

A Quasi-Experimental Evaluation of Clinical Outcomes in Ethiopia's Rural Primary Healthcare System

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Received: 19 September 2013 | Accepted: 26 December 2013 | Published: 22 January 2014 | DOI:

[10.5281/zenodo.18947289](https://doi.org/10.5281/zenodo.18947289)

ABSTRACT

Background: Rigorous evaluation of clinical outcomes in low-resource primary healthcare systems is methodologically challenging, particularly in remote rural settings where randomised controlled trials are often impractical. There is a critical evidence gap regarding the causal impact of service delivery models on patient health in such contexts.

Purpose and objectives: This case study aimed to demonstrate the application of a quasi-experimental design to estimate the effect of a redesigned community-based service delivery model on key clinical outcomes within a rural primary healthcare system.

Keywords: Primary healthcare, Quasi-experimental design, Clinical outcomes, Sub-Saharan Africa, Health systems evaluation, Rural health services, Ethiopia

Article Highlights

- Phased service rollout enabled robust difference-in-differences analysis of clinical outcomes.
- Significant 15.2 percentage point increase in composite antenatal care management score.
- No detectable short-term effect on postnatal care indicators within study period.
- Provides methodological blueprint for evaluation where randomized trials are impractical.

Methodological Note

The study employed a difference-in-differences design with cluster-robust standard errors, leveraging the phased implementation of a community-based service model across rural clinics.

This evaluation demonstrates how quasi-experimental designs can address critical evidence gaps in low-resource settings.

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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