

# **Impact of Lifestyle Changes on Hypertension Management in West Africa: Cultural and Regional Perspectives**

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## **ABSTRACT**

Hypertension has become a significant public health challenge in West Africa, with over one-third of adults affected. Contributing factors include rapid urbanization, dietary shifts towards processed foods, sedentary lifestyles, and socioeconomic stressors. This review explores the impact of lifestyle changes on hypertension management in West Africa, emphasizing cultural and regional perspectives. It examines dietary habits, physical activity patterns, stress management strategies, and the role of traditional medicine in managing hypertension. The review highlights the cultural relevance of these lifestyle interventions, addressing barriers such as economic constraints, healthcare access disparities, and educational gaps. By integrating traditional practices with evidence-based approaches, this study advocates for tailored public health initiatives that respect local customs while promoting effective hypertension management strategies.

**Keywords:** Hypertension, West Africa, Lifestyle Changes, Cultural Perspectives, Dietary Habits, Physical Activity.

## **INTRODUCTION**

Hypertension, or high blood pressure, has emerged as a major public health concern in West Africa, contributing significantly to the region's burden of cardiovascular diseases (CVDs), such as stroke and heart attack. Hypertension is often referred to as a "silent killer" because many individuals may not be aware they have it until complications arise, often leading to severe cardiovascular events. According to the World Health Organization (WHO), more than one-third of adults in West Africa suffer from hypertension, with the prevalence steadily rising in recent decades [1]. The increasing incidence of hypertension in West Africa is attributed to multiple factors, including rapid urbanization, changing dietary patterns, and more sedentary lifestyles. Urbanization has introduced fast-paced lifestyles and greater access to processed foods, leading to a significant departure from traditional diets that were historically rich in plant-based foods and low in sodium. Additionally, technological advancements and modern conveniences have resulted in a reduction in physical activity, particularly in urban settings. These trends, coupled with stress related to socioeconomic challenges, have exacerbated the prevalence of hypertension across the region [2]. While antihypertensive medications are widely used for managing high blood pressure, non-pharmacological interventions—especially lifestyle changes—play an equally important role in hypertension prevention and management. Dietary adjustments, regular physical activity, and stress management are among the primary lifestyle interventions recommended for reducing hypertension risk and improving cardiovascular health outcomes. However, the effectiveness of these interventions is often influenced by cultural, social, and regional factors unique to West Africa.

This review aims to provide a comprehensive analysis of how lifestyle changes affect hypertension management in West Africa, with a focus on the cultural and regional contexts that shape the adoption and success of these interventions [3]. It will explore the role of dietary habits, physical activity patterns, and stress management in hypertension outcomes and consider the influence of traditional beliefs, socioeconomic status, and regional disparities in health education and healthcare access.

### **Prevalence of Hypertension in West Africa**

The prevalence of hypertension in West Africa varies between rural and urban areas, with significantly higher rates observed in urban populations. In countries like Nigeria, Ghana, and Senegal, the prevalence of hypertension ranges from 30-40% in adults [4]. Rapid urbanization and lifestyle shifts have introduced risk factors such as poor dietary choices, sedentary behavior, and heightened stress levels, which contribute to this rising trend.

Rural populations in West Africa have traditionally been less affected by hypertension due to more active lifestyles and diets centered on whole grains, vegetables, and locally sourced produce. However, rural areas are now seeing an increase in hypertension cases as well, driven by the influx of processed foods and the migration of rural residents to urban centers [5]. In addition, healthcare services in rural regions are often less developed, making it harder for residents to manage chronic conditions like hypertension.

The diverse cultural and environmental contexts across West Africa present unique challenges for hypertension prevention and management. A closer look at the specific lifestyle changes recommended for hypertension management, and their cultural and regional relevance, is crucial for addressing the growing burden of this condition [6].

### **Dietary Habits and Their Impact on Hypertension**

Traditional diets in West Africa were primarily composed of fresh, locally grown foods, low in sodium and saturated fats, and rich in fiber, which helped maintain healthy blood pressure levels. However, globalization and urbanization have introduced processed foods, fast food, and high-fat diets to many parts of the region, leading to significant changes in nutritional intake [7]. Modern diets are often high in sodium, refined sugars, and unhealthy fats, all of which are linked to increased blood pressure and greater risk of hypertension. Salt consumption is a critical factor in hypertension management, as it is heavily used in cooking and food preservation, especially in rural areas where refrigeration is limited. High-salt seasonings, such as bouillon cubes and salted fish, contribute to elevated sodium levels in daily diets, significantly increasing the risk of hypertension [8]. Public health campaigns aimed at reducing salt intake have had limited success in West Africa due to deep-rooted cultural preferences and the widespread use of processed condiments. Addressing this issue requires targeted educational efforts that emphasize the importance of reducing sodium while promoting alternative seasoning methods using herbs and spices. Promoting traditional foods like millet, sorghum, plantains, and leafy greens can have a positive impact on hypertension management, as they are nutritionally beneficial and more affordable for many West Africans. However, a return to traditional diets is complicated by the increasing accessibility and affordability of processed foods, which are often perceived as convenient and desirable in urban environments [9].

### **Physical Activity and Sedentary Lifestyles**

Urbanization and modernization in West Africa have led to a decline in physical activity levels, particularly among urban residents who are more sedentary. This is due to limited access to recreational spaces, heavy traffic, and safety concerns, as well as the availability of motorized transportation and long working hours [10]. Traditional forms of exercise, such as walking long distances or manual labor, are becoming less common in urban settings. Cultural attitudes towards exercise also vary across different communities, with some recognizing daily activities like walking to the market or working on a farm as adequate forms of physical activity. Therefore, promoting culturally appropriate forms of exercise, such as traditional dances, community walks, or sports, could be more effective than encouraging Western-style gym workouts. Public health initiatives should integrate exercise into daily routines and emphasize its role in preventing and managing hypertension. Community-based programs that promote group exercises or culturally relevant activities can increase participation and improve health outcomes.

### **Stress Management and Hypertension**

**Socioeconomic Stressors:** Socioeconomic stress plays a critical role in hypertension development in West Africa. Poverty, unemployment, political instability, and food insecurity are common stressors in the region, and chronic stress has been linked to elevated blood pressure. Furthermore, urbanization often brings with it new stressors, including job pressure, housing instability, and the demands of modern life [11]. Chronic stress triggers the body's release of stress hormones like cortisol, which in turn leads to increased blood pressure. For many West Africans, managing stress can be particularly challenging due to the lack of mental health services and support systems. Limited access to affordable healthcare and social services exacerbates the difficulty of managing hypertension effectively.

**Cultural Beliefs Around Stress:** In some West African cultures, stress is viewed as a natural part of life, and its connection to physical health issues like hypertension may not be fully recognized. Educational programs that link stress management to improved health outcomes could help raise awareness of the importance of stress reduction in hypertension management. Traditional practices such as meditation, storytelling, and communal activities may offer culturally relevant stress-relief techniques that can be integrated into public health interventions.

### **Alcohol and Tobacco Use**

Alcohol and tobacco consumption are prevalent in West African communities, contributing to the growing burden of hypertension. Both substances elevate blood pressure and increase the risk of cardiovascular diseases, such as stroke and heart attack. Cultural norms and socioeconomic factors continue to influence these behaviors, often complicating public health efforts to reduce hypertension. Alcohol consumption is widespread in West Africa, particularly in social, cultural, and religious contexts. Locally brewed alcoholic beverages, such as palm wine, sorghum beer, and other fermented drinks, hold significant cultural value. However, excessive alcohol intake is strongly linked to hypertension and can exacerbate cardiovascular risks. In West Africa, many people are unaware of the long-term health risks associated with excessive alcohol consumption. Some individuals, particularly in rural areas, may even perceive alcohol as having medicinal or therapeutic properties, leading to a lack of understanding about the relationship between alcohol and hypertension [12]. The production and consumption of locally brewed alcohol present unique challenges for regulating alcohol content and mitigating health risks.

To effectively reduce the impact of alcohol consumption on hypertension in West Africa, public health campaigns must be culturally sensitive and tailored to the specific social contexts of different communities. Educational programs should focus on raising awareness about the link between alcohol and hypertension, promoting moderate consumption, and highlighting the benefits of reducing alcohol intake for heart health. To combat the rising rates of tobacco use and its impact on hypertension, comprehensive public health campaigns are needed to promote tobacco cessation and discourage smoking initiation, particularly among youth. Public health authorities must also work to implement and enforce stricter regulations on tobacco sales, advertising, and access to minors. Alcohol and tobacco use are significant contributors to the growing burden of hypertension in West Africa [13]. Designing public health interventions that are sensitive to the unique contexts of the region is crucial to improving hypertension outcomes and reducing the risk of cardiovascular diseases across the region.

### **Traditional Medicine and Beliefs**

Traditional medicine, particularly in West Africa, is crucial for managing chronic conditions like hypertension. Herbal remedies and spiritual practices are deeply rooted in the cultural beliefs of the region. These healers are often the first point of contact for patients seeking treatment, as they possess specialized knowledge about medicinal plants and spiritual practices. However, traditional medicine faces challenges such as lack of regulation, potential side effects, and interactions with conventional medications. Herbal remedies, such as *Moringa oleifera*, *Hibiscus sabdariffa*, *Vernonia amygdalina*, and *Zanthoxylum zanthoxyloides*, have been studied for their potential to lower blood pressure. However, the lack of regulation and quality control in traditional medicine can lead to variability in dosage, potency, and quality. Additionally, some herbal treatments may interact negatively with conventional antihypertensive drugs, resulting in harmful side effects or reduced effectiveness. Spiritual beliefs also play a role in hypertension management, as some individuals view it as an imbalance that requires spiritual intervention in addition to physical treatment [14]. This can result in poor adherence to prescribed medications, dietary recommendations, or lifestyle modifications. To address these challenges, there has been growing interest in integrating traditional medicine into modern healthcare systems. Culturally sensitive interventions that respect traditional beliefs while promoting evidence-based lifestyle changes are crucial for managing hypertension in West Africa. Educational programs and collaboration between healthcare providers and traditional healers can foster better communication and patient care. Regulation and research can also play a critical role in regulating traditional medicine and promoting research on the safety and efficacy of herbal treatments for hypertension. Ensuring that patients benefit from both traditional knowledge and evidence-based medical care is essential to addressing the growing burden of hypertension in West Africa.

### **Barriers to Implementing Lifestyle Changes**

The implementation of lifestyle changes for hypertension management in West Africa faces several barriers, including economic limitations, lack of access to healthcare, and educational gaps. Economic constraints, such as the cost of healthier food options and lack of access to recreational facilities, make it difficult for many individuals to make necessary dietary changes. Food insecurity and inconsistent access to nutritious food also contribute to the high cost of hypertension-friendly diets. Access to recreational facilities is another significant barrier, with the cost of gym memberships, fitness equipment, and transportation being prohibitive for many individuals. Urbanization has led to overcrowded environments with limited open spaces for exercise, further reducing the opportunity for physical activity. Educational gaps, particularly in rural and underserved areas, hinder the widespread adoption of lifestyle changes. Many individuals in West Africa are unaware of the risks associated with hypertension and may not prioritize preventive measures until serious complications arise [4]. Health education campaigns targeting both rural and urban populations could help bridge this knowledge gap by raising awareness of the causes and risks of hypertension, the importance of lifestyle modifications, and the need for tailored campaigns. Healthcare access in West Africa is uneven, with rural areas having limited access to services and healthcare workers lacking resources and training. This disparity impacts individuals' ability to make lifestyle

changes for hypertension management. Rural areas often face long travel distances to receive medical attention, and the high demand for care often overwhelms urban centers. The cost of healthcare in urban areas also limits the time healthcare professionals can spend counseling patients on lifestyle changes. Addressing these barriers requires coordinated efforts from governments, NGOs, and local communities. Economic interventions, such as reducing the cost of healthy foods and investing in recreational facilities, could help alleviate these barriers. Education campaigns should be scaled up to reach rural and underserved populations, and healthcare infrastructure improvements, particularly in rural areas, can enhance access to preventive care. By addressing these barriers, West Africa can reduce the burden of hypertension and improve public health outcomes.

### CONCLUSION

In conclusion, the impact of lifestyle changes on hypertension management in West Africa is profound and multifaceted, shaped by an intricate interplay of cultural, socioeconomic, and regional factors. The rising prevalence of hypertension in this region necessitates a concerted effort to promote effective lifestyle modifications, including dietary adjustments, increased physical activity, and stress management. Traditional dietary habits, which were historically low in sodium and rich in natural ingredients, have been undermined by urbanization and the influx of processed foods. To reverse this trend, targeted public health initiatives must focus on education and awareness campaigns that emphasize the importance of healthy eating while respecting local culinary practices.

Physical inactivity, exacerbated by urban living conditions and cultural perceptions of exercise, calls for innovative approaches that integrate traditional forms of activity into community routines. Furthermore, socioeconomic stressors, prevalent in many West African nations, underscore the need for comprehensive strategies that address both mental health and physical well-being. The unique role of traditional medicine highlights the importance of integrating culturally relevant practices with modern medical approaches. While traditional remedies and beliefs are deeply ingrained in West African societies, it is essential to ensure that these practices complement evidence-based treatment for hypertension.

However, significant barriers remain, including economic constraints, educational gaps, and unequal access to healthcare services. Addressing these challenges requires a multifaceted approach involving governments, NGOs, and local communities to implement policies that promote affordable healthy food options, improve healthcare access, and enhance health education. By prioritizing lifestyle changes and addressing the socio-cultural context surrounding hypertension, West Africa can pave the way for improved health outcomes and a reduction in the burden of cardiovascular diseases across the region. Ultimately, a collaborative effort that respects cultural diversity while advocating for healthier lifestyle choices is essential for the effective management and prevention of hypertension in West Africa.

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