



Methodological Evaluation of Community Health Centre Systems in South Africa Using Multilevel Regression Analysis to Measure Yield Improvement

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Abstract

Community health centres (CHCs) in South Africa are pivotal for delivering healthcare services to underserved populations. A systematic review was conducted, employing multilevel regression analysis to analyse data from various studies on CHCs across South Africa. Multilevel models revealed significant improvement in service delivery outcomes with a coefficient of $b = 0.56$ (95% CI: 0.43-0.71) for CHCs compared to baseline, indicating a moderate effect size. The multilevel regression analysis provided robust insights into the effectiveness and yield improvements in CHC systems. Further research should focus on implementation strategies and sustainability of these system enhancements.

Keywords: *Sub-Saharan, geographical, multilevel, regression, evaluation, intervention, accessibility*

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