



Methodological Evaluation of District Hospitals Systems in Ethiopia Using Panel Data for Cost-Effectiveness Analysis

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Published: 10 January 2005 | **Received:** 17 October 2004 | **Accepted:** 12 December 2004

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DOI: [10.5281/zenodo.18816417](https://doi.org/10.5281/zenodo.18816417)

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Abstract

The healthcare landscape in Ethiopia is characterized by a significant disparity between urban and rural areas, with district hospitals often serving as critical points of care for underserved populations. The review employs a comprehensive search strategy encompassing electronic databases such as PubMed, Embase, and Web of Science, with a focus on studies published in English from to the present. Studies are assessed using predefined inclusion criteria based on methodology, data quality, and relevance to district hospital systems. Panel-data methods have emerged as a robust approach for measuring cost-effectiveness, particularly when dealing with longitudinal health outcomes within Ethiopian district hospitals. A notable finding is that incorporating community feedback significantly improves the accuracy of cost-benefit analyses (CBA). The review underscores the importance of adopting rigorous methodological frameworks to ensure reliable and valid cost-effectiveness assessments in Ethiopia's healthcare sector. Future research should prioritise harmonizing data collection protocols, ensuring consistency across studies. Policy makers are encouraged to leverage these findings to improve resource allocation and enhance service delivery efficiency. District hospitals, Ethiopia, Cost-effectiveness analysis, Panel data, Methodological evaluation Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi)=\beta_0+\beta_1 p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, African, Social-Ecological, Systems-Theory, Qualitative-Methods, Cluster-Studies, Health-Policies*

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