

Name: MD Mustafizur Chowdhury
Student Number: 2441540
Module Code and Title: Introduction to Public Health - LCHS4008
Lecturer's Name: Jolly Nwankwo
Assignment Title: Type-2 Diabetes: A Growing Public Health Challenge

Introduction

Type 2 Diabetes (T2D) is a long-lasting metabolic disorder where the body's cells develop resistance to insulin and/or the pancreas fails to produce sufficient insulin to keep blood-glucose (blood sugar) levels normal. Prolonged elevated blood sugar harms organs like the heart, kidneys, blood vessels, eyes, and nerves, resulting in significant complications (WHO, n.d.).

Typical signs and symptoms may involve heightened thirst and urination, tiredness, blurred vision, slow-healing sores, and recurrent infections; nevertheless, in numerous instances, the onset can be subtle and go unnoticed for years, particularly when symptoms are mild or non-specific (IDF, 2025c).

The prevalence of Type-2 Diabetes globally has increased significantly in recent decades. As per the most recent information from the International Diabetes Federation (IDF), around 589 million adults (ages 20–79) worldwide are diagnosed with diabetes by 2024 (IDF, 2025a) — roughly 1 in 9 adults — with predictions indicating the figure could rise to 853 million by 2050 (IDF, 2025b) if present patterns persist. In the UK, the prevalence is significant: in 2021, approximately 3.6 million individuals aged 16 and older in England were diagnosed with Type-2 Diabetes — about 7.8% of the adult population (UK Government, 2025).

These statistics underscore the importance and prevalence of Type-2 Diabetes, establishing it as an urgent public health concern globally and in the UK (IDF, 2025d).

Main Body

Consequences of Type-2 Diabetes on the Community and the NHS

Type 2 diabetes places severe burdens on individuals, families, communities, and national health systems. For individuals, uncontrolled diabetes significantly raises the risk of long-term complications such as heart disease, stroke, kidney failure, blindness, nerve damage, and lower-limb amputation (WHO, n.d.).

At the community and societal level, these complications contribute to reduced quality of life, greater disability, loss of productivity, and premature death. Many people living with undiagnosed or poorly managed diabetes requires frequent hospital visits or emergency treatment. In the UK, diabetes is estimated each week to cause about 2,990 cases of heart failure, over 930 strokes, 660 heart attacks, and 184 amputations (Diabetes UK, 2024b). These serious outcomes affect individuals directly while placing emotional, social, and financial strain on families and carers and limiting workforce participation.

For the National Health Service (NHS), the impact is immense. The NHS currently spends around £10.7 billion annually on diabetes care in the UK — approximately 6 percent of its total budget. About 60 percent of this spending goes toward managing complications rather than routine care (Diabetes UK, 2024a).

If current trends continue, total costs (including direct care and complications) could reach nearly £18 billion per year by 2035 (Diabetes UK & YHEC, 2025). Beyond financial pressures, the growing number of people living with diabetes strains NHS capacity through increased demand for GP and nurse appointments, screenings, specialist services (renal, ophthalmology, vascular, and foot care), and hospital admissions, especially from complications (NHS England, 2024). This places pressure on waiting times, resource allocation, and service quality across all areas of care.

Finally, diabetes brings major societal costs beyond healthcare, including loss of income through disability or early retirement, lower quality of life, higher social care needs, and a wider decline in public health and productivity (IDF, 2025d).

How Type-2 Diabetes Is Controlled

Because Type-2 Diabetes is a chronic condition with no definitive “cure,” control and management are central to reducing its impact. There are several key strategies:

- **Lifestyle interventions:** A healthy diet, maintaining a healthy weight, regular physical activity, and reducing sedentary behaviour are essential for preventing Type 2 diabetes. UK public health guidance identifies being overweight or obese as the main modifiable risk factor for developing the condition. Lowering calorie intake, improving the nutritional quality of food, and increasing levels of physical activity can help prevent or delay the onset of diabetes and lead to better health outcomes for those already living with it. (WHO, n.d.).
- **Early detection and monitoring:** Regular screening, particularly for high-risk groups, is vital for identifying elevated blood sugar levels or prediabetes at an early stage. Early detection allows prompt intervention and helps prevent or delay complications (IDF, 2025c). The NHS provides structured education, routine monitoring of blood glucose, HbA1c, blood pressure, and cholesterol, along with regular foot checks, eye screening, and support for effective self-management (ONS, 2022).
- **Medication and medical management:** Many people with Type-2 Diabetes require medication (oral medication or insulin) to manage blood glucose. In addition, because diabetes often coexists with other conditions (e.g., hypertension,

dyslipidaemia), patients may also need medications to manage blood pressure, cholesterol, etc. Combined treatment helps reduce the risk of macrovascular (heart disease, stroke) and microvascular (kidney disease, retinopathy, neuropathy) complications (WHO, n.d.).

- **Patient education and self-management:** Education on diet, lifestyle, taking medicines correctly, checking blood glucose, caring for feet, recognising warning signs, and knowing when to seek medical help is crucial for effective diabetes self-management. Health systems such as the NHS support this by funding and delivering structured diabetes education programmes and online courses for people with, or at risk of, Type 2 diabetes (NHS England, 2024).
- **Preventive programmes and public health initiatives:** At the population level, initiatives promoting healthy eating, active lifestyles, weight management, and awareness of diabetes risk factors play a key role in curbing the increasing prevalence of the condition. These programs, often delivered through community education and lifestyle interventions, have shown effectiveness in reducing diabetes incidence rates, such as through the NHS Diabetes Prevention Programme, which lowered expected rates by up to 7% in participating areas. Additionally, identifying individuals at risk, such as those with prediabetes, enables targeted preventive actions to halt progression to full diabetes before it develops (NHS England, 2024).

When effectively implemented, these control measures can enable people with Type-2 Diabetes to live long, healthy lives with minimal complications, reduce the burden on families and communities, and relieve pressure on health services (IDF, 2025d).

Factors Influencing Health and Well-Being of People with Type-2 Diabetes (and Those Around Them)

Several interrelated factors influence the risk of developing Type-2 Diabetes, as well as the health outcomes for those who already have it.

Modifiable risk factors / lifestyle factors:

- **Obesity and overweight:** Perhaps the most important modifiable risk factor. Excess body fat, especially abdominal fat, impairs insulin sensitivity (WHO, n.d.).
- **Poor diet:** Diets high in sugar, refined carbohydrates, saturated fat, and low in fibre contribute to insulin resistance and weight gain. (IDF, 2025d).
- **Sedentary lifestyle / lack of physical activity:** Low levels of activity reduce the body's ability to use glucose efficiently, promoting insulin resistance. (WHO, n.d.).

- **Smoking, high blood pressure, high cholesterol, poor financial circumstances:** These can interact with diabetes, worsening outcomes and raising risk of complications. (IDF, 2025d).

Non-modifiable risk factors:

- **Age:** Risk increases with age; historically Type-2 Diabetes is more common among older adults (IDF, 2025a).
- **Genetic predisposition / family history:** Having a parent or sibling with diabetes increases risk (IDF, 2025d).
- **Ethnicity:** Some ethnic groups are at higher risk. In the UK, people of South Asian, African, or African–Caribbean descent are more likely to develop Type-2 Diabetes (ONS, 2022).
- **Socioeconomic status:** Lower socioeconomic status often correlates with poorer diet, limited access to healthy food, lower health literacy, and limited access to preventive care — all of which increase risk and reduce chances of early diagnosis or proper management (IDS, 2024).

Impact on mental health and psychosocial well-being:

A diagnosis of Type 2 diabetes can impact psychological well-being, leading to stress, anxiety, depression, or feelings of burden from daily self-management demands. Continuous monitoring, lifestyle adjustments, medication adherence, dietary restrictions, and fears of complications often create significant emotional strain (Diabetes UK, 2025a). For families, a member's diabetes may bring emotional stress, caregiving responsibilities, and necessary household lifestyle changes.

Health inequalities and access to care:

Where people live, their income, education, cultural background, and access to healthcare services can all influence Type 2 diabetes outcomes. In low- and middle-income countries, and among underserved populations even in high-income countries, many people remain undiagnosed — missing early interventions; some may not have access to medication, regular monitoring, or specialist care (IDF, 2025c).

When undiagnosed or untreated, Type 2 diabetes can silently cause serious damage for years — meaning many people only come to medical attention when complications are already advanced, which worsens prognosis and increases costs for both the individual and health system (IDS, 2024).

Finally, public health and community factors — availability of healthy foods, safe spaces for physical activity, public awareness, cultural attitudes — influence how successfully prevention and management strategies can be implemented (IDS, 2024).

Conclusion

Type 2 diabetes represents a major and escalating global health challenge. Its chronic nature, high prevalence, often subtle onset, and extensive complications position it as a "silent epidemic." As recent data indicates, around 589 million adults worldwide—and millions in the UK—are living with diabetes, with projections forecasting rises to 853 million by 2050. (IDF, 2025a; IDF, 2025b).

The individual burden is substantial: heightened risks of heart disease, stroke, kidney failure, vision loss, amputations, diminished quality of life, and early mortality (WHO, n.d.).

Communities and societies face massive costs through healthcare expenditures, lost productivity, and social impacts, while systems like the NHS endure heavy strain—with billions spent yearly on care, much directed toward preventable complications. (UK Government, 2025).

Yet the condition is not unavoidable. Effective management is achievable via early detection, lifestyle changes, medical treatments, education, and public health initiatives. Targeting modifiable risk factors—such as diet, weight, and physical activity—while enhancing screening and care access can substantially lessen the human and economic impact (NHS England, 2024).

In summary, Type 2 diabetes demands immediate action across individual, community, and governmental levels. Emphasising prevention, awareness, and equitable care access is essential to curb its rise and safeguard health for current and future generations (IDS, 2024).

References

- Diabetes UK (2023) 'Number of people living with diabetes in UK tops 5 million for the first time'. *Diabetes UK News*. London: Diabetes UK.
- Diabetes UK (2024) 'Cost of devastating complications highlights urgent need to transform diabetes care in the UK'. *Diabetes UK News*. London: Diabetes UK.
- Diabetes UK (2024) *Weekly Diabetes Complications Statistics Report*. London: Diabetes UK.
- Diabetes UK (2025) 'One in five adults now live with diabetes or prediabetes in the UK'. *Diabetes UK News*. London: Diabetes UK.
- Diabetes UK (2025) *Investing in Care: Diabetes Spending and Outcomes Report*. London: Diabetes UK.
- Diabetes UK; York Health Economics Consortium (2025) *Projected Cost of Diabetes Care to 2035*. London: Diabetes UK.
- Integrated Data Service (IDS) (2024) *Using Census 2021 to Refine Diabetes Prevalence Estimates*. London: IDS.
- International Diabetes Federation (IDF) (2025) *Global Diabetes Burden Statistics*. Brussels: IDF.
- International Diabetes Federation (IDF) (2025) *IDF Diabetes Atlas: 11th Edition*. Brussels: IDF.
- International Diabetes Federation (IDF) (2025) *IDF Diabetes Atlas 11th Edition – Global Factsheet 2024*. Brussels: IDF.
- International Diabetes Federation (IDF) (2025) 'Over 250 million people worldwide unaware they have diabetes'. *IDF Press Release*, April. Brussels: IDF.
- NHS England (2024) 'NHS identifies over half a million more people at risk of type 2 diabetes in a year'. *NHS England News*, June. London: NHS England.
- Office for National Statistics (ONS) (2022) *Risk Factors for Prediabetes and Undiagnosed Type 2 Diabetes in England: 2013–2019*. Newport: ONS.
- UK Government (2025) *Diabetes Profile: Statistical Commentary, March 2025*. London: Department of Health and Social Care.

World Health Organization (WHO) (n.d.) *Diabetes*. Geneva: WHO. Available at: <https://www.who.int/health-topics/diabetes/> (Accessed: [02.12.2025]).