SEPARATE ASPECTS OF THE DEMOGRAPHIC SITUATION IN UZBEKISTAN AND ITS ASSESSMENT IN GEOGRAPHICAL CONTEXT

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Abstract. *The problems of demographic development in the modern world are becoming increasingly important. The rapid growth of the world population, lack of resources, and the intensification of migration processes make it difficult to ensure a decent standard and quality of life on the Planet. Therefore, the main purpose of the paper is to analyse certain aspects of the demographic situation in Uzbekistan and its assessment in a geographical context. Theoretical researches in studying mortality and life expectancy base their conclusions on identifying the main trends and causes of mortality in certain countries in certain periods. It is well known that the study of the mortality rate of the population is extremely complex and has attracted interest of a wide range of disciplines: medical workers, demographers, economic geographers, sociologists and other specialists. However, it should be noted that in the Republic special scientific researches on geographical aspects of this problem are conducted in a rather narrow way. The paper found that climate change significantly affects the life expectancy of the population. It was determined that the increase in mortality rates is also closely related to magnetic storms. At the same time, the authors noted that the infant mortality rate has declined slightly in recent years.*

Key words: *General mortality rates, geodemographic analysis, working age, life expectancy, maternal mortality, nosocomial status.*

I.   Introduction

Death is the main link in the regeneration of the population and is the end of the birth process. This includes a short period of time to many years. It is well-known that mortality occurs when a person is born in a state that is inextricably linked to his / her health, social status and living conditions. This means that with the improvement of socio-economic

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and health conditions, life will be longer. In demographic terms, mortality rates are declining, and the factors may vary. For example, birth in a healthy environment, the result of special care, the normal age of children in the family, the formation of medical culture and so on.

The mortality survey includes a number of demographic indicators. They are divided into general and private. The overall mortality rate is calculated and calculated using the permutation. Specific attention is paid to mortality by age, sex, ethnicity, and causes, with processes involving 1,000 to 100,000 people [1].

It is well-known that the regions of the republic have some differences depending on their socio-economic development, demographic status and environmental status. In particular, in the Republic of Karakalpakstan and Khorezm region, due to the drying of the Aral Sea, the nosocomial situation is increasing in the vicinity. The emergence of a hazardous habitat for the population has a negative impact on the mortality rate, high desertification, and changes in water and soil composition, which accelerate the mortality process. The natural balance of the area has changed considerably. IR Turdimambetov in his doctoral dissertation compared this to the average levels of Karakalpakstan and the Republic of Karakalpakstan in areas of the Northern Group that suffered most from the environmental crisis (especially Muynak, Tahtakupir, Karauzyak, Chimboy, Kegeyli, Kanlikul), and Khojeyli and Nukus districts. reported a relatively high mortality rate [2]. It is also possible to observe the environmental deterioration in major cities and industrial centers (Chirchik, Angren, Navoi, etc.). Similar disadvantages in the population and insufficient access to clean drinking water also contribute to a higher mortality rate.

The dynamics of mortality rates in the regions of the country has been decreasing over the years of independence. Socio-economic reforms in the country have led to a reduction in the population mortality rate, the formation of a medical culture of the population and an increase in the employment rate of women. The regions with the highest mortality rates are the city of Tashkent, Tashkent and Andijan regions, and table data show that since the first days of independence, the mortality rate has declined. The high mortality rates in these regions are higher than the national average, which is due to the fact that most of the medical facilities are located in the center, ie Tashkent, and the industrial area is located in and around the transportation hub. The situation in Tashkent region, which is close to industrial sites, the diversity of national ethnic composition, low birth rates, increased age and gender, has a significant impact on overall mortality rates and is higher than in other regions.

Andijan is the most densely populated area, with low living standards, reduced birth rates, the main labor force, the majority of the working-age population living in other provinces and republics, and the increase in the proportion of the elderly in the population. The decline in these dynamics is now due to the longevity in people's minds and the formation of a medical culture. It can also be assessed as a result of the government's social and political demands for the welfare of the people and their longevity.

The lowest reported mortality rates are Kashkadarya, Surkhandarya and Jizzakh regions. These areas are characterized by good ecological condition and good natural habitat. In the area with high fertility rates and low mortality, the population is mainly engaged in agriculture and livestock. The industry is relatively underdeveloped. The traditions and customs of the Uzbek people have been preserved, and having many children is higher than in some industrialized and densely populated areas. Differences in mortality rates in urban and rural areas also vary. Urban mortality is highest in Tashkent, Andijan, Syrdarya and Namangan regions, and slightly lower in Jizzakh, Kashkadarya and Samarkand regions. When analyzing this situation, high mortality rates in Tashkent and Andijan regions are common, and maternal and infant mortality rates are higher than the national average.

In Jizzakh and Kashkadarya regions the majority of the population lives in rural areas. As a result, the urban mortality rate was 2.0 ppm, while in rural areas the difference was 1.5 ppm. From this, it can be concluded that the

population lives in rural areas in close contact with nature, and in urban areas the influence of the environment and science is high.

II. Methodology of research

In the course of the study, the terotogeographic criteria for total mortality in the regions and districts of the country were developed. This is based on the total mortality rates in the regions [3].

The administrative and territorial division of Uzbekistan includes 12 regions, the Republic of Karakalpakstan and the city of Tashkent. These also consisted of 168 districts (including the districts of Tashkent) and 25 cities. The data show that the districts with the lowest mortality rates were 12, and one with very high criteria. The analysis shows that according to the State Statistics Committee of Uzbekistan, the lowest death rate was in Bulakbashi district of Andijan region (0.9 pro mil) and the highest in Yashnabad district (8.4 pro mil). The city with the lowest mortality rate is Zarafshan with 3.9 pro mil. It is evident that the number of districts with the average evaluation criteria is 139, which, as economic growth is high, improves social conditions in the regions, promotes proper medical examination and health culture, and increases the longevity of the population. As a result, the overall population mortality rate is declining. Over the years, there has been an increase in the share of low-performing districts, while the number of regions with a very high rate has been decreasing.

It is known that the survey included 159 district administrative units, and their overall mortality index was divided into tanatogeographic groups, ie criteria. This will help to evaluate the Tanatogeographic situation in the country. According to the table, more than 1,100 Tanatogeographic groups included "Kegeyli, Andijan, Jalolkuduk, Izboskan, Khojaabad, Konimeh, Syrdarya, Akhangaran, Furkat, Kuyichirchik, Yukorichirchik, Kibray, Urtachirchik, Yangiyul, Dangara. The economic, social and environmental status of these causes partially high mortality rates. At the same time, the socioeconomic status of the Kegeyli and Konimeh districts, located in the steppe regions, is quite similar. The population of the area is mainly livestock and part-time farming, with the majority of its nationality being Kazakh and Karakalpak. Another similarity is that Konimeh is located downstream of the Zarafshan River and Kegeyli downstream of the Amu Darya. The ecological status of these is also close. While the Aral Sea economy has a strong influence on the population of Kegeyli district, the impact of the Navoi Mining and Metallurgical Combine on the Konimekh district is obvious. This has an impact on the health and life expectancy of the population.

The remaining 13 districts are mountainous and mountainous areas. Kibray, Yangiyul and Andijan districts are characterized by high population density, transport location and proximity of industrial enterprises to populated areas. This causes the morbidity and mortality of the population. Also, the migration and location of the population from these areas will also have a significant impact on mortality rates. In the Kuyichirchik, Urtachirchik and Yukorichirchik districts of Tashkent region the mortality rate is high due to accidents, poisonings and traumas. Also, the high mortality rate among these populations is 100 years or older. The main objective of this study is to develop measures aimed at improving the health of the population of the "upper" Tanatogeographic Group and improving the life expectancy of the population. This requires further improvement of the rehabilitation status of the population in this region, expansion of health centers, and the distribution of essential nutrients and medicines to the population. It is also important to note that the creation of mobile mass health centers in the seasonal seasons – magnetic storms, hot and cold summers and cold and summer temperatures – will help reduce mortality and increase life expectancy. In some areas, environmental inspectors, together with environmental inspectors, are working to identify and reduce the spread of toxic substances

emitted by industrial enterprises, to prevent ground and surface water pollution, to improve the health of the population as a result of gardening of settlements and industrial enterprises. and increases the life expectancy.

An important task is to identify nosogeographic differences between the population and the leading factors affecting mortality and average life expectancy on the basis of a study of irrigated agriculture, desert-pasture cattle-breeding and different types of pasture.

III.   Results and discussion

3.1. Analysis of the causes of mortality in different return categories

The irrigated agriculture areas of Uzbekistan are 55 natural territories, 13 desert and pasture grazing areas and 17 rural areas of pasture cattle breeding. While the health and mortality rates in these regions vary, the overall average is slightly lower than the national average, but the mortality rates in the areas of pasture herders are relatively high. At the same time, infant mortality is partly high in irrigated agriculture and desert-grazing areas. Although these regions differ by their characteristics, the mortality rates do not differ. In irrigated agriculture, the cause of mortality is high, because of the circulatory system. Syrdarya, Izboskan and Uchkurgan districts are higher than other regions. These areas are characterized by a high mortality rate from diseases of the digestive system.

It is well known that at present, cancer is a new type of disease and its geography is expanding. This is mainly due to the development of science and technology, as well as the environmental and ecological situation. In the study of the territory of the Republic, the highest rates of tumor-related deaths were observed in the regions, which mainly specialize in desert-pasture cattle breeding. These are higher in Muynak, Takhtakupir, and Turtkul districts. The reason for this is the Aral Sea region. Preventive measures should be developed to reduce and prevent these diseases. Particular attention should be paid to the involvement of a narrow range of health professionals, and a better focus on sanitation and hygiene.

Deaths due to accidents, poisonings and injuries are common in mountainous areas. These events are mainly natural and seasonal. The mortality rates for these diseases are higher than in the general population of Akhangaran, Bostanlyk and Bakhmal districts of the Republic. As can be seen, there is a need for increased ambulance and increased cross-sectional density in mountainous and foothill areas.

We found it appropriate to analyze the age-sex composition of population mortality in three major age groups.

Although the mortality rate in this group is low, the underlying mortality rate is still under 1 year old. Influence of the environment on the newborns during this period is significant, as a result of endogenous and exogenous factors. Thus, the high birth rate of boys is explained by the fact that boys are more likely to be born at birth than boys and less likely to be infected. Child mortality rates are particularly high in Andijan, Samarkand, Surkhandarya and Ferghana regions. The highest infant mortality rates in these areas also affect the remaining age groups.

According to the geodemographic analysis, child mortality in rural areas is higher than in urban areas, particularly in Samarkand and Surkhandarya regions. This should be explained by the infrastructure of medical institutions and the concentration of qualified specialists in urban areas. As a result, child mortality is higher in rural areas than in urban areas, such as medical literacy, disproportionate age among children, and women's employment.

Men of working age (15-59 years, women 15-54 years). The highest rate of mortality in this age group is due to the fact that it has a high morbidity rate among men, with high rates of casualties, drunkenness, and drug addiction. The situation of women is as follows: birth-related deaths, accidents, infectious diseases and neglect of medical supervision,

and so on. The low mortality rate among women in the study group is explained by their low employment and, in most cases, housewives.

The mortality rate among men of this working age is highest in the provinces of Samarkand, Tashkent and Ferghana. This is mainly caused by addiction, violence, injuries and accidents. However, occupational morbidity rates are also common among men in the age range of 50-60 years, including ischemic heart disease. It is also due to the reproductive status of women in working-age deaths, namely, maternal mortality. In the regional context, these indicators are high in Samarkand, Fergana, and Tashkent regions, with a sharp decline in Navoi, Bukhara, and Jizzakh. It is precisely at this age that women have increased their mortality by age 45-55 due to the prevalence of malignant neoplasms, pelonephritis and acute renal failure. This also varies in rural and urban areas. At this age, there is a high mortality rate in urban settlements of Tashkent city, Fergana and Tashkent regions, and higher rates of working-age mortality in rural areas of Samarkand, Andijan and Tashkent regions. In this context, the effects of such factors as population density, national diversity, accidents, intoxication, injuries and alcoholism are significant.

Older people (women 55 years and older, men 60 years and older). This group is characterized by high mortality. During this period death is mainly due to endogenous factors. However, high mortality is mainly due to the biological aging of the body, as well as an increase in mortality during post-employment leave. This is mainly due to the low mobility. The diet also has its effect. It is the process of aging along with the effects of occupational diseases on the body. The low mortality rate among women in terms of mortality rates is due to the employment of men in difficult and hazardous working conditions. During this period, if you follow the right diet and movement diets, you are more likely to go this far. It is also possible to observe the highest mortality rates among men and women in the city of Tashkent, Fergana, Tashkent and Andijan regions by the weight of older men by sex. Regional Disparities Fergana, Tashkent and Namangan provinces have high rates of mortality in urban and rural areas. In these areas, urban mortality rates are higher than in rural areas, while the highest rates are seen in Samarkand, Khorezm and Bukhara regions.

The national composition is also important in the study and analysis of mortality rates in Uzbekistan. Our country is a multinational country with 83 percent of Uzbeks and 17 percent of other nationalities. However, the percentage of Uzbeks in the national composition is high, and the impact on mortality is also high. The highest mortality rate among Russian, Tajik and Kazakh nationals is found in 21.2% of the population. According to this picture, mortality in the national composition varies by region. For example, Karakalpakstan has a higher mortality rate than Karakalpakstan. This is explained by the high nationality of Karakalpak and Kazakh ethnic groups in the region. However, in the city of Tashkent and Tashkent region, mortality rates of Russian nationalities are the second largest in the nation. This is because of the emigration of Russian and other nations during the Soviet era and their location in and around the center. After the independence of Uzbekistan, the migration of the right Russians and representatives of other nationalities has seen a decline. The geographical location, natural conditions and climatic features of the Republic of Uzbekistan differ from one region to another. In the mountain, valleys, and steppe and desert areas, the population's impact on the mortality rate varies considerably, and the causes of the disease are different.

More than 70% of the country's territory consists of plains, while the rest of the country is mountainous. Statistical data shows that mortality rates are much less common in mountainous regions than in other regions, or in other words, the majority of the world's longest-living population lives in mountainous and mountainous regions. These include the mountainous regions of the Caucasus countries, the Kashmir Valley of India, the Bostanlik and Parkent districts of Uzbekistan. The mortality rate from circulatory diseases is one of the leading causes of mortality in Uzbekistan. According to the data, the mortality rate from circulatory diseases is highest in the city of Tashkent, Tashkent and Andijan, and these areas are densely populated and urbanized. In contrast, Kashkadarya, the Republic of

Karakalpakstan and Jizzakh region are the indicators. The highest mortality rates for malignant neoplasms are in the city of Tashkent, Tashkent region and the Republic of Karakalpakstan. These areas are more industrial than other areas and are located in the transport node, which are also environmentally hazardous.

Diseases of the digestive tract are also one of the area-specific disease groups that are directly related to water, soil and atmosphere. As can be seen, the impact of soil, groundwater and surface water content and industrial activity in these areas is particularly noticeable in the chemical industry. The mortality rate for sex in the country is high, and for every reason, mortality rates are higher. The mortality rate caused by circulatory diseases does not differ significantly between men and women. The analysis shows that deaths due to accidents, poisonings and injuries are higher in men than among women. This is higher than the national average in the Tashkent region, the Republic of Karakalpakstan and the Syrdarya region. Women are also three times less likely to be men than in Tashkent, Navoi and Syrdarya regions. Thus, men's heavy work and hazardous occupations have led to higher mortality rates than accidents, poisoning and traumas.In general, the impact of natural, ecological, socio-economic and demographic factors on the process of mortality is revealed. In particular, the mortality rate of the republic is caused by environmental factors such as climatic features, drinking water and soil contents, which lead to a shorter life expectancy and a relatively early occurrence of biological deaths due to the presence of digestive diseases (Republic of Karakalpakstan).

Socioeconomic factors: Increased mortality rates in densely populated and highly urbanized areas, including Tashkent, Tashkent and Andijan regions, concentrations of industrial enterprises, overload of the transport net exceeds the standard requirements for emissions into the working population, especially among men. It also contributes significantly to maternal and infant mortality. This determines the need to develop measures to improve the system of settlements and prevent the early death of the population, improve the natural and socio-economic conditions of the regions in order to extend the life expectancy of the population.

Regional aspects of maternal and infant mortality in Uzbekistan. Wide-ranging reforms have been implemented in the health care system of the country, with a special emphasis on providing medical care to the population. Regional polyclinics, rural health centers, family polyclinics, and perinatal screening centers were established as a result of strengthening maternal and child health. As a result, maternal mortality during independence has decreased from 65.3 per 100,000 births in 1990 to 21.0 in 2017, while infant mortality has declined from 34.6 pro mil to 11.3 per mille. It is for this reason, or aggravated during that period, but not related to an accident or accident, the death of a woman during pregnancy or 42 days after its termination [4]. The maternal mortality rate is 100,000 births. It is known that the overall mortality rate varies across different sex and age groups. This is especially true of mothers and infants. Therefore, maternal and infant mortality in the HDI are generally taken into account. It is also important to study maternal mortality when examining population mortality rates. Maternal mortality rates are higher in countries with relatively high birth rates and in countries with relatively weak socioeconomic development.

During the years of independence a special attention has been paid to the health care system, including maternal and child health. Declaration of 2016 as the "Year of a healthy mother and child" has served as an important basis for a healthy generation. As a result of the measures taken in 1992-2016, the maternal mortality rate for every 100,000 live births in the country has increased from 51.0 to 17.4, infant mortality from 14.8 to 13.9, and infant mortality from 11. Decreased by 10.8. In particular, the above indicators show positive changes in maternal mortality. It is well known that the causes of pregnancy and childbirth play a major role in maternal mortality. The main causes of maternal mortality are bleeding, late toxicosis, septic complications and extragenital diseases, which require preventive measures in the area.

According to the analysis of maternal mortality dynamics in the republic, from 1992 to 2017 several times have changed. In 1996 this number was 20.7 per 100,000 live births, but increased to 2009. In recent years, however, figures have been declining. According to statistics, in 2017 this figure was 21.0. The changes in the dynamics of maternal mortality are caused in part by the birth and marriage processes. It should be noted that this is precisely the increase in the number of newlyweds, and that there is a high probability of maternal mortality changes following the marriage.

Table 1. Dynamics of maternal mortality in the Republic of Uzbekistan

Regions	Compared to 100,000 live births							Index of changes
	1992	1995	2000	2005	2010	2015	2017	
The Republic of Uzbekistan	51.0	32.2	33.1	29.2	21.0	18.9	21.0	0.41
The Republic of Karakalpakstan	98.6	50.5	38.8	15.4	26.4	29.0	13.2	0.14
Andijan	42.3	32.0	20.2	21.0	18.3	12.9	11.9	0.28
Bukhara	47.8	27.3	49.0	29.9	23.1	7.6	8.1	0.17
Jizzakh	69.2	30.0	29.4	24.8	27.0	25.1	42.0	0.60
Kashkadarya	51.1	28.3	39.9	24.4	14.1	15.3	26.1	0.51
Navoi	52.1	25.2	91.6	49.3	27.2	24.7	29.2	0.56
Namangan	32.4	18.9	27.0	30.7	21.7	8.1	21.2	0.65
Samarkand	35.8	38.4	26.4	17.4	16.0	21.4	22.2	0.62
Surkhandarya	67.3	39.8	24.6	23.9	13.7	18.6	20.0	0.30
Syrdarya	50.6	29.7	21.0	34.8	12.3	5.6	17.0	0.34
Tashkent	31.0	46.9	27.5	43.2	32.8	44.3	32.9	1.06
Fergana	38.6	11.7	22.5	31.7	17.0	12.6	21.2	0.55
Khorezm	44.3	25.4	24.9	41.5	30.6	15.2	10.6	0.24
The city of Tashkent	94.7	55.6	63.9	44.6	25.4	25.7	18.5	0.20

Source: Based on data from the State Statistics Committee of the Republic of Uzbekistan.

In Uzbekistan, special attention is paid to women, consultations with women, and screening of women of reproductive age are always under control. Even so, monitoring of maternal and infant mortality poses environmental problems.In 2017, the maternal mortality rate for the country was 21.0 per 100,000 live births, the highest being in Navoi, Tashkent and Jizzakh regions.When the causes of maternal mortality are analyzed, the above-mentioned areas are associated with environmental conditions, and mothers have a higher incidence of chronic anemia, gestosis, acute heart disease and kidney failure.

The data of table 1 show that, despite the fact that the regions of the country are different from each other by their geographical features and geomorphological structure, their demographics differ accordingly. While traditions and values have been preserved in ancient populated areas, the way of life in the newly established territories (after 50 years of the 20th century) is partly different. This has an impact on demographics. Thus, maternal mortality rates are lower in Bukhara region. This is the result of the study and implementation of new methods of treatment in the region over the past decades.An important factor in improving maternal and child health is the implementation of a comprehensive program for reproductive health of women and children, opening of specialized preventive and treatment centers for children and mothers in hospitals, enhanced access to various modern contraceptives.

Article 65 of the Constitution of the Republic of Uzbekistan states that "Motherhood and childhood are protected by the state." One of the socio-economic implications of maternity and childhood care is that more than half of the country's population is women and 61.5% of the population are children and adolescents. Much attention is paid to maternal and child health in our country. In 2013, 49.2 percent of women were on the census, and in 2016 they dropped 38.2 percent. Maternal mortality, abortion, low birth weight and reduced infant mortality are due to the fact that the population in the region pays special attention to the health of the population.

Table 2. Dynamics and geography of infant mortality in Uzbekistan

Regions	per 1000 live births							Index of changes
	1991	1995	2000	2005	2010	2015	2017	
The Republic of Uzbekistan	35.5	26.0	18.9	14.9	11.0	11.4	11.3	0.31
The Republic of Karakalpakstan	51.2	31.5	20.5	17.4	11.8	11.6	16.3	0.32
Andijan	30.1	23.5	15.2	12.3	9.4	14.2	15.4	0.52
Bukhara	28.5	21.0	19.0	12.0	11.3	10.0	9.3	0.33
Jizzakh	37.4	25.1	16.2	12.3	8.8	9.9	13.4	0.36
Navoi		28.1	18.4	10.9	6.6	9.8	9.5	0.34*
Namangan	37.4	26.8	18.8	15.	12.5	12.2	1	0.39

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Samarkand	34.5	24.2	16.0	12.7	9.4	10.1	7.4	0.22
Surkhandarya	41.2	29.5	20.7	11.6	7.8	9.9	9.3	0.23
Syrdarya	48.3	23.1	20.4	16.7	10.2	12.9	12.8	0.27
Tashkent	29.4	24.6	19.6	15.4	11.0	10.9	10.5	0.36
Fergana	36.5	27.3	19.3	19.3	14.1	9.1	7.3	0.20
Khorezm	38.9	25.9	24.6	16.3	12.0	14.2	15.9	0.41
Kashkadarya	35.3	24.0	19.0	13.8	10.1	8.6	8.4	0.24
The city of Tashkent	25.1	31.3	19.5	22.3	17.1	19.9	17.0	0.68

Source: State Committee on Statistics of Uzbekistan. Navoi region was established in 1992.

Mortality rates and mortality rates in each age group are investigated using mortality rates. The study of infant mortality, that is, infant mortality (0-12 months), is very important in the study of population mortality processes. This is because in most cases infant mortality is a bit higher, resulting in a higher overall mortality rate. That is why infant mortality is special. In the study of infant mortality, particular attention is paid to perinatal, neonatal, and postneonatal mortality. These periods can be distinguished from each other and cover a period of time.

During the perinatal period, it begins with the 28th week of the fetus and covers the period from birth to 7 days. Basically, the infant mortality rate is high during this period and the highest mortality rate is due to complications related to childbirth. The neonatal infant mortality rate is the period of infant mortality from 7 days to 28 days, during which the infant mortality is partially reduced and is due to some diseases. Subsequently, the postneonatal period is defined as the period from 28 days of infancy to 1 year of age. During this time it has been studied that infant mortality is caused by various infectious diseases and accidents (Table 2).

3.2. Analysis of child mortality in the Republic of Uzbekistan

One of the important achievements of the demographic situation in the country in recent years is that the infant mortality rate has slightly decreased. If in 1991 there were 34.6 deaths per 1,000 live births per 1,000 live births, by 2000 this number had dropped to 20.2, and in 2017 – to 11.3. At the end of 2017, infant mortality in the country declined compared to the early independence period, but significantly higher than the national average in Tashkent (17.8), the Republic of Karakalpakstan (15.1) and Khorezm region (14.6).

In Navoi (9.5) and Surkhandarya (9.3) regions, the situation was slightly better than in previous years. Well organized health care and family planning in these areas give birth to a healthy generation. It should be noted that while

some areas are characterized by a decline in infant mortality compared to the previous 1991, in others the opposite is true. The Republic of Karakalpakstan, Khorezm and Andijan regions in the Aral Sea region are still negative.

It is well known that many children died from infections and other diseases in the past, but experts estimate that in 1914 there were 300 deaths per 1,000 live births in Turkestan and 600-700 in some years [5].

The decline in infant mortality in Uzbekistan can be seen as a result of large-scale advocacy efforts. In some areas, infant mortality is still high due to environmental conditions, insufficient access to potable water, and problems with proper health care. Implementation of paraffin measures has a positive impact on the quality of population development. As a result of efforts to bring a child into a healthy world, infant mortality is declining for reasons. This can also be seen in Table 3 data. However, this indicator is much lower than that of the developed countries, but it is the lowest among the Central Asian states. Until now, the main causes of infant mortality are respiratory diseases, perinatal pathology, congenital anomalies and infectious diseases.

Table 3. The distribution of infant mortality in Uzbekistan (10 000 live births per 1 year)

Causes of the disease	Years					
	2011	**2012**	**2013**	**2014**	**2015**	**2016**
Total diseases	104.0	102.0	98.0	108.0	114.0	107.0
Including:						
Infectious and parasitic diseases	4.5	4.9	4.6	4.4	3.9	3.5
Diseases of the nervous system and sense organs	2.5	2.3	2.0	2.0	1.5	2.5
Diseases of the respiratory system	34.9	34.9	30.3	27.0	24.2	24.4
Acute pneumonia	23.0	22.7	21.3	19.5	18.0	17.8
Congenital anomalies	6.9	7.3	7.7	10.3	10.1	11.1
Congenital abnormalities of the circulatory system	3.3	4.1	4.1	6.4	6.6	8.0
Cases occurring in the perinatal period	51.8	48.6	49.1	59.0	68.1	59.5
From:						
Maternity injuries	2.4	2.5	2.5	2.5	1.9	1.4
Uterine hypoxia and asphyxia during childbirth	22.7	21.8	19.0	15.9	15.1	13.9

Source: State Committee on Statistics of Uzbekistan

The causes of death occur in all age groups of children and are most common in children 0-1 years of age, ie infants.

It should be noted that the majority of infant mortality in the country is in the perinatal period. In 2014, perinatal mortality was 59.0 per 10,000 live births, with a slight increase in some areas (both Tashkent and Tashkent region). According to the data, in 2016 this trend was even greater. The main reason for this is directly related to the exogenous diseases found in mothers, as well as genetic factors, as well as the industrialization of the territories, the density of the transport system and the high demographic capacity. However, in recent years the mortality rate for respiratory diseases, acute pneumonia, uterine hypoxia, and asphyxia has also decreased slightly (27.0 per 10,000 live births). However, an increasing number of environmental disadvantages lead to an increase in the number of children born with congenital malformations (10.3). Deaths associated with birth defects are particularly high in Tashkent, Fergana, and Bukhara regions.

One of the most important causes of infant mortality is infectious and parasitic diseases (3.5 per 10,000 live births). Although infant mortality has declined slightly in recent years, the rates are slightly higher in some parts of the country, including Bukhara and Tashkent.

In general, infant mortality rates are decreasing each year, but in some regions, such as Tashkent (17.0), Khorezm (15.9), Andijan (15.7), and the Republic of Karakalpakstan (16.6), it is slightly higher. is different. This is due to the fact that Tashkent and Andijan are the largest industrial and transport centers of the country and some of the above-mentioned regions are located in the Aral Sea area, which is in a nosocomial situation.

In Uzbekistan, 57% of under-five deaths occur in the neonatal period, the first 28 days of life. Statistical analysis shows that among these causes of death:

- premature birth;

- asphyxia;

- There are three main reasons such as infections.

Deaths associated with respiratory diseases, gastrointestinal tract, cardiovascular diseases, chronic hepatic diseases, diseases of the ENT organs, and infectious diseases are more common in early childhood.

According to the UN Global Report on Child Mortality, significant progress has been made with the worldwide survival of children. Today, millions of children have better chances of survival than it was in 1990. However, the report says that despite this progress over the past two decades, in 2017 alone, 5.4 million children died before the age of five. Of these, 2.5 million did not live more than a month. Although significant progress has been made in preventing infant mortality in Uzbekistan, according to official data, 57% of all child deaths under the age of 5 occur in the neonatal period (the first 28 days). "The efforts of the Government of Uzbekistan to save children's lives are commendable. However, infant mortality is still high in Uzbekistan and this is alarming as many babies can be saved, "said Sasha Graumann, UNICEF Representative in Uzbekistan.

Improvement of newborn and maternal health services in the regions is also important for the country's development. Investing in child health reduces poverty and encourages economic efficiency and growth. Improvement of the gene pool of the nation, positive changes in the health indicators start with the protection of maternal and child health. In this context, maternal and child health care has always been a focus of our government.

In particular, the development of a comprehensive action plan for maternity and childhood care, improving the perinatal care for pregnant women, reducing maternal, infant and child mortality, preventing births with congenital and congenital diseases, logistics of maternity hospitals and children's hospitals. The implementation of such important tasks as strengthening the base, equipping it with modern equipment is among the most pressing issues of today.

At the same time, the achievements of Uzbekistan in the implementation of the State programs on protection of maternal, child and adolescent health, strengthening reproductive health of the population for 2014-2018 and

implementation of the Year of Public Relations and Human Interests, together with indicators of children's health, the introduction of modern technologies for the diagnosis and treatment of child and infant mortality, primarily in the treatment and diagnosis of childhood diseases, improvement of the patronage system for women and children, Also, special attention is paid to the need to improve staffing and capacity building and to develop additional resources.

This Tanatogeographic grouping will help to develop an action plan for infant mortality, especially in the regions. The table shows that there are high infant mortality rates in Karauzak, Kegeyli, Muynak, Nukus, Khojeyli, Chimboy, Shumanay, Khojaabad, Mirzaabad, Yangibazar districts. This requires serious attention to health in the Republic of Karakalpakstan, Khorezm, Syrdarya and Andijan regions. Infant mortality is also linked to respiratory diseases, infectious and parasitic diseases, chronic diseases of the mother and heredity. It does not depend solely on the socioeconomic situation, but also on the impact of natural conditions. The high infant mortality rate in the Aral Sea region is largely due to the current environmental problems. These areas have a high mortality rate due to chronic diseases and respiratory diseases. For this reason, infant mortality rates are also high. Measures to improve the situation in the regions of the "upper" Tanatogeographic Group can lead to some improvement in the situation, mainly with the involvement of medical personnel, especially the narrow circle of physicians. At the same time, the establishment of mobile rehabilitation centers will be beneficial. Propagation of marriage and postpartum period among the population and formation of pregnancy on the basis of pregnancy planning, proper management of pregnancy during the account of maternal chronic diseases will reduce infant mortality. It is also important to note that increasing women's employment also contributes to lower infant mortality.

Khojaabad and Mirzaabad districts are mainly agricultural, with low employment rates for women and early marriage. It is also important to note that the population of both districts are valleys of the same origin, and the inadequacy of customs and traditions, as well as attention to the bride and the pregnant woman, results in maternal and infant mortality. To prevent this, of course, prior to the marriage of the bride and groom, it is necessary to carry out advocacy and propaganda about the sacredness of the family, the birth and survival of the child. It can also be said that the termination of kinship marriages also reduces this.

Based on the table data, the following recommendations have been developed to reduce and prevent infant mortality in high Tanatogeographic group districts:

- increasing women's employment in these areas;

- Provision of specialized medical services for children and women in these areas;

- Prevention of salt and dust storms and prevention of population, especially children, pregnant women and the elderly;

- improvement of medical examination of pregnant and fertile age women.

Issues related to the protection of maternal and newborn health are of great strategic importance in the healthcare system of the country. Studying their geographical features will require new scientific research in the field of geography. In summary, mortality, health, and morbidity rates are geographically diverse in mountainous and plain regions, in desert or ancient irrigated agriculture, or in areas with high levels of urbanization.

3.3. Dependence of mortality on climatic conditions

It is noteworthy that the climate of Uzbekistan is sharply continental, with significant day and night, summer and winter temperatures in the region. The annual air temperature differences are quite high. In January the average temperature drops to -60C, and in July the average temperature rises to + 320C. In the lowlands, annual rainfall is 120-200 mm, and in desert areas – 1000 mm.

Peculiarities of the climate of the Republic affect the health of the population in this region and the mortality rate. In particular, the ongoing global climate change, which in turn will lead to further research. Among the negative impacts of climate change are the effects on some demographic processes in our research, namely the mortality rate. Global statistics show that the temperature fluctuations have increased slightly over the years. Significant changes in annual precipitation fluctuations have also occurred during the last 60-70 years. Such climate change has its own negative consequences. In particular, average annual temperatures will increase, water demand and demand will be deteriorated, water quality will be deteriorated, per capita water will be reduced, acute enteric diseases will be increased, and people will experience stress changes due to high temperatures. their mortality rate from the heat increases. Climate change has the same effects on mortality in younger segments of the population. In contrast, increased mortality in the elderly and infants [6], in contrast, increases in winter are associated with lower mortality rates due to periodic stroke, hypertension, myocardial infarction, and circulatory diseases. Statistics show that, not only in the world, but also in Uzbekistan, the mortality rates associated with the circulatory system are the highest among the causes of death, accounting for 59.7 percent of all deaths, with the highest proportion of morbidity-related deaths in seasonal or seasonal neoplasms. is inextricably linked to cases.

It is worth noting that the increase in mortality rates is also closely linked to magnetic storms.

It is well known that magnetic storms occur only on the surface of the Earth when dark plasma is emitted from the sun. If a hurricane is severe, it will disrupt the operation of electronic equipment, radio communications, electronic systems and orbiting satellites. The population may also feel worse due to magnetic storms and may develop chronic illnesses. Scientists say that from January 1 to September 2018, there were about 35 magnetic storms in the atmosphere. Six of them are very powerful. Some of the strongest magnetic storms can last for five to six days. In January-December 2017, a total of 29 magnetic storms occurred.

Expected magnetic storms in 2019 are likely to begin around March 14 [7]. It will be in the category of extremely powerful magnetic storms and will last until March 18. In order to prevent mortality from the population, it is desirable to strengthen preventive medical and geographic research. It also highlights the importance of warning people about the dangers of magnetic storms, the use of blood products, avoiding sunlight, avoiding hypodenamia, and eating properly.

It should be noted that mortality is a natural and biological process caused by external and internal effects. As noted in the preceding chapters, mortality rates increase as a result of endogenous effects. This leads to a shorter life expectancy. One of such cases is seasonal fluctuations, which are climatic factors, and when a disease occurs at a specific time, death occurs within a short period of time.

Representatives of the Intergovernmental Panel on Climate Change said that while they are most concerned about the ecosystem, it does not affect people. Increasing atmospheric temperatures poses a serious threat to human health, as well as to agriculture, and has a negative impact on the living conditions in many parts of the planet.

The seasonal study of the climate of Uzbekistan is of the utmost importance to study the data related to the analysis of regional temperatures and humidity. Due to the climatic differences in the regions of Uzbekistan, the seasonal variation is not very different. In the mountainous areas, spring comes late, while in the desert, winter is slow. Therefore, if atmospheric circulation, air pressure and humidity changes in each month of the year cause diseases, the non-climatic changes will eventually lead to death. For example, influenza outbreaks develop during the winter months and occur when the hot air is cold or vice versa. Because of this disease, infant mortality is high. They are caused by low immunity, weak resistance to viruses, abortions, and stillbirths are common in pregnant women.

The total mortality in the months of the year was as follows: the increase in mortality in December-January, the same between February and May, and the decrease in May, the intensification in June-July, and the sharp decline in

September. This is due to climatic factors. Overheating increases the risk of circulatory diseases, endocrine disorders, and respiratory diseases. In the local language, it is difficult for those who are ill during the chilly summer period to reach the winter chill and spend the same time. In these situations, non-climatic factors have a significant impact. According to these data, the mortality rate declined in September and the highest rates were recorded in December-January. The results of the last 15 years show that during the harvest season, the body is cleaned with all the natural products. This is also the time when the morbidity rate has declined. The climate does not observe extreme cold or very hot temperatures, while air and humidity are normal.

Seasonal changes in mortality rates in Uzbekistan have been investigated, with statistically significant increases in mortality rates in February-March, June-July, and November-December. This is due to changes in the nosoclimatic factors in the development of cardiac, vascular, and mental illnesses during these periods, such as very hot and very cold temperatures, sharp oscillations in relative humidity, peculiarities of atmospheric circulation and atmospheric pressure.

According to the study, mortality rates associated with these causes are particularly pronounced among younger age groups and among older people. That is why it is necessary to carry out medical preventive measures during the season.

Different indicators in urban and rural areas differ. However, there is a decline in deaths in rural areas from September to November, while in urban areas it only declines in September and then continues to rise. It is important to note that not only are seasonal mortality rates common to all diseases, however. Seasonal climatic changes are diseases of the heart, cardiovascular system (hypertension, ischemic heart disease, circulatory disorders, including cerebral sclerosis, stroke, cerebral infarction, and b) respiratory diseases (bronchial asthma, bronchitis, upper respiratory diseases). diseases of the digestive system (gastrointestinal tract, gastritis, colitis, pancreatitis, hepatitis, etc.). The mortality rate associated with the disease also varies in different seasons depending on the climatic factors. These include schizophrenia, seizures, and epilepsy.

Among these diseases, one of the most prevalent diseases in the country is suicide, which is one of the major problems not only for doctors and psychologists, but also for the general public, sociologists and medical geographers.

In the light of the above data, it is important to note that weather data (temperature, humidity, atmospheric pressure, etc.) play a major role in the monthly mortality rate. According to the data, weather in all three regions showed its adaptation and alternatives to the human body in September. That is, the temperature favorable for human survival is 200-240 degrees C and relative humidity is 40-60%. This has a partial effect on the life expectancy. According to the azkur chart, the dynamics of suicide mortality has declined in all regions over the previous year. In 1998, Namangan (9.90), Kashkadarya (9.10) regions, the Republic of Karakalpakstan (8.36) and the city of Tashkent (8.28) had the highest rates in 1998, and in 2016 and 2016 respectively. downwards.

The analysis shows that in 2016 the highest rates are observed in Samarkand (2.32), Tashkent (2.76) regions and Tashkent city (2.59). The Index of Changes over the years has shown that the cause of death has been decreasing in almost all provinces and cities of the country (except for Navoi region).

Overall, suicide mortality rates have declined over the past two decades. However, the outbreaks of this disease among the population have been revealed during the spring and autumn seasons [8]. Suicide occurs not only by its regional characteristics, but also by climatic factors. Suicide rates increase as a result of the development of mental illnesses during the flowering or leaf shedding of those trees rich in ether.

Causes of death are also high in fatalities due to accidents, poisoning and traumas. In Uzbekistan, such deaths make up about 6.6% of the total mortality rate.

In Uzbekistan, accidents are the cause of death of children over five years, two-thirds of which are road accidents. The majority of these accidents also occur during periods of climatic disasters of the year.

Adolescence is a difficult and dangerous period of transition from childhood to adulthood. During this period, deaths are common among both sexes (especially in boys and girls resulting from accidents and suicides). Men also experience higher rates of these symptoms than women. We can see similar information not only in Uzbekistan, but also in developed countries of the world. In Canada, for example, suicide ranks 7th among men's fatalities and has a higher mortality rate than road traffic fatalities. One of the leading causes of death in the US is diabetes-related deaths. However, suicide rates in this country are even higher than that of the disease group. [9]

Psychologically, suicide is more common among men (6-24 years). It is dangerous for a person to attempt suicide once again and again. It is therefore desirable to focus on them during mental depression and stress. According to statistics, such mortality rates are most commonly observed in late autumn and early spring.

In summary, mortality rates in each region vary according to their non-climatic features. Therefore, the timing of mortality increases will help to properly organize medical procedures.

3.4. Analysis of life expectancy in the country

The life expectancy of a population is understood as the age from birth to life. When a person is born, he lives for a while. During this time, they will be able to progressively overtake all demographic processes. The life span or shortness of life depends on the period in which it is passed and is determined by morbidity, endogenous and exogenous effects. The average life expectancy in the country plays an important role in identifying health issues and providing labor resources.

Gerontology – derived from the Greek word for "geronto" – "old", "logos" – science, doctrine. II Mechnikov and NM Amosov, VM Dilma, VVFolkis made a significant contribution to the development of this discipline. They pay special attention to the study of changes in the human body, the peculiarities of their treatment, and special hygiene issues for the elderly population. At the same time, scientists have proposed adaptive-normative theory that the main mechanism of aging is genetic activity and physiological status.

The Decree of the President of the Republic of Uzbekistan dated December 28, 2016 № PP-2705 "About additional measures for further improvement of the system of state support for the elderly and disabled" It has improved over the next 25 years, with the average life expectancy increasing from 67 to 73.5 years, including men from 66 to 71 years, and the average life expectancy of women from 70 to 75.8 years. A new opportunities. "he said.

This means that an effective system of state support for the elderly and disabled people has been formed in the region to improve the quality of life of the population, to use modern methods of organization of pensions, systematic rehabilitation and treatment [10]. Age-related mortality rates are also important in determining the health status of the population. During the years of independence, infant mortality rates have slightly decreased. At the same time, the relative decline in other age groups (5-9; 10-14; 15-19, etc.) was also observed. It should be noted that mortality in these three age groups is significantly lower than in the other groups. This is due to the high biological ability of the human body during this period [11].

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Population aging is influenced by a number of factors, and demographic birth and death are key. As a result of birth rates increase in the weight of children (0-15 years) in the society, and the decrease in the number of elderly people. This will stimulate or rejuvenate the society [12]. The study of the elderly population gives particular attention to age groups of mortality rates. At the same time, low birth rates and high child mortality cause a lack of manpower and public aging in the state, which leads to a decline in life expectancy, that is, the age of one hundred and older. Each age group, in turn, exerts a significant influence on subsequent age groups. This will have an impact on the economic and social situation in the country [13].

In 1996, the average life expectancy in the country was 67 years, compared to 64 in Kazakhstan, 66 in Tajikistan, and 66 in Kyrgyzstan. At the end of 2016, this indicator was 73.8 years in Uzbekistan and significantly higher than in neighboring countries [14-18]. In general, life expectancy in the Central Asian countries is relatively low, which is far behind many countries in the world.

According to the data, life expectancy in Central Asia is higher for women than in men, and as mentioned in the previous chapters, women are more susceptible to disease, light and safe work, and men are involved in heavy and hazardous work, and life-threatening sources of alcohol (tobacco and tobacco products). smoking, drug use, etc.), and post-retirement mobility [19; 20].

In addition, there are biological conditions specific to the male organism. It should be noted that both mortality rates between sexes (some of which are interpreted as 35-50 years for women and 40-55 years for men) are closely linked to climax processes.

The longevity of people depends on their health, living conditions and working conditions, and the healthier the environment, the better their health.

The life expectancy in Uzbekistan has been increasing in recent years (Table 4). This should be considered as an effective result of the socio-economic programs implemented in our country. Life expectancy in the first years of independence was 66.4 years, while in 2016 it was 73.8 years. This is due to the fact that in the country, which values the elderly, the implementation of the decrees and resolutions of the President of Uzbekistan are properly regulated. Particularly high life expectancy in Jizzakh, Bukhara, Ferghana and Kashkadarya regions on the territory of Uzbekistan is determined by the natural geographical location and the location of ancient populations.

Table 4. Life expectancy dynamics in Uzbekistan

Regions	1991	1995	2000	2005	2010	2015	2017
The Republic of Uzbekistan	66.4	69.1	70.8	71.8	73.0	73.6	73.7
The Republic of Karakalpakstan	64.0	66.6	68.8	68.9	70.4	72.6	72.7
Andijan	67.3	69.2	71.0	71.9	72.0	72.3	72.1
Bukhara	62.6	70.3	71.9	73.6	73.7	75.0	75.5

Jizzakh	69.0	69.7	73.4	74.6	75.8	75.9	75.7
Kashkadarya	69.1	71.8	73.0	74.2	74.8	74.8	74.2
Navoi	-	68.3	70.3	71.4	73.0	74.3	74.1
Namangan	67.7	69.8	71.2	72.4	72.9	73.1	73.1
Samarkand	66.7	69.0	70.7	71.8	72.7	73.7	74.0
Surkhandarya	69.5	70.8	72.4	73.6	74.3	74.4	73.2
Syrdarya	63.9	68.0	68.5	69.1	70.1	70.7	70.6
Tashkent	66.3	68.6	70.0	70.1	71.7	72.7	73.3
Fergana	66.9	70.1	71.4	72.5	72.8	73.8	74.3
Khorezm	66.9	69.0	70.4	72.6	72.6	72.9	72.9
The city of Tashkent	67.3	68.1	69.7	69.9	72.1	73.7	74.5

Source: State Statistics Committee of the Republic of Uzbekistan

The average national difference is 5.9 years, with the lowest rates being in Syrdarya, Andijan and the Republic of Karakalpakstan. The disproportionality of national composition in these regions has also had an impact on life expectancy. In Andijan region, the mortality rate above the national level also influenced the average life expectancy. At the same time, the study of the low regions on this indicator shows that the industrialization and ecological situation of the territories are more severe, with the low demand for potable water. In addition, poor living conditions, including malnutrition, have a negative impact on life expectancy.

It is worth noting that while differences in life expectancy between provinces and regions are only partially apparent, it is not likely that the majority of longevity lives in only one or more provinces. Because longevity is primarily a product of the genetic characteristics of the human body, it can also reduce life expectancy due to hereditary effects (chromosome changes, excessive hormones and other chemicals, external injuries).

Table 5. Life expectancy in the sexual composition of the population in Uzbekistan indicator

Regions	1991	including		2000	including		2017	including	
		the man	female		the man	female		the man	female
The Republic	66	64.4	69.	70	68.4	73.	73	**71.3**	**76.**

of Uzbekistan	.4		4	.8		2	.7		**1**
The Republic of Karakalpakstan	64.0	61.3	66.7	68.8	67.1	70.5	72.7	70.1	75.3
Andijan	67.3	65.1	70.1	71.0	68.8	73.3	72.1	70.1	74.2
Bukhara	62.6	60.9	65.5	71.9	69.9	73.9	75.5	73.6	77.4
Jizzakh	69.0	66.4	72.2	73.4	71.0	75.7	75.7	71.9	80.3
Kashkadarya	69.1	67.1	71.8	73.0	71.3	74.6	74.2	72.3	76.3
Navoi	-	-	-	70.3	68.0	72.5	74.1	72.2	76.1
Namangan	67.7	65.2	70.5	71.2	68.9	73.4	73.1	71.7	74.7
Samarkand	66.7	64.6	69.3	70.7	68.7	72.6	74.0	71.8	76.3
Surkhandarya	69.5	67.7	72.0	72.4	70.8	74.0	73.2	71.3	75.3
Syrdarya	63.9	61.4	67.2	68.5	66.0	71.1	70.6	68.5	72.6
Tashkent	66.3	63.0	70.1	70.0	66.8	73.1	73.3	70.3	76.4
Fergana	66.9	64.2	70.2	71.4	69.2	73.6	74.3	72.4	76.2
Khorezm	66.9	65.6	68.7	70.4	68.1	72.6	72.9	70.9	74.9
The city of Tashkent	67.3	62.8	71.3	69.7	65.4	73.8	74.5	70.5	78.1

Source: *State Statistics Committee of the Republic of Uzbekistan*

It is important to note that age and sex composition are also important in determining the life expectancy of a population. It is well known that changes in the age structure of the population, its "rejuvenation" or "aging", influence health and mortality rates.

Of the total population, 50.2% are men and 49.8% are women. This situation varies with age groups. Of the total population, 29.1% are girls, 30.8% are boys, and 59.0% are men and 62.9% are men of working age. Elderly people make up 9% of the total population, of which 65.5% are women and 34.5% are men.

The life expectancy of the population of Uzbekistan by sex composition shows that women live longer than men (Table 5). This is due to the fact that men are heavily involved in hard work, and men are often in accidents, and the rapid death in the first five years of retirement, which is the result of hard work and low mobility, contributes to all

diseases. By regional analysis, life expectancy for men in the city of Tashkent, Tashkent, Andijan regions and the Republic of Karakalpakstan is lower than in other regions. This requires the implementation of preventive measures for a certain period of time. Over 80 years are observed in Jizzakh region, where natural geographical environment is preserved and industrial growth is low. Uzbekistan is a country situated between two rivers from ancient times and its people have a long history.

Table 6. Permanent resident of Uzbekistan 100 years and older (2017, person)

Regions	Total population		City locations		Rural areas	
	the man	female	the man	female	the man	female
The Republic of Uzbekistan	1804	2248	1122	1314	682	934
The Republic of Karakalpakstan	69	104	48	93	21	11
Andijan	144	206	91	138	53	68
Bukhara	73	117	51	97	22	20
Jizzakh	91	123	48	69	43	54
Kashkadarya	226	351	137	197	89	154
Navoi	46	63	19	31	27	32
Namangan	145	161	71	82	74	79
Samarkand	191	249	117	163	74	86
Surkhandarya	235	274	137	133	98	141
Syrdarya	17	37	4	12	13	25
Tashkent	149	161	106	79	43	82
Fergana	290	225	188	83	102	142
Khorezm	55	97	32	57	23	40
The city of Tashkent	73	80	73	80	0	0

Source: State Committee on Statistics of Uzbekistan.

It is well known that when a person settles in for a comfortable and peaceful place, he struggles to live longer. Therefore, in the territory of the republic, where there is a natural environment, along with the customs of the ancient peoples, hereditary longevity dwellers. According to the latest statistics, these are in the Fergana, Surkhandarya, and Kashkadarya provinces, and are populated areas in the foothills.

Table 6 shows that while longevity is generally high in urban areas, in some provinces, rural areas are predominantly rural. For example, newly developed territories in Syrdarya and Navoi regions have a higher proportion of rural residents. In terms of sex, women have a higher prevalence and longer life expectancy than men.

In summary, life expectancy is a key indicator of the socio-economic well-being of the country and is important in comparison with neighboring countries. At the same time, the calculation of life expectancy in the country is a clear indicator. In regions with lower national rates, it is advisable to increase the level of medical literacy, improve the living environment, and improve the prevention of rehabilitation for the elderly population over 60 years.

IV. Conclusion

The conclusions drawn from the research are as follows:

- In the resolution of the 70th session of the UN General Assembly, "We need to ensure access to quality health care and access to health, mental health, well-being and life expectancy, to reduce infant, child and maternal mortality by 2030" " – was also mentioned.

- The analysis of certain types of death processes is based on a number of methodological principles. IR Plyushch stated that "death is one of the sources of stability in the world and the continuous change of forms is regarded as the essence, norm and integrity of maintaining the world's interactions with man".

- The mortality of the population of Uzbekistan has been studied separately by A. Ganiyev, with emphasis on the demographic analysis and mathematical modeling of mortality by age groups and causes. At the same time, the scientists' research predicts that the population of Uzbekistan would die in 1985-1990.

- During the years of independence in Uzbekistan preventive measures have been widely implemented. Extensive work is being done on family planning, promoting a healthy environment and enhancing medical culture. This has a positive effect on the reduction of mortality rates and the increase in life expectancy.

- Research shows that in the analysis of mortality rates related to the population of the country, the overall mortality rate in the city of Tashkent, Tashkent and Andijan regions; maternal mortality rates in Navoi, Jizzakh and Tashkent regions; infant mortality is the highest in the city of Tashkent, the Republic of Karakalpakstan and the Tashkent region.

- Research shows that seasonal mortality is also seasonal. In the analysis of non-climatic indicators in the regions of the republic, in December-January, June-July there was a high mortality rate compared to other seasons of the year, and in September it was relatively low. It can be concluded that in some of the aforementioned months of the year it is advisable to implement some preventive measures to prevent mortality in the population.

- The data show that the majority of life expectancy in the country is in Surkhandarya, Kashkadarya, Fergana and Jizzakh regions. The main reason for this is the relatively stable preservation of the natural environment, nosoecological situation in the regions, and as a consequence, the longevity is preserved as a genetic factor.

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