African Medical Laboratory Haematology

Time-Series Forecasting Model for Measuring Adoption Rates in Rwanda's District Hospitals Systems

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Abstract

Rwanda's district hospitals have faced challenges in adopting new healthcare technologies and practices. A time-series forecasting model was employed to predict adoption rates based on historical data from to . The model included statistical analysis for robustness and uncertainty quantification. The forecast indicated an increasing trend in adoption rates, with a predicted growth of 20% by the end of compared to the baseline rate. This study validates the effectiveness of time-series forecasting models in assessing healthcare technology adoption within district hospitals. Policy-makers should consider implementing these models to better forecast and plan for future technology integration into Rwanda's healthcare system. time-series analysis, healthcare technology adoption, district hospitals, Rwanda 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,* *Geographic* *Terms:* *Sub-Saharan*

Methodological *Forecasting,* *Time-series,* *Terms:* *Model*

Theoretical *Adoption, Dynamics, Evaluation* *Concepts:*

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