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Digital Health Platforms for Disease Surveillance and Management in Rural Kenyan Community Health Workers: A Systematic Literature Review

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Abstract

Digital health platforms are increasingly being integrated into rural healthcare systems to enhance disease surveillance and management. A comprehensive search strategy was employed using electronic databases (PubMed, Cochrane Library, Google Scholar) to identify relevant studies. Studies were reviewed based on predefined inclusion criteria. The review identified several digital health platforms utilised by community health workers in rural Kenya for disease surveillance and management, with a notable proportion of these systems incorporating machine learning algorithms for early detection of diseases. Digital health platforms have shown promise in improving the efficiency and effectiveness of disease surveillance and management among rural Kenyan community health workers, particularly when they include advanced analytical tools like machine learning. Further research should focus on evaluating the long-term impact of these digital solutions and exploring their potential for wider adoption across different healthcare settings. Treatment effect was estimated with $text\{logit\}(\pi)=beta0+\vec{\beta} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, African, Spatial-Data, Qualitative-Methods, Health-Informatics, Geospatial-Analytics, Community-Observational-Studies*

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