

Transport vouchers for maternal health: A key strategy for increasing facility based deliveries in Bungoma County

Background

Up to recently, Bungoma County has been lagging behind the national average on a number of key Maternal and Newborn Health (MNH) indicators. In 2014, only two out of every five (40.8%) births in Bungoma were attended by skilled health personnel compared to three out of five (61.2%) nationally (KDHS 2014/15). Similarly, the maternal mortality ratio was estimated at 488 compared to 362 per 100,000 live births nationally. Between 2015 and 2018, the Maternal and Newborn Improvement (MANI) Project in partnership with the County Department of Health, health workers, communities and the media set out to address this disparity by implementing a range of interventions to address the key supply and demand side barriers to uptake of MNH services in Bungoma (see Table 1). By the end of the programme, four out of every five, or 80%, of births in Bungoma were attended by a skilled health provider.

One of the key contributors to this achievement was the transport voucher scheme, which addressed some of the main demand-side barriers to accessing safe delivery along-side other social and behavioural change communication approaches. Some of the complementary supply-side interventions implemented by MANI include a performance based financing scheme which included seed funding for the purchase of essential equipment, a mentoring programme for emergency obstetric care, investments in green energy and a maternal and perinatal deaths surveillance and response initiative¹

Design of the transport voucher scheme in Bungoma

Maternal health services are free in all public health facilities in Kenya. However, other indirect costs, such as the cost of transport, remain a significant barrier to access among poor women. The transport voucher was designed to subsidise the cost of travelling to and from the health facility for delivery, thus eliminating this barrier. By engaging an expansive team of Community Health Volunteers (CHVs) to distribute the vouchers and sensitise women on service availability and birth preparedness, the voucher scheme also served to address other barriers such as cultural preferences for home deliveries, lack of decision-making power and misinformation about MNH services.

Figure 1 (overleaf) illustrates the key stages in the process of identifying women and how they used the voucher to get to and from a health facility for delivery. Details of each step are provided in the diagram.

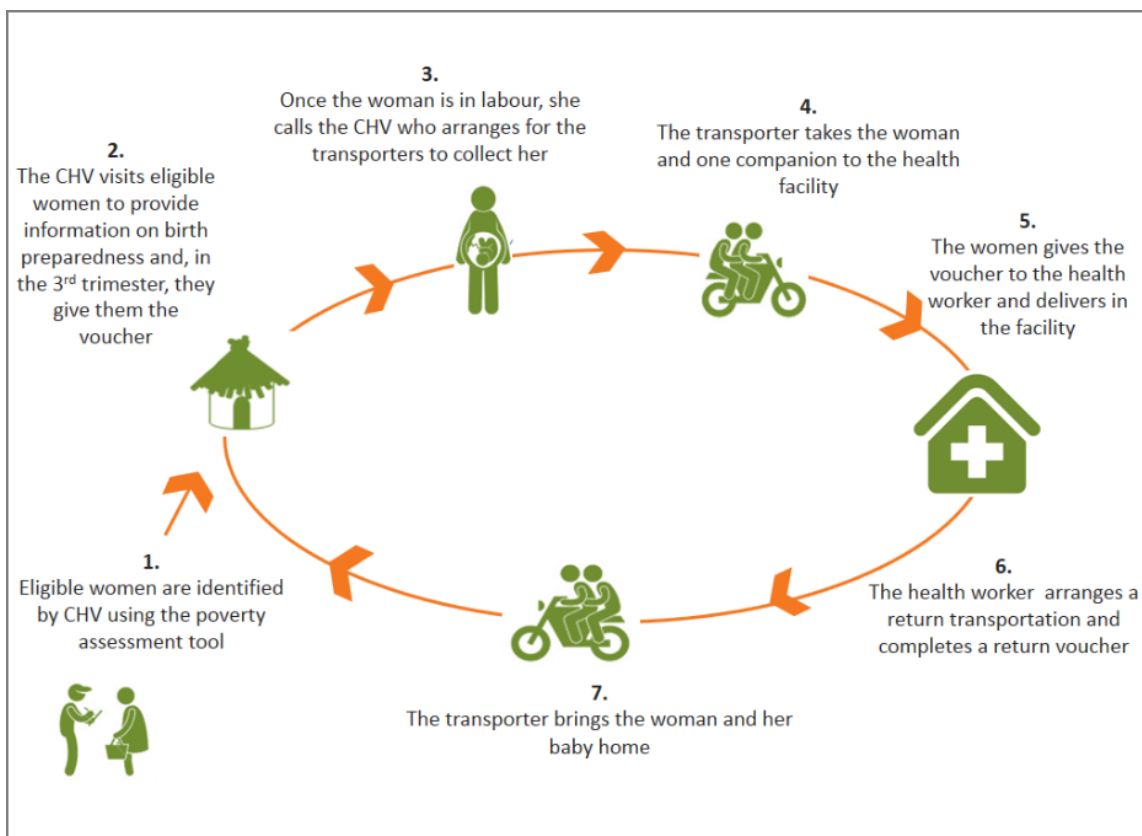
Transporters, or boda boda riders were reimbursed for trips to and from facilities with rates varying depending on distances travelled and whether it was night or day time. To encourage follow-up with pregnant women, CHVs were given a performance reward for each voucher used for facility delivery. Maximising the potential offered by the advanced Kenyan mobile banking system, both CHVs and boda boda riders were compensated via MPesa, a fast and secure means of payment.

Table 1: Key Supply and Demand-side barriers to accessing MNH services in Bungoma

Supply-side barriers	Demand-side barriers
<ul style="list-style-type: none"> • Overcrowding at hospital-level • Shortages of skilled health workers • Insufficient medicines, supplies and equipment • Inadequate infrastructure including inconsistent electricity supplies 	<ul style="list-style-type: none"> • Long distances and difficult terrain • Transportation costs • Cultural preferences for home births • Lack of decision-making power • Inaccurate information about maternal risks • Weak link between the community and facility

¹ Further details of the MANI programme can be found on the Options website: <https://options.co.uk/work/improving-maternal-and-newborn-health>

Figure 1: Process of identifying eligible women, distributing and using the vouchers



The MANI project was implemented in six of the ten sub-counties in Bungoma: Kanduyi, Webuye East, Webuye West, Kabuchai, Sirisia, and Tongaren. A total of 95 facilities across these 6 sub-counties were enrolled in the voucher scheme. While the overall project started in early 2015, the voucher scheme did not begin until October 2015 and project implementation came to an end in September 2018.

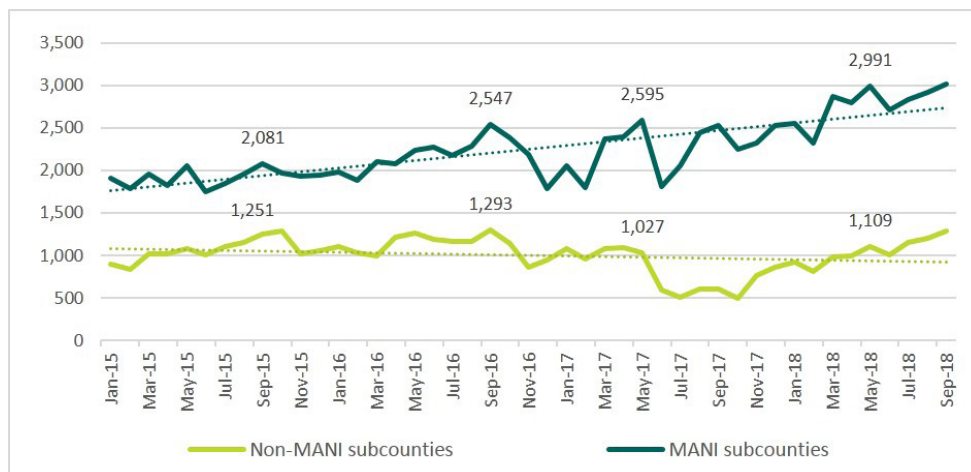
Results

This section presents some of the key results of the voucher initiative, drawing on both qualitative and quantitative findings.

Trends in facility-based deliveries in Bungoma

As can be seen in Figure 2 below, there has been a marked increase in the number of facility based deliveries in the six MANI supported sub-counties in Bungoma during the period from January 2015 until September 2018. This contrasts starkly with the four other sub-counties in Bungoma County which experienced an overall decline during the period. The increase in the MANI-supported sub-counties was achieved despite the periods of prolonged industrial action (shown in the graph in pale green) which took place for 3 months from December 2016 and for a further 5 months from June 2017. While the strikes had a negative effect on facility based deliveries

Figure 2 Comparison of total facility-based deliveries in the MANI sub-counties and in the sub-counties not supported by MANI

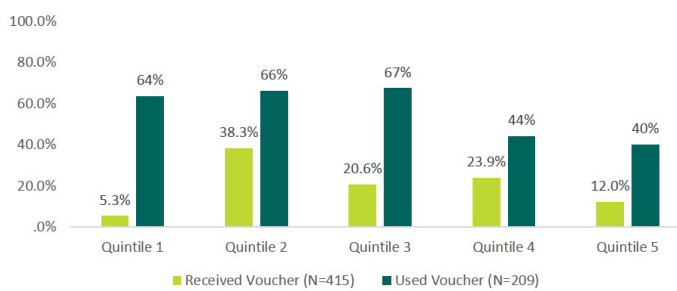


Source: Kenya DHIS2

across the county, in the MANI-supported sub-counties the rates recovered more quickly and soon surpassed their pre-strike levels, resulting in a significant increase overall.

As shown in Figure 3 below, the increase in absolute number of facility-based deliveries translates into an increase in the proportion of women in MANI sub-counties delivering in a health facility: from 55% in 2015 to 80% in 2018 (up to the end of Q3). In the non-MANI sub-counties this proportion fell significantly in 2017 when the strikes had the greatest effect on service delivery, and, by 2018 only returned to the 2015 level.

Figure 3 Proportion of deliveries that are facility-based in MANI and non-MANI sub-counties



Source: Kenya DHIS2

Addressing demand-side barriers to access

As described above, the voucher scheme is designed to address a number of demand-side barriers to access and uptake of MNH services. A qualitative study among 64 health workers across all six sub-counties highlighted the role of the voucher scheme in addressing four key barriers:

1. Financial barriers: While maternity services are free in public facilities, a study undertaken by Transaid in 2015 found that the cost of transportation remained a considerable barrier to access among poor women in Bungoma². The transport voucher helped to increase access by removing this cost.

“You know in the community around, I don’t know if it is poverty or lack of enough resources; they cannot afford many things. But because the voucher is giving transport and delivery is free, it has impacted it positively.”

Nursing officer, Lukhome Dispensary

2. Geographical barriers: Long distance to facilities and difficult terrain make it difficult for many women to get to a health facility for delivery. By selecting a boda boda rider within each community to be part of the scheme, women had access to reliable mode of transport with riders who were familiar with and thus able to navigate the terrain.

“Looking at Lukhome you know the place is actually mountainous, and at night sometimes it’s not very safe for mothers, so actually it has helped... it has increased the number of mothers coming to the facility.”

Nursing Officer, Lukhome Dispensary



Boda-boda rider displaying his MANI identification badge

3. Insufficient information: Many women are not well informed about the availability of MNH services or the importance of going to a facility for antenatal, delivery and post-natal care. By incentivising CHVs to follow up with pregnant women in the community, the voucher scheme has helped to strengthen awareness of key MNH issues and to encourage women to seek services from their nearest facility.

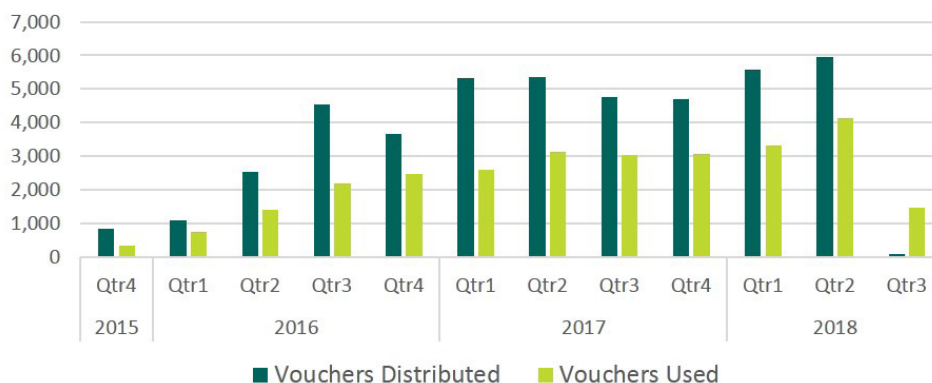
“It has created a lot of positive impact in the community because... the CHVs do start identifying pregnant mothers in the community and advise them that immediately they know that they have conceived, they are supposed to start ANC... So, as they interact with them earlier, they influence them.”

Public Health Officer Bulondo

4. Cultural norms: preference for home deliveries with Traditional Birth Attendants (TBAs) as well as mistrust in health facilities was very common at the beginning of the programme. The ongoing engagement with CHVs helped to challenge some of these social norms and attitudes

2 Transaid (2015) Mapping of transport availability and challenges in Bungoma Country. MANI.

Figure 4 Total number of vouchers distributed and utilized



Source : MANI Programme Management Information System (PMIS)

“Very few are now delivering from their homes. We can’t say its 100% effective, because there are still those women who believe going to the facility for the services is not for them. But at least when you compare the number of clients visiting the facility for delivery with those ones that are delivering from their homes, it has really reduced”

Facility in Charge, Ekitare Dispensary

periods of industrial action (Q4 2016 and Q3 and Q4 2017). Outside of these periods, there was an overall increasing trend in both distribution and use of vouchers. The total utilisation rate of vouchers was 63% by the end of the programme, with a cumulative total of 44,380 vouchers distributed and 27,792 vouchers used. This compares well to similar voucher programmes, which typically aim for a utilisation rate between 50% and 70%³.

While initially, the voucher only covered the transport cost of travelling from home to the facility, a return voucher was later introduced as feedback from CHVs and health workers revealed that the cost of returning home was hampering utilization of the vouchers. The return voucher was incorporated from January 2017, compares the number of vouchers used to access the facility with the number of return vouchers used. Excluding the first quarter when the return voucher was not yet fully operational, on average, 67% of women who used the voucher also availed of the return voucher.

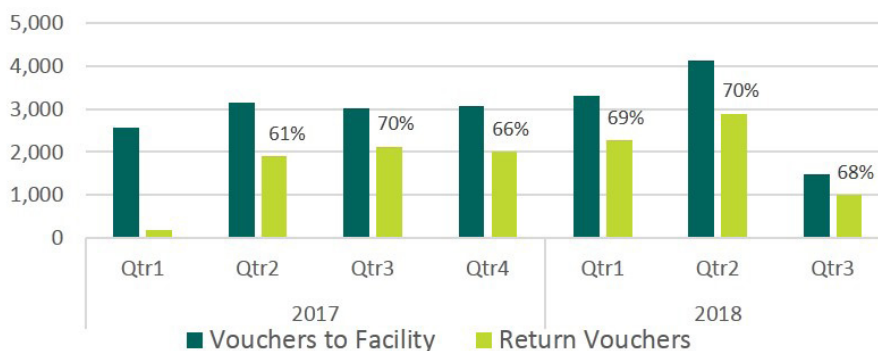
Voucher Utilisation

A key measure of success of a voucher programme is the extent to which the distributed vouchers are utilised by beneficiaries. This indicates both efficiency of the initiative - in so far as inputs are being translated into outputs - as well as its effectiveness - in that the initiative is achieving its goal of increasing uptake of deliveries in a facility.

Figure 4 shows the total number of vouchers distributed and used each quarter from Q4 2015 to Q3 2018, noting that voucher distribution came to an end at the end of Q2 2018. Following the pattern above, it shows that distribution and use was significantly affected by the two

Client Exit Interviews with 720 women who had just delivered in the facility showed that 51% of all respondents received a voucher and, out of these, two thirds (63%) used it to access the facility for delivery⁴, while the remaining did not use it. The principal reason cited for not using the voucher was that they were unable to contact the CHV or boda-boda rider. This was

Figure 5 Vouchers used for travel to health facility and proportion who used return voucher



Source : MANI Programme Management Information System (PMIS)

3 The KfW funded Safe Motherhood voucher programmes in Cambodia, Kenya and Yemen all aimed for a utilisation rate between 50 and 70%.

4 The Client Exit Interviews were carried out from May to August 2016 and again from February to March 2017 and collected information on the voucher scheme from 720 women who had just delivered in the facility.

for a variety of reasons including lack of phone or airtime or that they lost their contact details. Some of the other commonly cited reasons was that they preferred another form of transport; that they delivered in a different facility than the one assigned to them under the scheme; or that they didn't want to wait for the boda-boda rider to come.

The exit interviews also explored the extent to which the voucher programme has had a disproportionate benefit among poor women in Bungoma. Using the EquityTool⁵ to assess socio-economic status of women interviewed (with and without a voucher), 43% percent of all respondents were reported to be poor. This is higher than the estimated poverty rate for Bungoma of 32.4%⁶. Among those interviewed who used the voucher, the poverty rate was even higher and estimated to be 53%. While we would have expected this proportion to be higher since all women that received a voucher were first screened using the poverty targeting tool, when analyzing the use by wealth quintile, the results show that utilization of vouchers was significantly higher among poorer women (ie those from lower wealth quintiles). Given the relatively low cost of the vouchers (the average reimbursement was \$3 to transporters and \$4 to CHVs), it was more important to ensure that all of the poor were included rather than investing resources in excluding the non-poor.

Discussion

Alongside the other supply-side initiatives implemented by the MANI programme, the voucher programme contributed to a doubling of the skilled birth attendance rate from 40.8% in 2014 to 80% by the end of the programme in 2018. This increase far surpassed the performance in other sub-counties which remained stagnant during this period. While the voucher programme did not exclusively benefit the poor and there were some spill-over benefits to the non-poor, the exit interviews show that the poor disproportionately benefited in terms of both receipt of and use of vouchers, thus contributing to goal of increased equity of access.

While the voucher scheme was primarily designed to tackle the financial barrier faced by poor women in

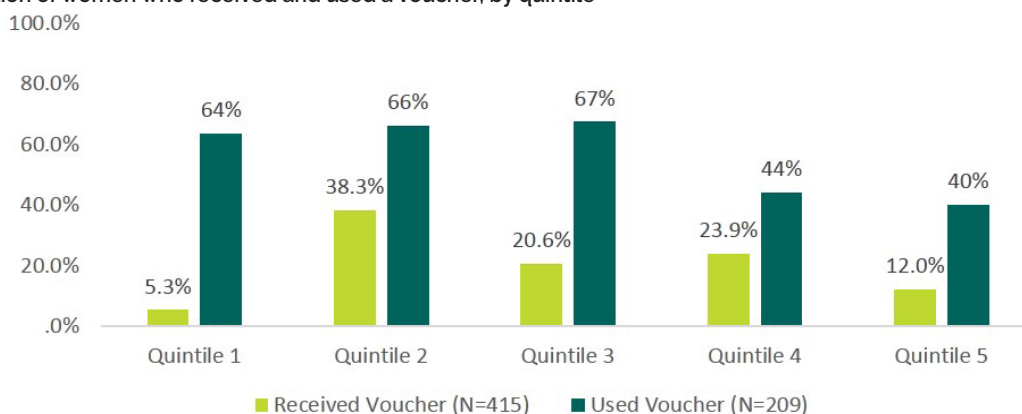
getting to the facility for delivery, the qualitative results show that it also addressed a number of other barriers such as poor information, lack of decision-making power and harmful cultural norms. By engaging an extensive team of CHVs as distributors and incentivising them to follow up with women to ensure that they used the voucher, the initiative also succeeded in improving access to information about the benefits of delivering in a facility. The critical role that the CHVs played in the success of this initiative cannot be overstated. With over 2,000 CHVs engaged in the initiative, the MANI team was able to ensure extensive geographic coverage across the six sub-counties. This meant that awareness of the voucher scheme was extremely high and that CHVs were easily able to identify and follow up with pregnant women.

Another key underlying success factor of the voucher scheme was the extent to which local stakeholders at all levels of the county health system were engaged in its design, implementation and monitoring. Extensive engagement during the design phase helped the MANI team to develop a multi-faceted understanding of the complex demand and supply-side barriers to uptake of maternal and newborn health services in Bungoma. As the initiative moved into implementation, the MANI team routinely engaged a range of stakeholders such as local administrators, religious leaders, transport riders, CHVs as well as health facility representatives through quarterly meetings to review progress and to collectively identify solutions to challenges. These meetings had the benefit of engaging multiple actors as part of the solution, while also facilitating dialogue and debate among stakeholders.

“These meetings allowed me to appreciate that a factor like insecurity can prevent mothers from seeking skilled delivery. My office will do whatever it takes to address any security concerns forwarded to us day or night”

Local Administrator

Figure 6 Proportion of women who received and used a voucher, by quintile



Source: Exit Interviews Q1 2017

5 <http://www.equitytool.org/>
 6 <https://knoema.com/atlas/Kenya/Bungoma>

“We can communicate regularly with local administrators for support on security concerns and to health workers when we transport clients at night so that they are attended without delay. We are now one team promoting skilled births in our community”

Transporter

One of the criticisms that voucher programmes often face is the lack of sustainability of activities. While it is true that the voucher scheme was one of the activities that was not taken up by government at the end of the MANI programme, through its contribution to a change in cultural norms and health seeking behaviour over the three-year period, the transport voucher is expected to have a lasting effect on MNH outcomes in Bungoma County.

Authors: Sarah Fox, Boniface Mbuthia and Anna Gorter

Funded by:



This material has been funded by UK aid from the UK Government, however the views expressed do not necessarily reflect the UK Government's official policies.