Time-Series Forecasting Model Assessment in Tanzania's Public Health Surveillance Systems,

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Abstract

This study evaluates the effectiveness of time-series forecasting models in Tanzania's public health surveillance systems. The analysis employs a SARIMA (Seasonal AutoRegressive Integrated Moving Average) model to forecast future trends. A 20% reduction in forecasting errors was observed, indicating improved predictive accuracy. The SARIMA model effectively enhances cost-effectiveness metrics for public health surveillance. Implementing the model could reduce resource wastage and improve disease management strategies. Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\neg} p\,X_i$, and uncertainty reported using confidence-interval based inference.

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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