



Methodological Assessment of Community Health Centre Systems in Nigeria Using Quasi-Experimental Design: An Evaluation of Efficiency Gains

Nwachukwu Ugwuanyi^{1,2}, Olufisayo Adeniran¹, Chinedu Obinna^{3,4}

¹ University of Nigeria, Nsukka

² Department of Epidemiology, Ladoke Akintola University of Technology (LAUTECH), Ogbomoso

³ National Institute for Medical Research (NIMR)

⁴ Ladoke Akintola University of Technology (LAUTECH), Ogbomoso

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Correspondence: nugwuanyi@yahoo.com

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Author notes

Nwachukwu Ugwuanyi is affiliated with University of Nigeria, Nsukka and focuses on Medicine research in Africa.

Olufisayo Adeniran is affiliated with University of Nigeria, Nsukka and focuses on Medicine research in Africa.

Chinedu Obinna is affiliated with National Institute for Medical Research (NIMR) and focuses on Medicine research in Africa.

Abstract

Community health centres in Nigeria face challenges related to efficiency and service delivery. A mixed-method approach was employed, including quantitative data collection via surveys and interviews. A statistical model for assessing efficiency gains was $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$ where Y represents the outcome variable (efficiency), X₁ and X₂ represent independent variables (service delivery and patient flow), and ε is the error term. A significant proportion (78%) of respondents reported that improved service delivery led to higher efficiency gains, with a confidence interval for this proportion at (75%, 80%). The quasi-experimental design successfully identified key factors contributing to efficiency improvements in Nigerian community health centres. Further research should focus on replicating these findings in diverse settings and exploring long-term sustainability of the observed gains.

Keywords: *Sub-Saharan, health systems reform, randomized controlled trial, outcome evaluation, service delivery, geographic information systems, participatory appraisal*

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