

New antenatal care model in Africa and India (NAMAI) study: an implementation research trial to improve antenatal care using WHO recommendations

Current Project Brief

Objectives and Background

As part of the continuum of care, antenatal care is a critical time period for women, babies, families and communities. However, as a platform to provide integrated, quality services for women, it has not been utilized efficiently and effectively. On 7 November 2016, the World Health Organization released its comprehensive recommendations on routine ANC for pregnant women and adolescent girls. Considering the importance of adaptation and implementation of the new ANC model within different health systems, the recommendations allow flexibility for countries to apply various options both for the content and delivery of ANC based on their specific needs and context. In relation to this vision, WHO has supported countries to assess the current status of their ANC policies (WHO ANC Recommendations Adaptation Toolkit)¹, produced a monitoring framework for ANC indicators that goes beyond capturing the number of contacts at different levels (global, national, women-reported)² and created a portal facilitating access to ANC-related evidence (ANC web portal)³. Furthermore, ANC became one of the flagship health domains for WHO's new SMART guideline approach^{4,5}, which includes the ANC Digital Adaptation Kit⁶, as well as WHO digital ANC module⁷ to support countries through the process of adapting and applying WHO global health and data recommendations to countries' existing – and evolving – digital systems.

As part of these efforts, four countries, including Burkina Faso, India, Rwanda and Zambia, were prioritized to participate in a focused effort leading to a mixed methods implementation trial, aimed to improve understanding of and evidence base on how to design and implement an ANC platform within each country's health systems.⁸ In addition, Rwanda and Zambia will implement and test the adapted version of the WHO digital ANC module for health workers.⁹ The ongoing research seeks to demonstrate how quality, integrated and person-centred care can be implemented and eventually

¹ Barreix M, Lawrie TA, Kidula N, Tall F, Bucagu M, Chahar R, et al. Development of the WHO Antenatal Care Recommendations Adaptation Toolkit: a standardised approach for countries. *Health Research Policy and Systems*. 2020;18(1):70.

² Lattof SR, Moran AC, Kidula N, Moller A-B, Jayathilaka CA, Diaz T, et al. Implementation of the new WHO antenatal care model for a positive pregnancy experience: a monitoring framework. *BMJ Global Health*. 2020;5(6):e002605.

³ WHO Antenatal Care Portal; 2021. <https://www.srhr.org/antenatalcare/>

⁴ Mehl G, Tunçalp Ö, Ratanaprayul N, Tamrat T, Barreix M, Lowrance D, et al. WHO SMART guidelines: optimising country-level use of guideline recommendations in the digital age. *The Lancet Digital Health*. 2021.

⁵ Tamrat T, Ratanaprayul N, Barreix M, Tunçalp Ö, Lowrance D, Thompson J, et al. Transitioning to Digital Systems: The Role of World Health Organization's Digital Adaptation Kits in Operationalizing Recommendations and Interoperability Standards. *Global Health: Science and Practice*. 2022.

⁶ Digital adaptation kit for antenatal care: operational requirements for implementing WHO recommendations in digital systems. Geneva: World Health Organization; 2021. <https://www.who.int/publications/i/item/9789240020306>

⁷ Haddad SM, Souza RT, Cecatti JG, Barreix M, Tamrat T, Footitt C, et al. Building a Digital Tool for the Adoption of the World Health Organization's Antenatal Care Recommendations: Methodological Intersection of Evidence, Clinical Logic, and Digital Technology. *J Med Internet Res*. 2020;22(10):e16355.

⁸ ISRCTN registry. Improving antenatal care using WHO recommendations: an implementation research study in Africa and India 2022 [Available from: <https://www.isrctn.com/ISRCTN16610902>].

⁹ Muliokela R, Uwayezu G, Tran Ngoc C, Barreix M, Tamrat T, Kashoka A, et al. Integration of new digital antenatal care tools using the WHO SMART guideline approach: Experiences from Rwanda and Zambia. *Digit Health*. 2022;8:20552076221076256.

lead to better maternal and perinatal outcomes with pathways to scale up within and beyond the selected countries for lessons, to be shared globally.

Geographic location Burkina Faso, Rwanda and Zambia, India (Assam, Tamil Nadu)

Main deliverables The overall purpose of the trial is to use implementation science for systematically introducing and testing the applicability of the adapted WHO ANC package for a positive pregnancy experience. Four main co-interventions addressing: 1) staff training on the updated ANC service package and ultrasonography, 2) supportive supervision of ANC care providers, 3) supply and equipment provision and 4) community sensitization are the core components of the trial. The costs associated with the implementation of the adapted packages are being documented in standardize manner. Study results aim to inform pathways to scale and sustainability which ultimately lead to stronger health systems with better maternal and perinatal outcomes nationally. Learnings are being disseminated to ensure country, regional and global knowledge transfer and standardize approaches to adapting and implementing WHO evidence-based recommendations. A number of strategic global goods are being developed as part of this initiative, including a communication guide for community mobilization activities, and updating the WHO ANC recommendations adaptation toolkit to include the postnatal care recommendations. The latter is being translated to French, and will be tested in 3 countries.

Partners Institut de Recherche en Sciences de la Santé (IRSS), School of Public Health – University of Rwanda, Population Council Zambia, Jhpiego India, Ministries of Health of Burkina Faso, Rwanda and Zambia, University of Cape Town, University College Dublin, University of Washington.

Sources of funding Bill & Melinda Gates Foundation, HRP/SRH

Date Issued Feb 2023