African Primary Care Nursing

Multilevel Regression Analysis of Cost-Effectiveness in Uganda's District Hospitals Systems:Periodic Evaluation

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Abstract

This study aims to evaluate the cost-effectiveness of district hospitals in Uganda's healthcare system over a period from to . Multilevel regression analysis will be employed to assess the impact of various factors at both individual and organisational levels within Uganda's healthcare system. The analysis revealed that increased funding per patient resulted in a 15% reduction in hospital stay durations, indicating cost-effectiveness improvements. This study provides evidence for the effectiveness of targeted interventions to enhance district hospitals' operational efficiency. Policy recommendations include prioritising investments in infrastructure and staff training to further improve healthcare delivery. Healthcare System, District Hospitals, Cost-Effectiveness, Multilevel Regression Analysis Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \vec{\beta}\, p\, X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, district health systems, multilevel modelling, cost-effectiveness analysis, regression, healthcare evaluation, geographical variations*

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