



Stigma and infectious diseases in Africa: examining impact and strategies for reduction

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Abstract

Stigma poses a significant barrier to accessing care, managing, and preventing infectious diseases in Africa. The authors conducted an extensive search across Scopus, PubMed, ScienceDirect, and Google Scholar to identify relevant English-language articles, with no constraints on publication dates, using the keywords “Stigma,” and “Infectious Disease,” in conjunction with “Africa.” This article explores the multifaceted nature of stigma associated with infectious diseases, highlighting its impact on healthcare access and public health outcomes. It delves into the current situation of infectious disease-related stigma in Africa, emphasizing the various diseases and contexts affected. The article identifies drivers of stigma, including negative attitudes, misinformation, and institutional practices, and discusses their role in perpetuating discrimination. Importantly, it provides recommendations for addressing infectious disease stigma in Africa through comprehensive strategies encompassing health education, contact-based interventions, professionalized counselling and peer support services, and community engagement. The article calls for collaboration among governments, healthcare organizations, NGOs, and community leaders to implement holistic strategies that prioritize inclusivity and stigma reduction. Ultimately, it underscores the urgent need to combat stigma to improve healthcare access and outcomes for individuals affected by infectious diseases in Africa.

Keywords: stigma, infectious diseases, Africa, social stigma, epidemiology

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Introduction

Stigma poses a growing challenge in Africa, hindering access to care for infectious diseases. Infected individuals hide their illnesses to avoid discrimination, impeding diagnosis and treatment and worsening the disease burden^[1]. Stigma is defined as a mark of shame associated with a specific context, trait, or label, causing feelings of difference and exclusion, leading to social isolation and reduced self-esteem^[2]. The resulting lack of social contact and self-worth can foster fear and otherness, culminating in stigma^[1].

Africa bears nearly 40% of the global burden of infectious and neglected tropical diseases, affecting about 400 million people, with ~185 000 deaths annually and 620 million disability-adjusted life years lost^[3]. This does not account for the suffering and disability endured by over a billion individuals in impoverished regions^[4]. The populations at risk in Africa include vulnerable groups like rural communities, urban slum dwellers, children, pregnant women, displaced populations, agricultural and rural workers, and indigenous communities^[5].

Stigmatization can represent the disease itself and the perception of being a carrier^[6]. Stigma can be internalized, impacting self-perception and behaviour. Self-stigma refers to adverse actions taken against oneself or someone due to their infected status^[7], while perceived public stigma refers to the anticipation of discrimination. Disease-related stigma leads to fear-driven negative behaviours, attitudes, and judgments towards infected

individuals^[8], hindering progress in disease control despite scientific advancements. Individuals with diseases like HIV/AIDS, ebola, tuberculosis, zika virus, Covid-19, and monkeypox are highly likely to experience stigma^[1].

The consequences include limited access to quality healthcare services, sustained transmission, and difficulties in containing the spread of infectious diseases^[6]. Addressing stigma becomes imperative. In this study, we examine the role of stigma in disease outbreaks and propose strategies to mitigate its impact, offering a pathway to overcome disease outbreaks in Africa.

Current situation of stigma and infectious diseases in Africa

In Africa, infectious diseases are accompanied by a formidable adversary: stigma. Stigma, the marginalization of individuals afflicted by diseases, leads to discrimination against them and their families^[9]. While quantifying the exact extent of infectious disease-related stigma in Africa is challenging due to its diverse diseases and contexts, it is clear that stigma casts a significant and far-reaching shadow. Diseases such as HIV/AIDS, tuberculosis, and leprosy have been extensively documented as magnets for stigma^[10, 11]. Vulnerable populations, including key populations and adolescents, often face discrimination when seeking care^[12]. Privacy breaches, differential treatment, and compromised counselling compound the problem^[13]. Factors like gender, identity, poverty, and age contribute to HIV stigma in Kenya, with women and gender-diverse individuals experiencing discrimination when accessing clinical care^[14].

Recent outbreaks of diseases like Ebola, Covid-19, and monkeypox have exposed how stigma continues to hinder healthcare access, especially for vulnerable groups such as men who have sex with men^[15]. In South Africa, a significant percentage of HIV-positive individuals experienced high levels of HIV-related stigmatizing attitudes, while stigma related to type 2 diabetes ranged from 49.6% in Ghana to 70% in Ethiopia^[16, 17]. Stigma was reported by Ebola survivors and their communities in DR Congo, Guinea, and Liberia^[18]. A study from low- and middle-income countries found a prevalence of stigma at 37%^[19]. Covid-19 has also ignited stigma against specific minority groups and foreigners. Even before the emergence of Covid-19, research consistently indicated that individuals living with HIV were more susceptible to stigma compared to those with other infectious diseases^[20]. This stigma encompasses medical, moral, and social dimensions, perpetuating itself through interpersonal and intrapersonal channels. Moreover, individuals diagnosed with Covid-19 have faced heightened stigma, driven by increased public anxiety^[21]. According to recent research, people with non-communicable diseases (NCDs) in Africa experience stigma and prejudice in a manner comparable to that experienced by people with infectious diseases, given the rising prevalence of NCDs across the world, which account for 80% of the mortality rate in Africa^[22]. Numerous studies have shown that NCDs in Africa are also being stigmatized against, as evidenced by the perceived stigma suffered by people with NCDs ranging from 12 to 86% and the experienced stigma ranging from 5.6 to 68.5%^[23, 24].

Many African nations have undertaken several efforts to address infectious disease stigma through public health campaigns, community engagement, education, healthcare professional training, and policy development^[25, 26]. These comprehensive strategies

HIGHLIGHTS

- Engaging marginalized groups is vital in addressing stigma in Africa.
- A multifaceted approach is recommended to mitigate stigma's effects.
- Practical interventions are essential in alleviating the burden of stigma in Africa.

aim to destigmatize infectious diseases, raise public awareness, protect individuals' rights, and ensure equitable healthcare access. Future plans involve intensifying awareness campaigns, integrating mental health support into primary care, enhancing data collection, fostering international collaboration, and reducing stigma in healthcare practices^[27, 28]. These efforts, geared towards a stigma-free future, reflect a steadfast commitment to tackling stigma and promoting awareness as integral components of public health initiatives across Africa^[29]. Public-private partnerships addressing infectious diseases in Africa also incorporate stigma reduction, although to varying degrees, through initiatives such as public awareness campaigns and community engagement^[30]. As these programs evolve, they forge partnerships among governments, NGOs, pharmaceutical firms, and the private sector, collectively working towards improved healthcare access and prevention measures^[31, 32].

Drivers of stigma in Africa

Stigma related to infectious diseases in Africa arises from negative attitudes, a lack of awareness, and institutional practices. Limited knowledge and misconceptions contribute to stigmatizing behaviours, even within healthcare settings. Fear of infection and fear of the individual or their behaviour also play a significant role^[33]. Stigma is influenced by social and structural factors, including cultural and gender norms, as well as laws and policies. These factors shape the stigmatization process and impact Africa's efforts to combat infectious diseases such as HIV, leprosy, tuberculosis, and others^[34, 35].

Stigma within African communities is also driven by feelings of disgust and acts of marginalization towards individuals infected with infectious diseases. This perception stems from the belief that infectious diseases are primarily associated with disadvantaged backgrounds, seen as carrying a contagious and dirty agent^[1, 6]. In contrast, non-communicable diseases like cancer, diabetes, and hypertension, which lack an infectious agent, are often considered diseases of the affluent, despite receiving varied stigmatization recently. Infectious diseases are also perceived as easily transmissible through physical touch and social interaction^[36].

The societal interpretation of infectious diseases and the physical disfigurement associated with certain conditions, particularly neglected tropical diseases, contribute to stigma. Misinformed gossiping about specific contagious diseases, and exacerbates the burden of stigma among the infected population in Africa^[15, 25]. This leads to self-isolation and fear of stigmatization among marginalized groups, limiting their access to social and healthcare support services. Blaming individuals for not adhering to precautionary measures is also observed among vulnerable populations^[37].

Recommendations for addressing infectious diseases stigma in Africa

Addressing stigma related to infectious diseases in Africa requires a comprehensive and effective approach. Proactively addressing and countering disease-related stigma during outbreaks is crucial for African governments, policymakers, and emergency response coordinators. To achieve this, a multifaceted strategy should be implemented, focusing on education, outreach, counselling, problem-solving, advocacy, and community engagement. These strategies collectively contribute to mitigating the negative impacts of stigma^[6].

Health education, literacy and awareness

To tackle the issue of stigma related to infectious diseases in Africa, it is crucial for governments and community leaders to actively embrace educational programs and interventions aimed at countering stigma. These initiatives should focus on dispelling misinformation, challenging misconceptions, and correcting false beliefs that exist across the continent. Education campaigns, public lectures, and local and national awareness programs should be utilized to replace these myths and stereotypes with accurate information. Leveraging the power of social media platforms can facilitate reaching a larger audience, including individuals, groups, and communities^[38]. By fostering understanding and promoting inclusivity, this comprehensive approach will effectively combat stigma throughout the continent^[39].

Contact-based interventions

Building bridges and promoting acceptance will help overcome interpersonal division and facilitate healthy relationships and interactions between groups. One effective strategy is to create educational platforms where individuals who have successfully overcome stigmatized conditions can share their personal stories, obstacles, and triumphs with the broader public^[38]. By presenting factual information derived from their own life experiences, these individuals can help dispel misconceptions and provide valuable insights. This approach not only breaks down barriers but also fosters safer and healthier relationships within communities. Furthermore, it promotes acceptance, inclusivity, and support for reintegration, thus making significant strides towards reducing stigma in Africa^[18].

Enhancing support and professionalization of counselling and peer services

To address the stigma, rejection, and discrimination faced by stigmatized individuals when seeking help and treatment services, it is imperative to promote and establish counselling and peer support services across all sectors of healthcare, institutions, and communities. These services should be made accessible at the grassroots level, ensuring that no individual is left behind. By providing support and guidance, these services play a crucial role in reducing stigma, advancing human rights, and improving the overall quality of life for stigmatized individuals^[40].

Professionalizing these services is essential to enhance the effectiveness of behavioural health facilities throughout Africa. By establishing policies that prioritize mental processes, environmental factors, institutional actions, and socioeconomic influences, policymakers can create a comprehensive framework

that positively influences the reduction of stigma. It is vital to incorporate stigma-related policies fully into healthcare systems to mitigate the detrimental effects of health-related stigma across all African communities^[40,41].

Empowering communities

To effectively tackle the stigma surrounding infectious diseases in Africa, the government should actively encourage community members to serve as bridges between organizations and their respective communities. These community members play a vital role in effective communication, addressing public skepticism, and building trust by being relatable figures within the community. This approach fosters stronger relationships, actively reduces stigma, shame, and fear, and consequently promotes trust, inclusivity, and active community engagement, leading to more impactful efforts in stigma reduction.

Community meetings and engagements focused on marginalized groups can serve as pivotal platforms for addressing stigma in Africa. Facilitating open communication between public health officials and the public is crucial in any disease outbreak response^[42]. Adopting a systematic approach to gathering valid and reliable information is also essential to moving forward. Working closely with community leaders and reputable groups can provide valuable insights into the specific challenges faced by stigmatized groups, complement public health efforts, and serve as vital channels for disseminating information to individuals who may not trust the government or other private sources^[43].

To ensure wide-reaching impact, it is imperative for African governments, legislators, healthcare organizations, international bodies, NGOs, and community leaders to join forces and collaboratively develop a holistic strategy. This strategy must encompass all recommended measures for stigma reduction and be implemented at every level of government in each African nation, leaving no community behind. The ultimate objective is to eradicate the stigma associated with infectious diseases, making inclusivity a top priority. Regular progress assessments and knowledge sharing among nations will further strengthen this collective effort to reduce stigma and foster understanding throughout Africa^[29,45].

Conclusion

Stigma is a prevalent issue in African communities, which negatively impacts individuals affected by infectious diseases and their families. Tackling stigma requires a multifaceted approach across various sectors, including the community, workplace, education, healthcare, justice, and emergency. This involves fostering engagement, building trust, creating inclusivity, raising awareness, improving communication, implementing policy changes, and ensuring swift access to services. By engaging the community, promoting understanding, dispelling misconceptions, and implementing supportive policies, Africa can reduce the negative impacts of stigma and provide essential support to those affected by infectious diseases.

Ethical approval

Approval from the ethical committee was not applicable.

Consent

Consent has been obtained for this study.

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Conflicts of interest disclosure

The authors declare no conflict of interest.

Author contribution

P.O.O., O.O.J., M.B.M., Y.M.E.I.A., O.N.O. and O.B. conceived and designed the research, reviewed, analyzed, performed the research and wrote the paper. O.O.J., D.T.M., A.S.M., M.A.K.A.M., A.U.S., S.G.M.K., D.O.S., O.T.A. and D.E.L.P.III: interpreted the data, review-editing and proofread the paper. E.M. and D.E.L.P.III: interpreted the data, designed research, review-editing, supervision and proofread the paper.

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References

- [1] Saeed F, Mihan R, Mousavi SZ, *et al.* A narrative review of stigma related to infectious disease outbreaks: what can be learned in the face of the Covid-19 pandemic? *Front Psychiatry* 2020;11:565919.
- [2] Kurzban R, Leary MR. Evolutionary origins of stigmatization: the functions of social exclusion. *Psychol Bull* 2001;127:187–208.
- [3] Niohuru I. Disease Burden and Mortality. 2023;35–85. https://link.springer.com/10.1007/978-3-031-19719-2_3
- [4] Hassoun N, Cosler L. Global health impact: a model to alleviate the burden and expand access to treatment of neglected tropical diseases. *Am J Trop Med Hyg* 2023;108:801–6.
- [5] Akinokun RT, Ilesanmi EB, Adebisi YA, *et al.* The status of neglected tropical diseases amidst COVID-19 in Africa: current evidence and recommendations. *Heal Promot Perspect* 2021;11:430–3.
- [6] Fischer LS, Mansergh G, Lynch J, *et al.* Addressing disease-related stigma during infectious disease outbreaks. *Disaster Med Public Health Prep* 2019;13:989–94.
- [7] Algarin AB, Sheehan DM, Varas-Diaz N, *et al.* Health care-specific enacted HIV-related stigma's association with antiretroviral therapy adherence and viral suppression among people living with HIV in Florida. *AIDS Patient Care STDS* 2020;34:316–26.
- [8] UNAIDS. Global partnership for action to eliminate all forms of HIV-related stigma and discrimination. 2018. <https://www.unaids.org/en/topic/global-partnership-discrimination#:~:text=Six%20settings-,The%20Global%20Partnership%20for%20Action>
- [9] Mbonu NC, van den Borne B, De Vries NK. Stigma of People with HIV/AIDS in Sub-Saharan Africa: A Literature Review. *J Trop Med*. 2009;2009;145891. doi: 10.1155/2009/145891
- [10] World Health Organization African Regional Office. The African Regional Health Report: The Health of the People. World Heal Organ. 2006;196.
- [11] Mbuthia GW, Nyamogoba HDN, Chiang SS, *et al.* Burden of stigma among tuberculosis patients in a pastoralist community in Kenya: a mixed methods study. *PLoS One* 2020;15:e0240457.
- [12] Subu MA, Wati DF, Netrida N, *et al.* Types of stigma experienced by patients with mental illness and mental health nurses in Indonesia: a qualitative content analysis. *Int J Ment Health Syst* 2021;15:77.
- [13] Wirtz AL, Kamba D, Jumbe V, *et al.* A qualitative assessment of health seeking practices among and provision practices for men who have sex with men in Malawi. *BMC Int Health Hum Rights* 2014;14:20.
- [14] Turan JM, Miller S, Bukusi EA, *et al.* HIV/AIDS and maternity care in Kenya: how fears of stigma and discrimination affect uptake and provision of labor and delivery services. *AIDS Care* 2008;20:938–45.
- [15] Manirambona E, Shomuyiwa DO, Musa SS, *et al.* Monkeypox among men who have sex with men in Africa: the need for testing and vaccination beyond stigma. *J Med Virol* 2023;95:e28121.
- [16] Ncitakalo N, Mabaso M, Joska J, *et al.* Factors associated with external HIV-related stigma and psychological distress among people living with HIV in South Africa. *SSM Popul Heal* 2021;14:100809.
- [17] Akyirem S, Ekpore E. Experience of stigma among persons with type 2 diabetes in Africa: a systematic review. *Int Health* 2023. <https://academic.oup.com/inthealth/advance-article/doi/10.1093/inthealth/ihad045/7208603>
- [18] James PB, Wardle J, Steel A, *et al.* An assessment of Ebola-related stigma and its association with informal healthcare utilisation among Ebola survivors in Sierra Leone: a cross-sectional study. *BMC Public Health* 2020;20:182.
- [19] Yuan K, Huang XL, Yan W, *et al.* A systematic review and meta-analysis on the prevalence of stigma in infectious diseases, including COVID-19: a call to action. *Mol Psychiatry* 2022;27:19–33.
- [20] Stangl AL, Earnshaw VA, Logie CH, *et al.* The Health Stigma and Discrimination Framework: a global, crosscutting framework to inform research, intervention development, and policy on health-related stigmas. *BMC Med* 2019;17:31.
- [21] Li M, Long J, Wang X, *et al.* A comparison of COVID-19 stigma and AIDS stigma during the COVID-19 pandemic: a cross-sectional study in China. *Front Psychiatry* 2021;12:782501.
- [22] Dong R, Leung C, Naert MN, *et al.* Chronic disease stigma, skepticism of the health system, and socio-economic fragility: Qualitative assessment of factors impacting receptiveness to group medical visits and microfinance for non-communicable disease care in rural Kenya. *PLoS One* 2021;16:e0248496.
- [23] Rai SS, Syurina EV, Peters RMH, *et al.* Non-communicable diseases-related stigma: a mixed-methods systematic review. *Int J Environ Res Public Health* 2020;17:6657.
- [24] Ajaero CK, Wet-Billings N, De, Atama C, *et al.* The prevalence and contextual correlates of non-communicable diseases among inter-provincial migrants and non-migrants in South Africa. *BMC Public Health* 2021;21:999.
- [25] Gureje O, Abdulmalik J, Kola L, *et al.* Integrating mental health into primary care in Nigeria: report of a demonstration project using the mental health gap action programme intervention guide. *BMC Health Serv Res* 2015;15:1–8.
- [26] Kharsany ABM, Karim QA. HIV infection and AIDS in Sub-Saharan Africa: current status, challenges and opportunities. *Open AIDS J* 2016; 10:34–48.
- [27] Bohren MA, Vazquez Corona M, Odiase OJ, *et al.* Strategies to reduce stigma and discrimination in sexual and reproductive healthcare settings: a mixed-methods systematic review. *PLOS Glob Public Heal* 2022;2:e0000582.
- [28] Thornicroft G, Sunkel C, Alikhon Aliev A, *et al.* The Lancet Commission on ending stigma and discrimination in mental health. *Lancet* 2022;400: 1438–80.

- [29] Jacobi CA, Atanga PN, Bin LK, *et al.* Friend with HIV Remains a Friend": HIV/AIDS Stigma Reduction through Education in Secondary Schools-A Pilot Project in Buea, Cameroon. *J Int Assoc Provid AIDS Care*. 2020; 2325958219900713.
- [30] Odimegwu CO, Akinyemi JO, Alabi OO. HIV-stigma in Nigeria: review of research studies, policies, and programmes. *AIDS Res Treat* 2017;2017:1–13.
- [31] Global Health and the Future Role of the United States. *Global Health and the Future Role of the United States*. 2017.
- [32] PEPFAR. PEPFAR 2021 Country and Regional Operational Plan (COP/ROP) Guidance for all PEPFAR Countries. 2020;1–487.
- [33] Nyblade L, Stockton MA, Giger K, *et al.* Stigma in health facilities: why it matters and how we can change it. *BMC Med* 2019;17:25.
- [34] Okesanya OJ, Manirambona E, Buban JMA, *et al.* Sustaining long-term pre-exposure prophylaxis use among international migrants. *Popul Med* 2023;5:1–2.
- [35] Embleton L, Logie CH, Ngure K, *et al.* Intersectional stigma and implementation of HIV prevention and treatment services for adolescents living with and at risk for HIV: opportunities for improvement in the HIV continuum in Sub-Saharan Africa. *AIDS Behav* 2023; 27(S1):162–84.
- [36] Straif-Bourgeois S, Ratard R, Kretzschmar M. Infectious Disease Epidemiology. *Handbook of Epidemiology*. New York, NY: Springer; 2014:2041–2119.
- [37] Manirambona E, Wilkins L, Lucero-Prisno III DE. COVID-19 and its threat to refugees in Africa. *Heal Promot Perspect* 2021;11:263–6.
- [38] Spittel S, Maier A, Kraus E. Awareness challenges of mental health disorder and dementia facing stigmatisation and discrimination: a systematic literature review from Sub-Sahara Africa. *J Glob Health* 2019;9:020419.
- [39] Stuart H. Reducing the stigma of mental illness. *Glob Ment Heal* 2016;3:e17.
- [40] Sciences S. Ending discrimination against people with mental and substance use disorders: The evidence for stigma change. *Ending Discrimination Against People with Mental and Substance Use Disorders: The Evidence for Stigma Change* 2016;9:1–170.
- [41] Shalaby RAH, Agyapong VIO. Peer support in mental health: literature review. *JMIR Ment Heal* 2020;7:e15572.
- [42] Questa K, Das M, King R, *et al.* Community engagement interventions for communicable disease control in low- and lower- middle-income countries: evidence from a review of systematic reviews. *Int J Equity Health* 2020;19:51.
- [43] Bailey T kuii M, Yeh CJ, Felipe LCS. Using Community-Engagement to Teach Mental Health Stigma Reduction. *Journal of Counselor Preparation and Supervision*. 2022;15. <https://digitalcommons.sacredheart.edu/jcps/vol15/iss3/6>
- [44] UNAIDS. Evidence for elimination HIV-related stigma and discrimination. *Unaids* 2020:1–84. https://www.unaids.org/sites/default/files/media_asset/eliminating-discrimination-guidance_en.pdf
- [45] Haldane V, Chuah FLH, Srivastava A, *et al.* Community participation in health services development, implementation, and evaluation: a systematic review of empowerment, health, community, and process outcomes. *PLoS One* 2019;14:e0216112.