

Evidence Brief

Achieving eight ANC contacts for all pregnant women in Kenya: Evidence-informed strategies

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Executive summary

This evidence brief presents synthesised findings from a rapid review conducted to support the Ministry of Health (MoH) in Kenya in operationalising the World Health Organisation's recommendation for a minimum of eight antenatal care (ANC) contacts during pregnancy. Despite policy alignment, only 4% of pregnant women in Kenya complete all eight ANC visits, reflecting persistent barriers at multiple levels of the health system. The review draws on 11 studies conducted between 2017 and 2024 in Kenya and other comparable low-and middle-income countries (LMICs), highlighting both systemic and community-level constraints to ANC utilisation.

The evidence points to critical health system challenges, including poor provider attitudes, facility congestion, and inadequate infrastructure, which compromise the quality and continuity of care. Sociocultural and economic barriers, such as stigma

related to early pregnancy, limited male involvement, and transport costs, further restrict timely and repeated ANC attendance. However, promising interventions have shown potential to address these barriers. These include group ANC (GANC) models that improve retention and client experience; community health volunteer (CHV) outreach programmes that enhance household-level engagement; mobile health solutions that facilitate communication and tracking; and targeted financial incentives that reduce out-of-pocket costs.

To improve uptake of the eight-contact ANC model, the brief recommends strengthening respectful and client-centered care, scaling up GANC, expanding CHV-led interventions, leveraging digital tools to enhance follow-up, introducing or refining financial incentives, and promoting male and community engagement. These strategies, when implemented together, can help Kenya close the ANC coverage gap and improve maternal and perinatal outcomes.

4%

Proportion of pregnant women in Kenya who complete all eight ANC visits

Evidence highlights major health system challenges, including poor provider attitudes, facility congestion, and inadequate infrastructure, all of which compromise the quality and continuity of care.

Key findings

- Only 4% of pregnant women in Kenya complete the recommended eight ANC contacts (KDHS, 2022).
- Poor provider attitudes, long wait times, and overcrowded facilities reduce ANC follow-up.
- Group Antenatal Care (GANC) increases knowledge, improves experiences, and boosts retention.
- Stigma related to early pregnancy disclosure and lack of male involvement delays ANC initiation.
- Financial barriers, especially transport and opportunity costs, limit repeat visits.
- Performance-based financing improves provider behavior but has mixed effects on coverage.
- Community health volunteers (CHVs) are effective in improving ANC attendance through household-level outreach.
- Mobile health (mHealth) tools like SMS reminders and WhatsApp improve follow-up and referral systems.

Introduction

Antenatal care (ANC) is a critical intervention for ensuring the health and well-being of pregnant women and their babies. The World Health Organization (WHO) revised its ANC model in 2016 to recommend a minimum of eight ANC contacts during pregnancy, replacing the earlier four-visit model. This change was based on evidence demonstrating that increased contact with

skilled healthcare providers enables better monitoring, timely detection of complications, enhanced health promotion, and improved pregnancy outcomes [1,2].

Kenya has historically adopted the focused ANC (FANC) model, which recommends four targeted ANC visits [3,4]. However, despite national efforts to improve maternal health services, implementation of the WHO-recommended eight-contact model has been limited. According to the Kenya Demographic and Health Survey (KDHS) 2022, 66% of pregnant women

complete the fourth ANC visit, but only 4% attend all eight recommended contacts [5]. This considerable gap suggests systemic and contextual barriers to full implementation.

The adoption of the eight-contact ANC model aligns with Kenya's broader commitment to improving

maternal, newborn, and child health as outlined in key national policy documents. The Kenya Health Policy 2014-2030 prioritizes the reduction of maternal and neonatal mortality through strengthened health systems, enhanced service delivery, and community engagement [6]. Similarly, the Kenya Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCAH) Investment Framework (2016–2030)

emphasizes scaling up high-impact interventions, including comprehensive ANC services, to accelerate progress toward universal health coverage (UHC) and national development goals [7]. The eight-contact model is also anchored within the country's commitment to the Universal Health Coverage Policy

The Kenya Health Policy 2014-2030 prioritises the reduction of maternal and neonatal mortality.

under the “Big Four Agenda,” reflecting an integrated approach to quality care, equity, and access.

To align with global best practices and improve maternal and perinatal outcomes, MoH in Kenya developed updated national guidelines promoting eight ANC contacts(7). However, challenges persist in operationalising these guidelines across all counties. These challenges include supply-side constraints, sociocultural factors, and demand-side barriers such

as affordability and knowledge gaps. Given the limited national progress toward the 8-contact target, a rapid evidence synthesis was conducted to identify effective strategies and recommendations to support the MoH and partners in accelerating progress. This evidence brief supports these national strategies by identifying practical, evidence-informed solutions to close the ANC coverage gap and advance maternal and perinatal health outcomes in Kenya.

Methodology

This evidence brief is based on a rapid review of the literature focused on barriers, facilitators, and interventions related to the uptake of eight ANC contacts. A systematic search was conducted using PubMed and relevant grey literature sources, focusing on studies published between 2017 and 2024, to ensure relevance. From a pool of 32 search results, 12 articles were identified for full-text review, and 11 met the final inclusion criteria. Studies included both Kenya-specific research and comparable contexts

from Uganda, Ghana, Tanzania, Malawi, and Liberia, which focused on interventions targeting ANC utilisation.

Data were extracted using a structured tool to capture information on the country, study design, population, key findings, and relevance to the 8 ANC model. Findings were grouped thematically and synthesised narratively to generate evidence-informed recommendations.

Findings

Using Group Antenatal Care (GANC) to counter health system constraints: Structural weaknesses within the health system are a critical constraint. Studies conducted in Kenya report long wait times, provider shortages, poor provider attitudes, and unsatisfactory clinical care as key deterrents [9, 10]. Facilities in rural areas often lack the necessary infrastructure and human resources to provide quality ANC services, resulting in overcrowding and patient dissatisfaction. Innovative service delivery models such as GANC have demonstrated promise in addressing these issues. In a quasi-experimental study in Kakamega County, GANC was associated with improved knowledge, positive care experiences, and increased ANC retention [11]. Similar models implemented in Tanzania and Malawi have reinforced the benefits of group care in service uptake and patient empowerment [12].

Engaging male partners and community gatekeepers to address sociocultural and gender barriers: Community-level factors also contribute significantly to poor ANC attendance. Cultural beliefs and gender norms often shape women’s health-

seeking behaviours. In Malawi, qualitative research has shown that stigma related to early pregnancy disclosure or pregnancies outside marriage can delay ANC initiation [13]. This is echoed in Kenya, where similar stigma and lack of male involvement have been cited as key barriers [9]. Engaging male partners and community gatekeepers through targeted outreach and education can help shift these sociocultural norms.

Using performance-based financing to address economic and structural barriers: Economic barriers further compound the problem. Many women are unable to afford transportation to health facilities or the indirect costs associated with ANC visits. In response, Kenya piloted the Afya Conditional Cash Transfer (CCT) programme, which showed strong community acceptance but was hampered by implementation challenges, particularly related to digital payment technology [14]. Studies from Tanzania suggest that performance-based financing may improve provider behaviour and service quality when adequately supported [15].

Using community health volunteers (CHVs) to increase ANC contacts: Evidence also highlights the role of CHVs in enhancing ANC attendance. In Uganda, CHV-led outreach was found to significantly increase the proportion of women attending at least four ANC visits [16]. Kenyan research supports this model, suggesting that CHVs can effectively link households to care and reinforce positive health behaviours at the community level [9].

Using digital health innovations to improve maternal health service uptake: Technology-based interventions are another emerging area of interest. In Ghana and Liberia, digital tools such as SMS reminders, mobile applications, and WhatsApp-based referral systems have improved maternal health service uptake and communication between providers and patients [17, 18]. These findings support the scaling of Kenya’s digital health strategies, including the integration of ANC tracking into the national EMR and the use of SMS-based appointment reminders.

Table of Included Studies

Study	Country	Intervention/ Focus	Key Findings	Relevance to Kenya / 8 ANC
Do et al., 2017	Kenya and Namibia	ANC quality, satisfaction	Long wait times and poor provider preparedness reduced satisfaction	Improve service efficiency and respectful care
Somji et al., 2022	Kenya (Kakamega)	Group ANC (Lea Mimba Clubs)	Improved knowledge of danger signs, patient experience, ANC retention	Evidence for scaling GANC nationally
Ayodo et al., 2021	Kenya (Western)	Barriers to ANC and CHW role	Poor support, infrastructure, stigma on unintended pregnancies	Aligns with CHW strategy and stigma reduction needs
Dickin et al., 2022	Kenya (Siaya)	Conditional Cash Transfer (Afya CCT)	High acceptability but poor fidelity due to tech issues	Points to the feasibility of digital and financial incentives, with better tech design
Liese et al., 2021	Malawi and Tanzania	Group PNC	GANC increased receipt of services and educational topics	Reinforces GANC impact across LMICs
Wafula et al., 2022	Uganda	CHW-led intervention	Improved 4+ ANC visits, though not early initiation	Validates Kenya’s CHV outreach model for ANC scaling
Sakeah et al., 2023	Ghana	Community interventions	Improved MCH indicators with CHW and mobile education	Shows multi-component community strategy success
Nuhu et al., 2023	Ghana	Mobile Health (mHealth)	Increased ANC, PNC, delivery and continuum of care	Strong evidence for Kenya’s digital health platforms (EMR, SMS)
Reynolds et al., 2023	Liberia	WhatsApp referral system	High acceptability, improved triage communication	Shows feasibility of low-tech digital innovations in rural settings
Borghetti et al., 2021	Tanzania	Payment for performance (P4P)	Mixed results; sustained kindness, variable delivery rates	P4P could improve provider behavior if coupled with systemic supports
Roberts et al., 2017	Malawi	Cultural barriers	Cultural norms (e.g., delayed pregnancy disclosure) limit early ANC	Directly applicable to Kenyan sociocultural sensitization strategies

Recommendations

> **The Ministry of Health and County Health Departments should scale up GANC:** Expand GANC models across health facilities by training providers, standardising guidelines, and allocating resources to foster peer learning, improve women's care experiences, strengthen retention in ANC services, and increase knowledge about pregnancy and newborn care.

> **County governments and community health units should strengthen and expand CHV-led outreach services:** Equip and support CHVs with training, supervision, and incentives to deliver targeted health education, conduct household visits, and provide timely referrals.

> **The National Treasury and the MoH should design and implement effective cash transfer programmes:** Establish transparent and well-targeted financial support schemes for pregnant women,

particularly in rural and low-income communities. Properly administered cash transfers can help overcome transport and service cost barriers that prevent women from completing the recommended ANC visits.

> The Ministry of ICT, working with the MoH and private sector partners, should invest in mobile and digital health solutions.

> **County governments, in partnership with local leaders and male champions, should actively promote male partner and community engagement.** Develop culturally sensitive programmes that involve men, religious leaders, and community elders in maternal health initiatives.

Research gaps and future needs

Despite these insights, several gaps remain:

- > Most existing studies are limited to short-term evaluations, with few assessing long-term sustainability or scalability.
- > There is limited evidence on operationalising the eight-contact model in Kenya's diverse health settings.
- > Further research is needed to evaluate implementation models, address stigma, and document the impact of male engagement initiatives.

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Conclusion

Achieving eight ANC contacts for all pregnant women in Kenya will require a coordinated, multisectoral response grounded in evidence. Interventions must be context-specific, equity-focused, and integrated into existing health system structures. Recommended strategies include respectful and client-centered care, GANC, CHV-led interventions, digital tools for enhancing follow-up, performance-based financing, and engaging men and community leaders. By leveraging lessons from both Kenyan and regional experiences, MoH can accelerate progress toward universal, quality maternal care.

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