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Ischemic heart disease burden and healthcare system readiness across sub-Saharan Africa

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Sub-Saharan Africa is experiencing a rapid rise in ischemic heart disease, creating new challenges for regional health systems. As populations grow and urbanize, lifestyle, metabolic, nutritional and environmental factors are reshaping the burden of noncommunicable diseases. Yet health systems, historically oriented toward communicable diseases and maternal health, show variable capacity to prevent, diagnose and treat ischemic heart disease. Despite increasing recognition, systematic assessments of country-level disease burden and healthcare capacity are limited, leaving gaps for evidence-based policy. Here we address this gap by assessing healthcare system readiness across four domains: health system capacities, primary care, secondary and tertiary care, and health system context. We highlight how limitations in workforce, essential medicines, diagnostics and policy intersect with upstream drivers such as obesity, hypertension, diabetes, smoking, dietary transitions, urbanization and environmental stressors. Meeting these challenges will require coordinated investment, equitable resource allocation and integrated prevention strategies.

Sub-Saharan Africa (SSA) is undergoing a profound epidemiological transition[1]. Once considered rare, ischemic heart disease (IHD), and atherosclerosis more broadly, is rapidly emerging as a major burden across the region[2–4]. Population aging and lifestyle changes associated with urbanization and economic development have driven a sharp rise in the prevalence of cardiovascular disease (CVD) risk factors, including hypertension, diabetes, obesity and tobacco use[4,5]. Consequently, the burden of IHD in SSA has surged: between 1990 and 2017, the number of IHD-related deaths increased by approximately 74%[2], with the region accounting for around 5% of global IHD-related disability-adjusted life years (DALYs)[6], a measure of overall disease burden that includes years lost due to ill health, disability or early death, in 2023. Furthermore, IHD is projected to remain the leading contributor to DALYs in the region through 2050, reflecting a continuing shift from communicable, maternal, neonatal and nutritional diseases to noncommunicable diseases (NCDs)[7].

Despite this rising burden, there is limited systematic assessment of geographic variation in IHD risk, burden and healthcare capacity

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across SSA. Most existing studies address broad regional patterns or isolated risk factors, without integrating health system capacity across primary, secondary and tertiary care or accounting for key social determinants. The requirements of national healthcare systems for managing IHD differ greatly from those needed for infectious diseases or maternal health, with implications for preventive measures (for example, treatment of hypertension) and advanced tertiary functions (for example, coronary artery interventions). Addressing this gap not only is essential for achieving Sustainable Development Goal 3.4 (ref. 8), but also is a central component of the African Union's Africa Health Strategy 2016–2030 (ref. 9) and Agenda 2063, both of which explicitly identify NCDs as impediments to the continent's long-term health and development ambitions.

To address this gap, we analyze publicly available data on IHD burden and healthcare system readiness across SSA. We structure this Perspective around four areas central to IHD, adapted from the Organisation for Economic Co-operation and Development (OECD) Health System Performance Assessment Framework[10]: (i) health system capacities, encompassing governance, workforce, financing and guidelines; (ii) primary care; (iii) secondary and tertiary care; and (iv) health system context.

Addressing needs in these key areas is necessary to enable IHD management in these contexts. We contextualize the IHD burden across SSA (Fig. 1a) using the 2023 Global Burden of Disease study[8] and identify gaps in healthcare system readiness across individual SSA countries in each of the four major areas in the framework. We also emphasize the urgent need for more high-quality data, including imaging-based diagnostics and detailed assessments of regional risk factors, to better understand and target IHD interventions in SSA. Our Perspective highlights the geographic gaps between IHD disease burden and healthcare system readiness, to guide investments and policies toward areas of greatest need.

Health system capacities and IHD preparedness

Addressing IHD requires an array of health system capacities, ranging from long-term preventive strategies and surveillance to advanced acute care[11]. Health systems encompass many interdependent capacities, but here we focus on four central areas for IHD preparedness: national cardiovascular guidelines, surveillance capacity, healthcare spending and the size of the healthcare workforce. National cardiovascular guidelines are a critical starting point, as they provide a framework for consistent, evidence-based practice across diverse contexts[12]. By shaping prevention programs, standardizing treatment protocols, and accounting for local realities such as medication availability and prevalent risk factors, national guidelines help ensure that patients receive equitable and effective care irrespective of where they enter the health system[13,14].

Despite this, several high IHD burden countries still lack national CVD-specific guidelines, including Mauritania, Gabon and Togo. Overall, approximately 45% of countries in SSA lack such guidance (Fig. 1b). Even where broader NCD strategies exist, the absence of dedicated local CVD guidance leaves clinicians without standardized, evidence-based approaches for prevention, diagnosis and management. While adoption of international guidelines is useful, adapting them to local contexts is essential to make them relevant to front-line providers, address implementation barriers and enhance local uptake[15]. In this regard, the Pan-African Society of Cardiology (PASCAR) has sought to adapt some international cardiovascular guidance to African contexts. Through a continent-wide hypertension task force, PASCAR developed a ten-point roadmap to achieve 25% control of hypertension in Africa by 2025 (ref. 16). The roadmap emphasizes simple treatment algorithms, routine risk factor monitoring through the World Health Organization (WHO) STEPwise approach[17], and reliable access to essential medicines. However, dedicated guidance and task forces for IHD remain limited.

Nevertheless, even well-crafted national CVD guidelines cannot be implemented effectively without reliable data on risk factor patterns. Parallel deficiencies in population-level surveillance further challenge regional responses. While several countries have implemented national CVD guidelines, many lack regular surveys of key atherosclerotic risk factors such as tobacco use, hypertension prevalence and lipid/cholesterol levels (Fig. 1b). Regular risk factor surveys are essential to track disease determinants, design targeted policies and evaluate program effectiveness. Although the WHO STEPS survey framework measures several major risk factors[17], its use has been inconsistent across the region due to insufficient resource allocation, and in many countries with high IHD burdens, such surveys remain sporadic or absent. This limits the capacity of governments to monitor trends or assess the reach of interventions.

To address this, PASCAR and the World Heart Federation have developed national scorecards to map country-level capacity for cardiovascular care and identify gaps in surveillance, guidelines and medicine availability[18]. Prevalence and management surveys of hypertension and high cholesterol levels are particularly critical, given the high rates of undiagnosed and uncontrolled hypertension in the region and the well-established role of dyslipidemia in CVD. Additionally, effective medicines for these conditions are often more affordable than many other essential cardiovascular therapies[1,19,20] meaning they represent highly modifiable risk factors with substantial primary and secondary prophylactic potential. Stronger surveillance of dietary risk factors, obesity and diabetes would provide a more comprehensive picture of cardiometabolic health in SAA. Without such information, policymakers may be constrained to reactive strategies, widening the gap between the global evidence base of known risk factors and the data needed to initiate interventions effectively at the national level across SSA[21].

National guidelines alone are insufficient without the resources and workforce to implement them. A well-trained and equitably distributed health workforce is essential for primary, secondary and tertiary service delivery; however, many countries continue to face persistent shortages, uneven distribution, and workforce migration that weaken preparedness for IHD[22,23]. For instance, there are approximately 0.2 cardiologists per 100,000 population in SSA, compared to a 35-fold higher level in the USA, with over 7 per 100,000, highlighting stark disparities in specialist availability[24]. Paradoxically, several countries in SSA are also experiencing a surplus of trained health professionals who remain unemployed[25]. The solution to the needs-based shortage is therefore not simply to expand education and training, but also to ensure equitable distribution, retention and meaningful employment of health workers across levels of the health system[26,27]. Current healthcare expenditure is also highly variable across SSA and far below the OECD average (Fig. 1c). Many countries, including South Africa, Seychelles and Namibia, have healthcare expenditures several times higher than countries such as Niger, Ethiopia and Somalia, driving geographic inequities in healthcare capacity across the region. Coordinated national planning is therefore necessary to align resources with the burden of disease, reduce geographic inequities and build resilience across all levels of care[28].

Primary care management of IHD

Primary care plays a critical role in the primary and secondary prevention of coronary events such as myocardial infarction and its many complications, including heart failure, arrhythmia and sudden cardiac death. Early screening for cardiovascular risk factors is a cornerstone of IHD prevention and requires reliable diagnostic capacity within the primary care sector to identify individuals at risk. Validated atherosclerosis risk prediction tools, such as PREVENT[29], Framingham Risk Score and ASCVD[30], are widely used internationally; the latter accounts for race, reflecting dyslipidemia differences (for example, in lipoprotein(a))[31] and underscoring the need for regionally adapted

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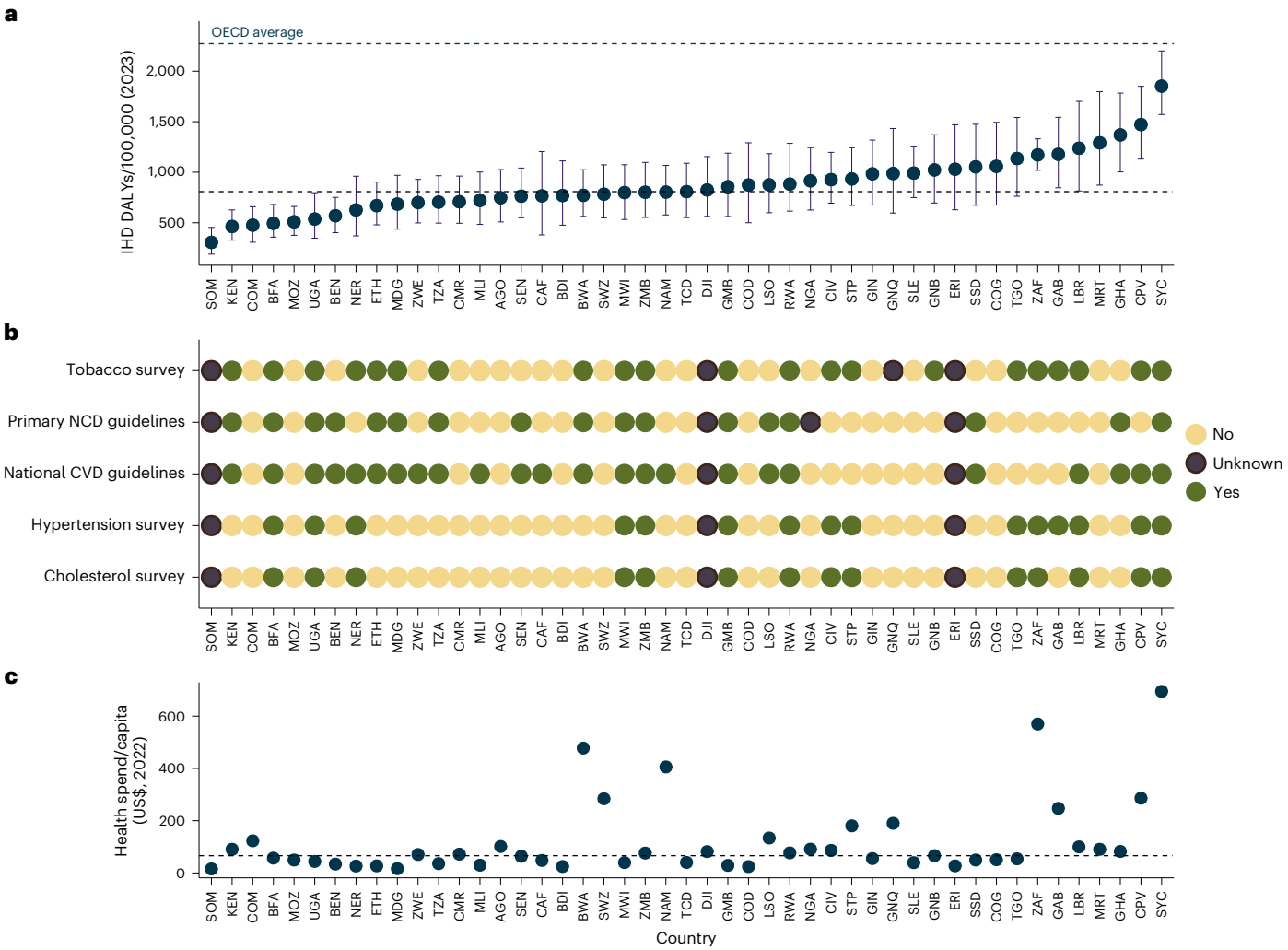

Fig. 1 | Health system capacities and the burden of IHD in SSA. a, Age-standardized IHD DALYs per 100,000 population in 2023 for each country (points) with 95% confidence intervals (CIs). Countries are denoted by three-letter ISO codes, and are ordered from lowest (left) to highest (right) burden. Data from the Global Burden of Disease databank adapted from the 2023 Global Burden of Disease study[6]. The lower dashed line denotes the median value (807.8 per 100,000). The comparable estimate from OECD countries is 2,271.7 (95% CI 2,079–2,400) DALYs per 100,000 (upper dashed line). **b**, National policy and surveillance indicators, comprising the presence of primary NCD and CVD guidelines and evidence of recent (within the past 5 years) national adult risk factor surveys for hypertension, cholesterol and tobacco use. Data are from the WHO Global Health Observatory based on WHO NCD Country Capacity Surveys[54]. **c**, Per-capita healthcare expenditure (US$) in 2022. Dashed line denotes median value (US$66.1 per capita). The comparable median estimate from OECD countries is US$4,057 per capita in 2022. Data are from the WHO Global Health Expenditure Database (https://apps.who.int/nha/datab).

models like the WHO CVD risk charts[32]. While blood pressure measurement is generally accessible in the public sector (defined as >50% availability at public healthcare facilities—a relatively low threshold), several countries in SSA lack capacity for cholesterol measurement (Fig. 2c), despite the existence of innovative point-of-care techniques[33]. Notably, this gap in risk factor surveillance includes countries with high IHD burdens, such as Gabon, The Gambia and Guinea-Bissau.

Access to medications

The WHO's HEARTS technical package[34] highlights that improving access to basic diagnostics and medicines is fundamental to scaling up CVD prevention and management in low- and lower-middle-income countries (LLMICs), including those in SSA. The availability of evidence-based medications, such as angiotensin-converting enzyme (ACE) inhibitors, beta blockers, calcium channel blockers and statins, is essential for both primary and secondary prevention of IHD[35]. While these drug classes are included on the WHO Model List of Essential Medicines, their translation into national essential medicines lists (NEMLs) across SSA has been inconsistent[36]. Consequently, these drugs remain inconsistently available[37,38], with only 18 out of 47 (38%) countries in the region reporting general availability of statins in the public sector (Fig. 2b). Reasons for this include weak procurement systems, a lack of local production and outdated NEMLs that constrain access to essential medications, creating major barriers to consistent care for patients with high cardiovascular risk[39–41].

These systemic challenges are underscored by the fact that several high IHD-burden countries, including Gabon, the Republic of the Congo and Côte d'Ivoire, lack reliable access to cornerstone therapies such as ACE inhibitors, beta blockers, calcium channel blockers and statins. As a result, many individuals with established CVD do not receive the full range of recommended secondary prevention medications, despite strong evidence that these therapies greatly reduce recurrent events and premature mortality[35,42]. Even when medicines are available, affordability remains a barrier. A month of generic hyperlipidemia treatment in private pharmacies can cost the equivalent of nearly 5 days' wages for the lowest-paid worker, with originator brands costing substantially more[37]. Fixed-dose combinations, also known as polypills, have also been proposed as a strategy to reduce barriers to consistent therapy[43].

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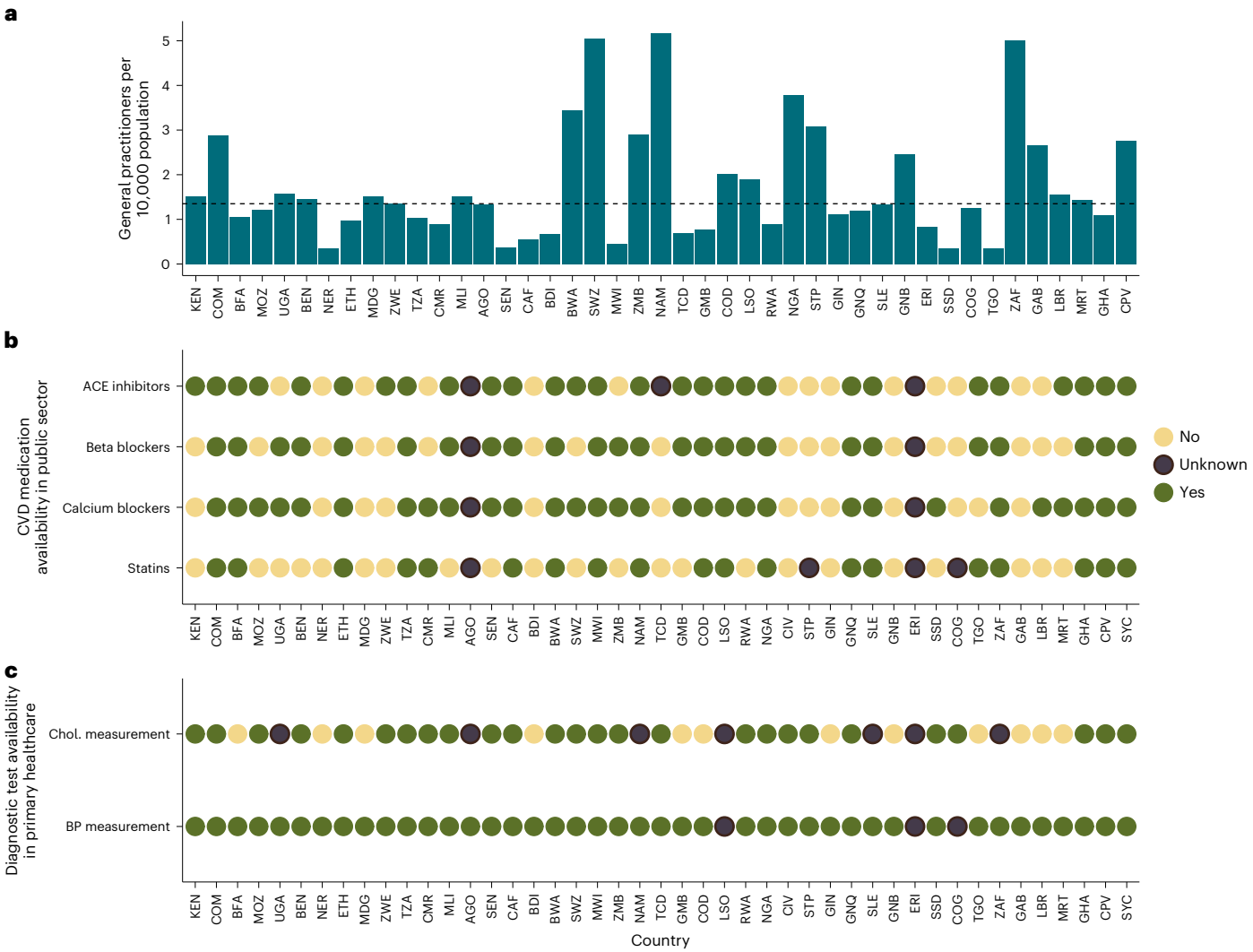

Fig. 2 | Primary care capacity, cardiovascular workforce and essential medication availability across SSA. a, Density of general medical practitioners per 10,000 population in 2023; countries ordered from lowest to highest IHD DALYs. Dashed line denotes the median (1.35 general practitioners per 10,000). Data are from the WHO National Health Workforce Accounts Data Portal[44]. Seychelles not visualized as an outlier (65.96 per 10,000). **b**, Availability of essential cardiovascular medications in the public sector in 2023. General availability is defined as medications being found in 50% or more pharmacies. Data are from the WHO Global Health Observatory[54]. **c**, Availability of primary care diagnostic tests (blood pressure (BP) and total cholesterol (Chol.) measurements) in 2023. General availability is defined as tests being found in 50% or more healthcare facilities. Data are from the WHO Global Health Observatory[54].

However, the effectiveness of this approach in SSA will depend on building strong procurement and supply systems to ensure that these combination medications can be reliably accessed and distributed.

Healthcare workforce

Ensuring sufficient healthcare workforce capacity is equally critical to the successful implementation of these initiatives. There are stark variations in the density of general practitioners across SSA (Fig. 2a), with countries such as Eswatini (5.05 general practitioners per 10,000), South Africa (5.00) and Namibia (5.18) having more than ten times the density of general practitioners compared with countries such as Niger (0.35), Togo (0.36) and Senegal (0.37)[44]. Nevertheless, even in comparatively better-staffed countries, the density of general practitioners per 10,000 population remains substantially lower than that observed in high-income settings such as the UK (7.86) and South Korea (7.03)[44]. Although medical education capacity in SSA has expanded in recent years[45], persistent challenges, including workforce migration and 'brain drain', uneven distribution of clinicians and limited public sector hiring[46], continue to limit the ability of primary care systems to address the growing burden of IHD. Task shifting in primary care to other healthcare workers, such as nurses, could represent a viable approach in countries facing this challenge[47].

Capacity in secondary and tertiary settings

Secondary and tertiary care services are central to managing IHD, particularly in acute presentations where timely interventions can substantially reduce morbidity and mortality[48]. Long-term management through secondary prevention is equally critical. These efforts rely on consistent availability of proven pharmacological therapies, including anti-platelets, statins, ACE inhibitors, beta blockers, calcium channel blockers and anticoagulants, which are often underutilized due to systemic constraints[49]. To reduce the disproportionate IHD mortality seen among populations of lower socioeconomic status in LLMICs[50], strengthening acute coronary care and improving secondary prevention are imperative[51].

Capacity for acute care

Capacity within secondary and tertiary systems varies widely across SSA[52], with profound implications for the management of acute ischemic events. The availability of advanced cardiac interventions is

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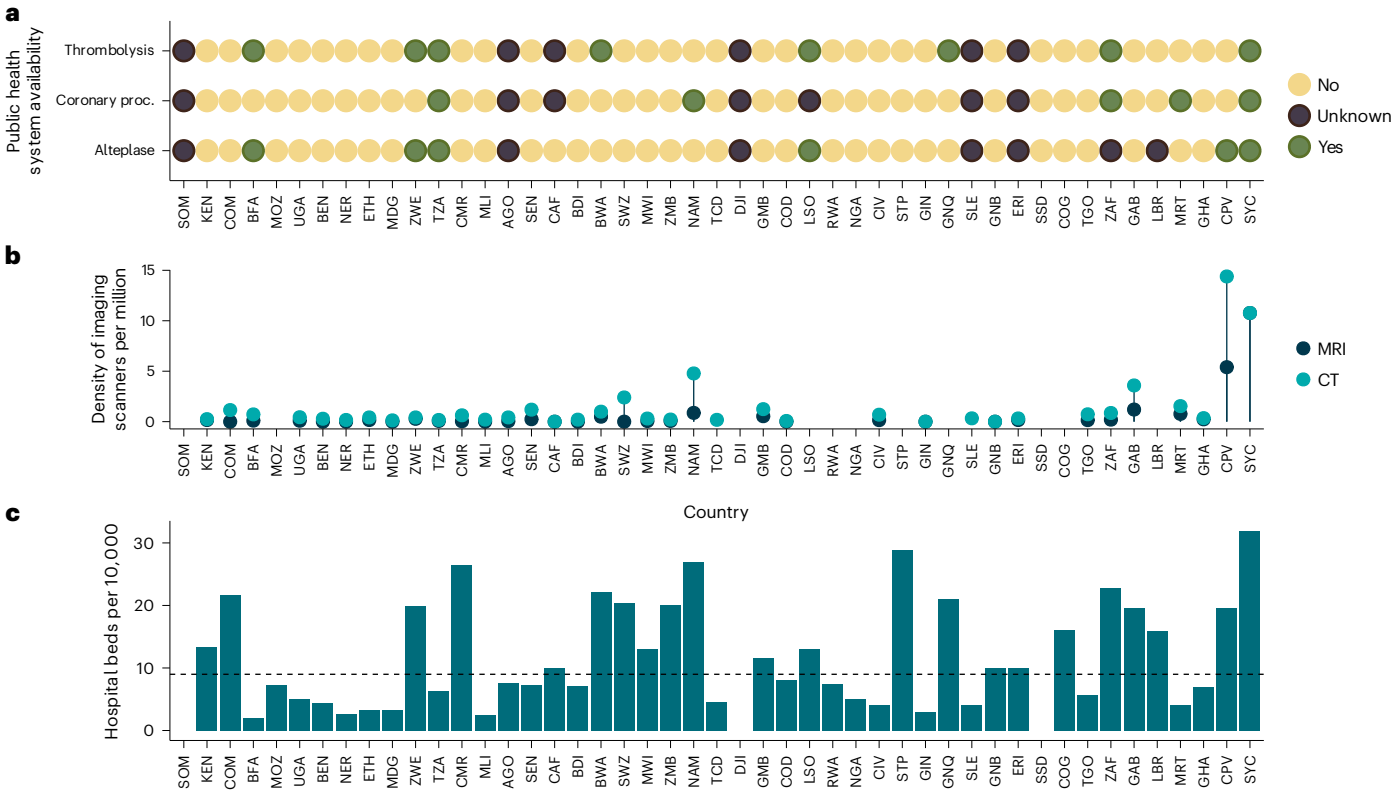

Fig. 3 | Secondary and tertiary care functions across SSA. a, Availability of selected hospital-based procedures for cardiovascular care in the public sector in 2023, with countries ordered from lowest to highest burden of IHD DALYs in 2023. Procedures shown are intravenous alteplase for stroke management, thrombolytic therapy in the public health system and coronary procedures such as coronary bypass or stenting in the public sector. **b**, Density of diagnostic imaging scanners (magnetic resonance imaging (MRI) and computed tomography (CT)) per million population in the latest available year (2013 or 2021). All data are from the WHO Global Health Observatory[54]. **c**, Density of hospital beds per 10,000 population in the latest available year (2004 to 2021)[54]. The dashed line denotes the median value (8.99 per 10,000). Missing bars denote missing data for SOM, SSD and DJI.

highly uneven. Only a small fraction of countries report capacity for coronary artery procedures such as bypass surgery and percutaneous coronary artery interventions (stenting)[53] (Fig. 3a), leaving much of the region dependent on medical therapy alone. For example, several high-burden countries, including Togo, Eswatini and Republic of the Congo, report no general public availability of coronary artery procedures despite a substantial IHD burden (Fig. 3a). Similarly, while availability of thrombolysis is reported in some public health systems in SSA, coverage is incomplete, and availability of thrombolytic agents such as alteplase for myocardial infarctions and ischemic strokes is even more restricted (Fig. 3a). In Ghana, Liberia and Guinea-Bissau, where the IHD burdens are among the highest in SSA, thrombolysis is not consistently available. This scarcity is particularly consequential in acute myocardial infarction, where delays or lack of access to reperfusion therapies substantially increase mortality[48].

Diagnostic imaging

Diagnostic imaging capacity also shows equally stark disparities. Computed tomography and echocardiography are critical not only for CVD diagnostics, but also for ruling out competing diagnoses in acute presentations. While cardiac magnetic resonance imaging is not a first-line modality for IHD diagnosis, it contributes to its workup. Yet many countries report limited or absent access in the public sector, with most imaging capacity densities in SSA measured in low single digits per million population (Fig. 3b), as compared to countries such as Türkiye, Canada and Spain, where the number of magnetic resonance imaging units alone exceeds 10 per million[54]. This shortage reinforces the reliance on clinical bedside diagnosis alone, which increases uncertainty and delays definitive management[55]. Compounding this issue is the shortage of trained imaging specialists; however, emerging artificial intelligence tools for automated image interpretation offer a promising means to partially bridge this gap in resource-limited settings[56]. Similarly, basic infrastructure like hospital beds remains limited in several countries (Fig. 3c); this affects not only routine inpatient care but also the ability to manage acute cardiac emergencies that require immediate hospitalization.

These country-level differences illustrate a geographic mismatch between IHD burden and healthcare capacity at advanced levels of care. Countries with high IHD DALY rates often lack the secondary and tertiary infrastructure necessary to provide timely and effective treatment. Addressing these disparities requires investment in physical resources and the development of a specialized workforce to operate advanced technologies and deliver complex interventions. Several African initiatives have strengthened primary care to improve detection and management of cardiovascular risk, including the Hypertension Treatment in Nigeria program[57], which explicitly adapts the WHO HEARTS package, as well as Healthy Heart Africa[58], Ghana Heart Initiative[59] and the Malawi NCD Brite Consortium[60]. Without such initiatives being applied to secondary prevention and care, the burden of preventable morbidity and mortality from atherosclerotic events will likely continue to rise across the region[3].

Health system context

Assessing healthcare system readiness for IHD requires accounting for the conditions under which the systems must operate. In SSA, environmental exposures, metabolic risk factors and social determinants shape both the volume and complexity of IHD presentations that health

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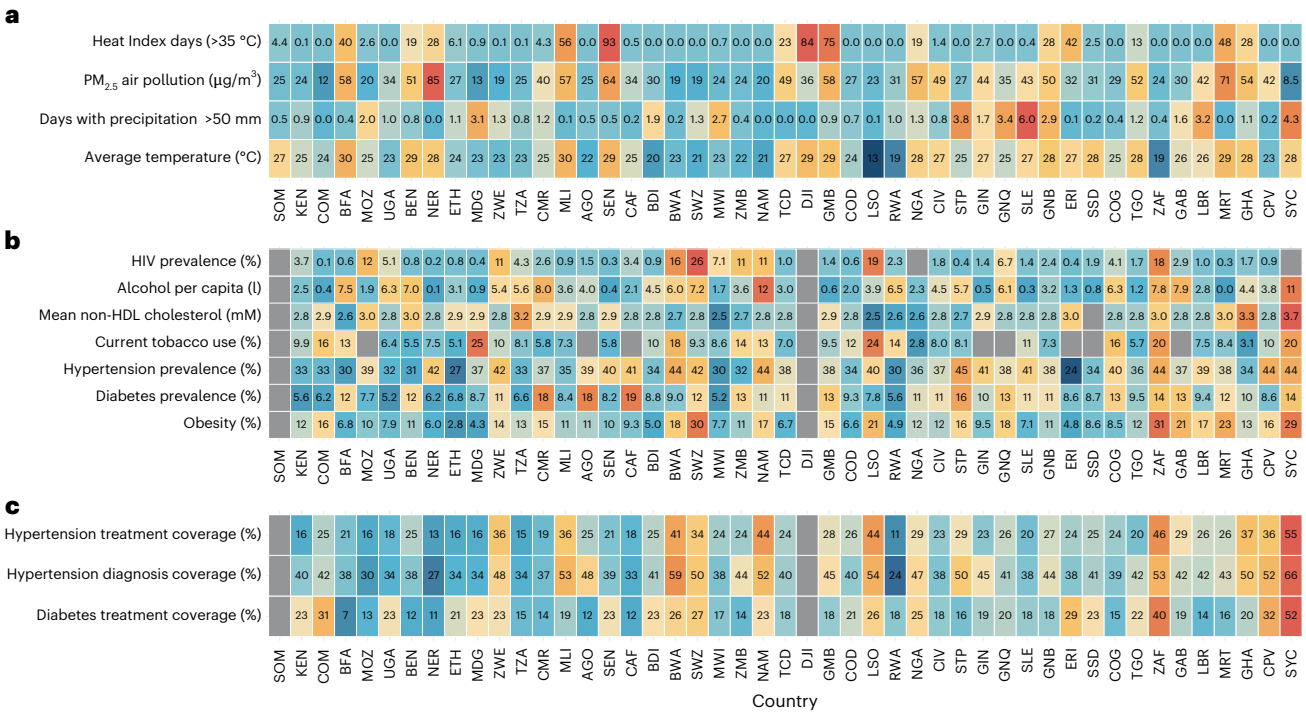

Fig. 4 | Health system context across SSA, including environmental exposures, cardiometabolic risk factors and treatment coverage, shown as standardized *z*-scores (color scale) and absolute values (numbers). a, Environmental variables for each country, including average temperature (°C), heat index days with heat >35 °C (apparent temperature taking account of humidity), annual mean $PM_{2.5}$ air pollution (µg per m^3) and number of days with precipitation >50 mm (extreme rainfall events), in 2024. Countries are ordered by IHD DALYs in 2023. Data from the World Bank Climate Change Knowledge Portal[87,88]. **b**, Key cardiometabolic and communicable disease risk factors in 2022, including age-standardized adult obesity, diabetes, hypertension, mean non-high-density lipoprotein cholesterol, alcohol consumption per capita and HIV prevalence (ages 15–49). Estimated age-standardized tobacco use prevalence (ages 15+) for 2025, extrapolated from previous survey data using the methodology by Bilano et al.[89], is also shown. Missing values are indicated in gray. Data are from the WHO Global Health Observatory[54]. **c**, Treatment coverage indicators, including diabetes treatment coverage, hypertension diagnosis coverage and hypertension treatment coverage in 2022. Data are from the WHO Global Health Observatory[54].

systems must be equipped to manage. Among these, environmental exposures have recently gained increasing recognition for their effects on CVD as summarized in a recent systematic review[61]. These exposures are diverse; they include high temperatures, ambient air pollution, noise, chemical pollutants such as metals (for example, lead, cadmium or arsenic) and extreme events such as flooding and wildfires, with heat and air pollution representing particularly important exposures in SSA[62,63].

SSA is particularly susceptible to extreme heat, with considerable geospatial variation across the region (Fig. 4a). The frequency of heat extremes is projected to rise in coming decades, particularly in countries lying along the equator[64]. Observational studies have highlighted the cardiovascular consequences of temperature, showing that even modest increases in ambient temperature can elevate both morbidity and mortality[65], with each 1 °C rise in temperature associated with a 2% increase in CVD-related mortality[66]. High temperatures influence cardiovascular function through mechanisms including dehydration and activation of both endothelial cells and leukocytes[62,65].

Acute heatwaves can also precipitate sudden cardiovascular stress, triggering events such as myocardial infarction and stroke[65]. Countries such as Djibouti, Senegal and The Gambia experience particularly high heat exposure, with numerous days each year exceeding a heat index of 35 °C (Fig. 4a). Many of these countries also carry a substantial IHD burden (Fig. 1a), amplifying the public health impact of heat exposure. Furthermore, common medications used to manage IHD, such as beta blockers, can impair thermoregulation, increasing susceptibility to heat-related cardiovascular complications[67]. Together, these environmental pressures represent an emerging driver of cardiovascular risk in the region.

Air pollution has also emerged as a major cardiovascular risk factor, with exposure to fine particulate matter <2.5 µm in diameter ($PM_{2.5}$) promoting atherosclerosis and destabilizing existing plaques, thereby increasing the risk of acute ischemic events[68]. Consequently, the wide variation in air pollution across SSA (Fig. 4a) likely contributes to regional differences in IHD incidence and outcomes. Household air pollution from the use of solid fuels for cooking has also been linked to coronary heart disease[69]. Similarly, extreme weather events can increase IHD risk, with air pollution's cardiovascular effects amplified in severely drought-affected regions[70]. These environmental exposures also intersect with social determinants of health, including poverty, low education and limited access to healthcare, which amplify vulnerability and contribute to geographic disparities in IHD burden[71].

Metabolic, lifestyle and infectious factors further influence IHD risk, often in interaction with environmental and social determinants. There are stark differences in obesity rates and diabetes prevalence, both of which contribute to the growing burden of IHD. The highest age-standardized rates of obesity among adults are in South Africa (30.8%), Eswatini (30.1%) and Seychelles (29.4%), with large relative differences compared to the lowest rates of obesity in Ethiopia (2.8%), Madagascar (4.3%) and Eritrea (4.8%)[54]. Conversely, malnutrition has also been associated with coronary calcification[72], highlighting a potential double burden of disease. Tobacco use also remains an important modifiable contributor to IHD risk, with substantial regional variation across SSA (Fig. 4b); in countries such as Madagascar, Seychelles and Lesotho, more than 1 in 5 adults use tobacco, whereas prevalence is below 1 in 20 in Nigeria and Ghana.

Hypertension and diabetes prevalence are geographically highly variable (Fig. 4b). The highest age-adjusted hypertension rates

(systolic ≥ 140 mmHg, diastolic ≥ 90 mmHg, or on medication) are observed in Sao Tome and Principe (45.1%), Seychelles (44.3%) and Botswana (44.1%; Fig. 4b), while the lowest rates are in Eritrea (23.7%), Ethiopia (27.4%) and Malawi (29.5%)[54] (Fig. 4b). Treatment coverage also varies sharply: Seychelles (55.2%), South Africa (46.5%) and Namibia (44.0%) have the highest coverage, compared with Rwanda (10.6%), Niger (13.4%) and Tanzania (15.2%)[54] (Fig. 4c). Similar disparities exist for diabetes management (Fig. 4c).

HIV is an important infectious contributor, with individuals living with HIV facing higher rates of CVD[73]. Chronic systemic inflammation, which persists even with effective antiretroviral therapy, accelerates atherosclerosis by promoting endothelial dysfunction, immune cell infiltration and plaque formation[73,74]. Given the considerable variation in HIV prevalence across SSA (Fig. 4b), these patterns are likely to contribute to regional disparities in IHD incidence and outcomes. Integration of IHD screening into existing HIV and tuberculosis care programs represents a promising strategy, leveraging established infrastructure to reach high-risk populations[75]. One recent trial conducted in Uganda and Tanzania demonstrated that chronic care services for diabetes and hypertension can be successfully integrated into existing care without compromising outcomes for people with HIV[76].

Together, these factors define the risk landscape that health systems in SSA must be prepared to address; their geographic variation means that capacity gaps identified in preceding sections are likely to be most consequential in settings where these upstream pressures are greatest.

Future policy outlooks

Policy responses to IHD in SSA must balance immediate gaps in service delivery with long-term structural reforms. At the clinical level, strengthening primary care as the entry point for cardiovascular prevention is crucial. Ensuring public sector access to diagnostic tests such as lipid/cholesterol measurements, as well as increasing the general availability of medications such as antihypertensives and statins, is also imperative for prophylactic management. Despite their inclusion on the WHO Model List of Essential Medicines more than a decade ago, statins remain absent from NEMLs in many SSA LLMICs[38]. Where public sector coverage is incomplete, the costs of care fall disproportionately on individuals through out-of-pocket expenditure, potentially driving further socioeconomic inequities in IHD outcomes and pushing vulnerable individuals into financial hardship[21].

National CVD guidelines adapted to local contexts will remain an essential foundation, but will only translate into impact if paired with sustainable financing, strong procurement systems and strategies to train, retain and distribute the health workforce more evenly. For example, the Nigeria Hypertension Control Initiative implemented a drug revolving fund (a self-sustaining system where medication sales are used to replenish stock), which substantially reduced medication costs and improved access to essential antihypertensives. Likewise, investing in surveillance systems and reviving previously successful prevalence surveys are equally important, with consistent data on risk factor prevalence and treatment coverage crucial for shaping future iterations of guidelines and policy. Here, consistent funding for the WHO STEPS survey[17] and its subsequent implementation would be a welcome development to increase consistent data collection on NCD-relevant risk factors.

At the same time, tackling CVD cannot be done through the health sector alone. Rising rates of obesity[77], dietary health transitions[78], urbanization and environmental stressors such as extreme heat[79] will shape the trajectory of IHD across the region. Policy approaches that integrate cardiovascular prevention into wider agendas, including urban planning to cool populated areas[80], removing subsidies to harmful products[81], increasing sustainable availability of healthy foods[82], poverty interventions[83], improved access to health insurance and introducing public health policy measures to curb tobacco and alcohol use[84], including taxes and higher prices (Fig. 4d), can deliver population-level impact.

Novel awareness strategies in schools and communities and through digital platforms, building on previous similar initiatives in SSA, will be important to increase recognition of cardiometabolic risk factors and treatment options[85]. Community-based and home-based models of hypertension management, such as those recently tested in rural South Africa, also offer promising strategies to extend care beyond clinic settings and improve blood pressure control[86]. These measures must be designed to reduce socioeconomic and geographic inequities, ensuring that lower-income groups benefit alongside more affluent populations. The future of IHD in SSA will therefore depend on how well health system reforms are connected to broader social and environmental policies.

Conclusion

Managing and treating IHD requires a coordinated approach that integrates initiatives across primary, secondary and tertiary care, alongside system-level strategies to mitigate risk factors, reduce IHD burden and shape policies addressing key aspects of prevention and treatment. Amid a profound epidemiological transition, the expected increases in IHD burden in SSA require expanding the healthcare workforce capacity, improving diagnostic services and increasing access to essential medicines. In parallel, there is an urgent need for more comprehensive data, including imaging-based diagnostics and a detailed understanding of regional risk factors, to accurately measure disease burden and guide targeted interventions. Given that the true burden of IHD remains uncertain owing to limited surveillance and scarce diagnostic data, addressing these deficiencies can help ensure equitable care and meaningful progress in cardiovascular health across the region.

Code availability

Code for figures can be found at https://github.com/MLGlobalHealth/IHD_SSA/.

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Competing interests

The authors declare no competing interests.

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