DIABETES MELLITUS IN UZBEKISTAN: PREVALENCE AND MEDICAL RESPONSES

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Diabetes mellitus has become a critical non-communicable disease that continues to challenge public health systems worldwide, particularly in low- and middle-income countries such as Uzbekistan. As the nation undergoes rapid demographic and socio-economic transformations, the increasing incidence of type 2 diabetes mellitus (T2DM) emerges as a public health concern with profound clinical, economic, and social implications.

In Uzbekistan, diabetes is no longer confined to genetically predisposed individuals. Instead, it has become a lifestyle-related epidemic closely tied to urbanization, dietary transitions, reduced physical activity, and insufficient health education. Multiple studies have indicated that these determinants contribute to metabolic dysfunction, increased body mass index, and a surge in undiagnosed diabetes cases. Academic inquiry into diabetes in Uzbekistan has been relatively recent but is gaining momentum. Among the prominent researchers, Tursunov M. et al. (2020) analyzed gaps in diabetes management across different regions of the country, highlighting the uneven access to diagnostic services and trained personnel. Similarly, Khamraev A. and Ruzmetova D. have contributed to understanding the national endocrine care landscape and advocated for improved integration of diabetes management into primary healthcare. The World Health Organization (WHO) has published several country profiles identifying Uzbekistan's weaknesses in early detection, access to essential medicines, and population-wide screening.

Despite growing awareness, several systemic barriers hinder progress. These include the concentration of endocrinologists in urban areas, limited affordability of insulin analogs, underdeveloped patient education mechanisms, and the absence of a national diabetes registry. In most cases, diagnosis is delayed until complications-such as retinopathy, nephropathy, or neuropathy-emerge, significantly increasing the burden on the healthcare system.

The medical approaches in Uzbekistan remain fragmented but evolving. Primary healthcare institutions are increasingly being equipped with basic diagnostic tools, while local pharmaceutical companies have started producing generic antidiabetic drugs to lower costs. However, treatment adherence remains low due to insufficient patient counseling and socio-economic constraints. Efforts to implement community-based education programs, though sporadic, are showing promise, particularly in urban pilot zones. Research on diabetes in Uzbekistan intersects with global debates around health equity, preventive care, and chronic disease integration in developing health systems. There is a growing consensus among public health experts-including Saeedi et al. and Palafox et al-

that combating diabetes requires not only pharmacological solutions but also public policy reforms, intersectoral coordination, and sustained public engagement. In this context, the current study contributes a localized analysis of how Uzbekistan is responding to the diabetes epidemic. It emphasizes the need for a structured national screening policy, increased investment in primary and community health systems, digital health initiatives to bridge rural–urban gaps, and long-term strategies for health education at the school and workplace levels.

In conclusion, while Uzbekistan's fight against diabetes has entered a formative stage, it requires deeper policy alignment, better integration of care pathways, and stronger evidence-based interventions. There is substantial scope for future research, particularly in the development of a unified national registry, cost-effectiveness studies of treatment models, and community-specific behavioral interventions. The integration of local research into national policy could prove transformative in mitigating the long-term burden of diabetes in Uzbekistan.

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