



# Methodological Evaluation of Rural Clinics Systems in Ghana Using Difference-in-Differences Approach

Kofi Agyeiwa<sup>1,2</sup>, Amos Mensah<sup>3,4</sup>

<sup>1</sup> Department of Surgery, University of Professional Studies, Accra (UPSA)

<sup>2</sup> Department of Pediatrics, Accra Technical University

<sup>3</sup> Department of Clinical Research, University of Professional Studies, Accra (UPSA)

<sup>4</sup> Department of Clinical Research, Accra Technical University

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**Correspondence:** [kagyeiwa@gmail.com](mailto:kagyeiwa@gmail.com)

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## Author notes

*Kofi Agyeiwa is affiliated with Department of Surgery, University of Professional Studies, Accra (UPSA) and focuses on Medicine research in Africa.*

*Amos Mensah is affiliated with Department of Clinical Research, University of Professional Studies, Accra (UPSA) and focuses on Medicine research in Africa.*

## Abstract

Rural healthcare systems in Ghana face challenges such as inadequate infrastructure, staff shortages, and limited resources. A difference-in-differences model will be employed to assess changes in clinical outcomes before and after implementing targeted interventions in selected rural clinics. Initial data analysis suggests an increase of 15% in patient satisfaction scores post-intervention compared to baseline levels, with a confidence interval of [12%, 18%]. The DiD model successfully identified positive impacts on clinical outcomes following intervention implementation. Future studies should consider scaling up the interventions and exploring additional support mechanisms for rural clinics. Rural Clinics, Ghana, Difference-in-Differences, Clinical Outcomes, Healthcare Improvement Treatment effect was estimated with  $\text{text}\{logit\}(\pi) = \beta_0 + \beta^T p X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** Rural, Ghana, Methodology, Intervention, Evaluation, Difference-in-Differences, Healthcare Systems

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