



# Telehealth Services Adoption and Outcomes in Chronic Disease Management among South African Informal Settlements

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## Abstract

Telehealth services have shown promise in improving access to chronic disease management for remote populations, particularly those living in informal settlements where traditional healthcare delivery is often inadequate. A mixed-methods approach was employed, involving a quantitative survey of 500 participants and qualitative interviews with 30 participants from randomly selected informal settlements. Data were analysed using logistic regression to model telehealth service adoption rates and multivariate analysis for outcomes. Telehealth service adoption in the study area ranged from 42% among those who preferred traditional healthcare to 68% among tech-savvy users, with a significant difference observed ( $p < 0.05$ ). While telehealth services were well-received by some groups, there was substantial variation in adoption rates based on user characteristics and preferences. Further research should focus on developing tailored telehealth strategies that address the varying needs of different population subgroups within South African informal settlements. Chronic disease management, Telehealth services, Informal settlements, Logistic regression 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:** *Sub-Saharan, Informal, Telemedicine, Chronic, Accessibility, EHealth, Integration*

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