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Communication

# The Escalating Antibiotic Crisis in Nigeria: A Violation of Human Rights and Ethical Imperatives – Commentary

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**Abstract:** The escalating antibiotic crisis in Nigeria presents a critical challenge, violating fundamental human rights and ethical obligations. Skyrocketing antibiotic costs severely restrict access to essential medications, particularly for vulnerable populations. This crisis not only exacerbates health disparities but also fuels the emergence of antibiotic resistance, posing grave public health risks. Rooted in regulatory gaps, lack of transparency in drug pricing, and inadequate healthcare infrastructure, the crisis demands a comprehensive, collaborative response. Policy interventions targeting antibiotic affordability, regulatory reforms, and healthcare infrastructure investments are imperative. Upholding ethical standards and accountability mechanisms is essential to ensuring equitable access to antibiotics and safeguarding public health in Nigeria.

**Keywords:** antibiotic crisis; healthcare access; pharmaceutical pricing; regulatory challenges; ethical obligations

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## Introduction

The cost of antibiotics in Nigeria has surged dramatically, with prices soaring by a staggering 1100 percent [1]. This exponential increase poses a significant threat to public health as it undermines access to essential medications, a cornerstone of effective healthcare systems. Affordable antibiotics are crucial for combating infectious diseases, reducing mortality rates, and preventing the spread of drug-resistant pathogens [2]. The increment could be attributed to the lack of self-sufficient local production. Nigeria relies heavily on importing antibiotics from other countries, as the local industry only accounts for 30 percent of the pharmaceutical products in the country, according to a report by the Pharmaceutical Manufacturers Group of the Manufacturers Association of Nigeria (PMG-MAN) [3]. This makes Nigeria vulnerable to fluctuations in foreign exchange rates, trade policies, and global supply chains, which can increase the cost and reduce the availability of these medicines.

The long distribution chain that involves middlemen and pharmacy-benefiting companies also fuels the cost of antibiotics. More so, the regulatory challenges during drug registrations also contribute to the heightened cost. Over 74 percent of healthcare spending in Nigeria is out of pocket [4]. The pharmaceutical industry has an unstructured system for drug distribution [5], resulting in a mark-up of over 80 percent between manufacturers and consumers. Nigeria has less than five percent privately owned insurance companies and a government-owned National Health Insurance Scheme (NHIS) with significant integrity issues [6]. Drugs reach consumers through an unstructured retail pharmacy and an under-regulated patent medicine store system. The patent and proprietary medicine vendor (PPMV) shops are owned by entrepreneurs who sell drugs and other household products to all segments of the community [7]. Out of over 80,000 drug stores in Nigeria, less than 5000 are registered community pharmacies [8]. These intermediaries add multiple mark-ups and commissions along the way, driving up the prices for consumers and pharmacies. They may also

have incentives to inflate the prices or divert the products to the black market, creating artificial scarcity [9,10].

Nigerian market demand and supply are shaped by various factors, such as the population size and growth, the disease burden and prevalence, the health-seeking behaviour and awareness of the public, the prescribing practises and regulations of the health workers, and the availability and affordability of alternative treatments. These factors may create imbalances between the demand and supply of antibiotics, leading to price fluctuations, shortages, or surpluses. For example, during the COVID-19 pandemic, there was a surge in the demand for antibiotics, especially azithromycin, as a potential treatment or prophylaxis for the virus, despite the lack of evidence for its efficacy. The pandemic plight increased the price and reduced the supply of azithromycin in the market, affecting its accessibility for other indications and resulting in the development of antimicrobial resistance due to the high demand [11,12]. According to the National Agency for Food and Drug Administration and Control (NAFDAC), Nigeria is the largest counterfeit drug market in the developing world [13]. Counterfeit drugs pose serious threats to public health, as they may contain no active ingredients, toxic substances, or incorrect dosages. They may also contribute to the emergence and spread of antibiotic resistance, which can render genuine antibiotics ineffective. Therefore, the true cost of antibiotics in Nigeria should account for the potential harm and loss caused by substandard medicines [14].

However, the unavailability of affordable antibiotics in Nigeria not only jeopardises public health but also raises serious ethical concerns. It violates people's fundamental human rights to access healthcare and essential medicines, constituting a breach of ethical obligations within the healthcare and pharmaceutical sectors. This dire situation emphasises the need to address the antibiotic crisis in Nigeria, not only from a health perspective but also from an ethical standpoint, to ensure equitable access to life-saving medications for all individuals.

### **The Human Rights Perspective**

The fundamental human right to access healthcare and essential medicines, including antibiotics, is enshrined in various international and national agreements, including the Universal Declaration of Human Rights and the International Covenant on Economic, Social, and Cultural Rights and the Nigeria national health Act and Constitution [15–17]. Access to healthcare is considered a basic human right essential for individuals to lead healthy and fulfilling lives. This includes access to essential medicines, such as antibiotics, which are critical for treating infections and safeguarding public health. However, the exponential increase in antibiotic costs severely restricts this access, particularly for vulnerable populations in Nigeria. As antibiotic prices skyrocket, many individuals and communities may find themselves unable to afford these lifesaving medications. In the case of immunosuppressed patients, such as those experiencing severe cases of sepsis, the use of improper antibiotics can have grave consequences, potentially leading to dire outcomes. Moreover, an illness of this nature has the potential to precipitate a downward economic spiral, potentially pushing individuals from middle-class status to lower socioeconomic levels.

This is particularly detrimental for marginalised groups such as the poor, rural communities, and those without adequate health insurance coverage. These populations often face barriers such as limited financial resources, geographic isolation, and inadequate healthcare infrastructure, exacerbating their struggles to access essential medicines.

Furthermore, the inability to access affordable antibiotics contributes to the emergence of antibiotic resistance, posing a grave threat to public health. Without timely access to effective antibiotics, infections become more difficult to treat, leading to prolonged illness, increased healthcare costs, and higher mortality rates. The exponential increase in antibiotic costs not only undermines the fundamental human right to healthcare but also exacerbates health disparities and perpetuates cycles of poverty and ill-health in Nigeria.

### **Ethical Obligations of the Health System**

The Nigerian healthcare system bears significant ethical responsibilities in ensuring equitable access to antibiotics for all citizens. However, several factors contribute to the system's failure, such as the lack of robust regulatory frameworks and enforcement mechanisms within the Nigerian healthcare system, which allows for unchecked price inflation and market manipulation by pharmaceutical companies [18,19]. Without stringent regulations governing drug pricing and availability, there is little to prevent monopolistic practices or price gouging, leading to unaffordable antibiotics for many. Opacity [18] within the healthcare sector further exacerbates the accessibility crisis by diverting resources away from essential services and medications. Practices such as lack of transparency in drug pricing, and inadequate structured healthcare system undermine the equitable distribution of healthcare resources, leaving vulnerable populations at a disadvantage. Nigeria's healthcare infrastructure is often underfunded, understaffed, and poorly equipped, particularly in rural and underserved areas. Limited access to healthcare facilities, trained medical professionals, and diagnostic tools hinders the timely diagnosis and treatment of infections, exacerbating the demand for antibiotics and perpetuating the cycle of unavailability [19].

### Conclusions and Recommendations

Addressing the antibiotic crisis in Nigeria requires a comprehensive and collaborative approach involving all stakeholders. Establishing a multi-stakeholder task force comprising representatives from the government, healthcare sector, pharmaceutical industry, and civil society is essential to developing a coordinated response. Policy interventions such as implementing price controls, exploring innovative financing mechanisms, and providing subsidies for vulnerable groups can improve antibiotic affordability and accessibility. Strengthening regulatory oversight, promoting competition, and investing in healthcare infrastructure are also critical steps. Moreover, robust monitoring and evaluation systems, along with accountability mechanisms, are necessary to ensure compliance with ethical standards and public health objectives. By implementing these measures collectively, Nigeria can effectively combat the antibiotic crisis and safeguard the health and well-being of its population.

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