



Evaluation of Community Health Centre Systems in Ethiopia Using Quasi-Experimental Design to Assess System Reliability

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Abstract

Community health centres (CHCs) play a crucial role in healthcare delivery in Ethiopia, but their reliability and effectiveness have not been systematically evaluated. A mixed-methods approach combining quantitative data from surveys with qualitative interviews was employed. Quasi-experimental techniques were used to assess system performance and reliability in Ethiopian CHCs. The findings indicate that while CHC systems are generally reliable, there is a need for improved training programmes for healthcare workers to enhance service quality. This study provides insights into the strengths and areas needing improvement within Ethiopian CHC systems, contributing to evidence-based policy-making in public health. Recommendations include strengthening training programmes for healthcare staff and enhancing community engagement to improve system reliability. 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: *African geography, community health centres, quasi-experimental design, reliability assessment, healthcare system evaluation, outcome measurement, mixed-methods approach*

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