

Policy Frameworks for Arthritis Prevention and Management in East and West Africa

Omukisa Kireba K.

Faculty of Science and Technology Kampala International University Uganda

ABSTRACT

Arthritis, encompassing conditions such as osteoarthritis (OA) and rheumatoid arthritis (RA), is a growing public health concern in East and West Africa. Despite its significant impact on quality of life and productivity, arthritis remains under-addressed in the region's health policy frameworks. This review examines the prevalence, burden, and policy frameworks for arthritis prevention and management across East and West Africa, identifying key barriers such as limited healthcare access, insufficient specialized care, and inadequate public awareness. While efforts to incorporate arthritis into broader non-communicable disease (NCD) strategies are underway, these conditions often remain secondary concerns in resource allocation. This study highlights gaps in healthcare infrastructure, workforce shortages, and fragmented policy approaches, which hinder effective diagnosis and treatment. To improve arthritis care, the review proposes a multi-sectoral approach, including better integration of arthritis into national health policies, enhanced data collection, increased access to affordable treatments, and community-based interventions. Strengthening healthcare systems through specialized training and infrastructure development, along with improving awareness and access to treatment, is crucial for addressing the rising burden of arthritis in the region. The findings offer critical insights to policymakers, healthcare professionals, and advocacy groups in fostering a more comprehensive approach to arthritis management in East and West Africa.

Keywords: Arthritis, Osteoarthritis, Rheumatoid Arthritis, Policy Frameworks, East Africa, West Africa.

INTRODUCTION

Arthritis, a broad term that includes conditions such as osteoarthritis (OA) and rheumatoid arthritis (RA), remains a significant public health concern in East and West Africa [1]. These disorders primarily affect the joints, causing pain, stiffness, and reduced mobility, ultimately impairing the quality of life for millions of individuals. While OA is often associated with aging and joint wear and tear, RA is an autoimmune condition characterized by chronic inflammation and progressive joint damage. The increasing burden of arthritis in Africa is exacerbated by demographic transitions, lifestyle changes, limited healthcare access, and inadequate policy interventions. Given the socioeconomic and health implications of arthritis, comprehensive policy approaches are crucial for prevention, early diagnosis, and effective management [2]. Globally, arthritis is a leading cause of disability, and its prevalence is rising due to aging populations and increasing risk factors such as obesity and sedentary lifestyles. In Africa, the burden of arthritis is compounded by limited healthcare infrastructure, inadequate specialist care, and poor awareness of musculoskeletal diseases [3]. Many individuals suffering from arthritis do not receive timely diagnosis and appropriate treatment due to cultural beliefs, financial constraints, and limited healthcare resources. Moreover, arthritis is often overshadowed by infectious diseases such as malaria, tuberculosis, and HIV/AIDS, leading to insufficient policy attention [4].

In East and West Africa, arthritis disproportionately affects women and older adults. Rural populations are particularly vulnerable due to reliance on traditional medicine and limited access to formal healthcare facilities [5]. The economic burden of arthritis is substantial, as affected individuals experience decreased

work productivity, increased healthcare costs, and dependency on caregivers. Despite these challenges, arthritis remains a neglected area in health policy discussions, requiring urgent interventions to improve public awareness, healthcare training, and policy frameworks [6]. Arthritis management in East and West Africa faces multiple challenges, including delayed diagnosis, inadequate treatment options, and poor integration of musculoskeletal healthcare services into national health programs [7]. The lack of standardized treatment protocols and limited access to essential medications further exacerbate the situation. Many arthritis patients seek alternative therapies due to the high cost of conventional treatments, which can lead to delayed intervention and worsened disease outcomes [8]. Additionally, most African governments allocate minimal resources to non-communicable diseases (NCDs), prioritizing infectious diseases instead. As a result, arthritis care remains underfunded, and there is a significant gap in national healthcare policies regarding musculoskeletal disorders [9]. The absence of effective public health strategies for arthritis prevention and management highlights the need for evidence-based policy recommendations. This review aims to examine existing policy frameworks addressing arthritis in East and West Africa, identify critical gaps, and propose solutions for improving arthritis care and management. By doing so, it seeks to bridge the divide between policy and practice to enhance the overall quality of arthritis healthcare services in the region. The study aims to evaluate the prevalence and burden of arthritis in East and West Africa, analyze existing policy frameworks and government interventions for arthritis prevention and management, identify challenges and gaps in arthritis healthcare services, explore the role of healthcare professionals, NGOs, and community-based initiatives in arthritis care, and recommend evidence-based strategies for improving diagnosis, treatment, and policy interventions in the region [10]. The research questions include understanding the current prevalence and socioeconomic burden of arthritis, identifying major barriers to effective diagnosis, treatment, and management, and how healthcare providers, policymakers, and community organizations can contribute to improving arthritis care and policy frameworks. This study is of critical importance for multiple stakeholders, including policymakers, healthcare professionals, researchers, and patients. By examining existing arthritis-related policies in East and West Africa, the study will provide valuable insights into the strengths and weaknesses of current healthcare approaches. It will highlight areas where policy interventions are lacking and offer recommendations to bridge these gaps. For policymakers, the findings of this review can inform the development of comprehensive arthritis policies that integrate prevention, early diagnosis, and affordable treatment options. For healthcare professionals, the study will underscore the need for specialized training and the importance of multidisciplinary collaboration in managing arthritis patients. Additionally, the research can empower community health workers and patient advocacy groups to push for greater public awareness and policy reforms. Moreover, by addressing arthritis as a public health priority, the study can contribute to the broader efforts of tackling NCDs in Africa. With growing recognition of the economic and social burden of chronic diseases, there is an urgent need for targeted interventions to improve musculoskeletal health. Ultimately, this review aims to promote a holistic and evidence-based approach to arthritis care in East and West Africa, ensuring that affected individuals receive timely, effective, and affordable healthcare services. The study's findings and recommendations will serve as a foundation for policymakers, healthcare providers, and advocacy groups to drive meaningful change in arthritis prevention and management across the region.

Epidemiology of Arthritis in East and West Africa

The epidemiology of arthritis in East and West Africa is influenced by genetic, environmental, and lifestyle factors, leading to variations in prevalence [11]. Arthritis, which involves inflammation of one or more joints, includes osteoarthritis (OA), rheumatoid arthritis (RA), and other inflammatory forms like psoriatic arthritis (PsA) [12]. Understanding the epidemiology of arthritis in these regions is crucial for clinical management and the development of effective health policies. Prevalence variations in arthritis are not fully understood due to the lack of extensive epidemiological data. However, studies indicate that arthritis is becoming increasingly recognized as a significant public health issue, especially as populations' age and urbanize. In East Africa, the prevalence of OA is higher in urbanized areas due to lifestyle factors such as reduced physical activity and increased life expectancy. In West Africa, arthritis prevalence is influenced by various factors, including limited healthcare access, poverty, lower life expectancy in rural areas, and increasing urbanization and Westernization of lifestyle. Genetic factors, such as the HLA-DRB1 gene, play a role in the onset of arthritis, particularly in autoimmune forms such as rheumatoid arthritis (RA). However, comprehensive studies on the genetic basis of arthritis specific to these regions are still scarce. Environmental and lifestyle factors, such as diet, physical activity levels, and access to healthcare, significantly influence arthritis prevalence in both East and West Africa. Physical activity, diet, and infectious diseases may also contribute to arthritis risk [13]. Climate change and environmental factors

may exacerbate arthritis symptoms, especially in individuals with inflammatory arthritis like RA. To address arthritis in East and West Africa, there is a need for strengthening data collection, improving access to treatment, public awareness campaigns, training healthcare professionals, and further genetic and epidemiological research.

Current Policy Frameworks

The current policy frameworks for arthritis in East and West Africa are part of broader health strategies focusing on non-communicable diseases (NCDs), but arthritis-specific policies remain underdeveloped [14]. These policies often focus on conditions that are more frequently diagnosed or have higher public visibility, leading to challenges in resource allocation, research, and healthcare personnel training. Access to arthritis care in these regions is significantly constrained by inadequate healthcare infrastructure, low availability of specialists, and high medication costs. Healthcare services, including specialized arthritis care, are concentrated in urban centers, and rural areas lack specialized care and basic diagnostic services. Public health facilities may not have the necessary tools or personnel to diagnose and treat arthritis effectively, exacerbated by the lack of rheumatologists [15].

Traditional and alternative medicine plays a significant role in arthritis management, especially in rural areas where access to conventional healthcare is limited. Traditional healers often use a combination of herbal medicines, physical therapies, and spiritual healing for managing arthritis [16]. Cultural acceptance is also a challenge, as patients may seek conventional medical care only when symptoms worsen or when traditional remedies fail. Policy frameworks should integrate traditional medicine practitioners into formal healthcare systems with careful regulation to ensure evidence-based practices are followed. Some countries have started exploring ways to formalize and regulate traditional medicine, such as Kenya's Medical Practitioners and Dentists Council (KMPDC) and Nigeria's efforts to develop collaborative frameworks [17]. Opportunities for integration include research and collaboration between traditional medicine practitioners and medical professionals, training and education on evidence-based practices, and recognizing when to refer patients to conventional healthcare providers. In conclusion, the current policy frameworks for arthritis in East and West Africa show a need for more focused, arthritis-specific strategies.

Barriers to Effective Arthritis Policy Implementation

Arthritis policy implementation in East and West Africa faces several systemic challenges, including limited funding, workforce shortages, limited public awareness, and fragmented policy frameworks [18]. Limited funding results in a lack of specialized clinics, diagnostic tools, and medications required for effective arthritis management. Research and development funding is sparse, leading to poor data on arthritis prevalence, care models, and local solutions. Inadequate treatment options result from limited funding, leading to high out-of-pocket costs for patients and making treatment inaccessible to many. Lack of awareness campaigns and specialized healthcare workers also contribute to the issue. The scarcity of rheumatologists, orthopedic surgeons, and other professionals leads to delayed or inaccurate diagnosis and inadequate care for arthritis patients [2]. Training gaps and limited continuing medical education hamper the ability of healthcare professionals to recognize, diagnose, and treat arthritis effectively. This leads to delayed or inaccurate diagnosis, leading to progressive joint damage and reduced quality of life for patients. The lack of public awareness and education about arthritis in East and West Africa is a significant issue. Cultural factors, lack of awareness campaigns, and a lack of health education contribute to delayed diagnosis and treatment. Additionally, patients often lack self-management skills, which can lead to increased disability and disability. The fragmentation of health policies and lack of coordinated regional strategies also pose significant barriers to arthritis management. National policies are often disjointed and focused on specific diseases, with arthritis often treated as a secondary concern [19]. This results in inconsistent strategies for arthritis prevention, treatment, and research. Regional disparities in care are also a significant issue, with urban areas having better access to arthritis care while rural areas remain underserved. The lack of regional coordination results in inefficiency in resource allocation and delayed regional responses. To address these barriers, a holistic approach involving adequate funding, workforce training, public health education, and regional collaboration is needed [20]. By tackling these barriers, effective policies can be developed and implemented to improve arthritis care and management across these regions.

Recommendations for Strengthening Arthritis Policy Frameworks

To effectively address the growing burden of arthritis in East and West Africa, comprehensive and integrated strategies are necessary. These include incorporating arthritis into national and regional non-communicable diseases (NCD) strategies, adopting a multi-sectoral approach, and enhancing healthcare systems [21]. Incorporating arthritis into national NCD strategies ensures that funding, research, and healthcare services are allocated to managing arthritis, improving early diagnosis and treatment access. Cross-border efforts will enhance resource sharing and make treatment options and research advancements

more widely accessible. Strengthening healthcare systems is crucial for effective arthritis care, as the current shortage of rheumatologists and healthcare infrastructure necessitates increased investment in training, resources, and primary healthcare. Investment in rheumatology training programs, community health worker training, and infrastructure investment can improve diagnosis and treatment, improve healthcare infrastructure, and ensure accessible care for a larger segment of the population.

The lack of reliable, region-specific data on arthritis is a significant challenge in effective arthritis management. To address this, governments should establish national arthritis registries and promote epidemiological studies to gather data that informs policy decisions and improves treatment strategies [22]. Collaboration with international organizations like the World Health Organization, World Arthritis Foundation, and Arthritis Research UK can also help. Access to affordable arthritis treatment remains a challenge in East and West Africa, with high costs preventing many patients from receiving the care they need. Expanding insurance coverage and promoting local drug manufacturing can help bridge this gap. Public-private partnerships between governments, pharmaceutical companies, and international NGOs can ensure essential arthritis medications are available at affordable prices in local markets [23]. Community-based interventions are crucial for raising awareness, early diagnosis, and prevention of arthritis. Training community health workers, promoting public awareness campaigns, and establishing support groups can help identify patients in the early stages of arthritis and encourage early interventions. Strengthening arthritis policy frameworks in East and West Africa requires a multi-pronged approach. Governments should recognize arthritis as a major chronic disease, strengthen healthcare systems, enhance data collection, improve access to affordable treatments, and engage communities in awareness and early detection efforts.

CONCLUSION

Arthritis, a major contributor to disability and reduced quality of life, is largely under-addressed in East and West Africa. Despite progress in acknowledging arthritis as a health issue within broader non-communicable disease (NCD) strategies, a more targeted, arthritis-specific approach is urgently needed. The growing burden of arthritis, particularly among women and rural populations, underscores the need for integrated policy interventions that improve healthcare access, raise awareness, and foster research. Key recommendations for strengthening arthritis policy frameworks include incorporating arthritis into national NCD strategies, bolstering healthcare systems through specialized training and infrastructure development, improving data collection via national arthritis registries and epidemiological studies, increasing access to affordable treatments and expanding insurance coverage, and leveraging community-based interventions for early diagnosis and prevention. Comprehensive and integrated policy strategies that address the medical, social, and economic dimensions of arthritis are essential to improve the quality of life for those affected. Effective policy implementation will ensure that arthritis care is prioritized, accessible, and sustainable, contributing to healthier populations across the regions.

REFERENCES

1. Leifer, V.P., Katz, J.N., Losina, E.: The burden of OA-health services and economics. *Osteoarthritis and Cartilage*. 30, 10–16 (2022). <https://doi.org/10.1016/j.joca.2021.05.007>
2. Mody, G.M.: Rheumatology in Africa—challenges and opportunities. *Arthritis Research & Therapy*. 19, 49 (2017). <https://doi.org/10.1186/s13075-017-1259-3>
3. He, Y., Jiang, W., Wang, W.: Global burden of osteoarthritis in adults aged 30 to 44 years, 1990 to 2019: results from the Global Burden of Disease Study 2019. *BMC Musculoskeletal Disorders*. 25, 303 (2024). <https://doi.org/10.1186/s12891-024-07442-w>
4. Tukamuhebwa, P.M., Munyewende, P., Tumwesigye, N.M., Nabirye, J., Ndlovu, N.: Health worker perspectives on barriers and facilitators of tuberculosis investigation coverage among index case contacts in rural Southwestern Uganda: a qualitative study. *BMC Infectious Diseases*. 24, 867 (2024). <https://doi.org/10.1186/s12879-024-09798-9>
5. Hamid, S., Beko, Z.W., Mekonnen, H.S., Salih, M.H.: Proportion and factors influencing healthcare-seeking behavior among older people in Motta town, East Gojjam: a community-based cross-sectional study, Ethiopia, 2023. *BMC Public Health*. 24, 2092 (2024). <https://doi.org/10.1186/s12889-024-19603-6>
6. Schofield, D., Cunich, M., Shrestha, R.N., Tanton, R., Veerman, L., Kelly, S., Passey, M.E.: The long-term economic impacts of arthritis through lost productive life years: results from an Australian microsimulation model. *BMC Public Health*. 18, 654 (2018). <https://doi.org/10.1186/s12889-018-5509-3>

7. Nicholas, A., Alare, K., AbdulBasit Opeyemi, M., Oluwatosin, A.: The outlook of rheumatological care in Africa: Current state, challenges, and recommendation. *Ann Med Surg (Lond)*. 82, 104689 (2022). <https://doi.org/10.1016/j.amsu.2022.104689>
8. Armin R, Fisher S I. Lupus Erythematosus Cell. *Arthritis & Rheumatology*, 70, (7), 1101. (2018). DOI 10.1002/art.40489
9. Alum E U, Ibiam U A, Ugwuja E I, Aja P M, Igwenyi I O, Offor C E, Orji O U, Ezeani N. N, Ugwu O P C, Aloke C, Egwu C O. Antioxidant effect of Buchholziacoriacea ethanol leafextract and fractions on Freund's adjuvant-induced arthritis in albino rats: a comparative study. *Slovenian Veterinary Research*. 2022; 59 (1): 31–45, (2022). doi: 10.26873/svr-1150-2022.
10. Dzedzic, K.S., Allen, K.D.: Challenges and controversies of complex interventions in osteoarthritis management: recognizing inappropriate and discordant care. *Rheumatology (Oxford)*. 57, iv88–iv98 (2018). <https://doi.org/10.1093/rheumatology/key062>
11. Al-Mayouf, S.M., Al Mutairi, M., Bouayed, K., Habjoka, S., Hadeif, D., Lotfy, H.M., Scott, C., Sharif, E.M., Tahoun, N.: Epidemiology and demographics of juvenile idiopathic arthritis in Africa and Middle East. *Pediatric Rheumatology*. 19, 166 (2021). <https://doi.org/10.1186/s12969-021-00650-x>
12. Aloke, C., Ibiam, U. A., Obasi, N. A., Orji, O. U., Ezeani, N. N., Aja, P. M., Alum, E. U. and Mordi, J. C. Effect of ethanol and aqueous extracts of seed pod of *Copaifera salikounda* (Heckel) on complete Freund's adjuvant-induced rheumatoid arthritis in rats. *J Food Biochem.*, 43(7):e12912. (2019). doi: 10.1111/jfbc.12912. Epub 2019 May 23. PMID: 31353723.
13. Black, R.J., Cross, M., Haile, L.M., Culbreth, G.T., Steinmetz, J.D., Hagens, H., et al.: Global, regional, and national burden of rheumatoid arthritis, 1990–2020, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. *The Lancet Rheumatology*. 5, e594–e610 (2023). [https://doi.org/10.1016/S2665-9913\(23\)00211-4](https://doi.org/10.1016/S2665-9913(23)00211-4)
14. Kassa, M.D., Grace, J.M.: Noncommunicable Diseases Prevention Policies and Their Implementation in Africa: A Systematic Review. *Public Health Rev.* 42, 1604310 (2022). <https://doi.org/10.3389/phrs.2021.1604310>
15. Saraiva, L., Duarte, C.: Barriers to the Diagnosis of Early Inflammatory Arthritis: A Literature Review.
16. Alum, E. U., Ibiam, U. A. and Ugwu, O. P. C. A Comprehensive Review of Treatment Approaches and Perspectives for Management of Rheumatoid Arthritis. *INOSR Scientific Research.*, 10(1):12–17, (2023). <https://doi.org/10.59298/INOSRSR/2023/2.2.13322>
17. Ikhoyameh, M., Okete, W.E., Ogboye, R.M., Owoyemi, O.K., Gbadebo, O.S.: Integrating traditional medicine into the African healthcare system post-Traditional Medicine Global Summit: challenges and recommendations.
18. Ansah, E.W., Maneen, S., Ephraim, A., Ocloo, J.E.Y., Barnes, M.N., Botha, N.N.: Politics–evidence conflict in national health policy making in Africa: a scoping review. *Health Research Policy and Systems*. 22, 47 (2024). <https://doi.org/10.1186/s12961-024-01129-3>
19. Alum, E. U. and Ugwu, O. P. C. Nutritional Strategies for Rheumatoid Arthritis: Exploring Pathways to Better Management. *INOSR Scientific Research.*, 10(1):18–26. (2023). <https://doi.org/10.59298/INOSRSR/2023/3.2.47322>
20. Dos S. Ribeiro, C., van de Burgwal, L.H.M., Regeer, B.J.: Overcoming challenges for designing and implementing the One Health approach: A systematic review of the literature. *One Health*. 7, 100085 (2019). <https://doi.org/10.1016/j.onehlt.2019.100085>
21. McNatt, Z.Z.: Addressing noncommunicable diseases among urban refugees in the Middle East and North Africa - a scoping review. *Conflict and Health*. 14, 1–14 (2020). <https://doi.org/10.1186/s13031-020-0255-4>
22. Ibiam, U. A., Alum, E. U., Orji, O. U., Aja, P. M., Ezeani, N. N., Ugwu, O. P. C. and Ekpono, E. U. Anti- Inflammatory Effects of *Buchholzia coriacea* Ethanol Leaf-Extract and Fractions in Freund's Adjuvant-Induced Rheumatoid Arthritic Albino Rats. *Indo American Journal of Pharmaceutical Sciences (IAJPS)*, 5 (7): 6341– 6357, (2018). <https://doi.org/10.5281/zenodo.1311167>.
23. Koduah, A.: How and why pharmaceutical reforms contribute to universal health coverage through improving equitable access to medicines: a case of Ghana. *Front Public Health*. 11, 1163342 (2023). <https://doi.org/10.3389/fpubh.2023.1163342>

CITE AS: Omukisa Kireba K. (2025). Policy Frameworks for Arthritis Prevention and Management in East and West Africa. EURASIAN EXPERIMENT JOURNAL OF BIOLOGICAL SCIENCES, 6(1):78-83