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Policy Imperatives for Curbing the Rising Burden of Visceral Leishmaniasis in Kenya

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Abstract

Visceral Leishmaniasis (VL) also known as Kala-azar is a neglected tropical disease (NTD) that poses an increasing public health threat in Kenya's Arid and Semi-arid Lands (ASALs). This ecological zone extends across borders into neighboring countries including Sudan, South Sudan, Ethiopia, Eritrea, Somalia, and Uganda. Despite substantial advances in the understanding and management of Visceral Leishmaniasis including improved diagnostics, treatment options, and insights into sandfly vectors, the prevalence of the disease in Kenya continues to rise with new endemic foci increasingly being identified. The persistence and re-emergence of Visceral Leishmaniasis (VL) are driven by multiple interrelated factors including climate change, weak health systems, population mobility due to insecurity and recurrent conflicts, inadequate vector control measures, and widespread poverty among vulnerable and marginalized communities. Moreover, existing health and environmental policies insufficiently incorporate Visceral Leishmaniasis (VL) control into the broader development agendas of the affected regions. Notably, there is a lack of explicit multidisciplinary and multisectoral strategies as well as suboptimal community engagement and participation in public health initiatives specifically targeting VL. The constitutional devolution of health services to county governments along with the recent implementation of Kenya's Social Health Policy Initiative presents a realistic opportunity for high-risk ASAL counties to prioritize promotive and preventive health services to vulnerable groups. This can be effectively advanced through grassroots community health promotion programs, multisectoral collaboration, and broader health system strengthening interventions. This brief communication examines policy opportunities within Kenya's response to Visceral Leishmaniasis (VL), offers practical recommendations, and advocates for accelerated adoption and sustained ownership of integrated, multisectoral disease control strategies by national and county governments to eliminate VL as a public health threat.

Keywords: *Devolution, Integrated, Kala-azar, Kenya, Multidisciplinary, Multisectoral, Policy, Visceral Leishmaniasis*

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1. Introduction

Visceral Leishmaniasis (VL) is a vector-borne disease caused by protozoan parasites of the *Leishmania donovani* complex primarily *L. donovani* and transmitted through the bite of infected *Phlebotomus* sandflies. Globally, an estimated 50,000 to 90,000 new cases occur annually predominantly affecting impoverished populations with East Africa bearing a disproportionately high burden [1]. Kenya is currently among the ten countries that collectively account for over 90% of new Visceral Leishmaniasis (VL) cases reported globally each year [2]. VL is endemic in 11 of Kenya's 47 counties that occupy dry and semi-arid areas, particularly in the northern region of the country [3]. This region is occupied by pastoralist communities who are nomadic and bear a disproportionate burden of Visceral Leishmaniasis (VL) often facing significant barriers to timely diagnosis and treatment. The national VL caseload is estimated at approximately 2,000 cases annually and children under 5 years constitute the majority of reported cases [3]. In recent years, the resurgence and geographic expansion of the disease driven by a convergence of factors has compounded existing vulnerabilities and posed significant challenges to effective disease control [3]. Recent outbreaks, particularly those occurring in 2024 and 2025 have been marked by increased severity and higher case burdens. The most recent Kala-azar outbreak in Wajir County occurring between September 2024 and March 2025 resulted in 40 deaths and 994 reported cases. The majority of cases occurred in children under five years of age with a predominance among those under two years of age. The high mortality has been attributed to delayed healthcare-seeking behaviour within the affected community [4]. A similar outbreak in March 2025 in the neighbouring Marsabit County demonstrated similar characteristics albeit a lower burden of disease on the population, 347 cases and 5 deaths [4]. Despite this growing burden, VL remains excluded from national development and health plans consequently putting vulnerable populations at risk by impeding efforts to effectively control and eradicate the disease [5].

The increasing VL prevalence and severity pose a serious threat to public health in Kenya. The disease places a considerable burden on the country's already fragile healthcare system and limited infrastructure while also inflicting significant economic hardship on affected households [6]. Kenya's Ministry of Health launched a 2021-2025 Strategic Plan for Leishmaniasis Control through integrated efforts and prevent its resurgence in keeping with the World Health Organization (WHO) target to eradicate neglected tropical diseases (NTDs) [7]. Subsequently, there have been both progress and persistent challenges in Kenya's implementation of the policies and strategies pertaining to VL management. Significant efforts have been made to train healthcare workers in endemic counties, decentralize VL diagnosis and treatment, especially in highly endemic counties, integration of treatment guidelines, regional collaboration, and partnerships for elimination [7]. Effective VL control is hampered by a number of issues including the absence of multidisciplinary response teams for Leishmaniasis outbreaks at the county and national levels, insufficient funding to implement VL control strategies, reliance on donor-funded treatment programs, weak surveillance

systems, low diagnostic coverage in endemic areas, insufficient vector control efforts in endemic counties, low community awareness of the disease, and suboptimal community engagement in VL control [7]. A key component of Kenya's Ministry of Health 2021-2025 Strategic Plan for Leishmaniasis Control is vector control which aims to lower sandfly populations by using indoor residual spraying, insecticide-treated nets, and community involvement in environmental management. However, vector control efforts in Kenya remain underfunded and insufficiently prioritized, while the social determinants of VL transmission such as poverty and environmental degradation are not adequately addressed through integrated policy frameworks [7]. In light of the increasing frequency and scale of VL outbreaks, there is an urgent need for comprehensive, multisectoral approaches that embed VL interventions within broader health service delivery systems with coordinated collaboration, and sustained commitment among government agencies, healthcare providers, researchers, affected communities, and international partners to ensure sustainable and impactful disease control [6].

Effective control of the current outbreaks and prevention of future ones will require a proactive and coherent policy framework that integrates access to care, disease surveillance, vector control, and community sensitization. This communication seeks to address this gap by critically evaluating the existing policy environment and proposing strategic evidence-based recommendations for these policies' effective implementation and the ultimate eradication of VL as a public health issue in Kenya.

2. Major Challenges Undermining Visceral Leishmaniasis Elimination Efforts

2.1 Inadequate Surveillance Systems and Underreporting

It is challenging to monitor the disease's incidence and identify high-risk areas due to the absence of comprehensive and ongoing surveillance systems for VL and underreporting from local health workers. Only a few health facilities have the capacity to diagnose the disease with routine surveillance limited to passive case detection with no active case search [7].

2.2 Limited Access to Diagnosis and Treatment

Essential healthcare services such as diagnostic facilities and effective VL treatment are inequitable and not readily available in many rural and remote areas. Patients often travel long distances to get to diagnostic facilities resulting in delayed presentations, more advanced stages of the disease, and increased mortality. Furthermore, these regions lack trained healthcare workers with essential drugs remaining costly and not always readily available, especially in the rural health facilities [8].

2.3 Lack of Community Awareness and Engagement

In many affected communities, VL awareness remains limited and community engagement in its prevention and management continues to be suboptimal. The authorities do not engage with community members directly in sensitization activities. It can take months for patients to receive the right diagnosis because communities are unaware of the nature and severity of the disease. As a result, there is delayed care-seeking behaviour and false beliefs about the disease and its transmission [9]. Furthermore, regional governments lack policies and strategies that support efficient VL prevention and control, and the community is not well-informed on the many roles that the various stakeholders play in VL prevention, control, and elimination.

2.4 Insufficient Funding

Kenya's VL response has little domestic investment and is primarily dependent on donor funding resulting in vertical programming, poor integration with primary healthcare services, and a lack of long-term sustainability. There is insufficient funding to carry out VL control measures with effective responses further hampered by stockouts of essential drugs. This restricts the reach of public health initiatives and the capacity to carry out extensive intervention plans. Furthermore, research projects, community engagement, and outreach activities are also hampered by irregular funding [10].

2.5 Vector Control Gaps

Vector control activities remain underfunded and insufficiently prioritized across all endemic counties with current efforts often fragmented and lacking strategic focus [7]. Similar to integrated management for malaria control in Kenya, there is inadequate inter-sectoral collaboration and over-reliance by counties on national government funding for VL prevention and control activities. Additionally, there is poor integration of the health and non-health sectors and ambiguity in the devolution process regarding the roles and responsibilities of national and county governments with regard to vector control resulting in low leverage of resources among partners [11].

2.6 Cross-Border and Regional Coordination Challenges

Kenya's VL-endemic areas border neighboring Sudan, South Sudan, Ethiopia, and Somalia where substantial cross-border population movement occurs as a result of civil unrest and droughts. Transboundary VL transmission is facilitated by these frequent migrations and elimination efforts are complicated by the continued lack of regional disease surveillance and intervention coordination [2].

3. Strategic Policy Imperatives for Visceral Leishmaniasis Elimination

A set of integrated and actionable policy priorities addressing structural and operational gaps is essential for an effective response to Visceral Leishmaniasis (VL) in Kenya. To align Kenya's VL control efforts with the regional elimination goals which include lowering the VL burden in the Eastern Africa sub-region by 90% to less than 1500 cases annually by 2030 and global neglected tropical diseases (NTDs) roadmaps to prevent, control, eliminate, or eradicate 20 NTDs by 2030, the following imperatives are suggested.

3.1 Strengthen Surveillance and Data Collection

To effectively monitor the VL trends and for early detection of the disease, a strong surveillance system is crucial, especially in high-risk and remote areas. To achieve the elimination target, relevant authorities need to look into ways of reducing the evident underreporting bias and establish strategies to monitor and ascertain the disease control programs. Community-based surveillance and the participation of local health workers e.g. the Community Health Promoters (CHPs) are essential to filling monitoring gaps, particularly in hard-to-reach areas enhancing case detection and early treatment initiation. To enhance data integration, timely reporting, and outbreak forecasting, it will be essential to make investments in digital health infrastructure, capacity-building healthcare professionals, and community members, and strengthen the health

system overall. With these improvements, Kenya can improve its ability to respond to VL outbreaks and reduce the disease burden in the future [12].

3.2 Improve Healthcare Access and Infrastructure

Policymakers must prioritize the decentralization of VL services to primary healthcare facilities to improve access to care for affected populations. This involves ensuring uninterrupted supply chains for rapid diagnostic tests (RDTs), first-line drugs, and subsidizing healthcare costs. Optimizing the Social Health Insurance Fund (SHIF) in Kenya which works to lower the cost of healthcare for individuals and families will guarantee equity in healthcare coverage and increase access to healthcare. To enhance this, engagement of stakeholders, comprehensive communication to the public, improved system readiness, and strengthened governance are crucial for the provision of quality healthcare. The deployment of mobile health units targeting the hard-to-reach areas is one way the government can fill the gaps in healthcare in impoverished areas through on-the-ground diagnosis, early detection and treatment, efficient and sustainable preventive services [13]. Telemedicine connects healthcare professionals with remote populations to provide remote consultation and support. In Kenya, where access to healthcare is restricted in places where VL is endemic, telemedicine can enhance disease management, diagnosis, and treatment [13].

Scaling up the digitization of community health services through digital training and empowering the Community Health Promoters (CHPs) and equipping them with cell phones and other digital reporting tools such as the eCHIS app will enhance data collection, reporting and provision of community health services in general. Additionally, to improve healthcare accessibility and strengthen the response to VL, health workers' comprehensive training programs on VL diagnosis and management in endemic areas are crucial. By providing health workers with the necessary knowledge and skills, these programs enhance active case searches, early detection, effective treatment, and overall disease management. Training of CHPs in endemic areas who act as frontline healthcare professionals will ensure early detection, treatment adherence, and adoption of preventive actions by bridging the gap between formal healthcare facilities and communities [6]. Moreover, it will be easier to diagnose and treat VL if local healthcare facilities are improved and equipped with the necessary infrastructure [14]. It is also crucial to advocate for the inclusion of VL treatments to national essential medicine lists and equally enhance their access through global procurement procedures.

3.3 Strengthen Social Mobilization and Community Engagement

The national and county governments must take adequate steps to invest more in the provision of well-organized social mobilization to its residents in endemic areas to increase knowledge of VL, its signs, and the importance of early diagnosis and treatment [15]. To lessen stigma and encourage care-seeking behaviours, targeted community sensitization initiatives involving local groups and community leaders are critical in the endemic areas for improvement in knowledge and practice levels of VL prevention measures in the community [15]. Community participation should be encouraged in vector control measures such as environmental management to reduce sandfly breeding sites, distribution and utilization of insecticide-treated nets (ITNs), and indoor residual spraying (IRS) [16]. Participation, awareness, and trust in VL treatment and prevention efforts are increased when community leaders and influencers are

included in health promotion sensitizations. Their involvement can motivate communities, reduce stigma, and encourage early healthcare-seeking behaviours because these individuals are respected and have social influence. Forming partnerships and enlisting the help of all relevant stakeholders, will improve community engagement and raise awareness of the importance of VL control by involving communities in the ownership, accountability, and sustainability of interventions [7].

3.4 Increase Funding for VL Treatment, Capacity Building and Research

More funding should be allocated by the government to VL research including studies on novel treatments, diagnostics, and vector control strategies. The government should invest in capacity building of healthcare workers on efficient disease management techniques. Additionally, by ensuring consistent financial support through the establishment of Public-Private Partnerships (PPPs) between the Kenyan Health Ministry and International Organizations for resource mobilization, Kenya can strengthen VL healthcare services by guaranteeing the availability and affordability of effective VL treatments, healthcare infrastructure, and community outreach initiatives ultimately improving disease management initiatives in impacted communities [7]. Priorities should be given to funding for research, development of new treatment guidelines, and emergency funding in case of an outbreak. Understanding and addressing the complexities of VL transmission in Kenya requires research especially as the disease continues to develop and spread to previously non-endemic areas [17]. More research is critically needed to determine the factors that contribute to the spread of VL and how shifting ecological, socio-economic, and environmental factors affect the dynamics of the disease [15]. To increase the capacity to carry out indigenous studies on VL, funding must be allocated to local research institutions. Kenya can generate context-specific data and solutions that are directly related to its own epidemiological landscape by enhancing local research capacities [7]. The growing concern about treatment resistance to current VL therapies is another important research area. Resistance to antileishmanial drugs may rise as the disease spreads and populations receive repeated treatments endangering the effectiveness of treatment and raising mortality rates. Securing ongoing funding and political commitment is essential to ensuring that research and public health initiatives continue to make significant progress in controlling and eliminating VL in Kenya [18].

3.5 Integrate Vector Control into Primary and Environmental Health

An integrated vector management (IVM) strategy that incorporates indoor residual spraying, environmental management, and community sensitization on personal protective behaviors should be implemented as outlined in the Ministry of Health Strategic Plan for Control of Leishmaniasis [7]. Addressing the ecological factors that contribute to sandfly proliferation requires collaboration with the Ministries responsible for housing, environment, and urban planning. To maximize the effectiveness of integrated vector management (IVM), behavior change interventions must be incorporated alongside strong collaboration and partnerships with all relevant stakeholders, including meaningful community engagement [11]. Moreover, the integration of VL control into the County Integrated Development Plans (CIDPs) and County Health Sector Strategic and Investment Plans (CHSSPs) will indicate domestic investment in health and a commitment to addressing the disease at the local level in the endemic counties.

3.6 Foster Cross-Sectoral Partnerships, Regional and International Collaboration

Addressing the social determinants of VL requires coordinated, multi-sectoral collaboration with sectors such as housing, education, sanitation, and water because these social determinants have a substantial impact on health outcomes and are frequently addressed by sectors outside of healthcare. Effective and efficient resource allocation, policy alignment, and improved health equity all depend on cross-sector coordination. This communication advocates for a One Health approach, whereby stakeholders across disciplines and sectors converge to formulate integrated policies and initiatives aimed at sustaining long-term public health outcomes [19]. Multi-sectoral approaches to health and development including vector-borne diseases management are recommended by the Sustainable Development Goals (SDGs).

To address the extreme poverty, inequality, and systemic neglect characterizing endemic regions and to align health interventions with the Sustainable Development Goals, it is imperative that stakeholders actively support the WHO's 2021–2030 Neglected Tropical Diseases Road Map targets for VL in East Africa [12]. Given the transboundary nature of VL, it is imperative to strengthen regional and international partnerships. Collaborating with neighboring countries facing similar challenges can enable the effective exchange of resources, data, and expertise recognizing that VL is a disease that does not respect borders. Such collaborations should encompass joint surveillance systems, coordinated diagnostic support, harmonized vector control strategies, and integrated interventions to address the disease in cross-border regions [6].

4. Conclusion

The recent surge in Visceral Leishmaniasis (VL) cases in Kenya necessitates immediate, strategic, and context-specific policy changes that are in line with both national priorities and the 2030 global elimination efforts. While recent initiatives have laid important groundwork, Kenya remains far from achieving its health goals without a stronger commitment to accelerate domestic resource mobilization. By strengthening local financing strategies, Kenya can advance toward universal health coverage and better equipped to meet the needs of its population. The suggestions made which centered on enhanced surveillance, improved access to diagnosis and treatment, community healthcare delivery through multidisciplinary and multisectoral approach, and sustainable local program funding, give policymakers and practitioners actionable pathways to close existing gaps. Given the abrupt decline in donor funding and shifting priorities, urgent re-evaluation of domestic financing models is critical. The Kenyan government must increase its financial commitment to the health sector. Prioritizing health as a national agenda and allocating a larger share of the national budget to the Ministry of Health are essential steps to ensure sustainable disease control and health system resilience. Kenya runs the risk of undoing hard-won progress if these changes are not made to safeguard public health. Conversely, deliberate policy shifts combined with adaptive implementation strategies can help mitigate the current surge in Visceral Leishmaniasis and strengthen long-term resistance against future outbreaks.

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