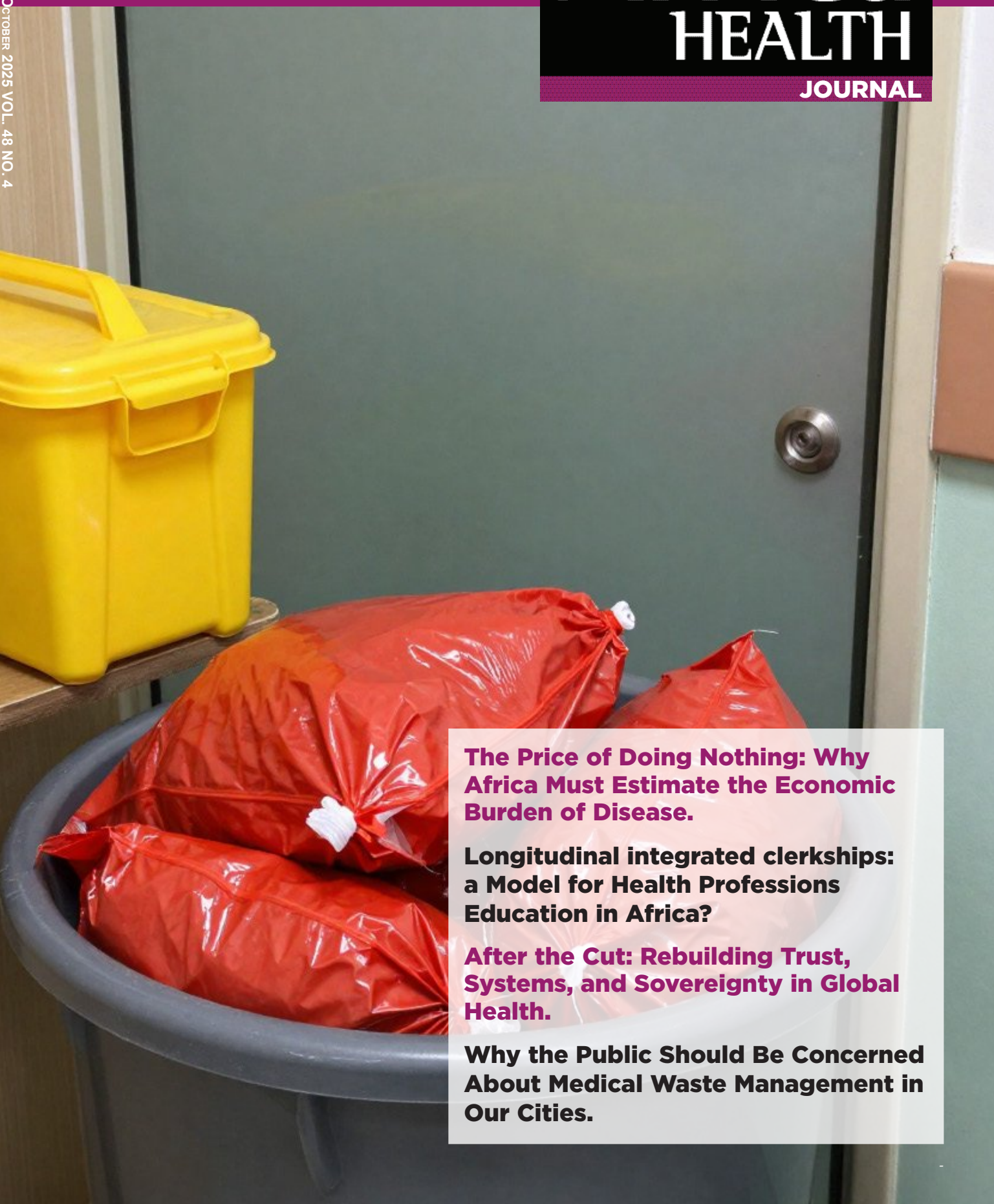
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Africa HEALTH JOURNAL



The Price of Doing Nothing: Why Africa Must Estimate the Economic Burden of Disease.

Longitudinal integrated clerkships: a Model for Health Professions Education in Africa?

After the Cut: Rebuilding Trust, Systems, and Sovereignty in Global Health.

Why the Public Should Be Concerned About Medical Waste Management in Our Cities.

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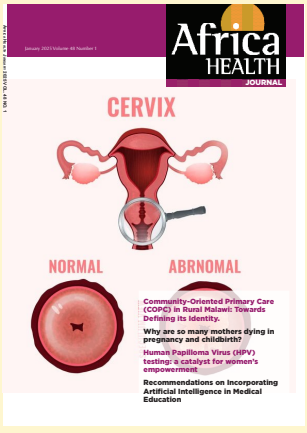
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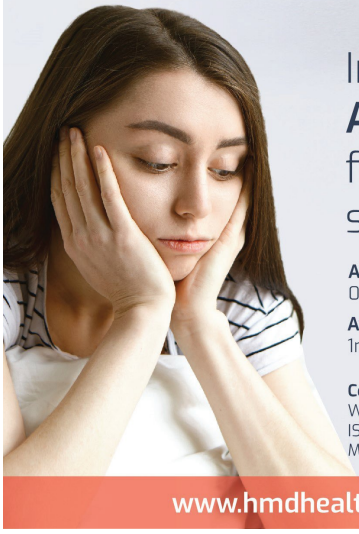
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Health Systems Under Pressure: Financing, Workforce Wellbeing, and Climate Change in Africa



This issue of the *Africa Health Journal (AHJ)* comes at a critical moment for health systems in Africa and globally. Health financing has emerged as a dominant theme across many health fora, particularly in the African region, following significant shifts in global funding priorities.

The issue opens with an Opinion piece by Francis Omaswa, informed by discussions on the Global Health Architecture (GHA) and its influence on African health systems. His reflections stem from a meeting convened by Amref Health Africa and sponsored by the Wellcome Trust in Kigali in November 2025. Omaswa provides a historical overview of the GHA and challenges the notion that Africa's persistent health challenges can be attributed solely to its structure or operation. Instead, he argues that limited political and technical leadership, inadequate investment in leadership development, and weak capacity for health workforce planning within African countries are critical constraints. Importantly, he concludes that with stronger leadership and institutional capacity, Africa can actively shape the GHA to advance its own priorities and deliver better health outcomes for its populations.

This issue also features reports from four major conferences held between September and November 2025, each contributing to the discourse on health systems strengthening and innovation. These include the Network Towards Unity for Health (TUFH) conference in Philadelphia, USA; the African Forum for Research and Education in Health (AFREhealth) conference in Dakar, Senegal; the World Conference on Lung Health in Copenhagen, Denmark, which highlighted advances in artificial intelligence for tuberculosis detection and surveillance; and the 12th Annual Conference of the Consortium of New Sub-Saharan African Medical Schools (CONSAMS), hosted by the Technical University of Mombasa in Kenya. Collectively, these meetings reflect Africa's growing engagement in global knowledge exchange, health professions education, and technological innovation.

Health financing is further explored in an article by Khalifa Elmusharaf on the economic burden of disease. He argues that African countries incur far greater costs from disease than those reflected in national health budgets. These "hidden" costs manifesting as lost productivity, diminished human capital, and constrained economic growth often dwarf direct health expenditures. By focusing on the cost of inaction, Elmusharaf demonstrates how estimating the true economic burden of disease can provide powerful evidence to align health and finance sector priorities. Drawing on existing research, he outlines practical actions governments can take to prevent escalating losses and promote sustainable development.

Health workforce development and wellbeing form another key theme in this issue. Ian Couper's article introduces Longitudinal Integrated Clerkships (LICs), describing their benefits for students, patients, and health systems. Using examples from Africa and other regions, he illustrates how LICs can contribute to producing health professionals who are socially accountable. This discussion is particularly relevant for Africa, where the quality, distribution, and retention of health workers remain enduring challenges.

Building on this focus, Joel Okullo reports on the outcomes of the 27th Annual Conference of the Association of Medical Councils of Africa. The conference theme, "The Balanced Approach," called for a reimagined model of health regulation that balances authority with empathy while prioritising practitioner wellbeing, digital readiness, equity, and patient safety. Okullo argues that compassionate, data-driven, and collaborative regulation is essential for building resilient and trustworthy health systems.

Global health financing and trust are revisited in an article by Elsie Kiguli-Malwadde and colleagues, based on the 2025 Consortium of Universities for Global Health (CUGH) white paper, Unravelling Trust. The authors examine how abrupt policy reversals disrupted life-saving programmes, undermined decades of scientific and diplomatic progress, and eroded trust in the United States as a global health partner. Echoing themes from Omaswa's Opinion.

Four short articles broaden the scope of this issue. Maya Fakhfakh explores participation as a bridge between patient care and community leadership. Another highlights emerging evidence linking root canal treatment to reduced risks of heart disease and diabetes. A third underscores the importance of adaptation finance in strengthening health systems in the face of climate-related threats. The final by David Okello, draws attention to hazardous medical waste management as a critical public health concern and proposes practical solutions to mitigate its impact.

We also pay tribute to our late colleague, Dr Peter Paul Eriki, whose contributions to health and medical education are remembered with deep respect.

As always, this issue includes our Medicine Digest, quiz, news updates, and advertisements. The Africa Health Journal is an open-access, web-based publication available at www.africa-health.com, updated daily and actively engaging audiences through social media. We invite our readers and partners to continue supporting both the print and digital editions as we work collectively to strengthen health systems across Africa.

Elsie Kiguli-Malwadde, Editor: Africa Health Journal,
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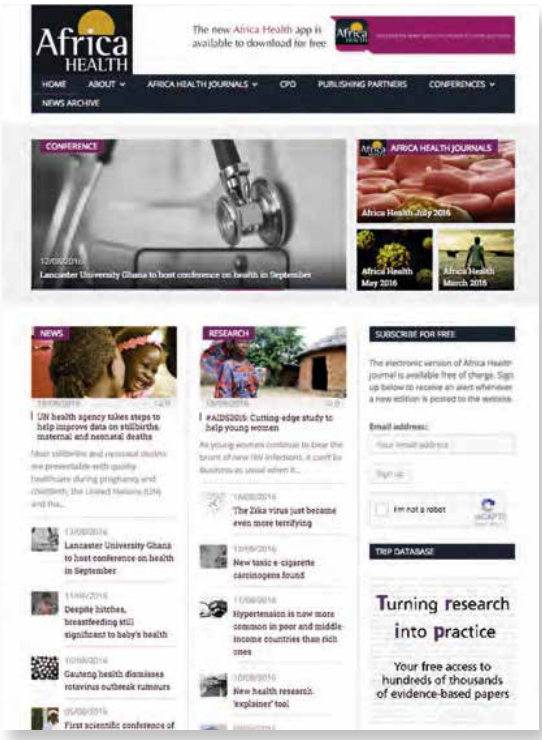
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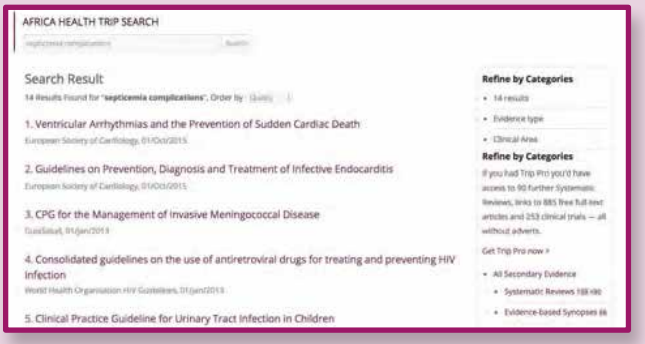
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Is the Global Health Architecture Responsible for Africa's Comparatively Poor Health Indices?



In November 2025, a meeting in Kigali convened by Amref Health Africa and sponsored by Welcome Trust examined how the Global Health Architecture (GHA) impacts African health systems and explored reforms that could better support Africa.

A conclusion emerged early: Africa's comparatively poor health indices are not primarily caused by the GHA. They stem largely from weaknesses in political and technical leadership within African health systems. This was underscored by comparisons with Southeast Asian countries that gained independence the same time as African nations. Operating under the same GHA, these countries have advanced further—because of stronger, more consistent national leadership.

I have witnessed these dynamics over decades in national and global health leadership. At independence, Africa was optimistic and leaders displayed ambition. The late 1960s and 1970s brought economic decline—falling commodity prices, rising oil costs, and political upheaval. Cold War dynamics condoned emergence of military dictatorships, and by the 1980s Africa was heavily indebted and reliant on external assistance.

With this dependence foreign advisers embedded themselves in ministries who, despite good intentions, contributed to an erosion of local autonomy and self-confidence. Over time, this fostered a culture of deference and non-assertiveness among some African leaders—an issue that persists today.

Donor countries naturally seek assurance that their aid is used effectively. However, experience shows that when African governments articulate clear priorities and lead decisively, donors follow. During my tenure as Development Partner Coordinator for Uganda's health Sector-Wide Approaches, we built strong relationships with development partners. Uganda became a "donor darling" because the Ministry of Finance negotiated firmly and we upheld partnership principles. Other African countries have succeeded similarly by maintaining clear direction and disciplined leadership. When results are visible under country-led programs, donors readily sustain or increase support.

Africa also commands respect in global institutions when we arrive well prepared. My experience on the boards of the Global Fund, GAVI, and the Stop TB Partnership, is that well-coordinated African delegations can shape decisions and direction.

One dimension often neglected in discussions of health system performance is the political context. Health outcomes reflect political choices. In many African countries, health is listed as a priority in policy documents, but this is rarely matched by commensurate investment. Public financing remains far below commitments such as the Abuja Declaration. Health workers are chronically underpaid, leading to low morale, attrition, and migration. Many countries rely heavily on donors for essential medicines, vaccines, and basic supplies—undermining sovereignty and long-term planning.

Short electoral cycles further encourage leaders to favour visible, quick-impact projects over long-term system strengthening, such as training health workers or improving supply chains. Frequent turnover of health ministers, patronage-based appointments undermine reform. Fragmented political coordination also weakens Africa's negotiating power in global health forums. These political determinants explain why Africa often struggles to assert its interests within the GHA.

What, then, is the way forward? The question is not whether the GHA is responsible for Africa's health challenges, but how African countries can strengthen leadership to better navigate and benefit from it. Three actions are critical.

First, Africa needs stronger political and technical leadership for health. Delegations to global meetings must arrive well prepared, understand the issues, and articulate coherent African positions. The African Union, Regional Economic Communities, professional associations, and think tanks can amplify these positions. Health must also become an electoral issue—over which leaders gain or lose elections.

Second, leadership development must be institutionalized. ACHEST, for example, worked with the East, Central and Southern Africa Health Community to create a Handbook for Health Ministers and to brief delegations attending the World Health Assembly. These efforts improved clarity and confidence but lapsed due to lack of funding. Such initiatives should be revived and embedded in health governance structures.

Third, Africa needs stronger capacity for health workforce planning. A major gap exists in linking workforce needs to disease burden. Countries need planners who can determine how many midwives, neonatologists, and obstetricians are required to manage millions of annual births—and adjust training programs accordingly. Without this technical foundation, political commitments cannot translate into improved services.

In conclusion, Africa's health challenges cannot be attributed to the GHA. The central issue is the strength of political and technical leadership within African health systems. When leaders are clear, assertive, and well prepared, donors align with national priorities and Africa's influence in global health grows. African countries should invest in building leadership capacity. With stronger leadership, Africa can shape the GHA to advance its priorities and deliver better health outcomes our people deserve.

Francis Omaswa, Founding Executive Director for the African Centre for Global Health and Social Transformation (Kampala) and the Global Health Workforce Alliance WHO; and Publisher of Africa Health

TUFH 2025 Conference: Challenging Assumptions and Reimagining Solutions

The Network Towards Unit for Health (TUFH) is an international, intersectoral, and intergenerational organization dedicated to fostering equitable, community-oriented health services, education, and research with the overarching goal of improving health both locally and globally. It serves as a convener for innovative health care organizations, universities, community institutions, and thought leaders from all over the world. To ensure accessibility for its diverse membership, TUFH holds an annual conference in a different continent each year.

Hosts and Setting

The 2025 conference marked TUFH's 46th anniversary. This year, TUFH, Woods System of Care, and the Mollie Woods Hare Global Center of Excellence jointly hosted the event. The conference, which took place from September 12 to 15, 2025, gathered the health workforce, educators, leadership, students, young professionals, policymakers, researchers, and health advocates. Its central theme was "Reframing Access to Health: Challenging Assumptions and Reimagining Solutions".

A unique aspect of this year's gathering was the venue. Unlike past conferences, which were typically hosted at university campuses, the 2025 event was held at the Woods System of Care headquarters in Langhorne, Pennsylvania, United States. The Woods campus, unlike traditional university settings, is located in the scenic countryside of Bucks County, PA. With a history spanning over 60 years, the campus is dedicated to providing exceptional care and services to individuals with disabilities. Its expansive, peaceful grounds offered a beautiful backdrop for networking, learning, and community-building, creating a calm, inspiring, and welcoming atmosphere conducive to focused discussions.

Program and Participation

The 2025 conference was a resounding success in terms of attendance and global reach. A total of 452 physical participants attended across the four days, including the attendees of the two unique summits hosted alongside the main conference: the IDD/Autism Summit and the Convenient Care Summit. Additionally, 86 participants joined virtually, contributing to the conference's global reach. In total, attendees represented 29 countries.

The conference's main theme was further explored through four detailed subthemes:

- Innovative Approaches to reduce Health Disparities for Vulnerable, Marginalized, and Complex Populations
- Community Engagement to promote Physical and Mental Health and Wellness
- Partnerships to build Social Accountability Bridges linking Education and Service to advance Community Health
- Policy and Collaborations to advance Community, Planetary, and Environmental Health

TUFH is known for its unique conference program, which includes a variety of formats to ensure that nearly everyone has an opportunity to participate. The TUFH 2025 program featured 9 Workshops, 4 Documentaries, 10 TUFH Talks, 147 Oral Presentations, and 17 Panels with multiple panelists.

A distinctive component of TUFH conferences is the "Conference on the move", an experience that gives participants an opportunity to visit various local organizations and communities. The aim is for participants to gain a deeper understanding of the local community by the time they depart. In 2025, half a day was dedicated to this activity, during which participants visited over 9 communities.

Key Dignitary

TUFH 2025 was honored to host Her Excellency Mrs. Katumu Y. Boakai, the First Lady of the Republic of Liberia, along with her distinguished delegation. Her presence underscored the global significance of TUFH's work and emphasized the importance of international partnerships in promoting inclusive, community-driven models of care. The First Lady's participation began on Friday, September 12, with her attendance at the opening reception. Delegates from around the world gathered to welcome Her Excellency, whose gracious presence established a tone of unity and respect for the ensuing days. This initial encounter provided participants an opportunity to greet the First Lady and express their appreciation for her commitment to global collaboration.

The 2025 Declaration

Following the tradition of TUFH conferences, a declaration is compiled at the conclusion of the event and communicated to all partners and collaborators. The TUFH 2025 Philadelphia Declaration builds upon past milestones specifically the Thunder Bay Communiqué (2012), Vancouver Vision (2022), Sharjah Consensus (2023), and Ubuntu Declaration (2024) reaffirming that universal access to health is a shared societal responsibility.

The declaration urgently calls for the transformation of health systems through community-led, socially accountable, and inclusive education and service32. It commits to four key action areas, which mirror the conference subthemes:

1. Innovative approaches to reduce disparities for marginalized and complex populations
2. Deeper community engagement for physical and mental well-being
3. Socially accountable partnerships linking education and service
4. Policies promoting community, planetary, and environmental health[36]

Acknowledging the progress made while noting persistent inequities, the declaration calls for a renewed sense of urgency toward achieving the 2030 goals. Governments, institutions, communities, and students are urged to collaboratively create and implement socially accountable systems. Ultimately, the declaration serves as both a recommitment and a checkpoint on the path toward equitable, people-centered global health transformation.

AFREhealth's 8th Annual Conference: Rethinking Public Health in a Globalized World

The African Forum for Research and Education in Health (AFREhealth) successfully convened its 8th Annual Conference in Dakar, Senegal, from September 22-24, 2025. This significant event marked a new milestone for the forum, as it was the first time the conference was hosted in a Francophone country. Hosted by Université Rose Dieng France-Sénégal, the conference was a resounding success, conducted bilingually to ensure broad participation and communication. The venue for this highly anticipated gathering was the Azalai Hotel.

A Global Forum for African Health Solutions

AFREhealth stands as a crucial interdisciplinary grouping of health professionals dedicated to enhancing the quality of healthcare across Africa. It achieves this by collaborating with Ministries of Health, training institutions, and other stakeholders, focusing its efforts on research, education, and capacity building. The forum itself is a robust conglomerate, bringing together individuals, institutions, associations, and networks from all four linguistic regions of Africa: Anglophone, Francophone, Lusophone, and Arabophone. Membership is open to all African and external stakeholders who share the commitment to fostering strong, self-sustaining, and robust health systems on the continent.

The Dakar conference served as a vital platform, uniting health experts, practitioners, educators, researchers, and partners from across Africa and around the globe. The shared objective was to exchange knowledge, experiences, and innovative solutions to the continent's most pressing and complex health challenges.

Diverse Attendance and International Collaboration

The 8th Annual Conference demonstrated a remarkable level of international and professional diversity. A total of 812 participants registered for the event, with 161 choosing to attend in person. These attendees represented an impressive 28 different countries worldwide[14].

African representation was particularly strong, with the largest contingents hailing from Uganda, Senegal, Ghana, South Africa, Kenya, and Nigeria. Furthermore, the presence of delegates from nations like Belgium, Spain, the United States, and the United Kingdom significantly enriched the international dimension of the discussions, ensuring a broad range of global perspectives were included. The gender distribution among attendees was well-balanced, with 55% male and 45% female participants.

The professional expertise at the conference spanned numerous disciplines essential to public health, highlighting the interdisciplinary nature of AFREhealth's mission. Health professionals and students were well-represented from fields including Medicine, Nursing and Midwifery, Public Health, Laboratory Science, Epidemiology, Biomedical Sciences, Physiotherapy, and Clinical Psychology. This diverse and inclusive environment, cutting across gender, nationality, and professional backgrounds, was a key characteristic of the event.

Elsie Kiguli-Malwadde, Immediate Past President of AFREhealth

Addressing Critical Health Challenges Through Focused Themes

The overarching theme for the 8th conference was highly relevant to the current global climate: "Rethinking public health in a globalized world". This central theme was explored through several critical sub-themes that focused on Africa's immediate and future health priorities:

- Emergency preparedness and management of infectious, neglected tropical, and non-communicable diseases.
- Advance research, innovation, and technology, including the role of Artificial Intelligence (AI) and digital health, specifically tailored to Africa's needs.
- Building a sustainable health workforce capable of addressing Africa's priority health challenges.
- Combating climate change and health, and developing strategies for resilience.

Conference Structure and Key Takeaways

The conference featured a robust schedule designed to facilitate deep engagement and knowledge sharing. The program included 9 plenary sessions, 10 workshops, 3 panels, and 10 abstract sessions. In total, 29 distinguished plenary speakers presented on the various sub-themes, bringing authoritative voices and diverse viewpoints to the discussions.

The call for abstracts yielded 231 submissions, demonstrating the high level of research activity in the African health sector. A vast majority 218 abstractswere accepted for presentation, split into 155 oral presentations and 63 poster presentations.

The abstract-driven sessions covered a wide array of specialized topics, including Maternal and Child Health, Communicable Diseases, Cancer Research, Medical and Nursing Education Research, Interprofessional Education and Collaborative Practice (IPECP), Health Professional Education, Health Systems Strengthening and Service Delivery, Health Workforce Development and Well-being, Quality Services, and Climate Change Resilience. The formal proceedings also included an Annual General Meeting for AFREhealth members.

Inaugural Address and Vision for the Future

The opening ceremony was a distinguished event, attended by the Minister of Education of Senegal. The inaugural address was delivered by Prof. Adama Faye, a physician and Professor of Public Health at Cheikh Anta Diop University in Dakar. He set the tone for the conference by defining public health as "the science and art of preventing disease, prolonging life, and improving mental and physical health through collective action."

Prof. Faye urged participants to rethink public health in a globalized world through the lens of equity, social justice, and the decolonization of knowledge and practice. He identified key contemporary challenges, including health emergencies, shortages in human resources, and climate change. Addressing these issues, he stressed, requires integrated and context-specific approaches supported by diverse leadership.

Overall, the meeting was highly successful.

The Price of Doing Nothing: Why Africa Must Estimate the Economic Burden of Disease

Africa pays far more for disease than what appears in national budgets, with silent losses in productivity and human capital dwarfing health expenditures. This article demonstrates how measuring the Cost of inaction provides the evidence needed to align health and finance priorities for sustainable growth.



At TUFH 2025 USA Conference, facilitating a training workshop on conducting economic burden estimation

Summary

Estimating the costs of disease and the costs of doing nothing can reshape how Africa invests in health and prosperity. Every African country pays for disease, whether or not it budgets for it. Health expenditure is visible in national accounts, but the much larger, silent cost of illness hides in lost productivity, premature deaths, reduced education, and eroded household savings. The core challenge is not clinical, but economic: failing to count the Cost of Inaction makes prevention seem expensive, when in reality, it is the only affordable choice. Drawing on studies I conducted across Africa to estimate the economic burden of disease and cost of inaction, this article outlines the systematic methodology required, demonstrates the overwhelming financial drain caused by productivity loss, and argues that the Economic Burden of Disease data is the foundational policy and advocacy tool needed to bridge health and finance ministries and secure Africa's human capital.

1. The Hidden Cost of Ill-Health

Across Africa, ministries of health fight to secure funds, while ministries of finance confront competing priorities. Yet both sides often work without knowing the real price their country already pays for disease. Africa's health problems already have a price tag. We just haven't written it down.

Across the continent, these invisible costs play out in daily life. A market vendor in Dakar who develops hypertension can no longer haul her vegetables to market; her income halves, and her children leave school to help at home. A bus driver in Kampala with uncontrolled diabetes misses work repeatedly; his employer loses revenue, and his family loses stability. A teacher in Blantyre recovering from a stroke faces months of rehabilitation, forcing the school to hire a temporary replacement at additional cost.

Africa's real health bill is not what is spent on health, it is what is lost because of ill-health. Understanding that loss is not an accounting exercise. It is a policy and advocacy tool that transforms how governments, donors, and citizens think about investment in health.

2. What We Mean by "Economic Burden"

The economic burden of disease refers to the total financial and economic losses caused by illness, disability, and premature death. This estimate goes beyond simple cost containment to quantify the overall economic impact. It reframes health as both a social and an economic issue. For example, in Malawi, a worker with uncontrolled diabetes who leaves the labour force doesn't just affect the health sector; the ripple extends to

Dr Khalifa Elmusharaf, *MBBS, SFHEA, FRSPH, FFPH, MRSTMH,* PhD, Associate Professor in Public Health, Director of Public Health Programme, University of Birmingham Dubai

the economy and the tax base. In Ethiopia, polluted air that contributes to respiratory and cardiovascular disease reduces agricultural yields and urban productivity. By estimating the economic burden, countries can connect health, finance, and development in one conversation. It gives policymakers a new lens: health as a driver of prosperity, not a cost centre. Table 1 outlines different pathways for assessing this loss.

Table 1. Pathways to estimate economic burden

Type	Pathway	Sub-Category	Description
Direct	Direct healthcare costs	Direct healthcare costs	Costs of consultation, diagnosis, treatment, hospitalization, medications, and other healthcare services
Indirect	Reduced productivity of employed workers	Absenteeism	Lost output due to time away from work caused by illness
		Absenteeism (Caregivers)	Lost output due to time away from work caused by illness in children
		Presenteeism	Reduced efficiency and performance while at work due to illness
	Workforce reduction	Early retirement / Long-term disability	Loss of labour force participation due to permanent inability to work
		Premature deaths of workers	Lost lifetime productivity and income taxes from deaths among working-age individuals
	Informal sector losses	Informal sector losses	Value of foregone output from individuals engaged outside the formal labour market
	Societal losses	Deaths	Societal losses due to deaths across the population

3. The Price of Doing Nothing

Failing to act is not cost-neutral; it is the most expensive choice. The "cost of inaction" shows what countries lose when preventive and control measures are delayed. The "do nothing" scenario has a cumulative effect. A one-year delay in scaling up hypertension control or increasing tobacco taxes amplifies costs over decades. One uncontrolled diabetic patient today can lead to decades of lost productivity, higher medical costs, and social dependency tomorrow.

Across Africa, the same pattern emerges: productivity losses accumulate silently as working-age adults fall ill or die prematurely, households spend down savings on care, employers bear the costs of lost productivity, and health systems are forced to treat late-stage diseases at ten times the cost of prevention. The ripple extends beyond families: lower household incomes reduce consumption, weaken local markets, constrain tax revenue, and force health systems to treat late-stage diseases at ten times the cost of prevention.

The cost of inaction also widens inequality. Poor households spend a higher share of their income on health and are least able to recover from shocks. Each untreated illness deepens the divide between those who can afford care and those who cannot, eroding social cohesion and long-term development gains.

The burden is also deeply gendered. Women bear a disproportionate share of economic losses, not only because they often work in the informal sector, where illness erodes already fragile income, but also because they shoulder unpaid caregiving. When a child, spouse, or parent becomes ill, it is women who lose workdays, withdraw from school, or give up income-generating activities. These invisible costs rarely appear in budgets, yet they account for some of the largest productivity losses at the household and national level.

4. Why Knowing the Economic Burden Matters

Understanding the economic burden of disease changes how decisions are made by providing all stakeholders, from ministers to citizens, with a common language of evidence and impact. For Governments and Policymakers, this data informs priority-setting by revealing which diseases impose the greatest losses, allowing leaders to allocate resources where returns are highest. Crucially, it creates a shared language that transcends sector silos, enabling fiscal planners and Finance Ministries to respond to numbers that directly connect health to GDP, revenue, and employment. By quantifying economic losses, the economic burden of disease strengthens accountability, exposing the true opportunity cost of inaction and pressuring decision-makers to act.

The impact extends globally. For Development Partners and Donors, the economic burden of disease provides the quantitative evidence needed to guide smarter investment, allowing them to align support with high-impact, high-burden areas and reduce duplication through shared metrics. This framing also enhances advocacy, transforming the moral case for external assistance into an economic imperative. On the ground, for researchers and national institutions, conducting economic burden of disease studies builds critical local evidence capacity, strengthening analytic skills within ministries, universities,

and think tanks. The data empowers civil society and citizens, fueling advocacy by giving communities the economic proof to demand prevention and accountability, and clearly linking health to livelihoods and stronger economies. When a government knows what disease costs, it can choose to invest in prevention rather than pay the price of neglect.

5. Key Findings from Previous Research

Building on our extensive research across the Gulf Cooperation Council (GCC) and the Eastern Mediterranean Region (EMR) in collaboration with the World Health Organisation (WHO) and the United Nations Development Fund (UNDP), our studies have consistently highlighted the staggering economic burden of non-communicable diseases (NCDs) and the cost of inaction. These findings provide valuable insights and serve as a blueprint for future economic burden assessments in Africa.

In the GCC, we found that NCDs cost the region nearly US $50 billion annually, or about 3.3% of GDP. In the Eastern Mediterranean Region, we estimated that breast and cervical cancers cost the region US $15 billion annually, a figure projected to rise to US $379 billion by 2040. Our study of the economic burden of Diabetes in the Eastern Mediterranean Region also offers critical insights. In 2023, diabetes affected 74 million people, causing over 833,000 deaths and generating an economic burden of Int $639 billion. By 2050, this burden is projected to exceed Int $1.5 trillion. In addition, our research on rheumatic heart disease in the EMR highlighted an economic burden of US $5.8 billion in 2020, which could reach US $166 billion by 2050.

In Africa, the economic burden of disease is equally profound but often underestimated. In the last decade, we undertook studies in several African countries to estimate their national economic burden of disease and the cost of inaction, and the findings consistently show that ill-health is among the largest unmeasured drains on the continent's economies.

In Malawi, we estimated the economic burden of NCDs to be about 3% of GDP in 2025. Using the Human Capital Approach, the total burden was valued at US $309 million annually. In Zimbabwe, malnutrition and nutrition-related diseases caused an economic burden of US $652 million, or 3.9% of GDP in 2019. In Morocco, we estimated the economic burden of tuberculosis and HIV/AIDS in 2025 to be about US $166 million (0.1% of GDP). By 2050, the cumulative burden could reach US $4.5 billion, primarily driven by indirect costs related to premature labor force exit and mortality. In Ethiopia, household air pollution-related diseases, including stroke, IHD, COPD, lung cancer, acute lower respiratory infections (ALRI), and diabetes, resulted in an economic burden of US $3.9 billion annually. This represents 4.2% of GDP. In Nigeria, the economic burden of adverse pregnancy, maternal, and child health outcomes attributable to poor preconception health alone was estimated at US $3.3 billion annually (0.7% of GDP). This burden could accumulate to US $46.2 billion by 2035, with 99.5% of the total cost attributed to indirect losses, particularly from future productivity losses related to child cognitive deficits and maternal and neonatal mortality.

Across all these settings, a consistent pattern emerges:



Khalifa Elmusharaf

the majority of economic losses come not from direct health-care spending but from reduced productivity, premature mortality, and the erosion of human capital. These findings demonstrate the scale of the challenge and highlight why African policymakers require robust economic evidence to guide investment, prioritise prevention, and protect long-term development.

6. Overcoming Challenges in Estimating the Economic Burden of Disease

Estimating the economic burden of disease requires multiple sources of demographic, epidemiological, health system and economic data. In many African settings, the most significant barrier is the absence of comprehensive, national-level data on incidence, mortality, service utilisation and labour productivity. Rather than making the analysis impossible, these gaps make methodological transparency and triangulation essential.

A practical way to strengthen the estimates is to combine the available national data with well-established global sources. The Global Burden of Disease (GBD) study provides robust estimates for incidence, prevalence, disability weights and mortality where national surveillance systems are limited. Population structures can be drawn from the UN World Population Prospects, macroeconomic indicators from the World Bank, labour force parameters from the International Labour Organization, and life expectancy data from the WHO Global Health Observatory. These sources enable analysts to systematically fill data gaps while ensuring consistency with global reporting standards. Local studies, health facility reports and national surveys should be used as the main sources to refine assumptions and improve local relevance.

However, the main methodological challenge lies in estimating the economic value of premature death. Three core methods are commonly used, each with different implications for the estimation. The Friction Cost (FC) method suggests that each death results in temporary productivity lost, lasting only until the worker is replaced. While it's efficient for market analysis, it tends to undervalue life, which can be politically unappealing when advocating for large-scale health investments. The Human Capital (HC) approach, often preferred by governments and donors, calculates the value of life lost by estimating the future earnings a deceased person would have contributed until retirement. This method

directly links health loss to GDP, but it is limited because it doesn't account for those outside the formal workforce, such as unpaid caregivers, the elderly, or those in the informal sector.

In contrast, the Value of Statistical Life (VSL) approach, which uses willingness-to-pay (WTP) to capture the economic value of life, is considered the gold standard. However, its application in Africa is difficult due to survey limitations and the risk of low estimates. Despite these challenges, VSL remains the most comprehensive approach because it includes all individuals, not just formal sector workers. For countries with a large informal workforce or populations outside formal employment, VSL provides a more realistic reflection of the societal cost of death, encompassing the broader economic impact, including caregiving and community contributions. VSL offers the most complete societal perspective on the economic value of life, particularly in African settings.

7. Policy Mandates: The Way Forward

Understanding what disease costs fundamentally changes how governments and partners view health. In several African countries where economic burden analyses have been undertaken, health has shifted from being seen primarily as a budgetary expense to being recognised as a macroeconomic investment. This shift occurs when economic evidence enters the decision-making space of ministries of finance, planning commissions, and national development councils.

Three lessons have consistently emerged. First, national ownership determines uptake. When local technical teams and government institutions lead the estimation process, the findings gain legitimacy, are more readily debated in parliamentary and cabinet forums, and are more likely to influence budget cycles. Second, integration into broader reforms increases impact. Economic burden estimates have greater traction when they are embedded in ongoing Universal Health Coverage (UHC) reforms, national health insurance discussions, or primary health care (PHC) strengthening agendas.Third, communication shapes policy attention. Senior decision-makers rarely respond to technical detail, but they respond to simple and comparable metrics, such as the percentage of GDP lost, the projected cost of inaction over the next decade, or the return on investing in NCDs or PHC.

Regional bodies such as WHO, UNDP, and Africa CDC are playing an increasingly important role in facilitating cross-country learning, harmonising methodologies, and strengthening analytic capacity. Collaborative platforms help ensure that countries adopt comparable approaches, avoid duplication, and negotiate from a shared evidence base when engaging donors and development partners.

The challenge for the coming decade is institutionalisation. Economic burden of disease estimation must transition from sporadic, donor-driven exercises to a routine function within national planning processes.

Key actions to support this transition include:

1. **Mandate cross-ministerial use of economic burden data**. Ministries of Finance, Planning and Health should formally incorporate economic burden estimates into budget preparation, medium-term expenditure frameworks, and national development plans, ensuring that health expenditure is aligned with its economic return.
2. **Prioritise PHC investment using cost-of-inaction evidence**. Economic burden findings can guide reallocation of resources from costly late-stage treatment to high-impact preventive and PHC interventions, reinforcing the fiscal rationale for strengthening early detection and community-based care.
3. **Strengthen national data systems**. Investment in civil registration and vital statistics (CRVS), health information systems, and labour market data is essential to reduce reliance on global proxies and improve the accuracy of future estimates.
4. **Develop sustainable health economics capacity**. Establishing university-based training programmes, regional centres of excellence and in-ministry analytical units will ensure that countries can independently conduct, update and interpret economic burden analyses without waiting for external support.

Conclusion

Every nation has two budgets: the one it approves in parliament and the one it silently pays through lost lives, lost income, and lost potential. The second is far larger, yet rarely measured.

Estimating the economic burden of disease reveals that hidden budget and helps governments act before losses grow. It builds a bridge between health and finance, between moral duty and fiscal logic. Counting the cost is not about numbers, it is about priorities, justice, and the future we choose. When Africa begins to count what illness costs, it will finally begin to count what health is truly worth.

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Longitudinal integrated clerkships: a Model for Health Professions Education in Africa?

Ian Couper defines Longitudinal Integrated Clerkships (LICs), explaining their advantages for students, patients, and the healthcare system. He then illustrates how LICs are being applied in Health Professions Education, drawing on examples from Africa and worldwide.



Stellenbosch University Worcester Campus: Home of Ukwanda's Rural Clinical School

Longitudinal Integrated clerkships (LICs) are an increasingly common form of clinical training, used particularly in medical education. While they have come to the fore more recently, they are in fact rooted in the apprenticeship model, which is at the heart of most good clinical education[1]. Their development has been driven both by workforce factors and by educational imperatives. The earliest examples grew out of rural medical education initiatives that were implemented to address physician shortages in the USA in the 1970s and to make new opportunities available[2, 3], and subsequently these were extended and developed further across different contexts, though rural programmes dominated the field, as part of a wide range of approaches to increase rural clinical training [4]. It was the educational value of LICs that led to them being adopted more widely outside of the rural context and growing as an approach.

What then are LICs? As described by Norris et al[5], the Consortium for Longitudinal Integrated Clerkships (CLIC) defines LICs as consisting of 3 criteria, which are that medical students are involved in the comprehensive care of patients over time, develop learning relationships with the clinicians caring for these patients, and meet a majority of the particular year's core clinical competencies across disciplines through this experience.

In 2016, Worley et al [2] conducted an international study looking at clerkships that, to a lesser or greater extent, met these criteria and developed a topology of three distinct clusters of LIC types, based on 54 programmes in 44 medical schools across 7 countries [2], indicating the wide implementation and variation of LICs.

Looking at what LICs are, it is useful to unpack the term as a way to understand what the concept means in practice. Firstly, let us look at the idea of a clerkship, which is not something that necessarily resonates throughout Africa. This has been largely a North American term for a period of clinical training experience, introduced by William Osler in the late 19th century [1], though its origins

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Context is critical: Rural woman at work in fields



Student Learning Centre at Ceres District Hospital: a LIC training site

appear to have come from Europe and the UK, where clinical clerks, mostly medical students, were appointed as junior assistants in hospitals and "taking histories" became known as "clerking patients". This is interesting because it cements the link of the LIC to apprenticeship, because a clerk was somebody helping the clinician mentor for whom he (they were all male at that time) was working by carrying out clerical duties such as taking histories from patients. Across Africa, "clerkships" might also be called blocks, rotations, placements, attachments or postings. In South Africa, the two institutions that have LICs have made different decisions around the name, with Stellenbosch University calling it a Longitudinal Integrated Model[6] and Walter Sisulu University calling it an Integrated Longitudinal Community Clerkship[7].

Secondly, why longitudinal? Here, the focus is on continuity. Through these programmes there is continuity of involvement of the clinical student with the healthcare context, be that a health facility or a community, with patients for whom the students care, and with clinicians who are the supervisors or preceptors of these students. Many of the extensive benefits that have been described around the value of LICs relate to this continuity. These benefits include greater learner centredness, development of patient trust and consequent enhanced learning opportunities, being incorporated into a practice team and becoming an integral part of a community[7, 8]. Continuity promotes authentic learning and formative assessment, allows for flexibility and self-regulated learning, develops confidence and preparedness for practice, and supports professional identity formation [9,10]. Students feel they are making a meaningful contribution to the care of patients [11]; benefits to patients have indeed been shown, including the provision of emotional and social support, improved patient responsiveness to students' advice, and the potential to enhance patients' engagement with care[12].

An important part of the continuity is relationship. One of the greatest needs for the healthcare system is to receive graduates who have a patient-centered understanding and are able to treat patients as people within the context of families and communities. Thus, enabling students, through longitudinal exposure, to understand the importance of interpersonal connection and relationships is critical. Relationships are central to LICs, and have been shown to influence clinical supervision and the usefulness of feedback, support effective working relationships between peers and contribute to professional identity formation[3].

Thirdly, why integrated? In the traditional post-Flexner medical education system, clinical learning has been focused on coming to grips with and understanding bodies of specialized knowledge through working in specialist wards and units. This may make sense in the light of the rapidly expanding knowledge base required by doctors in training, and particularly for those who may go on to function in specialized environments, but it has been argued that this system in the global North has created an excellence in science that has not been accompanied by a comparable excellence in clinical caring [13]. The greatest need in Africa, certainly, is to produce doctors who understand the whole patient and are able to synthesize and integrate the knowledge of different systems (body systems, healing systems, belief systems) to address the multiple and complex problems that individual patients present with. An integrated approach where students learn from the patients who present to them rather than from textbooks enables them to function not only in primary care but to offer rational, person-centered care regardless of specialty choice, which is an approach that students are more likely to emerge with if they undertake an LIC [3], given that this integration across disciplines is a key element of the LICs.

The benefits described above are not exhaustive; there are a number of reviews of the benefits of LICs [3, 12, 14]. It is important to note that the benefits for patient care extend what has already been reported across Africa in terms of the involvement of students as active participants in health care systems [15], which is the kind of role that the LIC apprenticeship model facilitates.

LICs's have mostly been described in terms of medical



Dr Harry Surtie Regional Hospital, Upington: a LIC training site

education, that is training of doctors or physicians. However, there have been similar models described across other health professions. Benefits of LIC-type programmes have been reported in the clinical training of students in pharmacy [16], dentistry and oral hygiene [17] nursing [18] and midwifery [19].

Currently, the model is mostly used in high income countries. Based on data from the CLIC website (https://clicmeded.com/lic-programs/), the majority of LICs are in the USA and Canada; there are a number in Australia, and increasing numbers in the UK and Ireland. Examples can also be found in Japan, the Netherlands, New Zealand, Norway, South Africa, Taiwan, and Thailand. In Africa, there are only two programmes formally described as LICs, as mentioned above. The LIM programme at Stellenbosch University (SU), established in 2011 as part of the SU Rural Clinical School, involves a small but steadily increasing number of students who apply to complete their final year in district hospitals (6), which will be expanded significantly as part of the curriculum renewal process currently underway. The ILCC programme at Walter Sisulu University, established in 2014 to provide a patient-centred community-based clinical experience, places the entire 5th (pre-final) year class of medical students for twenty consecutive weeks in rural district hospitals throughout the Eastern Cape [7].

However, it may be that more examples exist across Africa that are not named or identified as LICs. Extended community-based education and service (COBES), Community-based medical education (CBME), or community-based health science education (COBHSE) programmes, which are common across many countries in Africa, might very well fit into the model of an LIC. Under the auspices of CLIC there is an attempt to update the typology and, through this, also to recognise more examples of possible LIC programmes (https://clicmeded.com/lic-programs/).

I believe LICs hold potential for expanding health professions education in Africa by providing opportunities for clinical training through apprenticeship. This can happen across the healthcare system and is not limited by the constraints of a large hospital. This also fits the need to have a much greater Primary Health Care focus in the training of all health professionals. It is likely to produce health professionals who are greater advocates for their patients and the communities they work in, and change agents in the healthcare system [11]. They could thus be instruments for driving greater change across medical schools in Africa.

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Regulator 2.0 The balanced approach: Reimagining Health Regulation for a Compassionate and Resilient Africa.

Joel Okullo highlights the outcomes of the 27th Annual Conference of the Association of Medical Councils of Africa (AMCOA), which focused on "The Balanced Approach" and calls for a new model of health regulation in Africa that balances authority with empathy, prioritising practitioner wellness, digital readiness, and equity alongside patient safety.



Allied Health Professions were represented

Introduction

Across Africa, medical and dental regulators share a unifying mission: to protect patients, uphold professional standards, and sustain public trust. Yet, the dynamic realities of modern healthcare, technological disruption, workforce migration, and the rising burden of practitioner distress demand that regulation evolves.

The 27th Annual Conference of the Association of Medical Councils of Africa (AMCOA), held in Munyonyo, Uganda, in July 2025, provided a pivotal moment for reflection and re-alignment. Under the theme "The Balanced Approach," regulators, educators, and policymakers from over twenty African countries gathered to re-imagine a regulatory paradigm that is both authoritative and compassionate.

Prof. Joel Okullo is the AMCOA President and Chair of Uganda Medical and Dental Practitioners Council (UMDPC).

Deliberations emphasised that regulation is not merely about control; it is about care. It is about relationships between regulators and practitioners, between practitioners and communities, and between governments and citizens. This calls for oversight that goes beyond compliance to embrace humanity, adaptability, and inclusivity.

Re-Defining the Regulator's Role

AMCOA President Prof. Joel Okullo and Uganda's Minister of Health, Hon. Dr Jane Ruth Aceng, opened the conference by underscoring that regulators are custodians of public trust, not punitive enforcers. Their remarks set the tone for a meeting that sought to humanise the regulatory enterprise.

The keynote address by Prof. Francis Omaswa contextualised the conversation within the global health workforce crisis. He reminded delegates that Africa,



AMCOA

home to roughly 25% of the global disease burden, is served by only 3% of the world's health professionals[1]. Regulation, he urged, must therefore address workforce fragility, strengthen training quality, and safeguard both patients and providers.

Participants recognised that effective regulation must integrate ethics with empathy, and compliance with compassion. This envisions a system where disciplinary measures coexist with mentorship, and where regulators lead by example in fostering trust, accountability, and professional wellness.

Balancing Empathy and Authority

One of the earliest and most profound themes explored was how to balance empathy with authority. Historically, regulation has relied heavily on punitive responses to professional misconduct. However, emerging experience demonstrates that compassion can strengthen not weaken compliance [2].

Assoc. Prof. Ethelreda Nakimuli-Mpungu illustrated this through a case study of a physician whose untreated mental illness led to professional difficulties and eventual licence revocation. Without structured support, the punitive decision exacerbated his distress, culminating in a suicide attempt. Rehabilitation and subsequent reinstatement showed that recovery and safe practice are possible when regulators adopt supportive approaches.

Delegates agreed that mental illness does not equate to professional incompetence. Regulatory systems must establish mechanisms for early detection, counselling, and supervised reintegration. Empathy, when codified in procedure, improves fairness and fosters public confidence.

Reflective sessions expanded this dialogue. Panellists from Uganda and Malawi observed that empathy enhances compliance when regulators communicate transparently, explain rationale for decisions, and tailor sanctions to context. Empathy, they concluded, is not leniency but informed judgment rooted in respect for human dignity.

Wellness and Well-Being: The Foundations of Safety

The Southern African Development Community (SADC) regional session highlighted practitioner wellness as an urgent regulatory priority. Data presented indicated that up to 70% of health professionals in some African settings experience burnout[3]. This has direct implications for patient safety, service continuity, and workforce retention.

Debate centred on whether wellness programmes should be mandatory. Proponents viewed compulsion as a means to institutionalise accountability and early intervention; opponents warned that mandatory programmes risk eroding autonomy and perpetuating stigma. The consensus was that wellness must be embedded, not enforced and cultivated through supportive workplace cultures, leadership modeling, and

accessible mental health resources.

Prof. Zukiswa Zingela of the Health Professions Council of South Africa demonstrated that compassionate reintegration of practitioners recovering from substance misuse can be achieved without compromising safety. Early reporting, multidisciplinary assessment, and tailored return-to-practice conditions were key success factors.

Complementary insights from Zambia and Malawi underscored that peer support systems, mentoring, and stress-management training reduce attrition and foster resilience. As delegates concluded, the well-being of practitioners is inseparable from the safety of patients.

Fitness to Practice: Accountability with Compassion

The Economic Community of West African States (ECOWAS) led discussions addressed Fitness to Practise (FTP) as both an ethical and procedural framework. Dr. Divine Banyubala (Ghana) reminded delegates that the objective of regulation is not punishment but prevention and detecting risks early and creating a culture of openness [4].

Presentations from Nigeria, The Gambia, and Sierra Leone detailed practical mechanisms: codes of conduct, structured complaint procedures, continuous professional development (CPD) requirements, and conditional licensing for practitioners under review.

A key debate, whether doctors with mental illness should be permanently barred from practice exposed the tension between patient protection and practitioners' rights. Delegates rejected categorical exclusion, affirming that treatment and monitored reintegration, guided by psychiatric evaluation, can ensure safety while avoiding stigma.

Case studies from Liberia and Ghana demonstrated the effectiveness of early identification and rehabilitation. Ghana's experience with substance misuse cases revealed that timely intervention prevented harm and preserved professional dignity. These examples reinforced a shared principle: impairment is not permanent incapacity.

To institutionalise fairness, regulators were urged to adopt clear policies for conditional licensing, supervised practice, and periodic wellness assessments. Such systems protect patients while affirming that compassion and accountability can coexist.

Evaluating and Harmonising Regulatory Environments

Within the East African Community session, Dr. David Kariuki (Kenya) invited delegates to re-imagine regulation around three pillars, adaptability, compassion, and data-driven governance.

Adaptability means crafting flexible, future-proof laws capable of responding to new technologies, pandemics, and shifting workforce dynamics. Compassion calls for complaint and disciplinary systems that prioritise fairness and rehabilitation over punishment. Data-driven governance ensures that regulatory decisions rest on evidence, not perception.

Reciprocal recognition of professional qualifications emerged as both an opportunity and a challenge.



Prof. Joel Okullo President, Association of Medical Councils of Africa (AMCOA)

While it facilitates mobility and strengthens regional integration, it also raises questions about national sovereignty and standardisation. Delegates emphasised that harmonisation should respect local contexts while aligning with continental benchmarks[6].

Ultimately, regulators agreed that mutual trust, shared standards, and collaborative oversight are essential to achieving a seamless and credible African health workforce ecosystem.

Equity, Bias, and Inclusion in Health Regulation

A plenary on the pervasive impact of racism and systemic bias underscored the moral dimension of regulation. Participants acknowledged that inequities in training, employment, and leadership continue to marginalise practitioners and communities alike[7].

It was resolved that regulators must act as champions of fairness and inclusion by integrating diversity criteria into accreditation, disciplinary, and recruitment processes. Equity audits within councils and institutions were proposed to identify structural barriers and monitor progress.

Ensuring gender balance and geographic representation within regulatory bodies was recognised as a legitimacy issue as much as a moral one. AMCOA reaffirmed its commitment to advocate for inclusive governance and to develop anti-discrimination guidelines for adoption by member councils.

Digital Health Regulation: Governing the New Frontier

The digital transformation of healthcare demands new forms of oversight. A workshop led by Warwick University and Uganda's Ministry of Health examined

the regulation of digital health innovations across Sub-Saharan Africa.

Uganda's evolving model, grounded in the Data Protection and Privacy Act and the Electronic Transactions Act, demonstrates how existing legal frameworks can be adapted to digital health[5]. Yet challenges persist with fragmented systems, weak enforcement, limited infrastructure, and low private-sector engagement.

Regional comparisons revealed wide disparities: South Africa and Kenya possess comprehensive legal frameworks; Rwanda and Eswatini have enacted data-protection laws; while several West African nations remain in early developmental stages.

Delegates agreed that a continental roadmap for digital health regulation is imperative. This roadmap should establish principles of patient data protection, cybersecurity, interoperability, and equitable access. Regulators themselves must become digitally literate, capable of evaluating algorithmic bias, verifying online practice, and safeguarding patient privacy in virtual care.

Digital transformation, participants concluded, is reshaping not only healthcare delivery but also the competencies required of the modern regulator.

Cross-Cutting Insights

Across plenary, panel, and regional sessions, several unifying insights emerged:

- Empathy is a regulatory competency. Embedding empathy in rules and processes enhances compliance, transparency, and trust.
- Wellness is a safety requirement. The health of practitioners is integral to patient protection and system performance.
- Digital fluency is essential. Regulators must understand emerging technologies and associated ethical risks.
- Regional collaboration strengthens resilience. Shared standards and reciprocal recognition enable collective advancement.
- Equity and inclusion underpin credibility. Diversity in regulation ensures that oversight reflects the communities it serves.
- Together, these insights signal a paradigm shift from regulation as control to regulation as collaboration, commitments and strategic priorities.

As the conference concluded, delegates adopted a set of commitments to advance the above across the continent:

1. Institutionalising wellness frameworks: Embedding practitioner wellness within licensing, inspection, and CPD systems.
2. Strengthening digital health governance: Developing national and regional policies that protect patient data and regulate digital practice.
3. Reinforcing fitness-to-practise mechanisms: Ensuring transparent procedures for early intervention, conditional licensing, and monitored re-entry.
4. Harmonising standards regionally: Pursuing reciprocal recognition agreements underpinned by shared quality benchmarks.
5. Mainstreaming equity and inclusion: Adopting anti-bias policies and ensuring gender and regional balance within councils.

These priorities will inform AMCOA's 2025–2026 work plan, supported by strategic partnerships with ministries of health, professional associations, and academic institutions.

Discussion

The 27th AMCOA Conference confirmed that Africa's regulatory community is embracing transformation grounded in compassion, evidence, and collaboration. The Balanced Approach recognises that firmness and empathy are not opposites but complements.

By shifting from punitive to preventive regulation, AMCOA aims to foster a culture where practitioners view regulators as partners in quality improvement rather than adversaries. This requires capacity building for regulatory staff in communication, counselling, mediation, and mental-health literacy [8].

Furthermore, as digital and cross-border healthcare expand, regulators must modernise systems to manage risk across physical and virtual domains. Collaborative data platforms and shared credentialing tools can enhance transparency and mobility without compromising safety.

Our discussions also reaffirmed that public trust hinges on integrity. Regulators must remain independent, accountable, and transparent in decision-making. Regular stakeholder engagement, including patients, civil society, and health professionals will ensure that regulatory reforms align with societal needs.

Conclusion

This vision marks a decisive evolution in African health regulation, from authority-centred to people-centred governance. It calls for systems that protect patients by empowering practitioners, enforce compliance through trust, and advance standards through empathy.

As we look ahead, our collective task is to institutionalise these principles within laws, policies, and daily practice. Collaboration across borders, professions, and generations will be vital.

Through AMCOA, we reaffirm our commitment to shaping a regulatory landscape that embodies Africa's enduring values: resilience, solidarity, and humanity.

Together, we are building systems that are not only compliant but compassionate; not only strong but fair; and not only modern, but authentically African.

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After the Cut: Rebuilding Trust, Systems, and Sovereignty in Global Health

Elsie Kiguli-Malwadde et al give an insight into how sudden policy reversals disrupted life-saving programs, undermined decades of scientific and diplomatic progress, and eroded trust in the U.S. This is based on a CUGH white paper.

The 2025 Consortium of Universities for Global Health (CUGH) white paper, Unraveling Trust: The Human Impact of Shifting U.S. Global Health Priorities draws on global survey data and reveals how sudden policy reversals disrupted life-saving programs, undermined decades of scientific and diplomatic progress, and eroded trust in the U.S. The report concludes that stability, transparency, and long-term investment are strategic imperatives, not only for humanitarian outcomes, but also for U.S. national security and global health protection.

Background: A Legacy of Leadership at Risk

For decades, U.S. global health assistance, representing less than 2% of the federal budget, has been a cornerstone of international development and global security. Programs, such as the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), have demonstrated American leadership in science, capacity building, and evidence-based humanitarian action. These investments saved millions of lives, strengthened health systems, advanced research, and enhanced global cooperation.

The sweeping 2025 executive orders suspending U.S. foreign assistance abruptly halted this progress. Life-saving programs such as HIV prevention and treatment, malaria control, reproductive and maternal health programs, nutritional interventions, emergency services, and numerous research partnerships were ceased.

CUGH white paper survey methods

CUGH collected quantitative and qualitative data from 97 global health professionals across 47 countries and all six World Health Organization regions through an online, cross-sectional survey conducted from April to June 2025. Respondents were individuals involved in U.S.-funded global health projects. The partnerships encompass all six World Health Organization (WHO) regions: Africa (21 countries), Americas (11), South-East Asia (4), Europe (3), Eastern Mediterranean (3), and Western Pacific (5). The detailed methods are published in the original paper which can be found on the CUGH website.

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The majority of initiatives described by respondents were categorized under research, health systems strengthening, and service delivery, with many emphasizing interdisciplinary approaches and the integration of community engagement, implementation science, and policy reform. This thematic complexity underscores the multifaceted nature of global health work and the essential role of long-term, stable funding in sustaining progress in health systems and research.

Projects spanned multiple domains. Nearly half (n=47, 48.5%) of respondents categorized their projects under Infectious Diseases & Emerging Health Threats. Approximately 16.5% of projects addressed HIV/AIDS prevention and clinical care (several initiatives centered on pre-exposure prophylaxis [PrEP] and long-acting anti-retroviral [ARV] drug delivery). The projects highlighted a mix of implementation science, training and leadership development, machine learning innovation, and service delivery models across diverse settings and populations, including vulnerable communities, adolescents, and women living with HIV. Respondents commented on the importance of investment in leadership within the health workforce as well as the importance of trust within a partnership:

"We have been working with communities to set up innovative ways to deliver PrEP to youth. Communities are excited about the project. The funding disruption and potential need to terminate the funding breaks trust between researchers and community members and could increase barriers to HIV prevention. If we stop at this stage of the project, we would need to start all over building community relationships and developing strategies."

The second most common category of projects affected was Reproductive, Maternal, Newborn, Child & Adolescent Health (n=35, 36.1%). These projects comprised community-based interventions, health systems strengthening, clinical research, and innovative tools to improve outcomes in neonatal care, maternal mortality, adolescent sexual and reproductive health (ASRH), and vulnerable child populations across diverse global contexts.

The third most common category, Non-Communicable Diseases (NCDs), Mental Health, & Trauma, was chosen by 26 respondents (26.8%). Several initiatives targeted cervical cancer prevention, screening, and education—some linking HPV and HIV care through vaccine outreach and research on disease progression. Mental



Donations

health and psychosocial support projects frequently intersected with HIV, displacement, and gender-based violence, emphasizing peer and community-based care models for vulnerable populations, including refugees and peripartum women. Collectively, these projects encompassed a broad spectrum of clinical and behavioral services and implementation research, spanning mental health, trauma, addiction, chronic disease prevention, surgery, and cervical cancer.

Projects addressing Nutrition, Food Security, and Metabolic Health comprised approximately 23% of all initiatives (n=22). These efforts targeted nutritional deficiencies, obesity, food systems, and metabolic health through interventions such as preventing environmental enteric dysfunction, improving outcomes for children with severe acute malnutrition, and promoting climate-smart agricultural practices. Together these projects demonstrated integrated, innovative approaches aimed at reducing health disparities and supporting vulnerable populations across global and domestic settings.

Global Health Funding Benefits

Beyond technical and service achievements, respondents highlighted substantial mutual benefits generated by global health funding. The most commonly cited benefit was Scientific and Research Advancements (n=63, 64.9%), followed by the creation of Job Opportunities (n=45, 46.4%). Other frequently noted benefits included Enhanced Global Health Security (n=41, 42.3%), Talent Exchange and Capacity Building (n=41, 42.3%), and Strengthened Diplomatic Relations (n=25, 25.8%). Additional benefits included National Security Enhancements (n=18, 18.6%) and Economic and Trade Benefits (n=14, 14.4%). The survey findings affirm that global health funding extends far beyond transactional development aid—it catalyzes long-lasting infrastructure development, knowledge sharing, and mutual trust and cooperation between nations.

Cascading Effects of Abrupt Funding Disruption

These collaborative gains are now under serious threat. The abrupt suspension or withdrawal of funding has had wide-ranging downstream effects to individuals, vulnerable communities and local leaders who had come to know the U.S. as a consistent, respectful and reliable partner in development. The most frequently cited consequences were diminished local workforce training and disrupted health services resulting in increased morbidity and mortality (n=58 each, 59.8%), followed closely by the loss of local expertise (n=56, 57.7%). Nearly half of respondents also noted strained international partnerships (n=45, 46.4%) and the erosion of donor credibility (n=44, 45.4%) as major concerns.

"An effective prevention intervention is stalled, local staff have lost their jobs, and trust has been lost with the community agencies and individuals which had built up over 9 years."

Additional commonly reported effects included an increased global epidemic risk (n=36, 37.1%), economic

downturn in communities (n=32, 33.0%), lowered crisis response capacity (n=30, 30.9%), and increased vulnerability to extremist narratives and heightened risk of extremist recruitment (n=22, 22.7%). A smaller number cited heightened security threats (n=16, 16.5%). These findings highlight not only the immediate programmatic and health-related harms of disrupted funding but also the broader geopolitical, scientific, and social ripple effects that can undermine trust, partnerships, global security, and stability.

"The funding disruption put the lives of more than 12 million people at risk in a context where Haiti is facing one of the most critical security situations in its history, where people desperately need such support."

The emotional and relational toll of funding disruptions was profound. Respondents described a widespread loss of trust in U.S. donor agencies, emphasizing how years of relationship-building were upended in moments. This breakdown in trust extends from local health workers and communities to national ministries, governments, and international academic partners. Respondents emphasized that such abrupt reversals not only harmed immediate program beneficiaries but also damaged the United States' credibility as a global health leader. Many called for alternative, more reliable international structures for health funding and coordination to reduce future volatility.

"Develop a broad international global health entity that is not dependent on the United States, perhaps run from the UN (like a dramatically strengthened WHO with a strong research component the size of NIH) that can operate totally independently of the United States. Never, ever trust the U.S. again to lead this effort."

One of the consequences of U.S. disengagement from global health may indicate waning U.S. leadership on the global stage. Respondents warned that weakened global health systems reduce the capacity to detect and respond to infectious disease threats, increasing the risk of cross-border outbreaks. Additionally, the sudden withdrawal of U.S. support was seen as damaging to America's global influence, creating openings for geopolitical rivals to fill the void and eroding trust in U.S. leadership on the world stage.

"Nothing can help the damage. Foreign governments and collaborators lost trust in the U.S. and the damage will be felt for decades to come."

Additionally, the funding cuts have had a significant impact on the partnerships themselves, including an erosion of established infrastructure and a direct impact on the lives of program staff and leadership. This sort of disruption has implications beyond the immediate project, considerably affecting institutional memory and the ability for agencies to nimbly respond to future challenges in real time. Many partnerships that have been affected are longstanding and have developed significant mutual understanding and trust over the course of decades, allowing them to partner with local ministries, work within the health system, and respond timely and appropriately to address local priorities as well as crisis situations that may arise quickly.

"The disruption will lead to increased unemployment rates in Egypt, loss of trust in the U.S., and cut of funding and jobs at the U.S. partnering U.S. universities."

Beyond the immediate humanitarian and diplomatic implications, the funding disruptions also threaten global scientific ecosystems that depend heavily on stable, long-term U.S. collaboration. Many partner institutions noted that U.S.-supported research platforms—including data repositories, surveillance architectures, laboratory networks, and training programs for early-career investigators—serve as foundational infrastructure for global scientific advancement. Interruptions risk a loss of longitudinal data, weakened laboratory capacity, and the dismantling of regional Centers of Excellence that have taken decades to build. The erosion of these scientific assets has cascading effects: it slows discovery, reduces innovation in vaccine and therapeutic development, and delays critical progress on antimicrobial resistance, emerging pathogens, climate-linked health threats, and maternal and child health research.

"The objective was to build a global health security architecture for early detection, response and mitigation of emerging infectious disease and antimicrobial [resistance]. Withdrawal of funding will heavily impact [country capacity to] detect and mitigate outbreaks and [transboundary] spread of disease putting millions at death and disease risk."

Finally, the data reveal that these funding disruptions have implications far beyond health outcomes. Respondents warned that weakened global health systems can lead to broader geopolitical instability, increased vulnerability to extremist recruitment, and diminished global epidemic preparedness. From a national security perspective, the U.S. stands to lose strategic influence and soft power if funding instability continues.

"The decision from the U.S. government to cut funding poses a real threat to U.S. security, leaving a gap to be filled by others who do not share U.S. values and interests. This will lead to a diminished U.S. influence globally, which is a negative outcome, as America is the leader of the world."

Health Security, Trust, and the Costs of Disengagement

Disengagement decreases U.S. knowledge of emerging health threats and changing disease patterns. The ability to respond timely will be diminished as the U.S. stance moves from being proactive to reactive. The findings offer a compelling case for rethinking how donor countries structure and sustain their global health commitments. New alliances will likely emerge from this crisis as well as local strategies to reduce the vulnerability and damage to health systems that many now face because of the U.S.'s abrupt changes. Stability, transparency, and long-term investment in health are not only ethical imperatives—they are strategic necessities for global security and human advancement. U.S. disengagement alongside weakening health systems, surveillance networks, and infrastructures that prevent the spread of infectious diseases ultimately increases threats to U.S. health security and global trade. The humanitarian gains, soft-power benefits, and protection of U.S. and global interests far outweigh the relatively small costs.

In addition, trust was repeatedly described as an operational requirement—not an abstract value. Respondents emphasized that trust enables access to communities, improves adherence to treatment, strengthens reporting in surveillance systems, and accelerates emergency response during outbreaks. Funding instability undermines governance structures, disrupts national planning cycles, and reduces confidence in international partnerships. Several respondents noted that abrupt reversals jeopardize multi-year health security agreements and risk eroding the credibility of evidence-based decision making within ministries of health.

A Call to Action

While the suddenness of cuts causes the most damage, this moment can also be a call for LMICs to assume greater local leadership and sustainability through responsible, non-disruptive transitions that restore funding in a measured, strategic way, honor commitments, provide bridge financing to offset the shortfall from U.S. disengagement, and invest over the next five years in documenting evidence and scaling what works.

The findings point toward a clear path forward: global health partnerships must be designed with built-in resilience. This includes diversified funding streams, transition plans aligned with national health strategies, contingency mechanisms to prevent service disruptions, and a commitment to protecting the health workforce. Evidence-based programs require predictable multi-year support, transparent communication, and shared governance structures that elevate local leadership while preserving continuity of essential services.

The current funding cuts highlight the urgent need for LMICs to reassess their level of dependence on foreign aid and take greater responsibility for financing and safeguarding the resilience of their own health systems. Rather than viewing the funding cuts solely as a setback, this moment can be reframed as an opportunity, an opportunity for LMICs to look more closely and honestly at their national health priorities, resource allocation practices, and funding responsibilities. It is a chance for governments, policymakers, and national stakeholders to evaluate which essential services must be sustained domestically, to identify inefficiencies in spending, and to explore domestic revenue mobilization mechanisms that can generate predictable and sustainable financing for health. This may include reforms in taxation, innovative financing models, greater engagement of the private sector, and more efficient pooling and allocation of national health insurance schemes.

For LMICs, responding effectively to this challenge will require determination, long-term vision, and strong political leadership. Policymakers must be ready to make bold decisions and commit to placing health at the centre of national development agendas. Health cannot be viewed as a consumption expense but rather as an investment that drives productivity, strengthens human capital, and supports economic growth. Governments should also adopt strategic planning approaches that promote efficiency, accountability, and equity. This includes implementing robust public financial management systems, prioritising primary healthcare, diversifying funding models, strengthening local manufacturing of essential medicines and supplies, and eliminating corruption or leakages that undermine service delivery.

Creativity and innovation will also be key. LMICs have the opportunity to leverage digital health technologies, community-led solutions, and locally developed innovations to improve service delivery at lower cost. Regional collaboration can also play an important role. By pooling resources, negotiating jointly for essential commodities, and sharing expertise, LMICs can reduce costs and enhance bargaining power. Furthermore, academic institutions, civil society organisations, private corporations, governments, and communities should be engaged as co-creators in designing sustainable health financing strategies.

Conclusion

The history of Global Health Partnerships is long and storied, steeped with humanitarianism and filled with a collaborative spirit, though, among some, this global perspective carries some controversy. The recent architecture consisted of a wide array of independent actors collaborating in meaningful ways across sectors and domains and, ultimately, with a singular objective: to advance the health of individuals in a complex world. In a landscape shaped by historical power imbalances and donor-driven agendas, funding mechanisms are largely controlled by national governments, international bodies, and private entities where resources are centralized. Debates persist regarding the role of the U.S. in funding development, humanitarian assistance, and health systems strengthening outside of its own borders. Whether for altruistic purposes, to advance social justice, as a global diplomatic strategy, or to curb global health issues that could impact the U.S., one thing is certain: the abrupt withdrawal of U.S. funding has had severe consequences at all levels, in all settings, and across all domains. The CUGH survey has documented immediate reactions of stakeholders (anger and loss of trust) and repercussions (individual harm and death, health systems disruptions, and risk to international security). The survey has also identified priorities and strategies to inform how we, as a global community, respond to these profound disruptions. Ultimately, while external funding will continue to be important, LMICs must avoid over-dependence and instead build health systems that are resilient, self-sustaining, and aligned with national priorities. The disruption in U.S. funding is therefore not just a financial challenge but a call to action, a moment for LMICs to embrace responsibility, strengthen health sovereignty, and work towards long-term sustainability. With commitment, innovation, and strategic leadership, LMICs can transform this disruption into a catalyst for a stronger, more independent, and more resilient health future.

As We Care, So Must We Lead: Why Participation Is Core to Strong Health Systems

Maya Fakhfakh writes on participation as the bridge between how we care for patients and how we lead communities.

A few years ago, I co-authored an article on person-centered care[1], an approach that recognises individuals not as cases but as people whose values and social realities should guide how their care is managed[2]. The paper focused on three African regions: North, Central, and Western Africa. Having trained in Tunisia, I had witnessed the gaps between these ideals and the everyday realities of clinical work. In many African countries, including my own, the idea that a patient could meaningfully participate in decisions about their health can feel unfamiliar, simply because systems are overstretched, health literacy varies widely, and physicians manage heavy workloads that leave limited time for deeper dialogue. Yet while working on that paper, I also saw encouraging signs: curricula that foster critical thinking about health behaviors and early steps toward greater participation. That duality stayed with me, the gaps but also the seeds of change.

That same feeling came rushing back when I joined the Elevate Africa Fellowship, a mid-career leadership program designed to support African leaders who have demonstrated a sustained commitment to driving positive change in the continent. Being part of this community reminded me of what it really takes to build change: belief in transformation rooted in local context and in leadership that creates space for participation and shared purpose. Just as patients deserve more than to be "cared for," communities deserve to take part in their own transformation.

This principle works the same way in healthcare and community work. Effective care adapts to context. Sometimes it opens the door to participation and empowerment. Other times, such as during emergencies, decisions must be swift. But even in crisis, lasting change requires understanding people's lived experiences. No one takes medication they cannot afford. No one accepts care that contradicts their values, no matter how sound the science. In community work, the same logic holds. Top-down decisions may create movement, but lasting change only happens when people see themselves in the process.

That truth became even clearer to me in my current work on cervical cancer, one of the leading causes of death among African women despite being highly preventable [3]. It is not just a medical problem but a deeply complex one, where limited access to care, stigma around sexual and reproductive health, and low awareness compound to delay diagnosis and treatment [4]. Through our work at MednTech, we approached this complexity with participation built in from the start. We co designed and piloted an AI powered screening app with nurses, doctors, and midwives across sub-Saharan Africa to fit the realities of their daily practice. Then, during our real-world implementation in Rwanda, we showed women images of their own cervix and explained their anatomy and results in real time. Understanding replaced myths, and many left determined to encourage others in their communities to get screened.

This example shows how participation moved beyond the screening room: women left with their results, and the confidence to spread awareness and increase uptake in their communities. That is where lasting change happens: in collective action and in communities that, once empowered, carry change forward themselves. As we care, so must we lead.

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Adaptation finance crucial to strengthen health in the face of life-threatening climate conditions

This paper intends to inform practicing nurses about the different forms of Clinical-Decision-Making (CDM) models that can be used in low resources environment to enhance clinical nursing practice.



Panel Group Picture

The Belem Health Action Plan, 13 November 2025 – Today, on Health Day at COP30, Regions4, the Global Climate & Health Alliance and Carbon Copy hosted a press conference, focused on "Positioning Health at the Centre of Adaptation Finance."

High level speakers at this event warned that, as the global climate crisis accelerates, its devastating impacts on health are intensifying, making climate change one of the most important threats to human health. They argued that concerns about the health impacts of continued global warming and the benefits of immediate actions should significantly shape decisions about climate policy and climate action.

The press conference saw the participation of Dr Marina Romanello of the Lancet Countdown, along with ministerial representatives, including Dr Sandra Cortes of Chile, Md Ziaul Haque of Bangladesh, Oden Ewa of Nigeria and Dr Vishwas Chitale of India and Carlos Lopes, the COP30 Presidency's Special Envoy for Africa. The press conference was moderated by Jeni Miller of the Global Climate and Health Alliance.

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"Each year, more than half a million lives are lost due to heat, and over 150,000 deaths are linked to wildfire smoke exposure," said Dr Marina Romanello, Lancet Countdown Executive Director, Institute for Global Health, University College London. "Health systems, already stretched and underfunded, are struggling to cope with these growing pressures, and most are still unprepared for what is coming."

"Adaptation in the health sector is essential, but current funding is nowhere near sufficient," says Dr Marina Romanello. "Only 44% of countries have costed their health adaptation needs, and existing finance falls short by billions. Without urgent investment, we will not be able to protect populations from escalating climate impacts."

The discussion at the press conference highlighted that the health finance gap is a critical component of the overall adaptation finance gap, and the world's inaction is further compounding the situation and the cost. The latest Adaptation Gap Report estimated that developing countries' needs will be $310-365 billion a year by 2035. The international community is struggling to mobilise the c.$40 billion Glasgow Pact Goal for adaptation finance.

"With regards to finance, the reality is that we have a deficit that is quite colossal," Carlos Lopes, Special Envoy for Africa, COP30 Presidency. "We have to admit



Two hands are planting trees dry cracked soil global warming conditions.

that most of the efforts that are being done are from the national authorities, so what we need to expect from financing coming from abroad is that it needs to be complementary."

This year's Adaptation Gap Report highlighted that just 4% of multilateral climate adaptation funding between 2019-2023 was allocated to health. A recent report by a delphi stressed that out of all multilateral climate finance, only 0.5% goes to health, health being critically threatened by climate change.

"Our Health National Adaptation Plan was designed to identify the real problems, build capacity and use our limited resources more effectively," said Md Ziaul Haque, Additional Director General, Ministry of Environment, Bangladesh. "But the truth is, our adaptation financing for health is far below what is needed. The gap between what we require and what we receive is enormous. We need multilateral funding entities to bring forward concrete, holistic proposals that match the scale of the challenge."

The latest Lancet Countdown Report, published last month, stressed the dire situation in which the world finds itself, with the number of climate change-related deaths reaching the millions, and millions more affected by extreme heat, extreme rainfall and flooding, ever more vicious storms and creeping desertification. In this context, world leaders are meeting in Belem, Brazil, in what is being termed both the "Adaptation COP" and the "Implementation COP".

"According to India's 2023 national communication to the UNFCCC, the country will require $643 billion between now and 2030 to adapt to climate change under a business-as-usual scenario," said Dr Vishwas Chitale, Fellow, Council for Energy, Environment & Water, India and Research Fellow, United Nations. "India has already made significant progress, spending $146 billion in 2021-2022 alone, the equivalent of 5.6% of GDP, a remarkable rise from 3.7% spent in 2015-2016."

Speakers highlighted the recently announced Climate and Health Funders Coalition which has committed an initial $300 million for integrated action to tackle both the causes of climate change and its consequences for health - accelerating solutions where they are needed most.

"The launch of the Climate and Health Funders Coalition, with an annual commitment of $300 million in philanthropic funding, is an important and encouraging signal. We know that much more than that is needed to fully address adaptation needs." said Jeni Miller, Executive Director, Global Climate and Health Alliance. "Nevertheless, it shows that the world is beginning to recognise that protecting health must be at the centre of climate adaptation."

The speakers highlighted the importance of adaptation finance being delivered to strengthen health systems, and said this finance must be just, equitable, transparent, accessible, to enable health resilience, especially in vulnerable countries. The Belem Health Action Plan, a roadmap that aims to strengthen health systems globally, so that they can better cope with the impacts of climate change, particularly in vulnerable countries and communities, will help reinforce health and health systems across the world, and the Global Goal on Adaptation, with its diverse health and finance indicators will be a crucial foundation to ensure meaningful progress.

"To confront the climate crisis effectively, we cannot work in silos," said Dr Sandra Cortes, President of the Climate Change Scientific Committee, Ministry of Environment, Chile. "It is vital to combine the efforts of different ministries, not only health but also transport, energy and food production, so that we generate co-benefits across sectors. A more integrated approach will allow us to improve public health, reduce emissions and create fairer, more sustainable development opportunities for everyone."

As negotiators in Belem aim to reach meaningful progress on adaptation and implementation, this press conference highlighted the urgency of immediate policy action on adaptation finance for health, globally and among the most vulnerable communities.

CONSAMS 2025 Conference in Mombasa, Kenya



CONSAMS conference 2025, Kenyote address by Prof. Hansen

The Consortium of New sub-Sahara, African Medical Schools (CONSAMS) founded in 2011 held its 12th annual conference at the Technical University of Mombasa (TUM), Kenya, in early September 2025. It was a special moment for TUM, an institution found in 1948 as it had just started a medical school that opened its doors to new students on exactly the same day that the CONSAMS conference commenced on 1 September 2025. It was stirring for CONSAMS members to arrive on the opening day at the TUM campus with its majestic and historical architecture and to see a large banner with CONSAMS name and logo prominently draped over the entrance archway. TUM, as a new African medical school was joining CONSAMS and already hosting its annual meeting!

CONSAMS was founded to cater to the needs, challenges and opportunities of new African medical schools (of which there are now over 130 at various stages of development). CONSAMS initially served the needs of just five southern African medical schools and was at the time called the Consortium of New Southern African Medical Schools.1,2,3,4 It soon became apparent that many other new medical schools were opening on the African continent so the decision was taken around 2017 to expand CONSAMS into a sub-Sahara African consortium. The consortium started meeting each year (and sometimes twice a year) at different African medical schools across the African continent. On site meetings were suspended during the Covid pandemic but online meetings continued. Within renewed sponsorship, on site meetings started again last year with an extremely successful meeting at the University of Namibia, School of Medicine.

A total of 31 academic leaders and 11 students from 15 countries met between 1st – 3rd September 2025 at TUM in Mombasa. The central theme of the three-day event was "Transforming Health Futures: Integrating Training, Technology and Planetary Well Being" focused on a definitive shift from traditional medical curricula toward a holistic, systems-based approach that highlighted the (1) interconnectedness of human health and environment; (2) environmental sustainability; and (3) technological innovation. By integrating these three themes, the conference aimed to redefine the mission of new medical schools, positioning them as agents of change capable of preparing future medical professionals for complex 21st-century health challenges. These themes of the conference were further integrated through an inspiring keynote session titled "Medical schools and socially responsible curricula" by Dr. Anthea Hansen from Stellenbosch University in South Africa, The talk explored with great nuance how and why medical curricula at African medical schools should be contextually situated and relevant rather than just replicas of the Western cannon of medicine.

The evening before the start of the conference, a networking reception was hosted that included a welcoming address by the university chancellor, followed by a talk on the history of CONSAMS from its inception in 2011 to its present-day configuration as a pan African organization.



CONSAMS 2025, conference workshop

The conference was structured around the sharing of ideas, programs and curricula; the fostering collaborative exchanges; and potential research projects. A panel of experts explored specific research topics for new African medical schools that would be considered by the Research and Education Committee. A 'World Café' session explored a range of delegates' perceptions regarding assessment practices, professional development of students, curriculum development and integration, as well as other topics in medical education.

The programme also included a student-based research session. Eleven students showcased their research on themes such as "Innovations in Content Delivery: Rethinking How We Teach and Learn; Medical Innovations in Training: Shaping the Future of Healthcare Education; One Health Many Frontiers: Preparing Professionals for a Changing World; and The Role of Medical Schools in Advancing One Health and Addressing Climate Change". The CONSAMS 2025 conference charted a clear course for how new African medical schools can leverage holistic training and technology to secure a resilient and equitable health future for all of Africa.

A major function of CONSAMS conferences has been to allow ample time for delegates to network through receptions and dinner functions. Given that many faculty are new to their institutions and to CONSAMS, delegates need time to get to know one another in person to more effectively facilitate sharing of knowledge and programs, and to promote exchanges of faculty and students. Networking has been a major strength of CONSAMS from its early days when it was comprised of only 5 medical schools in southern Africa. On the last evening of the conference, a most memorable networking dinner was hosted by TUM on a traditional dhow boat afloat on the Mombasa creek.

Proceedings closed with the election of Prof. Peter Gichangi (TUM, Deputy Vice-Chancellor (Academic, Research & Extension) as CONSAMS new president and the election of its new Executive Committee. Prof. Gichangi succeeds Dr. Felicia Christians (UNAM, School of Medicine, Namibia). Feedback from the conference was universally excellent and delegates returned home energized and prepared to go forward during the year with virtual meetings that included the newly formed Research and Education subcommittees.

The next two CONSAMS conferences have been slated to be held in Botswana (2026, University of Botswana, Gaborone) and Nigeria (2027, Babcock University, Ilishan-Remo, Ogun State). New African medical schools (or individuals at such schools) interested in participating in CONSAMS should view the website: www.CONSAMS.net.

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Why the Public Should Be Concerned About Medical Waste Management in Our Cities.

David Okello highlights a critical public health concern on hazardous medical waste management and proposes practical solutions to mitigate its impact.



A Hospital incinerator

Summary

The rapid growth of private medical and diagnostic facilities in sub-Saharan Africa has expanded access to healthcare but also intensified challenges in managing hazardous medical waste. In Kampala, Uganda, a 1997 study found that 51% of private clinics burned medical waste in open spaces, 20% buried it untreated, and nearly a third disposed of it indiscriminately. Three decades later, similar patterns persist across Uganda and the region, revealing a continuing and escalating public-health and environmental hazard.

Poor segregation, inadequate treatment infrastructure, weak regulatory oversight, and informal disposal pathways expose healthcare workers, waste handlers, and communities to infection, toxins, and pollution. Environmental impacts—ranging from contaminated groundwater to toxic air emissions further undermine urban liability.

This article revisits earlier findings in light of contemporary realities, including recent concerns raised by Kampala's Minister for Capital City and Metropolitan Affairs about the worsening waste crisis. It argues that medical-waste management must be recognized as a critical public-interest issue rather than a purely technical concern.

Practical interventions are proposed: stronger enforcement of regulations, shared treatment infrastructure for small facilities, continuous training and vaccination of staff, community education, and adoption of non-burn and digital tracking technologies. The paper concludes that safe medical-waste management is a shared civic responsibility, requiring collaboration among governments, healthcare providers, civil society, and citizens.

Introduction

Across sub-Saharan Africa, urbanization and the proliferation of private healthcare facilities have transformed access to medical services. While this trend is largely positive, it has also intensified the production of medical waste, much of it infectious, toxic, or hazardous. Yet, the systems for managing such waste have not evolved at the same pace.

In 1997, colleagues from Makerere Medical School and I investigated waste-disposal practices in private medical clinics in Kampala, Uganda. The findings were alarming: 51% of clinics burned waste in open spaces, 20% buried it untreated, and nearly a third disposed of it indiscriminately into the environment [1]. These practices were not anomalies but symptoms of deeper systemic weaknesses, poor infrastructure, limited knowledge, and

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Plastic bottles damp site

weak regulatory enforcement.

At the time, private practice was a relatively new phenomenon. Many clinics were small, owner-operated, and poorly equipped for safe waste handling. Nearly three decades later, the situation warrants renewed scrutiny. Private clinics, laboratories, and pharmacies have multiplied in every urban neighborhood. While access to healthcare has improved, the scale of hazardous waste generation has expanded exponentially—without corresponding improvements in regulation or infrastructure.

A subsequent study by Semboga[2] at Makerere University found that even government facilities struggled with effective segregation and disposal due to chronic underfunding, logistical delays, and inadequate staff training. The study warned that poor handling exposes healthcare workers, patients, and the public to serious risks, and recommended continuous training, vaccination of staff, increased funding, and stricter enforcement of protective measures.

Emerging Urban Concerns

Just two weeks ago, the Minister for Kampala Capital City and Metropolitan Affairs expressed concern about the deteriorating waste situation in the city during a briefing to the Rotary Club of Kampala. In her remarks, she referenced the Kiteezi landfill disaster of August 10, 2024, when a massive garbage slide triggered a landslide that killed at least 24 people and displaced over 1,000 residents.

While the Minister focused primarily on household waste, she emphasized that the rapid growth of medical waste from private health facilities presents an even greater and more complex challenge. Unlike ordinary refuse, medical waste includes infectious materials, sharps, and toxic chemicals that require specialized handling. Once released into poorly regulated municipal waste streams, it poses serious risks to workers, nearby residents, and the broader environment.

This recent policy attention underscores the urgency of recognizing medical-waste management as both a public health and urban governance issue.

Health and Environmental Threats

Improper medical-waste disposal has direct and indirect consequences for human health and the environment. Contaminated sharps, used syringes, and blood-stained materials are vectors for hepatitis B, hepatitis C, HIV, and other infections[3]. Informal recyclers and waste handlers, often unprotected by gloves or masks, are at high risk of needle-stick injuries and infections[4]. Children and residents of nearby settlements may unknowingly come into contact with discarded medical waste, further amplifying exposure risks.

Environmental impacts are equally serious. When untreated medical waste is buried or dumped, chemical residues and pathogens can leach into soil and groundwater, compromising food and water safety[5]. Open burning and poorly maintained incinerators emit dioxins, furans, and heavy metals, toxic compounds linked to respiratory diseases, reproductive harm, and cancer [6].

The cumulative social and economic costs spanning healthcare expenses, environmental remediation, and diminished public trust are substantial. Medical-waste mismanagement thus represents not only an environmental failure but also a governance deficit.

Why the Public Should Care

The management of medical waste is often perceived as a technical or administrative task confined to health authorities. In reality, it is a public-interest issue with far-reaching implications. A single lapse in segregation or disposal can release infectious or toxic materials into the community.

The way cities handle medical waste is a mirror of collective values commitment to health, environmental stewardship, and civic responsibility. When the public is informed and vigilant, unsafe practices are less likely to persist. Conversely, apathy allows dangerous practices to remain hidden.

Public participation is therefore crucial. Citizens must demand transparency from both healthcare providers and city authorities. Medical-waste management should become as visible a civic priority as clean water, sanitation, or air quality.

What Can Be Done

Addressing this challenge demands a comprehensive, multi-sector response grounded in evidence and accountability.

1. Strengthen Regulation and Enforcement: Existing frameworks for medical-waste management must be operationalized. Regulatory bodies need adequate funding, trained inspectors, and legal authority to impose penalties. Transparent audits and data sharing can reinforce accountability, especially among small private providers.
2. Invest in Shared Infrastructure: Many small clinics lack resources to build or operate their own waste-treatment systems. Cities should develop centralized, energy-efficient treatment hubs that serve multiple facilities. Public-private partnerships could help sustain such systems while maintaining affordability and environmental standards.
3. Continuous Training and Worker Protection: Healthcare workers and waste handlers require regular training in waste segregation, labelling, and storage. Universal vaccination, especially against hepatitis B, and provision of personal protective equipment (PPE) should be mandatory.
4. Community Education and Engagement: Public education campaigns can raise awareness about the dangers of improper medical-waste disposal and empower communities to report unsafe practices. Civic engagement can also strengthen political will for sustained reform.
5. Promote Innovation and Digital Tracking: Adoption of non-burn technologies such as autoclaving, microwaving, and chemical disinfection can reduce pollution. Digital tracking systems—already used in some high-income countries—can ensure traceability from generation to final disposal, minimizing illegal dumping.
6. Foster Collaboration Across Sectors: Effective solutions require cooperation among ministries of health, local governments, environmental authorities, healthcare associations, and civil-society groups. Medical-waste management must be integrated into urban development and public health planning.

Lessons from Across Africa

Uganda's experience reflects a continent-wide challenge.

In Kenya, a study in Nairobi County revealed that 93% of healthcare waste consisted of sharps, yet segregation errors were frequent. Incineration remained the dominant disposal method, often without emission controls[6].

In Ghana, both public and private hospitals struggle to enforce waste-segregation policies. Limited funding, inadequate supervision, and poor staff training impede compliance despite established national guidelines[7, 8].

In Nigeria, investigations across Ibadan and Lagos found that infectious and non-infectious wastes were often mixed and discarded with general municipal refuse due to inadequate infrastructure[9, 10]. Waste volumes exceeded 10,000 kilograms daily in some urban centres.

In Burkina Faso, field studies revealed that both health workers and informal waste pickers handled medical waste without protective gear, resulting in frequent needle-stick injuries and heightened infection risks[11].

These examples underscore a consistent pattern across African cities: weak implementation of existing policies, insufficient funding, and lack of enforcement. Without urgent reforms, unsafe medical-waste practices will continue to endanger urban populations and ecosystems.

Conclusion

Nearly three decades after initial warnings were raised, unsafe medical-waste disposal remains a silent but escalating crisis. Despite clear evidence and available solutions, many African cities continue to rely on open burning, uncontrolled dumping, and burial of medical waste.

Safe medical-waste management is not a luxury; it is a basic public health necessity. Its neglect undermines not only environmental integrity but also public trust in healthcare and local governance.

Citizens, healthcare providers, and policymakers must recognize this issue as a shared civic duty. Through enforcement, investment, education, and innovation, cities can build systems that protect health, dignity, and environmental sustainability.

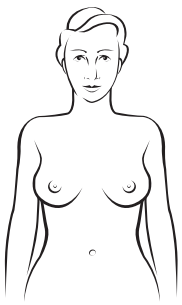
The public should be concerned—not because this challenge is new, but because it has been ignored for far too long.

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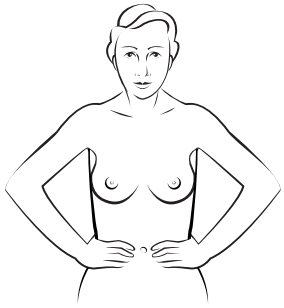
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Breast Self-Awareness (BSA)

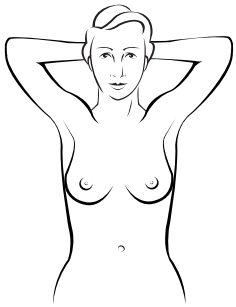
Choose a day each month that will be easy to remember and make breast self-awareness a regular part of your good health routine. Breast self-awareness is also important in women with breast implants.



A. Stand before a mirror and look at both breasts. Check for anything unusual, such as nipple retraction, redness, puckering, dimpling or scaling of the skin. Look for nipple discharge. All discharge should be reported to your doctor. Note the color, whether it came from both breasts and whether it came from one or more openings.



B. Next, press your hands firmly on your hips and lean slightly toward your mirror as you pull your shoulders and elbows forward with a squeezing or hugging motion. Look for any change in the normal shape of your breasts.



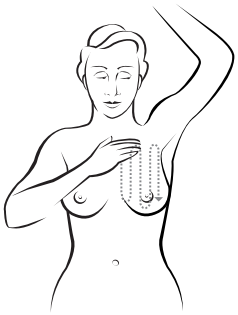
C. Looking in the mirror, raise your arms and rest your hands behind your head. This allows you to see the underside of your breasts.



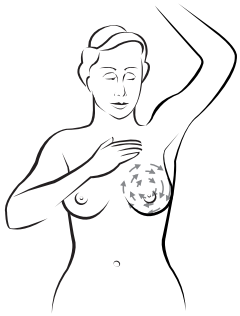
D. Place your left hand on your waist, roll your shoulder forward and reach into your underarm area and check for enlarged lymph nodes (small glands that fill with fluid when you have an infection). An enlarged node would feel like a corn kernel or a bean. Also check the area above and below the collar bone. Repeat on the right side.



E. Raise your left arm. Use the pads of three or four fingers of your right hand to examine your left breast. Use three levels of pressure (light, medium and firm) while moving in a circular motion. Check your breast area using a set pattern. You can choose (1) lines, (2) circles or (3) wedges.



1. Lines
Beginning at the outer edge of your breast, move your fingers downward using a circular motion until they are below the breast. Then move your fingers slightly toward the middle and slowly move back up.



2. Circles
Beginning at the outer edge of your breast, use the flat part of your fingers, moving in circles slowly around the breast. Gradually make smaller and smaller circles toward the nipple. Be sure to check behind the nipple.



3. Wedges
Starting at the outer edge of the breast, move your fingers toward the nipple and back to the edge.

You should not lift your fingers while feeling the breast. Whatever method you choose, make sure to cover the entire area, including the breastbone, collarbone, upper chest area and bra line. Pay special attention to the area between the breast and the underarm itself. Feel for any unusual lump, mass or thickening under the skin.



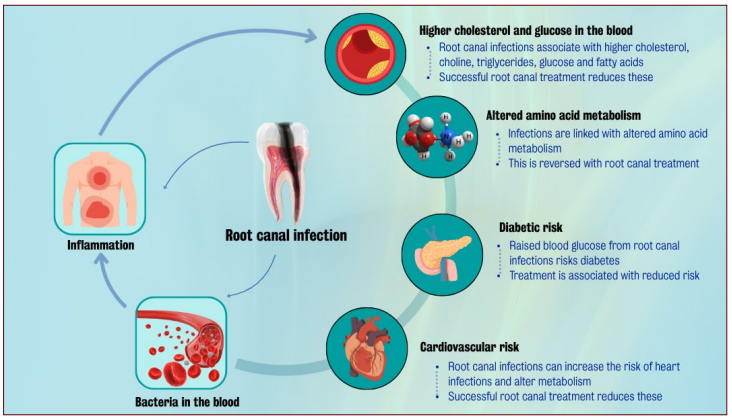
F. Lie flat on your back with your left arm over your head and a pillow or folded towel under your left shoulder. This position flattens the breast and makes it easier to examine. Use the same motion described in step E. Some women like to use body lotion in this step.

Many women prefer to do steps D through F in the bath or shower.

Woman's

Root canal treatment reduces heart disease and diabetes risk

Successful root canal treatment could reduce inflammation linked to heart disease and improve levels of blood sugar and cholesterol.



Root canal infection, cortesy of King's College

In the first of its kind research, a clinical study by King's College London tracked changes in blood chemistry following root canal treatment for a common dental infection (apical periodontitis). The infection can cause bacteria to enter the bloodstream and increase inflammation, associated with risks to cardiac health and reduced ability to control blood sugar levels.

Despite the link between the infection and wider health impacts, the association between successful root canal treatment and the benefits to heart and metabolic health had not been investigated until now.

The team discovered that successful root canal treatment was associated with:

- **Improved glucose metabolism**: Blood sugar levels dropped significantly over two years after treatment, a key factor in preventing diabetes
- **Better lipid profiles**: Short-term improvements in blood cholesterol and fatty acid levels, which are closely linked to heart health
- **Reduced inflammation**: Key markers of inflammation, often linked to cardiovascular risk and other chronic conditions, decreased over time
- **Oral bacteria linked to body-wide effects**: Bacteria from infected teeth were associated with changes in the body's overall metabolism

Root canal infections can cause bacteria to enter the blood, leading to inflammation, heart disease and diabetes risk. Successful treatment reduces these risks

The study followed the health of 65 patients from Guy's and St Thomas' NHS Foundation Trust over two years after root canal treatment. Scientists analysed molecules in the blood of patients to reveal how the body processes sugar, fat, other key substances, and responds to disease and treatment. They used a technique known as nuclear magnetic resonance (NMR) spectroscopy, used to analyse proteins in the body.

The findings suggest that monitoring blood metabolic markers, such as glucose, fats known as triglycerides, and the protein tryptophan, could help assess recovery and risk after dental treatment.

Lead Author Dr Sadia Niazi, Senior Clinical Lecturer in Endodontology, King's College London, said: "Our findings show that root canal treatment doesn't just improve oral health – it may also help reduce the risk of serious health conditions like diabetes and heart disease. It's a powerful reminder that oral health is deeply connected to overall health.

"Long-standing root canal infections can allow bacteria to enter the bloodstream, trigger inflammation, and increase blood glucose and fats levels, raising the risk of serious health issues like heart disease and diabetes. It is vital that dental professionals recognise the wider impact of these root canal infections and advocate for early diagnosis and treatment.

"We also need to move towards integrated care, where dentists and general practitioners work together to monitor the risks through these blood markers and protect overall health. It's time to move beyond the tooth and embrace a truly holistic approach to dental care." While more research is needed to confirm these effects in larger populations, the study opens exciting new doors for understanding how oral care can support general health and wellbeing.

Read the full study, published in Journal of Translational Medicine, Zhang, Y., Le Guennec, A., Pussinen, P. et al. Successful endodontic treatment improves glucose and lipid metabolism: a longitudinal metabolomic study. J Transl Med 23, 1195 (2025). https://doi.org/10.1186/s12967-025-07110-0

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Dr. Peter Eriki (1947–2025)

The Africa Health Journal mourns the passing of Dr. Peter Eriki, a distinguished public health leader, physician, and mentor, who died on 23 August 2025 in Nairobi, Kenya after a long illness. Dr. Eriki was born on 12 December 1947 in Amuria, Eastern Uganda.

He pursued his medical education at Makerere University, where he also obtained his Master of Medicine in Internal Medicine before proceeding to the UK to specialize in Pulmonary medicine. He then embarked on a career marked by excellence, service, and dedication to improving health systems across Africa.

He played a pioneering role in the establishment of the Uganda National Tuberculosis Programme, which later merged with the National Leprosy Programme to form the National Tuberculosis and Leprosy Programme (NTLP) in the Ministry of Health. As the first Ugandan Programme Manager of the NTLP, Dr.Eriki laid a strong foundation for the country's fight against TB and leprosy, setting standards that continue to guide public health practice in Uganda today. During this period he made a major contribution to global health by being the first person to point out through publications and presentations, the link between HIV/AIDs and tuberculosis among his patients.

This work and Dr. Eriki's commitment to public health led him to serve in the World Health Organization (WHO), where he worked in the tuberculosis program and later as WHO Country Representative in several African countries for over 15 years. His leadership and diplomacy strengthened national health systems and inspired collaboration across borders. In recognition of his service, he was awarded the Paul Harris Fellowship by Rotary International and the government of Nigeria made an exceptional request-to WHO for him to remain in service for an extra year after he attained mandatory retirement age.

Earlier in his career, Dr. Eriki also served in Uganda's Ministry of Health as a Medical Officer and as Director of the TB Control Programme, and later as President of the Uganda National Association of Community and Occupational Health (UNACOH). He also contributed to the establishment of the Uganda Anti-tobacco Association that spearheaded the passing of smoking control legislation in Uganda.

Following his retirement from WHO, Dr. Eriki joined the African Centre for Global Health and Social Transformation (ACHEST), where he served for over a decade as Director of Health Systems. At ACHEST, he brought with him a wealth of experience, wisdom, and a lifelong passion for strengthening health in Africa. To colleagues and friends, Dr. Eriki was more than a professional—he was a mentor, a brother, and a friend. His humility, warmth, and sense of humour endeared him to all, and he nurtured a culture of respect, openness, and camaraderie wherever he worked.



Dr. Peter Eriki (1947–2025)

Beyond his professional accomplishments, Dr. Eriki will be fondly remembered for his zest for life. A lover of **music—especially Congolese tunes—**he was often the life of the party, dancing with a joy and energy that reflected his generous spirit and love for people.

Dr. Peter Eriki's legacy lives on through the countless lives he touched, the systems he helped build, and the values he embodied—dedication, compassion, and service to humanity. His memory will forever remain in the hearts of his family, colleagues, and the entire African public health community. He is survived by his wife Molly Eriki, children and grandchildren children

May his soul rest in eternal peace.

Francis Omaswa; Founding Executive Director, African Centre for Global health and Social Transformation (ACHEST) and Dr. David Okello Executive Director ACHEST

General Medicine

Clinical Characteristics and Outcomes of Patients with Cirrhosis Who Develop Infective Endocarditis

Background: Infective endocarditis (IE) is an increasingly common infection that results in significant morbidity and mortality. An important but under-analyzed subpopulation of patients with IE are those with concomitant cirrhosis. This study compared the characteristics and outcomes of patients with and without cirrhosis who were hospitalized with IE. Methods: The authors conducted a retrospective cohort study in adult patients with IE admitted at a single center from 2010 to 2020, comparing outcomes between those with and without cirrhosis at the time of admission. Results: A total of 22 patients with a history of cirrhosis and 356 patients without a history of cirrhosis were included. Over a quarter (27.3%) of those with cirrhosis experienced a decompensation event within two years of their admission for IE. Clinical features, microbiology, and direct complications from IE were largely similar between groups. There was no significant difference in IE-related mortality rates between groups, although, in an overall survival analysis, the group with cirrhosis did have a higher risk of all-cause mortality at 2 years (HR = 2.85; p = 0.012). Conclusions: This study highlights that IE in patients with cirrhosis may contribute to or trigger decompensation events. Further research is warranted to better understand morbidity outcomes in patients with cirrhosis who develop IE.

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Infect. Dis. Rep. 2025, 17(2), 37; https://doi.org/10.3390/idr17020037 - 21 Apr 2025

Outbreak of Marburg Virus Disease, Equatorial Guinea.

In February 2023, the government of Equatorial Guinea declared an outbreak of Marburg virus disease. We describe the response structure and epidemiologic characteristics, including case-patient demographics, clinical manifestations, risk factors, and the serial interval and timing of symptom onset, treatment seeking, and recovery or death. We identified 16 laboratory-confirmed and 23 probable cases of Marburg virus disease in 5 districts and noted several unlinked chains of transmission and a case-fatality ratio of 90% (35/39 cases). Transmission was concentrated in family clusters and healthcare settings. The median serial interval was 18.5 days; most transmission occurred during late-stage disease. Rapid isolation of symptomatic case-patients is critical in preventing transmission and improving patient outcomes; community engagement and surveillance strengthening should be prioritized in emerging outbreaks. Further analysis of this outbreak and a One Health surveillance approach can help prevent and prepare for future potential spillover events.

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Artificial Intelligence for Infectious Disease Prediction and Prevention: A Comprehensive Review

Artificial Intelligence (AI) and infectious diseases prediction have recently experienced a common development and advancement. Machine learning (ML) apparition, along with deep learning (DL) emergence, extended many approaches against diseases apparition and their spread. And despite their outstanding results in predicting infectious diseases, conflicts appeared regarding the types of data used and how they can be studied, analyzed, and exploited using various emerging methods. This has led to some ongoing discussions in the field. This research aims not only to provide an overview of what has been accomplished, but also to highlight the difficulties related to the types of data used, and the learning methods applied for each research objective. It categorizes these contributions into three areas: predictions using Public Health Data to prevent the spread of a transmissible disease within a region; predictions using Patients' Medical Data to detect whether a person is infected by a transmissible disease; and predictions using both Public and patient medical data to estimate the extent of disease spread in a population. The paper also critically assesses the potential of AI and outlines its limitations in infectious disease management.

Reference

Selestine Melchane, Youssef Elmir, Farid Kacimi, Larbi Boubchir, Artificial Intelligence for Infectious Disease Prediction and Prevention: A Comprehensive Review 16, 2 (2024), 160-197 https://doi.org/10.47745/ausi-2024-0010

The silent epidemic: unravelling NCD risk clusters and socioeconomic determinants in Zambia.

In Zambia, non-communicable diseases (NCDs) are an emerging public health crisis, with socioeconomic factors strongly influencing disease patterns. This study applies latent class analysis on National STEPS survey data to identify distinct clusters of NCD risk factors across population subgroups. Findings reveal that exposure to risk behaviors—such as tobacco use, unhealthy diets, physical inactivity, and excessive alcohol consumption—is unevenly distributed, with discrete high-risk groups shaped by socioeconomic status, gender, and residence. Although age-standardized NCD mortality rates show some decline, Zambia's premature NCD mortality remains markedly higher than global averages, highlighting deep health inequities. The study underscores the need for cost-effective, context-specific interventions—particularly those aligned with WHO's PEN (Package of Essential Non-communicable disease interventions)—and advocates an integrated, people-centred

approach to NCD prevention and control across different demographic groups.

Reference

Christian AK, Daniel E, Sanuade OA. The silent epidemic: unravelling NCD risk clusters and socioeconomic determinants in Zambia. BMC Public Health. 2025;25:2535.

A comparative systematic review of risk factors, prevalence, and challenges contributing to non-communicable diseases in South Asia, Africa, and Caribbeans

Non-communicable diseases (NCDs) are a global epidemic challenging global public health authorities while imposing a heavy burden on healthcare systems and economies.To explore and compare the prevalence of NCDs in South Asia, the Caribbean, and non-sub-Saharan Africa, aiming to identify both commonalities and differences contributing to the NCD epidemic in these areas while investigating potential recommendations addressing the NCD epidemic.A comprehensive search of relevant literature was carried out to identify and appraise published articles systematically using the Cochrane Library, Ovid, Google Scholar, PubMed, Science Direct, and Web of Science search engines between 2010 and 2023. A total of 50 articles fell within the inclusion criteria.Numerous geographical variables, such as lifestyle factors, socio-economic issues, social awareness, and the calibre of the local healthcare system, influence both the prevalence and treatment of NCDs. The NCDs contributors in the Caribbean include physical inactivity, poor fruit and vegetable intake, a sedentary lifestyle, and smoking, among others. While for South Asia, these were: insufficient societal awareness of NCDs, poverty, urbanization, industrialization, and inadequate regulation implementation in South Asia. Malnutrition, inactivity, alcohol misuse, lack of medical care, and low budgets are responsible for increasing NCD cases in Africa.Premature mortality from NCDs can be avoided using efficient treatments that reduce risk factor exposure for individuals and populations. Proper planning, implementation, monitoring, training, and research on risk factors and challenges of NCDs would significantly combat the situation in these regions.

Reference

Bhuiyan, M.A., Galdes, N., Cuschieri, S. et al. A comparative systematic review of risk factors, prevalence, and challenges contributing to non-communicable diseases in South Asia, Africa, and Caribbeans. J Health Popul Nutr 43, 140 (2024). https://doi.org/10.1186/s41043-024-00607-2

Health Economics

Meng X, Mu G, Tong J. Health economics in Africa from 1991 to 2020: a systematic review. J Public Health Afr. 2022;13(2):2027. doi:10.4081/jphia.2022.2027

Cancer of the bladder is the ninth leading cause of cancer in developed countries. It is the second most common urological malignancy. Transitional cell carcinoma (TCC) is the most common histological subtype in developed countries. In most of Africa, the most common type is squamous cell carcinoma (SCC). Cancer of bladder guidelines produced by the European Urological Association and the American Urological Association, including the tumor, node, and metastasis staging is focused on TCC of the bladder. The purpose of the study is to review the pathogenesis, pathology, presentation, and management of cancer of the bladder in Africa and to use this information to propose a practical staging system for SCC. The study used the meta-analysis guideline provided by PRISMA using bladder cancer in Africa as the key search word. The study collected articles available on PubMed as of July 2017, Africa Online and Africa Index Medicus. PRISMA guidelines were used to screen for full-length hospital-based articles on cancer of the bladder in Africa. These articles were analyzed under four subcategories which were pathogenesis, pathology, clinical presentation, and management. The information extracted was pooled and used to propose a practical staging system for use in African settings. The result of evaluation of 821 articles yielded 23 full-length papers on hospital-based studies of cancer of the bladder in Africa. Cancer of the bladder in most of Africa is still predominantly SCC (53%-69%). There has been a notable increase in TCC in Africa (9%-41%). The pathogenesis is mostly schistosoma-related SCC presents late with painful hematuria and necroturia (20%). SCC responds poorly to chemotherapy or radiotherapy. The main management of SCC is open surgery. This review allowed for a practical organ-based stage of SCC of the bladder that can be used in Africa. Bladder cancer in Africa presents differently from that in developed countries. Guidelines on cancer of the bladder may need to take account of this to improve bladder cancer management in Africa.

Eze P, Lawani LO, Agu UJ, Acharya Y, et al. Catastrophic health expenditure in sub-Saharan Africa: systematic review and meta-analysis. Bull World Health Organ. 2022;100(5):337–351. doi:10.2471/BLT.21.287673.

Objective: To estimate the incidence of, and trends in, catastrophic health expenditure in sub-Saharan Africa.

Methods: We systematically reviewed the scientific and grey literature to identify population-based studies on catastrophic health expenditure in sub-Saharan Africa published between 2000 and 2021. We performed a meta-analysis using two definitions of catastrophic health expenditure: 10% of total household expenditure and 40% of household non-food expenditure. The results of individual studies were pooled by pairwise meta-analysis using the random-effects model.

Findings: We identified 111 publications covering a total of 1 040 620 households across 31 sub-Saharan African countries. Overall, the pooled annual incidence of catastrophic health expenditure was 16.5% (95% confidence interval, CI: 12.9–20.4; 50 datapoints; 462 151 households; I^2 = 99.9%) for a threshold of 10% of total household expenditure and 8.7% (95% CI: 7.2–10.3; 84 datapoints; 795 355 households; I^2 = 99.8%) for a threshold of 40% of household non-food expenditure.

Countries in central and southern sub-Saharan Africa had the highest and lowest incidence, respectively. A trend analysis found that, after initially declining in the 2000s, the incidence of catastrophic health expenditure in sub-Saharan Africa increased between 2010 and 2020. The incidence among people affected by specific diseases, such as noncommunicable diseases, HIV/AIDS and tuberculosis, was generally higher.

Conclusion: Although data on catastrophic health expenditure for some countries were sparse, the data available suggest that a non-negligible share of households in sub-Saharan Africa experienced catastrophic expenditure when accessing health-care services. Stronger financial protection measures are needed.

Ifeagwu SC, Yang JC, Parkes-Ratanshi R, Brayne C. Health financing for universal health coverage in Sub-Saharan Africa: a systematic review. Glob Health Res Policy. 2021;6:8. doi:10.1186/s41256-021-00190-7.

Background: Universal health coverage (UHC) embedded within the United Nations Sustainable Development Goals, is defined by the World Health Organization as all individuals having access to required health services, of sufficient quality, without suffering financial hardship. Effective strategies for financing healthcare are critical in achieving this goal yet remain a challenge in Sub-Saharan Africa (SSA). This systematic review aims to determine reported health financing mechanisms in SSA within the published literature and summarize potential learnings.

Methods: A systematic review was conducted aligned with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines. On 19 to 30 July 2019, MEDLINE, EMBASE, Web of Science, Global Health Database, the Cochrane Library, Scopus and JSTOR were searched for literature published from 2005. Studies describing health financing approaches for UHC in SSA were included. Evidence was synthesised in form of a table and thematic analysis.

Results: Of all records, 39 papers were selected for inclusion. Among the included studies, most studies were conducted in Kenya (n = 7), followed by SSA as a whole (n = 6) and Nigeria (n = 5). More than two thirds of the selected studies reported the importance of equitable national health insurance schemes for UHC. The results indicate that a majority of health care revenue in SSA is from direct out-of-pocket payments. Another common financing mechanism was donor funding, which was reported by most of the studies. The average quality score of all studies was 81.6%, indicating a high appraisal score. The interrater reliability Cohen's kappa score, □=0.43 (p = 0.002), which showed a moderate level of agreement.

Conclusions: Appropriate health financing strategies that safeguard financial risk protection underpin sustainable health services and the attainment of UHC. It is evident from the review that innovative health financing strategies in SSA are needed. Some limitations of this review include potentially skewed interpretations due to publication bias and a higher frequency of publications included from two countries in SSA. Establishing evidence-based and multi-sectoral strategies tailored to country contexts remains imperative.

Health Policy

Ansah EW, Maneen S, Ephraim A, Ocloo JEY, Barnes MN, Botha NN. Politics–evidence conflict in national health policy making in Africa: a scoping review. Health Res Policy Syst. 2024;22:47. doi:10.1186/s12961-024-01129-3.

Background: Generally, public health policy-making is hardly a linear process and is characterized by interactions among politicians, institutions, researchers, technocrats and practitioners from diverse fields, as well as brokers, interest groups, financiers and a gamut of other actors. Meanwhile, most public health policies and systems in Africa appear to be built loosely on technical and scientific evidence, but with high political systems and ideologies. While studies on national health policies in Africa are growing, there seems to be inadequate evidence mapping on common themes and concepts across existing literature.

Purpose: The study seeks to explore the extent and type of evidence that exist on the conflict between politics and scientific evidence in the national health policy-making processes in Africa.

Methods: A thorough literature search was done in PubMed, Cochrane Library, ScienceDirect, Dimensions, Taylor and Francis, Chicago Journals, Emerald Insight, JSTOR and Google Scholar. In total, 43 peer-reviewed articles were eligible and used for this review.

Results: We found that the conflicts to evidence usage in policy-making include competing interests and lack of commitment; global policy goals, interest/influence, power imbalance and funding; morals; and evidence-based approaches, self-sufficiency, collaboration among actors, policy priorities and existing structures. Barriers to the health policy process include fragmentation among actors, poor advocacy, lack of clarity on the agenda, inadequate evidence, inadequate consultation and corruption.

Conclusion: Despite the seeming increase in research evidence on the central role of political leadership in defining national public health policies in Africa, there seems to be inadequate empirical accounts of the common themes or concepts in the existing literature regarding the politics–evidence conflict in the public health policy-making process. The authors call for more studies that map and compare these themes to strengthen evidence-informed decision-making in African health policy.

Ahmat A, Asamani JA, et al. Health workforce policy and plan implementation in the context of universal health coverage in the Africa Region. BMJ Glob Health. 2022;7(Suppl 1):e008319. doi:10.1136/bmjgh-2021-008319.

Several countries in Africa have developed human resources for health (HRH) policies and strategies to synergise efforts in setting priorities, directions and means to address the major challenges around leadership and governance, production, recruitment, management, motivation and retention and coordination. In this paper, we present information on the availability, quality and implementation of national HRH policies and strategic plans in the WHO Africa Region. Information was obtained using a questionnaire completed by the head of HRH departments in the Ministries of Health of 47 countries in the WHO Africa Region. Of the 47 countries in the Region, 57% (27 countries) had HRH policies and 11% (5 countries) were in the process of developing one. Thirty-two countries (68%) had national strategic plans for HRH with 12 (26%) being in the process of developing a strategic plan, and 28 countries reporting the implementation of their strategic plans. On the quality of the policies and strategic plans, 28 countries (88%) linked their plans to the national development plan, 30 countries (94%) informed their policy and plan using the national health policy and strategic plans. Evidence-based HRH policies and plans guide the actions of actors in strengthening health systems. Countries need to invest in developing quality HRH policies and plans through an intersectoral approach and based on contextual evidence. This is vital in ensuring that equitably distributed, well-regulated and motivated HRH are available to deliver people-centred health services to the population.

Afriyie DO, Awuzudike M, Amos TA, Aikins M, Salifu Y. The state of strategic plans for the health workforce in Africa. Hum Resour Health. 2019;17:42. doi:10.1186/s12960-019-0373-4.

Background: Human resources for health (HRH) strategic planning is essential for the development and stability of the health workforce, especially in low- and middle-income countries, including in sub-Saharan Africa.

Methods: We examined the HRH strategic plans of sub-Saharan African countries that were in place in 2015. We used a document review to assess the content, context, process, and coherence of the strategic plans.

Results: The review covers 39 strategic plans from 34 countries. While many plans included production, distribution, and retention of health workers as strategic goals, only a minority had clear, costed action plans, or formal monitoring frameworks. Also, the link between strategic plans and national development or health sector strategies was often weak, and few plans reflected health labour market analyses.

Conclusion: HRH strategic plans in many African countries show a commitment to addressing workforce problems, but they often lack specificity, costing, and monitoring mechanisms. The authors recommend stronger national capacity for labour market analysis, better alignment with broader national health strategies, and more rigorous monitoring and evaluation.

Asamani JA, Alhassan RK, Dovlo D. State of the health workforce in the WHO African Region: findings, challenges, and implications for policy. Hum Resour Health. 2024;22:--. (or similar) doi: 10.1186/s12960-024-

The WHO African Region's framework for implementing the Global Strategy on Human Resources for Health further contextualised various global strategies and initiatives by incorporating the region's social, political, economic and cultural dynamics and health worker projections. The development and implementation of this framework recognised the peculiar dynamics within the region, including that Africa has about 10% of the global population and contributes to 25% of the world disease burden, with only about 4% of the global health workforce to provide needed care. Despite the African region suffering many setbacks in providing the needed essential healthcare services, modest progress has been made in improving life expectancy, partly contributed by the increase in the production of health workers of various cadres.

Respiratory Infectious diseases

1. Mizgerd JP. Respiratory infection and the impact of pulmonary immunity on lung health and disease. Am J Respir Crit Care Med. 2012;186(9):824-9. **Abstract:** Acute lower respiratory tract infection is responsible for an inordinate disease burden. Pulmonary immunity determines the outcomes of these infections. The innate and adaptive immune responses to microbes in the lung are critical to maintaining a healthy respiratory system and preventing pulmonary disease. In addition to balancing antimicrobial defense against the risk of lung injury during the immediate infection, the shaping of pulmonary immunity by respiratory infection contributes to the pathophysiology of many and even perhaps most chronic pulmonary diseases. This Pulmonary Perspective aims to communicate two interconnected points. First, tremendous morbidity and mortality result from inadequate, misguided, or excessive pulmonary immunity. Second, our understanding of pulmonary immunity is at an exciting stage of rapid developments and discoveries, but many questions remain. Further advances in pulmonary immunity and elucidation of the cellular and molecular responses to microbes in the lung are needed to develop novel approaches to predicting, preventing, and curing respiratory disease.
2. Long Y, Zheng Y, Li C, Guo Z, Li P, Zhang F, Liu W, Wang Y. Respiratory pathogenic microbial infections: a narrative review. Int J Med Sci. 2024;21(5):826-36. **Abstract:** Respiratory infectious diseases have long been recognised as a substantial global healthcare burden and are one of the leading causes of death worldwide, particularly in vulnerable individuals. In the post COVID-19 era, there has been a surge in the prevalence of influenza virus A and other

multiple known viruses causing cold compared with during the same period in the previous three years, which coincided with countries easing COVID-19 restrictions worldwide. This article aims to review community-acquired respiratory illnesses covering a broad spectrum of viruses, bacteria, and atypical microorganisms and focuses on the cluster prevalence of multiple known respiratory pathogens in China, thereby providing effective prevention and control measures.

3. Feldman C, Anderson R. RSV: an overview of infection in adults. Pneumonia. 2025;17:15. **Abstract (Background + Conclusion):** While originally considered a childhood infection, more recently it has been increasingly recognized that respiratory syncytial virus (RSV) may also cause infection in adults. A potential reason that RSV may have been overlooked in adults previously was a lack of knowledge that this infection could occur at this age, with infrequent testing for RSV infection in adults. There was also at that time the belief that if the infection was documented to be due to RSV, there was little one could do to about it in terms of treatment and/or prevention. Furthermore, there was also the recognition that RSV antigen testing in adults was less sensitive than in children, thus requiring the performance of polymerase chain reaction (PCR) testing for RSV diagnosis, which is expensive and underutilized. More recently, however, enormous advances have been made in the prevention and management of this infection thus requiring further awareness of its occurrence in adults. This manuscript reviews the virus itself, its immunopathogenesis, the role of RSV-pneumococcal interaction in disease pathogenesis, clinical aspects of the infection, the burden of disease, complications, mortality, treatment, and prevention of RSV infections in adults. RSV virus is a common cause of respiratory tract infections in adults and advances in recent research have not only enhanced our knowledge of this infection but have led to the development of effective treatment and prevention of the infection.
4. ZhouY, ZouY, Zhou L, Wei H, ZouY-W, Guo X-R, YeY-Q, Li N, Lu Y. Acute respiratory distress syndrome caused by Chlamydia psittaci: a case report and literature review. Front Med (Lausanne). 2024;11:1418241. **Abstract:** Case presentation: This study reports a 37-year-old young female who was infected with Chlamydia psittaci (C. psittaci) after contact with parrots and eventually developed ARDS. The patient initially developed fever and sore throat, followed by cough and expectoration. Despite receiving empirical anti-infection treatment, the condition continued to progress rapidly, and severe dyspnea developed within a short period of time. She was subsequently transferred to the intensive care unit (ICU) and underwent tracheal intubation and mechanical ventilation due to acute respiratory failure. After the DNA sequence of C. psittaci in bronchoalveolar lavage fluid (BALF) was detected through metagenomic next-generation sequencing (mNGS), the patient received targeted antibiotic treatment with doxycycline and moxifloxacin, and her clinical symptoms gradually improved. Psittacosis, also known as ornithosis, is caused by infection with C. psittaci. Moreover, C. psittaci is a gram-negative and specialized intracellular parasitic pathogen, which is also one of the species in the Chlamydia family that is pathogenic to humans or animals. It can directly or indirectly infect the host, leading to the onset of psittacosis.
5. Singanayagam A, C Papi A, Mackay AJ, et al. Viruses exacerbating chronic pulmonary disease: the role of immune modulation and therapeutic implications. BMC Med. 2012;10:27. **Abstract:** Chronic pulmonary diseases are a major cause of morbidity and mortality and their impact is expected to increase in the future. Respiratory viruses are the most common cause of acute respiratory infections and it is increasingly recognized that respiratory viruses are a major cause of acute exacerbations of chronic pulmonary diseases such as asthma, chronic obstructive pulmonary disease and cystic fibrosis. There is now increasing evidence that the host response to virus infection is dysregulated in these diseases and a better understanding of the mechanisms of abnormal immune responses has the potential to lead to the development of new therapies for virus-induced exacerbations.

Abuelaish I, Goodstadt MS, Mouhaffel R. Interdependence between health and peace: call for a new paradigm. Health Promot Int. 2020;35(6):1590–1600. doi:10.1093/heapro/daaa023.

Abstract: Health and peace, and their relationships to disease, conflict and violence, are complex and multifaceted interrelated terms. Scholars have proposed a variety of definitions for health and peace. The conceptualisations of health and peace share many fundamental elements, including in their social, psychological (emotional and mental) and spiritual dimensions. The authors argue that health and peace are interdependent in a fundamental causal fashion. Health is always positively or negatively affected by conflict, and peace can be directly or indirectly fostered through public health programmes and policy initiatives. Evidence shows that public health professionals and academics have frequently failed to recognise the interdependence of health and peace when conceptualising and addressing issues related to health and peace. In contrast, this article supports a new paradigm for addressing public health issues related to health and peace, based on the premise that health and peace are inextricably linked and require integrated, interdependent approaches. Finally, the authors emphasise that fostering health and peace requires identifying and promoting positive socio-ecological influences on health, rather than limiting the focus to health deficits and obstacles at the individual or community levels.

CPD Challenge

Questions

Q1 Which of the following statements are TRUE or FALSE concerning the risk factors for NCDs in Africa?

a. Exposure to risk behaviours—such as tobacco use, unhealthy diets, physical inactivity, and excessive alcohol consumption—is unevenly distributed in Africa, with discrete high-risk groups shaped by socioeconomic status, gender, and residence.
b. Numerous geographical variables, including lifestyle factors, socioeconomic issues, social awareness, and the quality of the local healthcare system, influence both the prevalence and treatment of NCDs.
c. In most developing countries, major contributors to NCDs include physical inactivity, low fruit and vegetable intake, sedentary lifestyles, and smoking, among others.
d. Factors such as insufficient societal awareness of NCDs, poverty, urbanization, industrialization, and inadequate implementation of government regulations and programs are NOT considered risk factors for NCDs.
e. Malnutrition, physical inactivity, alcohol misuse, inadequate medical care, and limited health budgets are responsible for increasing NCD cases in Africa.
f. All TRUE

Q2 Which of the following statements are TRUE or FALSE regarding the incidence and trends of catastrophic health expenditure in sub-Saharan Africa?

a. There is high reliance on out-of-pocket (OOP) health payments as a means of financing health systems in Africa.
b. Out-of-pocket health payments can make households face catastrophe and become impoverished.
c. Policymakers need to increase public healthcare funding and provide social health protection against informal OOP health payments in order to offer financial risk protection, which is currently absent among a high percentage of households in Africa.
d. Although data on catastrophic health expenditure in Africa is limited, available evidence suggests that a non-negligible share of households in sub-Saharan Africa experience catastrophic expenditure when accessing health-care services.
e. The incidence of catastrophic health expenditure among people affected by specific diseases—such as non-communicable diseases, HIV/AIDS, and tuberculosis—is generally negligible.
f. ALL TRUE

Q3 Which of the following statements are TRUE or FALSE concerning health workforce policy and plan implementation in the context of universal health coverage (UHC) in the Africa Region?

a. Several countries in Africa have developed human resources for health (HRH) policies and `strategies to align efforts in setting priorities, directions, and actions to address challenges in leadership and governance, production, recruitment, management, motivation, retention, and coordination.
b. Regarding the quality of HRH policies and strategic plans in Africa, a majority of countries link their plans to the national development plan.
c. Nearly all countries do not inform their HRH policy and plan using the national health policy and strategic plans.
d. Evidence-based HRH policies and plans are not used to guide the actions of actors in strengthening health systems.
e. Investment in developing quality HRH policies and plans through an intersectoral approach, based on contextual evidence, is vital to ensuring that equitably distributed, well-regulated, and motivated HRH are available to deliver people-centred health services.
f. HRH strategic plans in many African countries show a commitment to addressing workforce problems, but they often lack specificity, costing, and monitoring mechanisms.

Q4 Which of the following statements are TRUE or FALSE concerning respiratory infectious diseases?

a. Respiratory infectious diseases have long been recognized as a substantial global healthcare burden and are among the leading causes of death worldwide, particularly in vulnerable individuals.
b. In the post–COVID-19 era, there has been a surge in the prevalence of influenza virus A and other common cold–causing viruses compared with the same period in the previous three years, coinciding with countries easing COVID-19 restrictions.
c. While originally considered a childhood infection, it is now increasingly recognized that respiratory syncytial virus (RSV) may also cause infection in adults.
d. RSV is a common cause of respiratory tract infections in adults, and advances in recent research have improved understanding of the infection and led to the development of effective treatment and prevention.
e. Chlamydia psittaci is a gram-negative, specialized intracellular parasitic pathogen and one of the Chlamydia species that is pathogenic to humans or animals.
f. Psittacosis, also known as ornithosis, is caused by infection with C. *psittaci*.

Q5 Indicate whether each of the following statements is TRUE or FALSE regarding the role of partnership in policy dialogue in Africa:

a. The Universal Health Coverage (UHC) Partnership established by WHO aims to support health ministries in establishing inclusive, participatory, and evidence-informed policy dialogue.
b. Partnership can trigger "collaborative governance regimes" in a wide variety of contexts through mechanisms such as trust-building, capacity strengthening, and brokering, and can lead to outcomes such as trust-based relationships, policy documents, and joint decisions.
c. Even with strong partnerships, the effects of policy dialogue may remain fragile and depend heavily on contextual factors such as existing power dynamics, actors' incentives, and institutional capacities.
d. The UHC Partnership contributes to collaborative health governance in sub-Saharan Africa by helping ministries of health moderate power relations, build trust, and collaboratively produce policy decisions.
e. The success of the UHC Partnership is not automatic; sustaining collaborative governance regimes requires long-term support, context-sensitive design, and continuous maintenance of trust among stakeholders.
f. Strong partnership at the country level minimizes WHO's brokering role because it strengthens the capacity of ministries of health.

Answers

1 a). T; b). T; c). T; d). F; e). T; f). F
2 a). T; b). T; c). T; d). T; e). F; f). F
3 a). T; b). T; c). T; d). F; e). F; f). T
4 a). T; b). T; c). T; d). T; e). T; f). T
5 a). T; b). T; c). T; d). T; e). T; f). F

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