



Longitudinal Evaluation of Community Health Centre Systems in Uganda

A Difference-in-Differences Model for Risk Reduction, 2000–2026

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ABSTRACT

Background: Community health centres are pivotal for primary care delivery in sub-Saharan Africa, yet robust longitudinal evidence on their systemic impact on population health risk is limited. Existing evaluations often lack rigorous counterfactual frameworks to isolate the effect of health system interventions from secular trends.

Purpose and objectives: This study aims to methodologically evaluate the impact of a nationwide scale-up of integrated community health centre systems on key health risk indicators. The primary objective is to estimate causal risk reduction using a quasi-experimental, longitudinal design.

Keywords: Longitudinal study, Sub-Saharan Africa, Community health centres, Difference-in-differences, Risk reduction, Uganda, Primary healthcare

Article Highlights

- Quasi-experimental design isolates causal impact of health system interventions from secular trends.
- Analysis shows most pronounced improvements in maternal health and infectious disease screening.
- Methodology provides a robust framework for causal inference in non-randomised, real-world settings.
- Findings support sustained policy investment in integrated community health systems.

Methodological Note

Core analysis uses a difference-in-differences model with district-level panel data and cluster-robust standard errors for causal inference.

This study offers a rigorous model for evaluating health and food system interventions in similar contexts.

ABSTRACT-ONLY PUBLICATION

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