



# Mobile Health Check-ups in Rural South Africa: A Meta-Analysis of Chronic Disease Management Effects

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## Abstract

Rural areas in South Africa often face challenges in accessing healthcare services, particularly for chronic disease management. The analysis will aggregate data from multiple studies comparing mobile health check-up interventions with standard care controls, using standardised effect size measures and accounting for potential confounders such as socioeconomic status and geographical region. Mobile health check-ups showed a statistically significant improvement in blood pressure management ( $p < 0.05$ ) compared to control groups after controlling for baseline differences. Mobile health check-up services appear effective in enhancing chronic disease management outcomes, particularly for hypertension among rural residents. Rural healthcare providers should integrate mobile health check-ups into their service delivery models as a cost-effective and accessible strategy for managing chronic diseases. Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_p$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan, geographical, randomized, effectiveness, intervention, public-health, qualitative*

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