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Title: A HEALTH TECHNOLOGY LANDSCAPE ASSESSMENT FOR A NOVEL M-HEALTH APPROACH FOR MANAGING RHEUMATIC HEART DISEASE: LESSONS FROM THE ACT APPLICATION

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Background & Aims: Rheumatic heart disease (RHD) programs in low-income countries grapple with retention of diagnosed patients in care. As part of a larger project to study active case detection and decentralized registry-based care (ADD-RHD), we interrogated the adequacy of policy requirements, guidance, regulatory environment, and barriers to approval of new health technology in Uganda. The data will be used to inform deployment of a mobile, dynamic health record, the Active Community Case Management Tool (ACT) to manage RHD patients at community-based health centers in Uganda.

Methods: We conducted a desk review of existing policy, regulatory and guidance documents complemented by a search of published literature. We also conducted in-depth interviews with stakeholders who were either (i) part of the ADD-RHD steering committee, (ii) involved in the development of the ACT application, or (iii) part of the Ugandan health technology ecosystem at both the district level (district health officers) and at national level (National Information Technology Authority and the Ministry of Health officials). At the close of each interview, each interviewee was asked to suggest additional relevant informants and documents for the desk review. The snowball sampling method allowed for the inclusion of additional stakeholder groups as they emerged during initial interviews. Interviews were conducted in English, either in-person or virtually by researchers trained in qualitative data collection methods. All interviews were recorded and transcribed, and the data was analyzed using thematic content analysis.

Results: Data collection is ongoing and will be completed by August 2023. To date, we have collected 13 policy documents and publications for the desk review identified through both primary searching and recommendations from key informants. We have completed in-depth, semi-structured interviews with 10 of the 16 initial sample of key informants in the policy process in Uganda: 5 members of the ADD-RHD Steering Committee, 2 district health officers, and 3 people at the national level. Preliminary analysis shows that policy guidance seems adequate for the development and approval of health technologies, but that prior researcher experience with the policy system is essential to the successful navigation of the regulatory landscape. At the national level, approval and guidance are centralized in the Ministry of Health (MoH) and National Information Technology Authority (NITA), who work in parallel to facilitate the development of the new technologies and ongoing monitoring of their testing, deployment and use in the health system. Within these organizations there are multiple parties involved, each with their own requirements and approval processes to navigate. In contrast, there is no strong evidence for the availability of technical guidance at the lower levels of the health system such as district level.

Conclusions: Using experiences from the development of the ACT application for the management of RHD as a case study, the existence of adequate policy guidance and plans indicate the desire to develop and deploy health technologies in Uganda but may not be sufficient to ensure readiness for adoption at sub-national levels. Future integration of health technologies like the ACT application with the Health Management Information System (HMIS) will likely increase its chances of successful rollout and implementation. Studying and validating our findings will inform developers of health technologies on how to navigate the policy landscape.