PROBLEMS OF SAFE AND AFFORDABLE WATER SUPPLY WITHIN THE POPULATION OF UZBEKISTAN AT THE PRESENT STAGE

Kurbaniyazova Malika Oralbaevna
Khamzaeva Nilufar Toshtemirovna
Madinbaeva Gulchexra Ilxamovna.
Tashkent Medical Academy

One of the main features of the modern period of development of the national economy of the Republic is the continuous increase in water consumption, including for communal and drinking needs of the population. The Ministry of Health of the Republic of Uzbekistan carries out state control over the quality and safety of drinking water supplied to the population of the republic, and also develops measures for the prevention of infectious and non-communicable diseases associated with the water factor.

Keywords: drinking water, small water supply and sanitation systems, prevention, acute intestinal infections, non-communicable diseases.

Relevance. The current stage of economic development of the Republic of Uzbekistan sets itself fundamentally new tasks, one of which is aimed at organizing measures to ensure the sanitary and epidemiological well–being of the population, prevention of infectious and non-communicable diseases, and reducing the impact of risk factors on the human body. It is especially important to take into account the provision of appropriate des in the context of the COVID – 19 pandemic. regime at water intake facilities, as well as systematic laboratory control of water for virological, microbiological indicators and control of especially dangerous intestinal infections.

The urgency of solving the problems of monitoring, standardization and determination of criteria for the quality of drinking water remains due to the increasing shortage of water resources, deterioration of their quality, degradation of water supply sources and the tense environmental situation in the republic.

Aim. The purpose of this work was to develop sanitary norms, rules and hygienic standards aimed at ensuring public health and preventing non-communicable diseases and acute intestinal infections, especially among the population living in rural areas.

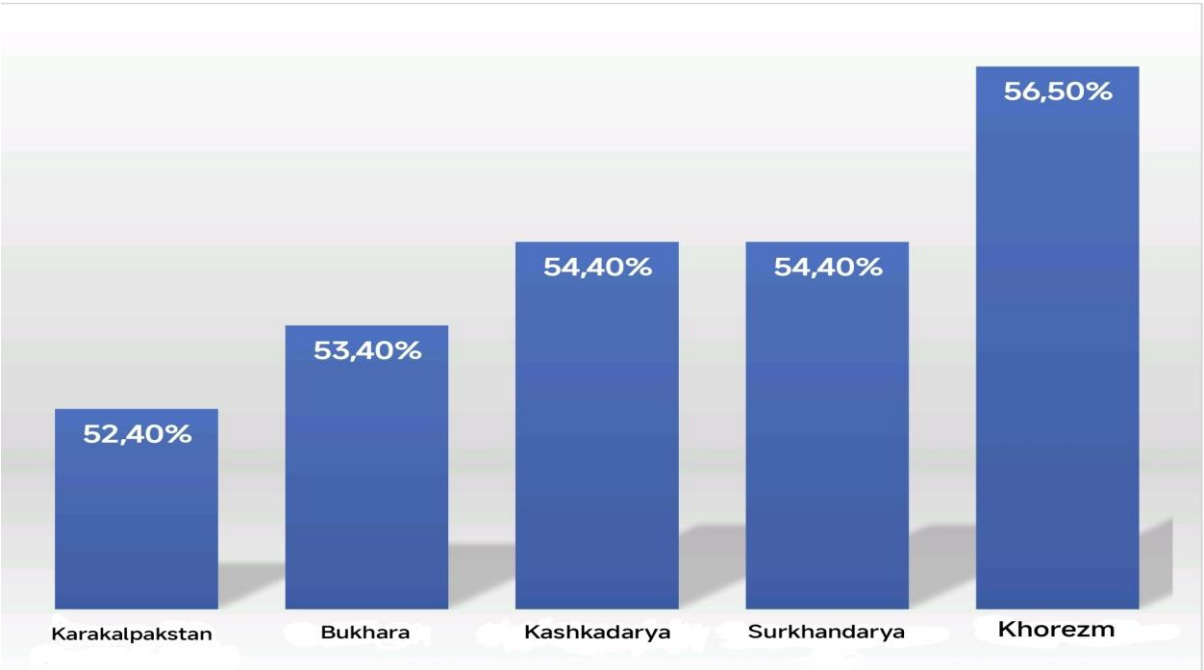
Materials and methods. The objects of the study were small-scale water supply systems that provide drinking water to the population of rural areas of the republic. Proven sanitary and hygienic methods, epidemiological and scientific analysis were used to achieve the goal.

Results and discussion. Safe water of acceptable quality for human consumption, which is available in sufficient quantity, accessible physically and at a

cost, is one of the main prerequisites for human well-being. Access to safe water is fundamental not only to good health, but also to a satisfactory livelihood, human dignity and prospects for economic growth and education. Access to safe water is fundamental not only to good health, but also to a satisfactory livelihood, human dignity and prospects for economic growth and education. The lack of access to a sufficient amount of safe water leads to human suffering and loss of human potential, which cannot be justified from an ethical point of view and causes direct damage to the economy [3, 1].

In this regard, the introduction of alternative options for organizing the activities of small water supply and sanitation systems, especially in rural areas, is becoming most relevant. The experience gained from pilot projects shows the positive effect of such management. And, consequently, the issue of studying water quality in rural areas is the main goal of the Committee for Sanitary and Epidemiological Welfare and Public Health (CSEB and OZ) of the Republic in preserving the health of the population from diseases related to the water factor and, first of all, from acute intestinal infections.

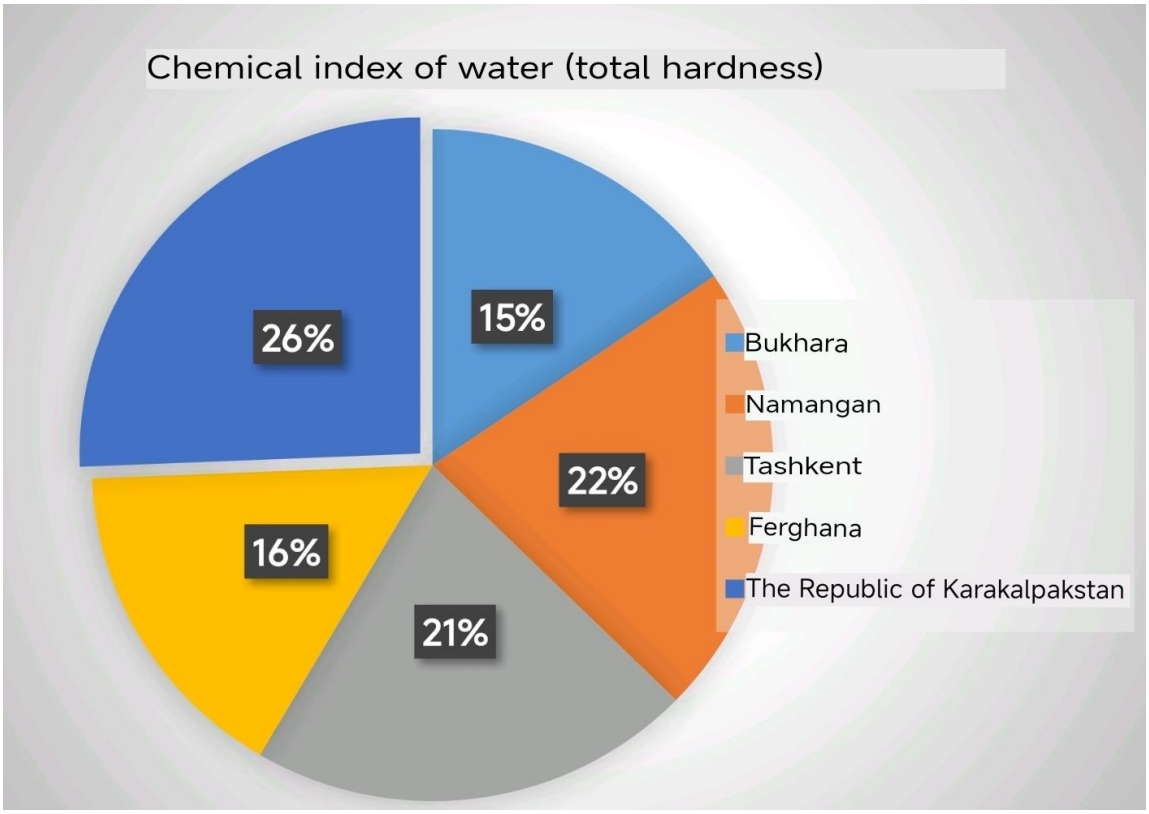
At the beginning of 2023, about 73% of the Republic's population was covered by centralized water supply networks. At the same time, the lowest coverage of centralized water supply networks was observed among the rural population in the Republic of Karakalpakstan 52.4%, Bukhara – 53.4%, Kashkadarya – 54.2%, Surkhandarya – 54.5% and Khorezm – 56.5% regions. The Sanitary and Epidemiological Service of the Republic oversees 4,251 rural and departmental water pipes. Of these, 79 (1.9%) with water intake from open reservoirs, which provide the population mainly with large settlements. The remaining water pipelines, i.e. a larger number of them, are powered by underground sources.



Coverage of centralized water supply networks

Of the total number of these water pipes, 6.1% did not meet sanitary and hygienic and technical requirements. At the same time, mainly or 80.3% due to the lack of disinfection installations (of the total number), 40.4% due to non-compliance with the sanitary protection zone. All this cannot but affect the sanitary and epidemiological well-being of the territories.

Annually, according to chemical indicators, the quality of water, both in surface reservoirs and tap water, during the flood period is mainly within acceptable deviations. Only in August, there was a slight increase in the detected percentage of samples with deviations from sanitary and hygienic requirements due to a decrease in the total volume of the watercourse and elevated atmospheric temperatures, which did not favorably affect water quality indicators, mainly in terms of mineralization and general hardness, as well as microbiological indicators, especially when it was supplied hourly. Also during the summer months, during the autumn, the concentration of mineralization salts both in the water in the springs and in the drinking water itself increases, especially in the lower reaches of the Amu Darya River and in certain areas of the Ferghana, Tashkent, Syrdarya, Navoi and Bukhara regions. According to monitoring data on chemical indicators, in 2020, the water quality of centralized water supply systems also improved slightly and the indicator amounted to 8.2% of non–conforming samples (in 2019 – 8.8%). The most unfavorable water in terms of chemical parameters, and due to such indicators as mineralization, total hardness, chloride and sulfate content, was observed in Bukhara – up to 11.0%, Namangan – 15.5%, Tashkent – up to 15.0%, Ferghana – 11.3% regions and the Republic of Karakalpakstan – 18.2%.



The quality of drinking water according to bacteriological indicators improved slightly in 2023 compared to 2022, as evidenced by the results of laboratory control and the indicator was -6.2% (in 2022 – 7.6%) [1, p.10].

The analysis of the incidence of acute intestinal infections in the republic over the past 5 years (2016-2020) showed a decrease of 1.8 times (if in 2016 the intensive incidence rate was 118.9, then in 2020 this indicator was 65.0). At the same time, the highest incidence rates (intensive indicator – 141.2) were registered in 2021. During this period, the most pronounced decrease in morbidity was registered in Namangan, Navoi, Syrdarya, Bukhara and Khorezm regions. A sharp decrease in the incidence of acute intestinal infections in 2020 can be attributed to quarantine measures in connection with the coronavirus pandemic.

The spread of diseases by acute intestinal infections

Years	2016 y.	2017 y.	2018 y.	2019 y.	2020 y.
Total in the republic (intensive indicators / people per 100 thousand population)	118,9	134,3	123,4	141,2	65,0

[1] *Open data from the website of the State Statistics Committee of the Republic of Uzbekistan*

The analysis of the current epidemic situation, especially in connection with the problems arising during the pandemic, calls for the resumption and tightening of a number of measures aimed at preventing the occurrence of outbreak situations, as well as preventing the occurrence of complications of the epidemiological situation in the regions. On the basis of which, a number of mandatory preventive measures were proposed to the territorial bodies of the sanitary and epidemiological service. In particular, it was proposed:

– develop comprehensive action plans for the current year in case of an emergency and coordinate them with local authorities;

– Uzsuvtaminot services and enterprises and institutions that have water pipelines and sewers on their balance sheet, on constant mobilization readiness to eliminate accidents at water supply and sewerage facilities, repair and restoration of networks. Have constant, standardly necessary supplies of disinfectants and coagulants;

– to provide laboratory control on a systematic basis in a tightened regime, in addition to tap water, also decentralized water supply and the quality of imported water;

– to issue proposals on tightening the disinfection regime and compliance with personal hygiene conditions at all public utilities, catering facilities, preschool and

school institutions, etc.

Due to the fact that organizations (legal entities) operating in the field of household and drinking water supply are obliged to ensure that the quality of the supplied water complies with sanitary rules, norms and hygienic standards, as well as state standards [2].

The measures and recommendations outlined formed the basis of SanPiN No. 0372-20 "Temporary sanitary rules and regulations for the organization of activities of state bodies and other organizations, as well as business entities in the context of restrictive measures in connection with the COVID-19 pandemic (new edition)", as well as SanPiN "Hygienic requirements for the quality of non-centralized water supply and sanitary protection sources in the conditions of Uzbekistan" (project).

Conclusion

Thus, it can be stated that centralized water supply, even at the level of small systems, allows to sharply raise the level of sanitary culture of the population, helps to reduce morbidity. Violation of certain sanitary rules both in the organization of water supply and in the operation of a water pipeline entails sanitary problems, up to extreme situations associated with the occurrence of epidemic outbreaks. The most widespread and severe consequences of public health violations are associated with the possibility of transferring pathogens of intestinal infectious diseases with water. And the developed restrictive measures and recommendations on the organization of the work of water supply organizations are aimed at preventing the occurrence and spread of infections transmitted by water.

SOURCES AND LITERATURE

1. Искандарова Г. Т. и др. Гельминтозларни тарқалишида тупроқ муҳитини аҳамияти (илмий-амалий анжуман) : дис. – Тошкент, 2022.
2. Искандарова Г. Т. и др. Орол буйи минтақа аҳолисини ичимлик суви билан таъминланганлик холати : дис. – 2022.
3. Искандарова, Г. Т., Асенбаева, Т. А., Курбаниязова, М. О., & Даулетбаева, Н. Н. (2022). *Тупроқ муҳитини гельминтологик ифлосланиш холати баҳолаш натижалари* (Doctoral dissertation).
4. Искандарова, Г. Т., Шеркўзиева, Г. Ф., Асенбаева, Т. А., Даулетбаева, Н. Ю., & Курбаниязова, М. О. (2022). Очиқ сув ҳавзаларининг глабаллашув шароитида санитария холати муаммолари.
5. Искандарова, Гузал Тулкиновна, et al. *Тупроқ муҳитининг экологик муаммолари ва уни ечиш йўллари*. Diss. Тошкент, 2022.
6. Искандарова Г. Т., Шеркўзиева Г. Ф., Курбаниязова М. О. Сув ҳавзалари суви сифатини эколого-гигиеник текшириш натижалари : дис. – Ташкент, 2022.
7. Искандарова, Гузал Тулкиновна, et al. *Тупроқ муҳитини ифлосланиш холатини баҳолаш натижалари*. Diss. Ташкент, 2022.
8. Курбаниязова М. О. Энтеробиоз билан касалланиш даражасининг тахлили қорақалпоғистон республикасида //ташкентская медицинская академия кафедра

эпидемиологии казахский национальный медицинский университет имени сд асфендиярова. – 2009. – №. 3. – С. 38.
9. Курбаниязова М. О., Маденбаева Г. И., Мустанов А. Ю. Проблемы безопасного и доступного водоснабжения населения узбекистана //«Гомельский государственный медицинский университет», 2023. – С. 134.
10. Курбаниязова М. О., Маденбаева Г. И. Санитарное состояние открытых водоёмов в узбекскистане //ташкентская медицинская академия кафедра эпидемиологии казахский национальный медицинский университет имени сд асфендиярова. – С. 117.
11. Курбаниязова М. О. и др. Ўзбекистон Республикасида Шигеллёз Билан Касалланишнинг Замонавий Эпидемиологик Хусусиятлари //Ташкентская Медицинская Академия Кафедра Эпидемиологии Казахский Национальный Медицинский Университет Имени Сд Асфендиярова. – С. 36.
12. Matnazarova G. et al. The new coronavirus-COVID-19 in Uzbekistan //International Journal of Pharmaceutical Research (09752366). – 2020. – Т. 12. – №. 4.
13. Matnazarova G. S., Xamzayeva N. T., Kurbaniyazova M. O. BOLALARDA SARS-COV-2 INFEKSYASINING O ‘ZIGA XOS XUSUSIYATLARI VA OSHQAZON ICHAK TRAKTI BILAN BOG ‘LIQ XOLATLAR //Journal of new century innovations. – 2024. – Т. 47. – №. 1. – С. 51-54.
14. Toshtemirovna X. N. et al. O ‘zbekistonning koronavirusga qarshi kurashishdagi tajribasi, Koronavirus bilan uch yil //IQRO. – 2023. – Т. 3. – №. 1. – С. 207-211.
15. Toshtemirovna K. N., Islamovna S. G., Sultanovna M. G. The Effectiveness Of A New Food Substance-A Hard Gelatin Capsule-" Sedan Bark" Is Being Studied In Children Who Have Recovered From The Coronavirus //British View. – 2023. – Т. 8. – №. 3.
16. Хамзаева Н. Т. и др. THE EFFECTIVENESS OF A NEW FOOD SUBSTANCE-A HARD GELATIN CAPSULE-" SEDAN BARK" IS BEING STUDIED IN CHILDREN WHO HAVE RECOVERED FROM THE CORONAVIRUS //European Journal of Interdisciplinary Research and Development. – 2023. – Т. 12. – С. 201-207.
17. Хамзаева Н. Т., Матназарова Г. С. COVID-19 ИНФЕКЦИЯСИДАН ХИМОЯЛАНИШДА ШАХСИЙ ҲИМОЯ ВА АНТИСЕПТИК ВОСИТАЛАРНИНГ АҲАМИЯТИ //PEDAGOGIK ISLOHOTLAR VA ULARNING YECHIMLARI. – 2023. – Т. 1. – №. 2. – С. 80-82.
18. Xamzaeva N. T. et al. COVID-19 infeksiyasi bilan kasallangan bolalarning epidemiologik taxlili //E Global Congress. – 2023. – №. 2. – С. 117-119.
19. Хамзаева Н. Т., Матназарова Г. С., Расулов Ш. М. Тошкент Шаҳрида Covid-19 Инфекцияси Билан Касалланганларнинг Эпидемиологик Таҳлили //Ўзбекистон Республикаси Соғлиқни Сақлаш Вазирлиги Тошкент Тиббиёт Академияси. – С. 71.
20. Toshtemirovna X. N. et al. COVID-19 INFEKSIYASINING EPIDEMIOLOGIK RAQAMLI KO ‘RSATKICHI //IQRO. – 2023. – Т. 3. – №. 1. – С. 160-164.
21. Матназарова Г. С., Хамзаева Н. Т., Абдуллаева Ф. О. Covid-19 Инфекцияси билан касалланиш курсаткичларини беморларнинг жинси, ёши, касби ва кунлар бўйича тахлили //ILMIY TADQIQOTLAR VA JAMIYAT MUAMMOLARI. – 2023. – Т. 2. – №. 1. – С. 80-81.