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Adoption and Barriers to a Digital Decision Support Tool for Community Health Workers in Mopti, Mali: A Brief Report

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Abstract

Community health workers (CHWs) are essential for primary healthcare delivery in rural Mali. Digital tools have been introduced to support data collection and clinical decision-making, but their adoption in resource-limited settings like the Mopti Region is not well understood. This brief report describes the adoption and identifies the primary barriers to the sustained use of a digital decision support tool introduced for CHWs in the Mopti Region. A mixed-methods approach was employed. Quantitative data on tool usage were extracted from the platform's backend. Qualitative data were gathered through focus group discussions with a purposive sample of CHWs who had used the tool. Tool adoption was limited, with only an estimated 35% of trained CHWs using it consistently beyond the initial training month. Key barriers identified were unreliable internet connectivity, device charging difficulties due to limited electricity access, and perceived complexity of the interface for less literate users. Despite its potential, the digital tool faced significant contextual barriers that hindered its adoption. Sustainable implementation requires addressing fundamental infrastructural and usability challenges. Future digital health interventions in similar settings should prioritise robust offline functionality, low-power device options, and intensely user-centred design. Concurrent investment in basic infrastructure remains a prerequisite. community health workers, digital health, mHealth, decision support systems, Mali, implementation science All authors contributed to the study design, data analysis, and manuscript preparation. Field data collection was led by the in-country research team.

Keywords: *Community health workers, Digital health, Implementation science, Sub-Saharan Africa, Clinical decision support systems, Health informatics, Technology adoption*

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