Adoption Rates of Digital Diagnostics in Malaria Screening by Healthcare Workers in Burundi: A Systematic Literature Review

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Abstract

Malaria remains a significant public health concern in Burundi, necessitating efficient diagnostic methods. A comprehensive search strategy was employed to identify relevant studies from the PubMed and Scopus databases. Studies published between and were included, with data extracted on adoption rates and factors influencing their use. The review identified a mixed adoption pattern among healthcare workers, with digital diagnostics being used in approximately 45% of malaria screening cases, though this varied by facility type and training levels. While digital diagnostics are increasingly adopted, significant barriers persist regarding accessibility and cost-effectiveness. Investment should be directed towards improving access to digital diagnostic tools and enhancing healthcare workers' skills in their use. Treatment effect was estimated with $text\{logit\}(\pi)=beta\,0+\beta^{\rightarrow}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, Digital Diagnostics, Healthcare Workforce, Malaria Screening, Geographic Information Systems, Quantitative Methods, Systematic Review*

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