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NEGATIVE CHANGES IN THE HEALTH OF UKRAINE'S POPULATION AS A PERSPECTIVE OF SYSTEMIC SOCIAL CHANGES

НЕГАТИВНЫЕ ИЗМЕНЕНИЯ СОСТОЯНИЯ ЗДОРОВЬЯ НАСЕЛЕНИЯ УКРАИНЫ – ПРЕДПОСЫЛКА СИСТЕМНЫХ СОЦИАЛЬНЫХ ИЗМЕНЕНИЙ

Summary. The purpose of the study is the analysis of changes in the health status of the population of Ukraine for a certain period of time. Disclosure of the most significant negative indicators of medical care affect people's health, which cause dramatic increase of depopulation and the critical health situation in society. They cause the necessity of seeking the modernization of social systems, including health. The basis of the research **methodology** is the analysis of the demographic change of the population of the country; The dynamics of the general fertility rates, mortality, morbidity and natural increase / loss of population in 1991–2016. The data used in the open literary access and the materials of the State Statistics Committee of Ukraine were used. **Results.** The main results obtained in the process of solving the problem allowed us to state that depopulation in Ukraine, which began in the 1990s, has a long and stable character. Unlike previous demographic pits, namely in the nineties, population decline occurs not because of physical destruction of people, but because of poor health. It was established that the concretization of the whole set of interrelated indicators that are inherent in such a complex multilevel system as health care is a prerequisite for social changes in the country and the organization of mechanisms of state governance of the industry, with available resources at its disposal, for each system level, each Component or subject of health protection activity. The **practical value** lies in the formation of an effective health-care activities with minimal financial cost. **Value / originality.** With the systemic social changes that take place in our state, the implementation of legal rights and social programs of medical care, which involves the creation and transition to market relations, should be an important task. In addition, it is necessary to improve the system of public administration and control over the activities of hospitals at all levels and all types of property.

Key words: public administration, health care, demographic indicators, social change.

Аннотация. Цель исследования анализ изменения состояния здоровья населения Украины за определенный период времени. Раскрытие наиболее весомых негативных показателей медицинской помощи воздействующих на здоровье людей. В основу **методологии исследования** положен анализ демографического изменения количества населения страны; динамика общих коэффициентов рождаемости, смертности, заболеваемости и естественного увеличения/убыли населения в 1991–2016 гг. Использовались данные, которые находятся в открытом литературном доступе, так и материалы Государственного комитета статистики Украины. **Установлено,** что конкретизирование всей совокупности взаимосвязанных показателей, которые присущи такой сложной многоуровневой системе, как здравоохранение, является предпосылкой социальных изменений страны и организации механизмов государственного управления отраслью, при имеющихся в ее распоряжении ресурсах, в отношении каждого системного уровня, каждого компонента или здоровья субъекта охранной деятельности. **Практическими последствиями** должна стать эффективная деятельность медицинских учреждений, при минимальных финансовых затратах. **Значение / оригинальность.** При системных социальных изменениях, которые происходят в нашем государстве, важной задачей должно выступать реализация установленных законом прав и социальных программ медицинской помощи, что предусматривает создание и переход к рыночным отношениям. Кроме того, необходимо совершенствовать системы государственного управления и контроля за деятельностью больничных заведений на всех уровнях и всех видов собственности.

Ключевые слова: государственное управление, здравоохранение, демографические показатели, социальные изменения.

JEL Classification: H38, J11, I18, O35

1. Introduction

The state of health of the population is an integral indicator of the social orientation of the state, which reflects the degree of its responsibility to its citizens. The preservation and development of the national human capital are recognized as one of the priority tasks of Ukraine’s domestic policy for the coming years [Lekhan, 2016].

The ultimate goal of supporting public health is to improve its balance, which manifests itself as a state of physical, mental and social well-being of every person. For a society, a better state of health of the population is characterized by a low level of negative consequences associated with illnesses, life welfare, an increase in the expected life expectancy [Shutov, 2014]. Therefore, the medical system is a special field of activity that is involved in ensuring the right of citizens to life and health. In this regard, it at all times should be the priority direction of political, economic and social life of the state and society.

2. Determination of the human potential of health

According to the who regional office for Europe of 2016, for the first time since the Second World War, the average life expectancy of the 870-millionth population of the European region, which is attributed to Ukraine (diagram 1), has declined for the first time since the Second World War.

In almost all countries, the gap in health between socio-economic groups of population has increased – those that are more profitable and those who are in a less fa-

vorable financial and economic situation [Demographics, 2015]. This is primarily due to the deterioration of health in the newly independent states and in some countries of Central and Eastern Europe [Statistic, 2013].

Under such conditions, the states of the European region, including Ukraine, have a serious responsibility to take measures to stop and overcome the trends of deterioration of the health of the population, using the latest opportunities.

3. Description of the main indicators of health care

The dynamics of the main indicators of health care in Ukraine shows an annual increase in budget allocations directed to the industry, but at the same time, changes in the basic medical-demographic indicators and indicators of the state of health of the population are unlikely to be expected.

The unsatisfactory state of health and population of Ukraine’s population was finally at the end of the status of the issue of national security. For many decades, anxiety has caused such problems as the “perpetuation” of men of working age, high rates of general mortality, leading to aging of the population and a decrease in the working population, namely, worsening of demographic load, the growth of social diseases such as drug addiction, AIDS, tuberculosis, which acquire an epidemic nature. In our country – especially a high gap in the life expectancy of men and women, low average life expectancy compared to EU countries [State Statistics Service of Ukraine, 2015].

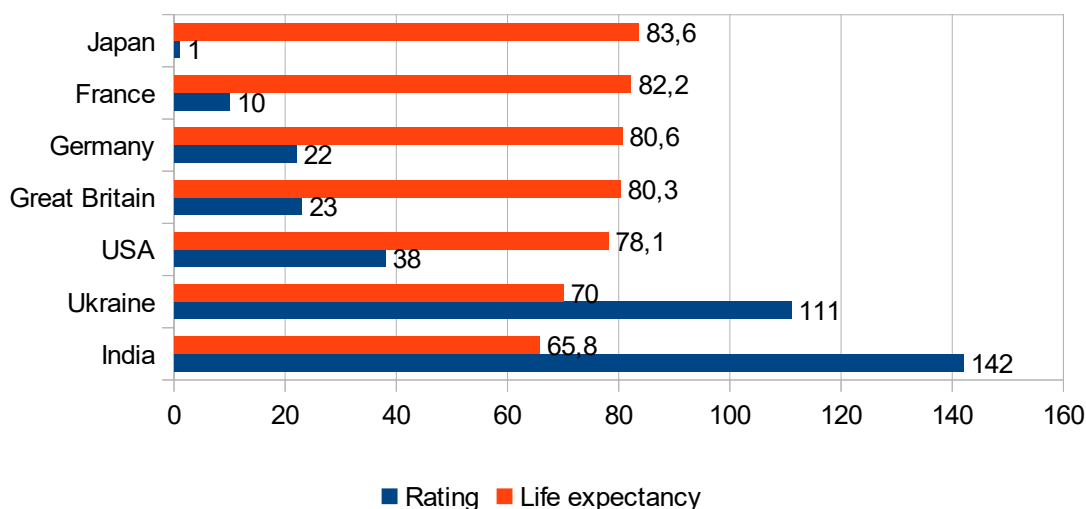


Diagram 1. Comparative evaluation of the average life expectancy

According to the State Statistics Service of Ukraine, the population of the country as of 01.01.2016 is 42584.5 thousand people [State Statistics Service of Ukraine, 2016]. During the years of Ukraine's independence, the population continued to decrease, resulting in a decrease of 9183884 million people (17.68%) from 1991 to 2016 and by 2665733 million people during the period of 2014–2016 or by 5.87% (table 1). Thus, the population of modern Ukraine, by its number, approximately corresponds to the population of Ukraine in the mid-sixties. The decline in the population of Ukraine was mainly due to a steady natural decrease, that is, exceeding the number of deaths over a number of births, but from 2014 to 2016, negative geopolitical changes were joined.

Reducing the population in Ukraine was observed in the years of the First World War and civil wars, the famine and repression of the 1930s, the Second World War, but the population's loss, which began in the 1990s, has a long-lasting and sustained character. Unlike previous demographic holes, in the nineties population decline is due to physical destruction of people, and due to the deterioration of health.

The reduction of the natural loss of the population of Ukraine in the last 25 years is a phenomenon most likely temporary, due to transition factors. Among them — a significant increase in the number of women of fertile age changes in age-related fertility rates [Starinnia naselenia v Ukraini, 2015].

But after several years of changing the structure of the age will act in the opposite direction, weakening the effect of negative demographic. According to all available estimates, rising birth rates and mortality rates, expected even by the most optimistic forecasts, are not able to neutralize the impact of adverse structural changes, resulting in an

increase in the natural loss of the population. This growth may be larger or smaller, depending on how much mortality and fertility can be reduced in the coming years, but such changes in mortality and fertility that would completely exclude an increase in the natural loss of the population of Ukraine, or one demographic forecast is not expected.

Recently, the factor of the loss of the population of Ukraine is the migration factor: according to the State Statistics Service, during 2014–2016. From Ukraine, 77.7 thousand people have fallen beyond its limits than arrived. However, some positive levels of the positive balance of migration cannot significantly affect the depopulation trend of the population dynamics of Ukraine.

During the years of independence, significant changes have taken place in the dynamics of the urban and rural population of Ukraine. If earlier the number of inhabitants of urban settlements quickly increased absolutely and relatively, and the number of rural residents declined, then in the last two decades, the urban population also declined.

For the sex-age pyramid of the Ukrainian population typical deformed, asymmetry of the male and female parts of the pyramid (diagram 2). This is precisely the effect of the social upheavals of the first half of the last century.

The main and most vivid sign of changes in the age structure of the Ukrainian population is the aging of the population, which manifests itself in the growth of the proportion of older people and a decrease in the proportion of young people. On the whole, the aging process in Ukraine is roughly the same as in other developed countries, with the only difference being that, due to the deformity of the Ukrainian age pyramid, the dynamics of age groups, especially the middle ones, from 20 to 60 years, has a wave-like character, which almost is not observed in the countries of Western Europe. In this case,

Table 1

The main indicators of the population of Ukraine and its changes in 1991–2016^{1,2}

Рік	Number of available population, million people			Changes in the population, 1991 = 100%		
	Total people	Urban settlements	Rural settlements	Total people in % to the previous year	The share of urban population in the general population, %	The share of rural population in total population, %
1991	51944400	35085200	16859200	100	67,5	32,4
2001	48923200	32951700	15971500	99	67,3	32,6
2002 ¹	48457102	32574371	15882731	99	67,2	32,7
2011	45778534	31441649	14336885	98,1	98,9	31,3
2014 ²	45426249	31336623	14089626	99,7	68,9	31
2015 ²	42929298	29673113	13256185	99,7	69,12	30,8
2016 ²	42760516	29584952	13175564	99,6	69,19	30,8

Note: 1. According to the All-Ukrainian Population Census data on December 5, 2001; 2 Excluding temporarily occupied territories of Ukraine.

the peculiarity of the evolution of the age structure of the population in Ukraine is that, in conditions of high mortality of adults, its pyramid only ages only “from the bottom” – as a result of declining fertility, in contrast to developed countries, where there is also aging “from above”, due to lower mortality.

The current demographic situation in Ukraine is extremely complicated. It is accompanied by a rapid reduction in the population due to a significant predominance of mortality, especially for able-bodied people (human capital). These losses significantly affect the economic, military and intellectual potential of the country and threaten the progressive social development and reproduction of the population.

The current medical and social problem and the strategic direction of national health policy in most countries of the world are the reduction of the prevalence of chronic non-communicable diseases, among which the greatest problem is the diseases of the circulatory system. Due to diseases of the circulatory system, Ukraine annually loses 500 thousand people. During 1991–2011, the mortality rate for these diseases in Ukraine increased from 488.0 to 965.9 per 100 thousand, that is, twice. Diseases of the circulatory system cause almost 7% of cases of temporary disability of the population, which is 4.3 cases and 72.1 calendar days of disability per 100 employees. Cardiovascular disease occupies the first place in the structure of primary disability of the adult population, whose share exceeds 26%. Every year in Ukraine, about 14–15 people

out of every 10 thousand adults become disabled due to circulatory system diseases.

Mortality from diseases of the circulatory system in Ukraine exceeds the average European index in 2, and in individual countries – in 3,5 times. In the structure of mortality from circulatory system diseases, ischemic heart disease (66.6%) and cerebrovascular pathology (21.5%) are the leading causes. Compared with 90 years, the incidence of cardiovascular disease and mortality from circulatory system diseases in Ukraine has increased several times. The highest levels of morbidity and mortality were observed in 2008, which exceeded the relevant indicators in 1990 by more than 1.5 times. Since 2009, the tendency towards a decrease in the morbidity and mortality rates of the population from circulatory system diseases is observed, however, the accumulation of diseases of the circulatory system among the population is increasing. In the regional aspect, there is a significant differentiation between mortality rates, overall mortality rates for CHD, and the specific gravity of the age group over 65.

A comparative analysis of premature mortality rates for the main classes of illnesses in Ukraine and the EU and the analysis of regional peculiarities shows that there are significant reserves of their reduction in our country and outlined the values of the criteria that should be sought.

The general approach to solving the problem of premature mortality, taking into account the current socio-economic, political and medical features, should consist of two components:

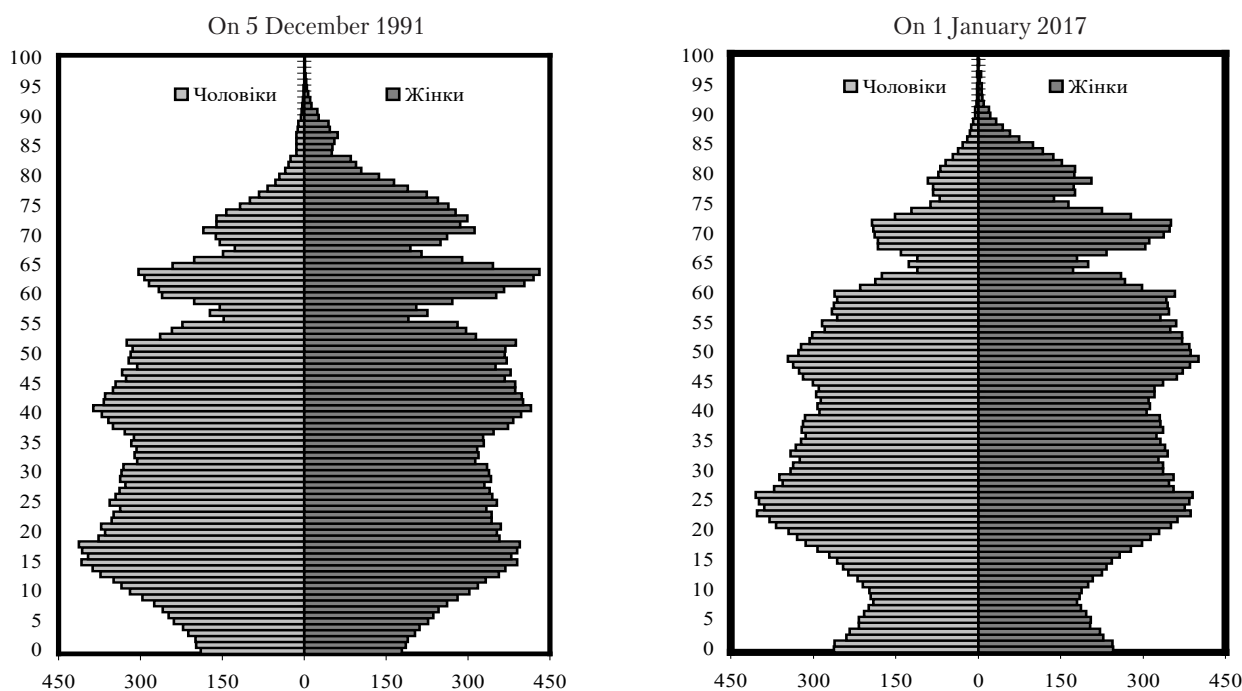


Diagram 2. The age pyramid of the population of Ukraine in 1991 and at the beginning of 2017 (thousand)
[State of world population, 2016]

1. Pay special attention to targeted prevention programs with the support of government, communities, businesses, and especially the Ukrainian public.

2. Reorientation of the health care system to identify risk groups, timely detection of chronic diseases and conditions, and control of their development.

To implement the first component, development of a general strategy for the prevention and control of chronic diseases is required. It should identify the priority areas and the role of different sectors and government levels for a comprehensive approach to the problem. This work should be multisectoral, as only one public sector, health care, without the involvement of the government, the private sector and non-governmental organizations, is unable to resolve the first component of the program. To solve the second component, it is necessary that in the treatment of chronic diseases, prevention of their development should be actively involved both health authorities and patients themselves.

The World Bank (2015) studies show that Ukraine's current health care system is not yet able to cope with the crisis, requiring the organization to bypass the model of treatment for periodic diseases and to introduce a model that provides for prevention and meets the needs of patients with chronic conditions.

As of today's health, all age groups of the country's population can be classified as risk groups because statistics for both acute and chronic diseases are rapidly increasing [Heiets, 2016].

For example, the level of general morbidity of children (according to the data of the primary treatment of the population in health care institutions) has a tendency to increase and is – 1829.8 cases per year, among adolescents – 1511.4 and adults – 1188.2 cases per 1000 population of the corresponding Age In the last 5 years, the level of primary morbidity has increased by 12% (total incidence of the population by 15%) [Heiets, 2016].

The sharp increase in depopulation and the criticality of the health situation in society caused the need for modernization of social systems.

Different types and types of systems are distinguished (ecological, social, open, closed, etc.), but each of them is characterized by common, system-forming features: structural, a set of elements (components, subsystems), each of which performs its function. Their number determines the scale of the system, its characteristics and properties, which determine its functional significance in society; Availability of frames, boundaries, remote systems from the external environment.

From the point of view of the general theory of systems, each system acts as part of a larger system. In turn, each system consists of subsystems that have their own properties and features, namely:

1. Structural, set of elements (components, subsystems), each of which performs its function. Their number determines the scale of the system, its characteristics and properties, which determine its functional significance in society.

2. Presence of frames, boundaries, distancing system from the external environment. From the point of view of the general theory of systems, each system acts as part of a larger system.

3. "Synergy" (from the Greek – working together) or "principle of the emergence", "the integrity of the system". This concept is used to describe the properties of a system that is not reduced to the sum of its constituent elements and cannot be deduced from the properties of the whole; The dependence of each element, the properties and the relation of the system to its place, functions within the whole.

4. Hierarchy, coordination, or other type of interconnections between the internal components of the system. These are network connections and system relationships; the conditionality of its behavior by the behavior of its individual elements and the properties of its structure.

5. Interdependence of the system and the environment. The system forms and manifests its properties in the process of interaction with the environment, while being the leading active component of the interaction. Since any system is a subsystem of a larger order system, therefore, the external environment for this system can be considered as a super system environment, and any external component of the subsystem can provide any subsystem component. The dependence of each element, its functions and relations within the whole system.

6. The change (development) of each component of the system leads to the fact that any system has a cycle of life: the emergence-establishment – functioning – the crisis – the collapse [Heiets, 2016].

These characteristics are important as criteria for determining systemic healthcare reform.

The health care system can be considered as a subsystem of society. Its self-organizing characteristics are manifested through the processes of management.

In the framework of the theory of public administration and law, its systemic characteristics have attracted much attention as this activity involves millions of officials, who take and perform management decisions. In this area involves enormous organizational, human and financial resources. While in law management often separates the content of activities of the justice and law [Shutov, Vovk, 2009].

It include special Executive institutions and the government as Executive authority of the single state authorities (and other bodies of Executive power and bodies of local self-government implementing in full the functions of government (what the government delegates them the necessary powers).

However, the concept of “governance” and “government” differ in their functions. The main function of the government performs the tasks of political leadership. The task of public administration is the direct management of the operation of different administrative sectors, the implementation of legislation, decrees and orders and other administrative decisions in this area [Libanova, Vlasenko, & Shevchuk, 2006].

From the standpoint of system approach, public administration is characterized by a duality. On the one hand, it can be considered as a complex hierarchic dynamic system, where each component produces, passes, perceives, converts regulative effects to organize and maintain order in the society. That is the system properties of public administration determine the effectiveness and quality of implementation of all major regulatory functions, combining direct and inverse relationships of subjects and objects of management.

On the other hand, governance can be thought of as a process of conscious, purposeful systemic impact on society in the implementation of goals, objectives and functions of the government. This influence is carried out by state agencies — state agencies, which are authorized to engage in this professional Executive and administrative activities. The Constitution mentions among the Executive authorities, local self-government. However, in theory and in practice they have an important place in the system of state authorities.

The Constitution Ukraine governance is multilevel and includes legislative, Executive and judicial branches. In a broad sense, the actors organize the totality of social relations. In other words, this power operacowboy influence of subjects of management (in the person of the state, its special bodies, officials) facilities management (society, citizens, etc.). In a narrow sense, is the totality of administrative activities of Executive and administrative public bodies at the Federal level and at the level of subjects of the state, based on the laws and regulations in all spheres of society. This fully applies to the health sector.

System methodology of analysis involves the allocation of governance functions. The term “function” (lat. *functio* — implementation) indicates the direction and content of the activities of an individual system, a social institution, group, or person. Consequently, the functions of determining substantial management activities in accordance with its objectives. Despite the diversity of these activities, it can be formally reduced to three functions — management decisions, their implementation and control. However, some relatively independent types of public administration involve the creation of specific entities that are designed to perform specific purpose, special functions and ways to implement them.

If you drill down into meaningful functions in relation to health, among them are the general and special. The first (General) functions include developing strategy and funding for health development, the formation of government programs, resolving personnel issues, monitoring implementation, diagnostics of efficiency of activity of all subjects and objects of various levels of management. Full list of features the actual state of regulation in the health sector is large enough. These include the definition of rules and actions as officers and staff by the regulatory legal act; the establishment of specific management procedures (certification, licensing, taxation, registration, etc.) providing medical services; the implementation of control and coordination of activities of various internal and external structures, the implementation of departmental powers; the wording of the task; strategies and stages of management activity, etc.

Special functions of public health is organization of preventive and curative care to the population, sanitary and epidemiological surveillance, the development of a network of medical institutions, and their population drugs, supplies, equipment, conducting medical examinations, the development of medical science.

These functions are focused mainly on treatment of patients in the prevention of diseases. Depending on features of object level control, along with the functions of health overall, there are control functions of the individual units. For example, you can allocate the management of production activities, i.e. preventive and curative health process of medical institutions, their technical support, commercial, financial, insurance and accounting activities. However, nowhere are not even mentioned functions the formation of the population’s needs in health maintain the activities in a healthy lifestyle.

The fact that health care management is a state structure, reflected in the fact that in the course of implementation of its functions provided for in the first place the public interests of the state while respecting the rights of citizens). In addition, all management functions are implemented by a specially created government bodies, which, as the subjects of management, it has delegated some of its powers. This allows data subjects to manage health for and on behalf of the state. However, the established government, laws and other legal acts provide a framework of competencies for all the subjects of public health management.

4. Conclusions

Thus, the healthcare system in our country is regarded as one of subsystems of the state management of society, its social sphere. It is inherent in the main system characteristics such as the presence of internal a certain way of organized and interrelated structures, communication with other subsystems of society, relative autonomy, hierarchy and the ability to change and development.

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