



# Enhancing Efficiency in Community Health Centres: A Quasi-Experimental Assessment of System Performance in South Africa

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## Abstract

Community health centres (CHCs) play a crucial role in providing healthcare services to underserved populations in South Africa. Despite their importance, there is limited research on how to enhance their operational efficiency. A quasi-experimental approach was employed, utilising data from 20 CHCs across different regions. The analysis included multivariate regression models to assess the impact of various operational factors on system performance. The findings suggest that implementing a streamlined appointment scheduling system led to a significant improvement in patient wait times by an average of 35% (95% CI: [28%, 42%]). This study provides evidence for the effectiveness of specific interventions in enhancing CHC efficiency, offering valuable insights for policymakers and healthcare administrators. Based on our findings, it is recommended that further research be conducted to explore other potential areas for improvement within CHCs. Community Health Centres, Efficiency Gains, Quasi-Experimental Design, South Africa Treatment effect was estimated with  $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** African geography, community health centres, efficiency gains, performance measurement, quasi-experimental design, resource allocation, service delivery systems

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