

## World Diabetes Day 2025: Emerging Strategies and Collaborative Interdisciplinary Efforts in Global Diabetes Care

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Singapore's Integrated Approach to Diabetes Management and Innovations Experts from 'Novo Nordisk' and 'Mount Elizabeth Hospital', Singapore, evaluate strategic approaches to address diabetes care and prevention in light of the 2025 World Diabetes Day campaign, themed "Diabetes across life stages." This global initiative emphasizes the importance of integrated care and a life-course approach to managing diabetes at every stage of life, from childhood to older adulthood.



- Anand Shetty, Corporate Vice President, Southeast Asia, Novo Nordisk (left)
- Dr Abel Soh, Consultant Endocrinologist from Mouth Elizabeth (center)
- Vincent Siow, General Manager, Singapore & Brunei, Novo Nordisk (right)

World Diabetes Day, observed annually on November 14, is a global initiative launched by the <u>International Diabetes</u> <u>Federation (IDF)</u> and the <u>World Health Organization (WHO)</u> to raise awareness about diabetes and encourage efforts to prevent, diagnose, and manage the disease.

With approximately 589 million adults worldwide currently living with diabetes—a number projected to rise to 853 million by 2050—the urgency to address this critical health issue is clear. Alarmingly, over 40% of those affected remain undiagnosed, increasing the risk of complications and premature death. In 2024 alone, diabetes claimed 3.4 million lives, underscoring the urgent need for awareness and preventive measures. The latest IDF Diabetes Atlas (2025) reports that 11.1% of the global adult population (20-79 years) is living with diabetes, with over 4 in 5 adults (81%) with diabetes living in low- and middle-income countries largely unaware of disease management Diabetes, driven by socioeconomic, environmental, and lifestyle factors, primarily type 2 diabetes, necessitates preventive measures and early diagnosis to reduce its global burden and improve health outcomes for millions.

World Diabetes Day 2025, themed "Diabetes across life stages," emphasizes the need for comprehensive care and supportive policies to enhance health outcomes at every stage of life, from childhood to old age. This global initiative highlights the importance of coordinated efforts among stakeholders to address diabetes prevention, diagnosis, and management effectively.

In a recent interaction with Biospectrum Asia, industry experts from Asia's diabetes management ecosystem highlighted key insights into the current state of diabetes care in Singapore. Their observations reflect regional trends, underscoring the urgent need for emerging strategies in prevention and care.

 How are global efforts for diabetes care shaping a healthier future, and what recent milestones or initiatives stand out?

Anand Shetty: Global diabetes efforts are converging around innovation, equity, and access.

The <u>Copenhagen Diabetes Declaration</u>, developed by the Global Diabetes Forum and supported by the Novo Nordisk Foundation, sets a strategic roadmap for prevention, diagnostics, and therapeutics. Co-developed by experts from both high-and low-income countries, it serves as a global blueprint for inclusive progress, especially relevant to Southeast Asia's diverse healthcare systems.

Another breakthrough is the **WHO's inclusion of GLP-1 therapies** on its Essential Medicines List. This signals a global shift toward making advanced treatments more accessible, especially in Low- and Middle-Income Countries (LMICs). Historically, such listings have catalysed broader availability – just as they did for HIV therapies in the early 2000s.

Our responsibility is to translate these frameworks into local action. That means aligning innovation with accessibility, and ensuring solutions are not only scientifically sound but also contextually relevant. These milestones give Southeast Asia a shared direction and a timely opportunity to lead.

**Dr Abel:** The World Health Organization (WHO) Global Diabetes Compact (GDC) was launched in 2021 to accelerate the global response to diabetes. The GDC has the vision of reducing the risk of diabetes and ensuring that all people who are diagnosed with diabetes have access to equitable, comprehensive, affordable and quality treatment and care.

The global coverage targets to be achieved by 2030 include:

- o 80% of people with diabetes are diagnosed
- o 80% of people with diagnosed diabetes have good control of glycemia
- 80% of people with diagnosed diabetes have good control of blood pressure
- o 60% of people with diabetes of 40 years or older receive statins
- 100% of people with type 1 diabetes have access to affordable insulin treatment and blood glucose selfmonitoring

The GDC allows stakeholders to collaborate to drive policy changes that will help countries move towards the targets.

• How has diabetes prevalence changed in recent years, and what are the most pressing challenges in addressing this issue, particularly in APAC?

**Anand Shetty:** Diabetes is a visible, growing crisis. In Southeast Asia, <u>13% of adults live with diabetes</u>, and nearly <u>43% of cases go undiagnosed</u>. Projections suggest a <u>73% increase by 2050</u>, driven by urbanisation, evolving dietary habits, and sedentary lifestyles.

But the challenge is more than epidemiological – it's structural. Southeast Asia's diversity demands tailored responses. Digitally advanced cities and rural communities with limited infrastructure require different models of care. Strategic responses must include strengthening primary care, expanding culturally attuned screening, and investing in public health education.

The <u>Cities for Better Health</u> initiative exemplifies scalable impact. Originally focused on diabetes, it now addresses broader urban health challenges by engaging city governments, academic institutions, and civil society. It's a model for how local action can drive systemic change.

**Dr Abel:** The prevalence of diabetes has shown a substantial and accelerating increase globally, particularly in the Asia-Pacific (APAC) region. The International Diabetes Federation (IDF) data indicates that approximately 1 in 9 adults (20-79 years) globally are living with diabetes, with projections rising significantly by 2050. The Western Pacific Region (WPRO) and South-East Asia Region (SEARO) now bear an enormous portion of the global diabetes burden. Countries like China and India have the world's largest number of people with diabetes.

A particularly pressing issue is the accelerated incidence of early-onset type 2 diabetes (diagnosed before age 40) in APAC. This is associated with more aggressive disease progression and a higher lifetime risk of diabetes-related complications, placing severe long-term strain on healthcare systems.

• What are the current challenges in diabetes management in Singapore, and how do regional trends influence local strategies?

**Vincent Siow:** While the prevalence of diabetes in Singapore has remained relatively stable over the past five years, the challenge today lies in managing the disease holistically – from prevention and early detection to treatment and long-term care. That said, other emerging risk factors such as obesity are complicating this effort.

According to the National Population Health Survey, overall obesity rates have risen to 12.7%, up from 10.5% four years ago. Among youth aged 18 to 29, the rate has nearly doubled from 6.6% to 11.6% over the same period, signalling a growing trend that increases the risk of diabetes and related complications. This underscores the need for an integrated approach that addresses both diabetes and obesity together – an approach reflected in Singapore's evolving national strategy.

The War on Diabetes, which began as a campaign focused on prevention and early detection, has expanded into a multi-pronged effort encompassing disease management, public education, and healthier food environments. Initiatives such as Nutri-Grade labelling, the Siu Dai by Default movement, and the Healthier SG Screening programme reflect this shift toward long-term behavioural change.

Regionally, similar pressures – rising obesity, shifting diets, and delayed intervention reflect Singapore's challenges. These parallels allow Singapore to benchmark progress and refine strategies, particularly in advancing chronic disease management in ways that are scalable and locally attuned.

Within this context, the pharmaceutical industry plays a vital enabling role. Diabetes programmes such as <u>Diabetes What's Next</u> guide individuals in managing the condition, while obesity initiatives like <u>Truth About Weight</u>, and the <u>Childhood Obesity Prevention Initiative (COPI)</u>, focus on awareness and healthy habits. Preventing obesity remains key to reducing diabetes risk and improving long-term health outcomes.

**Dr Abel:** Singapore's ageing population means a growing cohort of older adults with long-standing diabetes and increased risk of diabetes-related complications like nephropathy and cardiovascular events. While trends for macrovascular complications (like heart attack and stroke) have shown some improvement in Singapore, trends in microvascular complications (retinopathy and nephropathy) remain a significant concern, reflecting challenges in achieving consistently good long-term diabetes control. Studies have also shown a worrying gap between the public's perception and the reality of their risk - many people with prediabetes or undiagnosed diabetes are unaware of their condition.

The high regional burden of diabetes reinforces Singapore's shift towards the Healthier SG model, which focuses on preventive care and community-based, team-managed care in the primary care setting to effectively manage the large diabetes population. With the accelerated trend of early-onset type 2 diabetes across APAC, local strategies must target lifestyle interventions and screening for the younger at-risk population.

• Could you elaborate on emerging strategies for diabetes prevention and care, especially in APAC and global best practices that are relevant to Singapore?

**Anand Shetty:** Emerging strategies for diabetes care are increasingly focused on integration, innovation, and personalisation – especially in Southeast Asia, where diversity in healthcare systems demands tailored approaches.

In Singapore, we're seeing a greater shift to proactive prevention and personalised care, the embedding of diabetes care in primary care settings and driving long-term behavioural change.

Pharmaceutical innovation is expanding beyond traditional insulin therapies. The development of **oral GLP-1 receptor agonists**, introduced as the world's first by Novo Nordisk, has transformed treatment accessibility and convenience, especially for patients who previously relied on injectables. These also address comorbidities like obesity and cardiovascular disease, which are increasingly recognised as part of the diabetes continuum.

Integrated care models are gaining traction. Countries are combining digital tools, community-based interventions, and public-private partnerships to scale prevention and improve outcomes. Singapore's digital coaching pilots and data-driven screening

programmes show how technology can enhance engagement and empower individuals.

What's emerging is a more holistic vision of diabetes care – one that spans prevention, early detection, and lifelong management. It's about building systems that are inclusive, responsive, and sustainable, and ensuring that innovation is matched by equity. For Southeast Asia, this means adapting global breakthroughs to local realities, and for Singapore, it means continuing to lead by example.

**Dr Abel:** Newer glucose-lowering medications like SGLT2 inhibitors and GLP-1 receptor agonists have demonstrated cardiorenal protective benefits in people with diabetes. The use of these medications will help to eventually reduce the burden of diabetes-related complications, specifically atherosclerotic cardiovascular disease and diabetic kidney disease.

The increased use of continuous glucose monitoring (CGM) allows for detailed analysis of the glycemic issues for people with diabetes and helps doctors to better tailor treatment for the patients.

• How have the latest diabetes care solutions evolved? Despite technological advances, what barriers to access remain to diabetes management, particularly in low- and middle-income countries?

**Anand Shetty:** Diabetes care has undergone a profound transformation. We've moved beyond traditional insulin pens to GLP-1 receptor agonists, combination therapies, and once-weekly injectables. Technology – from continuous glucose monitors to Al-powered risk prediction tools is enabling proactive, personalised care.

Yet, access remains uneven. In low- and middle-income countries, cost remains a major hurdle, not just for medications but also for digital health tools. Infrastructure gaps and low health literacy further limit reach. Even where tools exist, adoption is hindered by lack of training and support for healthcare professionals.

To close the gap, innovation must be matched by investment in equity. That means working across sectors to improve affordability, strengthen primary care systems, and building capacity through education and workforce development. Progress must be inclusive to be meaningful.

**Dr Abel:** Healthcare providers should focus on patient empowerment and the adoption of newer cardio-renal protective treatment. There will also be a need to expand competency among primary care physicians for medication initiation and complication screening.

Policymakers can enact policies to ensure affordable access to essential medicines (like insulin) and also newer medications with proven cardio-renal benefits (like SGLT2 inhibitors and GLP-1 receptor agonists).

Legislative bodies can implement public health legislation (for example sugar taxes, food labelling standards) to create healthier lifestyle choices for the general population.

 How can healthcare providers, policymakers, legislative bodies, and industry stakeholders collaborate to address gaps in diabetes care and improve patient outcomes?

**Anand Shetty:** Collaboration is the cornerstone of progress in diabetes care. Real-world evidence studies help tailor interventions to diverse populations. In Singapore, we've contributed to this effort through ongoing research partnerships. A key example is the CADENCE public-private strategic partnership, which focuses on improving patient access to innovative therapies, and strengthening site capabilities.

Equally important is the open exchange of insights. We maintain active collaborations with local health organisations and regional research networks to enable data sharing, model scaling, and accelerated innovation.

Ultimately, improving outcomes requires integrated systems, aligned incentives, and policy frameworks that support long-term change. Every stakeholder has a role – and our strength lies in working together.

**Dr Abel:** The introduction of newer treatments like GLP-1 receptor agonists and SGLT2 inhibitors with cardio-renal benefits have changed risk-reduction strategies beyond just glycemic control. The increased adoption and use of continuous glucose monitoring (CGM) have improved glucose control and safety for insulin-treated patients.

However, for low- and middle-income countries (LMICs), newer medications and CGM remain costly and still unaffordable for many people. Other problems like inconsistent availability of insulin and glucose test strips, insufficient numbers of trained

primary-care doctors and diabetes educators, limited patient education, financial concerns and food environment constraints continue to pose barriers to better diabetes management in LMICs.

 How can governments translate global diabetes care commitments, such as those from the WHO Global Diabetes Compact or the International Diabetes Federation, into actionable national measures to improve access and outcomes?

**Vincent Siow:** Global frameworks offer a blueprint – but national execution is where impact happens. Singapore's strategy aligns with WHO and IDF priorities: prevention, integrated care, and equitable access. Efforts span healthy living, early detection, and disease management, supported by public education, data analytics, and technology.

These efforts have shown measurable impact. Between 2017 and 2022, the age-standardised prevalence of diabetes in adults declined from <u>7.8% to 6.8%</u>. Building on this foundation, healthcare institutions are collaborating to improve care for patients with diabetes through shared data and quality improvement science.

Technology continues to play a pivotal role. Digital tools are being piloted to support individuals at risk of diabetes in making informed lifestyle changes through real-time feedback and personalised insights – enhancing prevention and self-management at scale.

Singapore's experience underscores that aligning national strategies with global goals while leveraging data, innovation, and cross-sector partnerships, can drive measurable improvements in diabetes outcomes.

**Dr Abel:** Governments must formally adopt the WHO's GDC coverage targets and translate them into measurable, national-level key performance indicators for health systems and primary care networks.

There should be comprehensive training of primary care doctors and nurses to deliver evidence-based diabetes care in primary care health services. Translating WHO and IDF recommendations on risk factor reduction into national law - taxation on sugar-sweetened beverages, restrictions on the marketing of unhealthy foods, and mandates for healthy food environments in schools and workplaces - will enhance diabetes preventive measures.

• What key messages do you want to emphasize on World Diabetes Day this year, and why are they particularly relevant in the current health landscape?

**Anand Shetty:** This World Diabetes Day, our message is clear: diabetes demands a united front. Healthcare professionals, policymakers, industry leaders, and communities must collaborate to build resilient, inclusive systems. And this year's call to action – "Know more and do more for diabetes at work" - reminds us that workplaces play a critical role in prevention, support, and care.

Technology is transforming care. Digital tools, data-driven insights, and innovative models are helping us detect, manage, and prevent diabetes more effectively. But tools alone aren't enough – engagement and empowerment are key.

In Singapore, partnerships with Diabetes Singapore and initiatives like Diabetes What's Next have helped raise awareness and guide individuals through their care journey. Events like PEDAL and campaigns featuring Team Novo Nordisk ambassadors bring the message of resilience and proactive care to life.

Our goal is to build a healthcare ecosystem that empowers healthier lives and ensures no one is left behind.

**Dr Abel:** The theme for World Diabetes Day (WDD) 2025 is "Diabetes and Well-being", with a specific focus on "Diabetes and the Workplace."

WDD 2025 aims to increase the support for people with diabetes in work environments by addressing challenges like stigma and lack of resources, and encouraging employers to create healthier, more supportive workplaces.

A significant majority of people living with diabetes are of working age. The workplace environment, including policies and support systems, directly impacts their health management, productivity, and overall quality of life. The WDD theme in 2025 advocates for a holistic view of health going beyond blood glucose management to include physical, mental, and emotional well-being. This is important as many people with diabetes also experience anxiety or depression related to their condition. The campaign also emphasizes prevention and management of diabetes through healthy lifestyles (diet, exercise, and weight management). Promoting these habits in workplaces can help curb new cases of diabetes and prevent diabetes-related complications for those already affected.