Dr Silver Bahende speaks at a Changing Diabetes® in Children clinic in Uganda.
changing diabetes® in children

Introduction to Changing Diabetes® in Children
This report shares the accomplishments of Changing Diabetes® in Children in 2022. The partnership continues to explore new opportunities, expand on existing collaborations and work to adapt to ever-changing environments as it moves towards its goal of reaching 100,000 vulnerable children and young people living with type 1 diabetes in low- and middle-income countries.

2022 highlights

Continued country-level support and expansion
- Historic expansion with more than 6,000 children reached in 2022
- 100 clinics refurbished and included in the partnership
- Insulin pens introduced in eight country programmes so far

Global and local digital and data solutions
- Global Collaborative with Harvard University strengthened
- Global type 1 diabetes data published in The Lancet
- Going digital with patient education

Reaching 100,000 children by 2030
- Collaboration with Roche extended and strengthened
- Collaboration with the World Diabetes Foundation expanded
- Changing Diabetes® in Children cited as best practice for strengthening local health systems through partnerships

More than 6,000 children enrolled in 2022

<table>
<thead>
<tr>
<th>2021</th>
<th>2022</th>
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<tbody>
<tr>
<td>31,845 children</td>
<td>37,849 children</td>
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<td>17,872</td>
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<td>Healthcare</td>
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<tr>
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<tr>
<td>235</td>
<td>334</td>
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<td>&amp; refurbished</td>
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All 2022 numbers in this report reflect data from Q3
Historic expansion with more than 6,000 children reached in 2022

Changing Diabetes® in Children reached more than 6,000 children by September 2022. This is the highest number of children reached in a single year since the partnership’s inception in 2009 and brings Changing Diabetes® in Children closer to its goal of reaching 100,000 children by 2030.

This accomplishment highlights the strength of a global and local partnership model. It emphasises the hard work Changing Diabetes® in Children has done to ensure that vulnerable children worldwide have access to comprehensive type 1 diabetes care, including free life-saving medicine and supplies for persons up to 25 years of age.

In Ethiopia, more than 1,000 children and adolescents were enrolled in Changing Diabetes® in Children in the first nine months of 2022.

→ Learn more at novonordisk.com/cdic

37,849 children and adolescents cumulatively reached by September 2022
100 clinics refurbished and included in the partnership

In 2022, Changing Diabetes® in Children refurbished a record number of clinics within its partner countries, making it easier for children and their families to access care and clinic services, and laying the foundation for reaching more children living with type 1 diabetes. This brings the total number of clinics affiliated with the programme to 334 as of Q3 2022.

17 of the new clinics were opened in Pakistan

Decentralising diabetes care and facilities is a crucial strategy for reducing barriers to type 1 diabetes management and care. Strong local partners are a critical factor in achieving this, especially in rural areas, and this has always been a central part of the Changing Diabetes® in Children approach. In Pakistan, for example, the programme has established 17 clinics within the first year, ensuring cross-country access to diabetes care facilities for children with type 1 diabetes.
2022 highlight

Collaboration with Roche extended and strengthened

In early 2022, Changing Diabetes® in Children and Roche Diabetes Care reaffirmed their joint ambition to provide comprehensive care to 100,000 children and young people with type 1 diabetes by 2030.

The reaffirmed agreement underscores the shared purpose and long-term commitment by the Global Partners. It will ensure that local partners continue to receive the support they need to implement and reach young people with comprehensive diabetes care.

“I was proud to represent Novo Nordisk alongside Katrine DiBona as we expanded our partnership with Roche Diabetes Care.”

MIKE DOUSTDAR
Executive vice president, International Operations, Novo Nordisk, on LinkedIn

“I’m thankful for the great collaboration with the Novo Nordisk teams so children and their caregivers can experience true relief.”

MARCEL GMÜNDER
Global Head, Roche Diabetes Care, on LinkedIn
Global type 1 diabetes data published in *The Lancet*

As part of the Changing Diabetes® in Children collaboration with Harvard University, a scientific paper was published in December 2022 with new estimates of global type 1 diabetes incidence in children and adolescents. The researchers used multiple data sources to model the incidence of type 1 diabetes in children and adolescents in 200 countries and territories between 1990 and 2050.6 The researchers conclude that the global incidence of childhood and adolescent type 1 diabetes is larger than previously estimated and that almost one in two children with type 1 diabetes are currently undiagnosed.6

Read the article

Global Collaborative with Harvard University strengthened

In May 2022, Changing Diabetes® in Children collaborated with Harvard University to host the second annual hackathon to generate digital solutions for diabetes care for children in low- and middle-income countries. The three winning teams were from Guinea, Uganda and Senegal.5 The teams will continue working with our local partners on generating sustainable digital solutions and registries in their respective countries.

“I was thrilled to join more than 400 participants innovating digital solutions and coming up with feasible solutions to improve the lives of children and adolescents in settings with scarce health resources.”

NICOLAI HAUGAARD
Vice president and global head of access to care, Novo Nordisk, on LinkedIn

Nicolai Haugaard, vice president and global head of access to care, Novo Nordisk and Professor Rifat Atun together with the team from Harvard T.H. Chan, School of Public Health.
2022 highlight

Collaboration with the World Diabetes Foundation expanded

In 2022, Changing Diabetes® in Children and the World Diabetes Foundation (WDF) expanded their collaboration to support the integration of type 1 diabetes care into the health systems of several Middle Eastern and African countries. With the addition of Mozambique, Malawi, Jordan, Lebanon and Rwanda in 2022, WDF is now partnering with Changing Diabetes® in Children in eight countries.

“Type 1 diabetes is a key priority for the World Diabetes Foundation and we’re happy that our partnership has now been expanded from three to eight countries. Together with Changing Diabetes® in Children, we believe that we can reach and support many more children in need, ultimately providing sustainable care for thousands of children and adolescents.”

MADS LOFTAGER MUNDT, Senior programme manager, WDF

Tunisia and Vietnam joined on World Diabetes Day

A cycling festival in Tunisia marked World Diabetes Day.

Hassan Fahmi, vice president and general manager, Novo Nordisk in Vietnam and Nicolai Prytz, Danish Ambassador to Vietnam.

Teysir Ben Houria, market access and public affairs lead, Novo Nordisk, launches Tunisia as a partner country with the Ministry of Health in Tunisia.

MADSEN SOFIE WESTH OLSEN, Global access to care lead, Novo Nordisk.

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MADS LOFTAGER MUNDT, Senior programme manager, WDF

Tunisia

Vietnam

"Working for DK"
A national type 1 diabetes registry and digital application supported by Changing Diabetes® in Children was made available to parents and physicians to improve access to care and the management of children’s diabetes in Indonesia. The Diabetes Registry and Diary application aims to help increase awareness and reach more children with type 1 diabetes. Within the app, parents or caregivers can record health indicators and blood sugar levels. The data recorded in the application helps clinicians to provide more appropriate treatment.

The Diabetes Registry and Diary is hosted on the PrimaKu health app, which is run in partnership with the Indonesian Pediatric Association (IDAI).
Every two years, the Access to Medicine Index evaluates and compares the world’s leading pharmaceutical companies according to their efforts to improve access to medicine in low- and middle-income countries. The 2022 Access to Medicines Index recognised Changing Diabetes® in Children for its work on improving access to care for children with type 1 diabetes, attributing ‘best practice’ status to the programme. The Index also acknowledged the non-donation model that Changing Diabetes® in Children is piloting in Ghana, Indonesia and Peru, where health insurance schemes are available to reimburse human insulin for children with type 1 diabetes.

The best practice case emphasised the partnership’s work to measure and publicly disclose its outcomes. Also, the Index highlighted the third-party review of the partnership in Bangladesh and Kenya by University College London (UCL) as an example of a transparent approach to measuring impact and guiding future steps to promote sustainability.

2022 highlight

Insulin pens introduced in eight country programmes so far

To ease the management burden on children and their families, insulin administration pens have been introduced in Myanmar, India, Pakistan, Cambodia, Sudan, Kenya, Uganda and Tanzania. The pens are simpler to use than vials and syringes; it is easier to inject, easier to set the dosing and easier to read the result. The pens are also more portable, discreet and convenient.

New Myanmar import process gets pens in the country in just three months

In June 2022, Changing Diabetes® in Children approached the Ministry of Health in Myanmar to request an import licence for donations of insulin and diabetes supplies for type 1 diabetes. This change to the supply chain in Myanmar was proposed to ensure that the children enrolled in the programme could receive the insulin on which they depend and to ensure the correct storage of the medication.

The approach led to a collaboration with the Myanmar Chamber of Commerce Pharmaceutical and Medical Supplies (MCCPMS) to facilitate an import licence for diabetes medication and supplies. The collaboration resulted in the first batch of insulin pens being imported into Myanmar in August 2022.

→ Read the article
In 2022, Changing Diabetes® in Children released Diabetes Besties, a cartoon video series to fill the gap in engaging patient education material for children with diabetes. The videos take a comprehensive approach and can be used by parents, caregivers and healthcare professionals to teach children about type 1 diabetes and how to manage it. The series currently includes four episodes available in both English and French.

Episode 1: Why do I need insulin?

Episode 2: How to inject insulin?

Episode 3: How much insulin do I take?

Episode 4: Low blood sugar and how to recognise it

→ Watch Diabetes Besties series
A global team driving change

A big thank you to everyone for your contribution to Changing Diabetes® in Children in 2022.

Looking ahead to 2023

In the coming year, Changing Diabetes® in Children will continue partnering, collaborating and expanding towards its goal of reaching 100,000 children with type 1 diabetes by 2030. The goal is clear: No child should die from diabetes.

Plans include:

**Continued country-level support and expansion**
- in rural and urban areas
- pen upgrades to reach more children in more countries
- new country partnerships.

**Support global and local digital and data solutions**
- to improve policies and implementation of quality comprehensive type 1 diabetes care
- expand the global collaboration with Harvard University to support global type 1 data
- support national type 1 diabetes registries.

**Reaching 100,000 children by 2030**
- strengthen the collaboration with Roche, ISPAD and the World Diabetes Foundation
- research collaboration between Copenhagen Business School and the Technical University of Denmark on social return on investment, ESG and sustainability
- work together with global and local partners to drive sustainable solutions for type 1 diabetes care.

→ To learn more and stay updated about the latest developments, visit novonordisk.com/cdic
Follow our quarterly results with #quarterlyresults

Novo Nordisk
Novo Nordisk is a leading global healthcare company, founded in 1923 and headquartered in Denmark. Our purpose is to drive change to defeat diabetes and other serious chronic diseases such as obesity and rare blood and endocrine disorders. We do so by pioneering scientific breakthroughs, expanding access to our medicines and working to prevent and ultimately cure disease. Novo Nordisk employs about 48,500 people in 80 countries and markets its products in around 170 countries.
novonordisk.com

Roche Diabetes Care
Roche Diabetes Care has been pioneering innovative diabetes technologies and services for more than 40 years. Today, more than 5,500 employees in over 100 markets worldwide work every day to support people with diabetes and those at risk to achieve more time in their target ranges and experience true relief from their therapy routines. Roche Diabetes Care aims to transform and advance care provision and foster sustainable care structures to create patient-centred value.
rochediabetes.com

International Society for Pediatric and Adolescent Diabetes
The International Society for Pediatric and Adolescent Diabetes (ISPAD) is a professional organisation whose aims are to promote clinical and basic science, research, education and advocacy in childhood and adolescent diabetes. The strength of ISPAD lies in the scientific and clinical expertise in childhood and adolescent diabetes of its members. ISPAD is the only international society focusing specifically on all types of childhood diabetes.
ispad.org

World Diabetes Foundation
The World Diabetes Foundation (WDF) is an independent, non-profit foundation based in Bagsvaerd, Denmark. Founded by Novo Nordisk A/S in 2002, WDF is still one of the few funding mechanisms dedicated to preventing and treating diabetes in developing countries. WDF’s mission is to empower governments, civil society and other non-state actors that strive to deliver on global commitments through national and local action.
worlddiabetesfoundation.org

References