



IMPROVEMENT OF HYGIENIC MEASURES IN THE PREVENTION OF TUBERCULOSIS

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(The Case of Fergana Region)

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ABSTRACT

This article discusses the spread of tuberculosis (TB) among youth in the Fergana region, particularly among the age groups of 15-29 and 30-44 years old, as well as the causes and consequences of this phenomenon, and the preventive measures being implemented. The main factors contributing to the spread of TB include social and sanitary conditions, a lack of healthy lifestyle practices among young people, limited access to timely medical services, and low awareness of the disease. The article also highlights preventive measures such as medical screenings, educational programs, vaccination, and promoting a healthy lifestyle to prevent the spread of the disease. The goal of this article is to identify effective methods for combating tuberculosis, raise awareness among youth, and enhance community participation in prevention and treatment efforts.

Tuberculosis (TB) is a disease caused by *Mycobacterium tuberculosis* that primarily affects the lungs but can also spread to other organs. The disease is transmitted mainly through airborne particles, i.e., via droplets released when an infected person coughs, sneezes, or breathes. To prevent TB and limit its spread—particularly among the general population—effective preventive measures and strategies are essential. Hygiene education and effective public outreach play a crucial role in implementing these measures.

The most effective method for preventing TB is early detection of symptoms and proper treatment. However, **preventive actions** are of high importance as they help contain the disease at early stages.

In analyzing the TB situation in **Fergana region**, it becomes evident that the rise in cases is largely connected to poor sanitary conditions in workplaces, low hygiene awareness, and unfavorable social and household environments.

To enhance public hygiene skills, it is vital to organize specialized training and seminars, as well as to introduce dedicated TB prevention programs in schools and universities. Cooperation between state authorities, medical institutions, and civil society organizations is key to strengthening public hygiene education.

Healthcare institutions and clinics must pay particular attention to identifying early signs of TB. It is also important to train medical personnel in modern diagnostic methods and

to encourage the population to seek medical assistance without delay. Late diagnosis and disease progression are among the primary reasons for TB transmission among the public.

Promoting a **healthy lifestyle**, ensuring **proper nutrition**, and engaging **youth in sports** are also preventive measures. In Fergana region, building sports fields and prioritizing youth-focused programs can help strengthen immunity and increase resistance to illness.

To improve sanitary and hygienic conditions, it is necessary to strictly enforce hygiene standards in residential areas, workplaces, and food establishments. Additionally, better sanitation in households can reduce the risk of infections spread via the fecal-oral route.

Combating TB is not solely the responsibility of healthcare institutions. **State bodies, NGOs, and the private sector** all have important roles. Local governments should mobilize resources to engage the public in anti-TB initiatives and expand access to hygiene services and preventive healthcare.

In Fergana region, **improving hygiene education**, enhancing sanitary conditions, and refining treatment and prevention methods are essential for TB control. This requires continuous public education, effective regulation of medical institutions, and close cooperation between government bodies and civil society organizations.

The **sanitary-epidemiological monitoring system** is also essential in TB prevention. This includes strict adherence to hygiene practices by patients and medical staff, as well as ongoing epidemiological investigations in production and healthcare settings.

One of the most important preventive strategies is **early detection** and **continuous treatment** of infected individuals. Professional development courses, seminars, and workshops for doctors and healthcare workers are needed to increase their understanding of treatment and preventive methods.

Patients must be provided with full information about their condition, guided to follow hygiene protocols, and encouraged to have their family members undergo preventive screenings. Infected individuals should be **isolated**—for example, treated in separate wards—and quarantine measures should be applied when necessary.

Improving sanitary and hygiene conditions is a major factor in preventing TB spread among the population. Local governments and NGOs should carry out preventive measures, teach proper hygiene practices, and involve citizens in screening initiatives. Collaborating with media outlets to run awareness campaigns is also recommended.

Promoting a **healthy lifestyle** through hygiene practices, proper nutrition, and regular physical activity is critical. Youth should be encouraged to participate in sports at fitness centers or public sports facilities. Maintaining food hygiene—by preparing and storing food safely—is also essential.

Hygiene measures are central to TB prevention. Public awareness of sanitation and hygiene rules, access to well-organized medical services, early detection, and timely treatment form the foundation of effective prevention. In both **Fergana region** and across **Uzbekistan**, collaboration among state institutions, media, and healthcare providers is vital in the fight against TB.

Providing the body with essential nutrients, vitamins, and minerals is necessary for maintaining a strong immune system and preventing TB recurrence. Proteins are especially

important during recovery, as they help build tissue and strengthen immunity. TB patients should eat a variety of protein-rich foods daily (e.g., meat, dairy, poultry, fish).

Vitamins and minerals such as Vitamin C, B-complex vitamins, Vitamin D, and folic acid help boost the immune system and repair damaged tissues. Foods rich in Vitamin C—like citrus fruits, vegetables, and greens—can improve immunity and reduce the risk of infection.

A well-balanced diet that includes proteins, carbohydrates, vitamins, and minerals is essential for recovery. Supporting the immune system, accelerating healing, and ensuring adequate nutrient intake are critical components of effective treatment and long-term health.

Fergana region, located in southeastern Uzbekistan, is one of the most densely populated areas with high demand for medical services. People aged **15–29** are particularly at risk, due to various social, economic, and sanitary-epidemiological factors. While many TB prevention efforts are underway, TB continues to spread among youth.

In the **30–44 age group**, TB risk may still be high due to social stigma and limited access to health information.

Youth working in high-risk jobs—such as truck drivers, construction workers, or those in crowded settings—face greater exposure. A lack of sanitation habits and limited access to preventive screening further increase risk. Ignoring early symptoms leads to delayed diagnosis and treatment, allowing the disease to spread.

Vaccine hesitancy and poor interest in immunization are also contributing to TB transmission. Unhealthy eating habits, sedentary lifestyles, and stress can reduce immunity and ease the spread of TB.

TB among youth in Fergana is driven by a mix of social, medical, and environmental factors. To address the problem, it is crucial to intensify **sanitation and prevention campaigns**, increase access to healthcare, and promote healthier lifestyles.

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