CICF Learning Series

M-Afya:

Enhancing financial access to maternal health services through mobile pre-payment

March 2018

Summary

The push towards universal health coverage (UHC) has risen to the top of the Government of Kenya's health policy agenda. The ambitious goal is to ensure that by 2030 every citizen will have access to quality and equitable health services without having to incur impoverishing expenditures. This may be a challenge in a context where out-of-pocket payments still form a significant part of health financing, and where the poorest face crippling financial barriers to access health care services, even when such services are free. A recent pilot project in the informal settlements of Nairobi has unveiled new evidence that mobile-based flexible pre-payment plans for maternity services could unlock the financial bottlenecks that hinder access and utilization by poor households.

Background

Maternal mortality remains high in Kenya at 362 maternal deaths per 100,000 live births. This is well below the Sustainable Development Goal (SDG) three targets of 70 per 100,000 live births by 2030. The 2014 Kenya Demographic Health Survey[1], found that 38 % of births are delivered without the supervision of a skilled birth attendant, and a further 47% of women do not receive postnatal check-ups within 48 hours following delivery. Similarly, despite high uptake of ante-natal Care (ANC), 42% of clients did not complete the four recommended ANC visits.

In Kenya, access to quality health care services is strongly related to ability to pay, and individuals from resource poor settings are greatly compromised due to limited access to pre-payment schemes, e.g. health insurance.

According to the 2016 Kenya Healthcare Sector Report[1], 75% of the population fully relies on out of pocket (OOP) expenses to meet their health needs. Data[2] from the Kenya National Bureau of Statistics shows that only about 19% of Kenyans have some form of insurance cover, with 94% of these covered by the national insurer, NHIF.

An earlier study in 2013[3] had found that only 2.9% of those groups in the lowest wealth quintile had some form of insurance, and for these groups, out-of-pocket spending on healthcare constituted about 13% of total household spending. In a country where 42% of the population lives below the poverty line, innovative solutions in financing maternal healthcare are required if Kenya is to make progress towards meeting SDG targets.

A mother plays with her baby

Context

Eastern Nairobi is a highly populous region accounting for roughly 25% of the city's total population. Over half the residents in this region reside within informal settlements, which are characterized by high levels of poverty and unemployment. For the majority of this group, the only options available to pay for healthcare require fixed monthly contributions of Ksh. 500 (US$5) to subscribe to the national insurer (NHIF) or lump sums out of pocket payments for services received.

However, most residents in the informal settlements earn their income on a daily or weekly basis and saving for medical care is a challenge. Besides the cost of care, the population in this region of the city has limited access to quality maternal health services. For instance, Embakasi sub-county only has three (3) public maternity facilities, which cannot meet the needs of women of reproductive age, meaning the majority of the women cannot benefit from the free maternity services offered by the government. In addition, frequent disruptions of public health services through industrial action affects their dependability.

As a result, majority of the population depend on nearby, easily accessible private health facilities where they have to pay maternity fees of up to Ksh. 10000 (USD 100) for a normal delivery. To reduce the costs of care, most expectant women opt to skip vital ANC and post- natal care (PNC) services due to associated charges, making it difficult to diagnose pregnancy related complications at the earliest possible stage.

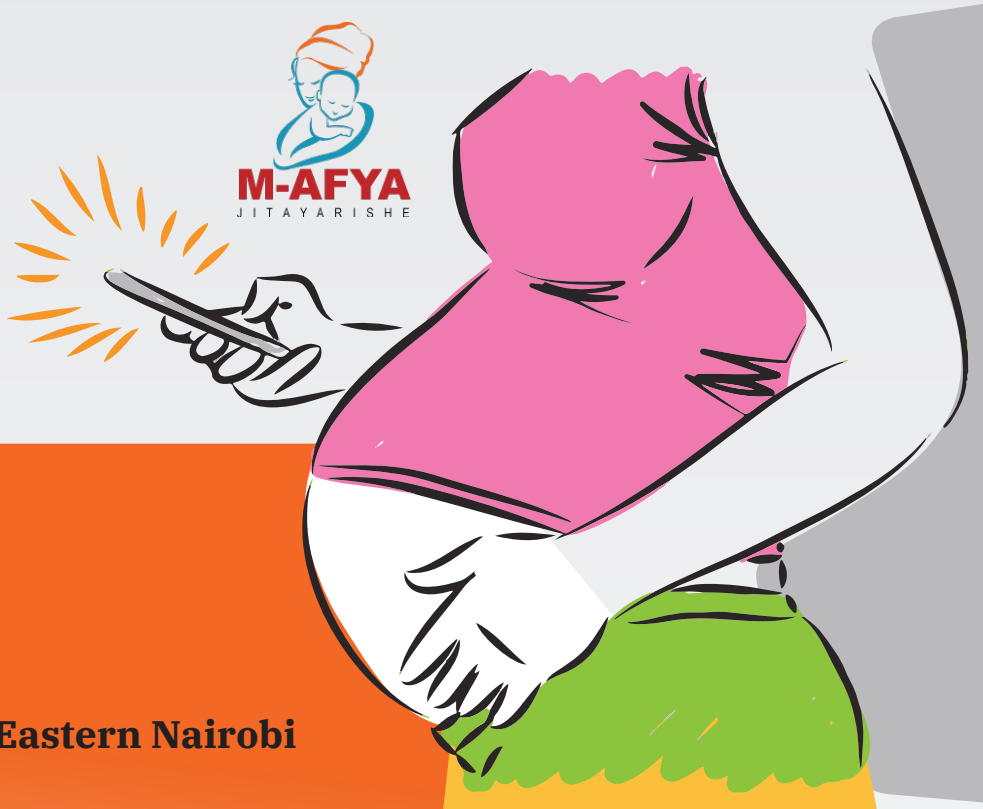
To address these financial barriers and encourage women to take up the recommended ANC and PNC services on schedule, innovative solutions are needed that are feasible, easy to implement and manage on the provider side, and accessible and easy to use on the client side. One possible solution to help women and families pay for maternal health services is to introduce pre-payments, or a medical saving scheme, that is easy to administer and client-friendly.

M-Afya: an innovative mobile pre-payment solution

M-Afya is a mobile-phone innovation that provides a flexible pre-payment model for maternity services. The model was developed and piloted by Malteser International in ten private health facilities within Embakasi sub-county, Nairobi county, to increase access to and utilization of Maternal and Neonatal Health (MNH) services. The *M-Afya* allows pregnant women to make small pre-payments for maternity fees using an easy-to-use mobile money transfer platform on one of Kenya's largest mobile money services (Safaricom's MPESA), which is linked to a specialized database with the capacity to manage individual client accounts over the period of a pregnancy. The *M-Afya* platform can also send health information to the subscribing client, and reminders of their appointments and when payments are due, as well as tracking individual payments.

How it works

When a client registers at the facility for ANC services, an android tablet is used to capture client information, including their last menstrual period and expected date of delivery as well as payment goal and preferred payment frequency, among others. Once registered, a client receives a confirmatory text message and can then make required pre-payments from any location, using a cell phone. Every Monday and Thursday, expectant women and their partners receive health messages through the system. Clients also receive weekly payment reminders. At the end of every month, the participating health facilities generate bills, upload birth notifications and submit payment claims on the *M-Afya* platform. Once verified by Malteser's team, payments are made to the respective facilities through the platform. Where a client gives birth at a health facility not included in the *M-Afya* platform, reimbursements are made directly to the clients once confirmation of delivery is provided.



Eastern Nairobi

- Population of approximately 1 million
- 60% reside in informal settlements
- Approximately 300,000 expected deliveries with only 3 public health maternities
- Half the population seek health care in private health facilities
- Maternity fees in private health facilities range USD 40 to 100

Key project activities

- Development and installation of an integrated database
- Strengthening MNH capacity of the 10 private facilities through training, provision of essential equipment, improvements in Health Management Information Systems (HMIS) and joint support supervision with Embakasi sub-county
- Promotion of *M-Afya* services within the community

Characteristics of *M-Afya* clients

- Young women - 20-30 years
- Married - above 91%
- Secondary school education and above – 72%
- Half of them were employed (most self – employed)
- Partner is main household bread winner – 92%
- Majority preferred a weekly payment schedule – 49%

Results

The results show increases in access to and utilization of MNH services as shown in the graph.

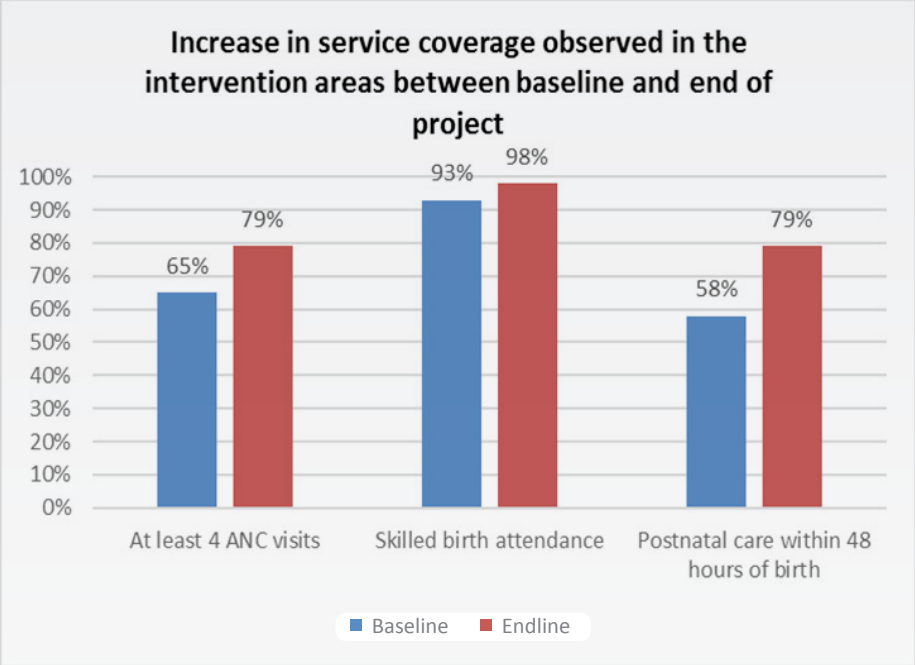
Data from Embakasi sub-county (intervention sites) was compared with data from non-intervention sites in the neighboring Kamukunji sub-county. This comparison shows significant differences that can partly be attributed to the project, including:

More women in Embakasi (79%) had attended at least 4 ANC visits compared to those in Kamukunji (74%). Women who had heard of *M-Afya* services were 2.4 times more likely to have received at least four ANC services compared to those who never heard of *M-Afya* model [OR, 2.4, 95% CI, 1.43 – 3.94; P=0.001].

The proportion of pregnant women who received skilled delivery services in the *M-Afya* sites was higher (98%) than that in Kamukunji (94%). Women in Embakasi were 2.6 times more likely to have used skilled delivery services compared to those in Kamukunji [OR, 2.6, 95% CI, 0.99 – 6.83; P=0.05].

Compared to 76% in Kamukunji, more (79%) women and their babies in Embakasi had received a post-partum health check from health care providers within 48 hours. Women who had ever used *M-Afya* services had slightly higher odds of having received post-natal

services within 48 hours following childbirth [OR, 2.5, 95% CI, 1.17 – 5.18; P=0.017].



Proof of concept & methodology

Through the pilot project, Malteser aimed to establish if a flexible payment plan for maternity will increase the number of women seeking MNH services. Who is likely to use this kind of service? and if a flexible payment plan will make it easier for women to pay their maternity fees?

The research study used a quasi-experimental design with 10 community units in Embakasi serving as the intervention sites and a similar number in nearby Kamukunji serving as the comparison sites. Data was collected at baseline and end-line using a combination of quantitative and qualitative methods. Both intervention and comparison groups comprised of women who had given birth in the past year. A total of 472 women (236 from Embakasi and 236 from Kamukunji) were interviewed at end-line, compared to 458 at baseline (231 from Embakasi and 227 from Kamukunji).

> What I liked most about *M-Afya* was the option to pay in instalments because this enabled me to pay for my maternity bill"
>
> **Female focus group discussion participant**

96% of the clients were very satisfied with the health messages received. They reported to have learned most from messages on:

- Nutritional advice
- Growth and development of the baby
- Proper posture e.g. sleeping position
- Stress management
- Sexual health during pregnancy
- Importance of clinic visits

Lessons learned

Mobilizing and enrolling clients onto pre-payment models should have a family focus and essentially involve male partners given their control of household finances.

Mothers who successfully managed to save for their maternity care through the *M-Afya* platform were willing and able to continue saving even after birth. This provides a great opportunity for women to transition into health insurance products that allow payment of premiums in instalments.

Integrating health messages into the pre-payment platform increased its utility and led to increased knowledge and utilization of MNH services.

It is critical to undertake marketing of the pre-payment platform. In the case of Malteser International's pilot, social marketing, client mobilization and referrals were found to be most effective in rapidly enrolling participants into the *M-Afya* platform.

For ease of financial pooling, the *M-Afya* model or similar pre-payment platforms would work best where health facilities are organized into a network of providers. This would not only reduce overall operation costs but also make it easier to regulate, improve quality and offer clients wider choices on where they prefer to seek services.

Flexible pre-payment models have the potential to reduce financial barriers that limit access and utilization of maternal and newborn health services for poor households. The growth of mobile money technology in Kenya presents an opportunity to reach the uninsured poor through flexible pre-payment plans, such as *M-Afya*.

Footnotes

1. Kenya National Bureau of Statistics (KNBS) and ICF Macro. (2015). Kenya Demographic and Health Survey 2014
2. Kenyan Healthcare Sector, Opportunities for the Dutch Life Sciences and Health Sector. Commissioned
3 Ministry of Health, Government of Kenya. 2014. 2013 Kenya Household Health Expenditure and Utilisation Survey. Nairobi, Government of Kenya

CICF Learning Series

This project is funded by the UK government under the County Innovation Challenge Fund (CICF). The CICF invests in innovative interventions, products, processes, services, technologies and ideas that will reduce maternal and newborn mortality in Kenya.

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For more information about this project, please contact:
Caroline Nyongesa
Malteser International
caroline.nyongesa@
malteser-international.org

Supported by

UKaid from the British people

In collaboration with

Marie Stopes International

Options

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