



Adoption Dynamics of Electronic Prescription Systems in Rural Ethiopian Hospitals Over Five Years: An Intervention Study

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Abstract

In rural Ethiopian hospitals, traditional paper-based prescription systems are prevalent, leading to inefficiencies such as medication errors and delays in patient care. A mixed-methods approach combining quantitative surveys and qualitative interviews was employed to collect data from hospital administrators and clinicians. Data were analysed using logistic regression models to identify predictors of ePrescription adoption. During the study period, a significant proportion (35%) of rural Ethiopian hospitals adopted ePrescription systems, with factors such as technological infrastructure and leadership support being key determinants of system uptake. The findings suggest that while substantial progress has been made in adopting ePrescription systems, challenges remain regarding sustainability and equitable access to technology. Future efforts should focus on enhancing the interoperability of ePrescription systems with existing healthcare information technologies and providing training programmes for staff to ensure effective use and maintenance of the systems. Treatment effect was estimated with $\text{text}\{ \text{logit} \}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Geographic, Sub-Saharan, Rural Health Care, Electronic Medical Records, Adoption Theory, Qualitative Research, Quantitative Analysis*

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