



Digitalisation and Maternal Health: An Original Research Study on Telemedicine in Urban Sierra Leone

Fatmata Bangura¹

¹ Njala University

Published: 04 June 2020 | Received: 25 December 2019 | Accepted: 14 April 2020

Correspondence: fbangura@yahoo.com

DOI: [10.5281/zenodo.18538592](https://doi.org/10.5281/zenodo.18538592)

Author notes

Fatmata Bangura is affiliated with Njala University and focuses on Medicine research in Africa.

Abstract

Maternal mortality remains a significant public health challenge in Sierra Leone. Digital health interventions, such as telemedicine, are proposed to improve access to antenatal and postnatal care in low-resource settings, but evidence from urban West Africa is scarce. This study evaluated the implementation and perceived impact of a pilot telemedicine service for maternal health in urban Sierra Leone. Its objectives were to assess utilisation patterns, identify barriers and facilitators to adoption, and explore the experiences of service users and healthcare providers. A mixed-methods, cross-sectional design was employed. Quantitative service utilisation data were collected from programme records for a consecutive sample of users. Qualitative data were gathered via semi-structured interviews with a purposive sample of users and focus group discussions with involved healthcare providers. Thematic analysis was used for qualitative data. Service uptake was moderate, with teleconsultations used mainly for routine antenatal queries and medication refills. Quantitatively, 68% of users reported saving over two hours of travel time per consultation. Qualitative analysis identified three major themes: improved convenience and reduced cost, concerns about the adequacy of physical examinations, and technological literacy as a persistent barrier. Telemedicine shows promise for augmenting maternal healthcare in urban Sierra Leone by improving accessibility. However, it is perceived as complementary to, not a replacement for, essential in-person consultations. Successful integration requires addressing digital literacy and adopting a hybrid care model. Future telemedicine programmes should incorporate digital literacy support. Policymakers should develop guidelines for integrating telemedicine into standard maternal care pathways, ensuring it supplements critical face-to-face assessments. Further research should evaluate clinical outcomes and cost-effectiveness. Telemedicine, maternal health, digital health, Sierra Leone, antenatal care, implementation research. This study provides original evidence on the implementation of a maternal telemedicine service in urban Sierra Leone, detailing utilisation patterns, user and provider experiences, and key barriers to adoption within this context.

Keywords: *telemedicine, maternal health, Sub-Saharan Africa, digital health, antenatal care, health systems strengthening*



ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.



REQUEST FULL PAPER

 **Email:** info@parj.africa

Request your copy of the full paper today!



SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.



Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge