

ORIGINAL ARTICLE

HEALTH OF THE ELDERLY PEOPLE AS THE BASIS FOR FORMATION OF MEDICAL AND SOCIAL NEEDS

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ABSTRACT

The aim: The identification and determination of needs that the population of older age groups have in medical and social services on the basis of health data and the results of a survey.**Material and methods:** Because of bibliographic, epidemiological, medical-statistical, analytical methods the research has investigated the problems of healthy aging, tendencies in population health of the population of Ukraine of senior age groups during 2000-2017, features and tendencies of health of a sample contingent of urban population of elderly age according to appeals in health care facilities during 2009-2019. The use of the sociological method, the self-evaluation of elderly people of their own health, characteristics of lifestyle and medical activity are determined, the needs of older people in medical and social services were assessed.**Results:** Negative tendencies to increase during 2000-2017 the prevalence of pathology among the population older than working age by 22.8%, including blood diseases in 2 times, endocrine system – in 1.8 times, urogenital system – by 1.5 times, digestive organs – by 1.4 times, tumors and nervous system – by 1.3 times. Among the urban elderly population, the prevalence of sensory diseases, including ear and eye diseases, endocrine disorders, injuries and poisonings, has increased, and mental health indicators have deteriorated.

The sociological survey found a low level of self-esteem (31.5±3.5 per 100 had health problems, 10.1±2.3 are significant). Self-medication was practiced by 76.4±3.2 per 100 respondents, 74.2±3.3 were not followed or they violated the doctor's recommendations. 56.2±3.7 per 100 respondents had physical examinations in the non-right time 29.7±3.4 had not it.

There was a significant prevalence of risk factors, including hypodynamics (21.9±3.1 per 100), tobacco use (29.8±3.4), malnutrition (37.1±3.6), overweight (obesity) (32, 6±3.5), arterial hypertension (37.6±3.6), hypercholesterolemia (28.7±3.4), glucosemia 16.3±2.8).

The research has discovered the needs of older people in health care and social services, inter alia in preventive counseling (65.2±3.6 per 100), the introduction of electronic technologies in health care (68.5±3.5), information educational services on health issues (67.4±3.5), provision of services in hospitals at home (66.3±3.5), in increasing the availability of rehabilitation (43.8±3.7), specialized counseling (34.3±3.6) and emergency medical care (16.2±2.8), improvement of socio-economic determinants (78.0±3.1), introduction of activities (48.3±3.7), joint training programs for older people (42.1±3.7), the development of certain skills, the use of technical means, assistive devices (67.4±3.5), the formation of a conducive to better health environment (58, 4±3.7).

Conclusions: The low level of the elderly people's health, the tendency to increase the burden of disease, the prevalence of risk factors for disease and low medical activity lead to significant needs for medical and social services of preventive, treatment-diagnostic, rehabilitation, improving socio-economic determinants, measures to reduce social isolation.**KEY WORDS:** health, aging, older people, morbidity (incidence), mortality, need for services, health care, social protection

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INTRODUCTION

Monitoring population health indicators at the global and regional levels shows that it is improving in many countries around the world, as well as reducing some health inequalities between countries. Progress has been made through the implementation of World Health Organization's (WHO's) recommended strategies and the implementation of national action plans to reduce the burden of disease, improve health and its determinants, and reduce health risks [1-3].

One of the important indicators of progress in health policy is the average life expectancy, which tends to increase. This process is accompanied by accelerating the aging of the population and increasing the share of the

population of older age groups in the age structure of the population. Forecast data indicate an increase in the number of people aged 60 and over from 1 billion in 2019 to 1.4 billion in 2030 and 2.1 billion in 2050 and their share in the total population structure from 12% to 22%. Aging is characterized by an unprecedented high rate, especially in developing countries [4-5].

The European Region is one of the WHO regions where the aging process is particularly pronounced. The European health report 2018 shows that most countries in the Region have made considerable progress in implementation of the key policy targets of "Health 2020". They lay the foundation for the tasks which the Agenda Today for Sustainable Development in the

2030 set out. Demographic trends show a significant increase in life expectancy in Europe, a reduction in premature mortality and an improvement in quality of life. It is noted that in the WHO European Region over the past five years, life expectancy has increased by more than 1 year, and all-cause mortality has decreased by 25% over the past 15 years. At the same time, there are significant differences in life expectancy between individual countries, which reach 11.5 years [6].

The rate of population aging in Europe predicts a doubling of the number of people aged 65 and over in 2010-2050, and a population of 85 and older from 14 million to 40 million. The proportion of people aged 65 and over will increase for the specified period from 14% to 25% [7-8].

Ukraine is one of the European countries with a rapidly aging population. Since 1990, the proportion of people over 60 in the age structure of the population has increased from 18.3% to 20.4% in 2000 and 23.9% in 2020. The proportion of people over 65 has increased from 12.0% to 13.6 and 17.1%, respectively [9-12].

Taking into account the demographic context, it is important not only to prolong life expectancy, but also to ensure its proper quality. It is known that the older contingents of the population often have low health indicators due to insufficient living standards, lack of opportunities to maintain a healthy lifestyle, low availability of health and social services, etc. [13-14].

Global demographic changes and the epidemiological context in many countries of the world necessitate the adaptation of state, regional and sectoral policies to the real needs of the population to ensure healthy living conditions, the building a framework for healthy aging. It involves the development and maintenance of the functional capabilities of the elderly, for their well living. Ensuring healthy aging requires reforming many sectors, especially health, social security, science and education, transport, housing, food industry, urban planning, and so on [15].

Drawing attention to the acceleration of population ageing of the world and the prominence of the demographic transition, the world community is launching the Decade of Healthy Aging (2020-2030), which provides for coordinated global action to improve the lives of older people, their families and the local communities or societies where they live [8].

A lot of people do not even have access to the basic resources needed for a full and decent life. Others face numerous obstacles that prevent them from fully participation in society.

The aim of the transformation should be to create more comfortable conditions for the elderly, to support, preserve and strengthen their health. This requires monitoring and assessing the health of older people and identifying the needs of older people in the services of the health and social security (welfare) sector [16].

THE AIM

The aim was the identification of needs the older age groups' population in medical and social services on the basis of health data and the results of a sociological survey.

MATERIALS AND METHODS

Bibliographic, epidemiological, medical-statistical, sociological, analytical methods are used in the study. The data of the Center for Medical Statistics of the Ministry of Healthcare of Ukraine for 2000-2017 are analyzed, the proportions of a disease of the population older than working age is studied, the trends in the population health of the population of older age groups' in Ukraine are revealed. The information from the accounting statistical data of patients of Kyiv health care facilities has copied and the peculiarities and tendencies of health of the sample contingent of the elderly urban population were determined according to the appeals to health institutions during 2009-2019. An anonymous questionnaire of 178 patients of health institutions using sociological survey was made. A quarter of respondents were aged 55-59 years old, over 40% – 60-64 years, a one-third – 65 years and older for a sample-based survey. The gender distribution corresponded to a similar one in the population of the older age groups, where 65% were female and 35% were male. 67.0% had the status of a pensioner, but 62.4% of them worked. According to educational qualifications, 39.0% of respondents had a higher level of education, 12.0% – an incomplete higher education, 23.0% – a specialized secondary education, 22.0% – general secondary education. Because of sociological survey as the base the research has determined the self-evaluation of elderly people of their own health, characteristics of lifestyle and medical activity, assessed the needs of older people in medical and social services.

RESULTS

Analysis of the data by the Center for Medical Statistics of the Ministry of Healthcare of Ukraine in 2000-2017 revealed that in general the incidence of the population over working age decreased over the period by 8.0% and reached 44,000.6 cases per 100,000 of the population. Despite the reduced scale in primary morbidity in most classes of diseases, the incidence of diseases of the endocrine system increased by 57.8%, diseases of the blood and blood circulation organs – by 34.1%, diseases of the nervous system – by 20.5%, diseases of the urogenital system – by 7.7%.

The base of the structure of morbidity of older persons in 2017 were respiratory diseases (26.1%), diseases of the circulatory system (17.9%), diseases of the eye and its appendages (adnexa) (8.8%), diseases of the musculoskeletal system and connective tissue (7.4%), traumas (injuries) and poisoning (7.0%), diseases of the urogenital system (6.1%), skin and hypoderm diseases (5.6%).

Bearing in mind importance of indicators of disease prevalence among the population for the formation of needs for medical and social services, their features and trends during the seventeen-year period were studied.

There is a negative tendency to increase the prevalence of all diseases among the population older than working age by 22.8%. At the same time, during 2000-2017, the prevalence of blood diseases among the elderly increased 2 times, diseases of the endocrine system – 1.8 times, diseases

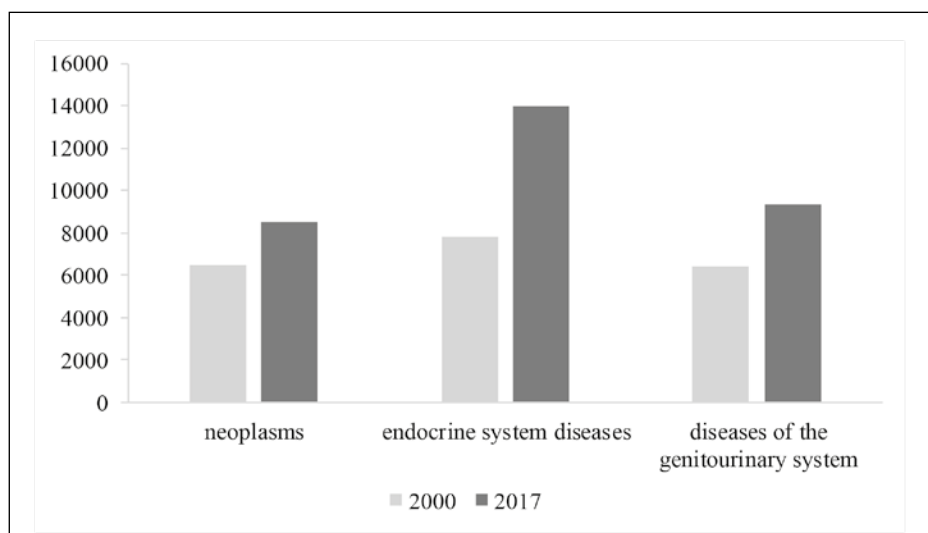


Fig. 1. Prevalence of diseases among the population that is older than working age in 2000 and 2017 (per 100 thousand)

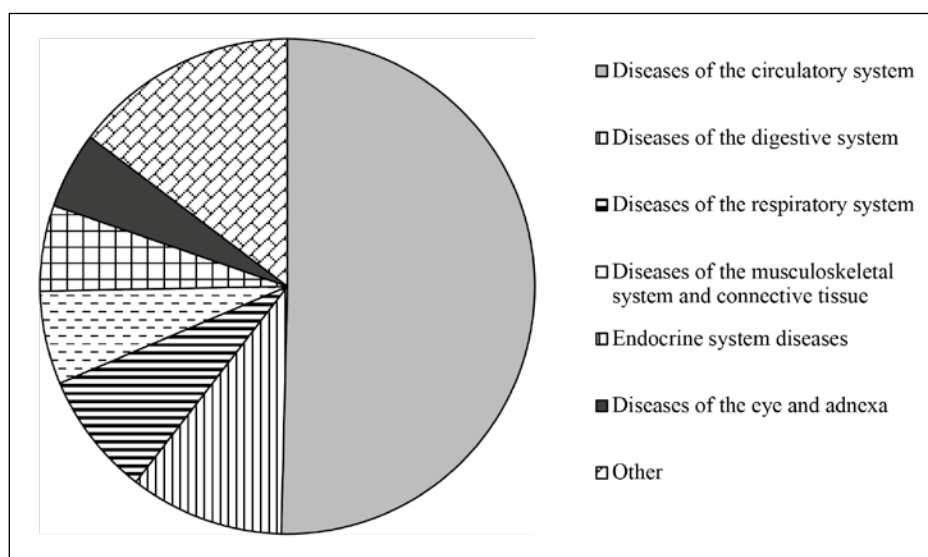


Fig. 2. The structure of the prevalence of diseases among the population of older age groups in 2017 (%)

of the urogenital system – by 45.7%, diseases of the digestive system – by 45.3%, neoplasms – by 31.7%, diseases of the nervous system – by 30.0%, diseases of the circulatory system – by 26.7%, diseases of the musculoskeletal system and connective tissue – by 18.1% (Fig. 1).

The structure of the prevalence of diseases among the elderly in 2017 was dominated by diseases of the circulatory system, which accounted for half of all existing diseases. There was a significant share of diseases of the digestive system (10.1%), diseases of the respiratory system (8.1%), diseases of the musculoskeletal system and connective tissue (6.1%), diseases of the endocrine system (5.6%), diseases of the eye and its appendages (adnexa) (5.0%) (fig. 2).

The above classes of diseases were determining the structure of the prevalence of diseases among the older population in 2000.

Therefore, the increase in the prevalence of pathology among older age groups occurred in almost all classes of diseases, except for some infectious and parasitic diseases, diseases of the ear and mammary gland, skin and hypoderm (subcutaneous tissue) diseases, mental and

behavioral disorders, traumas (injuries) and poisonings. The prevention, diagnosis and effective treatment of cardiovascular pathology due to its high prevalence and constant growth require special attention. The ill-health of older people indicates the need to study the causes of negative trends and identify the needs for medical and social services to organize their provision to the population.

The analysis of the volumes and reasons of appeals of urban residents to health care institutions during 2009-2019 showed that the incidence of the elderly population as a whole has increased. The growth rate of primary morbidity of elderly urban residents in eleven years was 3.6%. Uneven growth of the indicator by individual years was revealed. In the range of causes of primary morbidity of the urban population of older age groups diseases of the respiratory system (27.3%), urogenital system (14.3%), endocrine diseases, eating disorders, metabolic disorders (9.9%), diseases of the eye and its appendages (9.7%), diseases of ears and mammary gland (9.0%), neoplasms (6.7%), diseases of the blood circulatory system (5.5%) prevailed.

The study of the trends of primary morbidity of older age groups' urban residents revealed a significant increase in the incidence of diseases of the ear and mammary gland, eye and its appendages, blood circulatory system, vital organs and digestion. The fourfold image of frequently occurring mental and behavioral disorders, which indicates mental health problems, requires special attention. The appearance twice of frequency of nervous system's diseases and dermatological pathology, which often appear in the elderly other patients, require further study.

The leading places were occupied by cardiovascular diseases or illnesses, diseases of the digestive system and endocrine diseases, diseases of the eye and its appendages, diseases of the urogenital system and tumors, in the structure of the prevalence of diseases among the urban population of the elderly in 2019.

The spread of diseases among the urban elderly population over a ten-year period tended to decrease at a rate of 6.8%. However, there was a significant increase in the prevalence of diseases of the ear and mammary gland in 1.8 times, of the endocrine system – 1.7 times, infectious diseases and diseases of the musculoskeletal system and connective tissue – 1.2 times. The increase of elderly urban residents' appeals to health care facilities owing to traumas, poisonings and other consequences of external causes by more than threefold gives cause for reasonable concern.

The identified trends in the health of the elderly people, characterized by an increasing prevalence of chronic pathology, necessitated a study of self-evaluation of the health of the elderly, lifestyle and identification of their medical and social needs.

Elderly people's self-evaluation showed that there were no people who considered it very good. Among the respondents, 20.2±3.0 per 100 respondents rated their own health as mostly good, 31.5±3.5 – indicated health problems, and 10.1±2.3 confirmed significant health problems. Such estimates are quite impartial given the prevalence of non-infectious pathology, which was confirmed by 85.4±2.6 per 100 respondents. Such evaluations are quite objective because of the spread of non-infectious pathology, which was confirmed by 85.4±2.6 per 100 respondents. The range of existing chronic pathology included hypertension (37.1±3.6 per 100 respondents), allergies (23.6±3.2), heart disease (27.0±3.3), diabetes mellitus (11.2±2.4), arthrosis, arthritis (9.6±2.2), depression (5.6±1.7), malignant neoplasms (5.1±1.6), bronchial asthma (4.5±1.6), cataract (3.9±1.5). In most respondents, chronic pathology was combined.

This problem has been studied in the elderly population, considering the importance of everyone being aware of their personal responsibility for their own health. According to its results, it was found that only 13.5±2.6 per 100 respondents are quite responsible for their own health; 46.1±3.7 – mostly responsible, but 19.1±2.9 mostly irresponsible, 11.8±2.4 – irresponsible. Confirmation of the revealed evaluations is self-medication, which was indicated by 76.4±3.2 per 100 respondents, of which 65.4±4.1 practice it very often, and 20.6±3.5 – sometimes. Factors that stimulate older people to resort to self-medication are

problems with visiting health workers, low level of trust in their recommendations, confidence in the success of self-medication, the use of previous appointments, time pressure to visit a health care facility, lack of financial resources to pay for medical services.

The research of the compliance has shown that about 25.8±3.3 per 100 respondents always follow the recommendations of health professionals, while sometimes, or often do not follow the advice of 74.2±3.3. Elderly people attributed the low level of the compliance to fears of side effects, complex medication regimens, prescribing several forms of medication at the same time, uncertainty about the correctness of prescriptions, high cost of medication, duration of medication, lack of treatment, memory problems and more.

The study of the elderly people's lifestyle included a research of physical activity, the presence of risk factors for disease. It was found that they have a regular physical activity of 33.7±3.5 per 100 respondents, and 16.3±2.8 – are engaged in physical culture and sports. However, a quarter of respondents do not exercise regularly, there is a lack of sufficient physical activity in 21.9±3.1 per 100 elderly people.

The significant prevalence of risk factors for the development of the disease in the population of older age groups is revealed in the course of the investigation. Smoking status was confirmed by 29.8±3.4 per 100 respondents, frequent alcohol consumption – 7.9±2.0, malnutrition – 37.1±3.6, dangerous regime of insolation – 13.5±2.6, 32.6±3.5 per 100 respondents had overweight, arterial hypertension was 37.6±3.6, hypercholesterolemia was 28.7±3.4, and glucosemia was 16.3±2.8.

The reasons for the appeals of the population of older age groups to health care facilities were not only health problems, including diseases, accidents, traumas, but also preventive measures, including medical preventive examinations, vaccination, and also updating recipes, obtaining medical certificates, etc.

Only 14.0±2.6 per 100 respondents passed preventive examinations on time, while 56.2±3.7 did not perform on time, and 29.8±3.4 ignored these preventive actions. Only two-thirds of respondents indicated that they received preventive recommendations from health workers.

The survey identified the need of all respondents for outpatient care. Its preferred forms are called day hospitals (69.7±3.4) and hospitals at home (66.3±3.5). The need for rehabilitation polyclinic care is high (43.8±3.7). The demand for inpatient intensive care was confirmed (39.3±3.7) per 100 respondents, in the development of "one-day surgery" – 41.6±3.7 per 100 respondents. The need to improve the provision of elderly people with specialized counseling was confirmed by 34.3±3.6 per 100 respondents, emergency medical care – 16.3±2.8 per 100 respondents medical care.

The majority of respondents were in favor of active preventive counseling by medical staff in health care facilities (65.2±3.6 per 100). Preferred topics were the principles of healthy eating (62.3±3.6 per 100 respondents), modes of

physical activity in the presence of chronic pathology and without it (54.5 ± 3.7 per 100 respondents), the principles of healthy aging (52.2 ± 3.7 per 100 respondents), prevention of complications in chronic diseases, including prevention of infarcts and strokes (57.9 ± 3.7 per 100 respondents). Patients of older age groups also have pointed out the need to obtain information and increase knowledge in matters of mutual assistance and self-help in chronic diseases (48.9 ± 3.7 per 100 respondents), in the area of rehabilitation after complications of diseases (45.5 ± 3.7 per 100 respondents).

The problem of territorial access to health care, older respondents supported the need to expand the latest approaches of health and social care institutions to interact with the elderly people because of the limitations of physical activity. 68.5 ± 3.5 per 100 respondents of older age groups have spoken up for active introduction of electronic technologies in the process of medical care. The need to increase digital literacy was confirmed by 59.6 ± 3.7 per 100 respondents. The purposes of expanding knowledge and application of mobile technologies by the elderly were the use of information services on health (56.2 ± 3.7 per 100), emergency medical care (61.2 ± 3.7 per 100), receiving reminders about the appointment counseling (53.9 ± 3.7 per 100), assistance in compliance with the medication regimen (49.4 ± 3.7 per 100). The results of the surveys show the demand for electronic technologies in meeting the medical and social needs of the elderly in order to expand access to medical and social services.

The material condition of older people was studied, for the ability to preserve an adequate standard of living and health is largely determined by socio-economic determinants. The study found its sufficiency in 24.7 ± 3.2 per 100 respondents. At the same time, 65.7 ± 3.6 per 100 elderly respondents rated their wealth below the average level, which does not allow to meet the urgent needs, and 4.5 ± 1.6 – as insufficient to provide the appropriate food. Higher levels of material security were found in working respondents compared to those who were on well-deserved rest, and in families compared to single people. The social activity of older people was studied, drawing attention to the risks of social isolation of older people and its negative impact on health. The results of the research showed that 41.0 ± 3.7 per 100 elderly people supported and participated in social activities. At the same time, 34.8 ± 3.6 per 100 respondents indicated problems in communicating with other people. Three quarters of respondents indicated a good microclimate in families, and two thirds of respondents indicated good relations with friends. However, only a quarter of respondents noted satisfaction with meeting and communicating with others.

Among the socio-economic activities aimed at maintaining the quality of life and health of older people the respondents have pointed out an increase in material support for the disabled (78.1 ± 3.1 per 100 respondents), the expansion of social activities (48.3 ± 3.7), initiating joint training programs and skills development in the elderly people, involvement of technical means and auxiliary

devices (61.8 ± 3.6), introduction of modern information and communication technologies (67.4 ± 3.5), increasing the accessibility of public transport and its convenience (75.3 ± 3.2), the use of the principles of universal design, such as ramps, low steps, etc. (64.6 ± 3.6), improving urban infrastructure for walking, recreation in green areas, etc. (58.4 ± 3.7).

DISCUSSION

The generalization of the obtained data indicates unfavorable tendencies to deterioration of the health of the population of older age groups during the seventeen-year period. This is confirmed by the growth rates of primary morbidity and prevalence of diseases of the endocrine, hematopoietic, nervous, genitourinary systems. The rate of increase in the prevalence of all diseases among the elderly population reached 22.8%, and for some types of pathology the increase was twice. The leading types of pathology are chronic non-communicable diseases, primarily cardiovascular, which account for 50% of all diseases among older age groups, as well as the identified trends are quite comparable with global and European, which are noted in the WHO and WHO Regional Office for Europe's Public Health Issue.

Among the urban population of older age groups there is a tendency to increase the primary incidence of diseases of the senses, in particular, the ear and mammary gland, the eye and its appendages, as well as diseases of the circulatory system, respiratory and digestive organs. Of particular concern is the deterioration in mental health, which is confirmed by a 2-fold increase in the incidence of mental and behavioral disorders. The situation with regard to injuries of the elderly is unfavorable, as indicated by the increase in the frequency of injuries (traumas), poisonings and other consequences of external causes.

The major scales of illnesses in the elderly are confirmed by health self-evaluation data, according to which 31.5 ± 3.5 per 100 respondents had health problems, and every tenth respondent rated them as significant. At the same time, the burden of disease was based on non-communicable diseases, among which most often indicated hypertension, allergies, heart disease, diabetes, osteoarthritis, arthritis, depression, malignant neoplasms, bronchial asthma, cataracts. This pathology requires special attention from the medical staff, taking into account its course in the elderly.

The multifaceted evaluation of the older people's health indicates the priority of effective strategies to combat non-communicable diseases, which should include preventive, diagnostic, therapeutic and rehabilitation components.

A study of the lifestyle and behavior of people over retirement age revealed a lack of awareness of their own responsibility for the health of a third of respondents, a significant spread of self-medication, non-compliance with medical appointments, and so on. More than 40% of elderly people have an insufficient level of physical activity or irregular diet, a third – do not follow the principles of

nutrition. As a result, and for other reasons, more than a quarter of respondents are overweight. Other risk factors for developing non-communicable diseases include high blood pressure, high cholesterol and blood-sugar.

This is evidence of low medical activity of a large part of the elderly population: this is revealed by the untimely undergoing medical examinations (56.2 ± 3.7 per 100 respondents) and its ignoring (29.8 ± 3.4).

The needs of the elderly in health services are determined by their health problems, the peculiarities of the organization of the treatment and diagnostic process and the functional capabilities of elderly patients. Given the above, according to the elderly, it is necessary to expand the practice of preventive counseling on topical issues of health and disease prevention, their complications. There is a strong demand for health information and education services. Older people consider the development of such forms of medical care as inpatient care at home, one-day surgery, rehabilitation care, specialized counseling and emergency medical care.

Improving living conditions and improving the health of the working-age population is linked to improved socio-economic determinants, supported by more than three-quarters of respondents. In the context of combating social isolation and loneliness of the elderly, respondents preferred collective measures, such as joint training programs or the certain skills development in older people, the use of technical means, assistive devices, the use of modern information and communication technologies. An important aspect in reducing social isolation is the creation of a favorable environment, which includes accessible public transport, the use of the principles of universal design, the provision of walking conditions, and so on.

The identified features and trends in the health of older people, their needs for medical and social services are the basis for justifying measures to improve medical and social programs for the elderly.

CONCLUSIONS

The health of the elderly population is characterized by high levels of morbidity, mainly chronic non-communicable diseases, and negative tendencies to increase them. The basis of the burden of disease is formed by diseases of the circulatory system, as well as diseases of the digestive, respiratory, endocrine and ophthalmic diseases. Adverse trends in older people's health are deteriorating mental health and an increase in the incidence of traumas. One third of people over retirement age underestimate their own health.

The behavioral and biological risk factors for diseases, including hypodynamics, malnutrition, tobacco use, high blood pressure, high cholesterol and blood-sugar, and overweight, contribute to the negative health trends of the elderly population. Among the elderly there is self-medication, non-compliance with doctor's prescriptions.

The characteristics of health and the results of the study of the opinion of the elderly indicate the need to improve health and social care. There is a great need to expand

preventive counseling on various issues of maintaining and promoting health and preventing diseases and their complications, introduction of electronic medical and communication technologies, development of advanced forms of medical care, improvement of rehabilitation and emergency care services.

There is a need to improve the socio-economic determinants, especially to increase the material security of the elderly. Among the measures to reduce social isolation and loneliness, there is a high demand for joint training programs for the elderly people, the certain skills development, the use of technical means, assistive devices, and the formation of a healthy environment.

Meeting the needs of the elderly in medical and social services will improve the quality of life and health, will contribute to the well-being of the elderly as an important component of health.

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