

Conference Abstracts

ShujaaCare: Accelerating Cervical Cancer Elimination in Kenya Through an AI-Enabled, Community-Powered Digital Health Platform

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Introduction

Cervical cancer remains one of the most preventable yet deadly cancers affecting women in low- and middle-income countries. In Kenya, persistent gaps in awareness, stigma, limited access to screening, and fragmented care pathways continue to result in late-stage diagnoses and avoidable mortality, despite the availability of HPV vaccination and effective screening technologies. **ShujaaCare**—*shujaa* meaning "hero" in Swahili—was developed to place women and communities at the center of cervical cancer elimination. Aligned with national priorities and WHO elimination targets, ShujaaCare is an AI-enabled, community-powered digital health platform designed to empower women with knowledge, access, and continuity of care.

Methods and Program Design

ShujaaCare integrates a digital health component with participatory community outreach. The digital platform features a patient-centered web interface built with Angular, a protected digital medical journal for symptom logging and screening history, AI-driven health support using Gemini for education, early symptom flagging, and screening reminders, and secure cloud

storage for longitudinal health tracking. The system prioritizes scalability, cultural sensitivity, and usability for low technical literacy. Community engagement is delivered through structured, in-person sessions led by trained health professionals. A pilot session conducted on October 20, 2025, involved 15 women aged 19–42, primarily young mothers and caregivers. Content covered reproductive anatomy, cervical cancer risk factors, HPV vaccination, screening timelines, and postpartum health, using verbal discussions and printed guides to ensure accessibility. The app can be accessed here: <https://shujaa-care-wu1q.vercel.app/>

Results

Early qualitative observations demonstrated improved understanding of cervical cancer, increased confidence in discussing reproductive health, and self-reported intention to pursue screening. Participants expressed a strong interest in using a digital tool to track reproductive and cancer-related health information within a stigma-free environment.

Conclusion

ShujaaCare demonstrates the potential of combining AI-enabled digital tools with

community-based education to strengthen cervical cancer prevention. By empowering women as "heroes" of their own health journeys,

ShujaaCare offers a scalable, equitable model to accelerate cervical cancer elimination in Kenya.