

A Quasi-Experimental Protocol for Evaluating System Yield and Diagnostic Optimisation in Nigerian Community Health Centres

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ABSTRACT

Background: Community health centres in Nigeria face systemic inefficiencies, particularly in diagnostic pathways, which compromise service delivery and health outcomes. Current evaluations often lack rigorous designs to attribute changes in system performance to specific interventions, limiting evidence for scale-up.

Purpose and objectives: This protocol details a quasi-experimental design to evaluate the impact of a diagnostic optimisation bundle on system yield, defined as the proportion of correct clinical decisions supported by timely diagnostics. Primary objectives are to estimate the causal effect on yield and to identify key modifiable health system factors.

Keywords: *Community health services, Nigeria, Quasi-experimental design, Diagnostic pathways, Health systems evaluation, Sub-Saharan Africa*

Article Highlights

- A quasi-experimental design to evaluate diagnostic optimisation in Nigerian community health centres.
- Primary outcome: system yield, measured via clinical audit of febrile illness management.
- Analysis employs a difference-in-differences model with cluster-robust standard errors.
- Aimed at detecting a minimum 15 percentage point increase in correct clinical decisions.

Methodological Note

The study is a controlled before-and-after design across 20 matched centres, using a bundled diagnostic protocol as the intervention.

This article details a study protocol; empirical results are forthcoming.

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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