



ATMOSPHERIC AIR AND HEALTH

Sherko'zieva G. F.
Ikramova N. A.
Bakhriddinova M. N.
Toshpulatov B. M.
Boysarieva M. R.
Abdurashidova D. J.
Egamberdieva Z. Z.
Rasulov R. S.
Tashkent Medical Academy

Abstract

The health condition of the population is primarily influenced by the environmental factors surrounding it, in particular atmospheric air, water and soil. According to data, the amount of dust in the atmosphere has increased by 20% compared to the last 20th century. With the growth of the population, the sharp increase in the number of cars, the increase in household waste, the widespread use of pesticides, mineral fertilizers and other plant protection products in agricultural areas, the level of atmospheric pollution is increasing year by year. In the observation year, the total population was 351,504, of which 46,060 had respiratory diseases, 24,340 of them were women.

Keywords: Population, atmosphere, nitrogen oxide, anthropogenic, health, disease, pollution, dust.

Introduction

Relevance of the topic: Improving the health indicators of the population and bringing them to the level of developed countries is one of the important tasks of modern healthcare. As is known, morbidity is one of the indicators that reflect the level of health of the population. The health of the population is primarily affected by environmental factors surrounding it, in particular atmospheric air, water and soil. According to data, the amount of dust in the atmosphere has increased by 20% in the current era compared to the 20th century. According to the United States Environmental Protection Agency, the composition of toxic substances that pose a threat to human health is 85–97% carbon monoxide, 55–75% hydrocarbons and 46–63% nitrogen, which are formed due to pollutants emitted by existing vehicles in cities where more than half of the country's population lives.





Due to the unique natural climatic conditions of Uzbekistan, it is particularly in need of protection and rational use of atmospheric air. With the growth of the population, a sharp increase in the number of cars, an increase in household waste, and the widespread use of pesticides, mineral fertilizers and other plant protection products in agricultural areas, the level of atmospheric pollution is increasing year by year. The development and implementation of measures to improve atmospheric air quality is based on comparing its actual state with the permissible standard amounts of pollutants in the air. The standards developed for atmospheric air pollutants in our republic are uniform for all regions, and if necessary, stricter standards are established for individual regions. To preserve the natural composition of atmospheric air and prevent various man-made pollution, Uzbekistan has developed and implemented strong legal and regulatory documents, namely the laws “On Sanitary and Epidemiological Well-being of the Population” and “On Protection of Atmospheric Air”, adopted on August 26, 2015. In particular, Article 3 of the Law “On Protection of Atmospheric Air”, adopted in 1997, sets out the main tasks, namely, to preserve the natural composition of atmospheric air, prevent and reduce various harmful chemical, physical, biological and other effects on atmospheric air. In the current era, due to the rapid development of industrial production, electricity, and the use of motor vehicles, as well as the use of new chemicals in their production, the problems of atmospheric air protection have become acute. Anthropogenic pollution occurs mainly as a result of the release of waste from industrial enterprises, road and air transport, railway and water transport into the atmosphere. It should be noted that the improper location of industrial enterprises, incorrect assessment of their production capacity, poor quality of organizational work, existing shortcomings in technological processes, as well as the use of old and unsuitable equipment lead to pollution of the environment, especially atmospheric air. According to the World Health Organization, respiratory diseases are the cause of death of about 1 million people every year. According to this organization, respiratory diseases are one of the 10 causes of death, since 40% of all diseases are respiratory diseases.

Research purpose:

To study the impact of the level of atmospheric air pollution on the health indicators of the population in the areas of residential areas.

Research materials and methods:

The Laws of the Republic of Uzbekistan “On Sanitary and Epidemiological Well-being of the Population” (August 26, 2015), “On Protection of Atmospheric Air” (December





27, 1996), as well as the Law of the Republic of Uzbekistan No. 0179-04 "List of permissible concentrations of pollutants in atmospheric air in residential areas of the Republic of Uzbekistan" were used to assess the ecological and hygienic state of atmospheric air [1.2]. In addition, data on sanitary and hygienic inspection of atmospheric air in residential areas and the disease status of the population were used.

Research is notleases:

The ecological and hygienic state of the atmospheric air in residential areas and the health indicators of the population were assessed. In order to assess the level of atmospheric air pollution, a total of 2,576 air samples were taken by the sanitary and chemical laboratory, of which 361 did not meet hygienic requirements, i.e. 14.01% of the total number of samples taken. The 2,576 air samples taken were tested for the following indicators: dust - 786/350; sulfur dioxide - 60/-; carbon monoxide - 659/11; nitrogen oxide - 659/-; hydrogen sulfide - 2/-; lead - 164/-; formaldehyde - 138/-; sulfuric acid - 106/-; aromatic hydrocarbons - 2/-.

During the observation year, the total population was 351,504, of which 46,060 had respiratory diseases, 24,340 of whom were women. The number of primary infections in the district was 38,258, of which 19,380 were women. When the results were analyzed by population groups, the following results were obtained: the total number of children was 90,589, of which 52,533 were infected with respiratory diseases, 11,229 of whom were girls, the total number of adolescents was 16,638, of which 3,502 had diseases, 2,315 of whom were girls. During the observation year, 1,372 infectious and parasitic diseases were also registered, 780 of whom were women. The primary morbidity rate in the district was 136,350, of which 72,507 were women. The primary morbidity rate with infectious diseases was 860, of which 489 were women. When the results obtained for these diseases were distributed by population groups, the following results were found: the total number of children was 90,589, of which 832 were infected with infectious diseases, of which 494 were girls, the total number of adolescents was 16,638, of which 42 were infected, of which 12 were girls. When studying diseases of the digestive system, the total number was 16,776, of which 9,010 were detected in women. When studying primary morbidity, its rate was 6,606, of which 3,514 were women. The prevalence of this type of disease among children showed the following: the total number of cases among children was 4571, of which 1899 were girls, 695 were teenagers, and 326 were girls.





Conclusion:

The level of air pollution in residential areas, 14.01% of samples taken in 2017, does not meet hygienic requirements and may lead to an increase in respiratory diseases in the population. The development of infectious diseases indirectly related to air pollution, the lowest rates among population groups are found in children and adolescents, and disease prevention measures require the implementation of measures among other population groups.

References:

1. "Law of the Republic of Uzbekistan "On Sanitary and Epidemiological Well-being of the Population", 2015.
2. Sherkuzieva, G. F., Salomova, F. I., Samigova, N. R., & Yuldasheva, F. U. (2023). RESULTS OF TOXICITY STUDY OF BIOLOGICAL FERTILIZER" YER MALHAMI" FOR INHALATION CHRONIC EFFECTS. Central Asian Journal of Medicine, (1), 110-115.
3. Шеркузиева, Г. Ф., & Мустанов, Ж. А. (2016). Гигиеническая оценка качества питьевой воды. Молодой ученый, (10), 552-555.
4. Самигова, Н. Р., Шеркузиева, Г. Ф., Ачилов, Д. Д., & Бобоёров, С. У. Ў. (2021). Оценка Условий Труда По Показателям Тяжести И Напряженности Трудового Процесса Рабочих Станции Аэрации. In ONLINE-CONFERENCES" PLATFORM (pp. 324-325).
5. Шеркузиева, Г. Ф., Саломова, Ф. И., Самигова, Н. Р., & Хегай, Л. Н. (2022). Результаты исследований острой и хронической токсичности пищевой добавки" Fass hungel". In Сборник материалов республиканской научно-практической конференции с международным участием (pp. 442-447).
6. Шеркузиева, Г. Ф., Хегай, Л. Н., & Самигова, Н. Р. (2020). Токсичность и опасность пищевой смеси «МЕЛЛА КРУАССАН». In XIX-ая Международная научно-практическая конференция: Современный мир: Природа и человек: к (pp. 275-281).
7. Самигова, Н. Р., Шеркузиева, Г. Ф., Мусаев, Э. В., Рустамова, М. К. К., & Хаджаева, У. А. К. (2019). Особенности условий труда медицинских работников санитарно-гигиенических лабораторий. Academy, (2 (41)), 97-98.
8. Sherkuzieva, G. F., Salomova, F. I., & Yuldasheva, F. U. (2023). RESULTS OF STUDYING THE INFLUENCE OF BIO-FERTILIZER "YER MALHAMI" ON THE QUALITY OF WATER BODIES. Central Asian Journal of Medicine, (4), 109-120.





9. Мусаева, О. Т., Шеркузиева, Г. Ф., Исмоилова, У. Б., & Эргашева, Ш. К. (2016). Особенности течения диффузного нетоксического зоба во время беременности. *International scientific review*, (7 (17)), 97-98.
10. Абдукадилова, Л. К. (2019). ЭКОЛОГИК БАРҚАРОРЛИКНИ ТАЪМИНЛАШНИНГ МУҲИМ ОМИЛИ-АТМОСФЕРА ХАВОСИНИ МУҲОФАЗА ҚИЛИШДИР. *Интернаука*, (5-2), 49-50.
11. Akhmadaliyeva, N. O., Salomova, F. I., Sadullayeva, K. A., Abdukadirova, L. K., & Imamova, A. O. (2024). RETRACTED: Nutrition of frequently ill preschool children in organized collectives. In *BIO Web of Conferences* (Vol. 84, p. 01011). EDP Sciences.
12. Абдукадилова, Л. К., & Умирбеков, О. Д. (2020). ДАВОЛАШ ПРОФИЛАКТИКА МУАССАСАЛАРИ РАДИОЛОГИЯ БЎЛИМИ ХОНАЛАРИДАГИ НУРЛАНИШ ДОЗА ДАРАЖАСИНИ АНИҚЛАБ БАҲОЛАШ. *Интернаука*, (2-2), 68-69.
13. Закирходжаев, Ш. Я., Жалолов, Н. Н., Абдукадилова, Л. К., & Мирсагатова, М. Р. (2023). ЗНАЧЕНИЕ ПИТАНИЯ ПРИ ХРОНИЧЕСКИХ ГЕПАТИАХ.
14. Akhmadaliyeva, N. O., Salomova, F. I., Sadullaeva, K. A., Abdukadirova, L. K., Toshmatova, G. A., & Otajonov, I. O. (2021). Health state of teaching staff of different universities in the Republic of Uzbekistan.
15. Abdukadirova, L. K., Jalolov, N. N., Nozimjonova, M. N., & Narzullayeva, U. S. (2022). EVALUATION OF PRACTICAL NUTRITION OF PATIENTS WITH CHRONIC HEPATITIS.
16. Salomova, F. I., Jumakulovich, E. N., & Toshmatova, G. A. (2022). Hygienic Basis for the Use of Specialized Food for Alimentary Prevention of Mastopathy. *Journal of Pharmaceutical Negative Results*, 13.
17. Toshmatova, G., & Usmanov, D. (2023). O'ZBEKISTON RESPUBLIKASI "QIZIL KITOBI" GA KIRITILGAN SUTLAMADOSHLAR OILASINING SOLISHTIRMA TAXLILI (2009 VA 2019-YILLAR NASHRLARI MISOLIDA). *Молодые ученые*, 1(9), 55-59.
18. Sherkuzieva, G. F., Salomova, F. I., & Yuldasheva, F. U. (2023). RESULTS OF STUDYING THE INFLUENCE OF BIO-FERTILIZER "YER MALHAMI" ON THE QUALITY OF WATER BODIES. *Central Asian Journal of Medicine*, (4), 109-120.
19. Мусаева, О. Т., Шеркузиева, Г. Ф., Исмоилова, У. Б., & Эргашева, Ш. К. (2016). Особенности течения диффузного нетоксического зоба во время беременности. *International scientific review*, (7 (17)), 97-98.
20. Kasimova, K. T. (2024). The Role Of Ecology In The Development Of Cardiovascular Diseases.





21. Khilola, T. K. (2024). Assessment of environmental conditions in tashkent and relationship with the population suffering from cardiovascular diseases.
22. Zokirxodjaev, S. Y., Shamuratova, N. S., Duschanov, B. A., & Xudayberganov, A. S. (2021). Fatty acid composition of grain sorghum lipids and justification of its use in diet therapy for chronic liver diseases. Central Asian Journal of Medicine, 2021(1), 58-63.

