

Advancing Health Equity in Africa

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23

The Role of Intersectoral
Collaboration

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Executive Summary

Framed by the theme of the LSE Africa Summit 2023, themed “The Now And Next Generation,” this policy brief recognizes the pivotal role of Africa's youth—comprising over 60% of the continent under the age of 25—in navigating the complex and multifaceted challenges of today and the future. These challenges, ranging from climate change to security, from economic hurdles to governance, will disproportionately impact the young if not aptly addressed.

The ongoing situation in Darfur, Sudan serves as a poignant case study, revealing the intricacies of regional conflicts and their implications on health and safety. This regional challenge underscores the broader theme: Africa's diverse challenges are interconnected, necessitating holistic solutions.

Amid these pressing concerns, Africa's potential remains evident. Across the continent, nations are pioneering innovative healthcare solutions, smart cities, and technological advancements tailored to their unique needs. Telemedicine, community-centric health programs, and digital health platforms bear testament to Africa's adaptability and progressive mindset.

However, the essence of this brief lies in the advocacy for localized solutions, drawn from intersectional frameworks. As we approach a defining decade for the continent, the imperative is clear: embrace collaboration, invest in youth-driven solutions, and champion policies that recognize and address the interwoven nature of Africa's challenges and opportunities.

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Introduction

In recent years, the world has witnessed a series of consequential events that have caused a "permacrisis". These events have unfolded one after another, creating an enduring atmosphere of challenge and uncertainty that permeates various aspects of society. Notably, crises in health, environment, agriculture, and security have arisen simultaneously and on an unprecedented scale.

The advent of the COVID-19 pandemic has acted as a profound wake-up call, illuminating the immense challenges and risks posed by a global health crisis to our collective well-being. It has put healthcare systems to the test, revealing the intricate interconnections between healthcare, trade, commerce, and social structures.

Consequently, addressing health care challenges from a singular healthcare standpoint is no longer adequate. It is imperative to recognize the impact of intersecting areas including economics, trade, climate, the safeguarding of vulnerable groups, and the digital economy, amongst others, on healthcare goals. Early preparedness and effective response strategies must adopt a multidisciplinary approach that acknowledges the interdependencies and interactions among these sectors.

Africa has faced numerous epidemics and health emergencies, grappling with global health issues such as malaria, HIV, tuberculosis, Ebola, and Lassa fever. Historically, these outbreaks were often contained within the continent, leading to a limited understanding of their potential ripple effects on a global scale. However, the COVID-19 pandemic shed light on the broader implications of disease outbreaks and the necessity for a new integrated approach. As African nations responded to the pandemic, the intricate interplay between information dissemination, digital adoption, trade practices, and global supply chain dynamics became evident. This underscores the need to holistically address health emergencies, factoring in the interconnectedness of trade, technology, and social policies.

Global institutions emphasize health innovation and research, but it is equally vital to scrutinize the policies governing sectors crucial for healthcare delivery, especially in developing nations. The challenges faced during the COVID-19 vaccine distribution, where many nations, especially those reliant on the COVAX initiative (a multilateral agreement between global health organisations, manufacturers, and the private sector to promote equitable access to COVID-19 diagnostics and treatment (1)), grappled with trade disparities, export restrictions and limited manufacturing capacity, highlight this. Such challenges spotlighted opportunities for pharmaceutical companies to establish sustainable supply chains and manufacturing sites within Africa that would have benefited multiple sectors. However, the traditional donor-aid relationship model prevalent in the health sector has been proven to often promote donor interests more than reflect the needs or improve the capacity of recipients (2). Despite the official end of the COVID-19 pandemic, trade and distribution infrastructure have not witnessed significant improvements compared to the pre-pandemic levels.

In addition to the challenges faced in vaccine distribution, it is important to acknowledge that war and humanitarian crises also pose significant public health emergencies, especially in the Africa context. These crises are characterized by violence, loss of life, maiming, hunger, famine, and sexual abuse, which have far-reaching consequences beyond the immediate casualties. They disrupt health systems, destroy healthcare facilities, and contribute to disease outbreaks in refugee camps. Therefore, addressing conflict resolution becomes crucial not only for mitigating the impact on human lives but also for preventing health emergencies.

Meanwhile, the adoption of digital healthcare solutions is gradually gaining momentum across the African continent. Countries like Kenya, South Africa, Egypt, and Nigeria have witnessed the emergence of health tech solutions that leverage technology to improve healthcare delivery. One notable example is Helium Health, a leading health technology company providing full circle health technology services including credit facilities, electronic medical records (EMRs), diagnostics, and telemedicine. Their EMRs are used by over 500 providers and have reached over 1M patients, while credit distribution to stakeholders in healthcare stands at over 3 million USD (3). The application of technology developed for contact tracing and epidemiological control during previous outbreaks, such as the Ebola outbreaks in Sierra Leone and Nigeria, has also played a significant role in effectively tracing and managing COVID-19 cases. These instances underscore the need for wider technology adoption and appropriate infrastructure well before emergencies.

Considering the challenges in distribution of medical supplies, climate security, the impact of war and humanitarian crises on health systems, and the increasing role of digital healthcare adoption, it becomes evident that comprehensive policies and frameworks across these sectors are necessary for effective healthcare delivery. Consistently, research has shown that an intersectoral and multisectoral approach is needed to achieve health equity (4). With partnerships, a key strategy by the WHO to achieve UHC, (5) Africa must now begin to reflect strongly on accelerating health objectives such as the SDGs through a unified response to challenges and developments across multiple sectors. These issues were discussed at the recent LSE Africa Summit, where leading African voices from diverse sectors deliberated on the current trajectory of technology, trade, conflict, and the 2063 Agenda. This brief aims to explore the interplay between these sectors and healthcare delivery, offering policy recommendations that can better position healthcare in Africa to accomplish desired health objectives.

Interplay of Conflict, Health, and Climate Insecurity in Africa

The risks associated with climate insecurity and conflict in communities across Africa are both vast and intricately interconnected. A paper from Stockholm International Peace Research Institute (SIPRI) Insights provides clear indicators for increasing conflict, especially in West Africa, as a direct effect of worsening climatic conditions emphasizing that the challenges stemming from these comorbid issues cut across human and health security (26). According to the 2022 Global Peace Index Report, Nigeria, Sudan, the Democratic Republic of the Congo (DRC), Somalia, and South Sudan rank among the top five countries globally with the highest prevalence of conflict (27). Particularly concerning is the revelation that 37 out of the 54 African countries are currently on high alert for potential conflict. This underscores the urgency of taking proactive, multi-sectoral steps to safeguard human health, security, and well-being in the face of these complex challenges.

Climate Challenges and Implications

Climate challenges further compound the vulnerabilities faced by African communities. Climate insecurity gives rise to a spectrum of health and socio-economic risks, ranging from extreme weather-related displacements to severe food shortages, exacerbating human and national vulnerabilities. With various parts of the African continent additionally grappling with the consequences of deforestation and the emergence of zoonotic diseases, addressing the complex interplay between climate insecurity and conflict is paramount for safeguarding human health security and promoting regional stability and prosperity (28). These issues transcend immediate unrest, to influence national debts further diverting attention from critical health priorities. It is essential to adopt multi-sectoral solutions that address these challenges comprehensively.

Case Study: Darfur, Sudan: A Multifaceted Crisis and the Path Forward

The crisis in Darfur, Sudan, illustrates the intricate web of issues stemming from the nexus of armed conflict, climate vulnerability, and public health concerns. According to the United Nations, a staggering 13 million children in Darfur, are in dire need of humanitarian aid (29). The persistent conflict has not only intensified trauma from violence and displacement, but it has also further stressed the already frail health infrastructure.

Located within a desert region, Darfur's climatic vulnerabilities are evident, escalating threats to food and water security, and heightening communal tensions between farmers and pastoralists, largely driven by climate effects and land degradation. Many health facilities have been reported destroyed or severely damaged, leaving the inhabitants without essential healthcare services (30). Women in the region bear the brunt of these adversities, facing amplified risks such as maternal mortality, sexual harassment, and gender-based violence. Their predicaments are intensified by limited access to healthcare, particularly safe birthing options.

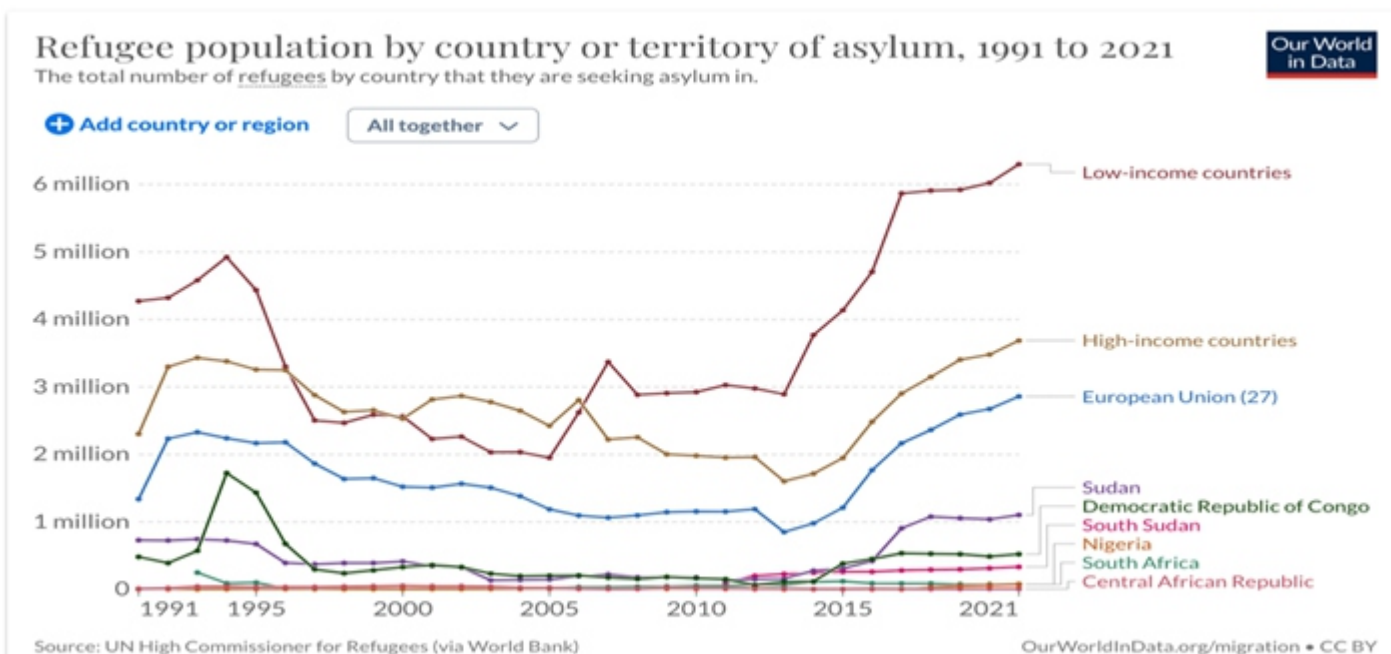
Climate insecurity exacerbates these adversities, exposing already vulnerable groups to extreme weather patterns, scarce water resources, and dwindling food supplies. These conditions magnify health hazards, especially for children and women, who bear a disproportionate risk of waterborne diseases and malnutrition.

Of note, over 60% of Darfur's population is under the age of 24 (29), emphasizing the pressing concern for the young demographic. This youth bulge encounters pronounced health vulnerabilities owing to restricted access to quality healthcare, education, and economic avenues. Persistent conflicts and the gulf in healthcare provisions obstruct their potential, potentially fostering prolonged societal unrest.

While the Darfur Community Peace And Stability Fund (DCPSF) was revamped in 2021, aiming to assuage issues arising from the conflict, it amassed 10 billion in contributions, but centralized its focus on infrastructure and stability targeting SDGs 16, 5, 17, 13, 15, 8, and 9. While the fund's efforts in peacebuilding are commendable, the glaring absence of a substantial focus on health and well-being severely hampers its outcomes, especially in the face of growing camp populations and escalating conflict (30).

The complexities observed in regions like Darfur underscore the urgent need for comprehensive strategies. Preliminary solutions, such as the Paris Agreement and the proposed Loss and Damage Fund, hint at pathways to address these intertwined challenges (32).

The scenario in Darfur is not isolated to the region alone, most African nations in conflict or at the brink of conflict are at an alarming disposition of failing to provide basic and primary healthcare services due to the widescale disruptions.



Health and Humanitarian Challenges in Conflict Zones

According to the World Bank, there's a consistent upward trend in the number of refugees, asylum seekers, and other vulnerable populations. The Africa Center for Strategic Studies corroborates this, indicating an alarming 40.4 million people displaced, marking a 13% rise in just 12 months. Significantly, 70% of these displacements are attributed to conflict (31).

Countries like Sudan, the Democratic Republic of Congo, and Somalia are bearing the brunt of this crisis. In particular, Somalia has 29% of its population displaced, while South Sudan has seen 42% of its people uprooted. The strain on settlement and Internally Displaced Person (IDP) camps due to these massive displacements poses risks on multiple fronts, with health being the most aggressively impacted.

Youthful Demographic: Africa's Health Security Lever

From the case studies discussed, we identify that in African regions, the intersection of conflict, deteriorating security, and climate-induced challenges has created environments conducive to health crises. Outbreaks like Covid-19, SARS, and Ebola have proliferated in areas destabilized by these factors. A crucial element to mitigating and preventing these health challenges is building resilience in health preparedness. Africa's young population offers promise in this endeavor. Yet, despite their potential, they encounter numerous obstacles. Addressing these impediments is essential to harness their capabilities and bolster Africa's defenses against future health threats.

Given the promise of Africa's young population, the question arises: How can we harness this demographic dividend amidst a backdrop of multifaceted challenges?

In many regions, like the Central African Republic (CAR), there's a stark contrast between the potential and the reality. While CAR boasts a youthful demographic, with about 43% under 14 years of age, it contends with some of the continent's highest child mortality rates and a declining GDP (33). This underscores a troubling disconnect: the vast potential of a young workforce is overshadowed by the combined effects of conflict, health crises, and limited access to essential services.

To address this dichotomy, a strategic intersectoral approach is paramount. Health cannot be viewed in isolation but must be seen as part of a broader socioeconomic framework. This means integrating strategies from diverse sectors like education, infrastructure, agriculture, and economic policy to formulate holistic solutions.

Yet, the responsibility of pioneering this integrated approach doesn't lie with local governance alone. Regional entities, such as the African Union (AU), must champion collaboration, promote the exchange of best practices, and ensure that health security initiatives are cohesive and comprehensive. Concurrently, national governments must emphasize credible governance, grounded in data-driven policies that take into account the unique challenges of their young populations.

Impact of Conflict on Global Health and the Role of Multilateral Organizations

While we look to youth integration as a solution, it is important to highlight and applaud real-time progress made by multilateral organizations through targeted programming. Global partnerships, embodied by multilateral organizations and private equity institutions, have remained formidable allies

in the quest for health security and resilience on the continent.

Multilateral organizations have etched significant milestones in their journey to advance health. Notably, the Global Polio Eradication Initiative (GPEI) has showcased the power of coordinated international action, with the disease prevalence dropping by a staggering 99%. Such commendable achievements underscore their instrumental role (34).

Yet, as with all strategies, there are nuances worth examining. While the focused, vertical program model employed by many has proven effective for specific interventions, its tendency to produce fragmented outcomes cannot be overlooked. A more holistic, integrated approach would ensure that while we celebrate victories against specific ailments, we don't neglect the broader health infrastructure that nations desperately need.

On the financial front, private equity investments emerge as catalysts for innovation. Their infusion of funds often drives high-quality health programs. However, the challenge remains: ensuring that the pursuit of profit does not overshadow the multifaceted determinants of health, particularly in areas dominated by informal sectors.

Thus, as we reflect on the vast potential of Africa's youth and the guiding hand of its regional governance, we must also recognize and harness the capabilities of these global partners. Their expertise, resources, and global perspective can be channeled to not only address immediate health challenges but to lay the foundation for a resilient and prosperous Africa. With the right alignment of strategies, this collaboration can be a force multiplier in the journey ahead.

Global Health Governance and Equitable Humanitarian Responses

On a macro level, the global tug-of-war for resources and attention poses a significant challenge amidst present solutions. Multilateral organizations, which are sometimes already grappling with challenges like resource redundancies and strategic implementation, find their tasks complicated by mounting global conflicts and competing priorities.

Consider the recent conflict in Ukraine due to Russia's invasion and the escalation of tensions between Israel and Gaza. Both crises drew significant international attention, with agencies, including multilateral ones, redirecting resources and efforts to alleviate the resultant humanitarian and health gaps (35). The downside? Such redirection threatens to divert focus and funding from African nations, which are perennially contending with underfunded humanitarian and developmental initiatives.

It's worth noting that the impact isn't limited to immediate humanitarian relief; mid to long-term developmental cooperation is also jeopardized. The fervent global health investments witnessed during the COVID-19 pandemic, for instance, dwindled in the face of competing global crises.

A multitude of African nations are consistently facing their set of humanitarian challenges, ranging from conflicts to health emergencies. With global attention shifting and resources being stretched thin, the onus increasingly falls on African countries to champion their causes proactively. This dynamic reinforces the urgency for these nations to cultivate homegrown solutions, tap into the latent potential of their youth, and foster partnerships that prioritize Africa's unique challenges and aspirations.

Africa's Technological Renaissance: Opportunities, Challenges, and the Path Forward

The Rise of Technology in Africa: A Glimpse into the Future

While African nations grapple with a range of challenges there has been notable growth in technological advancements. These advancements offer a promising avenue for bolstering health infrastructure and driving sustainable development. After an initial period of slow growth, Africa is increasingly becoming a key destination for technology investments. In 2022 alone, African start-ups attracted over 4.8 billion USD in funding through more than 1,000 new deals and investors (6). This burgeoning interest from investors highlights the continent's untapped potential and underscores the opportunities for technological solutions to address its complex challenges.

The recent McKinsey Africa report projects that the African economy can increase by an additional 1.4 trillion USD if it continues its current trajectory (7). As we look to the next decade, forecasts for Africa's digital evolution are promising. The continent is poised to witness the rise of digital cities, with its growth rate anticipated to surpass both the USA and Europe (7). Cities like Kigali, Nairobi, and Mauritius are at the forefront of this transformation, pioneering advancements in smart city technologies and integrating them across various developmental sectors. In healthcare, Kigali stands out for its innovative use of drones for the timely delivery of blood products and essential medications during emergencies (8). Additionally, the city is enhancing public health access through mobile services (9). Meanwhile, Nairobi and Mauritius are laying the groundwork for resilient urban centres, emphasizing well-structured health infrastructure to cater to their growing populations. These represent some of the ways in which technology adaptation is expected to evolve and influence healthcare delivery across the continent.

The merging of health and financial services is also fast democratizing access to healthcare and continues to prove invaluable in providing access to funds to cover healthcare needs. as seen through the remarkable success of MPESA in Kenya.

With over 50 million users, MPESA has increased financial inclusion in Kenya to over 84% in 2021,(10) and with its recent addition M-TIBA, it is enabling users put aside and receive money specifically for health needs (11). More smart cities with a robust integration of technology across transportation, agriculture, and especially health, are expected to unfold in the coming decade in Lagos, Cape Town, and Nairobi (12) (13).

Addressing the Digital Divide: Challenges and Imperatives

While the promise for African development in technology over the coming decade presents remarkable prospects and opportunities, the current challenges remain undeniable. There is a renewed call for aligning leadership to steward the current technological growth to reach its fullest potential. The sector's acceleration is highly commendable, but the lack of uniformity of technology access across the continent cannot be ignored. Africa's current internet penetration remains low at 36% when compared to the global average of 63%. Less than a third of the continent has access to broadband connectivity, with over 80% of the least connected countries located in Africa (14).

When discussing the continental digital divide, it is also crucial to address the digital gender divide in Africa as well. Across sub-Saharan Africa, there is a wide gender gap in mobile ownership which has persisted even with the increased reliance on digital technologies during the pandemic. According to a report by the GSMA, 69% of women in Sub-Saharan Africa own mobile phones, as compared to 82% of men. When internet use is considered, the disparity is even greater, with only 29% of women using the internet, compared to 49% of men. Country-level gender disparities in mobile ownership range from 4% in Nigeria to 27% in Mozambique (15). This divide is further exacerbated by socioeconomic factors such as low literacy rates and poverty whose negative effects are far greater for women.

It is imperative to address these disparities to ensure that the benefits of technological advancement are uniformly experienced across the continent. For digital health services to truly drive healthcare equity, more Africans need to be connected and the digital gender divide must be addressed, and this can only be achieved by proactive leadership and a conscious prioritization of innovation and inclusion. Initiatives such as the African Women in Digital Health (AWiDH) movement, co-led by Speak Up Africa and the GIZ Strengthening Crisis and Pandemic Response in Africa project, advocate for the inclusion of women in digital health as innovators, policymakers, and users. Movements like this indicate growing consciousness of the necessity to enhance representation and bridge disparities concurrent to the growth of the digital health sector in Africa.

Policy, Innovation, and the Road to Technological Integration

To this end, there is a need to create policies that scale innovation and where these exist, strengthen, and ensure holistic implementation. In Nigeria, the Start UP Act was recently signed into law to provide legal framework for innovation within the country. With input from over 30 leaders in the tech ecosystem over 6 months (16), it is considered a step in the right direction for the country's innovation journey. Similar bills have been passed to law in Tunisia and Senegal and are at various stages in Ghana, Kenya, and Mali (17). The AU Digital Transformation Strategy for 2020-2030 stands as a pivotal continental policy, aiming to leverage digital technologies to bolster Africa's development, particularly in harnessing health technology during global crises. With objectives that include establishing a secure digital single market by 2030, achieving comprehensive and affordable internet coverage, instituting a digital sovereignty fund, and streamlining digital policies across the continent, its successful implementation promises to enhance Africa's digital terrain and pave the way for its full potential realization (18).

Complementing this overarching strategy, the Africa Center for Disease Control and Prevention (Africa CDC) has formulated its own Digital Transformation Strategy. This strategic framework is designed to foster home-grown digital health innovations and enhance workforce development in the healthcare sector. Additionally, it focuses on improving connectivity and collaboration among member states, and enhancing member states' capabilities in digital health governance, strategy formulation, and infrastructure development. By addressing these critical aspects, the Africa CDC's strategy aligns with the broader continental goals, emphasizing the pivotal role of digital advancements in shaping the future of healthcare in Africa (18). The ultimate objective is not just to lay groundwork for technology in healthcare, but to embed innovation as an intrinsic component throughout the sector. There are unique opportunities to fill gaps in tackling leading causes of morbidity and mortality such as infectious

diseases, maternal mortality, U-5 deaths, and malnutrition. In sectors like public policy, there is a discernible convergence between policy and innovation. Take, for instance, Nairobi's Hudumacentre, which streamlines services, allowing citizens to process essential documents like birth certificates and pay taxes(19). Similarly, Rwanda and South Africa have transitioned to electronic birth certificates (20,21). Drawing from these advancements, health services can adopt comparable strategies. Establishing centres that digitize processes such as immunization records, health check-ups, and consultations can be a transformative step in scaling healthcare accessibility and efficiency. Governments and African leadership should stimulate and reward health start-ups to create solutions to the continent's most pressing issues. The end goal is that the gap between national and continental adoption would be reduced.

Talent Exodus: Implications and Opportunities for Africa's Digital Ecosystem

The digital landscape in Africa is at a pivotal juncture, particularly concerning its workforce. The continent has become a significant contributor to the global tech talent pool with a 3.8% increase to over 716 000 developers in 2021 from the previous year on the continent and 38% of African developers working for companies based outside the continent according to a Google report (22)- Africa still grapples with a unique challenge with the migration of its top talents to more lucrative opportunities overseas. This trend is set against a backdrop where, by 2030, nearly half of the world's youth will be African (23), indicating a burgeoning potential for tech innovation from the continent. Yet, the continuous exodus of these talents casts a shadow on Africa's digital future. The departure of its brightest minds not only represents a loss of intellectual capital but also risks slowing the pace of technological adoption and the development of homegrown solutions, which are crucial for the continent's digital evolution.

The surge in innovation across Africa is deeply rooted in its unique context. Despite grappling with a myriad of socio-economic challenges, the continent presents a unique opportunity for devising technological solutions to address these very issues as evidenced by the rapid development and growth of tech start-ups in the continent over the last 10 years with over 5.5 billion USD invested between 2021-2022 alone (24). This juxtaposition of challenges and opportunities makes Africa a compelling arena for transformative innovations.

The exit of talent may also be beneficial as African representation increases across global technology giants and drivers. With more African presence in the global digital pool, it is expected that more products would be created with the African context embedded into development. Diasporan talent can also play a critical role in ensuring that global advancement in tech is also replicated back on the continent, as many indigenous founders have either being trained outside the continent or began careers there before establishing their start-ups. The success of some of these ventures underscores the importance of harnessing and leveraging diasporan talent to ignite growth.

The Power of Data and AI in Africa's Digital Transformation

Data is the currency for innovation and whoever collects and controls the data leads innovative trends. Data collection on the African continent is still largely gathered and domiciled in other places. There are very few innovative African based start-ups focused on aggregating the continent's data. Closing the data gap remains critical in building a robust digital response to pandemics, epidemics, and other health emergencies. The execution of the AU Digital framework for 2030 regarding data protection should be considered seriously and institutionalized data banks be established for this purpose.

Data is the cradle for the development of Artificial Intelligence (AI), and with the rise in the use of AI in various development sectors, there is a need for the continent to position data collection for its development. AI revolution in health technology is expected to be accelerated in the coming decade hence African innovators need to begin leveraging machine learning within the African context to create unique AI-driven solutions. For instance, AI has shown significant promise in breast cancer detection, improving accuracy when compared with radiologist readings alone (25). However, it is crucial to ensure that the programming of these detection solutions considers the denser breast tissue commonly found in African women, as well as their higher predisposition to advanced cancer types.

This tailored approach is essential for enhancing early detection and providing effective care. AI technology can also be scaled to other sectors in health care e.g., for infectious diseases. AI can drive vector identification and reduce disease spread; it could also play a significant role in dermatological diagnosis by identifying skin lesions and eventually, improve consultation through guided questions. For these benefits to be enjoyed in Africa and for the AI revolution to improve outcomes in the most needed places, we must begin to lead data collection on the continent locally and train machine models that are best suited to African issues. There is also a need for the establishment of more institutions that focus on machine learning, especially in deploying these learnings to solve health challenges.

Charting the Future: Digital Health and Africa's Prospects

Overall, the landscape for digital health on the continent is at a pivotal point and extensive opportunities for improvement currently exist in various sectors. By creating enabling policies and fostering collaboration between the government and innovators, the continent would be better positioned for the next decade. Recognizing, honouring, and harnessing the value of African talent would be a critical step in achieving the Digital Agenda for Africa including healthcare and the economy. Data and AI would play a critical role in designing Africa's future, the stage is set to develop Afrocentric solutions in this regard, and we can begin to train the solutions to address Africa's most pressing challenges now.

Africa's Health Evolution and Agenda 2063

Navigating Challenges, Implementing Strategies, and Paving the way in Global Health Leadership

Visionary Frameworks and Persistent Challenges

Africa's journey towards development extends far beyond its borders; it reverberates across the global health landscape, profoundly impacting health equity, security, and pandemic preparedness worldwide. At the heart of Africa's quest for progress lies the AU Agenda 2063, a visionary policy framework that champions "the Africa we want." This flagship vision serves as the overarching guide for Africa's implementation of strategies across multiple sectors, with a particular focus on health. Since its inception in 2013, Agenda 2063 has facilitated noteworthy progress in areas like maternal health and child mortality. However, critical challenges persist, such as food security, conflict resolution, and health system strengthening. The constantly changing landscape and growing intersection between health preparedness, conflict, and climate insecurity necessitate a more comprehensive approach to tackle these complex issues.

The Africa Health Strategy 2016–2030 was crafted as a ministerial framework to address challenges specific to the health sector. However, one notable gap in this strategy is the limited advisory on pandemic preparedness. Recent escalations of conflict and climate insecurity in certain regions of Africa have raised concerns about the continent's ability to respond effectively to pandemics. As Africa's health systems grapple with growing vulnerabilities, the need for internal development and proactive measures in pandemic preparedness becomes even more urgent. There is therefore need for an evolution of this strategy to include this critical segment.

Strengthening Health Infrastructure and Promoting Equity

To strengthen Africa's health infrastructure and promote health equity, leveraging the continent's global branding presents a promising pathway. By strategically harnessing strengths such as being an agriculture hub, data manufacturer, and pharmaceutical producer, the ratification of the African Continental Free Trade Area (AFCFTA) provides a strong driver for this initiative. The AFCFTA aims to create a single market for goods and services, fostering intra-Africa trade and economic diversification. Through increased agricultural exports and support for the food security agenda, African nations can generate revenue to fund their health infrastructure and bolster health preparedness.

As evidenced by the COVID-19 pandemic, there is a need to strengthen Africa's medical manufacturing sector and ensure sustainable access to medical products. The AU and Africa CDC have set an ambitious objective of meeting 60% of the continent's vaccine production needs locally (36). This goal was supported with the establishment of institutions such as the Africa Pharmaceutical Tech Foundation (APTF), which was set up by the African Development Bank to improve Africa's access to pharmaceutical manufacturing technologies.

The AFCFTA is instrumental in ensuring the sustainability of Africa's medical manufacturing sector by making the large internal market is made available to local producers. Such coordination can ensure that African manufacturers can withstand external challenges and international barriers. It also reduces the financial burden on Africans who often pay out of pocket and in excess for medical products due to import taxes.

Alongside continental capacity strengthening, there is a pressing need to advocate for Universal Health Care (UHC) as a priority among member states' national leadership. Africa faces challenges in adopting UHC (37), advocated by global health governance actors as a priority. With varying levels of health infrastructure and financing across different nations, national leadership must play a crucial role in addressing these disparities. Effective coordination of efforts and prioritization of health investments are vital to bridge the gaps in health preparedness.

Navigating Neo-colonial Constructs and Charting a Contextual Health Path

The pursuit of UHC in Africa should be critically examined to ensure that it does not inadvertently perpetuate neo-colonial constructs. Neo-colonialism refers to the continuation of colonial power dynamics, where dominant global actors influence and shape the policies and practices of formerly colonized nations (38). In the context of UHC, it is essential to question whether the push for universal coverage is being driven primarily by external actors without adequate consideration of Africa's unique health challenges and contexts. This could reflect in health priority areas, specific disease programs, and streamlined funding that may lead to fractionated health service delivery and a weaker system.

As Africa strives to strengthen its health infrastructure and achieve health equity, it must be cautious not to adopt solutions that might not fully align with its realities. Instead, the continent should focus on building adaptive and context-specific health systems that address its foundational gaps.

By prioritizing internal development and strategic planning, Africa can lay the groundwork for sustainable and inclusive health systems that truly cater to the needs of its diverse populations and inch closer to agenda 2063. By acknowledging the complexities of the continent's health landscape and prioritizing internal capacity building, Africa can chart a course towards a brighter and healthier future for all its citizens. As global health governance actors advocate for universal health coverage, it is essential to contextualize these efforts within the framework of Agenda 2063, ensuring that Africa's health agenda is driven by its own vision and aspirations.

The pursuit of health equity, pandemic preparedness, and sustainable development in Africa requires a nuanced approach that recognizes the continent's unique challenges and strengths. Leveraging Agenda 2063's guiding principles, Africa can forge a path towards a more equitable and resilient health system. By doing so, the continent can reclaim agency over its health agenda, effectively addressing present and future health challenges, and emerging as a leader in shaping the future of global health.

Healthcare in a Globalized World:

Disparities, Dynamics, and the African Perspectives

Global Disparities and the African Transformation

As we navigate the intricacies of healthcare challenges in a globalized world, it becomes evident that addressing inequalities is paramount to achieve global health goals. These disparities persist not only in the prosperous global north but also in the developing global south. In the global north, discussions centre around "left behind spaces," where certain regions face declining productivity and limited public investment, while others thrive due to the advantages of globalization. Conversely, the global south grapples with access to quality healthcare, hindered by poor planning, volatile public revenues, weak institutions, and corruption.

Transitioning our focus to Africa, a continent on the cusp of transformation, we encounter a population exceeding 1.3 billion, with a youthful majority constituting approximately 65% of its total inhabitants and a steadily increasing elderly population comprising about 5% (39). Addressing the challenge of catering to the distinct healthcare needs of these age groups requires tailored and strategic approaches.

Demographic Dynamics and Health Infrastructure

As identified, Africa is not immune to the repercussions of climate change, experiencing staggering losses totalling 532 billion USD across 55 countries. Yet, the African Loss and Damage Fund, established in 2009 with a 100 billion USD pledge, has only seen 20% reaching the continent (40). The burden of debt looms heavily over several African countries, posing a significant obstacle to their ability to invest in climate-resilient healthcare infrastructure. Countries like Nigeria and Kenya, burdened with enormous debt profiles, find their financial flexibility limited, hindering their capacity to allocate adequate resources towards bolstering their health facilities to withstand intersectional challenges. Moreover, nations like Mozambique face the dual burden of debt and extreme weather events, exemplified by the devastation brought on by Cyclone Idai in 2019, further straining resources and exacerbating vulnerability to climate-induced health risks.

Approximately 55% of the female population falls within the reproductive age group (15-49 years), underscoring the significance of ensuring access to comprehensive reproductive healthcare and maternal health services to safeguard the well-being of both mothers and their children (41). With women leading the agricultural workforce in Africa, adverse climate events disproportionately affect their economic prosperity and impede their access to necessary health services. Considering these dynamics, ensuring quality maternal healthcare in Africa becomes paramount, impacting the well-being of women and future generations. Moreover, the demographic distribution and challenges have significant implications for health infrastructure in IDP camps. Africa is home to nearly 30 million displaced individuals (27), including refugees and internally displaced people, who often face limited resources and challenges in accessing healthcare.

Climate change affects these groups with an impact on water supply, adverse weather conditions on makeshift shelters, and reduced food supply. These lead to rampant malnutrition, predisposition to infection and disease spread. Strengthening health infrastructure in these camps is essential to provide necessary medical services, address infectious diseases, and promote overall well-being in these vulnerable settings.

Collaborative Action for a Resilient Future

Africa is, however, not without global health champions. Some countries on the continent are leading the way in promoting smart cities, harnessing technology, and sustainable practices to revolutionize urban living. Their efforts hold tremendous potential to enhance healthcare delivery and improve access to services.

As we navigate this complex web of challenges, we must recognize the importance of intersectorality and embrace cooperation at regional, continental, and global levels. Focused efforts to address these interconnected challenges will not only bolster healthcare outcomes but also drive social and economic development, securing a brighter and more sustainable future for Africa and its people. Let us seize this moment to prioritize investment in climate-resilient healthcare infrastructure, devise sustainable funding strategies, and an inclusive policy environment to achieve equitable healthcare outcomes for all together. With collaborative action, Africa can pave the way for a healthier, more resilient, and prosperous future.

Towards a Cohensive Global Health Framework

Embracing Collaboration and Intersectorality

There is a need to create a new framework that will “leave no one behind” in any segment of society in favor of the prosperity of another or will incentivize an all-or-nothing zero-sum approach. We saw the COVID-19 pandemic, when countries hoarded vaccines from one another, or the current massive brain drain of healthcare professionals from developing countries to developed ones. We must support intersectionality between sectors, governments, and global objectives.

A more suitable approach then becomes one in which major health and developmental challenges are tackled with innovation, creativity, and collaboration. It is in this context that the more recent debate about loss and damage becomes much more important. Health, environmental, and economic challenges in one geography have direct consequences on another, in a world where supply chains and markets are well integrated and interdependent. As such, resources, and expertise from all over the world must be leveraged in tackling challenges in any part of the world.

This will necessitate constructive collaboration among various regional groups and even national governments. Working in silos and competing to achieve the same objectives is usually counter-productive and wasteful (35). Therefore, national governments, especially in emerging countries must do more to align their mission, vision, and strategy for the healthcare sector and human capital development. Regional bodies tasked with such cohesion such as the AU and Regional Economic Communities (RECs) must do more to accelerate helpful synergistic intra and inter-continental partnerships that would accelerate developmental outcomes across the various sectors highlighted in this paper. There are ongoing discussions on how working ties between the AU, Africa CDC, and RECs can be strengthened and scaled in line with Article 27 of Africa CDC statutes including a planned side event on Africa CDC-REC coordination at the upcoming International Conference for Public Health in Africa 2023 (42).

Additionally, vulnerable, and marginalized groups should play more roles in policy debates, especially at the formulation stage. As there are efforts to improve the diversity of perspectives at the global level, regional and national decision-makers must also take a cue and include marginalized groups like women, youth, and the physically challenged in crucial discourse on governance and policy. This will drastically improve the quality of policies and consequently improve outcomes for all members of society, especially in Africa.

Furthermore, the role of technocracy and meritocracy in all this must not be ignored. Political leaders should prioritize putting the right people in the right places, so that impact can be scaled and replicated in a transformational manner. Meritocracy also minimizes the cost of governance by giving professionals with the right skills and experience the chance to manage resources in a sustainable manner, as well as find new ways of achieving set objectives and targets with limited resources at their disposal.

This will also give the private sector and other non-governmental stakeholders the confidence to come to the table and contribute their quota, as they can see their contributions being more impactful given the capacity of capable hands in the public sector.

All these will be vital in fostering an environment of collaboration, constructive interaction, and cooperation not just at the regional level, or continental level, but on the global level. It is important that such conversations are continuously held and for both the global north and the global south to realize the importance of working together to tackle pressing developmental challenges so that a more equitable and fairer globalization framework is achieved and sustained by all.

As we head into the next decade, a critical period for advancing Africa's prosperity, it is critical that we approach and tackle health challenges in a cohesive manner with due recognition of Africa's global position and impact. We should ensure that attention is paid to multi-dimensional effects when designing and implementing interventions and policies across security, climate action, digital technologies, and trade. If Africa is to build the structure, response, and readiness necessary to overcome health shocks and support the emergence of a vibrant, healthy, and prosperous continent, the effects of these sectors on health systems must be duly considered and forums that discuss and accentuate these intersectionalities should be encouraged frequently. Indeed, we either win together or lose by default, there is no better time to build these systems than now if we are to attain self-actualization and reach the full potential of our economic prosperity.

Policy Recommendations

To accentuate the key focus of this paper which is the importance of intersectional approaches to health challenges, we share recommendations that approach complementary sections of health systems and highlight how these improvements cascade across the health sector on the continent.

Intersectionality of Tech, Private Equity, and Health Preparedness

- 1. Establish Health Innovation Hubs:** Create specialized hubs in collaboration with regional organizations, focusing on innovation and technology for sustainable development. These hubs will foster partnerships between tech experts, private equity firms, and health professionals, addressing health challenges with consideration for the social determinants of health.
- 2. Incentivize Tech Talent:** Provide exceptional incentives for tech talent in the health sector to attract skilled individuals who can develop digital health solutions targeting vulnerable populations. There are current efforts to incentivize and mentor young talent in health tech, such as the Africa Young Innovators for Health Awards and the Africa CDC Digital Health Fellowship program, a fellowship program led by Africa CDC and supported by GIZ SCPRA, that aims to place tech talent within Africa CDC units and provide them with training and mentorship for the duration of their fellowship. During the deployment period, fellows are expected to make tangible impact in their unit of deployment by driving the implementation of the Digital Health Strategy both within the organization and across AU Member States alongside various partner organization. These efforts should align with regional commitments to human capital development, emphasizing women and youth empowerment.
- 3. Promote Public-Private Partnerships:** Encourage public-private partnerships in healthcare, leveraging private sector expertise and resources to implement innovative health projects. These partnerships should prioritize health preparedness for displaced populations and address the social determinants that impact health outcomes.
- 4. Flexible Regulatory Framework:** Establish adaptive regulatory policies for health tech innovations, ensuring ethical standards and patient safety. The AU has ratified a treaty for the establishment of a continental regulatory body, the Africa Medicines Agency (AMA), as a specialist institution of the AU with the objective of strengthening Member States and REC capacities for regulating medical products, and harmonizing policies and regulations across the continent. A dynamic regulatory framework, such as AMA, should consider the needs of marginalized communities and the impact of tech solutions on vulnerable populations.

Research, Vulnerable Population, and SDG Integration

- 1. Strengthening Research Networks:** Develop collaborative research networks focusing on health issues affecting vulnerable populations, including displaced individuals and marginalized groups. These research efforts should align with regional emphasis on addressing the social determinants of health.
- 2. Invest in Youth and Vulnerable Populations:** Prioritize comprehensive healthcare and development programs for youthful populations and those in conflict-affected regions. These efforts should encompass educational support, employment opportunities, and social protection to improve health outcomes.
- 3. Integrated Sustainable Development Goals (SDGs) Framework:** Align health policies with broader sustainable development initiatives by integrating health objectives into programs for various SDGs. The focus should be on vulnerable populations, women's health, and inclusive education.
- 4. Data-Driven Cross-Sectoral Planning:** Promote data-driven decision-making in policy planning in the health sector, with a focus on addressing social determinants that impact health equity and well-being.

Climate Security, Tech, and Health Preparedness

- 1. Climate-Resilient Health Infrastructure:** Integrate climate-resilient features into health facilities and essential public infrastructure. These measures should consider the impact of climate change on vulnerable populations and displaced individuals' health and well-being.
- 2. Disaster Preparedness and Response:** Strengthen healthcare systems' ability to respond to climate-related health emergencies, addressing disasters and emergencies with a focus on vulnerable communities' needs. There should be an increased focus on tracking systems and rapid information dissemination.
- 3. Climate Change Adaptation Strategies:** Develop strategies to adapt healthcare systems to climate change impacts, with a particular emphasis on the health challenges faced by displaced populations and those living in poverty.
- 4. Eco-Health Initiatives:** Promote initiatives that consider the interconnection between human health and ecological well-being. Such initiatives should address the social determinants that contribute to environmental health disparities.

Primary, Secondary, and Tertiary Healthcare, Tech, and Governance

- 1. Strengthening Primary Healthcare:** Enhance primary healthcare services' accessibility by leveraging technology and telehealth solutions, focusing on underserved communities, including displaced individuals and marginalized populations.
- 2. Technology-Driven Telehealth Solutions:** Invest in telemedicine and leverage technology for improved healthcare services in remote areas, with a particular focus on reaching displaced populations and those facing educational and economic challenges.
- 3. Health Governance and Policy Reforms:** Foster good governance and accountability in healthcare institutions and policies, considering the social determinants of health and the impact of governance on health equity.
- 4. Public-Private Partnerships for Healthcare:** Encourage partnerships between governments, the private sector, and civil society organizations to leverage resources for improving health services. These partnerships should address the social determinants that affect health outcomes and work toward poverty reduction and social inclusion.
- 5. Streamline Priorities:** Health priorities should be tailored to local challenges to ensure adequate impact for.

Profiles



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Elmer Aluge is a Chevening Scholar pursuing an MSc in Global Health Policy at the London School of Economics. Beyond her academic achievements, she plays a pivotal role as a Senior Aspen Fellow in Policy and Communication, influencing key narratives in the health sector. Her dedication to global progress is evident in her active involvement with the World Economic Forum's Global Shapers community. Driven by a passion for health equity and policy innovation, Elmer is making meaningful strides in the global health arena.



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