Methodological Evaluation of District Hospital Systems in Nigeria Using Panel Data for System Reliability Analysis

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Abstract

District hospitals in Nigeria play a crucial role in healthcare delivery but face significant challenges related to system reliability. A systematic review approach was employed, analysing data from multiple districts across Nigeria. Panel data techniques were used to assess system performance over time. The analysis revealed that district hospitals in rural areas had a mean reliability score of 75% with a confidence interval ranging from 68% to 82%, indicating moderate system stability. This study provides evidence for the need to enhance infrastructure and training programmes in rural district hospitals to improve their reliability. Investment in facilities, staff development, and coordination between health centers are recommended to bolster system performance. District Hospitals, System Reliability, Panel Data Analysis, Nigeria Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\rightarrow} p\,X_i$, and uncertainty reported using confidence-interval based inference.

ABSTRACT-ONLY PUBLICATION

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