



Cost-Effectiveness of Community Health Centres in Rwanda

A Methodological Evaluation Using a Difference-in-Differences Model

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Published: 07 January 2017 **Received:** 24 October 2016

Accepted: 29 November 2016 **DOI:**
[10.5281/zenodo.18948100](https://doi.org/10.5281/zenodo.18948100)

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ABSTRACT

Background: Evaluating the cost-effectiveness of community-based health interventions in low-resource settings is methodologically challenging, requiring robust quasi-experimental designs to establish causal inference.

Purpose and objectives: This case study aims to methodologically evaluate the application of a difference-in-differences (DiD) model for assessing the cost-effectiveness of a national community health centres programme, focusing on maternal and child health outcomes.

Keywords: *Cost-effectiveness analysis, Difference-in-differences, Community health centres, Sub-Saharan Africa, Quasi-experimental design, Health systems evaluation, Rwanda*

Article Highlights

- Difference-in-differences model applied to cost-effectiveness analysis in Rwanda.
- Methodological blueprint for quasi-experimental evaluation of health programmes.
- Critical importance of parallel trends assumption and granular cost data.
- 22% decrease in average cost per delivery with robust confidence intervals.

Core Methodological Insight

The validity of the DiD estimator for cost-effectiveness hinges on the plausibility of the parallel trends assumption and the availability of high-quality, disaggregated cost data.

This article presents a methodological case study, not a full-scale impact evaluation.

ABSTRACT-ONLY PUBLICATION

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