ScientificScholar®
Knowledge is power
Publisher of Scientific Journals

https://sajhealthsci.com

South Asian Journal of Health Sciences



Review Article

Global burden, epidemiology, and public health management of diabetes mellitus

Sodiq Adetunji Adekola[1]

[1]Department of Medical Laboratory Science, University of Abuja, Gwagwalada, Nigeria

***Corresponding author:**
Sodiq Adetunji Adekola,
Department of Medical Laboratory Science,
University of Abuja, P.M.B. 117,
Gwagwalada, Nigeria.

adekola.adetunji@uniabuja.edu.ng

Received: 06 April 2026
Accepted: 22 May 2026
EPub Ahead of Print: 31 July 2026
Published: 15 October 2026

DOI
10.25259/SAJHS_24_2026

Quick Response Code:

ABSTRACT

Diabetes mellitus (DM) remains one of the most prevalent non-communicable diseases globally and is characterised by persistent elevation of blood glucose resulting from impaired insulin production, insulin resistance, or both. The condition is associated with severe complications, including cardiovascular disorders, nephropathy, neuropathy, and retinopathy, all of which contribute substantially to disability and premature mortality. Current global estimates indicate that diabetes affects hundreds of millions of individuals, with prevalence expected to rise steadily in the coming decades. This review evaluates the worldwide epidemiology, economic implications, and management approaches for diabetes mellitus, while emphasizing the contributions of nursing and public health practice. A narrative review methodology was adopted using evidence from peer-reviewed studies, international reports, and public health literature addressing prevalence patterns, risk determinants, complications, and intervention strategies. The reviewed evidence demonstrates that diabetes prevalence is increasing rapidly, particularly in low- and middle-income countries where urbanisation, unhealthy diets, obesity, and physical inactivity are becoming more common. Beyond its clinical consequences, diabetes creates enormous financial pressure on individuals, families, and healthcare systems through treatment costs, reduced productivity, and premature deaths. Studies also show that lifestyle modification, pharmacological management, and digital health innovations such as telemedicine and mobile health technologies can improve glycemic control and patient self-management. Overall, diabetes represents a major global health concern that requires collaborative and multisectoral responses. Strengthening nursing-led interventions, community-based prevention strategies, patient education, and digital health integration will be critical for reducing disease burden, improving quality of life, and promoting equitable healthcare access.

Keywords: Diabetes mellitus, Global health, Health equity, mHealth, Nursing, Public health, Telemedicine

INTRODUCTION

Diabetes mellitus (DM) is a complex metabolic disease characterised by chronic hyperglycemia caused by impaired insulin secretion, defective insulin action, or the coexistence of both mechanisms. According to the American Diabetes Association, diabetes can be grouped into type 1 diabetes mellitus (T1DM), type 2 diabetes mellitus (T2DM), gestational diabetes mellitus (GDM), and several secondary forms associated with genetic abnormalities or other medical conditions.[1] Persistent elevation of blood glucose can progressively damage major organs and body systems, particularly the kidneys, eyes, nerves, cardiovascular system, and blood vessels.

The importance of diabetes as a public health issue extends beyond its high prevalence. The disease is strongly associated with debilitating complications, including coronary artery disease, stroke, nephropathy, neuropathy, and diabetic retinopathy. These complications

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.
©2026 Published by Scientific Scholar on behalf of South Asian Journal of Health Sciences

contribute significantly to disability, poor quality of life, increased healthcare utilisation, and premature mortality.[2] Diabetes is also commonly accompanied by hypertension, obesity, and dyslipidemia, making disease management more challenging.

Globally, diabetes has become one of the leading non-communicable disease epidemics of the modern era. Recent estimates from the International Diabetes Federation indicate that more than 537 million adults between 20 and 79 years of age were living with diabetes in 2023, with projections showing further increases in future decades.[3] A substantial proportion of affected individuals reside in low and middle-income countries where healthcare systems frequently lack adequate resources for chronic disease prevention and management.

The worldwide diabetes burden can be better appreciated by imagining people living with diabetes as a single population group comparable to one of the largest nations in the world. Such a comparison highlights the enormous magnitude of the problem and the urgent need for coordinated international action. In addition to health consequences, diabetes contributes to economic hardship, social inequalities, and long-term intergenerational risks, especially in societies experiencing rapid urbanisation and lifestyle changes.

Several factors contribute to the growing prevalence of diabetes globally. These include unhealthy dietary habits, physical inactivity, increasing obesity rates, urban migration, population aging, and genetic susceptibility. The widespread availability of processed foods and sedentary lifestyles has accelerated the incidence of type 2 diabetes in both developed and developing countries.[4]

Nurses and public health professionals play essential roles in responding to this growing epidemic. Their responsibilities extend beyond clinical treatment to include prevention, health education, advocacy, counseling, and support for self-management. Nurses frequently serve as frontline healthcare providers who assist patients in monitoring treatment adherence, lifestyle modification, and psychosocial adjustment. In recent years, digital health technologies such as telemedicine, wearable monitoring systems, and mobile applications have expanded opportunities for patient-centred diabetes care.[5]

At the community level, public health practitioners develop and implement screening programs, awareness campaigns, and policy initiatives aimed at reducing risk factors and promoting healthier lifestyles. Integrating clinical care with population-based public health strategies is essential for reducing diabetes-related morbidity and mortality while advancing Universal Health Coverage and the Sustainable Development Goals.

GLOBAL EPIDEMIOLOGY OF DIABETES

Prevalence and distribution

Diabetes mellitus has emerged as one of the most significant global public health challenges of the 21st century, affecting populations across all regions, socioeconomic groups, and age categories. The global prevalence of diabetes continues to rise at an alarming rate, with marked geographic disparities influenced by economic development, urbanisation, and lifestyle transitions. Low-and middle-income countries (LMICs) are experiencing the most rapid increases, largely due to shifts toward westernised diets, reduced physical activity, and increasing obesity rates.[4]

According to the International Diabetes Federation (IDF), approximately 537 million adults aged 20–79 years were living with diabetes in 2023, representing a global prevalence of 10.5%.[1] Notably, three countries, China, India, and the United States, account for nearly half of the global diabetes burden, reflecting both population size and lifestyle-related risk factors.

China leads globally with approximately 140 million cases, India follows with over 101 million cases, and the United States accounts for approximately 37 million cases.

This concentration highlights the interplay between rapid urbanisation, economic growth, and health transitions in these countries.[1]

T2DM constitutes approximately 90–95% of all diabetes cases worldwide and is strongly associated with modifiable risk factors such as obesity, unhealthy diets, and sedentary lifestyles. In contrast, T1DM, though less prevalent, is increasing globally, particularly among children and adolescents, raising concerns about environmental and genetic triggers.[6]

Table 1: Global top countries by diabetes prevalence

Rank	Country	Estimated cases (millions)	% of the adult population
1	China	140	10.6%
2	India	101	8.9%
3	USA	37	11.3%
4	Brazil	16	9.0%

Incidence trends

The incidence of diabetes continues to rise globally, driven primarily by the increasing prevalence of obesity and lifestyle-related risk factors. Type 2 diabetes incidence has surged dramatically in both developed and developing countries due to increased consumption of processed and high-calorie foods, reduced physical activity due to urbanisation and technological advancement, and the rising prevalence of overweight and obesity.

Epidemiological studies indicate that obesity alone accounts for a substantial proportion of new diabetes cases, particularly in urban populations [Table 1].[7]

In parallel, the incidence of type 1 diabetes is also increasing, particularly among children and adolescents in Europe and North America. This rise is thought to be linked to environmental factors, viral exposures, and changes in early-life immune development [Table 2].[6] The increasing burden among younger populations presents long-term challenges for healthcare systems due to prolonged disease duration and complications.

Table 2: Estimated economic burden of diabetes by region (in billions of USD)

Region	Direct costs	Indirect costs	Total
North America	400	150	550
Europe	200	80	280
Asia	220	70	290
Africa	10	5	15
Latin America	20	10	30

Projected growth

The future burden of diabetes is expected to escalate dramatically if current demographic, epidemiological, and lifestyle trends persist. According to the International Diabetes Federation IDF estimates that by 2045, the number of adults living with diabetes will reach approximately 783 million, representing a 46% increase from 2023 levels.[1] This trajectory reflects not only increasing incidence rates but also improved survival among individuals living with diabetes, resulting in a growing cumulative prevalence.

The projected increase is not uniform across regions. LMICs are expected to experience the highest growth rates, due in part to under-resourced healthcare systems that often struggle with limited access to preventive services, diagnostic tools, medications, and long-term management programs.[8] In many LMICs, healthcare systems remain oriented toward acute care, leaving chronic disease management, including diabetes, insufficiently addressed. This structural gap exacerbates the risk of late diagnosis, poor glycemic control, and higher rates of diabetes-related complications.[9] These regions face a dual burden of communicable and non-communicable diseases, often within fragile health systems that are inadequately equipped for chronic disease management. Limited access to early diagnosis, essential medications, and long-term care exacerbates the risk of complications and premature mortality.

Several interrelated drivers underpin this projected increase:

- **Rapid population growth:** Many (LMICs), particularly in sub-Saharan Africa and South Asia, are experiencing significant population expansion. As the absolute number of individuals increases, so does the number of people at risk of developing diabetes.
- **Population aging:** Advancements in healthcare have increased life expectancy globally. Since diabetes prevalence rises with age, aging populations contribute significantly to the expanding burden.
- **Urbanisation and lifestyle transitions:** Ongoing migration from rural to urban areas has led to profound changes in lifestyle, including increased consumption of energy-dense, processed foods and reduced physical activity. Urban environments often promote sedentary behaviour, thereby increasing obesity and diabetes risk.
- **Persistent socioeconomic inequalities:** Poverty, low educational attainment, and limited access to healthcare services contribute to delayed diagnosis, poor disease management, and higher complication rates. Social determinants of health play a critical role in shaping both exposure to risk factors and health outcomes.[10]
- **Rising prevalence of obesity:** The global obesity epidemic is a major driver of type 2 diabetes. Increasing rates of overweight and obesity across all age groups, including children and adolescents, are accelerating diabetes incidence.
- **Early-life and intergenerational factors:** Emerging evidence suggests that maternal health, fetal programming, and childhood nutrition significantly influence the risk of developing diabetes later in life, thereby perpetuating the cycle across generations.

If diabetes were conceptualized as a country, its projected population of 783 million by 2045 would exceed that of many of the world's most populous nations, including Indonesia and Brazil, that is, To visualize the magnitude of the epidemic, if the global diabetes population were considered a "country," it would surpass the populations of Indonesia ~275 million and Brazil ~216 million, emphasizing the scale of the public health challenge and the urgent need for coordinated global strategies.

RISK FACTORS FOR DIABETES

Diabetes mellitus, particularly T2DM, is a multifactorial disease influenced by a complex interplay of genetic, behavioural, environmental, and socioeconomic factors. Understanding these risk factors is essential for designing effective prevention and intervention strategies in both clinical and public health settings [Figure 1].

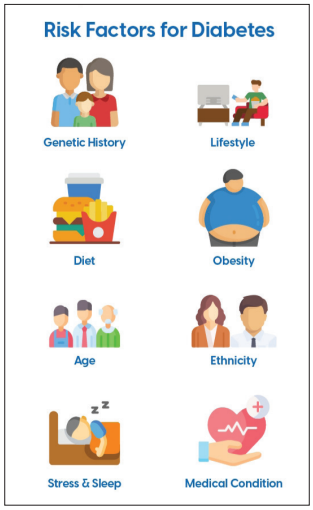


Figure 1: Risk factors for diabetes conceptual description

Non-modifiable factors

Age

Age is one of the strongest non-modifiable risk factors for diabetes. The prevalence of (T2DM) increases significantly with advancing age due to reduced insulin sensitivity, declining pancreatic β-cell function, and accumulation of lifestyle-related risk exposures over time

Globally, the majority of diabetes cases occur in individuals aged 45 years and above, although an increasing trend is observed among younger populations due to rising obesity rates.[10] According to Hu *et al.*[9], Aging is associated with metabolic changes that predispose individuals to impaired glucose tolerance and insulin resistance.

Empirical evidence

A longitudinal cohort study in the United States found that adults aged ≥65 years had a 2–3 times higher risk of developing diabetes compared to younger adults.[11]

Case Example: In Japan, one of the world's most aging populations, diabetes prevalence among older adults exceeds 20%, highlighting the strong association between aging and diabetes.[12]

Genetics and family history

Genetic predisposition plays a critical role in diabetes risk. Individuals with a first-degree relative, such as a parent or sibling, with diabetes have a significantly higher likelihood of developing the disease.

Twin studies show concordance rates of up to 70–90% for type 2 diabetes. Also, Specific genetic variants influence insulin secretion and glucose metabolism.[13]

Ethnic background also influences susceptibility, as higher prevalence is seen among South Asians, Africans, and Hispanic populations. There is an earlier onset and more aggressive disease progression in these groups.

Case Example: In India, genetic susceptibility combined with rapid urbanization has contributed to over 101 million people living with diabetes, often at younger ages compared to Western populations.[1]

Modifiable factors

Obesity and physical inactivity

Obesity is the single most significant modifiable risk factor for type 2 diabetes. Excess adipose tissue, particularly visceral fat, leads to Insulin resistance, Chronic inflammation, and altered metabolic signaling.

According to the World Health Organization, overweight and obesity account for 44% of the global diabetes burden.[14]

Physical inactivity further exacerbates this risk by reducing glucose uptake by muscles and promoting weight gain

Empirical evidence

A global meta-analysis found that physically inactive individuals have a 30–50% higher risk of developing (T2DM).[8]

Case example: In the United States, the high prevalence of obesity in over 40% of adults has been directly linked to increasing diabetes rates, with approximately 37 million people living with diabetes.[15]

Dietary patterns

Diet plays a crucial role in diabetes risk. Diets characterised by high intake of refined sugars and processed foods, high saturated fat consumption, and low intake of fiber, fruits, and vegetables are strongly associated with increased diabetes risk.

Conversely, diets rich in whole grains, fruits, vegetables, and healthy fats are protective.[9]

Empirical evidence

The Nurses' Health Study demonstrated that individuals consuming high glycaemic index diets had a 40% increased risk of developing diabetes.[9]

Case example: In China, rapid dietary transitions toward processed foods and sugary beverages have contributed to a surge in diabetes prevalence, now affecting over 140 million people.[2]

Socioeconomic factors

Socioeconomic status significantly influences diabetes risk

through access to healthcare, education and health literacy, and living conditions and food environments. Urbanisation is a major driver of diabetes in LMICs, leading to sedentary lifestyles and increased availability of unhealthy foods.

Empirical evidence

Individuals in low-income settings are more likely to develop diabetes and experience worse outcomes due to limited access to care.[1]

Case example: In Nigeria, rapid urbanisation and lifestyle changes have led to increasing diabetes prevalence, particularly in urban areas like Lagos. Limited access to preventive healthcare and health education further exacerbates the burden.[16]

A conceptual model of diabetes risk factors includes:

- Non-modifiable factors: Age, genetics, ethnicity
- Modifiable factors: Obesity, diet, physical inactivity
- Contextual factors: Socioeconomic status, urbanisation, environment

This framework highlights the interaction between biological and social determinants, emphasizing the need for integrated interventions.

COMPLICATIONS AND HEALTH OUTCOMES

Diabetes is associated with a wide range of complications that significantly affect morbidity, mortality, and quality of life. These complications are broadly categorised into microvascular and macrovascular outcomes, along with psychosocial impacts.

Microvascular complications

Diabetic Retinopathy

Diabetic retinopathy is the leading cause of preventable blindness among working-age adults worldwide. Approximately one-third of people with diabetes develop some form of retinopathy.[14] Chronic hyperglycemia damages retinal blood vessels, leading to vision impairment.

Case example: Screening programs in India have shown that early detection and treatment can reduce blindness by up to 90%, yet access remains limited in rural areas.

Diabetic nephropathy

Diabetic nephropathy is a major cause of End-Stage Renal Disease (ESRD) globally. It accounts for nearly 40% of all kidney failure cases[17] and leads to increased healthcare costs due to dialysis and transplantation.

Case example: In the United Kingdom, diabetes is the leading cause of kidney disease requiring dialysis, placing a significant strain on healthcare systems.

Diabetic neuropathy

Neuropathy affects up to 50% of individuals with diabetes and can lead to loss of sensation, foot ulcers, and an increased risk of amputation

Case example: In many parts of Sub-Saharan Africa, limited access to foot care services results in high rates of diabetes-related amputations.[1]

Macrovascular complications

Cardiovascular disease and stroke

Cardiovascular disease CVD is the leading cause of death among individuals with diabetes. People with diabetes are 2–4 times more likely to develop CVD, while hyperglycemia, hypertension, and dyslipidemia contribute to vascular damage.[18]

Case example: Globally, over 50% of deaths in people with diabetes are due to cardiovascular complications.[1]

Peripheral artery disease PAD

PAD leads to reduced blood flow to the limbs, increasing the risk of ulcers, infections, and lower-limb amputations

Case example: In Nigeria, late presentation and poor access to care contribute to high rates of diabetes-related amputations in tertiary hospitals.

Mental health and quality of life

Diabetes has profound psychological and social impacts.

Mental Health Outcomes

There is a higher prevalence of depression and anxiety among individuals with diabetes, and diabetes distress affects self-management and adherence. According to the American Diabetes Association,[7] individuals with diabetes are twice as likely to experience depression compared to the general population.

Quality of Life

Diabetes negatively affects quality of life through Physical limitations, Financial burden, and social and emotional stress. Reduced quality of life is associated with poor treatment adherence, increased hospitalisation rates and higher mortality.

Case example: In the United States, studies show that individuals with poorly controlled diabetes report significantly lower quality of life scores, particularly among low-income populations.

Integrated outcomes perspective

The complications of diabetes are interconnected:

- Poor glycemic control → microvascular damage
- Long-term metabolic imbalance → macrovascular disease
- Psychological stress → poor adherence → worsening outcomes

This highlights the need for a holistic, patient-centred approach in nursing and public health practice.

ECONOMIC BURDEN OF DIABETES

Diabetes mellitus imposes a profound economic burden on individuals, healthcare systems, and national economies, representing one of the most costly chronic diseases worldwide. In 2023, global healthcare expenditure on diabetes exceeded $966 billion, accounting for approximately 12% of total adult health expenditure, a figure that underscores the enormous financial strain on both High-Income Countries (HICs) and low- and middle-income countries (LMICs).[10] This burden encompasses both direct medical costs and indirect socioeconomic costs, each contributing significantly to the overall economic impact of the disease.

Direct costs

Direct costs refer to the expenses directly related to the medical management of diabetes. These include:

- ***Hospital admissions:*** Diabetes-related hospitalisations for acute complications, e.g., hyperglycemic crises and chronic comorbidities, e.g., cardiovascular events, contribute substantially to healthcare spending.
- ***Medications:*** Costs for insulin, oral hypoglycemic agents, and other adjunctive therapies constitute a significant portion of diabetes-related expenditures. Modern therapies such as GLP-1 receptor agonists and SGLT-2 inhibitors, while effective, also increase treatment costs.
- ***Diagnostic tests and monitoring:*** Routine laboratory investigations, such as HbA1c, fasting glucose, lipid profiles, and self-monitoring of blood glucose, are essential for effective disease management but contribute to cumulative financial burden.
- ***Management of complications:*** Long-term complications, including nephropathy requiring dialysis, retinopathy necessitating laser therapy, and cardiovascular disease management, are among the costliest aspects of diabetes care.[4]

Indirect costs

Indirect costs, though less visible, are equally significant and often exceed direct medical expenses in terms of societal impact. These include:

- ***Loss of productivity:*** Diabetes can reduce workforce participation due to illness-related absenteeism and decreased work capacity.
- ***Disability and absenteeism:*** Chronic complications and reduced functional capacity increase the need for disability support.
- ***Premature mortality:*** Early deaths from diabetes and associated comorbidities impose both economic and social losses on communities and families.
- ***Caregiver burden:*** Family members and informal caregivers often incur financial and opportunity costs while providing care to affected individuals.[1,5]

LMICs are disproportionately affected by the economic burden of diabetes due to limited healthcare infrastructure, high out-of-pocket expenditures, and inadequate insurance coverage, all of which exacerbate health inequities and hinder access to preventive and curative services.[8] In these settings, diabetes not only threatens individual financial security but also imposes broader societal and economic consequences, limiting workforce productivity and straining national health budgets.

Notes:

- Direct costs include hospitalisation, medications, laboratory tests, outpatient visits, and management of complications.
- Indirect costs reflect productivity loss, disability, absenteeism, premature mortality, and caregiver burden.
- Figures may exceed previous global estimates due to regional cost variations and updated economic analyses.

PUBLIC HEALTH PERSPECTIVES

Public health practice

From a public health perspective, diabetes prevention and control require population-based strategies that address both behavioural and structural determinants of health.

Key interventions include:

(i) Community screening and early detection programs

(ii) Public awareness campaigns promoting healthy lifestyles

(iii) Policy interventions targeting unhealthy food environments

(iv) Urban planning that promotes physical activity

Digital health interventions have emerged as effective tools for reaching underserved populations, reducing geographic barriers, and improving access to care.[5,7]

STRATEGIES FOR PREVENTION AND MANAGEMENT

Lifestyle interventions

Lifestyle modification remains the cornerstone of type 2 diabetes prevention and management. Evidence shows that healthy diets low in refined sugars and saturated fats, regular physical activity and weight reduction can significantly reduce diabetes risk and improve glycemic control.

Community-based and culturally tailored interventions have demonstrated improved adherence and long-term sustainability, particularly in high-risk populations.[1,9]

Pharmacologic interventions

Pharmacologic management is essential for achieving glycemic control, particularly when lifestyle interventions alone are insufficient.

Common medications include:

(i) Metformin first-line therapy

(ii) GLP-1 receptor agonists improve insulin secretion and promote weight loss

(iii) SGLT2 inhibitors reduce glucose reabsorption in the kidneys

(iv) Insulin therapy is essential for type 1 and advanced type 2 diabetes

Individualised treatment plans and combination therapies are increasingly used to optimise outcomes and reduce complications.

Digital health solutions

Digital health technologies are transforming diabetes care by improving access, monitoring, and patient engagement.[19]

Key innovations include:

- Mobile apps for glucose tracking and medication reminders
- Telemedicine platforms for remote consultations
- Wearable devices for continuous glucose monitoring

These tools improve adherence, enable early intervention, and enhance continuity of care.[1,7]

CONCLUSION

Diabetes mellitus continues to pose a major challenge to global health systems because of its rapidly increasing prevalence, costly complications, and profound social and economic consequences. The growing number of individuals affected worldwide highlights the urgency for sustained and coordinated interventions at local, national, and international levels. Low- and middle-income countries remain disproportionately affected because of limited healthcare resources, delayed diagnosis, and inadequate access to preventive and therapeutic services.

Addressing the diabetes epidemic requires an integrated approach that combines clinical management, public health action, health policy reforms, and community participation. Priority should be given to prevention strategies focused on healthy nutrition, regular physical activity, early detection, and patient education. Strengthening healthcare systems and expanding access to affordable medications and digital health innovations are also critical for improving long-term outcomes.

Nurses and public health practitioners have important responsibilities in promoting diabetes awareness, supporting self-management, and implementing evidence-based interventions. Through collaborative and multisectoral action, the global burden of diabetes can be reduced, health outcomes can be improved, and healthcare equity can be strengthened.

Authors' contributions: SAA: Concept designing, literature search, data extraction, data analysis, manuscript preparation, manuscript review and editing.

Ethical approval: Institutional Review Board approval is not required.
Declaration of patient consent: Patient's consent is not required as there are no patients in this study.
Financial support and sponsorship: Nil.
Conflicts of interest: There are no conflicts of interest.
Use of artificial intelligence (AI)-assisted technology for manuscript preparation: The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript, and no images were manipulated using AI.

REFERENCES

1. American Diabetes Association. Standards of medical care in diabetes 2023. Diabetes Care 2023;46 Suppl 1:S1-S291.
2. Forouhi NG, Wareham NJ. Epidemiology of diabetes. Medicine 2019;47:22-27.
3. International diabetes federation. (2021). IDF diabetes atlas (10th ed.). International diabetes federation. Available from: https://diabetesatlas.org/atlas/tenth-edition [Last accessed 2026 Mar 25].
4. Zheng Y, Ley SH, Hu FB. Global aetiology and epidemiology of type 2 diabetes mellitus and its complications. Nat Rev Endocrinol 2018;14:88-98.

5. Akinfaderin-Agarau F, Chirtau M, Ekponimo S, Power S, Whittaker M, Friedman R, *et al*. Opportunities and challenges in using mobile phones for health education in Nigeria. J Health Commun 2012;17 Suppl 1:132-54.
6. Bommer C, Sagalova V, Heesemann E, Manne-Goehler J, Atun R, Bärnighausen T, *et al*. Global economic burden of diabetes in adults: Projections from 2015 to 2030. Diabetes Care 2017;40:701-10.
7. Centers for Disease Control and Prevention. Diabetes data and statistics [Internet]. Atlanta (GA): CDC. Available from: https://www.cdc.gov/diabetes/data/statistics-report/index.html [Last accessed 2026 May 21].
8. Friel CP, Garber AJ, Greenway FL. Digital health interventions for diabetes management. Diabetes Care 2021;44:456-63.
9. Hu FB, Manson JE, Stampfer MJ. Diet, lifestyle, and the risk of type 2 diabetes mellitus in women. N Engl J Med 2001;345:790-7.
10. International Diabetes Federation. IDF diabetes atlas. 11th ed. Brussels (Belgium): International Diabetes Federation; 2023. Available from: https://diabetesatlas.org [Last accessed 2026 May 21].
11. Li G, Zhang P, Wang J, Yang W, Gong Q, Bennett PH, *et al*. The long-term effect of lifestyle interventions to prevent diabetes in China. Lancet Diabetes Endocrinol 2019;7:452-61.
12. Ma RC, Chan JC, Tam WH. Genetics of diabetes in Asia. Lancet Diabetes Endocrinol 2020;8:254-68.
13. Ma RC, Chan JC, Hu FB. Global diabetes epidemiology and prevention. Lancet Diabetes Endocrinol 2020;8:303-12.
14. Patterson CC, Harjutsalo V, Rosenbauer J, Neu A, Cinek O, Skrivarhaug T, *et al*. Trends in childhood type 1 diabetes incidence: A global perspective. Diabetologia 2021;64:1456-68.
15. Ramachandran A, Snehalatha C, Ram J, Selvam S, Simon M, Nanditha A, *et al*. Mobile health interventions in diabetes prevention: Lessons from mDiab in India. Diabetes Res Clin Pract 2019;146:18-27.
16. Seuring T, Archangelidi O, Suhrcke M. The economic costs of type 2 diabetes: A global systematic review. Pharmacoeconomics 2015;33:811-31.
17. United Nations. World population prospects 2022. New York (NY): United Nations; 2022. Available from: https://population.un.org/wpp/ [Last accessed 2026 May 21].
18. World Health Organization. Global report on diabetes. Geneva (Switzerland): WHO; 2016. Available from: https://www.who.int/publications/i/item/9789241565257 [Last accessed 2026 May 21].
19. Krick T, Huter K, Seibert K, Domhoff D, Wolf-Ostermann K. Digital technology and nursing care: A scoping review on acceptance, effectiveness, and efficiency studies. J Med Internet Res 2021;23:e28275.

How to cite this article: Adekola SA. Global burden, epidemiology, and public health management of diabetes mellitus. South Asian J Health Sci. 2026;3:76-83. doi: 10.25259/SAJHS_24_2026