ ФАКТОРИ

Демографічна ситуація в Україні залишається вкрай напруженою, рівень смертності населення ϵ найвищим у Європі. Метою дослідження ϵ проведення просторово—часового аналізу тенденцій смертності населення та виявлення соціально-економічних причин, які задають напрям цим тенденціям. Смертність ϵ надзвичайно інформативним показником суспільної охорони здоров'я

зокрема і рівня соціально-економічного розвитку країни в цілому. На смертність впливає цілий комплекс факторів: демографічних, соціально-економічних, медичних, природно-біологічних, політичних, екологічних, етнічних і т.д. Україна характеризується відносно низькою тривалістю життя – 63 роки для чоловіків і 74 роки для жінок. Спостерігається зростання захворюваності практично за всіма видами захворювань і недостатній рівень розвитку медицини та охорони здоров'я. У сучасній структурі смертності 82% випадків смерті українців обумовлені двома причинами: захворюваннями системи кровообігу і новоутвореннями. Понад 53% населення України страждає захворюваннями системи кровообігу, з них 9,3 млн. – особи працездатного віку. Рівень смертності від хвороб системи кровообігу на сучасному етапі має суттєві регіональні відмінності. Максимальний рівень спостерігається в південно-східних промислових регіонах України. Боротьба з передчасною смертністю вимагає від держави цільового підходу, розуміння регіональної специфіки, міжгалузевого співробітництва. Для подолання вищевказаних причин високого рівня смертності потрібно ряд необхідних, можливо, екстраординарних заходів.

Ключові слова: демографічна ситуація, рівень смертності, очікувана тривалість життя, рівень соціально-економічного розвитку.