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ANALYSIS OF THE INFLUENCE OF HYGIENIC FACTORS ON THE LIFE OF THE POPULATION OF THE FERGANA REGION

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Abstract: In this article, a hygienic analysis of all objects of the Fergana region was carried out, the amount of harmful substances in the atmospheric air, drinking water and soil was mainly studied, and their impact on the life expectancy of the population was assessed. According to the results obtained, it was found that environmental factors have a direct impact on human health. As a result of the negative impact of environmental factors, it has been proven that there is a sharp increase in diseases of the respiratory system, the cardiovascular system, metabolism, diseases of the digestive system that develop as a result of tumor diseases, as well as an increase in the mortality caused by them.

Keywords: air, soil, drinking water, environmental factors, life expectancy, mortality rate.

Relevance of the study. Social factors play an important role in shaping the health status of different strata of the population. Human health depends on 50% lifestyle, 20% environment, 20% genetics, and 10% treatment and drug effects. The life expectancy and health status of the population are influenced by environmental factors and biosphere objects in the place where they live [3, 5].

Today, in developed countries, the level of pollution of air, water, soil and food products as a result of waste from industrial enterprises affects the health status, morbidity and life expectancy of the population, the pollution of atmospheric air with anthropogenic compounds in combination with motor vehicles and other factors, the use of a number of polymeric substances in the agriculture is affected.

In our country, there are a number of difficulties, ambiguities and complications in carrying out specified sanitary-hygienic monitoring of environmental facilities. This situation represents the real share of the negative impact on human health of chemical substances released into the external environment (air, water and soil) as a result of complex technological processes from permanent polluting sources, including combines, factories and other production enterprises, in one or another area of inhabited areas and also identification and evaluation is a sufficiently complex process and is one of the unresolved current problems.

First of all, the composition of chemical substances released into the atmosphere from smoke storms, their total value, physico-chemical properties (aggregate state, stability, exact amount, how far they spread in the air and in what sizes they are in the air) are not clear in many cases.

Secondly, there is no reliable database on the ways (inhalation or oral) of wastes, together with flora and fauna, enter the body of different layers of the population living in this area from external environmental objects, constantly, regularly or occasionally at a certain time of the day (week, month, year), this is not

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only the health status and the morbidity rate, but also the life expectancy are related to the underestimation of the mechanisms of action.

Thirdly, for a number of chemical substances, the hygienic standards in atmospheric air have not been developed, as a result of using the developed ones and not complying with the hygienic requirements for their prevention, somatic diseases and as a result of them, the indicators of death rates that occur in complications of oncological, respiratory system, and cardiovascular system diseases increase.

Fourthly, in daily life, many chemical substances enter the human body not individually, but simultaneously in a complex "several complex" order through breath and mouth, and have a complex effect, or a combined effect under the influence of a chemical substance and a physical factor (high temperature, hot climate conditions) will have power.

Fifthly, in connection with taking into account the manifestation of the above situations, the insufficient study of new methodological approaches to the complex ecological-hygienic assessment of the harmful effects of chemicals on the body is due to the lack of scientifically based hygienic regulations of chemicals [2, 4].

The University of California (USA) believes that traffic-related risk factors are the main source of morbidity and mortality in China. Vanderbilt University (USA) analyzed data from January 1980 to February 2016 and found that biomass smoke causes higher stomach and esophageal cancer in low-income populations.

Currently, among all the factors contributing to the emergence and development of cardiovascular diseases (CVD), as well as the increase in death from cardiovascular diseases, experts of the World Health Organization (WHO) recognize urban air pollution.

Drinking water is the main component of environmental hygienic factors, and the harmful substances in it have a negative effect on human health. The problem of drinking water supply is extremely urgent, and providing the population with quality water is one of the main components of the quality of life of the population.

Creating optimal conditions for improving the ecological and hygienic condition of the territory of Uzbekistan is a strategic component of national security, the most important aspect of protecting the vital interests of the state, society and the individual in the republic. The environmental policy of the Republic of Uzbekistan is implemented on the basis of the Constitution of the Republic of Uzbekistan, legal documents, the concept of national security, as well as in accordance with the environmental protection criteria of the Rio de Janeiro and Johannesburg declarations. Protection of environmental factors from the negative consequences of human activity and health status, life expectancy and disease status is one of the most urgent problems of the present time, based on the sustainable development strategy, taking into account the obligations of the Republic arising from international conventions and agreements [1, 6].

Taking into account the above, ensuring the hygienic safety of environmental objects, reducing the rate of morbidity among different strata of the population living in this area, and assessing their life expectancy are important indicators.

The purpose of the study is to evaluate and analyze the hygienic factors affecting the life expectancy of the population of Fergana region.

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Research materials and methods. As the object of the research, during the years 2010-2019, the contingent of the population of Fergana region of all age groups, together with the general collection materials of the deceased, materials for assessing the impact of hygienic and environmental factors on the life expectancy of the population were obtained.

The subject of the study is to provide optimal options for assessing the impact of hygienic and environmental factors on the mortality rate of Fergana region of sanitary epidemiology and public health services in 2010-2019, diseases caused by atmospheric air pollution, water and soil pollution, copying data from primary documents (mortality rate and structure For the study, the materials of the primary registration of the number of deaths, the return of the indicators of death of all age groups of the population of Fergana region were obtained.

Hygienic, replication, socio-hygienic, demographic and statistical methods were used to assess the influence of hygienic and environmental factors on mortality rates in Fergana region.

Research results and discussion. In the Fergana region, the level of chemical indicators in the atmospheric air in the last decade was analyzed based on the data received from the regional statistics committee. According to the report of the sanitary-epidemiological peace and public health service of Fergana region, laboratory tests were taken from 410 facilities, 2,400 tests were conducted, and 27,323 samples were taken from them.

Out of 27,323 samples, 1,641 (6%) exceeded the permissible limit (REM), 6.67% of the samples were classified as 1-2 dangerous, and 3,28% exceeded the REM.

It can be seen that the amount of harmful substances in the atmosphere exceeding the specified requirements has a negative impact on the health of various layers of the population in this area.

Industrial dust and aerosols are one of the integral indicators affecting human health.

61,450 samples were conducted on dust and aerosols, 15% of which exceeded REM, 61.05% of samples belonging to hazard group 1-2, 26.36% of which exceeded REM, which is 23% more than vapors and soot.

848 objects (35.3%) that were subjected to laboratory control do not meet the regulatory requirements.

It is worth noting that this 35.3% facility creates the ground for a sharp increase in respiratory, cardiovascular and oncological diseases among the population living in these areas.

The analysis of polluting sources and their share in relation to which organizations is one of our tasks at the next stage.

Hygienic analysis of organizations in Fergana region shows that the number of inspection objects in general organizations was 418, of which the share of samples taken from organizations related to the oil and gas industry was 3.3 (14)%.

Despite the fact that the Uzbek cotton industry is a seasonal organization, the number of vapors and dusts exceeding the REM was 12 (2.8%), in other light industries 9, in agriculture and water management 26. 2%, in other light industries,

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23.6% of 76 samples exceeded REM, in agriculture, 188 samples of steam and soot from 26 objects were positive, and 19.38% of 356 samples of dust and aerosols entered the 1-2 class hazard. 61.1% of which have increased REM, and a total of 12 (46.1%) objects do not meet the requirements.

It is worth noting that 66.6% of cotton industry enterprises located in the Fergana region belonging to the cotton industry of Uzbekistan do not meet hygienic requirements.

The controlled and ecologic-hygienic analysis showed that the results obtained and their non-compliance with the permitted normative indicators, not only the health status of the population living in this area, their ability to work, mental and physical development, hormonal status, but also the development of the following conditions and can be the basis for the formation of:

- firstly, the negative impact on the growth and development, working ability and functional status of children and adolescents;

-secondly to the rate of oncological diseases and death resulting from diseases of the respiratory system and their complications;

- thirdly, diseases arising as a result of diseases of the cardiovascular system and their complications;

- fourthly, diseases related to metabolism, hypodynamic condition;

- fifthly, it causes a sharp increase in diseases of the digestive system among the population, and an increase in tumor diseases and death rates that develop as a result.

Water makes up 2/3 of the human body, the amount of water in the blood is 90%, the structure of the brain is 85%, the muscles are 75%, the liver is 65%, the bones are 28%, and the fat tissue is 25%. All chemical exchanges in the body are carried out through water.

The spread of water-borne diseases and the prevention of their complications and the development of hygienic measures are one of the urgent problems not only of preventive medicine workers, but also of the public. In the waters and regions with an increased content of salts, along with kidney diseases, severe kidney-stone diseases and the death rate caused by it are also high.

Taking into account the above, one of our main tasks is to evaluate the organoleptic, bacteriological, chemical and radiological safety of water and to evaluate their effect on the life expectancy.

Our analysis conducted during the research shows that the amount of salts in the water in most districts and cities of Fergana region is 2-10 points.

The total number of microbes in the general water sample carried out for one year in the region was 2423, and their average amount was 495.9, of which 680 positive results were obtained, which made up 45.3 samples, and Furqat, Sokh, Uzbekistan and Rishton samples were not taken in the districts, but we know that the drains do not work in the Rishton district, the water is on the surface.

The largest number of tests and positive results were 54% in Dangara district, 11.2% in Yozhiovon district, 24.1% in Altariq district, 16.2% in Uchkoprik district, 8.2% in Kuva district, 4.2% in Koshtepa district. %, in the city of Margilan it was 7.7% (Fig. 1).

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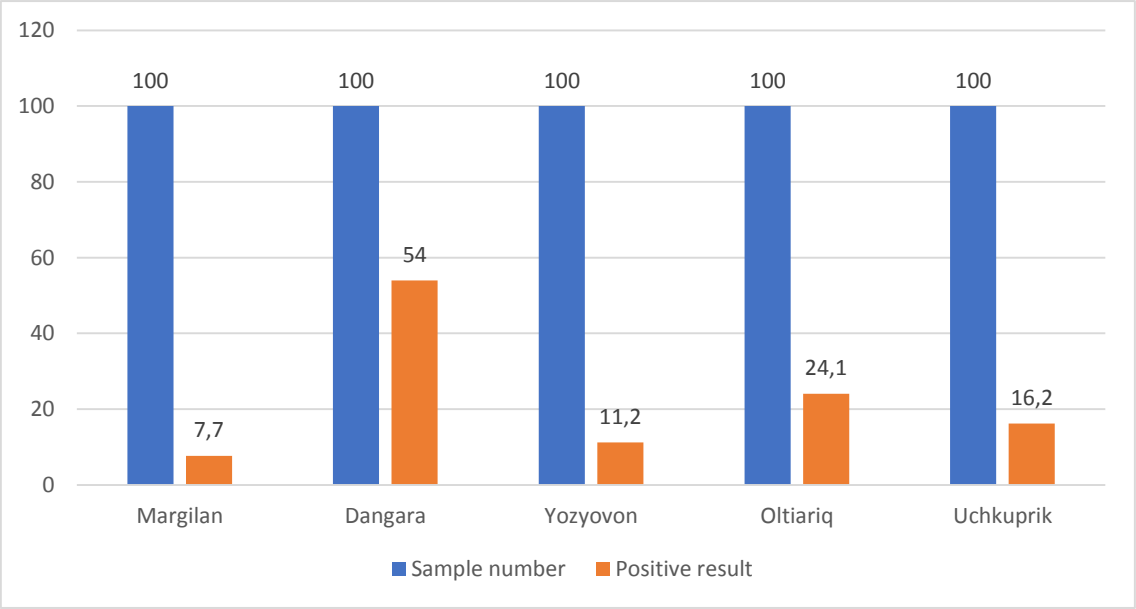

Figure 1. Status of positive results of samples taken from water in districts of Fergana region

9,423 samples were taken when evaluating the Koli-index indicator, which corresponds to 495.94 samples per district.

There were 683 positive results, which made up 13.79%. Positive results were not determined in Rishton, Uzbekistan and Furqat districts. The state of the highest indicators of the obtained results is presented in Figure 2.

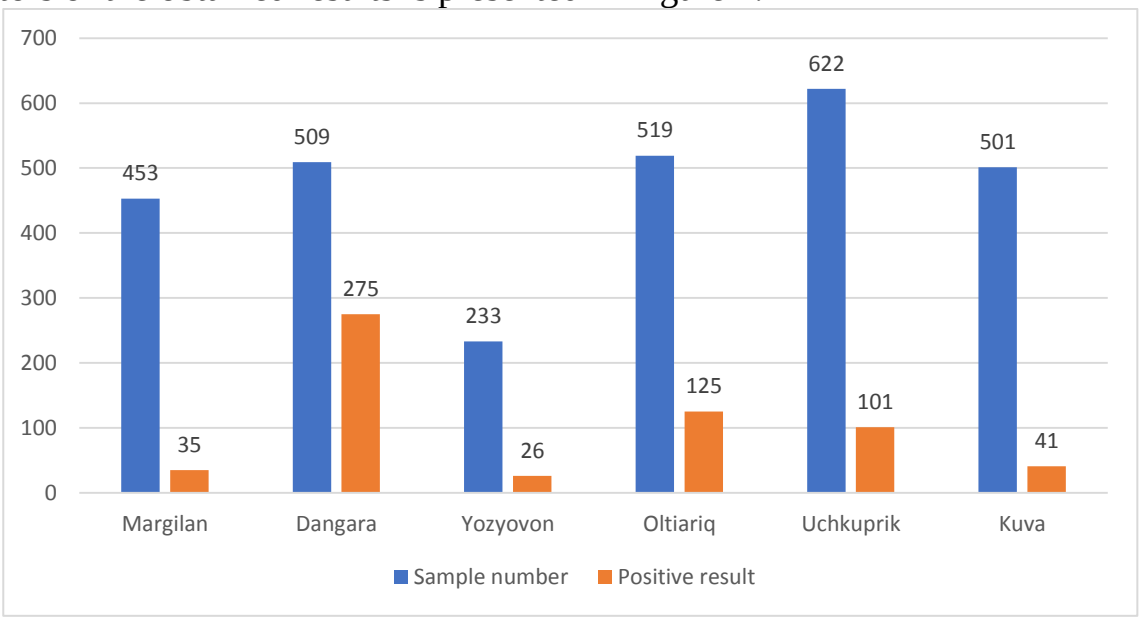

Figure 2. Prevalence of coli-index indicators in Fergana region

The main waterborne diseases include hepatitis A, dysentery, intestinal infections and cholera. One of the main complications of cholera is death.

Escherichia coli samples show that 200 (39.2%) Escherichia were found in Dangara district, 6.7% in Altiariq district, 6.6% in Margilan city. Escherichia coli was detected in 2.8% of the samples taken in the region.

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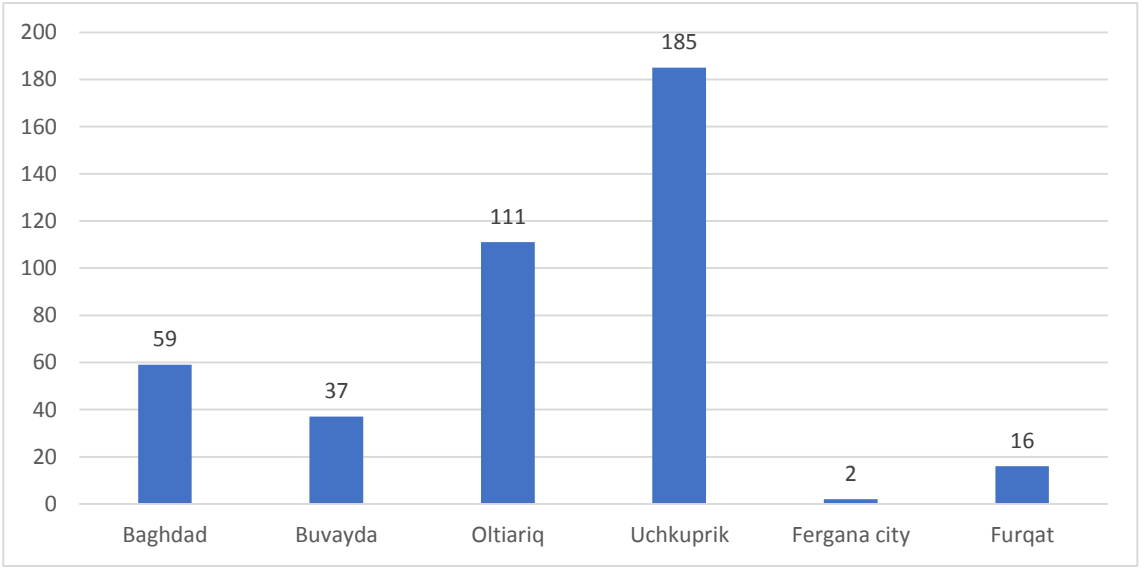

Figure 3. Distribution level of pathogenic microorganisms in water samples taken in Fergana region

The indicators of pathogenic microflora identified microbes in the regions of the region are presented in Figure 3.

As can be seen from Figure 3, the regions with a high number of pathogenic microorganisms are Altiariq, Baghdod and Buvayda districts, and it is necessary to regularly check the amount of water in these areas, to clean and disinfect it.

Based on the obtained results, it is worth noting that pathogenic microorganisms require checking the quality of water by regularly implementing sanitary and hygienic measures aimed at preventing the sudden spread of water-borne diseases. In this case, it is necessary to carry out regular cleaning and disinfection at inspection points at the place of water distribution using various methods.

Conclusions.

1. 3.28% of the samples taken for vapors and soot in the atmospheric air of Fergana region, 35.3% of the samples taken for dust and aerosols do not meet the regulatory requirements, which dramatically increases the risk of respiratory, cardiovascular and oncological diseases among the population living in these areas. creates the basis for an increase.

2. The results of the research conducted in Fergana region showed that in 25% of the water samples taken under control, the organoleptic indicators of water did not correspond to hygienic students. The positive results of the tests were 54% in Dangara district, 11.2% in Yozyovon district, 24.1% in Altiariq district, 16.2% in Uchkoprik district, 8.2% in Kuva district, 4.2% in Koshtepa district, 7.7% in Margilon city. organized the Escherichia coli was detected in 2.8% of the tested samples in the region.

3. As a result of the negative impact of external environmental factors, respiratory, cardiovascular, metabolic diseases, digestive system diseases increase sharply, and the tumor diseases that develop as a result of it cause an increase in the death rate caused by them.

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