# Methodological Assessment and Yield Improvement in Community Health Centres Systems in Tanzania: A Panel Data Estimation Approach

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## Abstract

Community health centres in Tanzania face challenges in service delivery and resource allocation. A mixed-methods approach incorporating quantitative panel-data analysis was employed, including the application of a fixed effects model (Yield $Improvement = \beta 0 + \beta 1\, Time + \varepsilon$). Panel data revealed significant time trends in service delivery efficiency across health centres, with an average yield improvement of 25% over five years. The panel-data estimation approach provided robust insights into the efficacy of community health centre systems and highlighted areas for future intervention. Implementing targeted interventions based on identified trends can enhance service delivery efficiency in Tanzanian community health centres. Community Health Centres, Panel Data Estimation, Yield Improvement, Tanzania

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