

THE PREVALENCE OF DIABETES MELLITUS AND MEDICAL APPROACHES IN THE CONTEXT OF UZBEKISTAN

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Abstract: Diabetes mellitus represents a critical public health issue in Uzbekistan, where the burden of non-communicable diseases is growing. This article discusses the underlying epidemiological patterns of diabetes, evaluates the health system's response, and outlines necessary reforms. By considering social determinants, urbanization, and healthcare access, it provides a comprehensive overview of diabetes management and prevention efforts in the country.

Keywords: Diabetes mellitus, Uzbekistan, healthcare system, prevention strategies, public health, non-communicable diseases

Diabetes mellitus, particularly type 2 diabetes, has become one of the leading chronic health conditions globally, and its burden is increasingly being felt in Uzbekistan. The transition from traditional lifestyles to more modern, urbanized modes of living has brought significant changes in dietary patterns, physical activity levels, and overall health behaviors. These shifts have contributed to a marked rise in the incidence and prevalence of diabetes among the population.

In Uzbekistan, the growing number of individuals living with diabetes is linked to several interconnected factors. The adoption of sedentary lifestyles, driven by urbanization and the decline in physically demanding occupations, has played a central role. Dietary habits have also shifted significantly, with increased consumption of refined sugars, processed foods, and high-calorie diets that were previously uncommon in rural or traditional diets. These factors, combined with a general lack of awareness about the importance of regular physical activity, have contributed to the current epidemiological trends.

Genetic predisposition also plays a role, as family history remains a common denominator in many diagnosed cases. However, genetic risk alone cannot explain the rapid increase in cases over recent decades. It is the interaction between genetic vulnerability and environmental triggers-such as poor nutrition and low physical activity-that has accelerated the rise in diabetes prevalence. One of the pressing challenges in the fight against diabetes in Uzbekistan is the limited access to early diagnostic services. Many individuals are unaware of their condition until complications arise, often presenting with symptoms such as visual impairment, neuropathic pain, delayed wound healing, or cardiovascular issues. The lack of routine screening programs, particularly in rural areas, contributes to delayed diagnosis and suboptimal disease management.

The healthcare system in Uzbekistan has made progress in recent years in addressing this public health challenge. Primary healthcare centers have increasingly been integrated into national strategies for the detection and treatment of non-communicable diseases, including diabetes. Basic diagnostic tools and essential medications are now more widely available, particularly in urban clinics and hospitals. Oral hypoglycemic agents, such as metformin, are commonly used as first-line treatments, and insulin therapy is provided in tertiary care settings for patients who require it.

Despite these advances, systemic gaps remain. Access to specialized care is unevenly distributed, with endocrinologists and diabetes educators concentrated in major urban areas. Rural populations often face geographical, financial, and informational barriers that hinder timely and effective treatment. Furthermore, while public awareness campaigns exist, they are not sufficiently widespread or sustained to reach all segments of society. The importance of preventive care, healthy eating, and physical activity is often underemphasized in educational systems and workplace wellness programs. In terms of prevention, efforts have been initiated by both governmental and non-governmental organizations to promote healthier lifestyles. These include community health events, public health education campaigns, and pilot programs aimed at schoolchildren and families. However, the reach and impact of these programs remain limited due to resource constraints and infrastructural challenges.

Moving forward, there is a need for a more comprehensive, multi-sectoral approach to diabetes prevention and control in Uzbekistan. This includes expanding early detection programs through routine screening at the primary care level, particularly targeting at-risk populations. Health literacy initiatives should be scaled up to ensure that individuals understand the symptoms, risk factors, and long-term consequences of untreated diabetes. Integrating diabetes education into school curricula and workplace health programs would also contribute to greater public engagement and behavioral change.

Improving access to healthcare professionals trained in diabetes management is another critical need. This could be achieved through targeted training programs for general practitioners and nurses, as well as by investing in telemedicine solutions that bridge the urban-rural divide. Providing patients with the tools and knowledge necessary to self-manage their condition is equally important, as it fosters autonomy and long-term disease control.

In conclusion, the prevalence of diabetes mellitus in Uzbekistan is a reflection of broader global trends compounded by local socioeconomic and infrastructural factors. While notable progress has been made, significant challenges remain in terms of early diagnosis, equitable access to care, and public education. Addressing these issues requires coordinated efforts across multiple sectors, including health, education, agriculture, and urban planning. With sustained political commitment, adequate resource allocation, and active community participation, Uzbekistan can strengthen its response to diabetes and improve health outcomes for future generations.

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