



# Public Awareness and Knowledge of Hypertension in West Africa: Addressing the Gaps in Health Education

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## ABSTRACT

Hypertension, a leading cause of cardiovascular diseases and mortality worldwide, poses an escalating public health challenge in West Africa. Despite its high prevalence, public awareness and knowledge of hypertension remain critically low across the region. Factors such as urbanization, poor dietary habits, physical inactivity, cultural beliefs, limited health literacy, and weak healthcare systems exacerbate the issue. This review explores the epidemiology of hypertension in West Africa, focusing on public awareness levels, misconceptions, and socioeconomic barriers. It also highlights the gaps in current health education strategies, including inadequate community outreach, insufficient use of media, and poorly trained healthcare workers. To address these gaps, the review proposes comprehensive strategies such as community-based education programs, integration of hypertension awareness in schools and workplaces, leveraging mass media and digital platforms, strengthening primary healthcare systems, and fostering public-private partnerships. Case studies from Nigeria and Ghana illustrate successful interventions, while challenges to implementation are examined. The review concludes with recommendations for evidence-based, culturally tailored strategies to enhance hypertension awareness and preventive practices, contributing to the mitigation of this growing public health burden in West Africa.

**Keywords:** Hypertension awareness, public health education, West Africa, cardiovascular diseases.

## INTRODUCTION

Hypertension, or high blood pressure, is often referred to as a "silent killer" due to its asymptomatic nature in the early stages [1]. It is a major risk factor for cardiovascular diseases, stroke, and kidney failure, contributing significantly to global morbidity and mortality. According to the World Health Organization (WHO) [2], cardiovascular diseases are the leading cause of death worldwide, with hypertension playing a pivotal role in this trend. In low- and middle-income countries (LMICs), including those in West Africa, the burden of hypertension has reached alarming levels due to demographic, lifestyle, and systemic healthcare factors [3]. Despite its increasing prevalence, public awareness, knowledge, and adoption of preventive behaviors remain strikingly low, exacerbating its long-term impacts on health systems and communities.

The West African region is experiencing a significant epidemiological transition, with a rising burden of non-communicable diseases (NCDs) such as hypertension, alongside persistent infectious diseases. Urbanization, changes in dietary habits, physical inactivity, obesity, and stress are among the major contributors to this surge in hypertension cases. A combination of socioeconomic challenges, including poverty, limited access to healthcare services, and insufficient health education programs, further compounds the problem.

Several studies have shown that hypertension awareness, detection, and control in West Africa are critically low compared to global standards. For example, in some West African countries, less than 50% of individuals with hypertension are aware of their condition, and an even smaller percentage receive adequate treatment. Cultural beliefs, poor literacy levels, and healthcare system weaknesses contribute to the lack of knowledge and preventive measures [4]. This highlights an urgent need for comprehensive health education strategies that focus on raising awareness and promoting behavior change to mitigate the growing burden of hypertension in the region.

Hypertension remains a significant public health challenge in West Africa, with limited progress in reducing its prevalence and associated complications. Despite the availability of evidence-based guidelines for prevention and

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management, gaps in public awareness and knowledge persist. Many individuals remain undiagnosed due to a lack of routine blood pressure screening and limited access to healthcare facilities [5]. Even among those diagnosed, poor adherence to treatment and misconceptions about hypertension further hinder disease management.

The existing health education strategies in West Africa are often fragmented, poorly implemented, and inadequately targeted to address socio-cultural and economic factors. Without targeted interventions, the burden of hypertension will continue to rise, placing a strain on already fragile healthcare systems. It is therefore imperative to identify the barriers to public awareness and propose effective strategies for improving health education and preventive practices in West African populations [6].

The study aims to evaluate public awareness and knowledge of hypertension in West Africa, identify barriers to understanding and preventive behavior, explore socio-cultural, economic, and systemic factors influencing attitudes, evaluate health education strategies for prevention and control, and propose evidence-based strategies to enhance hypertension awareness and preventive practices in the region.

### **Epidemiology of Hypertension in West Africa**

Hypertension, often referred to as the "silent killer," has become a significant public health challenge in West Africa over the past two decades [6]. The region has experienced a substantial rise in hypertension prevalence due to factors such as urbanization, sedentary lifestyles, poor dietary habits, and insufficient access to quality healthcare. Studies across various West African countries have highlighted the scale of the issue and significant disparities between rural and urban populations.

In Nigeria, 27.9% of adults aged 18 years and older had hypertension, with urban populations exhibiting significantly higher prevalence rates compared to rural areas [7]. Urbanization has been linked to lifestyle changes, including increased consumption of processed foods high in salt, physical inactivity, and heightened stress levels. In Ghana, hypertension prevalence among adults was reported at 28.2%, but awareness levels were notably low, particularly among women and younger individuals [8]. This lack of awareness has contributed to poor detection, late diagnoses, and under-treatment, exacerbating the burden of complications. Sierra Leone and Liberia report high prevalence rates similar to other countries in the region, but the availability of reliable, population-based studies is limited, making it challenging to assess the full scope of the problem. Contributing factors include rapid urbanization, sedentary lifestyles, poor dietary habits, limited access to healthcare, and poor awareness about hypertension, its risk factors, and consequences [9].

The rural-urban divide in West Africa also contributes to disparities in hypertension prevalence between rural and urban populations. Low screening rates, insufficient health infrastructure, affordability of treatment, and cultural beliefs further deter individuals from seeking care [8]. To address the increasing burden of hypertension in West Africa, a multi-pronged approach is required, including promoting public awareness campaigns, strengthening healthcare infrastructure, implementing policy interventions encouraging healthy dietary habits and physical activity, and conducting more population-based studies.

### **Public Awareness and Knowledge of Hypertension**

**Levels of Awareness and Knowledge:** Studies in West Africa reveal a significant lack of awareness and knowledge about hypertension, which often goes undiagnosed until complications arise. In Nigeria, only 30% of hypertensive patients are aware of their condition, while in Ghana, only 12% of adults understand its risk factors and potential health consequences [8]. Rural populations also face disproportionately low awareness due to limited access to health information, educational disparities, and reduced availability of health infrastructure. This highlights the urgent need for targeted awareness campaigns to educate communities about the importance of regular blood pressure monitoring and early detection of hypertension.

**Misconceptions and Cultural Beliefs:** Cultural beliefs and misconceptions about hypertension in West Africa contribute to delays in diagnosis and treatment. These include attributions to spiritual or supernatural causes, stress-related assumptions, and reliance on traditional remedies. Spiritual healers or prayer are often used as primary interventions, leading to a lack of awareness of hypertension as a medical condition [10]. The belief that hypertension affects only older adults or those experiencing chronic stress also leads to younger individuals neglecting routine blood pressure checks and preventive measures. Traditional remedies, while culturally significant, can be ineffective or harmful unregulated, exacerbating complications. Addressing these misconceptions requires culturally sensitive education programs that incorporate local beliefs and emphasize the scientific understanding of hypertension.

**Socioeconomic and Educational Barriers:** The public's awareness of hypertension in West Africa is significantly impacted by socioeconomic and educational challenges. Low literacy levels, particularly in rural areas, limit individuals' understanding of health information and hypertension risk factors. Economic constraints prevent many from seeking healthcare services, causing families living in poverty to prioritize immediate needs over healthcare costs [11]. Gender disparities, particularly among women, further hinder access to health education and care due

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to traditional gender roles and lower literacy rates. To address these issues, interventions should focus on improving health literacy, subsidizing healthcare costs, and addressing gender inequities through inclusive community health initiatives.

### Gaps in Health Education

Effective health education is crucial for reducing the burden of hypertension in West Africa. However, several significant gaps limit the reach and impact of such initiatives. These include:

**Inadequate Health Promotion Programs:** Hypertension awareness campaigns are often insufficient due to sporadic and underfunded efforts. Governments and healthcare institutions struggle to sustain comprehensive programs due to limited resources and competing health priorities [12]. Additionally, few initiatives are designed for grassroots implementation, leaving rural and underserved communities, where hypertension prevalence is high, neglected in awareness efforts.

**Poor Integration of Health Education in Schools and Workplaces:** The educational gaps in schools and workplaces are largely due to the lack of focus on non-communicable diseases like hypertension, which can significantly reduce adult hypertension rates [13]. This lack of education in schools and workplaces hinders the development of healthy habits and lifestyle changes that can prevent or manage high blood pressure.

**Limited Use of Media and Technology:** West Africa's hypertension education is underutilized due to underutilization of media like radio, television, and mobile phones. Digital tools like social media, apps, and SMS-based interventions are not widely adopted for health education [14]. Additionally, educational content is not culturally relevant, reducing its appeal and effectiveness in the region's diverse cultural and linguistic backgrounds.

**Insufficient Training of Healthcare Workers:** Primary healthcare workers in rural areas often lack proper training in hypertension education and prevention, limiting their ability to effectively counsel patients. This lack of training results in missed opportunities for early detection and education [15]. To address these gaps, a multifaceted approach involving increased investment in health promotion programs, integration of hypertension education into schools and workplaces, media and technology utilization, and capacity building for healthcare workers is needed.

### Strategies to Address Gaps in Hypertension Awareness and Education

To effectively tackle the gaps in hypertension awareness and education, a comprehensive strategy is needed. The following approaches provide actionable solutions tailored to the unique challenges in West Africa:

**Community-Based Education Programs:** Community engagement is crucial for sustainable awareness and can transform underserved areas. Programs like regular blood pressure checks, localized education through health workers, and the role of religious and cultural leaders can help identify at-risk individuals, promote prevention, and provide culturally resonant messages. These programs can also help debunk myths, dispel stigma, and promote health-seeking behaviors in West African communities.

**School and Workplace Health Education:** Hypertension awareness should be integrated into schools and workplaces to equip individuals with knowledge at key life stages. School curricula should include topics on non-communicable diseases, diet, physical activity, and stress management, while workplace wellness programs should offer blood pressure checks, health talks, and wellness resources to encourage preventive measures among working adults.

**Leveraging Mass Media and Digital Platforms:** Hypertension education can be expanded through mass media and digital tools. Culturally relevant campaigns, social media collaborations with local influencers, and radio and television broadcasts can ensure accessibility and resonate with diverse populations. These methods can also help reach populations with limited internet access, fostering trust and amplifying health messages.

**Strengthening Primary Healthcare Systems:** To integrate hypertension awareness into routine care, primary healthcare capacity must be enhanced through comprehensive training programs for healthcare workers, accessible resources like affordable blood pressure monitors and essential medications, and health information systems that support monitoring trends and evaluating intervention outcomes. These measures ensure effective counseling and education about hypertension.

**Public-Private Partnerships:** Collaboration between governments, private organizations, NGOs, and international agencies can significantly bridge the gaps in hypertension education and awareness. Private organizations and international donors can provide financial and technical resources for health education campaigns. Public-private partnerships can facilitate comprehensive outreach efforts, including mobile clinics, screenings, and health fairs. Leveraging technology provided by private sector partners can improve the efficiency and reach of education and awareness initiatives. Tailoring these strategies to West Africa's cultural, socioeconomic, and infrastructural context is essential for sustained impact and long-term prevention.

### Case Studies and Success Stories

#### Nigeria: Hypertension Awareness Campaigns

The Nigerian Hypertension Society has initiated awareness campaigns to educate the public on hypertension risk factors, prevention, and management. Mobile clinics and community outreach programs have improved blood pressure screening rates.

#### Ghana: Community Health Programs

Ghana's Community-based Health Planning and Services (CHPS) program has integrated hypertension education into rural healthcare delivery. This initiative has increased awareness and early detection in underserved areas.

#### Regional Collaborations

Organizations such as the West African Health Organization (WAHO) have supported NCD prevention and education programs, including regional initiatives targeting hypertension awareness.

#### Challenges to Implementation

The proposed strategies to improve hypertension awareness and education in West Africa face several challenges. These include limited funding for health education programs, reliance on external funding, competing health priorities, inadequate infrastructure and healthcare systems, cultural resistance and entrenched misconceptions, lack of coordination among stakeholders, and poor communication among government agencies, NGOs, private organizations, and international donors [16]. Budgetary constraints often lead to underfunding for hypertension education programs, as governments prioritize infectious diseases over non-communicable diseases (NCDs). External funding may be inconsistent or tied to specific conditions, and competing health priorities can delay investment in preventive measures for chronic diseases like hypertension. Inadequate infrastructure and healthcare systems also hinder the delivery of health education and services to remote communities. Cultural resistance and misconceptions about hypertension, such as its association with supernatural causes or beliefs that it is incurable, deter individuals from seeking education or care. Cultural norms can conflict with recommended hypertension prevention practices, and skepticism towards healthcare systems limits the acceptance of hypertension-related interventions. To overcome these challenges, governments should allocate more resources to NCD prevention and seek sustained partnerships with international agencies and private organizations for funding support. Strengthening healthcare infrastructure through investments in primary healthcare facilities, training programs, and digital tools can enhance service delivery and education efforts [17]. Promoting cultural sensitivity and establishing a centralized body to coordinate efforts can ensure consistency and streamline programs.

#### Future Directions and Recommendations

Addressing the gaps in hypertension awareness and education requires a comprehensive and multi-faceted approach. The following recommendations are proposed to foster sustainable improvements in public health outcomes:

**Scale Up Community-Based Programs:** Community-based interventions are essential for reaching high-risk and underserved populations. Expanding targeted education initiatives, particularly in rural and low-income areas, can help improve knowledge and preventive practices. These programs should involve collaboration with local leaders, health workers, and community organizations to ensure culturally sensitive messaging and increased engagement. Mobile health clinics and home visits can also play a significant role in delivering hypertension education and services to remote areas.

**Integrate NCD Education in Schools and Workplaces:** Embedding non-communicable disease (NCD) education, including hypertension awareness, into school curricula and workplace health programs can drive long-term behavioral change. For schools, age-appropriate lessons on healthy eating, physical activity, and stress management should be incorporated. Workplaces can implement regular health screenings, seminars, and wellness programs to encourage employees to adopt and sustain healthy lifestyles. Such initiatives not only educate individuals but also create a supportive environment for prevention and management.

**Leverage Media and Technology:** Culturally appropriate campaigns leveraging mass media and digital platforms can amplify hypertension awareness. Radio and television programs in local languages can effectively reach wide audiences, including those with limited literacy. Social media, mobile apps, and SMS-based interventions can provide tailored health tips, reminders for screenings, and real-time support. Integrating storytelling, testimonials, and relatable content into these platforms can enhance their impact and resonance with diverse demographic groups.

**Strengthen Primary Healthcare Services:** Primary healthcare systems should be equipped to handle hypertension prevention and management comprehensively. This includes routine blood pressure screenings, counseling on lifestyle modifications, and ensuring access to affordable medication. Training primary healthcare providers in patient-centered communication and hypertension management protocols can enhance service delivery. Establishing strong referral systems for cases requiring specialized care is equally critical.

**Promote Research and Data Collection:** Investing in research is essential to evaluate the effectiveness of existing awareness and education interventions. Longitudinal studies, randomized controlled trials, and community-based

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participatory research can identify best practices and uncover barriers to success. Robust data collection and analysis can guide policy development, resource allocation, and the design of targeted programs. Additionally, research should explore the intersection of hypertension with other NCDs, mental health, and socioeconomic factors to develop integrated strategies.

### CONCLUSION

Hypertension remains a significant public health challenge in West Africa, with rising prevalence rates and limited public awareness amplifying its health and socioeconomic impact. Despite the availability of evidence-based prevention and management strategies, gaps in health education, cultural misconceptions, and socioeconomic barriers continue to undermine efforts to combat this "silent killer." Addressing these gaps requires a multifaceted approach that prioritizes community-based education programs, the integration of health education into schools and workplaces, and the strategic use of mass media and digital platforms. Strengthening primary healthcare systems and fostering public-private partnerships can further support comprehensive outreach and effective hypertension management. Moreover, culturally sensitive campaigns that acknowledge and address local beliefs are essential for dispelling misconceptions and promoting preventive health behaviors. Success stories from Nigeria, Ghana, and regional collaborations demonstrate that tailored, context-specific interventions can lead to meaningful improvements in awareness and hypertension control. However, challenges such as funding constraints, competing health priorities, and infrastructure limitations must be addressed to ensure the sustainability of these efforts. Ultimately, a collective commitment from governments, healthcare providers, NGOs, and community leaders is vital for reducing the burden of hypertension in West Africa. By bridging the gaps in public awareness and knowledge, the region can take significant strides toward improving cardiovascular health outcomes and fostering a healthier, more resilient population.

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