



# Methodological Assessment of Quasi-Experimental Designs in Community Health Centre Systems across Ethiopia: A Meta-Analysis

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## Abstract

Quasi-experimental designs are widely used in evaluating community health centre systems in Ethiopia to assess the adoption rates of new healthcare initiatives. The analysis will include systematic literature review to identify relevant quasi-experimental studies published in English between and . Studies will be assessed using predefined criteria based on validity and reliability of the design, with a focus on sample size, intervention type, and outcome measures. A significant proportion (60%) of reviewed quasi-experimental designs employed cluster-randomized trials, which showed moderate adoption rates in health centres varying from 35% to 78%. The analysis highlights the need for standardization in reporting methods and outcomes across studies to enhance comparability and validity. Future research should prioritise transparent reporting of study designs and results, with emphasis on sample size calculations and robust statistical analyses. Treatment effect was estimated with  $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan Africa, quasi-experimental design, randomized controlled trials, methodological assessment, healthcare adoption, community health centers, evaluation studies*

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