E-Health Technologies in Malaria Surveillance and Early Detection in Democratic Republic of Congo Districts, 2001

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Abstract

E-Health technologies have been increasingly adopted in health surveillance systems across Africa to improve malaria detection and control. A mixed-methods approach was employed, integrating data from electronic health records and community surveys to evaluate the efficacy and impact of E-health technologies in DRC's malaria control efforts. E-health systems demonstrated a significant reduction ($p < 0.05$) in malaria incidence by 15% across tested districts, with a notable decrease in asymptomatic cases identified through remote monitoring tools. The integration of E-health technologies into DRC's malaria surveillance framework has proven effective in enhancing early detection and reducing transmission rates. Further implementation should include training for healthcare workers on the use of these systems, as well as ongoing evaluation to ensure sustained effectiveness and cost-efficiency. E-Health Technologies, Malaria Surveillance, Early Detection, Democratic Republic of Congo Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\neg} p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Malaria, Sub-Saharan Africa, Geographic Information Systems (GIS), Remote Sensing, Telemedicine, Epidemiology, Community Health Workers*

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