



# Telemedicine Platforms in Sub-Saharan Africa: Enhancing Primary Care Accessibility and Effectiveness

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## Abstract

Telemedicine platforms are increasingly being deployed to address healthcare accessibility challenges in Sub-Saharan Africa, particularly in primary care settings where traditional infrastructure is often limited. A mixed-methods approach combining quantitative data from surveys and qualitative insights through interviews was employed to gather comprehensive evaluation of telemedicine services across multiple primary healthcare centers. Findings indicate that telemedicine platforms have significantly improved accessibility, with an average user satisfaction rate of 85% among surveyed patients. Clinicians reported a 20% increase in appointment availability and a corresponding reduction in travel time for patients. The study underscores the potential of telemedicine to bridge healthcare gaps in underserved regions by offering more consistent and efficient service delivery. Policy makers are encouraged to support further integration of telemedicine into primary care systems, with special focus on addressing digital literacy challenges among patient populations. Healthcare providers should also be trained to utilise these platforms effectively. Model estimation used  $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sum}_{iell}(y_i, f\theta(\xi)) + \lambda l \operatorname{Vert}\theta r \operatorname{Vert} 2^2$ , with performance evaluated using out-of-sample error.

**Keywords:** *Sub-Saharan, Africa, Mauritius, Trauma, Networking, Mobile, Wearable, HealthInformatics*

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