

The logo for AFRICATALYST, featuring the word in a bold, white, sans-serif font. The letter 'C' is stylized with a white circular arrow around it. The background is a dark green with a network of glowing green lines and nodes, and a magnifying glass over a person's face. There are also several hexagonal icons: a clipboard with a checkmark and a plus sign, a syringe, and a nurse's cap.

AFRICATALYST

Revolutionizing Healthcare in Africa: Strategies, Alliances, and Emerging Trends

Executive Summary

Providing affordable healthcare has remained one of the key challenges facing Africa in the post-colonial era. Over the years, policymakers, professionals, and healthcare providers have tried to introduce reforms to address them, with little success. This paper provides significant pathways that, if explored, could help build resilient healthcare systems by focusing on partnerships, epidemic risk preparedness, and the intersection between a warming planet and the overall well-being of a growing population.

Key messages:

- The healthcare sector in Africa remains underfunded, contributing to brain drain, higher out-of-pocket costs, and challenges with providing affordable healthcare.
- Partnerships at regional/continental level could help lower the costs of drugs and strengthen institutional capacity to manage emerging health epidemics.
- The tripartite alliance between Africa Risk Capacity Group (ARC), West African Health Organization (WAHO), and Institut Pasteur de Dakar (IPD) offers a promising model for partnerships in healthcare.
- The impact of climate change on the health sector necessitates consolidated action, similar to that carried out during epidemics like AIDS and Ebola.
- Publicly-funded healthcare systems have had limited successes in Africa, and supporting private healthcare insurance through stringent legal frameworks could be key to attaining universal health coverage goals.

1. Introduction

Healthcare problems are not unique to the developing world. Every country globally faces challenges in providing quality, affordable, and resilient health care to its people. However, the scope of challenges differs as countries with a higher Human Development Index (HDI) battle health delivery challenges, while those down the scale face institutional, financial, technological, and political challenges. In an attempt to provide the solution, the World Health Organization (WHO) in 2007 proposed a framework that describes healthcare systems in six core components (building blocks): 1) service delivery, 2) healthcare information systems, 3) healthcare workforce, 4) financing, 5) medicines and technologies, and 6) leadership/governance. Based on these criteria, it is undeniable that African countries lack strong healthcare systems. According to the WHO, Africa carries 25% of the world's disease burden, but its share of global health expenditures is less than 1%. Furthermore, the continent's 54 countries combined only manufacture 1.8% of all the medicines they consume.

However, that situation should not exist. In 2001, African countries agreed to allocate at least 15% of their budgets to the health sector. At the time, policymakers sought to combat the rapid spread of HIV/AIDS. Fast forward twenty two years later and only six countries have met that commitment – Botswana, Burkina Faso, Malawi, Niger, Rwanda and Zambia. Current policy talks are now focused on implementing a universal healthcare system to cushion against catastrophic healthcare costs. According to Amref Health Africa, 1.4% of the continent's population is pushed into poverty annually because of out-of-pocket healthcare payments.

The effects also straddle to the macroeconomic front, with medical tourism and brain drain the leading factors. For example, it is estimated that 5,000 people leave Nigeria every month for various forms of treatment abroad, costing the economy \$1.2billion. Medical tourism in Africa does not remain regionally, as most patients fly out to destinations outside the continent such as Turkey, India, and Russia that offer affordable and quality healthcare services. Medical tourism has also contributed to the brain drain from Africa, as the best practitioners leave the continent in search of higher pay and better working conditions. Healthcare workers in Africa are on average paid twenty times less than in



Europe. It is no surprise, therefore, that the doctor-to-population ratios in countries like Nigeria are 0.3 per 1,000 people, Liberia is 0.1 per 1,000 people, and Sierra Leone's 0.2 per 1,000. Ethiopia has 0.2 doctors per 1,000 and Uganda has 0.12 doctors per 1,000 people. Even the leading economies, South Africa and Egypt, have below global average doctor-to-population ratios of 4.3 and 2.8 per 1,000, respectively. Brain drain is also a significant loss to Africa when taking into account that it costs on average \$50,000 to train a doctor for services that the home nation will not end up benefitting from.

The importance of building resilient healthcare systems in Africa is a subject researchers have emphasized for decades. However, it took the COVID-19 pandemic to increase the urgency, by shedding light on the dearth of cold storage facilities for vaccines, the lack of access to healthcare facilities in rural areas, and the mistrust that African populations have in their public healthcare systems. Previously, the Ebola pandemic had also demonstrated similar challenges in the most affected West African countries, lessons that went unheeded. With Africa's healthcare sector estimated to be worth \$259 billion by 2030, opportunities exist for partnerships, innovation, and strategies that leverage on emerging trends.

One such partnership is the tripartite Memorandum of Understanding signed between the African Risk Capacity Group (ARC), the West African Health Organization (WAHO), and Institut Pasteur de Dakar (IPD). The partnership, facilitated by AfriCatalyst, provides a pathway for prospective future alliances by bringing innovative finance, policy, and technical expertise with a view to strengthening epidemic preparedness and response in the ECOWAS region and beyond. Such alliances, as this paper will illustrate, are also crucial for unlocking health financing and addressing the growing intersectionality between a warming planet and the prevalence of communicable diseases.

It has been known for some time that Africa is disproportionately affected by the climate crisis. However, most conversations focus on the impact on food security, refugees and destruction of public infrastructure by extreme-weather events. While those areas are widely impacted, the healthcare sector in Africa is also suffering from the ongoing crisis. Prevalence of vector-borne diseases like malaria and yellow fever, and water-borne diseases like cholera and bilharzia are on the rise; particularly in urban informal

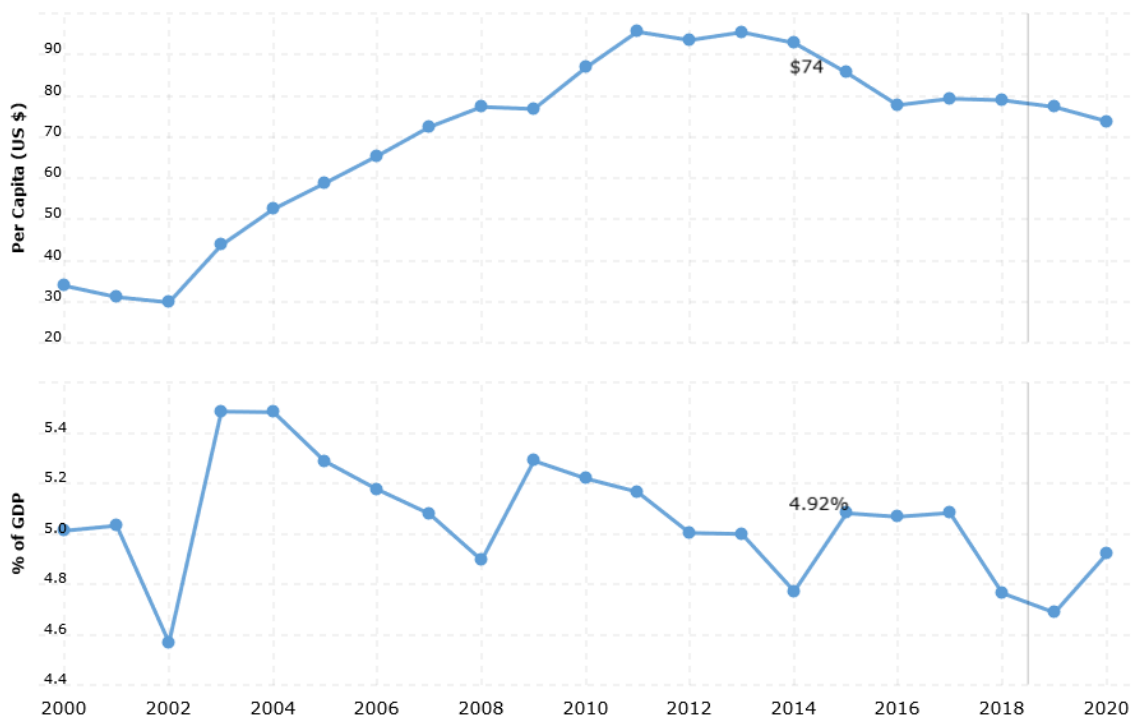


settlements and rural areas where irregular flooding is now the norm. Addressing this challenge will require financing, and it is necessary that governments work with the private sector to establish a favorable environment for digital healthcare innovations and expansion of private healthcare insurance. After all, publicly-funded schemes have had limited successes in the continent so far.



2. Partnerships for resilient health systems

On the one hand, the last 20 years have indeed been the golden age for African countries on the macroeconomic front. But when put into context, the continent's poverty rate has risen, and GDP-per-capita numbers fell during the same period. African governments have yet to institute proper mechanisms to facilitate wealth distribution and upward mobility. A similar situation exists in the healthcare sector, where quality services are only accessible to a wealthy, working class minority.



GDP-per-capita figures and the percentage of health care spending in Africa have dropped in the last five years. Source: World Bank.

To revolutionize healthcare in Africa, it is vital to establish partnerships between the private sector and the government or between private sector firms. According to a McKinsey report, around 60 percent of healthcare financing in Africa comes from private sources, and about 50 percent of total health expenditures goes to private providers. Gallup surveys on citizen perception of healthcare systems have continually shown that while most people go to public facilities for their healthcare needs, almost all of them have

a negative view of the quality of service provided. With Africa requiring at least \$30 billion to construct healthcare assets, partnerships will be crucial to unlocking these resources.

In addition, partnerships can help foster innovations and provide spaces for upward mobility for healthcare workers. Part of the brain drain among health workers is driven by a lack of hope for better working conditions, and serious alliances could provide such pathways.

For decades, partnerships in Africa have involved collaboration with partners in the West. Such engagements have produced many significant milestones, such as vaccine development for malaria and cheaper treatments for HIV/AIDS. However, these partnerships are also imbalanced since the Western side is the one who determines focus areas, designs the partnership, provides and dictates the use of funds, conducts the analyses, and presents the findings in conferences mostly held on Western soil. They even publish the findings in journals that are often unavailable to Africans. In that case, partnerships involving Africans are restricted to collecting ground data.

Over the years, African researchers have tried to address these imbalances to no avail. It can be understood why it is such a difficult task, especially when considering that whoever finances the activity has the right to demand key priority areas. Perhaps if African governments could meet their commitments to provide funding for R&D, it would level the playing field a bit more.

Moreover, the aid cycle in Africa's healthcare sector has not worked. Despite the billions of dollars poured into the continent through various international programs, a whopping 50 percent of Africans still fund their healthcare needs from out-of-pocket payments. This is unsustainable because healthcare services, particularly for patient care, are unaffordable to the ordinary citizen.

Since the reformation of the international financial architecture is not happening anytime soon, partnerships can for the time being be focused on a continental or regional level, taking advantage of initiatives like the Africa Medical Supplies Platform (AMSP). Some countries like Egypt, Algeria, and South Africa are leading producers of drugs, and private healthcare providers across the continent can outsource their supplies from there instead



of importing from foreign markets outside the continent. Partnerships should also focus on knowledge transfer and capacity building to foster collaboration and strengthen the capacity of healthcare workers, laboratories, and health facilities to effectively diagnose, treat, and manage infectious diseases.

The African Continental Free Trade Agreement (AfCFTA) is another framework that can elevate partnerships in healthcare. Supply chain issues could be fixed through the free movement of goods across borders, and Private Public Partnerships (PPP) can address infrastructural gaps. The world is fast moving from the pure donation model of funding healthcare in developing countries to more sustainable models. Organizations working on joint projects that address one of the seventeen Sustainable Development Goals (SDGs) are in a stronger position to receive global funding.

One such partnership that is flourishing is the African Partnerships for Patient Safety (APPS), which is under the World Health Organization (WHO's) Patient Safety Programme, concerned with building sustainable hospital-to-hospital patient safety partnerships. The program has opened resources for hospitals and healthcare providers in the countries operating in. It has also compelled the providers to build local capacity and reduce medical error and patient harm. The patient safety improvements have led to a reduction in the infant mortality rates.

For partnerships to work, African governments must create an enabling environment through reforms in legislation. The Africa Center for Disease Control (CDC) can commit to strictly funding projects implemented by at least three cross-country partners. Fast-tracking the implementation of continental frameworks such as the AfCFTA and AMSP is also critical.



3. How partnerships can work: Case study of tripartite agreement between ARC, WAHO, and IPD

Unbeknownst to many, African countries collect data in different ways. However, this data remains underutilized due to the lack of proper analysis required to connect policy action with real-time data. The COVID-19 pandemic illustrated the importance of having efficient data processing systems to inform when and where resources should be channeled. African countries should build on the progress of these initiatives and combine efforts to create one large, real-time data set. There are many benefits to sharing data between countries, organizations, and even academic institutions. It can facilitate timely responses, robust research, and targeted action, and contribute to more informed policy outcomes.

The World Health Organization has been a leading advocate for data processes in Africa to combat the rise and spread of epidemics. In 1998, the WHO introduced the Integrated Disease Surveillance and Response (IDSR) framework to strengthen data collection, analysis, and use in African countries. The IDSR was to act as a sort of early-warning system that could detect outbreaks at their beginning and alert authorities to take action. It was also targeted to explore the leading causes of death, disability, and illness in the region, with the overall goal of improving life expectancy rates. Despite the strategy not receiving adequate funding, its introduction in West Africa led to marked improvements in outbreak preparedness and response.

Today, the continent requires such interventions. The Africa Center for Disease Control (Africa CDC) should introduce a similar approach to encourage countries to individually build their data collection, analysis, and broader epidemic intelligence capabilities. Once all countries reach an acceptable standard, a unified data system can be established to assist in coordinating responses, sharing data, and cross-sector analysis between human and animal health factors that lead to zoonotic diseases. Diseases, unfortunately, do not know borders.

Such a plan will face significant challenges due to the lack of institutional capacity and financial resources. Community health workers play a crucial role in offering health services to the far-flung corners of the continent. However, most are not properly trained



on how to collect, record, and analyze data. The differing data collection styles make compilation a difficult task. There is also limited infrastructure for digital data systems. The WHO's Hub for Pandemic and Epidemic Intelligence is currently developing an approach focused on three key areas; connect data, solutions, and communities of practice globally; innovate solutions and processes; and strengthen capabilities for forecasting, detection, and assessment of risks to provide actionable insights for prevention, preparedness, response, and recovery from health threats and emergencies. African governments can therefore effectively utilize the data collected through sharing, linking, and learning from each other.

As previously highlighted, the role of partnerships in building resilient healthcare systems in Africa cannot be understated. It is often difficult for one organization to do it on its own due to the large financial and logistical capacities required. One such partnership that offers a glimpse into how these models could look in the future is the tripartite agreement between the African Risk Capacity Group (ARC), the Institut Pasteur de Dakar (IPD), and the West African Health Organization (WAHO). In June 2022, the three organizations, with technical assistance from the global development advisory firm, AfriCatalyst, supported by the the Bill & Melinda Gates Foundation (BMGF), came together and signed a Memorandum of Understanding to establish a framework for collaboration in innovative finance, and policy technical expertise to strengthen epidemic preparedness and response in the ECOWAS region and beyond.

The 2014-2016 Ebola pandemic in West Africa caught many countries flat-footed, leading to the deaths of more than 11,000 people. Without the coordinated international response led by the WHO, it is undeniable that the fatality rates could have been ten, or even twenty times higher. One of the lessons gathered post-outbreak was the need to strengthen epidemic preparedness, which can lead to a robust response when such outbreaks occur. For several years, the ARC, IPD, and WAHO have been actively involved in efforts to mitigate the adverse impact of health emergencies in the ECOWAS region, in line with their respective mandates and collaboration with other partners like the Bill & Melinda Gates Foundation (BMGF).



Since the launch of the partnership, the three organizations have been building sustainable capacities in ECOWAS member states, harnessing state-of-the-art technologies to respond and forging access to innovative finance mechanisms. They have also taken actions to address the gender sensitivity of epidemic response and preparedness. The hope is that through such alliances, Africa may never find itself flat-footed when the next pandemic knocks on the door.

Speaking during its launch, Ibrahima Cheikh Diong, United Nations Assistant Secretary-General and ARC Group Director General said, “ARC welcomes this great Africa-led initiative supported by the BMGF as we continue to develop our Outbreaks & Epidemics risk insurance product to enable early containment of epidemic-prone diseases, and respond to public health emergencies.”

Meanwhile, Dr. Amadou Alpha Sall, CEO of Institut Pasteur de Dakar praised the partnership’s potential. “The IPD-ARC-WAHO Alliance supported by the BMGF brings an innovative approach to dealing impact fully with epidemic and pandemic preparedness in West Africa and beyond.” “WAHO is delighted with this partnership which continues our strategy of prioritizing regional solutions to regional problems,” added Professor Stanley Okolo, WAHO Director General.

“We at AfriCatalyst are honored to have the privilege to support this innovative and strategic partnership between pan-African, regional, and national champions,” said Daouda Sembene, Chief Executive Officer at AfriCatalyst. “We’re thrilled to be partnering with the BMGF as we fulfill this unique responsibility.”



4. The intersectionality between climate change and health

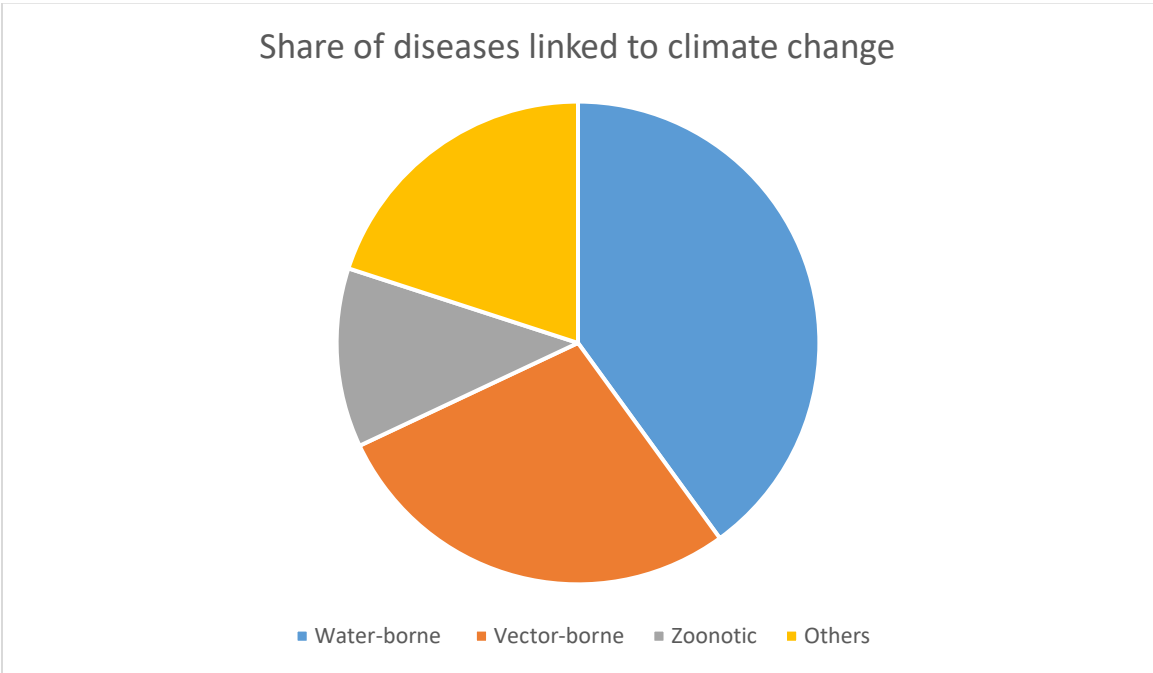
The effects of climate change are already visible in Africa. Despite the continent contributing the least emissions – just 3% according to the United Nations Framework Convention on Climate Change (UNFCCC) – it is the most impacted by climate-related disasters. But it is not just infrastructure, food security, and water quality that are affected by changes in climatic conditions. The healthcare sector in Africa is already literally feeling the heat from a warming planet. Climate or water hazards are responsible for the deaths of nearly 734,000 people and \$43 billion in economic losses between 1970 and 2021, data from the World Meteorological Organization (WMO) shows. Worryingly, climate-related health emergencies are on the rise in Africa, accounting for more than half of public health events recorded in the continent over the past two decades. An analysis by the WHO found that of the 2,121 public health events recorded in Africa between 2001 and 2021, 56% were climate-related.

With countries globally not in any rush to cut their emissions, the focus must shift to climate adaptation. Here, there is space for strategies in healthcare to address the growing cases of injury, morbidity, and mortality caused by extreme weather events, heat waves, skin and eye damage caused by UV radiation, and cardio-respiratory diseases related to changes in temperature and air quality. “Climate change is one of the greatest threats to humanity. The entire foundation of good health is in jeopardy with increasingly severe climatic events. In Africa, frequent floods, and water- and vector-borne diseases are deepening health crises. Although the continent contributes the least to global warming, it bears the full consequences,” said Dr. Matshidiso Moeti, WHO Regional Director for Africa.

Therefore, a question arises; Is it time to consider classifying climate change as a health epidemic like AIDS? Policymakers have yet to deal with climate-related health impacts as a separate health issue, possibly limiting cash flows. If African governments present data on the health impacts of climate change, it may force developed nations to meet their commitments of allocating \$100 billion annually to fund climate adaptation. Such an approach will require the harmonization of different data sets to present one unified case.



When it comes to climate change and healthcare, it is vital to recognize that the impact is not universal in scope or demographic. For example, in Africa, water-borne diseases are most prevalent, accounting for 40% of climate-related health emergencies since 2000. Diarrhea is the third leading cause of maternal mortality in children under the age of 5 years. The majority of pathogens that induce diarrhea in humans are water-borne, and, given that climate change will affect water availability and temperature, climate change could lead to additional cases of diarrhea. Addressing this challenge will require constructing proper drainage systems and providing safe drinking water, adequate sanitation, and hygiene. Water-borne diseases are also more likely to affect people living in informal settlements in urban areas than any other demographic group. In such locales, the drainage and sewer systems are either nonexistent or dysfunctional, overpopulation is rife, and access to clean water is limited.



Source: WHO statistics

Another health impact of climate change is the prevalence of vector-borne diseases such as yellow fever, which accounts for 28% of all diseases linked to climate change. Zoonotic illnesses like the Congo-Crimean hemorrhagic fever are also very prevalent. Since these illnesses disproportionately affect those in rural areas, a targeted approach would involve



immunization, thorough inspection of livestock, and setting up of mobile health clinics that can bring services closer to the people.

One area that cuts across both rural and urban populations is malaria. As natural disasters spike in Africa, the range of malaria high-risk zones is also expanding. According to a report by the Global Center on Adaptation (GCA) based in the Netherlands, floods were the most frequent event, accounting for 33% of all climate-related emergencies. Despite malaria mortality rates falling from 840,000 in 2000 to 602,000 in 2020, increasing cases of floods and high temperatures could reverse those falling rates.

Aside from water-borne diseases and malaria, climate change has the potential to slow the fight against hunger in Africa. Currently, malnutrition causes 1.7 million deaths each year in Africa, and it is estimated that around 80 million people in the continent will be battling chronic hunger by 2050. The future also looks worrying as climate change will likely worsen existing production and consumption stresses in already food-insecure countries.

At the recently concluded Africa Climate Summit in Nairobi, Kenya, conversations were centered on carbon markets and debt-for-climate swaps. Leveraging any of these initiatives could be the pathway to addressing the health impacts of climate change. More investment is required in constructing resilient and sustainable drainage, transportation, and waste disposal systems. African countries can speak with external creditors to swap existing debt obligations in return for solid commitments to invest in these critical areas. The majority of debt has been spent on infrastructures like roads, railways, and seaports, but little of it has improved the daily life of an ordinary citizen. Investing in these areas is critical in cushioning against potential rises in climate-related health emergencies.

On the carbon market front, opportunities exist to gain more investment flowing in sustainable or green projects that provide clean, safe drinking water and smart agriculture systems not reliant on weather patterns. As the developed world moves forward to offsetting their carbon emissions with investments in green projects in Africa, policymakers must seize the opportunity to ensure any financial resources flow to projects that matter such as protecting water catchment areas, cleaning polluted rivers, and constructing canals and dams. It is a shame that carbon offsetting has been reduced to



planting trees, which may have a noble goal, but it does not address any of the climate-related disasters facing Africa.



5. Emerging trends in health financing

The late Dr. Joep Lange, a pioneering researcher in HIV/AIDS treatment in Africa in the late 1990s, once said, “If we can get cold Coca-Cola and beer to every remote corner of Africa, it should not be impossible to do the same with drugs.” Access to healthcare, unlike Coca-Cola, is a human right enshrined in the Universal Declaration of Human Rights (UDHR) and each African country’s national constitution. For years, governments have approached fulfilling this right by rolling out a public healthcare system or universal healthcare coverage, as is widely referred to these days. Despite these programs being operational for decades, the share of out-of-pocket health payments as a proportion of all health expenditures, according to the World Bank, has climbed to 65% from 40% in 2000.

National insurance schemes have not fulfilled their role, despite the annual chunks of money the government allocates in the financial budgets. In Nigeria, for example, the national scheme covers only 3% of its citizens. In Ghana, only 30% of the population is registered with the National Health Insurance Scheme. In Kenya, the National Health Insurance Fund has been battered by corruption scandals, and its coverage, while mandated by the government for every employee, is less than 40%. South Africa meanwhile spends more on voluntary public health insurance as a share of overall health expenditures (42%) than any other country in the world, according to the WHO. However, this scheme covers just 16% of the population, hence why the country is pursuing a Universal Healthcare plan that is under deliberation in Parliament.

It must be noted, though, that Rwanda, and to a lesser extent Zambia, have successfully rolled out universal health insurance systems that cover most of the population. The East African country’s plan is a community-based system that covers 91% of the population and incorporates at least 45,000 community health workers. A word of caution though - foreign donors fund over half of Rwanda’s health budget.

Public health insurance schemes are flailing across the continent, and more investment may not reverse the situation. It is therefore vital to explore other forms of health financing such as private medical insurance and digital healthcare. The private sector’s contribution to overall GDP in Africa is more than 50%, according to estimates from the United Nations Economic Commission for Africa (UNECA), and there is potential for more investment in



sectors such as healthcare. Private medical insurance schemes also provide opportunities for partnerships between two or more organizations; thus increasing reach, quality of research, and number of health assets. With proper regulation to mitigate exploitation-for-profit, private investors can be empowered to provide comprehensive insurance plans that are affordable and accessible to the majority of the population. Individual premiums can be capped at fixed prices, while the government can reinvest parts of their healthcare budgets in these providers to support their growth.

Moreover, advancing the digital health landscape in Africa could elevate healthcare provision. In the past two years, the continent's digital health space has witnessed unprecedented growth, with over \$123 million in investment secured by 55 start-ups in 2021. With mobile subscription rates simultaneously increasing, there is an opportunity to grow this sector and spearhead innovations to bolster health efficiency. African governments can begin by rolling out a National Digital Health plan that includes road maps and measurable targets for expanding the digital ecosystem through data management, reimbursement systems, and device regulations. Infrastructures such as network coverage and cloud-based data hosting are already on the way, and more African youths are becoming skilled in digital literacy and data handling. These capacities will be necessary in identifying the most pressing healthcare system performance issues and digital tools that could not only improve efficiency, but also patient access, convenience, and outcomes.

After setting up the tools, the focus should shift towards scaling and sustaining existing values. Moving away from the reliance on foreign donors may be challenging in the beginning, but by competing favorably in a market estimated to be worth more than \$300 billion in the next decade, it may become possible. Government investment at the ideation and conceptualization stage is also necessary to fuel more innovation and bring on board other stakeholders.



6. Conclusion

While Africa has made some progress in areas such as education and transportation, the healthcare sector is struggling from decades of underfunding and reliance on foreign aid. As the COVID-19 pandemic demonstrated, no one knows when or where a health emergency will strike. Thus boosting epidemic preparedness and capacity to respond through a data-informed approach is critical.

To get there, partnerships between organizations working in similar fields and governments is necessary. One such model that provides a glimpse on how these partnerships can work in the future is the tripartite alliance between the Africa Risk Capacity Group (ARC), Institut Pasteur de Dakar (IPD) and West African Health Organization (WAHO). These models will be required even more in the future as the impacts of climate change on healthcare worsen. In addition, policymakers must begin exploring other forms of health financing, such as supporting private medical insurance schemes and digital healthcare.



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AFRICATALYST

AFRICATALYST Global Development Advisory Dakar, Senegal
Email: contact@africatalyst.com