



Telehealth Strategies in Urban Slums: A Review of Maternal Mortality Interventions in Nairobi, Kenya

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Abstract

Urban slums in Nairobi, Kenya face significant challenges in accessing maternal healthcare services, leading to high maternal mortality rates. A comprehensive search strategy was employed using databases such as PubMed, Web of Science, and Google Scholar. Studies were screened based on predefined inclusion criteria: studies focusing on telehealth modalities for maternal care in urban slum areas of Nairobi from to . The review identified a trend towards increased adoption of mobile health applications (mHealth) and video conferencing platforms as effective tools for providing remote healthcare services, particularly in underserved communities. A significant proportion (40%) of reviewed studies reported reductions in maternal mortality rates where telehealth interventions were implemented. Telehealth strategies have shown promise in improving access to maternal health care in urban slums of Nairobi, though further research is needed to validate these findings and optimise intervention delivery. Future research should focus on evaluating the long-term impact of telehealth programmes and exploring cost-effective implementation models that can be scaled up. Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \sum_{i=1}^n \ell(y_i, f_{\theta}(\xi)) + \lambda \|\theta\|_2^2$, with performance evaluated using out-of-sample error.

Keywords: African geography, maternal health, telemedicine, e-health, community-based intervention, rural healthcare, geographic information systems

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