

Executive Summary

IMPROVING ANTENATAL CARE SERVICE UTILIZATION IN ETHIOPIA

+ Included:

- Description of a health system problem
- Viable options for addressing this problem
- Strategies for implementing these options

× Not included: recommendations

This policy brief does not make recommendations regarding which policy option to choose



Who is this evidence brief for?

Policymakers, their support staff, and other stakeholders with an interest in the problem addressed by this evidence brief

Why was it prepared?

To **inform deliberations** about health policies and programmes by **summarizing the best available evidence** about the problem and viable solutions

What is an evidence brief for policy?

Evidence briefs for policy bring together **global research evidence** (from systematic reviews*) and **local evidence** to inform deliberations about health policies and programmes

***Systematic Review:** A summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise the relevant research, and to collect and analyse data from this research

Full Report

The evidence summarised in this Executive Summary is described in more detail in the [Full Report](#)

This evidence brief was prepared by the Technology Transfer and Research Translation Directorate of the Ethiopian Public Health Institute.

Key messages

The problem

Low Antenatal Care (ANC) service utilization

The level of ANC service utilization both at least one visit and the WHO recommendation at least four visit from a skilled provider, that is, from a doctor, nurse, or midwife, for their most recent birth in Ethiopia is amongst the lowest in the world. This is one of the reasons why the skilled birth attendant is very low and the maternal mortality ratio remains high in Ethiopia. Important barriers affecting the level of ANC service utilization include:

- Economic barriers
- Socio-cultural factors
- Access to health services
- Poor quality of ANC services

Policy options:

Mobile health (mHealth), Behavioural Change Communication (BCC) Campaign and Conditional Cash Transfers (CCTs) are potential strategies to address the low level of ANC utilization in Ethiopia.

1. BCC campaign might increase utilization of health services by pregnant mothers
2. mHealth interventions probably increase attendance of health care services.
3. Conditional cash transfer programmes could be effective in increasing the use of preventive services. Conditional cash transfer programmes may increase ANC attendance since it increases care seeking behaviour.
4. Given the limitations of the currently available evidence, there is a need for rigorous evaluative research prior to widespread implementation for all the options.

Implementation strategies:

A combination of strategies is needed to effectively implement the proposed options

Barriers to implementing all three options include inadequate guidelines, poor quality of care, lack of financial resources, and sustainability. The strategies to implement the proposed options include:

- Developing clear manuals or guidelines for the three options
- Improve the quality of care and supportive supervision
- Mobilization of financial resources
- Integrating the options into the institutional structure

The problem

There is low level of ANC service utilization by pregnant mothers in Ethiopia. Finding ways to overcome the sociocultural, physical and financial barriers could help to address this problem. The objective of this evidence brief, therefore, is to summarize the best available evidence describing the problem of low coverage of ANC services in Ethiopia and potential solutions for addressing the problem.

Size of the problem

In Ethiopia, only 40% of women aged 15-49 with a live birth received ANC1 (at least one visit) from a skilled provider, that is, from a doctor, nurse, or midwife, for their most recent birth (ECSA 2014). This value is much more below the average rates of least developed countries and sub Saharan Africa i.e., 74% and 76% respectively. On the other hand, only 32% percent of women with a live birth received ANC4 (at least four visits) during the length of their pregnancy, which is also below the average rates for least developed countries and Sub-Saharan Africa which is 44% and 47% respectively (UNICEF 2015).

Cause of the problem

Different studies have indicated the underlying factors that could describe the low level of ANC services in developing countries (The Partnership For Maternal & Child Health 2010). In Ethiopia, the predominant underlying factors can be categorized as 1) Economic barriers, 2) Socio-cultural barriers and Educational status, 3) Access to health services, and 4) Poor quality of ANC services.

Economic barriers

ANC coverage is lower among women who need it the most: those who are poor, less educated, and living in rural areas. An important barrier is the inability to pay for ANC or the treatment prescribed in ANC, where user fees are in place and safety nets for the poor do not exist (ECSA 2014; The Partnership For Maternal & Child Health 2010). Even when antenatal care was offered free of charge, the cost of transport (sometimes across difficult or

dangerous terrain), the loss of women's labour to the family, and the possibility of having to pay for additional medicines rendered attendance impossible (Finlayson & Downe 2013).

In Ethiopia public health facilities are supposed to provide free maternity services by policy since 2005; But in reality, mothers paid an average of 126 ETB to get ANC services from public health facilities excluding health posts (EPHI 2014). As a result, pregnant mothers may not seek care due to associated costs.

In the recent Demographic and Health Survey in Ethiopia, 77 % of mothers in the highest wealth Quintile received antenatal care from skilled provider compared to the 24% for the lower wealth quintile (ECSCA 2014).

Socio-Cultural barriers

Pregnancy is considered as a physiologically healthy and also perceived as a natural process of life, therefore women, families and communities may underestimate the importance and utilization of ANC (Finlayson & Downe 2013; The Partnership For Maternal & Child Health 2010). Studies in Ethiopia have also supported this evidence, about seven women in every ten stated as they are apparently healthy/no illness, and more than three in every ten indicated as they have no knowledge about the service as a reason for ANC non-attendance (Gedefaw et al. 2014).

A literature review looking at cultural barriers to seeking maternal health care in Ethiopia, found that many women were not aware of the risks of pregnancy, pregnancy danger signs or when to begin ANC (Aliy.J & Hailemariam.D 2012). Most women prefer to wait three or four months before confirming their pregnancy and sharing the news with others. Husbands may also discourage their wives from discussing their pregnancies as they believe it is a private matter. Many of these women only attended ANC because they felt sick or were persuaded by family members. This delays their attendance to ANC which often means they will attend ANC less than the recommended four times (BBC Media Action 2012).

The Mini Demographic Health Survey also indicated 46% of births did not take place in a health facility because mothers did not think it was necessary, and for 33% of births mothers

stated that it was not customary which could be the other cause for low utilization of ANC (ECSA 2014).

Educational status

According to the recently held Ethiopian Mini Demographic Health Survey (ECSA 2014), education has a direct impact on whether pregnant women receive skilled antenatal care. Among pregnant women with no education only 30% were receiving antenatal care from skilled provider, whereas 96% pregnant women with more than secondary education were receiving antenatal care from skilled provider.

Access to health services

A national study done by Ethiopian Health and Nutrition Research Institute (EHNRI) in 2012 showed that distance from home to health facility and transportation difficulties are among causes for not attending ANC services. According to the study more than 56% of the mothers attending ANC services did not use transportation to come to health facility. With respect to the average time takes on foot from home to facility, 20% of the participants reported as it takes greater than half an hour to reach the health facility. Regarding the clients' perception of distance from home to facility, the study revealed that about 25% of the participants perceived as it is too far and difficult to get transportation (EHNRI 2014).

According to the Mini Demographic Health Survey (ECSA 2014), distance or lack of transportation (21%) was the main reason not to attend delivery in a health facility which could be also the reason for not attending ANC services considered as a natural phenomenon by the community.

Poor quality of ANC services

To provide quality of care, ANC services need guidelines, appropriately trained providers, and certain supplies and equipment. The Ethiopian Service Provision Assessment Plus 2014 identified the gaps in the quality of ANC services. There is also a complaint by the clients as they perceived a long waiting time to see their provider (16%) in all health facilities excluding the health posts and this was more common in the hospitals (EPHI 2014). A local

study conducted in North West Ethiopia also indicated as 40% of women did not receive an explanation about their health status, and 49% felt that as they were not listened by their health providers (Desalegn 2014).

Another study conducted in Northern Ethiopia showed perception of poor quality ANC service is higher among women who had visited public institutions (42.6%) compared to private (10.2%) which could be a barrier for not utilizing the service (Fesseha 2014).

Policy options

Options to increase ANC service utilization in Ethiopia include: Behaviour Change Communication (BCC) campaign, Mobile Health (mHealth), and Conditional Cash Transfer (CCT). These three options and their potential impacts on ANC service utilization are described below.

Policy Option 1

Behavioural Change Communication (BCC) campaign

Behavioural Change Communication (BCC) is a process that motivates people to adopt and sustain healthy behaviours and lifestyles. Sustaining healthy behaviours usually requires a continuing investment in BCC as part of an overall health program. Many health and development programs use behaviour change communication (BCC) to improve people's health and wellbeing, including family planning and reproductive health, maternal and child health, and prevention of infectious diseases (Salem et al. 2008).

BCC interventions are increasingly seen as the key interventions for addressing social and cultural barriers and achieving goals laid out for health programs (Noar et al. 2009).

Impacts of BCC:

We were not able to find a systematic review on impacts of BCC campaign in improving ANC service utilization. However, there are established experiences of BCC campaign for the additional utilization of ANC services by pregnant women from low and middle income countries like Cambodia.

Cambodia has the practice of BCC campaign for antenatal care with in the first month of missing a period in 2009. After the campaign, ANC visits increased from 69 to 89%, delivery by Skilled Birth Attendants from 44 to 71% and delivery in health facilities from 22 to 53%, the proportion of pregnant women completing all four recommended ANC visits almost doubled, while the proportion of pregnant women receiving 90 iron folate tablets also increased significantly. Given the positive results of the campaign in improving ANC coverage in Cambodia, the approach is being used to implement a communication campaign for appropriate care-seeking for pneumonia and improving complementary feeding practices in the country (UNICEF 2013).

- *BCC campaign might increase utilization of health services by pregnant mothers*

Policy Option 2

Mobile Health (mHealth)

Though there is no standardized definition for mHealth, WHO defines mHealth or mobile health as an area of electronic Health (eHealth) involved in provision of health services and information via mobile technologies, such as mobile phones, patient monitoring devices, personal digital assistances (PDAs), and other wireless devices. mHealth involves the use of mobile phone's core utility of voice and short messages service(SMS) as well as more complex functionalities and applications including general pocket radio service (GPRS), third and fourth generation mobile telecommunications(3G and 4G systems), global positioning system(GPS), and Bluetooth technology (WHO 2011).

Mobile health technologies have the potential to reduce professional isolation especially in rural areas and to provide ongoing support to health care workers as well as citizens. It might also increase the access to health care and health related information, particularly for hard to reach populations (WHO 2008b).

Impacts of mHealth

We could not find a systematic review dealing with ANC attendance as a direct outcome of mHealth intervention. However, a systematic review by (Gurol-Urganci et al. 2013) on the

impact of mobile messaging reminders for attendance of health care appointments has shown a positive effect on uptake of health care appointments.

- *Mobile phone interventions probably increase attendance of health care services*

Policy Option 3

Conditional Cash Transfer (CCT)

Conditional Cash transfers (CCTs) are programs that transfer cash, generally to poor households, on the condition that those households make pre-specified investments in the human capital. Health and nutrition conditions generally require periodic check-ups, growth monitoring, and vaccinations for children less than 5 years of age; antenatal care for mothers and attendance by mothers at periodic health information talks (Fiszbein & Schady 2013). The purpose of CCT is to make a positive impact on the recipients' health, education or other socio-economic wellbeing based on the condition applied. The conditions are in turn often designed to target certain groups within the poor population rather than everyone (WHO 2008a).

Impact of Conditional Cash Transfer:

We could not find a systematic review dealing with improving ANC service utilization as direct outcome of Conditional Cash Transfer intervention. However, a systematic review on impact of conditional cash transfer on health outcomes and use of health services (Lagarde et al. 2009) has shown a favourable result that CCT programmes appear to be an effective approach to encourage some preventive behaviours and to increase the uptake of preventive services which were already free.

- *Conditional cash transfer programmes may increase ANC attendance since it increases care seeking behaviour.*

Implementation considerations

The potential barriers to the three options and implementation strategies to address those barriers are summarised in Tables 1-4.

Table 1: Barriers and implementation strategies for all options

<i>Barriers</i>	<i>Descriptions</i>	<i>Implementation strategies</i>
Manuals or guidelines	There are no manuals or guidelines in place to implement the options	Develop manuals for the three options
Financial resources	There may be insufficient financial resources to implement all the options	<p>Pilot study to evaluate costs and cost-effectiveness before full scale implementation</p> <p>Resource mobilization through coordination of governmental and non-governmental organizations</p> <p>Establish a consortium of stakeholders for maternal health to pool resources and use them for achieving the common goal of increasing level of ANC utilization</p>
Poor quality of care	Poor quality of care could discourage mothers from seeking ANC attendance	Improve the quality of care
Sustainability	Implementation of options may halted when a decision maker is replaced	Integrating the options into the institutional structure
Weak monitoring and evaluation(M&E)	Since all options are new and not institutionalized they may require strong M&E	Integrating the options in to the institutional structure and develop strong M&E activities with validated indicators for each option

Table 2: Barriers and Implementation strategies for Option 1: Behavioural Change Communication (BCC)

<i>Barriers</i>	<i>Descriptions</i>	<i>Implementation strategies</i>
Lack of integration and harmonization of BCC	BCC is not integrated into all programmes in their original design	BCC is a component of all successful interventions and must be included in their original design
Limited capacity	Limited capacity and availability of trained, in-country resource people, including advertising agencies and media outlets, can hamper the effective implementation of BCC programs	Capacities for BCC should be built (FHI 2002) There should be a structured system at national and regional levels Universities should train experts in behavioural communications
Political and physical environments	Geography and population diversity can complicate the development of BCC programs, especially in case where vast distances must be covered, or multiple languages and cultural traditions included, in a single country program.	Developing BCC tools which are appropriate to various settings addressing the language, culture and other social values Building and maintaining linkages and coordination among different stakeholders to reach the diversified population and expanding comprehensive BCC strategies
Sustainability	To be effective, BCC strategies and components must evolve constantly to meet the changing needs of target populations	Continuous input of human and financial resources. Continuous improvement of BCC tools to accommodate changes in the communities and in technologies Revise the cost of airtime in broadcasting BCC

Table 3: Barriers and implementation strategies for option 2: Mobile Health (mHealth)

<i>Barriers</i>	<i>Descriptions</i>	<i>Implementation strategies</i>
Cost, both at the macro systems level as well as at the level of the individual citizen and healthcare provider	A key aspect for any of these technology systems to work is that they must be affordable at point of use	A billing structure must be implemented that allows for a “reverse cost” approach, so the Ministry of Health or other responsible party pay for it. Otherwise it is not feasible or sustainable (WHO 2008b)
Literacy	mHealth intervention using mobile phones might not be feasible for those who are illiterate	Design various applications that have different capabilities to address the illiterate mothers such as voice message, phone call, etc. which can be further expanded as technology evolves
Capacity	The need for capacity building at the country level are not emphasized	There should be focus on local ownership of mHealth technology by building a cadre of tech savvy health administrators and mHealth specialists.
Poor quality of health services	The introduction of technological solutions may be difficult as the access and delivery of health services are complex in LMIC	Highlight the need of mHealth contribution towards addressing the key health priorities
Lack of operational compatibility and standards	Lack of operational compatibility and standards within existing mobile communication systems	Introduction of 3G/4G wireless technology may help overcome aspects of this particular challenge by enabling the unification of existing standards under one umbrella
Sustainability	mHealth projects depend on donor funds and may not continue beyond the pilot phase	Measures of sustainability should be built into an mHealth program from the beginning of the planning process to expand to new audiences by exploring long-term financing possibilities including incorporation of funding from the government budget

Table 4: Barriers and implementation strategies for Option 3: Conditional Cash Transfer

<i>Barriers</i>	<i>Descriptions</i>	<i>Implementation strategies</i>
Sustainability	Sustainability could be a challenge (Handa & Davis 2006)	Carefully designed exit strategies consistent with CCT program objectives (Handa & Davis 2006)
Motivation to change	Participation of mothers could be low due to socio-cultural barriers	Adjusting the design of CCT programs to the heterogeneous socio-cultural factors prevailing in the country Increased recognition of these cultural norms and the importance of delivering incentive funds directly to women
Poor capacities of health facilities	Health facilities might find it difficult to meet additional demand likely to arise when beneficiary households try to meet the condition	Pilot study to assess possible rise in demand and the capacity of health facilities before full-scale implementation
Implementation capacities	Capacities for managing cash transfer schemes are weak in low-income countries. The health system may not be able to meet the additional administrative demands related to conditionality (Schubert & Slater 2006)	Preparing CCT implementation guidelines, organizational change and capacity building on CCT of the relevant bodies within the civil service (Schubert & Slater 2006), and link cash transfers to existing and complementary programs
Feasibility	CCT may be difficult to implement	Pilot study to assess the feasibility of CCT
Over reporting	Abuse of money allotted for would be mothers is a possibility by over reporting skilled ANC attendance	Put an appropriate auditing mechanism in place
Cumbersome bureaucracy	Burdensome paperwork to provide cash to mothers may discourage mothers not to come to a health facility again	Minimizing paper work

Next steps

The aim of this policy brief is to foster dialogue and judgements that are informed by the best available evidence. The intention is *not* to advocate specific options or close off discussion. Further actions will flow from the deliberations that the policy brief is intended to inform. These might include, for example:

- Careful consideration of the need for mHealth interventions
- Careful consideration of the need for Behavioural Change Communication Campaign
- Careful consideration of the need for conditional cash transfer to mothers coming for ANC service
- Monitoring and evaluation of the suggested policy options and implementation strategies
- Consideration of appropriate implementation strategies for each of three options

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