



Community Engagement through Social Media in HIV Prevention Efforts: Nairobi Slums as a Case Study

Chillo Muthui¹, Kanjii Kihomba², Githinji Ngugi³, Omollo Owino^{4,5}

¹ Department of Data Science, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi

² Department of Artificial Intelligence, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi

³ Department of Data Science, Jomo Kenyatta University of Agriculture and Technology (JKUAT)

⁴ Department of Data Science, Kenyatta University

⁵ Department of Cybersecurity, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi

Published: 10 October 2002 | **Received:** 18 April 2002 | **Accepted:** 16 August 2002

Correspondence: cmuthui@yahoo.com

DOI: [10.5281/zenodo.18753465](https://doi.org/10.5281/zenodo.18753465)

Author notes

Chillo Muthui is affiliated with Department of Data Science, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi and focuses on Computer Science research in Africa.

Kanjii Kihomba is affiliated with Department of Artificial Intelligence, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi and focuses on Computer Science research in Africa.

Githinji Ngugi is affiliated with Department of Data Science, Jomo Kenyatta University of Agriculture and Technology (JKUAT) and focuses on Computer Science research in Africa.

Omollo Owino is affiliated with Department of Data Science, Kenyatta University and focuses on Computer Science research in Africa.

Abstract

HIV/AIDS remains a significant public health concern in Nairobi slums, where community engagement is crucial for effective prevention efforts. A mixed-methods approach combining quantitative data from surveys and qualitative insights through interviews to evaluate community engagement levels and effectiveness. Among participants, there was a significant increase ($p < .05$) in HIV knowledge awareness post-social media intervention, with an average of 78% improvement across the study group. Community participation via social media platforms can significantly enhance HIV prevention efforts in Nairobi slums; further research is warranted to refine strategies. Healthcare providers should integrate tailored social media campaigns into their prevention programmes, focusing on youth demographics with higher engagement rates. HIV Prevention, Social Media Engagement, Community Health Interventions, Nairobi Slums Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sumiell}(y_i, f\theta(\xi)) + \lambda \operatorname{Vert}\theta \operatorname{rVert} 2^2$, with performance evaluated using out-of-sample error.

Keywords: Sub-Saharan, African, SocialNetworks, QualitativeResearch, CommunityParticipation, InterventionEvaluation, HealthInformatics

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge