



# A Quasi-Experimental Evaluation of Service Yield Improvement in Ghanaian Community Health Centres, 2000–2024.

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## ABSTRACT

**Background:** Community health centres are critical nodes in primary healthcare delivery, yet systematic evaluation of their operational efficiency, particularly service yield, remains methodologically underdeveloped. This creates a significant evidence gap for health systems planning and resource allocation.

**Purpose and objectives:** This case study aimed to develop and apply a robust quasi-experimental methodology to measure longitudinal service yield improvement within a network of community health facilities. The primary objective was to isolate the effect of a multi-component health systems strengthening intervention from secular trends.

**Keywords:** *Community health centres, Ghana, Quasi-experimental design, Service yield, Sub-Saharan Africa, Primary healthcare, Operational efficiency*

### Article Highlights

- Applied a difference-in-differences design to longitudinal administrative data from Ghanaian health centres.
- Isolated a significant 18.7% rise in service yield attributable

### Methodological Note

The study employed a robust quasi-experimental design, using cluster-robust standard errors to account for facility-level correlation, providing a credible counterfactual

<p>to a systems intervention.</p> <ul style="list-style-type: none"><li>• Identified streamlined patient triage and logistics as key mediating factors for efficiency gains.</li><li>• Advocates for integrating quasi-experimental methods into routine health systems monitoring.</li></ul>	<p>analysis.</p> <p><i>This article presents a methodological advance for evaluating operational efficiency in primary healthcare.</i></p>
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