



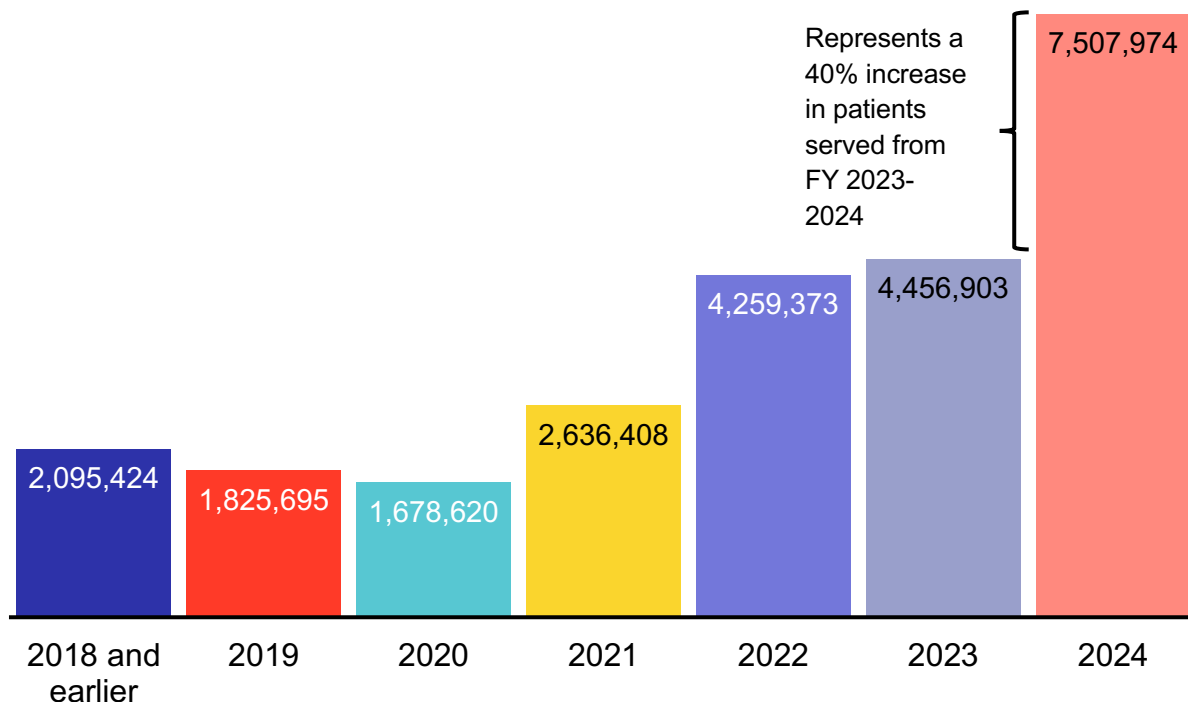
Developer of Rx-supervised point-of-care cardiovascular products, including its flagship InstaECG – a cloud connected device that makes AI-assisted ECG analysis and interpretation easy and returns a cardiologist-certified report within 10 minutes. Other offerings include InstaEcho, a service similar to InstaECG, but for electrocardiography, and the most economical form of ECG available, VCardia, to help address the ECG needs of underserved populations and settings around the world.

[Visit the Tricog Health website](#)

## I. FY2024 Impact Metrics<sup>1</sup>

### 1. Total Patients Served by Year

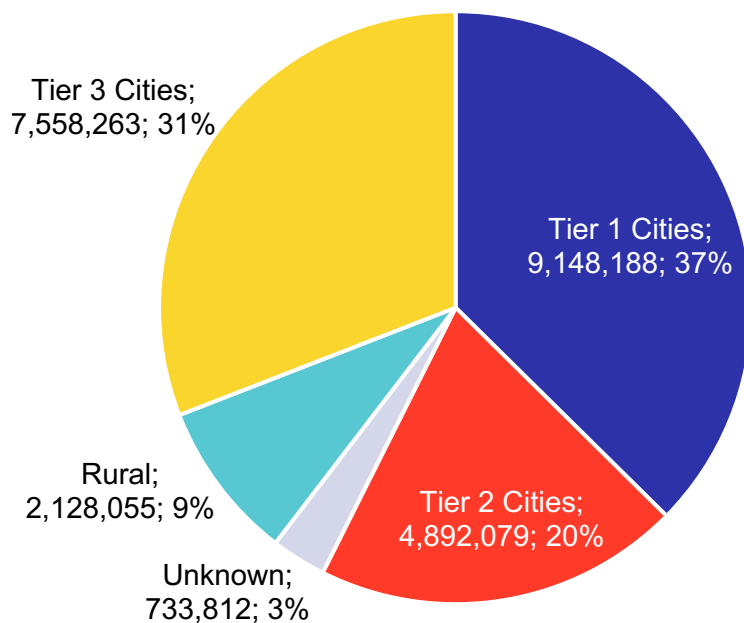
***N = 7,507,974 (2024); 24,460,397 (cumulative)***



<sup>1</sup> Notes a period from April 1 2023 to March 30 2024

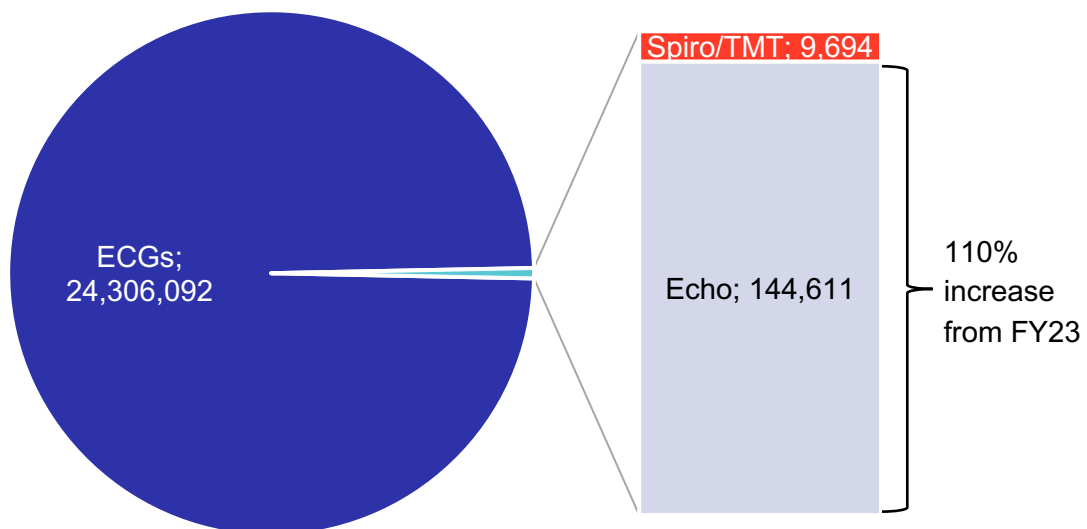
## 2. Total Patients Served by Underserved Status (Cumulative)<sup>2</sup>

***N = 24,460,397 (cumulative)***



## 3. Total Patients Served by Product Type (Cumulative)<sup>3</sup>

***N = 24,460,397 (cumulative)***

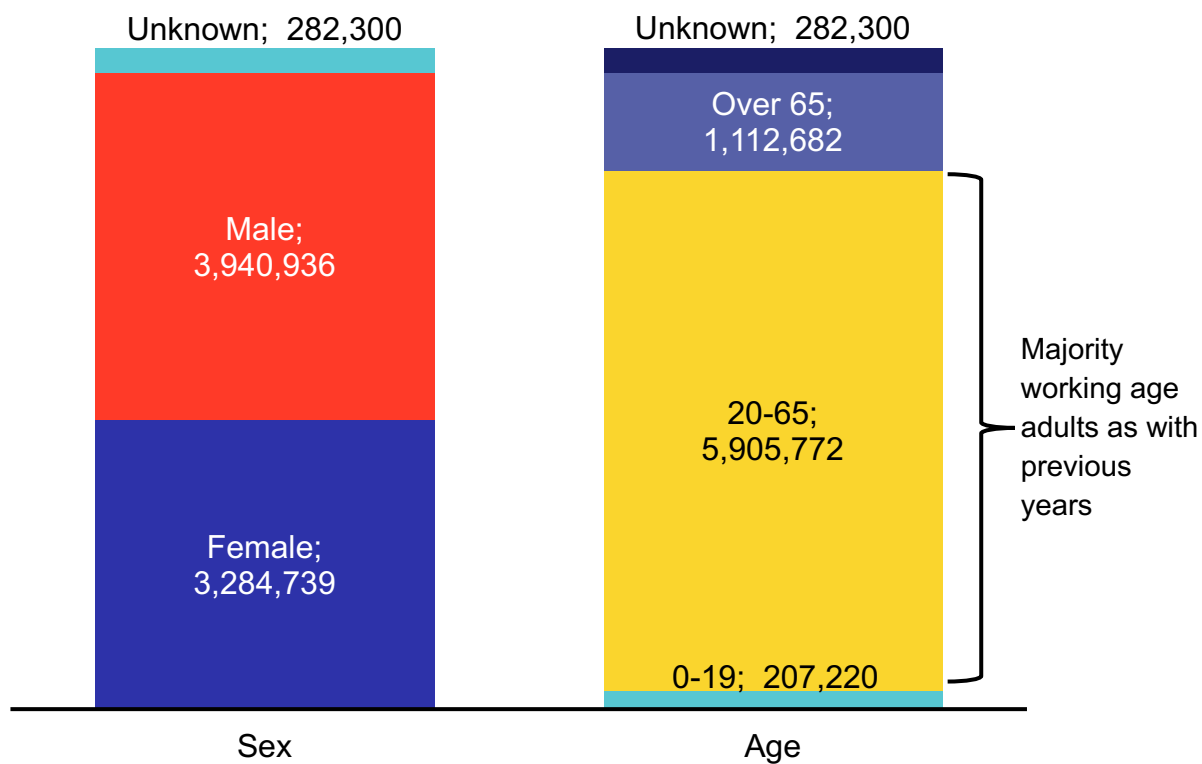


<sup>2</sup> Overall 60% of served patients reside in underserved locations. Note that Tricog considers Tier 2, Tier 3, and Rural designations as underserved.

<sup>3</sup> Spiro refers to lung capacity / pulmonary function tests conducted with a spirometer. TMT refers to an AI-enabled, physician-supervised treadmill test to evaluate cardiac performance under exercise stress.

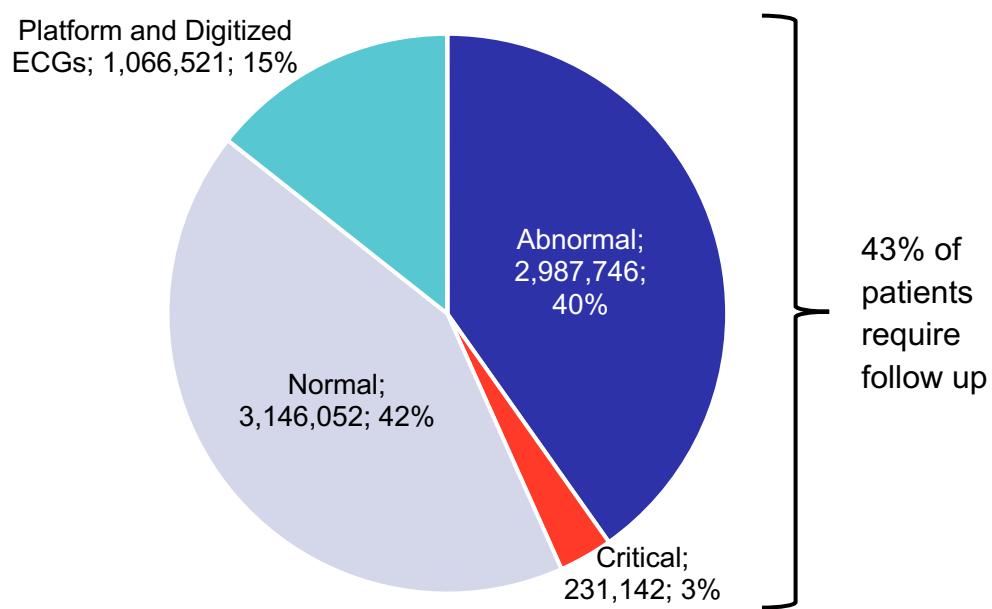
#### 4. Patient Population Demographics (2024)

***N = 7,507,974 (2024)***



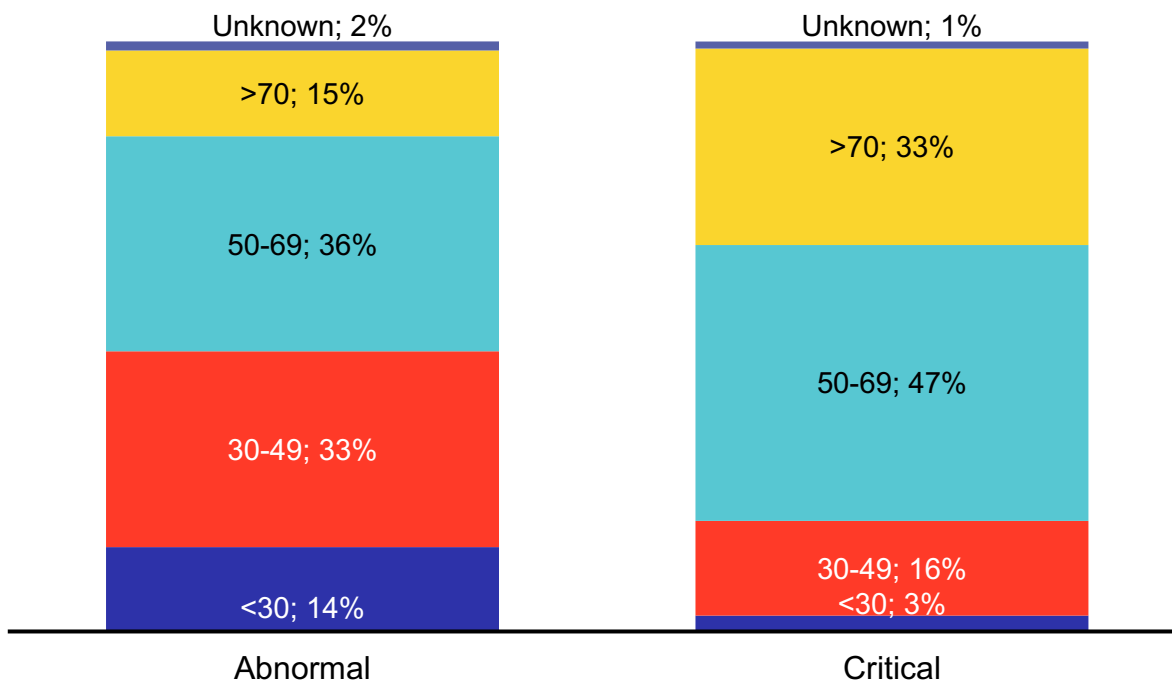
#### 5. ECG Patient Population by Cardiovascular Status (2024)

***N = 7,432,203 (2024)***



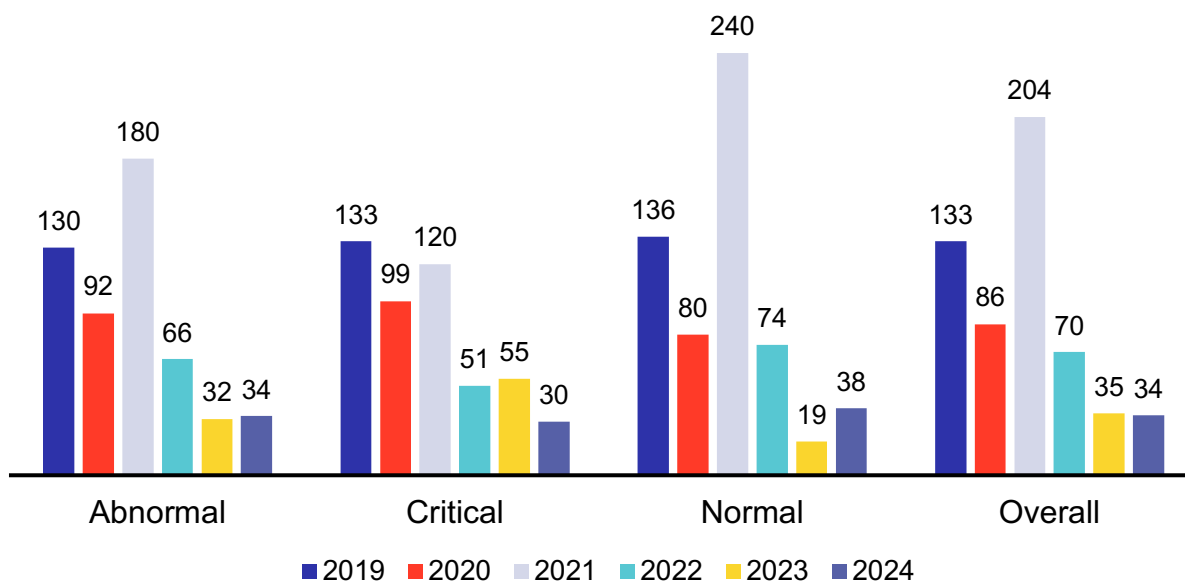
## 6. ECG patient population by cardiovascular status and age (2024)

*N = 3,218,887 with an abnormal or critical result (2024)*



## 7. ECG reading time by status (2019-2024)<sup>4</sup>

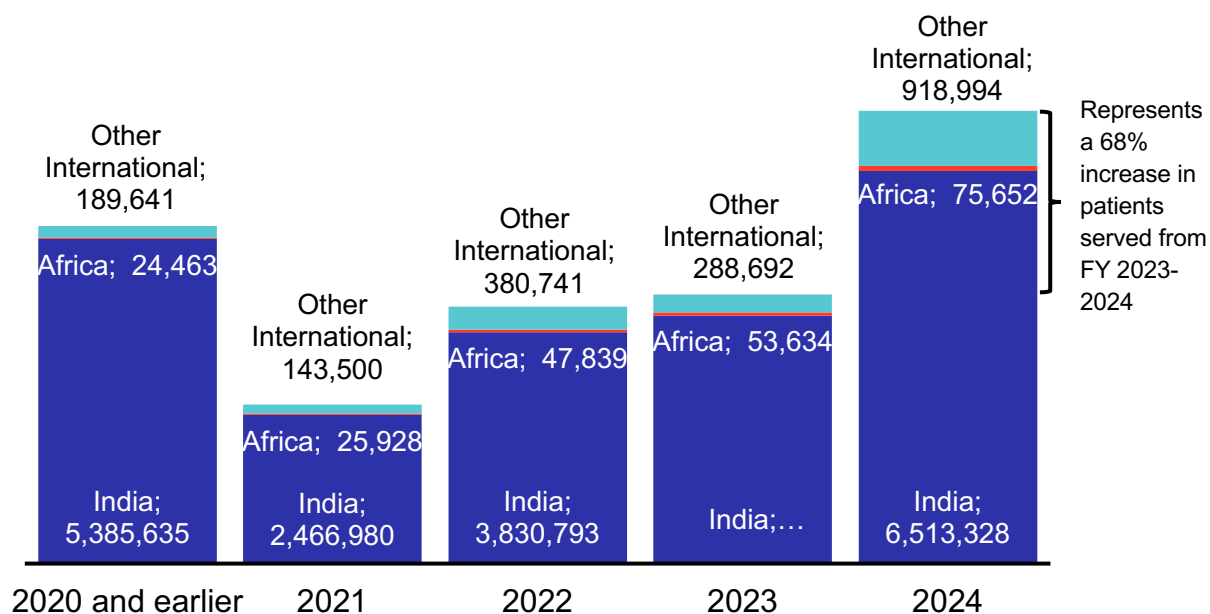
**Remote Readings in Seconds**



<sup>4</sup> Read times not broken out by status prior to 2019

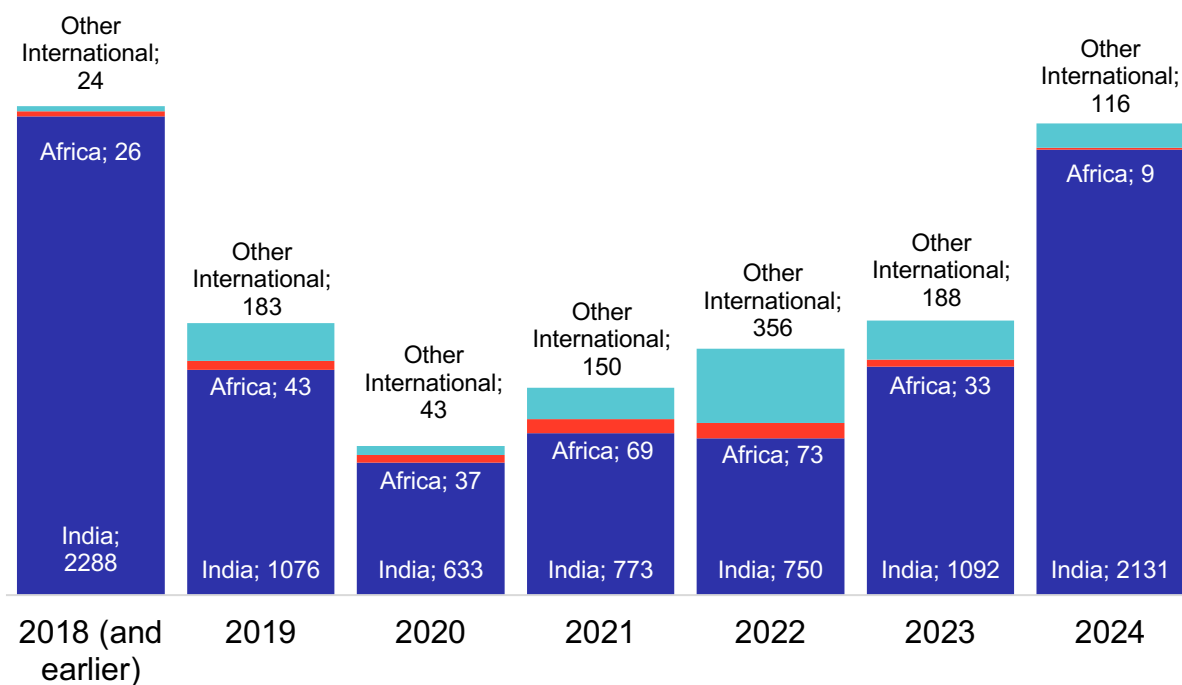
## 8. Patient Tests/Reads (Scan Units) by Geography<sup>5</sup>

**N = 7,507,974 (2024); 24,460,397 (cumulative)**



## 9. ECG Communicator "Units" (i.e. Installed Base) by Geography

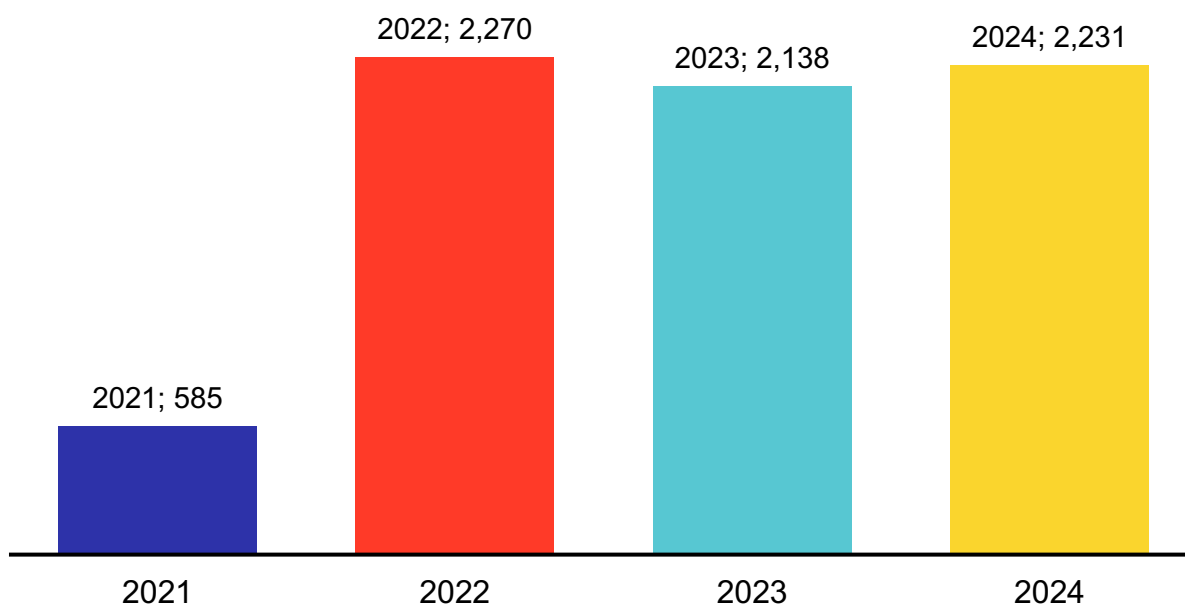
**N = 2,256 (2024); 10,093 (cumulative)**



<sup>5</sup> All 'other international' markets are LMICs.

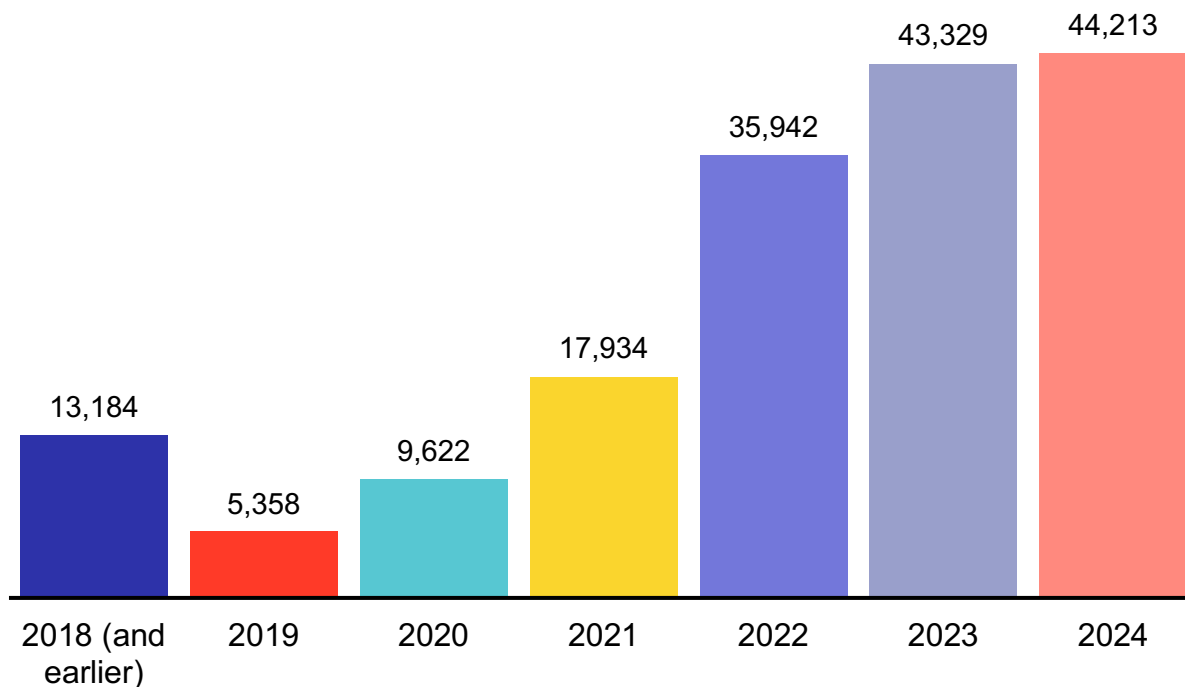
## 10. VCardia Units Per Year<sup>6</sup>

***N = 2,231 (2024); 7,224 (cumulative)***



## 11. Platform/app/dashboard/care Coordination<sup>7</sup>

***N = 44,213 (2024); 169,582 (cumulative)***

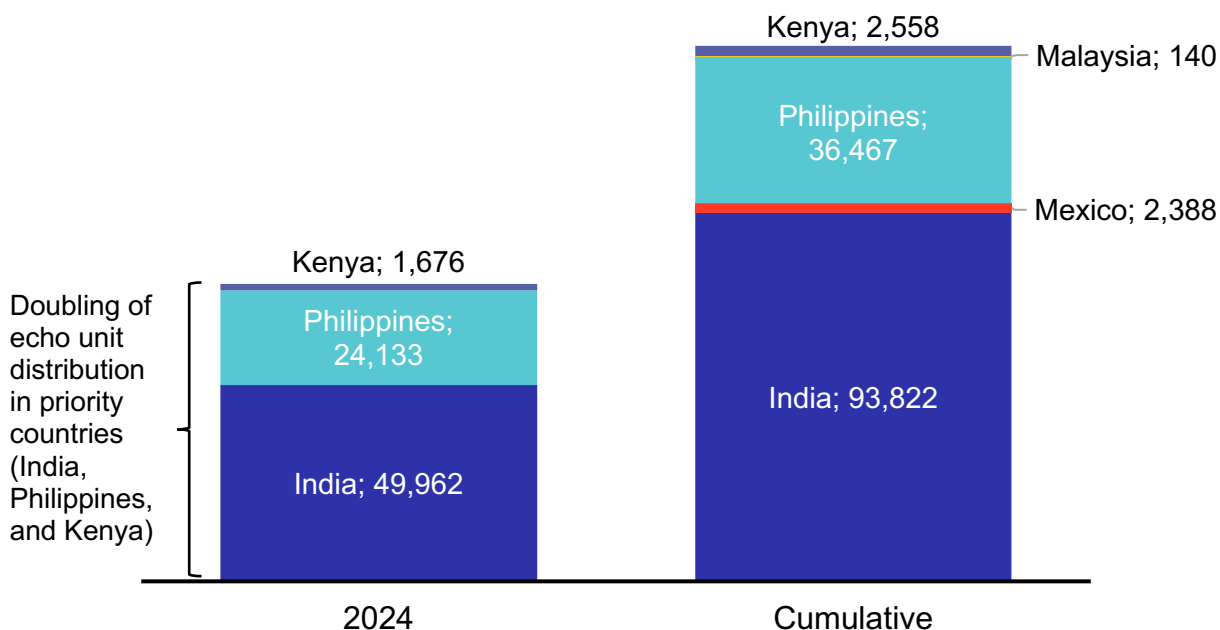


<sup>6</sup> The VCardia platform is a streamlined 12-lead ECG designed to be lightweight and durable. It is frequently used in LMIC settings in hospitals, rural clinics, or homebased care.

<sup>7</sup> These are not counted as either test 'units' or communicator 'units' in this report.

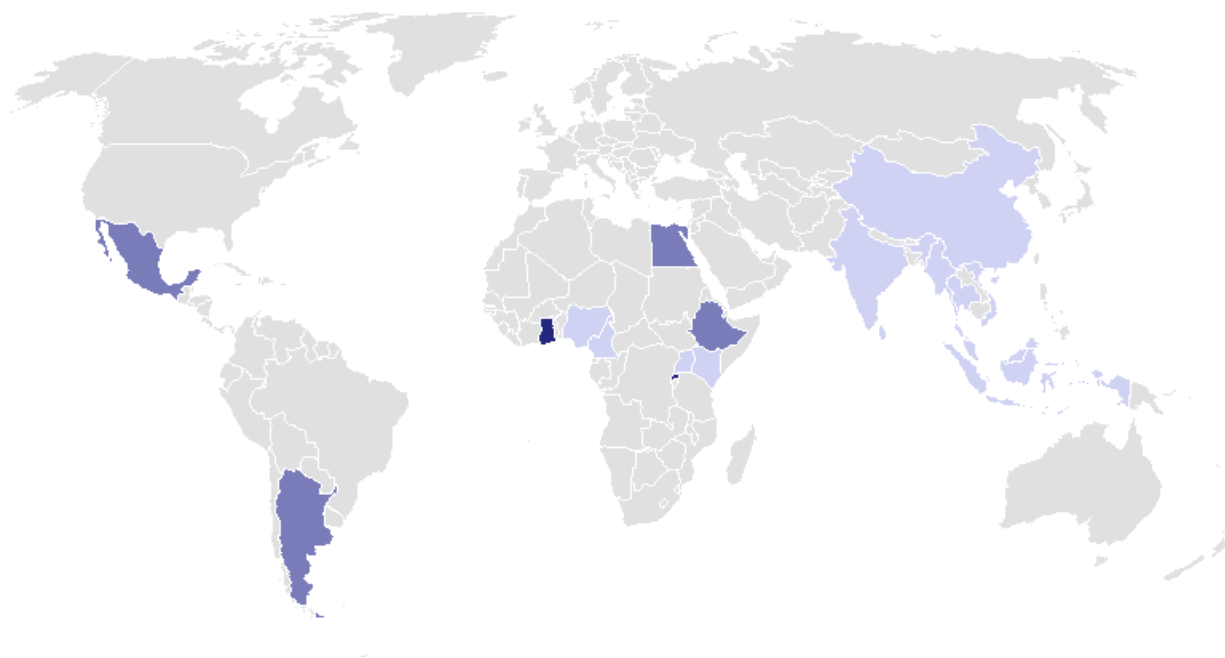
## 12. Echo Test Units by Year and Geography 2024 and Cumulative results

***N = 75,771 (2024); 136,314 (cumulative)***



## 13. Commercial and Other Forms of Unit Distribution by Geography (Cumulative)<sup>8</sup>

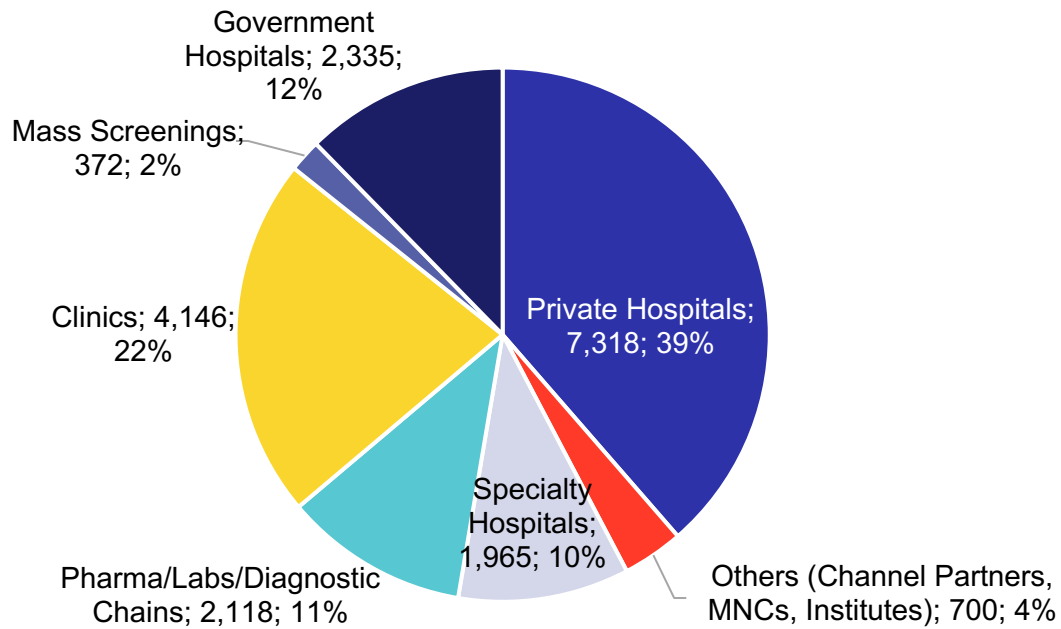
***22 Countries, 5 Continents (cumulative)***



<sup>8</sup> While Tricog added no new geographies in the last year, it has doubled down on several markets that are core from an impact perspective.

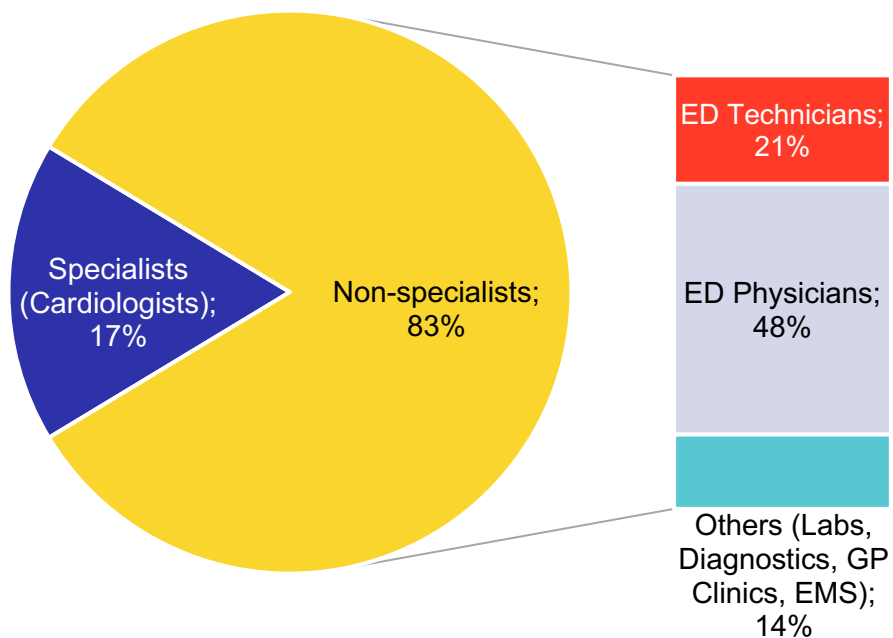
#### 14. Cumulative Facilities by Type

***N = 5,479 (2024); 18,954 (cumulative)***



#### 15. Cumulative Providers by Type<sup>9</sup>

***N = 5,390 (2024); 21,562 (cumulative)***

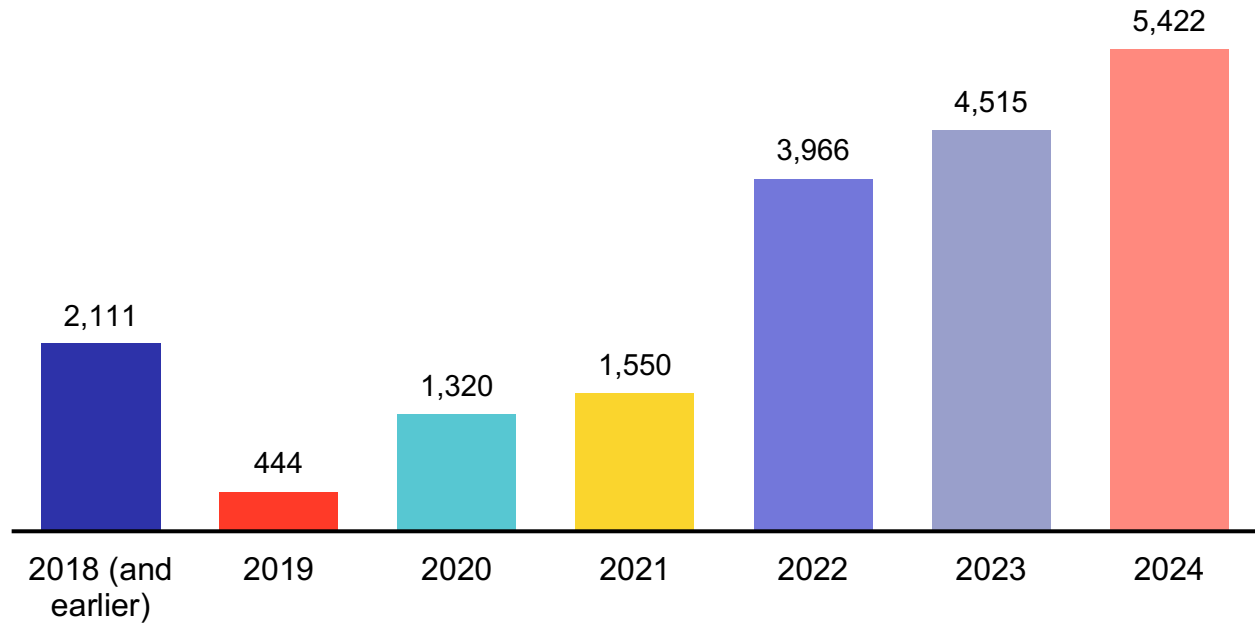


<sup>9</sup> Non-specialists conducted 4,610 tests in 2024

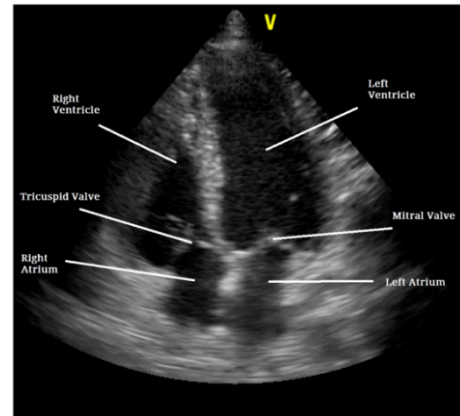


## 16. Annual Provider Training

*N = 5,422 (2024); 19,328 (cumulative)*



## II. IMPACT SPOTLIGHT: Tricog's Efforts Around Early Detection of Heart Failure in Kenya: International Recognition and Implications for Scaling-Up in Kenya and Beyond



This is a different type of Spotlight than our standard approach to telling streamlined stories of on-the-ground impact. We have departed from our usual format, given the unusual circumstances around set-backs in global health development aid over the course of this last year. These global health funding deficits have hit one of our target geographies, Sub-Saharan Africa (“SSA”), especially hard. Our Spotlight this year attempts to address a question raised by many of our partners and stakeholders: what are the implications of this global health “reset” for **private sector innovators** looking to introduce their products or services into SSA markets?

We use Tricog to answer the question, building on its story of last year, which described the Company’s efforts to advance an **early heart failure detection system** in **Kenya**. As you will read, we remain strongly of the view that opportunities will continue, and indeed may even increase, for those **select companies** that:

- (a) are advancing **AI-enabled digital health** innovations, even those that may represent **novel** healthcare approaches;
- (b) in areas of critical need, including **major NCDs in countries of interest**;

(c) that rely on **smart market entry strategies** of the type deployed by Tricog and described in this report; and

(d) that target those countries in SSA (and elsewhere in LMICs) **most intent on forging their own healthcare future**, customized to their own goals and patient needs, and **leveraging digital health solutions** to build out their healthcare infrastructure.

We tell this story:

- **first**, by describing the background, focusing in particular on events surrounding **clinical trial outcomes** and other aspects of Tricog's **early market introduction strategy** in Kenya;
- **second**, by explaining in greater detail why countries like **Kenya** may have interest in select **private sector, AI-driven digital health opportunities** like Tricog's heart failure risk detection system, even during this period of global health funding disruption; and
- **third**, by bringing the story of Tricog's marketing in Kenya **up-to-date**, including during the months following the various announcements by the US, UK, and others, around development aid curtailment. Among other activities, Tricog has: (a) advanced its **research** publications on the **international stage**; (b) begun developing **health economics support** for its heart failure risk detection tool; (c) continued its meetings with Kenyan health officials at both **National** and **county levels** to advance **public sector** use; (d) formed **collaborations** to assist with **scaling** its innovation in **private sector health settings**; and (e) continued **R&D** efforts for add-on innovations that can identify and help manage **higher-risk populations** for **cardiovascular disease** in Kenya and beyond.

Details follow.

## **A. Overview of Heart Failure (“HF”) Burdens in Sub-Saharan Africa (“SSA”), and Tricog’s Clinical Trial in Kenya to Advance Its Early HF Risk-Detection System**

## #1. Background and Trial Outcomes

Early detection of HF faces significant challenges in SSA, yet the burden of HF and its risk factors there is high, underscoring the need for population-level screening and prevention strategies. Patients present at a younger age and face worse outcomes despite having fewer comorbidities, compared to HF patient populations in high-income countries (“HICs”).<sup>i</sup>

In last year’s Spotlight for Tricog, we wrote about HF and the steep barriers that exist to its early diagnosis in SSA (with a focus on Kenya), highlighting four key challenges in particular:

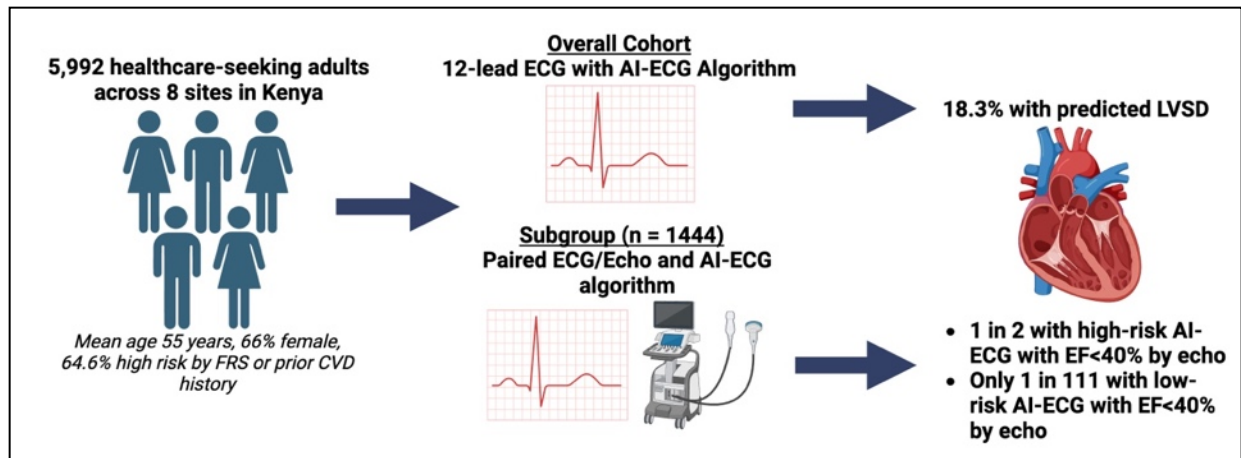
- (a) **limited access** to essential diagnostic tools (**transthoracic echocardiography**);
- (b) **scarcity of CVD-related specialists** needed for interpretation and management of HF;
- (c) **affordability challenges** surrounding early population screening and diagnosis of HF; and
- (d) **inadequate SSA-based literature** quantifying the **burdens** of HF and related subclinical manifestations.

As another challenge, **slow recognition** of the **symptoms** of HF leads to a further delay in the accurate identification of clinical HF;<sup>ii</sup> even within the United States, nearly **50%** of patients with incident HF, have symptoms up to **6 months** before formal HF diagnosis.<sup>iii</sup>



We described in last year's report how Tricog, in response to these access challenges, had begun a **prospective, cross-sectional screening trial**, across **eight healthcare facilities** in Kenya, to study the Company's potentially transformative approach to earlier identification of patients at high risk of HF. Tricog's technology leverages AI to deploy an ECG-based risk-detection system for HF, and its testing in Kenya was a **first-of-its-kind project** in Africa. By utilizing a low-cost and widely available tool -- a resting 12-lead ECG coupled with a novel AI algorithm applied to ECG results<sup>iv</sup> -- the study aimed to predict the probability of left ventricular systolic dysfunction ("LVSD") (defined as a left ventricular ejection fraction <40%) in trial participants.<sup>v</sup> **Early identification of LVSD** represents a **critical opportunity to improve HF outcomes**: adults with asymptomatic LVSD have a **2-to-5-fold** increased risk of developing **overt HF**, and **early intervention** with evidence-based therapies can **significantly reduce mortality**.

The objectives of the clinical trial in Kenya were two-fold: (1) to determine the **prevalence of LVSD** in healthcare-seeking adults in Kenya; and (2) to **validate** the **performance** of Tricog's HF detection system across multiple healthcare facilities, representing varying levels of resource capacities and patient traffic. (For validation of the system, the performance of the AI-ECG algorithm in detecting LVSD was assessed against the gold standard of transthoracic echocardiography in a subset of **1,444** participants.)

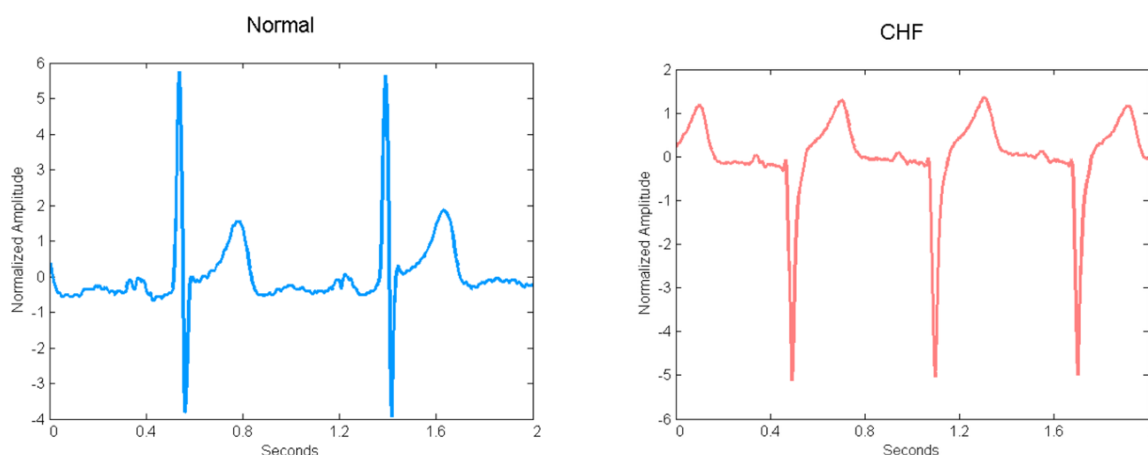


The study's evaluable cohort included **5,992** participants (mean age **55** years; **2/3 (66%)** of which were **female**; and **65%** of which were classified as being at **high cardiovascular risk**).<sup>vi</sup> Quite notably, nearly **one in five (18.3%)** were identified as having LVSD by the screening AI-ECG algorithm.<sup>vii</sup> The AI-ECG algorithm demonstrated robust performance – **95.6% sensitivity, 79.4% specificity, and 99.1% negative predictive value**, with consistent performance across clinical risk strata. A positive AI-ECG screen was associated with over **80-fold greater odds** of having LVSD. Test characteristics enabled both efficient “rule-out” (fewer than **1 in 111** patients with a negative result, would have LVSD), and reasonably accurate “rule-in” of disease, optimizing the use of scarce echocardiography resources in the region. **These performance metrics will continue to improve over time**, with the assistance of **AI**.

By implementing the algorithm across multiple health care facilities with varying resource levels, the study demonstrated the feasibility of AI-ECG screening in **real-world clinical settings** in Kenya, SSA, and low- and middle-income countries (“LMICs”) more generally. **As one of the largest external validations in LMIC settings** to date, this clinical trial report extends beyond traditional derivation and validation studies from North America, Europe, and/or East Asia. Findings from the study support that AI-enabled ECG can serve as an effective initial strategy to identify individuals with cardiac dysfunction in resource-limited settings, where access to echocardiography remains challenging.

While those few participants who were false positives, did not meet criteria for LVSD, importantly, upon retrospective review, they exhibited a **previously unstudied intermediate cardiac phenotype** (features

suggesting early adverse remodeling with greater burden of cardiovascular disease). The identification of this intermediate phenotype raises the possibility that AI-ECG algorithms might detect subtle changes associated with cardiac remodeling, even before systolic dysfunction becomes apparent by conventional measures. Further prospective research is needed to characterize the clinical significance of these AI-ECG false positives, and to determine optimal approaches to monitoring and risk assessment in this subpopulation. Those efforts are underway and will be published upon completion.



Beyond validation of performance, the study was also significant for its findings of **LVSD prevalence** among healthcare-seeking Kenyan adults. Prior to this study, the prevalence of LVSD remained poorly characterized, with most estimates derived from **retrospective** hospital-based studies.<sup>viii</sup> Tricog’s study represents **one of the (if not the) first prospective findings of prevalence for LVSD (i.e., subclinical HF)** in this population.

## 2. Tricog’s broader market introduction strategy

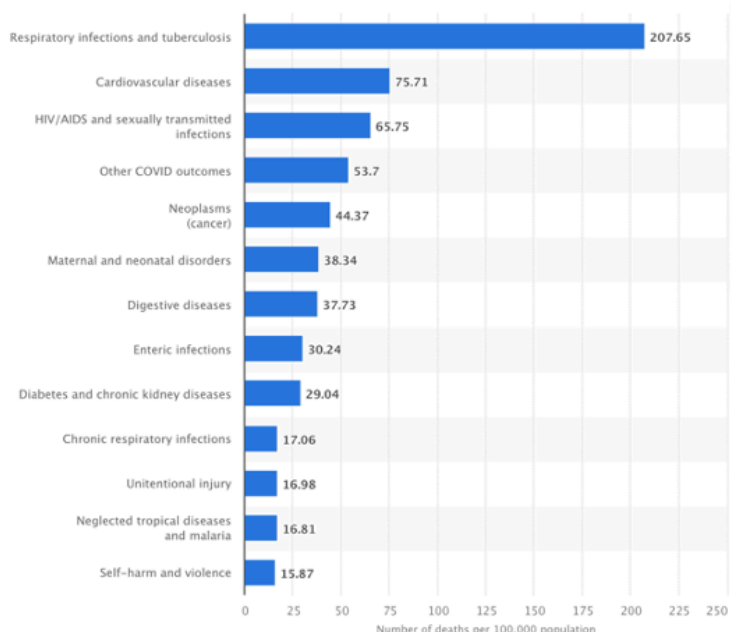
As noted, the clinical study in Kenya has now been completed, and its results submitted to the leading cardiovascular Journal of Europe (the European Heart Journal (“EHJ”)) -- all part of a larger effort by Tricog to introduce and scale its AI-driven, ECG-based HF risk detection solution in Kenya, SSA, and LMICs more generally. The Company’s strategic approach, in our view, represents **one of the best case studies we have seen**, on how to introduce AI-driven, digital innovation for NCD-related purposes, in low-resource settings like SSA. Here’s how Tricog framed out



its **multi-pronged market introduction strategy in Kenya** through last year:

(a) First, as a threshold consideration, Tricog understood that its innovation represented a solution that addressed a **significant disease burden** confronting Kenya. **Cardiovascular disease** is the **second** leading cause of **death** in that country,<sup>ix</sup> and more broadly, the **leading noncommunicable disease (“NCD”) priority for LMIC healthcare agendas** worldwide.<sup>x</sup>

**Main causes of death in Kenya (2021), by type**



The Company framed the proposed value of its innovation around **impact**: (a) the heavy HF **burden** in Kenya and SSA generally; and (b) the innovation’s use as an important solution for reducing Kenya/SSA **access challenges** to earlier diagnosis of HF.

(b) As a second consideration, the Company established a **subsidiary in Nairobi**, and collaborated with Kenya’s **cardiovascular thought leaders** (Kenya Cardiac Society (“KCS”)) to help design the protocol and implement the study. Given this involvement, the Society is now in a position to make public statements about the implications of the study’s findings. For example, in his remarks on the trial at a world forum on HF (described in Section C below), Dr. Bernhard Samia, Senior Author and President of the KCS, said this: “[our] study shows the potential utility of AI-ECG algorithms as a **relatively low-cost** and **scalable** tool for **screening for heart disease, including heart failure**, in **at-risk populations** in **resource-limited societies**.”<sup>xi</sup>

(c) Around the same time, Tricog also collaborated with **large Pharma** (specifically, **AstraZeneca**), given that company’s interest in building out cardiovascular markets in LMICs. Timely supply of Guideline-directed



medical therapy for HF, represents a critical part of the solution envisioned by Tricog.

(d) As noted, during the study, the Company sought to **validate the technology's performance in-country** -- across a Kenyan adult population seeking routine healthcare. Care included: (a) both **public** and **private** health facilities (but not more specialized cardiovascular care settings); (b) in venues with **varying levels of resource capacity** and **patient traffic**; and (c) representing **urban, peri-urban, and more rural** patient catchment areas.

(e) Also in the trial, as previously discussed, Tricog developed important **prospective, population-based data** to address **Kenya's research gaps** surrounding the prevalence of LVSD in that country. The Company did so in part because it understood that too often in SSA, the **absence or inadequacy of NCD-related research, hinders** government enthusiasm for **funding** around these diseases.

In addition to filling research gaps and supporting Tricog's digital HF screening tool, the new data provides other value-adds as well. For one, the data exemplifies the **capacity of AI** to develop **robust public health data**, at a **significantly accelerated pace**, compared to historical research approaches. Secondly, Tricog's Kenyan-based data **showcases** that country's ambitions of **regional leadership in digital healthcare and related AI-driven innovations**, as described in Section B. Beyond the headline benefits for Kenya, the fact that Tricog's digital tool and supporting data are **early examples of Kenya's healthcare vision**, may facilitate name recognition and marketing opportunities in that country.

(f) Finally, early in the process, Tricog knew it would **publish its clinical trial results** for broader peer review; as noted above, study results are sufficiently novel and important, that it has been submitted to the leading cardiology journal in Europe, the EHJ. The publication, once issued, will serve multiple purposes: (a) it gives international recognition and prestige to the study's findings; (b) it highlights the promise and scalability of the screening tool for broader LMIC audiences, especially those countries with similar population and use profiles; and (c) as noted, it serves as yet another example of Kenya's regional leadership in deploying AI-driven, digital solutions to improve healthcare -- a key message that the country is seeking to advance, as detailed below.

These combined market introduction strategies -- all put in place last year -- have helped optimize marketing opportunities for Tricog's digital HF tool, not simply in Kenya, but in the broader region as well.

## **B. Looking Forward: Building Out Private Sector Digital Health Markets in Kenya, SSA, and LMICs More Generally**



### **1. The global health “reset,” and its implications for private sector innovators**

While Tricog's market introduction efforts were still underway in Kenya, the global health world witnessed what Bill Gates has described as a “stunning” curtailment of global health aid, primarily from the US, but also from the UK and other European countries as well.<sup>xii</sup> SSA is one of the region's most adversely affected by these developments.

As noted in the introduction, our Spotlight builds on last year's reporting, by examining the important issue of **continued market opportunities** in **Kenya** and other countries of **SSA**, for **private sector innovators** like Tricog, during this volatile period when LMICs have begun to reframe their health systems in recognition of global healthcare funding deficits. As also noted in the introduction, our conclusion remains steadfast, that opportunities will continue to exist, and indeed may even increase, for those **select companies** that:

- (a) are advancing **AI-enabled digital health** innovations, including those that represent **novel, leapfrog** approaches to healthcare (e.g., new forms of affordable population disease screening tailored to resource constraints);
- (b) address **critical health needs**, including **major NCDs** in countries of interest;
- (c) rely on **smart market entry strategies** of the type being deployed by Tricog and described at the conclusion of Section A;
- (d) target those countries in SSA (and elsewhere in LMICs) **most intent on forging their own healthcare future**, customized to their own goals and patient needs, and **leveraging digital health solutions** to build out their healthcare delivery infrastructure; and
- (e) demonstrate the **cost-effectiveness** and **clinical value** of their proposed innovation, for **Ministries of Health** and **other public audiences**, that are **considering investment** to scale up the innovation.

It is our view that Tricog’s approach continues to serve as an excellent case study of private sector market opportunities in SSA. It has done much of its market preparation activities, as previously noted, and has **reaffirmed its “Kenya first” approach** to marketing in SSA, as described in this Section. In Section C, we summarize the Company’s ongoing marketing efforts to: inform **international audiences** of its clinical testing; develop **health economic support**; engage **public and private health sector** audiences in Kenya to begin marketing; form important **collaborations** to support further population screening; and build out **additional innovations** to **expand screening and management opportunities** for **high-risk cardiovascular populations** in Kenya, SSA, and LMICs at large.

## 2. Tricog’s focus on “Kenya first” marketing

Deciding priority market entry opportunities, starting with Kenya, was an important **seventh component** of Tricog’s African market introduction strategy, described previously. The company chose Kenya because that country has been at the **forefront of the region, advancing digital health solutions** to achieve its healthcare goals, including broader population health coverage by 2030. Kenya, however, is not alone. South Africa, like Kenya, has prioritized its digital health strategy.<sup>xiii</sup> So too have other African

countries like Tanzania,<sup>xiv</sup> Uganda,<sup>xv</sup> Nigeria,<sup>xvi</sup> Rwanda,<sup>xvii</sup> Ghana,<sup>xviii</sup> and Cameroon<sup>xix</sup> -- all of which have also come to realize the potential for digital health as a potent tool to tackle health system challenges and further build out health system infrastructure.<sup>xx</sup>

Although these (and other) African countries present varying levels of private sector opportunities, Kenya in particular remains of great interest to Tricog, for several reasons:

- the Company has already gathered deep, on-the-ground market learnings in that country, and has begun to build its reputation there, as described above; and
- Kenya is at a unique moment in time, when **several** important **developments** are **converging**:

--An **ambitious build-out of its national digital health infrastructure** is **now underway** and in the spotlight, as described below;

--As Kenya's **Ministry of Health** moves to become **more sustainably self-reliant**, it is increasing its focus on **top-down policy and funding approaches** to **align** its public healthcare systems **across counties** with **national health priorities**.<sup>xxi</sup> **Key** to these efforts is the **strengthening of primary care systems**, including **referral hospitals** and other facilities that support **community-based care**.<sup>xxii</sup>

--Kenyan health officials understand that part of this build-out must address improved **NCD-related system strengthening**, especially in areas like **cardiovascular care** where **burdens** are high. It is now well established in the literature that heart failure patients must be identified **earlier** in the **disease process** if there are to be **better outcomes** for patients, and **fewer costs** for, and **reduced capacity strain on, health systems**.<sup>xxiii</sup> and

--With testing and validation in Kenya now completed, Tricog's AI-driven HF risk detection system, serves as an **excellent “first mover” example** of what the country will need, to bring **clinical**

**value both to its digital healthcare infrastructure and to its NCD system strengthening at the primary care level.**

To better explain Tricog’s selection of Kenya as an early priority, we provide below a very high-level summary of Kenya’s proposed “**Digital Health Superhighway**” -- a key indicator of the country’s capacity to partner with **private sector** companies that **complement**, and **add value to**, its **digital healthcare transformation**. Kenya’s longer-term interests in this area, we believe, override current issues with global development assistance cut-backs.

**a. Kenya’s digital health infrastructure framework**

As background, in 2013, Kenya transitioned into a system of governance comprising the **national** government, and 47 autonomous **county** governments, each with their own health information management system. Under this decentralized approach, health service delivery functions were transferred to county governments and managed at the county level, while the national government retained authority to frame out health system requirements, set standards for them, and regulate their ongoing operation. As a result of this decentralized governance, Kenya has 49 health purchasing bodies: the Ministry of Health (national); 47 county governments; and the National Health Insurance Fund (now the Social Health Authority).<sup>xxiv</sup>

Although over the years, Kenya has advanced digital health-related laws and policies,<sup>xxv</sup> its unified vision came in 2023 with passage of the **Digital Health Act (“DHA”)**,<sup>xxvi</sup> spelling out the future course of the country’s digital healthcare system. The enactment of the Digital Health Act (Act 15), at its most basic:

- (1) **mandated a broad framework** for the provision of **digital health services**, centered around a comprehensive, integrated, and interoperable digital health information system; and
- (2) created a **Digital Health Agency** (part of the Ministry of Health), tasked with transforming Kenya’s health information and care management landscape.

The centerpiece of this effort -- the National **Health Information Exchange (“HIE”)**, enables the secure and seamless flow of electronic health information across all components of Kenya’s healthcare systems countrywide. The statute and its ancillary documents also include principles for data governance, as well as data security, privacy, and ethical use.

The Digital Health Act of 2023 is part of Kenya’s broader “**Digital Superhighway**,” an aspirational initiative to create a robust National digital framework across Kenya, including for its health sector. In recent years, the Kenyan government has become keenly aware of the potential of its proposed Digital Superhighway, to leapfrog progress by strengthening the country’s information and communications technology infrastructure, and by improving digital access across sectors.

Within the health sector, the Superhighway will digitize all aspects of the country’s healthcare system -- from digital health records and patient registries, to telemedicine, data analytics, public health reporting, medical supply chain and logistics management, community health and other point of care management, ambulance services, insurance claims management, and more, as shown in the graphic below. The digital framework aims to connect all common and shared levels of care nationwide, enabling secure data exchange throughout the entire digital health system. Each county will develop its own platform for interoperability and health information exchange of patient records, meeting standards set by the National Ministry of Health. Regulations are actively underway to further interpret and implement DHA requirements.<sup>xxvii</sup>

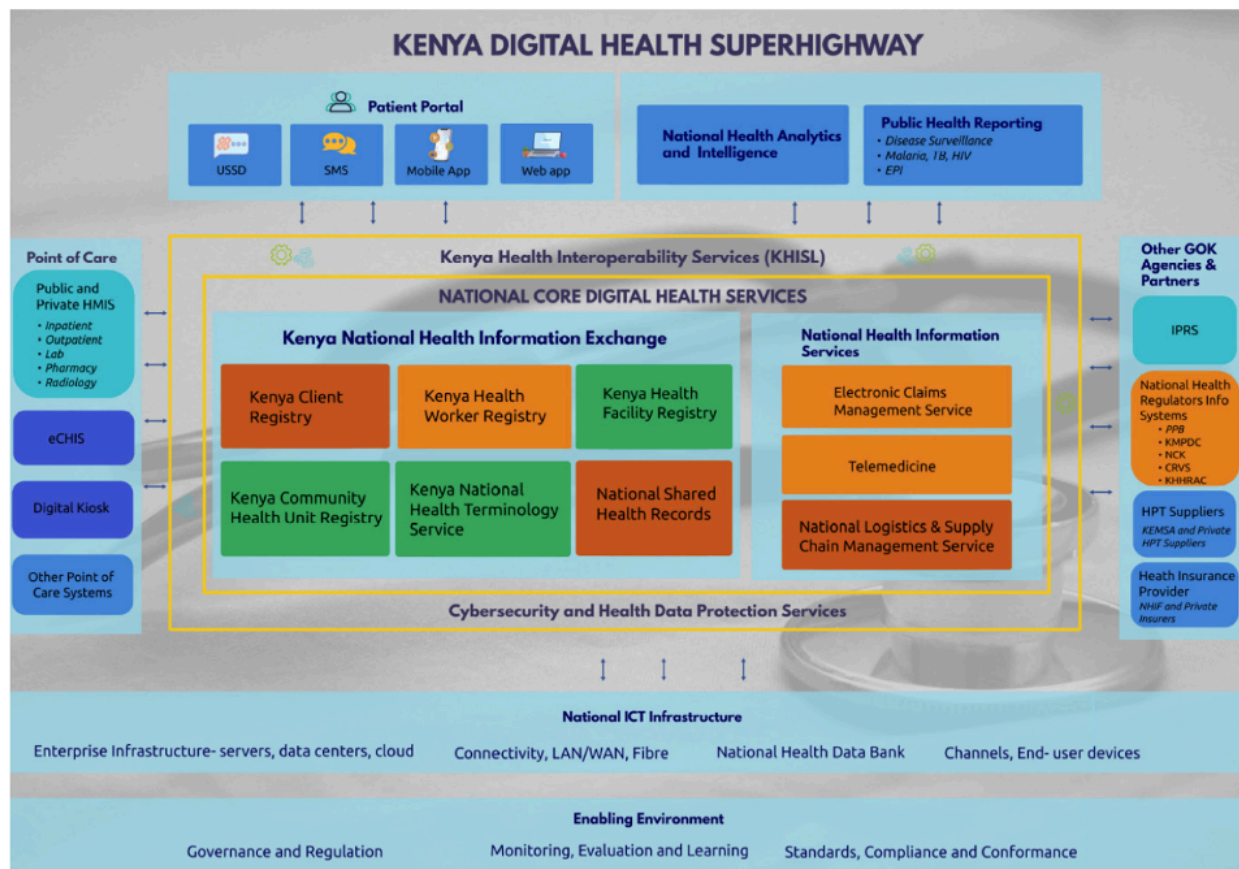


Figure 1. A picture representative of the Kenya Health Enterprise Architecture<sup>xxviii</sup>

These developments have been important to Tricog and like-minded companies, because they evidence that Kenya is **championing digital health** as the way forward, and because the country's framework gives **regulatory clarity** and **predictability** -- two features that facilitate market entry.

## b. Kenya's investment in digital health transformation

As a sign that Kenya's Digital Health Superhighway is progressing in spite of global health disruption, a consortium of investors has been selected to operationalize the Superhighway over 12 years, and is set to invest ~\$800M USD during this period.<sup>xxix</sup> Among other tasks, the consortium will implement a digitized hospital management information system **across all public health facilities**, including providing for **telemedicine**. The contract also includes an infrastructure rollout of 70,000 mobile tablets; 5,000 laptops; more reliable Internet connectivity; and power back-up systems for the public healthcare workforce nationwide. A **locally hosted health cloud** for each county will be established to securely store patient

data, in compliance with Kenya’s data protection laws. The contract also envisions the use of **AI and machine learning (“ML”)** tools to assist in proactive health management and clinical decision-making, consistent with the National AI Strategy described below.

As another sign of progress, the **national health budget** for **2024/2025** increased by **13.4%**, reflecting broader investments in healthcare access and infrastructure. As part of the budget process, Kenya’s Director General for Health described the country’s roll-out of digital health infrastructure as a “necessity” rather than an “option.”<sup>xxx</sup>

### **c. Kenya’s national AI strategy and deployment of AI in the healthcare context**

As yet another positive development, this year Kenya established a **National AI Strategy**, outlining its vision and positioning with respect to the growing use of AI.<sup>xxxi</sup> The Strategy outlines the government’s commitment to positioning Kenya as a regional leader not just in AI research and development, but as a leader in commercial use as well, including in the healthcare sector -- a sector that has been identified by the government as a “priority use case.” The strategy aligns with the African Union’s Continental AI Strategy,<sup>xxxii</sup> launched in June of 2024, and with various AI-related pronouncements from the WHO.<sup>xxxiii</sup>

Beyond AI policy developments, Kenya has already begun active deployment of AI across the healthcare system. Examples include: AI algorithms in diagnostics and imaging analysis (from x-rays, to CT, MRI, and cardiac imaging); AI-driven predictive analytics and triage systems in emergency care and outpatient settings; AI-powered telemedicine platforms; and AI-driven monitoring devices.<sup>xxxiv</sup>

\* \* \*

Although funding and access challenges remain a reality for healthcare systems strengthening throughout SSA,<sup>xxxv</sup> countries like Kenya had begun to prioritize the need for **greater healthcare self-reliance**, even before global funding disruptions, and have made clear that the future of healthcare is inextricably linked to digital health technologies and innovation. Private sector innovators like Tricog, advancing AI-enabled,



digital breakthrough solutions for major NCD burdens in SSA, are well poised to help Kenya and other like-minded SSA countries, accelerate their global healthcare transformation.

## C. Tricog's Continued Activities to Advance Market Opportunities in Kenya and SSA More Generally



### 1. Research Updates

On May 17 of this year, Tricog's work on detecting heart failure in Kenya was presented to the European Society of Cardiology ("ESC") Annual Congress in Belgrade, Serbia<sup>xxxvi</sup> -- a world forum that brings together healthcare professionals from **more than 150 countries**, working to advance cardiovascular care. The presentation, which was made before the Heart Failure Association branch of the ESC, was so well received, that it was **selected** as one of 15 papers at the "**Late-Breaking Science**" **session**. As part of this session, the ESC concluded that "larger screening studies with [Tricog's HF risk detection system] are now warranted."<sup>xxxvii</sup> Among other remarks, ESC heart failure experts observed that "the results have implications not only for resource-limited parts of the world, but also for wealthier countries," since the phenotype of HF studied (LVSD) "is still an unmet need in all ... countries."<sup>xxxviii</sup>

Press coverage for Tricog's AI-enabled risk detection tool has been widespread and enthusiastic<sup>xxxix</sup> after the world forum in Belgrade. As yet another indication of international attention, in early summer, Tricog was awarded the **Health Tech Award** at the **2025 Africa Tech Week** awards in Cape Town, **South Africa**.



In parallel path with its Kenyan heart failure study, and also at the **ESC**, Tricog presented its study: “Remote Optimization of Guideline-Directed Medical Therapy, Using Home Monitoring in Heart Failure (the “GOALS-HF Study”), conducted both in the **US** and in **India**. Like the Company’s other study, the GOALS-HF Study has received **international attention** and **interest**. The presentation at the ESC was **one of only two** selected **globally** for **telecardiology/digital health**. The Company’s study was also selected for publication in the prestigious **Journal of Cardiac Failure**, which issued in May of this year.<sup>xi</sup> Although to be rolled-out **first** in **India**, Tricog’s innovation for **post-hospital management of HF patients** is expected to have **broad LMIC value**, in light of its capacity to **optimize patient outcomes** and help address **hospital cost and system capacity challenges**.

## 2. Public health sector marketing



## a. Early marketing

Tricog has been unrelenting in its focus on next-step market opportunities in both the **public** and **private** health sectors of Kenya. Key to these opportunities are active discussions underway with Kenya's health authorities around formal integration of the LVSD algorithm into **routine cardiovascular screening workflows** at the **county** level, including within public infrastructure at **primary healthcare centers ("PHCs")**, and at **county referral hospitals**, and potentially part of **emergency management transport systems ("EMTS")** as well. The referral pathway from PHCs and EMTs would be to **county-level** or **mission hospitals** for **confirmatory 2D echocardiography** in **high-risk** individuals.

Because, as noted in Section B of this report, health management is decentralized into 47 counties, Tricog is working **county-by-county** in parallel with **National-level advocacy**. The Company's initial focus has been on **high-risk counties** where cardiovascular disease prevalence and healthcare disparities are well established. (Nairobi, Kisumu, Kakamega, Mombasa, and Nakuru), but also counties like Muranga, which is more agricultural.

Earlier this year, Tricog was awarded its **first tender** by health authorities in Kenya's **Muranga County** (for its AI-enabled InstaECG) -- an important milestone to accessing African markets, and a significant achievement post-global health cuts, when LMIC health budgets are severely strained, and though decisions are being made as to what programs warrant inclusion in health agendas.

Prior to moving to broader commercialization in Kenya, Tricog will be undertaking a **pilot screen** of **7,000-10,000** patients over a **6-month** period. The pilot will be deployed at **2 "hub" sites** and **10 "spoke" sites**, taking advantage where possible of previously used clinical sites set up in and around Nairobi. The ultimate objective of this pilot will be to leverage **real-world data** from the screenings, to help **quantify** both **clinical** and **economic impact**, addressing such issues as the number of HF at-risk patients identified, referrals, conversions to care management, and improvements in Guideline-Directed Medical Therapy ("GDMT") initiation. This follow-up tracking is made possible by Tricog's **KeeboHealth** (its remote care coordination platform), which facilitates **end-to-end digital patient tracking** via **real-time dashboards**; **coordination support** across

**primary and tertiary sites; automated reminder alerts for follow up; and data visualization of referrals and medication uptake.** Because digitized, Tricog's KeeboHealth places **no additional demands on hospital teams**, although there will be initial **training** on deployment of Tricog's HF innovation at all participating sites, prior to commencing pilot testing.

As Tricog begins to scale, the Company will continue its work to overcome challenges with delayed reimbursements from the National Hospital Insurance Fund ("NHIF") and other government sources. In the meanwhile, there is strong **Pharma/MedTech** multinational corporation ("MNC") interest to collaborate with Tricog on **workflow-related validation pilots** needed for procurement by **county health systems**. This strong MNC interest to collaborate stems in part from the sizeable heart failure prevalence identified in the recent trial, but large Pharma and MedTech companies (e.g., **AstraZeneca ("AZ")**<sup>xli</sup> and **Medtronic**),<sup>xlii</sup> are also looking more generally for avenues to **strengthen relationships with Kenyan health authorities**. Partnering with smaller companies on promising digital screening innovation -- especially in areas of heavy burden such as **cardiovascular disease** -- is seen as an important opportunity for MNCs to improve goodwill, reputation, and working relationships with Kenya's Ministry of Health and related county systems.

## **b. Health economics**

As reflected in Tricog's **pilot trial**, Ministries of Health in Kenya (and LMICs at large) increasingly are emphasizing **sustainability** and **integration** of programs into **national budgets**. Now under tighter fiscal constraints, Ministries of Health are prioritizing **scalable** interventions that demonstrate **measurable value** within their constrained resources. This shift is creating a greater demand for **health economics data/Budget Impact Modeling**,<sup>xliii</sup> that can justify investments from a domestic health financing perspective. Tricog is factoring economic considerations into its forthcoming pilot study, described below.

## **3. Private sector collaborations**

To advance use of Tricog's innovation in the **private** healthcare sector, **collaborations with Pharma companies and private hospitals** will rely on a **shared-value model** using LVSD screening to identify early-stage patients suitable for GDMT. The case for **private sector leadership** and

**public-private partnership models** is strong in Kenya, as **70%** of diagnostic services in that country are accessed through the **private sector**, and insurance penetration is growing, especially through NHIF private empanelment<sup>xliv</sup> and through corporate insurance.

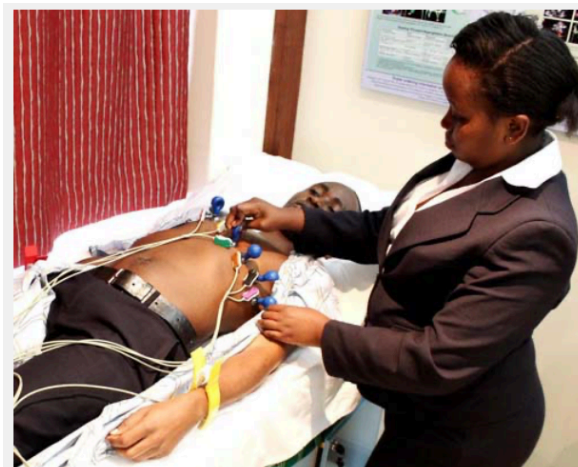
To help accelerate **uptake in private hospital systems**, the Company is pursuing **Centers of Excellence** as an important first step, including at **Aga Kahn Hospital in Nairobi**. As with public healthcare procurement, large private institutions with National and Regional influence like Aga Khan, require “**seeding**”/**non-commercial testing** periods, to assess use of the technology in clinical practice. Tricog is proposing a **6-month pilot program** in this area, with the assistance of companies like AstraZeneca. For Aga Khan and similar private institutions, assuming pilot testing is successful, the technology would be offered commercially via **licensing option(s)** or **pay-per-use model(s) with tiered pricing**, enabling **gradual internalization of costs**.

More broadly in Africa, once Tricog can show early revenue in Kenya, it will begin to roll out in other countries, including **Uganda, Ethiopia, and Egypt**, in reliance on Kenyan commercialization. **Egypt** is an excellent **case study** because it is widely respected in SSA for its **cardiology expertise** and **strong medical education and research** related to **cardiovascular disease**.<sup>xlv</sup> Egyptian Centers of Excellence like **Dar Al Fouad Hospital**<sup>xlvi</sup> and **As-Salam International Hospital**<sup>xlvii</sup> will be prioritized to build acceptance among key Egyptian thought leaders. In preparation for commercial distribution, and with support from MNCs like **AstraZeneca**, Tricog has begun to identify collaboration opportunities with entities like **Everest Health**<sup>xlviii</sup> and **Spirit Health Foundation**,<sup>xlix</sup> to advance roll-out of offerings to both the **private** and **public health** sectors in Egypt.

#### **4. Related R&D**

Through adjacent R&D work, Tricog has found that additional screening may be feasible at the **primary care level**, using **single-lead ECGs** deployed at **PHCs**. This R&D project is important because not all adults in Kenya have access to ECGs (for reasons of both patient **out-of-pocket costs**, and **availability** of **ECGs**) -- as noted previously, ECGs are the **first step** to referring potential HF patients on to **echocardiography**.

The single-lead R&D initiative now underway at Tricog, would allow **every adult** in **PHCs** and **county referral** and **mission hospitals**, to have an opportunity to be **pre-screened** for further **ECG testing**. Through a triaging algorithm that assigns low, medium, and high-risk to a patient's cardiovascular status, health systems will be able to **optimize** the use of their **scarce ECG capacities**, for those **most in need**. The single-lead pre-ECG risk stratification algorithm requires **no training or interpretation** and thus may be used by **community health workers**. Tricog's R&D efforts are timely, because Kenya has been quite focused recently on efforts to **improve primary healthcare** through **task-shifting**, including to **community health workers**, through **enhanced digital infrastructure**.<sup>1</sup>



\* \* \*

As readers think more broadly about the future of healthcare in SSA, and LMICs more generally, it is our view that the **most cost-effective, scalable** and **enduring NCD health solutions** for these geographies, will be: (a) **private sector initiatives** that; (b) help to build, complement, and add clinical value to, emerging **digital infrastructure** for **NCD care**; (c) while also addressing **healthcare personnel** and **resource gaps** in that region.

Tricog's suite of digital innovation -- its HF detection system, KeeboHealth, and soon its 1-lead pre-ECG screen -- are **showcase examples** of innovation that will give **significant value-add** to Kenya's **broader digital infrastructure efforts**. Its platform of products and services will provide for **task-shifting** opportunities at both the **hospital** and **primary healthcare levels**. The Company's HF, KeeboHealth and 1-lead pre-ECG screening innovations are all capable of **digital integration** with a wide range of **electronic medical records** and **hospital IT systems**, including both **public** and **private** hospital networks, and all three will also provide **digitized data-sharing** opportunities through structured **interoperability**. Tricog's HF detection system is **device-agnostic** for maximal screening



and diagnostic flexibility and, together with KeeboHealth and soon its 1-lead pre-ECG screening algorithm, will allow for **end-to-end patient management of heart disease patient screening, diagnosis, and follow-up care**. In short, Tricog's cardiovascular care platform is exactly what Kenya and other LMICs need to grow their systems, during this pivotal period of infrastructure build-out.

Tricog has become a clear **market leader** in CVD screening, diagnosis, and care management, not simply in **India**, but in **LMICs** more generally, including now in **SSA**. We are grateful for its **continued long-term vision for improved cardiovascular healthcare** in Kenya and the broader region. Tricog's carefully crafted strategic approach to introducing its innovations to SSA, serves as a **superb "first-mover" case study**, for MedTech/Digital Health companies looking to address critical gaps in SSA healthcare, and advance commercial market ecosystems in that region over time.

## ENDNOTES

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- <sup>v</sup> Patients were stratified into high- and low-risk, with high risk defined by the presence of at least one of the following: prior history of Coronary Artery Disease, presence of pathologic Q waves on ECG, or Framingham risk score (“FRS”) above 10%. Low risk was defined as having an FRS below 10% without any high-risk criteria.
- <sup>vi</sup> Id.
- <sup>vii</sup> There was greater prevalence among those with high FRS (**22.9%**) or existing CVD (**32%**). In study participant assessments, echocardiography-confirmed LVSD was present in **14.1%**, with greater rates in patients that had a high FRS or existing CVD at baseline. The echocardiography and AI-ECG results were concordant in **82%** of the patients.
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<sup>xlii</sup> Medtronic, <https://www.medtronic.com/en-us/index.html>.

<sup>xliii</sup> At the risk of simplification, these are modelled efforts that compare the costs of a **new tool vs.** costs for a country's **current conventional testing**. These models factor in: (1) **all healthcare system costs**, including existing equipment; screening/treatment workflows without the new tool; personnel resources, including training; and follow up; for (2) the **target population**. (Target population is based on **incidence/prevalence** data, adjusted for **demographic trends**.)

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Costs for the **new tool integration** would likewise be defined to include unit costs, training, personnel resources, and the like, along with an estimated rate of **phased-in adoption**. **Unit costs** for the new screening tool would be calculated to address **procurement/administration costs** often with **future discounts** (e.g., 3-5%); **downstream costs**, such as confirmatory tests; and **factors in averted costs** (e.g., improved management of late-stage disease burden, and related **reduced economic burdens of hospitalization**).

The model would test **optimistic** to **worst-case** uptake and cost assumptions, and **vary key parameters** such as the price of the tool and population size; and annual costs for the screening discounted vs. non-discounted. The model would also be tweaked for different assumptions such as urban vs. rural settings.

See, e.g., Lobin, Christopher, et al. Cost-effectiveness analysis of alternative screening strategies for the detection of cervical cancer among women in rural areas of Western Kenya. *NCBI*. October 1, 2024. <https://pubmed.ncbi.nlm.nih.gov/38801325/>; Asirwa, Fredrick Chite, et al. A prospective model of the potential clinical and economic impact of cervical cancer screening supported by a mobile phone app. *PLOS One*. January 31, 2025. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0316001>; Zimmermann, Marita R., et al. Cost-effectiveness of cervical cancer screening and preventative cryotherapy at an HIV treatment clinic in Kenya. *NCBI*. July 14, 2017. <https://pubmed.ncbi.nlm.nih.gov/28725164/>. See also, e.g., Sloof, B., et al. Early lung cancer detection using artificial intelligence on chest X-rays: The budget impact of implementing incidental pulmonary nodule detection. *JTO*. March 2025. <https://www.jto.org/action/showPdf?pii=S1556-0864%2825%2900481-2>.

<sup>xliv</sup> This term refers to circumstances where private sector providers have been approved by NHIF to provide medical services.

<sup>xlv</sup> See generally, Noubiap, Jean Jacques, MD, MMed, et al. Fifty Years of Global Cardiovascular Research in Africa: A Scientometric Analysis, 1971 to 2021, *AHA Journals*. February 3, 2023. <https://www.ahajournals.org/doi/10.1161/JAHA.122.027670#:~:text=than%20ever%20before,7,over%20the%20past%2050%20years>.

<sup>xlvi</sup> Dar Al Fouad Hospitals, <https://www.daralfouad.org/> dar-al-fouad-hospital-egypt.

<sup>xlvii</sup> As-Salam International Hospital, <https://www.assih.com>.

<sup>xlviii</sup> Everest Health is an Egypt-based company that emphasizes proactive approaches to

health, aiming to prevent illness before it starts rather than merely reacting to symptoms. This includes comprehensive health assessments and advanced lab work. Everest Health, <https://www.goeverest.com>.

<sup>xlix</sup> Spirit Health Foundation is a non-profit organization focused on improving access to essential healthcare in underserved Egyptian communities, by equipping local health workers with advanced digital health technology. Spirit Health Foundation, <https://www.spirithhealthfoundation.org>.

<sup>l</sup> See, e.g., Kenya's eCHIS: revolutionizing community health with digital innovation. *Exemplars*. December 19, 2024. <https://www.exemplars.health/stories/kenyas->

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[echis#:~:text=The%20eCHIS%20is%20an%20open,accessed%20with%20an%20ordinary%20smartphone](#). As an example, over the past year, the Kenyan government has rolled out a digital tool that connects the country's 100,000+ community health workers ("CHWs") with a centralized digital health system, giving national health leaders unprecedented visibility into healthcare data at the community level. The **electronic community health information system**, or "eCHIS," offers the country's newly professionalized CHWs (called community health promoters in Kenya) support across a range of common challenges, from case management and commodity management, to data collection and processing. The system is interoperable with other digital health tools across the Kenyan health system, supporting adherence to national reporting standards.