

Health Economics in East Africa: Adapting to Geopolitical Shifts and Building Resilient Health Systems

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ABSTRACT

East Africa's health systems face complex challenges, including low health spending, high out-of-pocket payments, shortages of skilled health workers, and increasing pressures from climate change and regional conflicts. These challenges are made worse by the sharp decline in external donor aid, pushing countries to find local solutions. This article examines key health system components in East Africa, focusing on infrastructure, human resources, and pharmaceutical supply chains. It highlights innovative financing mechanisms like sin taxes, diaspora remittances, blended finance, and regional cooperation that are being explored to build sustainable and equitable health systems. Case studies from Rwanda, Kenya, and Tanzania show how community-based insurance and digital health solutions can improve access to care. The article concludes with recommendations for policymakers, emphasising the need for increased domestic investment, human resource development, local medicine production, and climate-resilient health planning. By learning from these experiences, East Africa can create health systems that are fair, accessible, and ready to face the future.

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INTRODUCTION

East Africa is a region full of diversity and rapid population growth. It stands at a crucial point in its journey towards building resilient health systems. Health economics in East Africa is changing fast due to new political pressures, declining donor support, and the growing challenges of climate change. Understanding these shifts is essential to building health systems that meet people's needs, promote equity, and support sustainable economic development.

In recent years, East African countries have made significant progress in health system strengthening, such as expanding community health insurance in Rwanda, rolling out digital health wallets in Kenya, and regional efforts to build local pharmaceutical manufacturing. However, these efforts are threatened by ongoing conflicts, climate-related

risks, and a sharp decline in donor support. This article aims to provide policymakers with a comprehensive overview of the region's health economic landscape, highlighting current challenges, best practices, and policy recommendations for building resilient and equitable health systems.

Context and Importance of Health Economics in East Africa

The East African Community (EAC) includes Burundi, the Democratic Republic of Congo (DRC), Kenya, Rwanda, Somalia, South Sudan, Tanzania, and Uganda. This bloc is an important political and economic group in the region. With the inclusion of DRC in 2022 and Somalia in 2024, the bloc's significance has increased.¹ The region's population was approximately 260 million in 2000 and is projected to reach

nearly 1.6 billion by 2100.² This rapid growth brings both opportunities and challenges for health systems. It demands efficient use of resources and fair distribution of services. Health is not just a social cost; it is a key investment in human development. Good health drives economic growth, productivity, and job creation.³ The World Bank notes that poor investment in health can lead to billions in economic losses every year.⁴ This perspective shifts health spending from being seen as a burden to being recognised as a smart investment that supports broader economic goals, especially in developing countries.

Why Focus on Geopolitical Shifts?

Recent geopolitical changes have had a significant impact on East Africa's health systems. Official Development Assistance (ODA), which has long supported health programmes, is now decreasing. Between 2021 and 2025, ODA for health in Africa is expected to drop by nearly 70%. This drop forces countries to find new ways to raise money for health.⁵ Conflicts in some East African countries have damaged health facilities and forced health workers to leave their jobs. For example, the conflict in Sudan has left over 80% of hospitals in conflict zones closed, leaving millions without access to basic health services.⁶

Climate change is another challenge. It brings droughts, floods, and other extreme weather events that damage health infrastructure and reduce access to care. Climate change also increases diseases like malaria and cholera, putting more pressure on health systems. Vulnerable groups like children, the elderly, and poor families suffer the most.⁷ Understanding these geopolitical and environmental shifts is critical for designing health policies that can manage these challenges and build more resilient systems. The region's commitment to Universal Health Coverage (UHC) aligns with global goals, but progress has been uneven across countries.

Table 1: Health Spending in East African Countries (2019 and 2021).

No.	Country	Health Spending as % of GDP (2019)	Per Capita Health Spending (US\$) 2019	Per Capita Health Spending (US\$) 2021	Reference
1	Burundi	8.0%	\$21	NA	[9]
2	South Sudan	1.8%	NA	NA	[9]
3	Rwanda	9.88% (2023)	NA	NA	[10]
4	Kenya	4.8%	\$83	\$95	[9,11]
5	Democratic Republic of Congo	NA	NA	NA	[9]
6	Somalia	NA	NA	NA	[9]

Notes:

- Data is shown as reported in the article and references.
- If 2021 data is not available, "NA" is noted.
- Rwanda's health spending as % of GDP is updated to 2023, as reported.¹⁰

Table 2: Out-of-Pocket Payments for Health in Selected Countries.

No.	Country	Percentage of Total Health Spending from Out-of-Pocket Payments	Reference
1	Kenya	>50%	[13]
2	Ethiopia	>50%	[13]

Notes:

- Out-of-pocket payments remain high in several East African countries, placing a burden on families.¹³

THE CURRENT STATE OF HEALTHCARE FINANCING

Health spending in East Africa is lower than in many other regions. On average, countries in East Africa spend about 4.8% of their Gross Domestic Product (GDP) on health, which is much lower than the global average of 12.5%.⁸ However, spending levels vary between countries. For example, in 2019, Burundi spent 8.0% of its GDP on health, while South Sudan spent only 1.8%.⁹ Recent data shows that Rwanda's health spending increased to 9.88% of GDP in 2023.¹⁰

When we look at per capita spending, the differences are even greater (Table 1). In 2019, Burundi spent just \$21 per person on health, while Kenya spent \$83.⁹ By 2021, Kenya's per capita spending rose to \$95.¹¹ This low spending makes it hard for health systems to meet people's needs and provide essential services. Many countries are also exploring domestic resource mobilisation through budget reallocations and efficiency gains.²⁶

Many East African governments have struggled to meet the Abuja Declaration target of allocating at least 15% of national budgets to health. In 2021, the regional average was only around 7.4%.¹² This shortfall means that health systems often rely on donor aid and out-of-pocket payments.

Out-of-pocket payments put a heavy burden on families. In Kenya and Ethiopia, more than 50% of health spending comes directly from people's pockets¹³ (Table 2), which often forces families to borrow money or sell assets to pay for healthcare, pushing them deeper into poverty.¹⁴ Such payments hurt the poorest people the most and undermine the goal of universal health coverage.

INNOVATIVE FINANCING STRATEGIES

East African countries are exploring new and innovative ways to raise money for health. These efforts are important because traditional donor aid is falling sharply. For example, Official Development Assistance (ODA) for health in Africa is expected to drop by nearly 70% between 2021 and 2025. This sharp decline forces countries to find local solutions to sustain their health systems.⁵

One promising approach is the use of sin taxes. Countries like South Africa and Botswana have implemented taxes on products like alcohol, tobacco, and sugary drinks. These taxes help reduce unhealthy habits while generating funds for health services.¹⁵ The Africa Centres for Disease Control and Prevention (Africa CDC) is promoting the use of sin taxes across the region, showing that they can help health budgets while also improving public health.¹⁶

Another opportunity lies in diaspora remittances. Africans living abroad sent home around \$95 billion in 2024. With the right policies, countries can direct some of this money into health programmes.¹⁷ Some governments are exploring ways, such as health bonds or voluntary contributions, to tap into this source of funding.

Blended finance is also becoming popular. It combines public funds, private investments, and risk-sharing tools to fund health projects. This approach attracts private investors who might otherwise avoid the health sector because of risks. Blended finance can help build hospitals, purchase essential medical equipment, or support digital health solutions. Public-private partnerships (PPPs) are also emerging as an important financing tool in the region, especially for hospital infrastructure and digital health.¹⁸

Regional organisations like the Africa CDC and AUDA-NEPAD are helping countries design better financing strategies. These efforts include pooled procurement of medicines, regional health insurance systems, and joint health investments. Working together like this saves costs and strengthens health systems across the region.¹⁹

These innovative financing strategies show that East African countries are taking strong steps to build more sustainable and equitable health systems. These efforts mark a significant shift towards financial self-reliance in health.

KEY HEALTH SYSTEM COMPONENTS

A strong health system depends on many parts working together. In East Africa, challenges in infrastructure, human resources, and access to medicines affect the region's ability to provide good healthcare. Investment in digital health information systems is essential for monitoring health financing and outcomes.¹⁹

Infrastructure and Access

Many health facilities in East Africa face challenges like old buildings, a lack of equipment, and limited medical supplies. Rural and remote areas often struggle the most, as long distances and high costs make it hard for people to reach services. Even in urban areas, hospitals and clinics often lack enough staff or medicines to provide proper care.²⁰

However, some countries are finding innovative solutions. Rwanda and Uganda, for example, use drones to deliver medical supplies quickly to remote areas, showing that technology can help overcome traditional barriers in infrastructure.²¹

Human Resources for Health

East Africa faces a shortage of doctors, nurses, and other health workers. Many trained professionals move abroad to work, creating a "brain drain" that leaves local health systems struggling. This shortage makes it difficult to provide good services, especially in rural areas.²²

Some countries are trying to address this problem. Rwanda has trained community health workers who provide essential care at the local level. At the same time, Zambia has increased salaries and improved working conditions to retain staff. Ethiopia and Rwanda also recruit health workers from rural areas to work in their communities.²³

Pharmaceutical Supply Chains and Local Manufacturing

East Africa imports most of its medicines, making the region vulnerable to global supply disruptions. Local production is still low, and counterfeit medicines remain a serious problem.²⁴

The East African Community has started initiatives to build local pharmaceutical factories and make essential medicines within the region. They also work on regional systems to ensure that medicines are safe and available to everyone.²⁵ These efforts show that building stronger health systems needs more than just money. It requires good planning, innovation, and cooperation across countries.

GEOPOLITICAL AND ENVIRONMENTAL CHALLENGES

East Africa faces many challenges that go beyond healthcare alone. Recent geopolitical shifts and climate change have had a direct impact on health systems. Extreme weather events can also lead to direct economic losses, which can reduce fiscal space for health.⁷

Decline in Donor Funding

External health aid, which has supported many programmes in the region, is now decreasing. Official Development Assistance (ODA) for health in Africa is expected to drop by nearly 70% between 2021 and 2025 (Table 3). This sharp decline puts health services at risk, especially in countries that depend heavily on external funding.⁵

This shift also brings an opportunity for countries to become more self-reliant. Governments are exploring new ways to raise their funds and build health systems that are

Table 3: Decline in Official Development Assistance (ODA) for Health in Africa (2021–2025).

S. No.	Year	Estimated ODA (US\$ Billion)	Percentage Change	Reference
1	2021	\$10	Baseline	[5]
2	2025	\$3	-70%	[5]

Notes:

- for health in Africa is projected to drop by nearly 70% from 2021 to 2025.⁵
- Data sourced from MESA.⁵

less dependent on foreign aid.²⁶

Regional Conflicts and Displacement

Conflicts in some East African countries have damaged health facilities and forced health workers to flee their posts. For example, the conflict in Sudan has left over 80% of hospitals in conflict zones closed. Millions of people have been left without access to basic health services.⁶

Countries hosting refugees, such as Uganda, also feel the pressure. Refugees often overload local hospitals and health centres, overwhelming the health system. This situation shows that health and peace are closely connected.²⁷

Climate Change and Health Risks

Climate change is making the situation worse. It causes droughts, floods, and other extreme weather that damage health facilities and disrupt services. Climate change also increases diseases like malaria and cholera, putting extra pressure on already fragile health systems.⁷

Power cuts during extreme weather events make things even harder as hospitals and clinics struggle to keep

operating. Vulnerable groups like children, the elderly, and poor families are the most affected.²⁸ East African countries need to plan for these challenges by building health systems that can cope with climate change and conflict. Only then can they protect their people and economies.

CASE STUDIES OF SUCCESSFUL HEALTH ECONOMIC INTERVENTIONS

Despite the challenges, East Africa has seen several successful health economic initiatives. These examples show how innovation and strong local efforts can improve health systems and make them more sustainable.

Rwanda’s Community-Based Health Insurance

Rwanda’s community-based health insurance (CBHI) scheme covers over 90% of the population. This model pools funds from the community and the government, reducing the burden of out-of-pocket healthcare payments.²⁹ CBHI has improved access to healthcare and reduced the risk of families falling into poverty due to medical expenses.³⁰

Kenya’s M-TIBA Platform

Kenya’s M-TIBA is a mobile health wallet that allows people to save, send, and spend money specifically for healthcare. Integrated with M-Pesa, it allows patients to pay healthcare providers directly.³¹ M-TIBA has improved access to health services, especially for low-income groups who might not have regular health insurance.³²

Tanzania’s Improved Community Health Fund

Tanzania’s Improved Community Health Fund (iCHF) was launched to cover informal sector workers who often miss out on employer-based health insurance. The scheme aims to protect families from high out-of-pocket payments and improve access to essential healthcare services.³³ However, challenges remain, including low enrolment and limited awareness.³⁴

South Sudan has piloted community health worker models, though implementation is limited by conflict.⁶

These case studies show that community-driven initiatives and digital innovations can strengthen health financing in East Africa. They highlight that public trust, good management, and community involvement are key to success.

DISCUSSION

East Africa’s health systems face many challenges, including low health spending, high out-of-pocket payments, and a shortage of trained health workers.^{8,13,22} The sharp decline in external aid has also forced countries

to find ways to fund healthcare.⁵ Innovative solutions like sin taxes, diaspora remittances, and blended finance show promise in addressing these challenges.^{15,17,18} However, these methods need strong political will and good management to work effectively.

Regional cooperation is also important. Organisations like the Africa CDC and AUDA-NEPAD help countries work together to buy medicines, develop health insurance, and share knowledge.¹⁹ These partnerships can make health systems more efficient and less dependent on donors. Conflicts and climate change continue to put pressure on health systems. For example, the conflict in Sudan has disrupted hospitals, while floods and droughts in other countries have increased disease outbreaks.^{6,7} These challenges show that health systems must be resilient and able to handle emergencies.

East Africa's progress in community health insurance and digital health wallets shows that local solutions can work if they are well-designed and trusted by communities.^{29,31} Policymakers must build on these successful examples to make healthcare fair, accessible, and affordable for everyone. Political commitment is crucial for implementing health reforms and ensuring sustainability.³

RECOMMENDATIONS

To build stronger and more sustainable health systems in East Africa, governments and policymakers should focus on the following recommendations:

1. Increase in Domestic Health Spending

Governments should aim to meet or exceed the Abuja Declaration target of 15% of their national budgets for health.¹² This commitment is crucial to reduce dependence on foreign aid and to build a stable health financing base.

2. Use Innovative Financing

Countries should continue to explore sin taxes on alcohol, tobacco, and sugary drinks to generate funds for health.¹⁵ Governments should also set up systems to tap into diaspora remittances, which reached \$95 billion in 2024.¹⁷ Blended finance should be used to attract private investors to health projects.¹⁸

3. Strengthen Regional Cooperation

Regional organisations like the Africa CDC and AUDA-NEPAD should keep helping countries work together on pooled procurement, health insurance, and sharing expertise.¹⁹ Working together can reduce costs and make health systems more efficient.

4. Address Human Resources Gaps

Countries should invest in training, fair salaries, and good working conditions to retain health workers.^{22,23} Rwanda's community health worker model and Zambia's salary incentives show that this approach can work.²³

5. Invest in Local Medicine Production

Countries should support local pharmaceutical factories to reduce dependence on imports. Regional plans like the EAC's pharmaceutical manufacturing plan can guide this effort.²⁵

6. Prepare for Climate and Conflict Challenges

Health systems should plan for climate change and conflicts by building resilient infrastructure, investing in early warning systems, and protecting vulnerable groups.^{7,28}

7. Promote Community-Based and Digital Solutions

Policymakers should support successful community health insurance models and digital health wallets, like Rwanda's CBHI and Kenya's M-TIBA, to improve access to care.^{29,31}

8. Strengthen accountability frameworks for health spending and outcomes

Countries should develop robust accountability frameworks to ensure that health funds are used effectively and transparently. These frameworks should include regular monitoring, evaluation, and reporting mechanisms.²⁶ By following these recommendations, East Africa can move towards a fair, accessible, and sustainable health system that serves everyone.

CONCLUSION

East Africa's health systems are at a turning point. The region faces many challenges, including low health spending, high out-of-pocket payments, and shortages of skilled health workers.^{8,13,22} Climate change and regional conflicts add to these pressures.^{7,6} At the same time, external aid is decreasing, pushing countries to find new ways to fund health services.⁵

Despite these difficulties, East African countries are making efforts to build better health systems. Innovative approaches like community health insurance, sin taxes, digital health wallets, and local pharmaceutical production are helping fill the gaps.^{29,15,31,25} Regional organisations like the Africa CDC and AUDA-NEPAD are also supporting countries by promoting cooperation and sharing knowledge.¹⁹ To succeed, countries need to increase domestic health spending, invest in human resources, and prepare for climate and conflict-related

challenges. Policymakers must build on successful local models, like Rwanda's CBHI and Kenya's M-TIBA, to make healthcare fair and accessible for everyone.^{29,31}

East Africa's experience shows that even with limited resources and big challenges, strong leadership, community involvement, and innovation can make a difference. By learning from these efforts, the region can build health systems that are sustainable, fair, and ready to face the future. With the right policies and partnerships, East Africa can build resilient health systems that deliver for all.

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