Diabetes management: Improving early diagnosis and care to address the silent epidemic

Drs Francesc Xavier Cos Claramunt and Carmen Hurtado, representatives of the European Diabetes Forum (EUDF), discuss the prevalence and challenges associated with diabetes management and the health-related policies needed to support prevention and early diagnosis

The European Diabetes Forum (EUDF) is a non-profit organisation working to ensure research and clinical advancements are well translated into policy actions and result in improved diabetes management and care. [1]

Diabetes, often referred to as a 'silent epidemic,' is a serious chronic disease. Without the right care, people with diabetes (PwD) face significantly reduced quality of life and are at a higher risk of complications, including cardiovascular problems, blindness, non-traumatic amputation and kidney failure. [2]

Diabetes is an increasing public health issue – besides an ageing population, what factors contribute to the rising number of people affected by the disease?

One in ten Europeans – 66 million – are estimated to be living with diabetes, and that number will rise by 10% by 2050. [3] Out of them, 2.7 million have type 1 diabetes (T1D), 41.3 million live with type 2 (T2D), and 22 million remain undiagnosed.

When discussing risk factors, it is important to distinguish between T1D and T2D. T1D is a lifelong autoimmune disease where the immune system destroys insulin-producing beta cells in the pancreas, requiring lifelong insulin dependency. Its exact cause is unknown, involving genetic factors and environmental triggers like viruses. Importantly, T1D is not caused by diet or lifestyle, and research is ongoing to understand its origins and prevention. [4]

T2D occurs when the body cannot correctly respond to insulin and when there is a concomitant insufficient production of insulin, which leads to persistently elevated blood glucose levels. It accounts for over 90% of all diabetes cases, and unlike T1D, it may be preventable. Factors such as overweight, unhealthy diet, lack of physical activity, smoking, high blood pressure and increasing age all contribute to developing T2D. [5]

Due to rising levels of obesity, inappropriate diet, societal changes and sedentary lifestyle, T2D is increasingly observed not only in adults but also in children. As such, the efforts aimed at the prevention of T2D should focus on all age groups and employ a holistic approach, addressing all risk factors but mainly tobacco use, lack of mobility and consumption of unhealthy foods.

Why is the seriousness and severity of diabetes often poorly understood?

The seriousness of both T1D and T2D is often overlooked due to advances in insulin therapy and technology. While these tools help to manage blood sugar, they do not fully address the complexities and risks of the diseases. T1D remains unpredictable, with risks of complications, hypoglycemia, and emotional strain, while T2D is often downplayed as a condition that can be managed with lifestyle changes or medication. Both require ongoing management, and innovative therapies are crucial to address their root causes and improve quality of life.

What are the socioeconomic costs of diabetes for patients and health systems?

In 2024, the total diabetes-related costs to Europe's healthcare systems amounted to almost €170 billion. [6] Seventy-five percent of these costs are due to avoidable complications and can be prevented through good diabetes management. Importantly, about one-third of the economic cost of diabetes is due to productivity losses. [7]


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These numbers prove that early diagnosis and good disease management are vital to decreasing diabetes-related costs to healthcare systems and the economy. Early and optimal diabetes management improves health outcomes for PwD and reduces the risk of life-altering complications.

What health-related policies can support the prevention and early diagnosis of diabetes?

For T1D, the lack of widely available screening and early detection programs means the disease is often not diagnosed until an acute crisis like diabetic ketoacidosis (DKA) occurs, which happens in over 50% of diagnoses. This can be traumatic and even deadly, leading to higher insulin requirements, worse neurocognitive outcomes, and long-term health complications.

Early detection is crucial, and screening programs for T1D are being tested worldwide. Initiatives like the EDENT1FI project, which aims to screen 200,000 children in Europe before symptoms onset, and Italy's 2024 introduction of screening for T1D in children, are steps in the right direction.[10] Provided these and other initiatives show cost-effectiveness and acceptability and confirm the expected benefits, these initiatives will enter into the regular healthcare systems in the near future.

For T2D, policies should focus on joint targeted screening for both T2D and cardiovascular disease (CVD) at the primary care level, particularly for individuals with risk factors such as obesity, family history of diabetes or CVD, or smoking. General population screening should also begin at age 40. Screenings should include BMI,

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DIABETES AND LOWER LIMB COMPLICATIONS

- Worldwide, there are more than one million diabetic amputations per year. [1]
- Globally, 50-70% of all non-traumatic amputations are linked to diabetes, making it the leading cause of these procedures. [2]
- The UK's NHS spends at least £10bn a year on diabetes, equivalent to 10% of its budget. Of this, 80% is spent on treating complications. [3]

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blood pressure, LDL-C, and HbA1c measurements to detect early signs of both T2D and CVD. Beyond early detection, it is crucial to implement diabetes prevention strategies that have already demonstrated benefits, feasibility and cost-effectiveness. These interventions include a healthy diet and physical activity. Importantly, for T1D, individuals are at a higher risk for cardiovascular disease (CVD) than those with T2D, which highlights the need for targeted CVD prevention and management programs for PwD. Effective policies should incorporate regular screening for CVD, especially in individuals with long-standing diabetes.

Finally, sustained investments in science and technology are vital for improving care and creating more individualised treatment options for both T1D and T2D, ultimately reducing the long-term burden of diabetes.

Science is working to find a treatment that can cure diabetes, but how close are we?

A future without T1D is possible only through continued innovation, supportive regulatory environments, and collaboration across the diabetes community. Promising scientific breakthroughs in disease-modifying therapies (DMTs) offer hope of slowing, preventing, or even reversing T1D. Cell-based therapies are also advancing, aiming to restore natural insulin production through beta-cell regeneration or replacement.

Europe must remain at the forefront of this innovation. Initiatives like INNODIA, a pan-European network of clinical trial centres, play a crucial role in preparing sites for DMTs, providing training, and fostering collaboration between researchers, industry, and healthcare providers. These efforts are essential to accelerating progress toward a cure.

With coordinated action in prevention, diagnosis, care, and innovation, we can reduce the burden of diabetes, improve lives, and work toward a future where this disease no longer poses a silent threat to public health.

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