ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE

ISSN: 2692-515-x, Impact Factor: 9.23

American Academic publishers, volume 6, issue 01,2026

Journal: https://www.academicpublishers.org/journals/index.php/ijai

CHANGES IN THE HEALTHY LIFESTYLE OF THE POPULATION OF THE FERGANA VALLEY

Abduxalimov Abdurakhmon Abdumuminovich
Doctor of Science (DSc) in History, Associate Professor,
and Head of the Department for Work with Youth,
Spirituality, and Enlightenment at
Andijan State Medical Institute.

Abstract

This article provides a scientific and analytical examination of changes in the healthy lifestyle practices of the population of the Fergana Valley within the context of contemporary socio-economic and demographic processes. The study analyzes trends in physical activity, dietary habits, participation in preventive healthcare measures, and behavioral factors influencing public health. In addition, the role and impact of state health policies, educational institutions, and mass media in shaping healthy lifestyle awareness and practices are critically assessed. Based on the findings, key challenges are identified, and scientifically grounded conclusions and recommendations are proposed to strengthen public health and ensure the sustainable development of healthy lifestyle behaviors among the population.

Keywords

Fergana Valley, healthy lifestyle, public health, physical activity, dietary habits, preventive healthcare, social factors, health policy.

In recent years, societal development, socio-economic reforms, and globalization processes have led to significant changes in the lifestyle of the population. These processes are directly related to human health and have further highlighted the importance of shaping and promoting a healthy lifestyle. In particular, in the Fergana Valley, which has a high population density, maintaining and improving the health of the population holds special scientific and practical significance.

Among the population of the Fergana Valley, changes in perspectives on a healthy lifestyle, daily habits, dietary culture, and levels of physical activity are influenced by various factors. Urbanization, the widespread implementation of information technologies, environmental conditions, and state-led healthcare and preventive policies significantly affect these processes. Therefore, this article analyzes, from a scientific-analytical perspective, the main directions of changes in the healthy lifestyle of the Fergana Valley population, their relevance within the social healthcare system, and existing challenges.

During a meeting on healthcare reform held on February 25, 2020, under the chairmanship of the President of the Republic of Uzbekistan, Shavkat Mirziyoyev, it was emphasized that the outdated system of medical colleges should be replaced by Ibn Sina schools. The rationale is clear: the future of the country depends on the development of the younger generation, and modern approaches to raising healthy individuals are essential.

At the Ibn Sina schools established under this presidential initiative, lessons and practical training are conducted in accordance with contemporary requirements. Importantly, students receive in-depth instruction based on the medical insights and recommendations of the great ancestor, Ibn Sina.

ORIGINAL ARTICLE
INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE
ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

Drawing lessons from the pandemic, telemedicine has been introduced between specialized medical centers in the republic and their local branches, expanding opportunities for diagnosis and treatment.

To elevate the quality of healthcare in rural areas, “Medical Brigades” consisting of a family doctor and five mid-level medical staff were established, replacing the previous general practitioner system. Family doctor points and family polyclinics were organized. Within the framework of the “Rural Doctor” program, over a thousand doctors serving remote communities were provided with financial assistance of 30 million soums each and were also provided with service housing[1].

At present, the Head of State is implementing numerous measures to reform the sector. In this regard, during his address at the inauguration ceremony of the President of the Republic of Uzbekistan at the joint session of the chambers of the Oliy Majlis, Shavkat Mirziyoyev emphasized the task of taking these efforts to a new level, stating:

“In order to preserve human health, which is our most valuable asset, it is essential for the government to focus on the comprehensive improvement of the healthcare system, first and foremost its primary care units and rural medical points, as well as the development of emergency medical services and specialized centers providing high-tech services. A full set of measures in this regard must remain at the center of the government’s attention”[2.16].

In 2020, outpatient and polyclinic institutions in Andijan region recorded a total of 27,093,626 visits, of which 3,533,288 were home visits by physicians. The average number of visits per person was 8.8.

When analyzed by type of institution, 13,817,446 visits were made to multi-profile central polyclinics, 4,115,630 to rural medical points, 6,195,955 to rural family polyclinics, 1,886,529 to outpatient departments (OPDs), 595,167 to dispensaries, 773,678 to specialized centers, 172,397 to dental polyclinics, and 136,824 to hospital-attached polyclinics.

During the year, the average number of visits per person to physicians in the towns and districts of Qorasuv, Khonobod, Baliqchi, Oltinko‘l, Xo‘jaobod, Paxtaobod, and Marhamat was 7.5.

An analysis of bed occupancy by urban and district institutions, as well as regional facilities, revealed that the workload of hospital beds was below the regional average in the districts of Oltinko‘l, Shahrixon, Marhamat, and Izboskan, as well as in the regional tuberculosis hospital and the regional multi-profile medical center. The average inpatient stay was 6.2 days.

Bed turnover increased in Khonobod, Bo‘ston, Buloqboshi, Izboskan, and Paxtaobod districts, while it decreased in Qorasuv, Oltinko‘l, and Marhamat districts.

Day-care beds in outpatient and polyclinic institutions treated 33,411 patients, day-care beds in hospitals served 1,064 patients, and home-based hospital beds treated 41,398 patients.

Existing emergency medical stations and their units responded to 1,233,838 calls, providing medical services to 1,363,332 residents.

By the end of the year, the region had a total of 193 outpatient and polyclinic institutions, including multi-profile polyclinics under district and city medical associations, rural medical points, family polyclinics, rural family polyclinics, dental polyclinics, dispensary-attached polyclinics, specialized centers, center-attached polyclinics, and hospital-attached polyclinics. The patient capacity per shift was 38,580.

During 2020, the number of hospital institutions in Andijan region decreased in the districts of Andijan, Jalaquduq, Baliqchi, and Marhamat. However, the number of hospitals

ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

increased in Oltinkoʻl, Izboskan, Qoʻrgʻontepa, Shahrixon, Asaka, Buloqboshi, and Paxtaobod, while it remained unchanged in Boʻz, Xoʻjabod, and Ulugʻnor districts[4].

In Namangan region, the number of hospitals decreased in the districts of Namangan, Norin, Chortoq, and Chust, while it increased in Kosonsoy, Mingbuloq, Toʻraqoʻrgʻon, and Uchqoʻrgʻon districts. In Pop district, the number of hospitals remained unchanged[5].

In Fergana region, hospital numbers decreased in the districts of Oltiariq, Rishton, Fergana, Soʻx, and Buvayda. Conversely, this indicator increased in Beshariq, Dangʻara, Qoʻshtepa, Uzbekistan, and Uchkoʻprik districts, while it remained unchanged in Quva, Furqat, and Toshloq districts[6].

An analysis of bed occupancy by cities, districts, and regional institutions revealed that the workload of hospital beds was below the regional average in Khonobod city, Shahrixon, Andijan, Izboskan, and Oltinkoʻl districts, as well as in the regional tuberculosis hospital and the regional multi-profile medical center. The average inpatient stay was 6.1 days. Across the region, bed turnover decreased in all cities, districts, and regional institutions.

During the year, day-care beds at outpatient and polyclinic institutions served 31,310 patients, day-care beds in hospitals treated 930 patients, and home-based hospital beds provided care to 39,726 patients[4].

Social sector reforms set specific tasks for the government of the Republic, particularly for the healthcare system. Among the key objectives are increasing the average life expectancy of the population from 74.6 to 76 years, reducing the infant mortality rate from 10‰ by 1.5 times to 7‰, lowering the mortality rate from cancer from 73% to 65%, and decreasing the mortality rate from cardiovascular diseases from 41% to 30%[1].

Strengthening the primary level of healthcare, particularly in rural and local communities, and improving the quality of medical services is essential. To this end, medical brigades consisting of a family doctor and five mid-level medical staff were established, replacing general practitioners at the primary level.

In each community, a specialized system has been introduced to provide care for children under five, women of reproductive age and pregnant women, people with disabilities, and citizens prone to cardiovascular, oncological, and endocrine diseases.

At the same time, the government has restructured the list of free medical services and medicines, and a phased system has been implemented to ensure guaranteed provision of these services to the population.

Additionally, within the framework of the “Rural Doctor” program, more than one thousand doctors starting work in remote areas receive financial assistance of 30 million soums each and are provided with service housing.

In remote and hard-to-reach areas, both primary and specialized medical care are provided, and private hospitals are involved in screening activities for vulnerable populations, receiving state subsidies for this purpose. Special attention has also been given to enhancing the reputation and professional status of mid-level medical staff, including nurses and feldshers[2.213].

In 2020, the quality of medical services provided to the population of the Fergana Valley was further improved. For example, in Namangan, significant efforts were made to elevate the healthcare system to a new level, particularly by further strengthening the activities of primary care. Additionally, efforts to increase public satisfaction with medical services yielded positive results.

ORIGINAL ARTICLE
INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE
ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

In To‘raqo‘rg‘on district, the “Shohidon” family doctor point alone was responsible for providing healthcare to more than 8,000 residents. Citizens living in three local communities within the district underwent medical examinations and anthropometric measurements as part of routine health monitoring[7.55].

In 2020, outpatient and polyclinic institutions in Andijan region recorded a total of 24,410,972 visits, of which 3,722,624 were home visits by physicians. The average number of visits per person was 7.7.

When analyzed by type of institution, visits were distributed as follows: first, to multi-profile central polyclinics; second, to rural family polyclinics; third, to rural medical points; fourth, to outpatient departments (OPDs); and fifth, to dispensaries. The average annual number of visits per person to physicians in Qorasuv city, Asaka, Qo‘rg‘ontepa, Paxtaobod, Xo‘jaobod, and Marhamat districts was 6.4, which was below the regional average.

By the end of 2020, the region had a total of 192 outpatient and polyclinic institutions, including multi-profile central polyclinics under district and city medical associations, rural medical points, family polyclinics, rural family polyclinics, dental polyclinics, dispensary-attached polyclinics, specialized centers, center-attached polyclinics, and hospital-attached polyclinics. The patient capacity per shift was 38,180.

Due to population growth, the availability of outpatient and polyclinic services per 10,000 residents decreased to 119.8[4].

In 2020, the Namangan branch of the Republican Scientific Center for Emergency Medical Aid organized systematic activities across the province to strengthen the emergency medical service system and provide round-the-clock relief to patients. The branch’s vascular surgery and microsurgery department alone has a capacity of twenty beds. The department is staffed by six physician coordinators, three of whom hold the highest professional qualifications. Additionally, twelve nurses and ten junior medical staff members are employed, with six of the nurses holding the highest qualification category.

The department fully implements microsurgical procedures, including hand and foot replantation, anastomosis of small arteries, microneurorrhaphy, and tendoplasty. These procedures are performed using microscopes manufactured by the company “Zeiss”[5].

Additionally, reconstructive surgeries are performed for acute arterial and venous diseases. To prevent ischemia in the arms and legs caused by occlusions in major and peripheral arteries, procedures such as autovenous shunting and prosthetic replacement with artificial vessels are conducted.

Complex vascular surgeries are successfully carried out to eliminate atherosclerotic plaques in major vessels, as well as congenital and acquired tortuosities of extracranial vessels, which are common causes of ischemic strokes.

It is noteworthy that angiographic diagnostic methods, including selective angiography and coronary angiography, have been introduced for the diagnosis of cardiovascular diseases. Treatment techniques in this area include arterial embolization, balloon dilatation, stenting of arteries, and the placement of filters.

Modern technologies are effectively employed in the provision of medical services. Duplex ultrasound examinations of the vessels are sufficiently organized, providing comprehensive information about the condition of all blood vessels, their diseases, and the post-injury or post-disease state.

For venous thromboembolism arising from complications of varicose veins, as well as for the prevention of life-threatening pulmonary artery thromboembolism, all types of prophylactic surgical procedures are implemented[8].

ORIGINAL ARTICLE
INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE
ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

During the study period, the Fergana Regional Endocrinology Dispensary was fully equipped for the diagnosis, treatment, and monitoring of patients, with five departments, including intensive care and surgical units, operating effectively. Laboratory, ultrasound, and X-ray equipment enable accurate diagnosis and successful treatment. Patients with pituitary, thyroid, and pediatric and adolescent endocrine disorders, as well as diabetes, male and female infertility, and obesity, are treated. Accordingly, in addition to endocrinologists, the dispensary employs specialized physicians including intensivists, gynecologists, andrologists, surgeons, and pediatricians.

A “Diabetes School” has been established at the dispensary, where endocrinologists educate patients with endocrine disorders caused by dysfunction of internal secretion glands on the principles of a healthy lifestyle.

It is widely recognized that in recent years endocrine disorders have been increasing globally, including in the country. This trend can be explained primarily by population growth and improved living standards. Factors such as high stress levels, consumption of high-calorie foods, and sedentary lifestyles contribute to obesity and, consequently, diabetes, a hereditary disease that requires preventive measures.

Iodine deficiency also contributes to endocrine disorders, particularly physical and mental underdevelopment. Iodine is mainly found in oceans, seafood, and seaweed; however, the country’s geographic location far from the ocean and seas limits iodine availability in air, water, and soil.

The Namangan branch of the Republican Scientific Center for Emergency Medical Aid and its district and city departments have been equipped with necessary protective gear and modern medical equipment. Three hundred seven emergency vehicles operate around the clock.

On September 18, 2020, a 200-bed intensive care and pulmonology unit began operating under the branch, providing services to more than 2,000 patients to date. Built at a cost of 3 billion soums, the unit’s laboratory, X-ray, and ultrasound facilities operate continuously for biochemical testing of patients. The establishment of an oxygen supply center, modern medical equipment, and patient-friendly facilities creates optimal conditions for doctors to conduct continuous professional research and deliver high-quality care[6].

The unit employs 40 physicians, 65 nurses, and 35 junior medical staff, all of whom interact directly with patients suffering from various endocrine and related disorders. All necessary precautions are taken during these interactions. The medical team listens to patients’ complaints, collects information on comorbid conditions, and carries out various treatment procedures.

It is noteworthy that among the patients, there are individuals with diabetes, cardiovascular diseases, and other chronic conditions. These patients are provided with detailed instructions on post-discharge care, including the continued use of anticoagulant medications, adherence to a proper diet, performing breathing exercises, and maintaining a healthy lifestyle[9].

During this period, the Fergana City Medical Association employed 335 physicians, nurses, and junior medical staff to provide medical services to more than 92,000 residents under the age of 18.

Special attention was given to improving the quality of medical care, particularly for children, and to organizing treatment based on modern technologies. In addition, the institution actively supports young doctors in conducting innovative research, implementing high-quality treatment procedures, and gaining advanced training in well-equipped medical facilities. [10].

ORIGINAL ARTICLE
INTERNATIONAL JOURNAL OF ARTIFICIAL INTELLIGENCE
ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

In Fergana Region, the average number of daily emergency medical service (EMS) calls ranges between 4,000 and 4,500. Therefore, comprehensive measures are being implemented to strengthen the material and technical base of emergency departments and hospitals, as well as to provide favorable working conditions for medical personnel.

In 2020, an additional 40 emergency vehicles were allocated to the city and district services. There were no issues regarding fuel or medical supplies. A budget of 1.3 billion soums was allocated to fully equip the vehicles with radio communication systems[11].

A centralized and integrated system has been established for emergency and urgent care, which is the most frequently used service by individuals. The number of emergency medical teams has increased from 818 to 1,666, with deployment closer to residential areas. Over 1,500 new emergency vehicles have been purchased to modernize the transport fleet.

Traditionally, specialized medical institutions were concentrated mainly in the capital, forcing patients from the regions to travel long distances for treatment. Efforts to treat acute and severe hereditary hematologic disorders have been elevated to a higher level. The state budget continues to allocate sufficient funds for complex diagnostics and medical interventions in the field of onco-hematology and other difficult-to-treat diseases.

All patients with acute renal failure are provided with free hemodialysis services. Additionally, special units are being established in regional hospitals for the diagnosis and treatment of endocrine disorders.

Another priority is the treatment of acute cardiovascular diseases, which affect a large portion of the population. Thirty-five inter-district centers are being established to provide rapid and qualified medical care for heart attacks and strokes, aiming to reduce mortality and disability. This system is designed to save the lives of at least 30,000 individuals annually[3.214].

According to data from the World Health Organization and the Ministry of Health of the Republic, the epidemiological situation of measles worldwide, particularly in European countries, remains complex. Last year, 9.5 million people were infected with measles globally, and 148,000 children under the age of five died. In the Republic, during the first eight months of 2020, 6,790 suspected cases of measles were reported.

Considering these circumstances, mass immunization days for children aged six months to five years were conducted in the region from October 5 to prevent the spread of measles. To organize this effort, headquarters were established under city and district medical associations, and qualified specialists were involved. Vaccination activities were carried out in full compliance with quarantine regulations[12].

On November 6, 2020, under the leadership of the President of the Republic of Uzbekistan, Shavkat Mirziyoyev, a video-conference meeting was held to outline measures for improving the primary level of the healthcare system and promoting a healthy lifestyle among the population. During this period, medical services were provided to approximately 3.8 million residents of the Fergana region by 335 treatment, prevention, and auxiliary institutions. A total of 6,990 doctors and 42,600 mid-level medical personnel worked in these facilities.

During the pandemic, the number of patient visits increased sharply, and the limited availability of specialized professionals in certain areas led to complaints. Consequently, a task was set to transform general practitioners into fully functional family doctors. Practical steps to implement this initiative were undertaken across the cities and districts of the region[6].

In the region, Oltiariq district has been designated as a model district in healthcare. A “Roadmap” was developed to ensure the provision of high-quality medical services to the

ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

population, outlining numerous planned initiatives. During this period, 16 medical institutions were operating in the district, and under the investment program, reconstruction and renovation work was carried out in four medical facilities.

Medical equipment and devices worth 1.6 billion UZS were delivered and installed in district medical institutions using local budget funds. Most of the medical devices provided under the "Salomatlik-1" and "Salomatlik-2" projects had been supplied 15–20 years ago, and are now functionally obsolete and worn out. Equipping ten medical institutions with modern medical devices remains a challenge.

Special attention was given to creating adequate working conditions for doctors, and rural family polyclinics and rural doctor's offices were staffed with qualified specialists. These efforts, starting from the primary level of healthcare, reflect the government's commitment to preserving and improving public health[13].

It is worth noting that during the period under review, numerous practical measures were implemented to reform the sector. A number of decrees and resolutions of the President of the Republic of Uzbekistan pertaining to the healthcare system were signed. However, some challenges remain at the lower levels of implementation. These challenges have both objective and subjective causes, including a shortage of qualified specialists in local areas, outdated medical equipment, and high costs of pharmaceutical products.

In conclusion, the conducted scientific analyses indicate that while there have been positive changes in promoting a healthy lifestyle among the population of the Fergana Valley, certain problematic aspects persist. Increased physical activity, greater attention to healthy nutrition, and the popularization of preventive medical check-ups can be regarded as positive trends. At the same time, sedentary lifestyles, stress factors, and environmental issues continue to negatively impact public health.

This situation underscores the need to further improve measures aimed at promoting a healthy lifestyle in the Fergana Valley. Effective collaboration between educational institutions, the healthcare system, and community organizations is crucial to enhance the population's knowledge and skills regarding healthy living. A scientifically grounded and systematic approach will contribute to strengthening public health, preventing diseases, and ensuring sustainable social development in the region.

References:

1. President of the Republic of Uzbekistan, Shavkat Mirziyoyev. Address to the Oliy Majlis. Xalq so'zi (Tashkent), December 30, 2020.
2. Mirziyoyev, Sh.M. Building a Free and Prosperous Democratic Uzbekistan Together. Tashkent: Uzbekistan, 2016, p. 56.
3. Mirziyoyev, Sh.M. Strategy for a New Uzbekistan. Tashkent: "Uzbekistan", 2021, p. 464.
4. Andijan Regional Health Department, Current Archive.
5. Namangan Regional Health Department, Current Archive.
6. Fergana Regional Health Department, Current Archive.
7. Namangan VDA, Fund 908, Inventory 1, File 453, Sheet 55.
8. Goziyev, A. "A High Honor Worthy of Public Recognition." Namangan Haqiqati (Namangan), November 7, 2020, No. 89.
9. Toshmatova, T. "New Complex – Regional Endocrinology Dispensary." Fergana Haqiqati (Fergana), November 11, 2020, No. 88 (24477).

ISSN: 2692-515-x, Impact Factor: 9.23
American Academic publishers, volume 6, issue 01,2026
Journal: https://www.academicpublishers.org/journals/index.php/ijai

10. Mominov, M. "New Medical Centers Begin Operations." *Fergana Haqiqati* (Fergana), October 21, 2020, No. 82 (24471).
11. Qodirov, M. "40 Ambulances Begin Serving the Population." *Fergana Haqiqati* (Fergana), September 23, 2020, No. 73 (24462).
12. Abdujabborov, I. "Mass Immunization Against Measles is Underway." *Fergana Haqiqati* (Fergana), October 10, 2020, No. 79 (24468).
13. Sulaymonov, M. "Low Quality of Medical Services in the Regions." Fergana Haqiqati (Fergana), November 11, 2020, No. 88 (24477).