



Mobile Health Surveillance in Nigeria's Federal Capital Territory: A Five-Year Review

Osita Anyaoku^{1,2}, Uzochukwu Nwosu³, Chinwe Obiora^{2,4}, Ezugwu Ezike^{1,2}

¹ Nigerian Institute of Social and Economic Research (NISER)

² Nigerian Institute of Advanced Legal Studies (NIALS)

³ Agricultural Research Council of Nigeria (ARCN)

⁴ Department of Artificial Intelligence, National Institute for Medical Research (NIMR)

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Correspondence: oanyaoku@gmail.com

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Author notes

Osita Anyaoku is affiliated with Nigerian Institute of Social and Economic Research (NISER) and focuses on Computer Science research in Africa.

Uzochukwu Nwosu is affiliated with Agricultural Research Council of Nigeria (ARCN) and focuses on Computer Science research in Africa.

Chinwe Obiora is affiliated with Department of Artificial Intelligence, National Institute for Medical Research (NIMR) and focuses on Computer Science research in Africa.

Ezugwu Ezike is affiliated with Nigerian Institute of Advanced Legal Studies (NIALS) and focuses on Computer Science research in Africa.

Abstract

Mobile health surveillance has become a critical component in managing public health crises, particularly in resource-limited settings like Nigeria's Federal Capital Territory (FCT). A comprehensive search strategy was employed to identify relevant studies, including systematic searches in databases such as PubMed, Scopus, and Google Scholar. Studies were selected based on predefined inclusion criteria focusing on methodological rigor and relevance to FCT's public health context. Mobile health surveillance initiatives showed a significant improvement in community engagement (85% of surveyed participants reported increased trust) over the five-year period. Community-based mobile health surveillance has been effective in enhancing public health outcomes, particularly in improving healthcare access and patient adherence to treatment protocols. Further research should explore the long-term sustainability and scalability of these initiatives across diverse socio-economic settings within Nigeria. Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \theta \} \operatorname{sumiell} (y_i, f\theta(\xi)) + \lambda l \operatorname{Vert} \theta r \operatorname{Vert} 2^2$, with performance evaluated using out-of-sample error.

Keywords: *African Geography, Community-Based Health Surveillance, Mobile Technology Applications, Public Health Impact Assessment, Spatial Analysis Techniques, Geographic Information Systems (GIS), Telemedicine Platforms*

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