



IBRAHIM BAH
Ibrahim has type 1 diabetes
and lives in Guinea

changing
diabetes®
in children

Year in review 2021



changing diabetes® in children

This report shares the accomplishments of Changing Diabetes® in Children in 2021. Despite the continued impact of COVID-19 on critical in-person activities, the partnership continues to explore new opportunities, expand on existing collaborations and work to adapt to ever-changing environments.

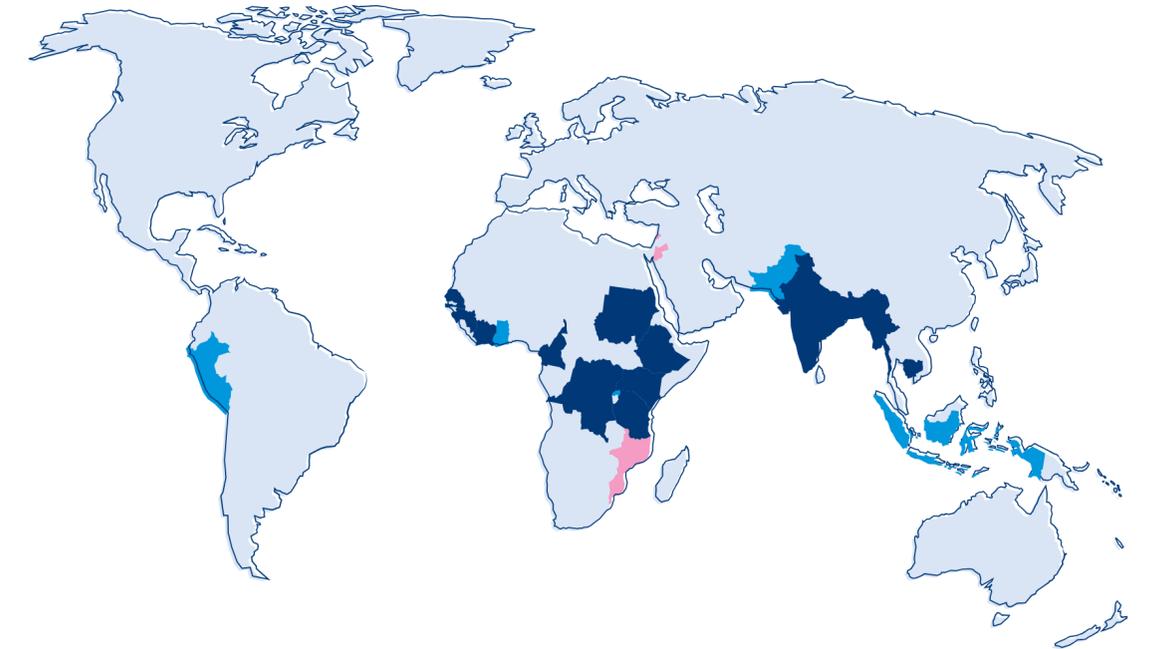


Hnin Eain
Hnin has type 1 diabetes and lives in Myanmar

Achievements in 2021 include:

- Exceeding the **milestone of reaching 30,000 children** and young people
- Launching in **five new partnership countries**
- Launching a project to expand and integrate type 1 diabetes care in new and existing countries with the **World Diabetes Foundation**
- **Re-signing 14 countries** already engaged in Changing Diabetes® in Children with reaffirmed, continued commitment
- Global Collaborative with **Harvard University** including the first-ever **Hackathon** on digital innovations for type 1 diabetes
- Continuing to increase **awareness and advocacy efforts** with key digital campaigns such as the Facing Forward series and the NCD Child Webinar
- Consolidating and expanding our partnership with **Roche Diabetes Care** for glucometers, lancets and strips.

These are milestones to be celebrated as we work towards the ambition of reaching 100,000 vulnerable children and young people with comprehensive care for type 1 diabetes by 2030.



■ 14 existing partnership countries ■ 5 new partnership countries ■ 4 upcoming partnership countries

Africa: Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Guinea, Kenya, Senegal, Sudan, Tanzania, Uganda, **Ghana, Rwanda, Malawi and Mozambique**

Asia: Bangladesh, Cambodia, India, Myanmar, **Indonesia and Pakistan**

Middle East: **Jordan, Lebanon**

South America: **Peru**

Update*

2020		2021
28,296		30,562
children reached		children reached
13,323	Healthcare professionals trained	14,103
217	Clinics established & refurbished	221
158,514	Patient education sessions	187,723

*As of Q4 2020 and Q3 2021.

2021 highlights

The journey to reach 100,000 children

Milestone of reaching 30,000 children achieved

In November 2021, Changing Diabetes® in Children achieved an incredible milestone: reaching more than 30,000 children and young people since its inception in 2009. This was celebrated through a communication campaign that recognised the importance of access to comprehensive type 1 diabetes care for vulnerable children.

The campaign highlighted the strength of a global and local partnership model and acknowledged all the hard work of the global network that made this achievement possible.

An increase in the age limit for enrolment

In 2021, the age limit for enrolment in Changing Diabetes® in Children was raised from 18 to 25. This decision will ensure access for a broader population of vulnerable young people and continuity of care for those enrolled in the partnership.

Learn more about how we are delivering comprehensive care to those who need it most.

VISIT THE CDIC WEBSITE



Watch the video celebrating reaching 30,000 children and young people.



Samuel Mong'are from Kenya shares his message to other children living with diabetes. Samuel has been enrolled in Changing Diabetes® in Children since 2017.



Sumith Kumar
Sumith has type 1 diabetes
and lives in India



Olivia Aka
Olivia has type 1 diabetes
and lives in Côte d'Ivoire

2021 highlights

New partnership countries

Changing Diabetes® in Children expanded its geographic footprint by launching in five new partnership countries in 2021.

We are delighted to welcome on board **Ghana, Peru, Pakistan, Indonesia and Rwanda**. Peru is the first Changing Diabetes® in Children country in the Americas.

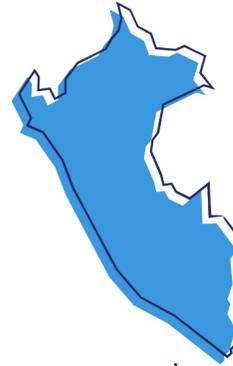
Ghana

Partnership agreement signed:
August 2021



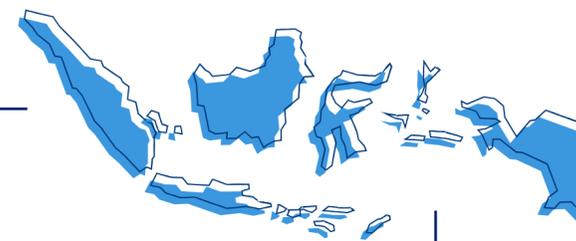
Peru

Partnership agreement signed:
September 2021



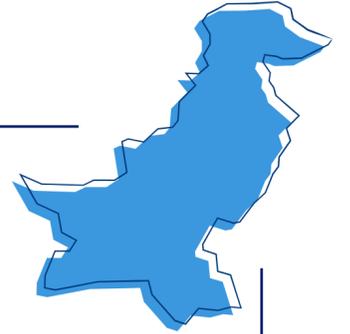
Indonesia

Partnership agreement signed:
November 2021



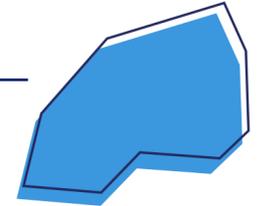
Pakistan

Partnership agreement signed:
September 2021



Rwanda

Partnership agreement to be signed:
December 2021



2021 highlights

Expansion of Changing Diabetes® in Children with the World Diabetes Foundation

This year, **Changing Diabetes® in Children launched a new, ambitious project with the World Diabetes Foundation** to support the integration of type 1 diabetes care into the health systems of eight Middle Eastern and African countries.

This project is part of Changing Diabetes® in Children's continued expansion to reach 100,000 children. Existing partnership countries Kenya, Ethiopia and Tanzania have been signed as part of this project. In addition, five new countries (Jordan, Lebanon, Malawi, Mozambique and Rwanda) have already or will join the partnership in 2021 or by Q1 2022 and participate in this project.

With the addition of the five new countries in 2021 and four additional countries through this partnership, Changing Diabetes® in Children will be present in 23 countries by Q1 2022.



28. SEP 2021

SHARE f t i e

Ambitious project supports sustainable care for youth with type 1 diabetes

READ THE ARTICLE



2021 highlights

Country-led innovations to adapt to COVID-19

Read about how countries are adapting to the challenges of COVID-19 using telemedicine and novel supply chain approaches to ensure children receive the care and supplies they need:

Bangladesh

The use of telemedicine to manage type 1 diabetes in children and adolescents in Bangladesh during the COVID-19 pandemic

READ THE ARTICLE

Uganda

Health service delivery for type 1 diabetes during the lockdown in Uganda in response to the COVID-19 pandemic

READ THE ARTICLE

2021 highlights

Global Collaborative with Harvard University T.H. Chan School of Public Health

In 2021, Changing Diabetes® in Children entered into a **Global Collaborative with Harvard University T.H. Chan School of Public Health, led by Professor Rifat Atun**. The Collaborative aims to support low- and middle-income countries to improve the health, well-being and lives of children with type 1 diabetes. The focus is on identifying and exploring cost-effective interventions and leveraging **sustainable, evidence-based policy solutions**.

The activities were developed jointly and based on the priorities identified by Changing Diabetes® in Children's partner countries, within four workstreams: **(a) data systems, (b) research, (c) innovation lab and (d) translation hub**. The workstreams promote capacity development, policy and practice, and the implementation of innovations for improved type 1 diabetes health outcomes.

The first Hackathon was developed as a part of this Collaborative, and at the request of the partners, to support innovation and digital systems in countries in Asia. Due to the success of this first Hackathon, a follow-up Hackathon focused on African countries is planned for 2022.

Hackathon with Harvard University on digital innovations

In October 2021, Changing Diabetes® in Children hosted its first-ever Hackathon to **develop digital innovations** to improve type 1 diabetes care for vulnerable children.

The Hackathon was hosted with support from Roche Diabetes Care and in partnership with Harvard University School of Public Health, MIT Hacking Medicine and the International Society. The focus was on the Asia-Pacific region, specifically Bangladesh, Cambodia, India, Indonesia, Myanmar and Pakistan.

More than **500 participants joined online** from around the world and in person (in Boston, US) for the two-day event. A total of 34 teams worked on six country challenges and were mentored by key opinion leaders and representatives of the respective ministries of health.

This successful event represents the **start of an exciting journey** to leverage technological innovations and digital health to improve access to care for children with type 1 diabetes in low-resource settings. The teams look forward to seeing these innovations put into action.



Health Hackathon in Boston, US



Health Hackathon in Boston, US



Key opinion leaders joining the Hackathon virtually from seven countries

2021 highlights

Awareness and advocacy initiatives

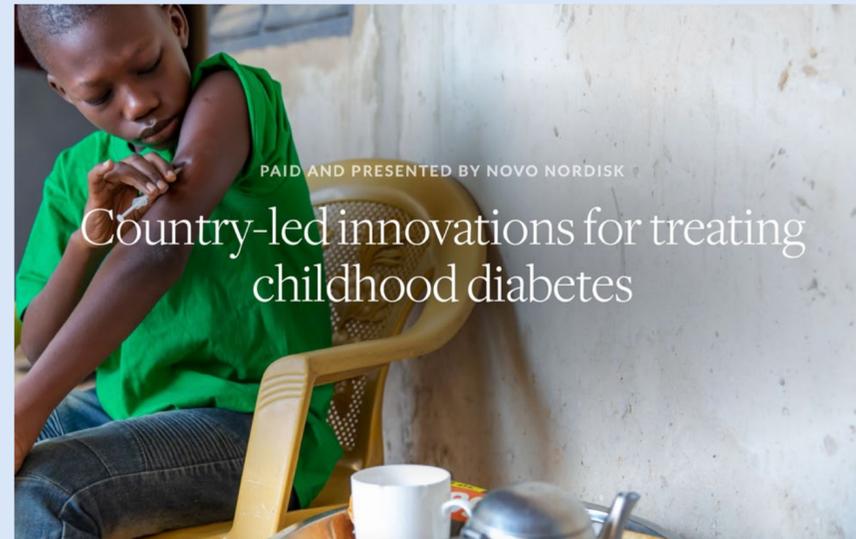
Facing Forward: a digital media campaign to raise awareness about non-communicable diseases

In 2021, Changing Diabetes® in Children collaborated with **BBC StoryWorks and the NCD Alliance** to develop and launch digital media to raise awareness of type 1 diabetes as part of the **Facing Forward campaign**.



The short film *Giving children a chance: The new face of diabetes care in Guinea* showcases Changing Diabetes® in Children in Guinea and features interviews with Bilkhissa Balde, a beneficiary of the programme, and Professor Naby Balde, a key opinion leader.

WATCH THE FILM



The interactive article *Country-led innovations for treating childhood diabetes* highlighted the importance of Changing Diabetes® in Children's country-led approach to type 1 diabetes care, with specific examples from Uganda, Senegal and Bangladesh.

It emphasised the impact of the Changing Diabetes® in Children partnership model, centred around local partners (such as ministries of health and local diabetes associations) that develop and lead locally adapted solutions to ensure long-term sustainability.

READ THE ARTICLE

Elevating the voice of young leaders with NCD Child

In September 2021, Changing Diabetes® in Children sponsored a webinar alongside NCD Child called ***Youth in Action: Solutions to Addressing and Managing Type 1 Diabetes***. This webinar featured young leaders living with type 1 diabetes in low- and middle-income countries and shared first-hand stories about how they are supporting and engaging with other children and young people with diabetes.

Meet Esraa and Rubya, who are beneficiaries of Changing Diabetes® in Children and who were among the panellists at the webinar sharing how they are making a difference in their communities.



Esraa Elhaj, Sudan

Esraa is the head of the youth office of the Sudan Childhood Diabetes Association. She is a medical student at the University of Khartoum and has been living with diabetes since 2008.

"My Sugar Sugar project is part of the work I'm doing with the International Diabetes Federation's Young Leaders programme. The project aims to train children with diabetes or newly diagnosed to become future leaders and to help them to overcome and understand their disease."



Rubya Alam, Bangladesh

Rubya is enrolled in Changing Diabetes® in Children in Bangladesh and actively advocates for increasing awareness and education about type 1 diabetes to reduce stigma.

"We need to create awareness programmes so that everyone can know that diabetes is a normal thing. We're not from another world, we live here. We just need some extra care."

Spotlight on Guinea

The case for sustainable, comprehensive type 1 diabetes care in Guinea

Since 2010, Changing Diabetes® in Children has been improving **access to insulin, specialist care and medical supplies for children living with type 1 diabetes in Guinea**. More than 11 years on, Guinea serves as an example of the impact of **sustainable and comprehensive care** on vulnerable children living with type 1 diabetes. It also demonstrates the value and impact that dedicated stakeholders, such as the Ministère de la Santé, the Association Guinéenne d'Éducation et d'Aide aux Diabétiques and key opinion leaders such as Professor Naby Balde, can add by leading the partnership's local efforts.

When Changing Diabetes® in Children launched in Guinea, there were **only 44 children diagnosed with type 1 diabetes in the entire country**, there were no dedicated clinics for type 1 diabetes, there was only one trained endocrinologist in the country and there were no healthcare professionals (HCPs) trained in the treatment of type 1 diabetes.



So much has changed.
2009 compared with 2021 in Guinea:

2009		2021
44	children with type 1 diabetes treated	1,038
0	Clinics for type 1 diabetes	10
1	Trained endocrinologists	12
18	HCPs trained	877



Dr Joseph Sama Bangoura & Bilkhissa Balde

"To see the smiles of children and their parents, to see children in Africa living with type 1 diabetes who have become productive adults in society is what gives me the energy to wake up every morning with the passion to do more."

Dr Joseph Sama Bangoura, Changing Diabetes® in Children Project Manager for West Africa

Behind the sustainable development in Guinea

Having now reached more than 1,000 children, the partnership has evolved, with local actors increasingly taking on responsibility and funding for the components of diabetes care initiated by Changing Diabetes® in Children in Guinea. Today, the ministry of health and local partners support all the costs of clinic equipment and maintenance, the clearance costs and delivery costs for medical supplies as well as the majority of the costs of insulin and HCP training. This level of local ownership is critical to ensure lasting and sustainable change for type 1 diabetes care in the country and serves as an example for other countries where Changing Diabetes® in Children operates.

Looking towards the future of type 1 diabetes care in Guinea, the country has launched a national health development plan covering NCDs, specifically diabetes, with the aim of reducing premature deaths due to NCDs by 23%. The plan includes activities for a type 1 diabetes response, from funding the purchase of medical supplies and increasing data collection, research and publications to informing policy (with a focus on improving the diagnosis of type 1 diabetes) and increasing treatment capacity. The Changing Diabetes® in Children team will work closely with local partners in the coming years to support this next phase in sustainability.

Spotlight on Guinea

World Diabetes Day celebrations in Guinea

For World Diabetes Day on 14 November 2021, **Changing Diabetes® in Children supported a series of events in Guinea** to celebrate the 100th anniversary of the discovery of insulin, commemorate 11 years of Changing Diabetes® in Children in Guinea and advocate for continued and increased focus on and funding for type 1 diabetes care.

The event was led by Professor Naby Balde and was attended by children and young people from Changing Diabetes® in Children, along with several key local partners. During the event, Professor Balde along with his foundation, and in collaboration with Harmattan Guinea, launched the book *Vécu et résilience des enfants diabétiques en Guinée*, a collection of testimonies from children enrolled in Changing Diabetes® in Children about the stigma they have experienced because of diabetes.

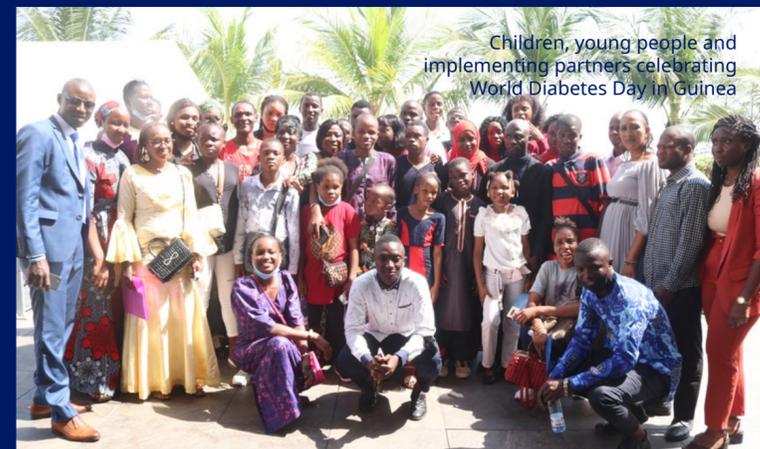
The event also featured **Quentin Valognes** from **Team Novo Nordisk**, who shared his experiences as a professional athlete to inspire, educate and empower those affected by diabetes.



Professor Naby Balde and Abigail Chavaka, project manager at World Diabetes Day in Guinea



Dr Mohamed Lamine Yansane, Senior Advisor to the Minister of Health in Guinea, at World Diabetes Day



Children, young people and implementing partners celebrating World Diabetes Day in Guinea

Meet the young leaders of Guinea



Alhassane Diallo

Alhassane lives in the capital city of Conakry and is enrolled in Changing Diabetes® in Children. Today, he is studying to become a doctor so that he can help others learn about and live with diabetes. In his spare time, he also leads initiatives to encourage young people with diabetes to engage in sports.

"Having health professionals trained in the management of type 1 diabetes, such as my national diabetic association, but also with the support of my family, today, I don't adapt my life to diabetes, but diabetes to my life."



Bilkhissa Balde

Bilkhissa lives in Conakry and has been enrolled in Changing Diabetes® in Children since 2012. Today, she works as a student leader, educates young children with type 1 diabetes and helps healthcare providers at her local clinic in Conakry.

"I help the youngest children who don't know about diabetes or how to manage it, and I do educational sessions. My dream for the first generation with type 1 diabetes in Africa is to be the ideal model for Africa and the rest of the world."

Looking ahead to 2022

In the coming year, Changing Diabetes® in Children is looking forward to continuing to expand its reach and impact, building on current initiatives as well as launching new ones, including:

- **Continued geographic expansion** into five new partnership countries
- **Upgrading from syringe and vial to pen devices** in a country-by-country phased approach as appropriate
- **Continuing our collaboration with Harvard University**, including launching a type 1 diabetes incidence model and hosting an Africa-focused Hackathon
- Launching a **new series of digital, animated patient education materials**.



Changing Diabetes® in Children will launch a new series of animated patient education materials in 2022.

To learn more or stay updated about the latest developments, visit novonordisk.com/cdic



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 45,000 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. Being a global leader in integrated Personalised Diabetes Management (iPDM) with a comprehensive offering including glucose monitoring, insulin delivery systems and digital solutions Roche Diabetes Care aims to transform and advance care provision and foster sustainable care structures to create patient-centred value. By building and collaborating in an open ecosystem, connecting devices and digital platforms as well as contextualising relevant data points, Roche Diabetes Care enables deeper insights and a better understanding of the disease, leading to personalised and effective therapy adjustments.

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

World Diabetes Foundation

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

worlddiabetesfoundation.org