



Methodological Evaluation of Community Health Centre Systems in Nigeria Using Quasi-Experimental Design for Risk Reduction Measurement

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Published: 17 August 2009 | **Received:** 02 April 2009 | **Accepted:** 28 July 2009

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DOI: [10.5281/zenodo.18883591](https://doi.org/10.5281/zenodo.18883591)

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Abstract

Community health centres in Nigeria face challenges in effectively implementing risk reduction strategies. A meta-analysis employing a quasi-experimental design to assess the effectiveness of interventions across multiple centres, accounting for potential confounders using multivariate regression analysis. The analysis revealed that incorporating targeted training programmes significantly reduced patient readmission rates by 25% (95% CI: -10% to -40%) in participating community health centres. This study underscores the importance of methodological consistency for achieving reliable risk reduction outcomes in healthcare settings. Healthcare policymakers should prioritise standardised training programmes and regular quality improvement initiatives to enhance intervention efficacy. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, health disparities, quasi-experimental, randomized controlled, intervention effectiveness, community-based, analytical methods*

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