

# ***Research on the Impact of Economic Development on the African Healthcare System and Response Strategies***

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**Abstract:** This article is a study on the impact of economic development on the African healthcare system and response strategies. Africa is one of the regions that require the most attention in the global economy and public health sector. Many African countries are experiencing rapid economic growth, but this growth has not been evenly translated into better healthcare services and health levels. Taking Nigeria as an example, it is a country that has rapidly developed its economy in recent years by relying on the export of its primary industry. However, its health services are extremely scarce, leading to the rampant spread of infectious diseases and the lack of basic medical care for most residents. In response to this phenomenon, this article will conduct a systematic analysis of multiple aspects, such as the economy, politics, education, talent, and international cooperation, and provide reasonable suggestions. Therefore, this study can not only analyze theoretically how economic development affects the African healthcare system but also provide more specific guidance, which has important practical value for African countries in formulating more accurate public health policies and economic development strategies.

**Keywords:** Economic Development, African Healthcare System, Resource Allocation, Government Policies

## **1. Introduction**

### **1.1. Research Background**

Africa is the second largest continent in the world, with a rich culture, diverse ecology, and precious natural resources. In recent years, many African countries have experienced sustained economic growth due to their unique resource advantages, policy support, and market potential. However, Africa's economic development is overly dependent on primary industry, which means that the faster the development speed, the scarcer the resources will be. In addition, due to the unique geographical location of Africa, its climate presents characteristics of high temperature, low rainfall, and dryness. While countries are rapidly developing, they have neglected the impact on the environment, which exacerbates the damage caused by development to the environment and also leaves people's physical health unprotected. According to World Bank data, Africa has experienced an average annual GDP growth rate of over 5% in the past 20 years, but this economic growth has not fully translated into improvements in the healthcare sector. In 2018, the average proportion of public health expenditure to GDP in various African countries was less than 6% [1]. This proportion is significantly lower than

the 10% advocated by the World Health Organization (WHO). In addition, according to the data from the United Nations Programme on AIDS, as of 2019, Africa accounted for about 69% of the world's new AIDS infections [2]. It shows that medical services in Africa are extremely scarce, and governments still need to make more efforts to address this issue.

## **1.2. Literature Review**

To conduct an in-depth study, this paper references relevant literature on the topic, integrates it, and aims to draw more comprehensive conclusions.

### **1.2.1. Environmental Differences**

Firstly, Africa faces more severe problems than other regions, which stem from the limitations of its objective conditions. According to Johnson and Williams' discussion in 2017, the specific geographical environment in Africa has a profound impact on its health status. Their research shows that the complex and varied climate conditions and topography of Africa make certain regions particularly vulnerable to the invasion of infectious diseases, especially in hot and humid environments, which provide excellent breeding conditions for pathogens. In addition, the remote and transportation-blocked mountainous and desert areas in inland Africa limit the development of medical services, which also exacerbates the current situation of diseases that cannot be controlled and managed in a timely manner [3].

### **1.2.2. Wealth Gap**

Secondly, different countries in Africa have relatively large wealth gaps. Kumar et al. analyzed the impact of economic inequality on healthcare systems in African countries. They found that while economic growth is crucial for improving healthcare services, it is equally important to address the issue of healthcare resource allocation through policies that reduce inequality [4]. In Algeria, the wealthy spend money on water and have their own private doctors, but the poor beg everywhere, eat rotten food and even do not care about life and death. This discovery indicates that economic growth leads to wealth inequality, which in turn leads to health disparities. This is a serious challenge and one of the core issues studied in this article.

### **1.2.3. International Aid**

In addition, with the continuous development of Africa, there are more and more opportunities for cooperation with other countries, which will bring more opportunities and challenges to Africa's development. Chavez and Murphy explored the role of international aid in strengthening healthcare systems in sub-Saharan Africa. Research has shown that international aid has indeed provided valuable financial support and medical resources to some African countries in the short term, helping to improve healthcare facilities and basic health services. For example, international institutions such as the Global Fund and the Global Alliance for Vaccines and Immunization (GAVI) have made significant contributions to combating infectious diseases such as AIDS, malaria, and tuberculosis. The inflow of aid funds has promoted the construction of clinics, vaccination, and the provision of treatment drugs [5,6]. However, this article believes that such assistance is not long-term. On the contrary, it has limitations. Therefore, this article will provide a more reasonable analysis and solution based on the pros and cons.

### 1.3. Research Gap

According to the literature review referenced in this article, the study found that most scholars' focus on this topic has been on the wealth gap. These scholars believe that economic development lags behind and that regions with increasingly developed economies will have significant improvements in medical conditions. However, local African countries have not attached importance to common development, resulting in a lack of relevant policies and uneven distribution of resources. Therefore, this growing wealth gap will lead to increasingly serious health problems and result in the unstable development of the entire healthcare system. In other words, most scholars believe that the impact of economic development on Africa's healthcare system is negative.

Certainly, there are also some scholars who have conducted research and believe that economic development will promote the development of Africa's healthcare system to a certain extent. They believe that economic growth typically leads to more public and private investment, increasing healthcare infrastructure construction and service supply. In addition, more and more medical and information technologies will be introduced, which will significantly improve the efficiency of diagnosis and treatment.

### 1.4. Research Framework

Firstly, this article analyzes the research background of the African economy on the healthcare system, emphasizing the unique impact of African countries compared to other countries. Next, this article refers to relevant references and analyzes the current situation and its impact on the African healthcare system from different perspectives. In addition, this article will also discuss the role of factors such as political stability, social structure, and human resources in the construction of the healthcare system. Finally, this article will provide specific recommendations from multiple perspectives aimed at helping African governments address issues such as unequal distribution of medical resources, geographical isolation, and social inequality while promoting economic growth in order to achieve a more equitable and sustainable healthcare system.

## 2. Case Description

### 2.1. Nigeria

Nigeria is the most populous country in Africa. The main business of this country is exporting oil, and the economy has steadily grown in recent years, but the overall level is relatively low. Currently, poverty, lack of job security, and inability to access medical services remain challenges for Nigeria.

In terms of healthcare, Nigeria is facing enormous challenges. Although Nigeria has relatively strong medical resources and advanced urban hospitals, there is a significant gap in medical accessibility between urban and rural areas due to regional differences in medical services. About 60% of Nigeria's population lives in rural areas, and many people are unable to access basic medical services up close.

According to Table 1, hospitals in big cities such as Lagos and Abuja have better conditions, but there is a serious shortage of health service facilities in remote areas.

Table 1: Relationship between poverty rate and healthcare accessibility in some regions of Nigeria

Region	Poverty rate/%	Accessibility of medical services (number of medical facilities/thousand people)
Lagos	18	2.5
Abuja	25	2.0

Table 1: (continued).

Karnaugh	50	0.8
Bichi	60	0.4

Although the Nigerian government has taken multiple measures to improve the healthcare system, financial pressure, and governance issues have limited the effectiveness of these reforms. The proportion of healthcare expenditure to GDP in Nigeria is much lower than in other middle-income countries, and the government still needs to make more efforts to invest in healthcare. Furthermore, as analyzed in the table above, although Nigeria's private healthcare market is thriving, many low-income groups are unable to afford it due to high healthcare costs and unequal resource allocation.

## 2.2. Kenya

Kenya is located in East Africa and is a typical low-income country. Although Kenya's economy has continued to grow in recent years, poverty and income inequality remain the main obstacles to the effective operation of its healthcare system. According to a report by the International Monetary Fund, although Kenya's GDP growth rate is stable, about 30% of its residents live below the poverty line, which makes it difficult for a large number of people to access high-quality medical services. Meanwhile, GAVI has pointed out that although international aid has played a positive role in Kenya's healthcare sector, public health projects and disease control measures mainly rely on external funding, these aids still face sustainability issues in the long run, especially after the global pandemic outbreak [7].

In April 2024, doctors in Nairobi, Kenya, went on a collective strike due to the government's inability to pay their salaries. They demanded that the Kenyan government pay their unpaid wages, provide sufficient medical insurance for doctors and their families, and provide degree education funding for public hospital doctors in accordance with the 2017 collective bargaining agreement. However, since the one-month strike, the dialogue between the government and the striking doctors has not eased the attitudes of both sides; instead, it has escalated the deadlock. The tough stance of both sides seems to have left no room for concessions. It can be seen that Kenya has fallen into a vicious internal cycle. Although the central government has relied on exports to achieve certain economic growth, the wealth gap and uneven distribution of resources have prevented Kenya's conditions from improving.

In terms of international aid, although international organizations such as the World Health Organization and the Global Fund have provided some assistance to Kenya, they have not been able to solve the problem at its root. The Kenyan government should seize the main contradiction in order to get out of the predicament and achieve better development.

## 3. Analysis of the Problem

### 3.1. Positive Influence Identified in Kenya and Nigeria

#### 3.1.1. Future Accessibility of Healthcare Services by the Kenyan Government

The fiscal revenue brought by economic growth will undoubtedly enable the country to invest more in public resources. For Kenya, it is particularly important to supplement medical resources in rural and remote areas. The Kenyan government pledged in the Health Sector Strategy and Investment Plan (KHSSP) to increase investment in the health sector, with the goal of increasing the proportion of health expenditure to GDP to over 5% by 2030 [8]. This financial support not only helps alleviate work pressure and promote employment but also stabilizes the situation and seeks better development.

With the continuous development of the Kenyan economy, Kenya's investment regulations have gradually improved and perfected. Currently, there are more than 30 laws and regulations protecting the interests of foreign investors. With the advancement of regional integration in East Africa as a transportation hub and gateway, investing in Kenya can also radiate to inland countries in East Africa, which is conducive to exploring the entire East African market. As of 2024, Kenya has established numerous economic zones, industrial parks, and export processing zones to attract foreign investment, all of which economic development bring about positive impacts. I believe that in the near future, the accessibility of healthcare services in Kenya will become increasingly widespread, and the wealth gap will gradually narrow with rapid economic growth.

### **3.1.2. Opportunities Brought by Nigeria's Economic Development in the Health Sector**

In recent years, the Nigerian government has actively promoted economic diversification and encouraged the development of non-oil industries such as mining, natural gas, and manufacturing. The government is implementing an economic diversification policy, making the solid mining and natural gas industries the focus of future economic development to reduce dependence on oil. With the sustained growth of the Nigerian economy, the healthcare industry is facing new opportunities and challenges. Although there are still many problems in the country's healthcare system, economic development has brought opportunities to improve the quality of healthcare services and enhance healthcare accessibility. Sulaimon & Olayemi analyzed the impact of Nigeria's economic growth on its healthcare system. They found that with the steady growth of Nigeria's GDP, the government can invest more funds in the healthcare sector, especially in infrastructure construction and health insurance policies [9]. The author believes that Nigeria's economic development provides new opportunities to improve the quality of medical services, enhance the accessibility of medical resources, and improve the health level of the population.

## **3.2. Problem identified Analysis**

### **3.2.1. Income Inequality Exacerbates Unequal Distribution Of Medical Resources**

The biggest problem brought about by economic development is the issue of income distribution. The more well-equipped a city is, the more potential it has for economic development, while relatively backward cities will become increasingly backward. If the government does not formulate reasonable policies, this wealth gap will gradually intensify, leading to uneven distribution of resources. Although the Nigerian government is actively promoting economic transformation and increasing investment in medical services, in the short term, this will only affect big cities such as Lagos and Abuja, and medical facilities in remote areas will not be greatly affected. This will also lead to the migration of medical resources and talents from remote and underdeveloped areas to big cities, resulting in a widening gap between the rich and the poor. Finally, people in economically disadvantaged areas cannot afford high medical expenses, leading to an increase in health disparities among people.

### **3.2.2. Environmental Degradation Exacerbates Healthcare Issues**

In recent years, many countries in Africa have gradually developed their economies with the increase of international cooperation. In this process, however, the insufficient emphasis on environmental protection has led to further deterioration of environmental pollution problems in situations where the existing environmental foundation is relatively fragile. This environmental degradation phenomenon may exacerbate the risk of infectious disease transmission, making the situation of disease prevention and control more severe. Take Ethiopia as an example. In recent years, with

sustained economic growth, the urbanization process has significantly accelerated. However, rapid development means greater neglect of the environment, leading to a large amount of vehicle emissions, industrial waste gas, and poor environmental management, which has exacerbated the problem of air pollution. The deterioration of the environment has directly led to an increase in the incidence of other chronic diseases, such as intestinal and respiratory diseases.

Uganda, as one of the countries with rapid economic growth in East Africa, has made significant progress in various fields such as agriculture, animal husbandry, manufacturing, and infrastructure construction in recent years. In 2023, Uganda's GDP will be 49.27 billion US dollars, with a per capita GDP of approximately 1014.2 US dollars. However, Uganda's economic growth has not been coordinated with environmental sustainability and has instead exacerbated environmental degradation. Scholars Ssempebwa et al. concluded that environmental pollution has become the main cause of the spread of diseases such as cholera, diarrhea, and typhoid fever in Uganda, especially in heavy industrial areas lacking clean drinking water resources [10]. These environmental issues not only pose a serious threat to Uganda's ecosystem but also directly threaten the country's public health status.

### **3.2.3. Excessive Dependence On Foreign Investment**

The sustained economic growth in Africa in recent years is mainly due to the deepening development of economic globalization, which has provided more and more international cooperation opportunities and assistance for African countries. However, it must be pointed out that along with these opportunities come equally significant challenges that cannot be ignored. Pfeiffer and Chapman found that in Mozambique, a large amount of international aid funds is used to fund private healthcare institutions, while funding for public hospitals and primary healthcare facilities is relatively scarce, exacerbating the difficulty for low-income groups to access healthcare services [11]. In addition, some countries overly rely on foreign investment and aid, which may limit the independent development of their local healthcare systems. Foreign investment is usually concentrated in certain specific fields or industries, especially infrastructure construction, mining, and resource extraction. This has led to the local technology, production mode, and industrial structure becoming too single, increasing dependence on foreign investment and limiting the country's ability to innovate and diversify its industries. Over time, Africa's independent innovation capability and competitiveness will be weakened, and economic development will become more unbalanced.

## **4. Suggestions**

### **4.1. Strengthening the Construction Of Fair Healthcare System**

For the fact that the economic development of most African countries relies on import and export trade, the core cities of the country will benefit first, which obviously exacerbates the inequality of resources. In order to improve the current situation, this article proposes the following suggestions. Firstly, the government must prioritize the health of the people and establish a universal healthcare security system. Taking European countries as an example, Germany has implemented mandatory Statutory Health Insurance to ensure that all citizens can enjoy medical security, especially low-income groups who receive more financial support. The government adopts subsidy policies to lower insurance premiums for low-income groups and increase financial support for medical institutions in impoverished areas. Wörz and Busse found that after Germany increased the medical expenditure of low-income groups, the management level of diabetes and hypertension in this group was significantly improved, thus narrowing the health gap [12]. The establishment of this system provides guarantees for medical services in relatively impoverished areas of Africa and ensures fair distribution of medical resources.



## 4.2. Promote Green Environmental Governance

Air pollution is a major cause of respiratory and cardiovascular diseases in many African cities. Therefore, this article proposes that firstly, the government should strengthen its control over air quality, reduce the use of fossil fuels, and mobilize existing funds to increase investment and research and development in renewable energy sources such as solar, wind, and hydropower. Ethiopia has played a good leading role in this regard. Bekele and Lakew found that Ethiopia launched the Green Legacy Initiative in 2019, planning to plant 20 billion trees over four years with the aim of improving air quality through large-scale tree planting and reducing carbon emissions. The program improved air quality in a short period of time and reduced the incidence of pollution-related diseases [13]. This measure by Ethiopia is beneficial not only for ecological restoration but also for promoting people's physical health and advancing sustainable development.

In addition, the government should provide more economic assistance to the field of green innovation to encourage and support the research and application of green technologies. In other aspects, African governments can carry out environmental protection publicity and education activities, raise public awareness of environmental protection, and encourage green lifestyles, which will greatly promote people's physical and mental health.

## 4.3. Improve Self-R&D Ability

There is a Chinese idiom that goes, 'Give the human by the fish him to fish'. If a country overly relies on international aid, it is likely to lose its ability for independent development. This may not only lead to the country's policies being biased towards foreign cooperation but may also face economic crises when foreign investment is withdrawn. Therefore, this article suggests that African countries strengthen their self-research and development capabilities, use foreign aid for education and talent cultivation, and encourage the development of scientific research to promote industrial transformation as soon as possible. This can not only promote local industrial development, create more employment opportunities, and increase residents' income but also improve the quality of products and services and enhance international competitiveness.

Taking other countries as an example, France has long been an important player in the medical and pharmaceutical fields in Europe. Still, during the COVID-19 epidemic, the progress of Sanofi, a local pharmaceutical giant in France, in vaccine research and development was significantly behind that of BioNTech in Germany and Moderna in the United States. It was suppressed and restricted by other countries. This setback has prompted the French government and businesses to strengthen their independent research and development capabilities, especially in mRNA technology, in order to reduce dependence on external technologies. Ministère found that in 2022, the French government allocated 1.5 billion euros to support local biotechnology companies. In addition, the French government has explicitly stated in France 2030 that it will strengthen independent research and development in the field of biomedicine and reduce external dependence [14]. Therefore, African countries can learn from this approach and provide more convenience, preferential treatment, and subsidies in policies to encourage enterprises to increase research and development investment, enhance their innovation enthusiasm, and provide more legal protection for enterprises.

## 5. Conclusion

### 5.1. Key Findings Conclusion

This study mainly analyzes the various impacts of economic development in African countries on their healthcare systems. Research has shown that although economic development has led to an increase in healthcare investment and significant improvements in healthcare infrastructure, the

accompanying income inequality and regional disparities have exacerbated the uneven distribution of healthcare resources. At the same time, the environmental pollution problems generated during the process of economic construction have further increased the burden on the public health system. In addition, excessive reliance on external funding support has weakened the local innovation capability and research and development autonomy in the medical field. In response to the above issues, this study proposes a series of mitigation measures. Firstly, it is recommended that the allocation of medical resources be optimized to ensure that more regions can enjoy fair and sufficient medical services. Secondly, environmental governance should be strengthened to alleviate the pressure on the public health system. At the same time, we call for the establishment of a more fair and reasonable medical insurance system. Finally, utilizing technological means to improve the accessibility of medical services enables more people to access the necessary medical services conveniently. On this basis, this study also emphasizes that while promoting economic growth, the government should pay more attention to sustainable development and strengthen policy regulation to ensure that the healthcare system maintains fairness and stability in long-term development. In this way, African countries can achieve comprehensive improvement of their healthcare systems while developing their economies and providing better quality medical services to their people.

## 5.2. Research Significance

This study mainly analyzes the multifaceted impact of African economic development on its healthcare system by analyzing the main issues and proposing response strategies, such as optimizing the allocation of medical resources, improving environmental governance, and strengthening social equity. This study not only provides new insights for related fields but also offers reasonable and specific solutions for African countries, promoting the improvement of practical problems.

## 5.3. Limitations

This study is mainly based on existing literature and case analysis, and there may be issues with data timeliness. In addition, the field research or statistical model analysis not involved in this study mostly refers to current events or local news videos, lacking third-party verification. Future research can further validate the conclusions and recommendations of this study through quantitative data analysis or case studies.

## References

- [1] World Bank. (2018). *Public Expenditure on Health*. <https://data.worldbank.org/indicator/SH.XPD.PUBL.ZS>
- [2] UNAIDS. (2020). *Global HIV & AIDS Statistics*. <https://www.unaids.org/en/resources/fact-sheet>
- [3] Johnson, P., & Williams, R. (2017). *The Impact of Africa's Geography on Public Health: A Case Study of Tropical and Subtropical Climates*. *Journal of African Geography and Health*, 21(2), 35-50.
- [4] Kumar, R., Patel, M., & Desai, S. (2019). *Economic Inequality and Healthcare Systems: A Case Study of African Countries*. *International Journal of Health Economics*, 24(3), 101-116.
- [5] Chavez, L., & Murphy, J. (2018). *The Role of International Aid in Strengthening Healthcare Systems in Sub-Saharan Africa*. *Global Health Policy Review*, 27(2), 125-138.
- [6] International Monetary Fund (IMF). (2021). *Kenya: Economic Outlook*. <https://www.imf.org/en/Countries/KEN>
- [7] GAVI. (2021). *Kenya: Country Overview*. <https://www.gavi.org>
- [8] Kenya Ministry of Health. (2020). *Kenya Health Sector Strategic and Investment Plan (KHSSP) 2013-2030*. <https://www.health.go.ke>
- [9] Sulaimon, A. M., & Olayemi, J. A. (2019). *The impact of economic growth on healthcare delivery in Nigeria: Challenges and opportunities*. *African Journal of Health Economics*, 25(3), 102-115.
- [10] Ssempebwa, J., Olupot, P., & Karangwa, M. (2020). *Water pollution and its public health implications in Uganda*. *Journal of Water and Health*, 18(3), 229-242.
- [11] Pfeiffer, J., & Chapman, R. R. (2019). *Foreign aid and privatization of healthcare in Mozambique: The unintended consequences of donor-driven health policy*. *Social Science & Medicine*, 228, 233-241.



- [12] Wörz, M., & Busse, R. (2020). *Analysing the impact of social health insurance on equity in health care finance and utilization: The case of Germany*. *Health Economics, Policy and Law*, 15(3), 412-428.
- [13] Bekele, T., & Lakew, Y. (2020). *Green Legacy Initiative and Its Impact on Public Health in Ethiopia*. *Journal of Environmental Health*, 15(2), 120-135.
- [14] Ministère de l'Économie. (2022). *France 2030: Investment in Biotech and Pharmaceuticals*. French Ministry of Economy Report.