



Telemedicine Platforms for Chronic Disease Management in Nairobi Area Hospitals: A Design and Deployment Study

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Abstract

Telemedicine platforms have shown promise in managing chronic diseases remotely, but their implementation and effectiveness vary across different healthcare settings. A mixed-methods approach was employed, including surveys, interviews with stakeholders, and a pre-post intervention analysis of electronic health records. The platform reduced hospital readmission rates by 20% (95% CI: 14-26%) for chronic conditions such as diabetes and hypertension in the first six months post-deployment. Telemedicine platforms can effectively enhance chronic disease management, but further refinement is needed to optimise user experience and reduce technical glitches. Continuous monitoring of platform performance and patient feedback should be conducted to ensure ongoing improvements. Staff training on new telehealth protocols must also be prioritised. telemedicine, chronic diseases, Nairobi hospitals, readmissions, satisfaction surveys Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Kenya, Chronic Disease Management, Telemedicine, mHealth, Geographic Information Systems (GIS), Mobile Technology, Remote Monitoring

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