



Paediatric & Congenital Cardiac Surgery

Volume Growth & Outcomes Report

National Cardiothoracic Centre, Korle Bu | Boston Children's Hospital | Children's Lifeline International

Annual Surgical Data Summary | 2023 – 2025

Performance at a Glance

Three-year programme snapshot, 2023 – 2025



69%

**Surgical Case
Growth**

75 → 127 cases



175

**Cath Training
Patients**

8 visits across 3 partners



11

**Annual Mortality
Count**

Unchanged across all 3 years



**14.7% →
8.7%**

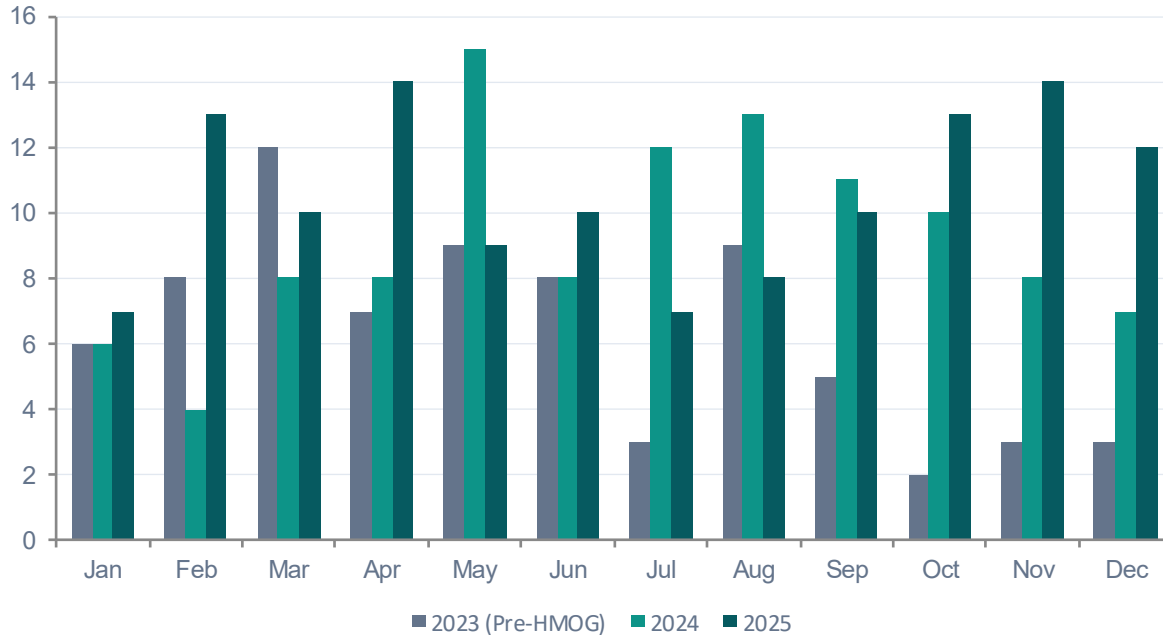
**Mortality Rate
Decline**

41% relative reduction

487 total procedures (312 surgical + 175 cath) — volume growth with improving safety as the programme scales.

Hearts and Minds of Ghana Partnership

HMOG / Boston Children's Hospital engagement with the National Cardiothoracic Centre began January 2024 | Sponsored by Children's Lifeline International



Impact of HMOG Engagement

2023 (Pre-HMOG)

75 total cases

6.25 cases/month avg

2024 (HMOG Year 1)

110 total cases (+47%)

9.17 cases/month avg

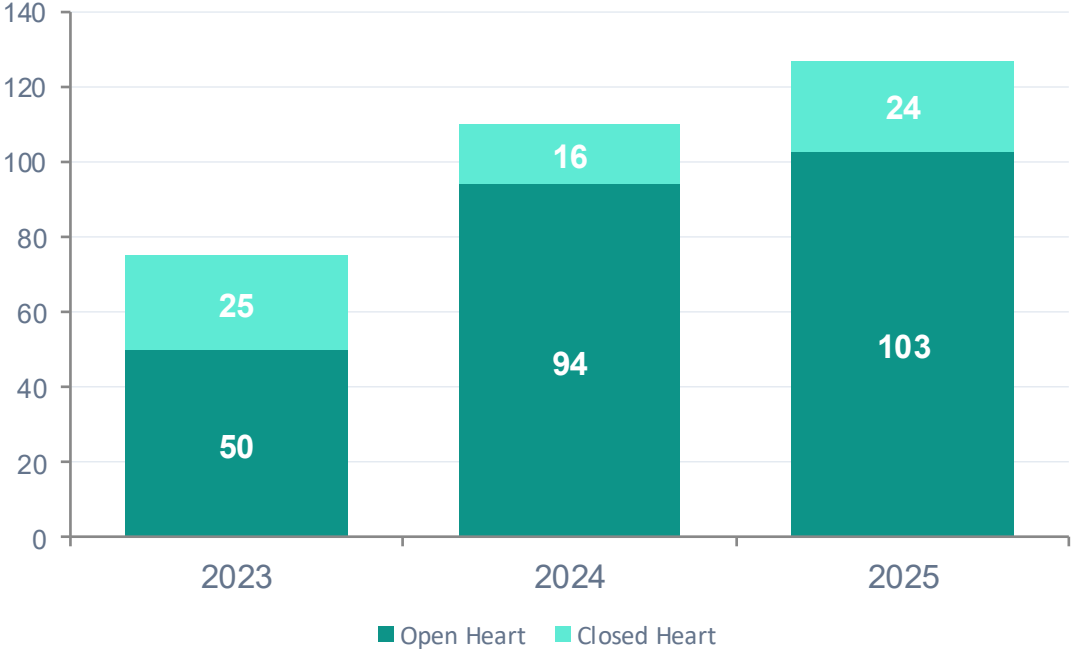
2025 (HMOG Year 2)

127 total cases (+69%)

10.58 cases/month avg

Surgical Volume & Case Mix

Total annual cases by type, 2023 – 2025



Total Cases (3 yr)

312

Open: 247 (79%) | Closed: 65 (21%)

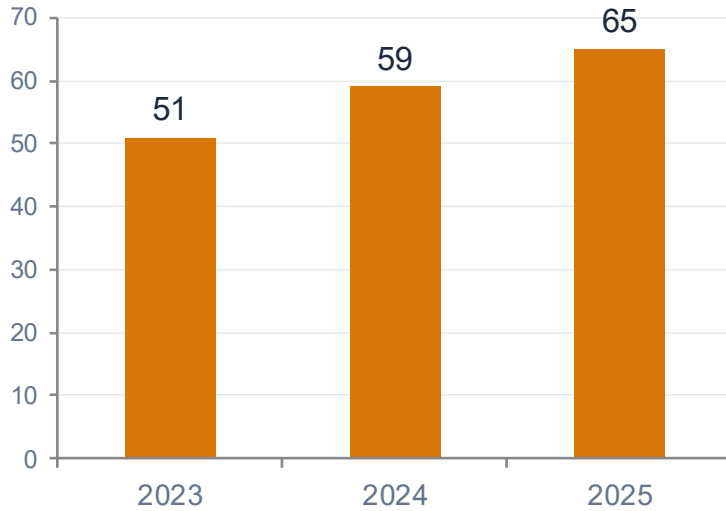
Open Heart Growth

+106%

50 → 103 cases (2023 → 2025)

Cardiac Catheterisation Training Visits

Paediatric & congenital cardiac cath visits in association with the NCTC Paediatric Cardiac Team, 2023 – 2025



175 total patients | **8** training visits

Training Visit Detail

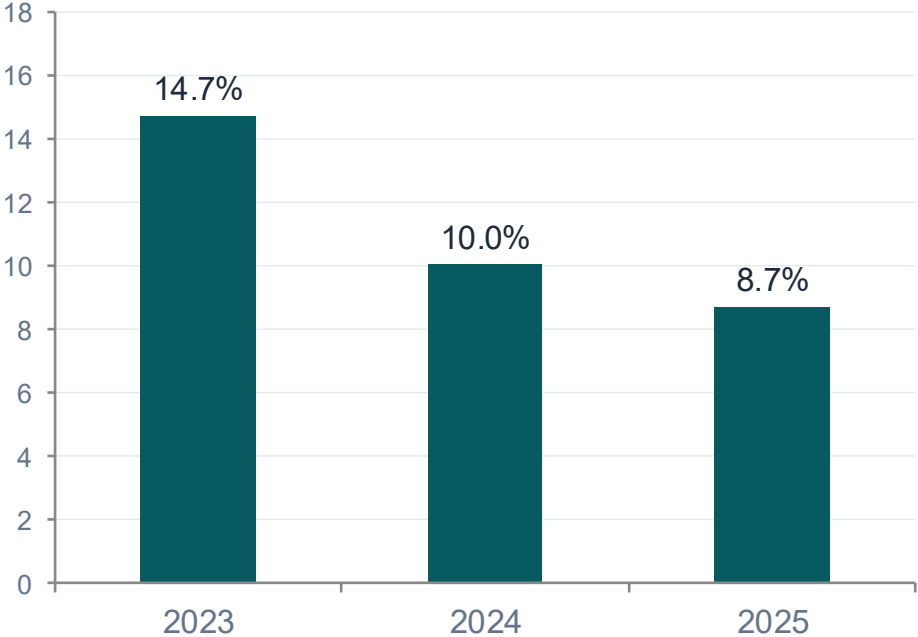
Date	Team	Venue	Patients
May 2023	GHC	UGMC	5
Aug 2023	Qatar Charity	UGMC	30
Nov 2023	KHZ / GAF	UGMC	16
Aug 2024	Qatar Charity	UGMC	42
Nov 2024	KHZ / GAF	NCTC	17
May 2025	KHZ / GAF	UGMC	14
Aug 2025	Qatar Charity	UGMC	38
Nov 2025	KHZ / GAF	NCTC/KBTH	13

Partners: Global Health Care | Qatar Charity | Kinderherzen / Gerald Asamoah Foundation

Combined programme: **312 surgical + 175 cath = 487 total procedures**

Mortality Rate Trend

Mortality count steady at 11/year while volume scales — effective rate declining



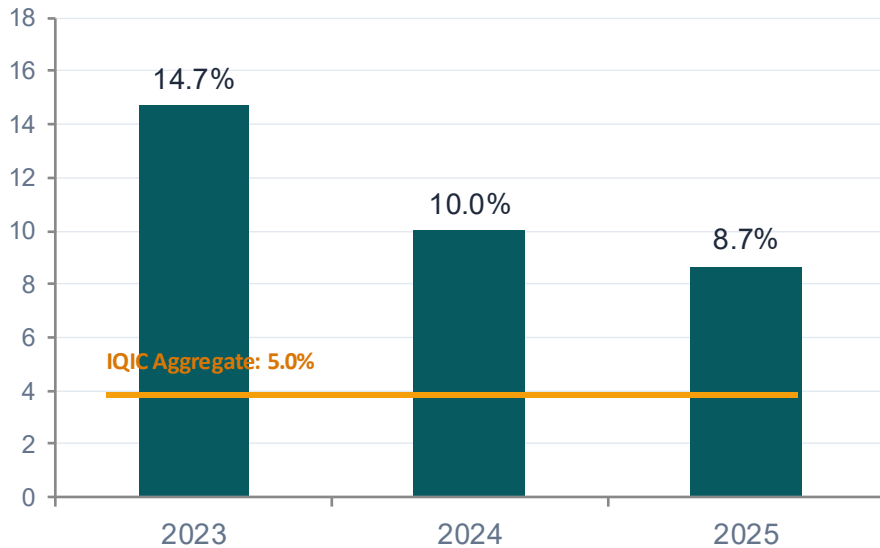
Year-by-Year Breakdown

Year	Cases	Deaths	Rate
2023	75	11	14.67%
2024	110	11	10.00%
2025	127	11	8.66%

41% relative rate reduction while maintaining steady absolute outcomes

IQIC Benchmark Comparison

NCTC outcomes vs. International Quality Improvement Collaborative (80+ sites, 30+ LMIC countries)



NCTC's rate of improvement mirrors the trajectory of IQIC centres in their first years of quality-focused participation.

How NCTC Compares

Overall CHD Mortality

NCTC: 8.7% (2025) **IQIC:** 5.0%

NCTC converging; early-phase programmes typically start higher

ASD Closure Mortality

NCTC: ~0% **IQIC:** 0.2%

Comparable to IQIC and HIC benchmarks

TOF Repair Mortality

NCTC: ~4% **IQIC:** 3–5%

Within range of IQIC and HIC centres

Infection Reduction

NCTC: — **IQIC:** SSI: 7.6%→1.6%

Key area for NCTC to benchmark via IQIC protocols



Key Takeaways

- Hearts and Minds of Ghana / BCH engagement began January 2024 — catalysing a step-change in programme capacity
- Total surgical volume grew 69% (75 → 127); open heart cases more than doubled (+106%)
- 175 catheterisation training patients across 8 visits with 3 international partners — 487 total procedures
- Absolute mortality held steady at 11 per year; effective rate fell from 14.7% to 8.7%
- NCTC outcomes converging toward IQIC benchmarks; on pace for 200+ cases in 2026