changing diabetes® in children

Tresor has type 1 diabetes and lives in Côte d'Ivoire

Changing Diabetes® in Children is a public-private partnership founded in 2009. Its goal is to provide comprehensive care to children and young adults with type 1 diabetes living in low- and middle-income countries. This includes free life-saving medicine, blood glucose monitoring equipment and medical supplies for young people under the age of 25.

No child should die from diabetes

Type 1 diabetes is a life-long, autoimmune condition caused by very little to no insulin production, which can lead to serious complications and premature death.[6] Complications are especially prevalent in low- and middle-income countries, where access to insulin and type 1 diabetes care is limited.[7]

Type 1 diabetes affects an estimated 1.2 million children and young people in low- and middle-income countries,[8] and there are approximately 98,700 new diagnoses every year.[9,10] Data for type 1 diabetes are scarce and likely underestimate its true burden.[6,8,11,12]

People with type 1 diabetes rely on daily insulin injections to survive, and managing the disease can be challenging for both the child and their family.[2] However, with proper treatment, education and support, children with type 1 diabetes can thrive and live healthy lives.

The ambition of the Changing Diabetes® in Children partnership is that no child should die from diabetes.

A complex disease requiring comprehensive care

Type 1 diabetes is a complex disease that requires careful management and continuous care.[1] Changing Diabetes® in Children provides a holistic system of care built around four components of comprehensive diabetes care.

Ensuring comprehensive patient education: Patient education is critical to the successful management of diabetes.[2]

Strengthening the health workforce: A misdiagnosis or delayed diagnosis of diabetes can result in the dealth of a child with diabetes.[3]

Establishing a network of clinic facilities: Children living with type 1 diabetes require accessible health facilities for regular check-ups and care.[4]

Ensuring access to insulin and supplies: The only effective treatment for type 1 diabetes is insulin, administered by injection.[5]

Programme highlights*

More than

180,000
patient education sessions[13]

52,249
children and young adults reached[13]

25,000
healthcare professionals trained in the diagnosis and management of type 1 diabetes in children[13]

400
clinics established or refurbished[13]

*Data as per end 2023

A partnership model to support local healthcare systems

Changing Diabetes® in Children is led by four global partners: Novo Nordisk, Roche, the International Society for Pediatric and Adolescent Diabetes (ISPAD) and the World Diabetes Foundation (WDF). The partnership takes a sustainable approach and relies on local cooperation from ministries of health, implementing partners and academic institutions. Academic institutions are involved in developing evidence, sharing learnings and creating digital solutions for programme delivery.

Global partners:

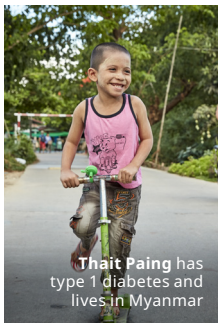
Novo Nordisk
Roche
HemoCue
ISPAD
WDF

Academic institutions:

T.C. Chan School of Public Health, Harvard University

National ministries of health in partner countries

Local implementing partners, including diabetes associations, hospitals and other organisations involved in diabetes care



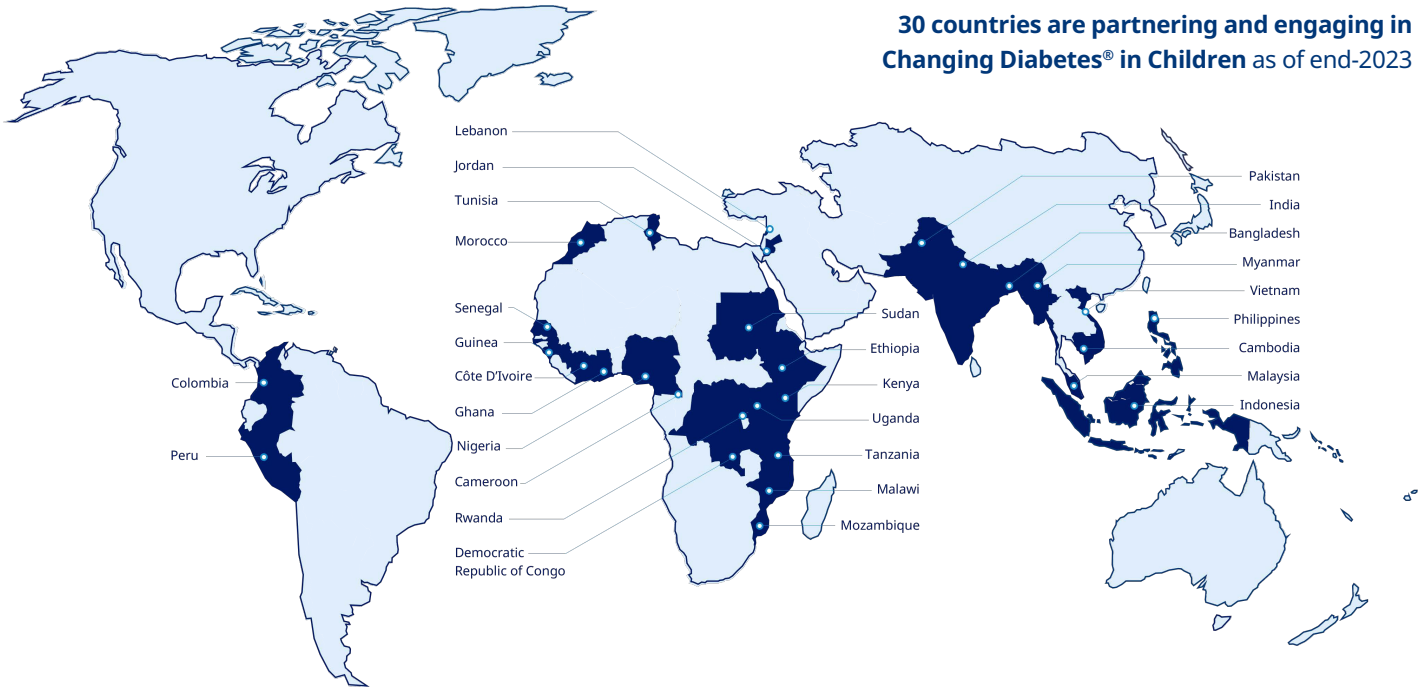
Thait Paing has type 1 diabetes and lives in Myanmar

Hnin Eain has type 1 diabetes and lives in Myanmar

Changing Diabetes® in Children has the ambition to reach 100,000 children living with type 1 diabetes by 2030.

Saba Samuel has type 1 diabetes and lives in Ethiopia

30 countries are partnering and engaging in Changing Diabetes® in Children as of end-2023



References

1. Akil AA, Yassin E, Al-Maraghi A, Aliyev E, Al-Malki K, Fakhro KA. Diagnosis and treatment of type 1 diabetes at the dawn of the personalized medicine era. *J Transl Med.* Apr 1 2021;19(1):137. doi:10.1186/s12967-021-02778-6 **2.** Phelan H, Lange K, Cengiz E, et al. ISPAD Clinical Practice Consensus Guidelines 2018: Diabetes education in children and adolescents. *Pediatric diabetes.* 2018;19(S27):75-83. doi:https://doi.org/10.1111/pedi.12762 **3.** Munoz C, Floreen A, Garey C, et al. Misdiagnosis and Diabetic Ketoacidosis at Diagnosis of Type 1 Diabetes: Patient and Caregiver Perspectives. *Clin Diabetes.* Jul 2019;37(3):276-281. doi:10.2337/cd18-0088 **4.** Brink SJ LW ea. International Society for Pediatric and Adolescent Diabetes (ISPAD). 2010. **5.** Danne T, Phillip M, Buckingham BA, et al. ISPAD Clinical Practice Consensus Guidelines 2018: Insulin treatment in children and adolescents with diabetes. *Pediatric diabetes.* Oct 2018;19 Suppl 27:115-135. doi:10.1111/pedi.12718 **6.** (IDF) IDF. *IDF Diabetes Atlas 10th ed.* 2021. Accessed March 2022. **7.** Ludvigsson J, Edna M, Ramaiya K. Type 1 diabetes in low and middle-income countries - Tanzania a streak of hope. Original Research. *Frontiers in Endocrinology.* 2023-March-24 2023;14doi:10.3389/fendo.2023.1043370 **8.** Gregory GA, Robinson TIG, Linklater SE, et al. Global incidence, prevalence, and mortality of type 1 diabetes in 2021 with projection to 2040: a modelling study. *The Lancet Diabetes & Endocrinology.* 2022;10(10):741-760. doi:10.1016/S2213-8587(22)00218-2 **9.** (IDF) IDF. Data from: New cases of type 1 diabetes (0-19 y), in 1000s. 2021. **10.** World Bank. World Bank Country and Lending Groups. Accessed June 2023, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups **11.** Gomber A, Ward ZJ, Ross C, et al. Variation in the incidence of type 1 diabetes mellitus in children and adolescents by world region and country income group: A scoping review. *PLOS Global Public Health.* 2022;2(11):e0001099. doi:10.1371/journal.pgph.0001099 **12.** Bhutta ZA, Salam RA, Gomber A, et al. A century past the discovery of insulin: global progress and challenges for type 1 diabetes among children and adolescents in low-income and middle-income countries. *The Lancet.* 2021/11/13/ 2021;398(10313):1837-1850. doi:https://doi.org/10.1016/S0140-6736(21)02247-9 **13.** Data on file. Novo Nordisk. **2024**.

The global partners

novo nordisk®
novonordisk.com

Roche
rochediabetes.com

ISPAD
International Society for Pediatric and Adolescent Diabetes
ispad.org

WORLD DIABETES FOUNDATION
worlddiabetesfoundation.com