



A Case Study in Digital Health Integration: Obstetric and Gynaecological Care in Djibouti

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Abstract

Djibouti faces challenges in providing equitable obstetric and gynaecological care, particularly in urban areas. Systemic issues include workforce shortages, fragmented patient records, and difficulties with follow-up. Digital health integration has been suggested to address these problems within a resource-constrained setting. This case study aimed to document and analyse the process of integrating digital health tools into the urban obstetric and gynaecological care pathway in Djibouti. It sought to identify key implementation stages, encountered barriers, and perceived impacts on service delivery and clinical management. A retrospective, longitudinal case study design was employed. Data were synthesised from multiple sources, including programme documentation, stakeholder interviews with clinicians and health administrators, and analysis of routine health information system data. Thematic analysis was used to interpret qualitative data. Integration followed an incremental, phased approach. A central theme was the critical importance of aligning technology with existing clinical workflows. Initial implementation of an electronic medical record system in a major maternity hospital was associated with improved completeness of antenatal registration data. Key barriers included intermittent connectivity and the need for continuous user training. The systematic integration of digital health tools is feasible in an urban African obstetric setting and can strengthen foundational elements of care, such as patient documentation. Success depends on addressing technical infrastructure and ensuring the technology serves practical clinical needs. Future initiatives should prioritise robust, context-appropriate digital infrastructure from the outset. Investment must be coupled with sustained, hands-on training and support for clinical staff. Scaling interventions requires a clear strategy for interoperability between new digital systems and existing national health information platforms. digital health, obstetric care, gynaecology, case study, Djibouti, electronic medical records, implementation, urban health. This case study provides a detailed account of the realities of implementing digital health tools in a low-resource obstetric setting, offering practical insights for similar contexts in the region.

Keywords: *Sub-Saharan Africa, Telemedicine, Maternal Health, Health Information Systems, Medical Informatics, Urban Health*



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