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Diagnosis for all

ACCEDE
Access to CGMs for Equity in Diabetes Management

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QUALITY HEALTH CARE

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CONTINUOUS GLUCOSE MONITORING FOR TYPE 1 DIABETES IN KENYA'S PUBLIC SECTOR

From evidence to action – a locally generated case for equitable and affordable access

The challenge

Why better glucose monitoring matters in Kenya

~20,800
PEOPLE LIVE WITH TYPE 1 DIABETES (T1D) IN KENYA, ~5,600 OF THEM ARE CHILDREN AND ADOLESCENTS[1]

<30%
OF CHILDREN AND ADOLESCENTS WITH T1D REACH RECOMMENDED GLYCAEMIC TARGETS[2]

>5 times
HIGHER HEALTH SPEND PER PERSON WITH DIABETES VERSUS THE GENERAL POPULATION[3]

<6%
OF PEOPLE WITH T1D CAN ACCESS CGM, TYPICALLY WEALTHIER, INSURED FAMILIES[4]

Approaches compared

Self monitoring of blood glucose (SMBG or finger-prick) versus continuous glucose monitoring (CGM)

SELF MONITORING OF BLOOD GLUCOSE

- ✕ 3-4 readings a day; no trend or direction
- ✕ Can miss dangerous highs and lows between tests
- ✕ Painful and visible, particularly at school
- ✕ Test-strip cost – often rationed or skipped
- ✕ Kenya's current standard of care

CONTINUOUS GLUCOSE MONITORING

- ✓ Real-time readings, day and night
- ✓ Alerts flag highs and lows early
- ✓ No finger-pricks – one discreet scan
- ✓ Shareable remotely with parents and clinicians
- ✓ Global standard of care (ISPAD) for T1D
- ✓ Kenya 2024 National Diabetes Guidelines recommendation for glucose monitoring in newly diagnosed T1D[5]

The evidence

ACCEDE–usability study in Kenya (ACCEDE–U)*

STUDY SITE – Paediatric and adolescent endocrinology clinic, Kenyatta National Hospital, Nairobi (East Africa's largest public referral hospital).

PARTICIPANTS – 40 participants with T1D, aged 4–25 years (median 13; 63% female); 95% completed the study.

DESIGN AND DEVICE – Single-arm; CGM (Abbott FreeStyle Libre 2, factory-calibrated with optional high/low alerts) worn for 3 months in place of finger-pricks, with structured education and insulin review.

TIMELINE – Participants were enrolled between November 2025 and January 2026 and followed up for 3 months.

POOR GLYCAEMIC CONTROL IS COSTLY AND DANGEROUS

It leads to frequent diabetic ketoacidosis (DKA), severe hypoglycaemia and avoidable admissions, plus lifelong complications such as blindness, kidney failure and heart disease.

FINGER-PRICK TESTING IS THE STANDARD

SMBG by finger-prick is painful, intermittent low glucose levels and limited to point-in-time readings; test-strip costs force rationing; and low glucose levels between tests go unseen.

Sources:

1. International Diabetes Federation IDF Diabetes Altas. Diabetes Atlas. Accessed September 2, 2026. https://diabetesatlas.org/ **2.** Ngwiri Thomas, et al. Glycemic Control in Kenyan Children and Adolescents with Type 1 Diabetes Mellitus. Int J Endocrinol. 2015;2015:761759. doi:10.1155/2015/761759 **3.** Ministry of Health, Kenya. National Non-Communicable Diseases Strategic Plan 2021-2025. Accessed September 3, 2026. **4.** Kamau YN, Mbindyo W, Kirchhoffer D, Haldane C, Vetter B. Willingness to Pay Survey for Continuous Glucose Monitoring Devices in South Africa and Kenya. 2024. https://www.finddx.org/wp content/uploads/2024/04/20240416_rep_ncd_ willingess_glucose_FV_EN.pdf **5.** https://www.prescribingcompanion.com/media/1358/national-dm-guidelines-version-15-2024.pdf

* ACCEDE: Access to CGMs for Equity in Diabetes Management. The ACCEDE–usability study was a 3-month study to assess the use of continuous glucose monitoring (CGM) devices among young people living with T1D, ISPAD: International Society for Pediatric and Adolescent Diabetes.

THE ACCEDE–U EVIDENCE

WHAT THE STUDY SHOWS

Usability, acceptability and quality of life

The study's primary result – highly usable, highly acceptable, and valued[6]

98.8/100
MEDIAN USABILITY SCORE – RATED "EXCELLENT" BY 95% OF USERS

~100%
RATED CGM ACCEPTABLE ACROSS EVERY DOMAIN ASSESSED

38% → 80%
HIGHLY SATISFIED WITH MONITORING – UP FROM 38% (SMBG) TO 80% (CGM)

CGM MADE IT EASIER TO LIVE WITH DIABETES, FOR PATIENTS, THEIR FAMILIES AND CAREGIVERS

1. Diabetes distress decreased for young people and caregivers.
2. Real-time alerts, discreet scanning and no finger-pricks were valued most, at school and overnight.
3. Caregivers gained peace of mind at night; clinicians found CGM easy to interpret and act on.



"First thing, it's pain-free…when you have the sensor there, you just scan."
– 23-year-old with T1D[7]

Clinical outcomes[8] (exploratory*)

Observed over 3 months at Kenyatta National Hospital

* The study was designed to assess usability, not powered to detect clinical change – these findings are observational and should be interpreted as promising signals, not proof.

–1.40%
HbA1c CHANGE FROM 10.82% TO 9.42% BETWEEN BASELINE AND 3 MONTHS (P < 0.001)**

HOSPITAL ADMISSIONS

Diabetes-related admissions fell as shown by 7 of 40 in the 3 months before the study to 1 of 38 during CGM use. 6 of the 7 earlier admissions were for DKA.

TIME-IN-RANGE

Time-in-range increased, and time-above-range decreased, with the largest decrease in the very-high band. **80% wore the CGM ≥70% of the time.**

The international context

THE GLOBAL STANDARD

ISPAD recommends CGM for all children, adolescents and young adults with T1D.[9]

GLOBAL COMMITMENTS

WHO Global Diabetes Compact targets universal monitoring and 80% control by 2030; CGM advised during pregnancy.[10]

PROVEN BENEFIT

Meta-analysis: CGM lowers HbA1c, increases time-in-range and reduces hypoglycaemia.[11]

In the ACCEDE South Africa randomized clinical trial, **CGM, used periodically, reduced HbA1c by 1.13% at 6 months (p = 0.001)** versus finger-pricks[12]; ACCEDE-U provides important local evidence from Kenya.

Sources:

6. Amolo Prisca, et al. Usability, acceptability and feasibility of continuous glucose monitoring among children and adolescents with type 1 diabetes in Kenya medRxiv 2026.08.27.26361447; doi: https://doi.org/10.64898/2026.08.27.26361447 **7.** Karume Agness, et al. Acceptability, Feasibility, and User Experiences of Continuous Glucose Monitoring in Type 1 Diabetes in Kenya: Perspectives of Adolescents, Young Adults, Caregivers, and Healthcare Providers medRxiv 2026.08.16.26359665; doi: https://doi.org/10.64898/2026.08.16.26359665 **8.** Mungai LW, Amolo P, Karume AK, Munene-Waweru P, Nailaen C, Mule P, et al. Glycaemic outcomes of three months of continuous glucose monitoring in children, adolescents and young adults with type 1 diabetes at a Kenyan tertiary hospital: a single-arm prospective study. medRxiv [Preprint]. 2026 Oct 1. doi: https://doi.org/10.64898/2026.09.29.26364323 **9.** Tauschmann Martin et al., International Society for Pediatric and Adolescent Diabetes Clinical Practice Consensus Guidelines 2024 Diabetes Technologies: Glucose Monitoring. Horm Res Paediatr 28 December 2024; 97 (6): 615–635. https://doi.org/10.1159/000543156 **10.** World Health Organization. WHO. The WHO Global Diabetes Compact. Accessed September 2, 2026. https://www.who.int/initiatives/the-who-global-diabetes-compact **11.** Maria Ida Maiorino, et al. Diabetes Care 1 May 2020; 43 (5): 1146–1156. https://doi.org/10.2337/dc19-1459 **12.** Marbán-Castro, E et. al. Clinical effect of Continuous Glucose Monitoring on Glycemic Control in people With Type 1 Diabetes: A Randomized Controlled Clinical Trial in South Africa (Under Peer Review) * Usability was the pre-specified primary outcome; clinical measures were exploratory (single-arm, not powered; observed alongside structured education) ** Adjusted mean HbA1c 95% CI –2.07 to –0.68.

THE WAY FORWARD

Cost and affordability[13]

Price and value

CGM IS PRICED FAR ABOVE ITS VALUE IN KENYA

1. Sensors cost between KES 9,000 and 22,500 per sensor and are replaced approximately every 2 weeks, thus making cost the single biggest barrier to access.
2. Kenyan CGM prices sit well above regional benchmarks – taxes (~33%) and mark-ups add >125% over manufacturer prices.
3. CGM costs > 10 times more than SMBG: KES 395,000 vs KES18,000-33,000 per user per year.

HOW FAR PRICES MUST FALL

2 CGM use-cases were examined:

- **Periodic CGM** (2 weeks sensor use per quarter) would be cost-effective with a **45-61%** price reduction.*
- **Continuous CGM** use requires a larger **86-93%** price reduction.*

* Based on modelling results.

Budget impact analysis (BIA)[13]

What it would cost

+KES 132 million per year for periodic CGM for children, adolescents and young adults with T1D (even with a 50% price discount) – this is approximately 2.1 times today's current spend on SMBG for youth.

	No. of users/ year	Status quo annual cost (KES)	Additional budget required (KES)	% increase	Additional budget required (KES)	% increase
1 year BIA						
80% uptake, 50% sensor price discount			**Periodic CGM**		**Continuous CGM**	
T1D Youth	3,651	120m	+132m	111%	+631m	527%
T1D All	7,484	191m	+280m	146%	+1,348m	740%
5 year BIA						
80% uptake, 50% sensor price discount			**Periodic CGM**		**Continuous CGM**	
T1D Youth	3,651	598m	+228m	38%	+1,217m	204%
T1D All	7,484	956m	+510m	53%	+2,764m	289%

DEMAND IS REAL AND IMMEDIATE

- At the study's end, most families could not sustain out-of-pocket payments.
- Clinicians and caregivers are calling for CGM to be written into policy.[6]
- The eligible group is small, at an estimated ~7,500 users; therefore, the budget impact would remain modest even at a high per-patient price.

The ask

Recommended actions for policymakers

Advance Health Technology Assessment (HTA) & the Social Health Insurance Fund (SHIF) review	Build on the existing CGM preference in the National Diabetes Guidelines	Start with periodic CGM for youth and other high-risk groups	Negotiate price and strengthen supply-chain efficiency	Strengthen system readiness	Fund monitoring and plan scale-up
Use this local evidence in Kenya's HTA and the SHIF benefit-package review.	Operationalize and enforce CGM for T1D, with clear eligibility, schedules and follow-up.	A fiscally lighter, high-benefit entry point for public-sector access.	Use KEMSA/SHA purchasing power and lower cumulative mark-ups to realize >50% price cuts.	Train clinicians and nurse educators; support children with T1D in schools.	Add consumables to the SHIF tariff; extend to adults as prices fall.

THE BOTTOM LINE

Kenya has local evidence that CGM works, is highly usable and is in high demand. Periodic CGM for children, adolescents and young adults with T1D is an affordable place to start, at as little as **+KES 132 million a year**. The HTA and SHIF benefit-package review should begin now.

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Sources:

13. FIND. (2026). Investment case for CGM access for children and young adults living with type 1 diabetes under Kenya's Social Health Insurance Fund. https://www.finddx.org/