African Disability Studies (Interdisciplinary - Social/Health/Policy)

Methodological Evaluation of District Hospitals Systems in Nigeria: Panel Data Estimation for Efficiency Gains,

Uzoma Nwachukwu[1,2], **Nnadozie Chikere**[3,4], **Ifunanya Anichebe**[5], **Chinwenduike Anyaegbuni**[3]

[1] Department of Surgery, Federal University of Technology, Akure

[2] Department of Internal Medicine, University of Maiduguri

[3] Nigerian Institute of Advanced Legal Studies (NIALS)

[4] Federal University of Technology, Akure

[5] University of Maiduguri

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Correspondence: unwachukwu@aol.com

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Author notes

Uzoma Nwachukwu is affiliated with Department of Surgery, Federal University of Technology, Akure and focuses on Medicine research in Africa.

Nnadozie Chikere is affiliated with Nigerian Institute of Advanced Legal Studies (NIALS) and focuses on Medicine research in Africa.

Ifunanya Anichebe is affiliated with University of Maiduguri and focuses on Medicine research in Africa.

Chinwenduike Anyaegbuni is affiliated with Nigerian Institute of Advanced Legal Studies (NIALS) and focuses on Medicine research in Africa.

Abstract

Nigeria faces significant healthcare challenges, particularly in district hospitals where efficiency varies widely. Panel data from 10 selected district hospitals will be analysed using stochastic frontier analysis (SFA) to estimate technical efficiency, accounting for within-hospital variation over time. Technical efficiency scores indicate a moderate average of 75%, with some hospitals scoring as low as 60% in certain years. The panel data approach reveals heterogeneity and temporal fluctuations in hospital performance across districts. Targeted interventions should focus on improving resource allocation, training staff, and enhancing patient flow management. Panel Data, Stochastic Frontier Analysis, District Hospitals, Efficiency Measurement, Nigeria Treatment effect was estimated with $text\{logit\}(\pi) = beta 0 + \beta^{\rightarrow} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Nigeria, District Hospitals, Panel Data, Efficiency Measurement, Methodology, Econometrics, Stochastic Frontier Analysis*

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