

driving **change** to defeat

diabetes

the diabetes challenge calls for new approaches

At Novo Nordisk, we are driven by the core belief that the alarming rise of diabetes is not inevitable. By working together with partners, we can change its trajectory – but we must act now.

Today, there are more than 400 million people living with diabetes – the majority with type 2 diabetes.^{1,2} If no action is taken, it is estimated that 736 million – or one in nine adults – will have diabetes by 2045.² What is behind this seemingly unstoppable rise?

We know that unhealthy diets, inactive lifestyles, obesity and smoking are risk factors for type 2 diabetes,¹ but the problem is far more complex than that. Many other factors influence an individual's risk of diabetes as well as their likelihood of being diagnosed before the onset of complications. This complexity demands a renewed approach.

 *Defeating diabetes requires that we continue to innovate for the benefit of society. It also requires that we partner in redesigning healthcare systems to focus on value and outcomes, and that we continue addressing affordability and access to care around the world.*

LARS FRUERGAARD JØRGENSEN
President and chief executive officer, Novo Nordisk

More than 95 years of diabetes leadership has taught us that bending the diabetes curve takes more than medicine and requires an extraordinary effort and focus from all sectors of society.

Together, we must:

- address diabetes risk factors in urban settings
- work to ensure that people with diabetes are diagnosed earlier
- improve access to diabetes care
- support people in achieving better health outcomes.

This is how we drive change to defeat diabetes.

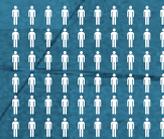
Cities offer many advantages and therefore attract people, but living in an urban area can also mean a greater risk of developing type 2 diabetes.

Of the estimated 425 million¹ people with diabetes...

The Rule of Halves³ illustrates the global diabetes situation. Only around 6% of people with diabetes live a life free from diabetes-related complications.*



about 50% are diagnosed...



of whom about 50% receive care...



of whom about 50% achieve treatment targets...



of whom about 50% achieve desired outcomes.



* Actual rates of diagnosis, treatment, targets and outcomes vary in different countries.



VANCOUVER

Vancouver is a partner city in the Cities Changing Diabetes programme. More than 40% of people living in Vancouver are overweight or have obesity, putting them at risk of developing type 2 diabetes in the future.⁴

cities are the front line in tackling diabetes

More than half of the world's population lives in urban areas,⁵ as do two-thirds of all people with diabetes.¹ This makes cities a focal point for addressing risk factors and driving change. The most significant modifiable risk factor for type 2 diabetes is obesity.⁶ That is why Cities Changing Diabetes has set an ambitious goal that no more than one in 10 adults should be living with diabetes by 2045. Achieving the goal requires the prevalence of obesity to be reduced by 25% by 2045 compared with the 2017 level.⁷

To address diabetes, we need to start with prevention. Overweight and obesity, together with physical inactivity, are estimated to be responsible for a large proportion of the global diabetes burden.⁶ Interventions that change people's unhealthy habits and diet, increase physical activity and lead to loss of excess body weight can prevent or delay type 2 diabetes in people at high risk of developing diabetes.¹

 *Action against diabetes has to start in cities. The way cities are designed, built and run is fuelling an urban obesity and diabetes pandemic that's already shortening millions of people's lives and resulting in billions in healthcare costs.*

SYLVESTER TURNER
Mayor of Houston

Increasingly, social and cultural factors are also being recognised for their relationship with the rising incidence of type 2 diabetes as well as for the opportunities they present for us to counter it.⁸

Since 2014, as part of the Cities Changing Diabetes programme, we have collaborated in a unique public-private partnership with University College London, Steno Diabetes Center Copenhagen and 17 partner cities – Beijing, Beirut, Buenos Aires, Copenhagen, Hangzhou, Houston, Johannesburg, Koriyama, Leicester, Mérida, Mexico City, Milan, Rome, Shanghai, Tianjin, Vancouver and Xiamen – to map the urban diabetes challenge, develop new tools to identify driving factors behind the rise of diabetes in urban settings, and to share and apply that knowledge to real-world solutions for people to live healthier lives.

No organisation can do this alone. Success depends on our ability to build a global coalition of businesses, academics, city leaders, healthcare professionals and communities around a common cause – to make cities healthier.

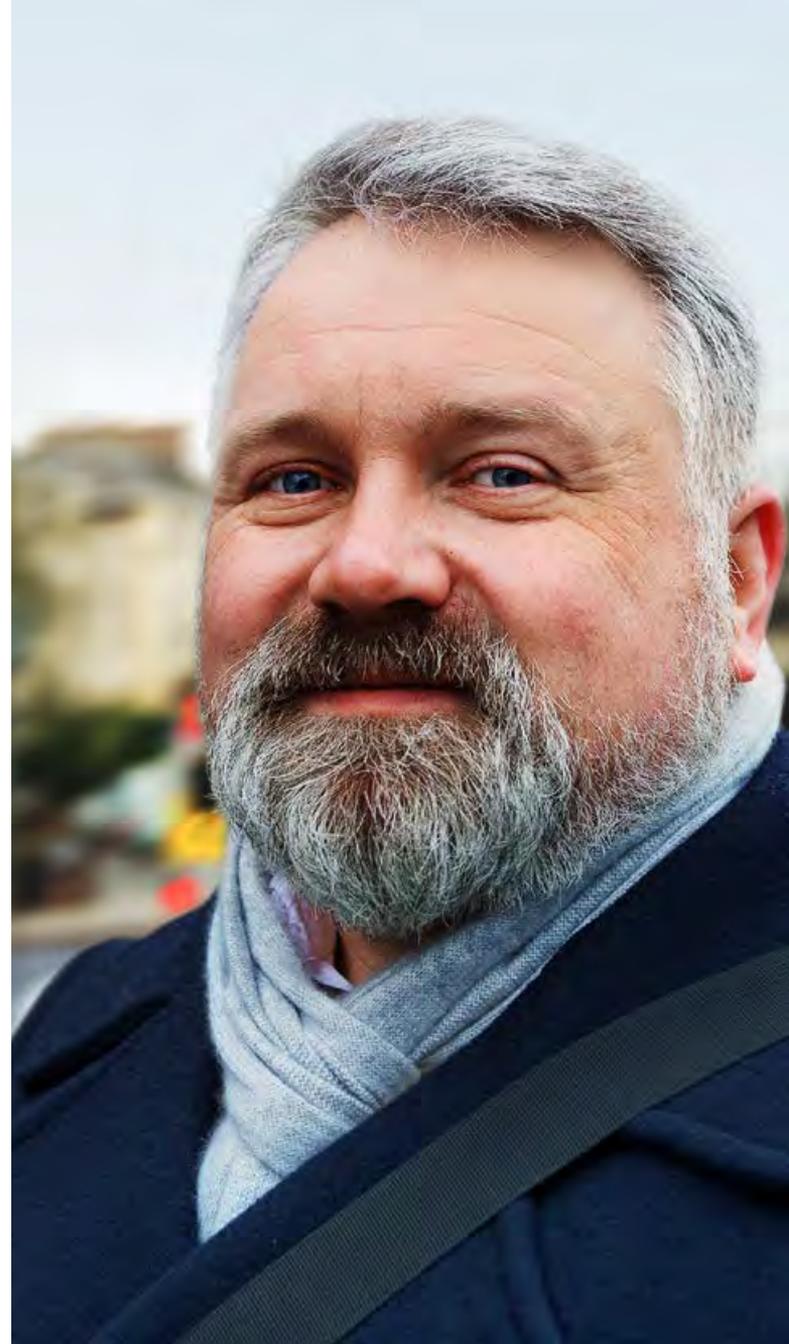
Learn more about the goal and the Urban Diabetes Toolbox at citieschangingdiabetes.com

one of many million reasons to diagnose diabetes earlier

The starting point for living well
with diabetes is an early diagnosis.⁶

 *My father had diabetes, so when I started experiencing the symptoms, I visited my doctor. It's better to know – if it's not managed well, it can progress.*

HUW BEVAN
Huw has type 2 diabetes
and lives in the UK





**1.2 million
people have
undiagnosed
diabetes¹**

Millions of people with diabetes are undiagnosed¹ and risk developing serious complications, including damage to the eyes, kidneys and heart.⁶ Half will have at least one complication by the time they are diagnosed.⁹ The unbearable burden on individuals, families and healthcare systems can and must be reduced.

Earlier diagnosis helps people gain control of their diabetes sooner and avoid complications.⁹ But the opportunity can be lost when people do not know that they are at risk and do not recognise the symptoms. Together with global health organisations, we drive awareness and provide free screening initiatives that reach millions of people with a simple message: being overweight, having an unhealthy lifestyle or a family history of diabetes increases the risk of type 2 diabetes. Getting screened is the first step towards a healthier life with diabetes.

Beyond public awareness, more healthcare professionals must be educated about the benefits of earlier diagnosis. Screening people at high risk of developing diabetes is an effective way to reduce costly complications.¹⁰ Over the years, Novo Nordisk has engaged with thousands of policymakers and key stakeholders worldwide to elevate diabetes and the importance of early diagnosis on the public health agenda. Building on this foundation, we continue to advocate for greater awareness to ensure that everyone has the best chance of living well with diabetes.



INGYIN PHYU

Ingyin is part of the Changing Diabetes® in Children programme in Myanmar. She receives diabetes education, care and insulin free of charge through this programme.

closing the gap in access to diabetes care

In every society around the world, there are people living with diabetes who are not receiving the treatment and care they need.

This problem is acute in low- and middle-income countries where four in five people¹ with diabetes live. At the same time, there are populations who do not get the right care even in the richest societies.

As the provider of approximately half of the world's insulin,¹¹ Novo Nordisk is committed to closing the gap in access to diabetes care

 *In coming together in partnerships, we can reach our citizens – with pharma because of its economic and social bottom line. And with government because of its legitimacy and its constitutional role to provide healthcare to its people.*

DR JOSEPH KIBACHIO

Head of the Division of Non-Communicable Diseases,
Ministry of Health, Kenya

for people around the world, continuously integrating our response into how we do business.

Since the launch of our first access to care strategy in 2001, we have been working to improve access to diabetes care for underserved populations through a range of initiatives, including:

- The World Diabetes Foundation,¹¹ through which we have donated hundreds of millions of dollars to the prevention and treatment of diabetes in low- and middle-income countries.
- Our Access to Insulin Commitment, which guarantees continued production of low-priced human insulin. The commitment applies to patients in the poorest parts of the world* as well as to humanitarian relief organisations.
- Partnership programmes, through which we continue to develop solutions for strengthening healthcare systems to ensure that people can access the care they need – no matter where they live.

it takes more than medicine to achieve better outcomes

Managing diabetes well and getting the right support can help people with diabetes live active lives with fewer limitations.⁶

Around half of the people treated for diabetes do not achieve their treatment targets and face serious health complications as a result.^{3,6}

Decades of research show us that the burden of living with diabetes goes beyond the challenge of managing blood glucose levels. It affects every aspect of life. Finding it hard to make treatment part of a routine, worrying about



I've only ever wanted to be a pro cyclist. Just because you have diabetes doesn't mean you have to give up.

DAVID LOZANO

David has type 1 diabetes and is a professional cyclist with Team Novo Nordisk, which aims to educate, empower and inspire people affected by diabetes.

hypoglycaemia or having difficulty explaining concerns to a doctor can all negatively impact a person's quality of life – as well as their ability to manage the disease.¹⁴

Only by empowering people with diabetes can we drive change. We provide a broad portfolio of innovative treatment options and delivery devices, but we know that it takes more than medicine for people to achieve better health outcomes. We address this by advocating for the unmet needs of people with diabetes and educating healthcare professionals and patients in overcoming barriers to good self-management. We are also working to find a cure and ultimately defeat diabetes.



treatment options
flexible



empowered
self-management



quality of life
more freedom



team
novo
nordisk
PRO CYCLING



changing diabetes is a partnership effort

The scale and complexity of the diabetes challenge demands a partnership approach.

Our determination to defeat diabetes will never fail, but we do not underestimate the task ahead and we certainly do not have all the answers.

The scale and complexity of the challenge are beyond any one organisation, company or discipline. Only through innovative partnerships – with healthcare professionals,

patients, policymakers, academics and non-governmental organisations – can we hope to make a real and sustainable impact.

The work we have started in cities brings together new partners and perspectives to tackle the pandemic where it is growing fastest. In low-resource settings, our programmes are steering partnership initiatives to build healthcare capacity and improve availability of medicine and care.

Millions of people rely on us for treatment. It is our responsibility to turn ground-breaking research into medicines that make a difference to the lives of people with diabetes and other serious chronic diseases. To achieve this, we work closely with universities and other academic partners to constantly pioneer innovation.

Through partnerships, we will continue driving change to defeat diabetes with an unfailing belief: it can be done.



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SHANGHAI

Time constraints, such as long working hours and long daily commutes, may be barriers to a healthy lifestyle and can translate into risk factors for type 2 diabetes.

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For more than 95 years, Novo Nordisk has been changing diabetes. Our key contribution is to discover, develop and manufacture better biological medicines and make them accessible to people with diabetes throughout the world. However, it takes more than medicine to defeat diabetes. Our Changing Diabetes® commitment focuses on the greatest unmet needs: addressing diabetes risk factors in urban areas, ensuring that people with diabetes are diagnosed earlier and have access to adequate care in order to be able to live their lives with as few limitations as possible. Working in partnerships, we will continue to drive change to defeat diabetes with an unfailing belief: it can be done.

Discover more about Changing Diabetes® at novonordisk.com/changingdiabetes

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