



MANIFEST

RESEARCH BRIEF

Research Brief

March 2016

Improving maternal and newborn health outcomes in Kamuli, Kibuku and Pallisa Districts in Eastern Uganda



A village health team (VHT) member visiting and health educating an expectant woman in Bugulumbya in Kamuli District (Photo Credit: Kakaire Kirunda)

Background

Maternal and Neonatal Implementation for Equitable Systems (MANIFEST) was a 4-year study (2012-2015) in which the Makerere University School of Public Health worked in partnership with the districts of Kamuli, Kibuku and Pallisa. The study aimed at contributing to the reduction of maternal and neonatal deaths through the use of a participatory action research approach.

What was done?

In 2012, we engaged various stakeholders in the design of an intervention that would be implemented through locally existing structures and resources so as to increase chances of sustainability and scale up. The resulting design had three major components, with district health teams leading in their implementation:

- **Community Mobilization and Sensitization;** This included home visits by community health workers-also known as village health teams (VHTs), community dialogues, radio talk shows and spot messages.
- **Savings and Transport;** Households were encouraged to save for maternal and newborn health especially through joining saving groups. Linkages were also created between transporters and the saving groups to increase access to transport.
- **Health Systems Strengthening;** The main activities included refresher training for health workers, mentorship, supportive supervision, bi annual health workers' symposia and recognition of best performing health workers and health facilities.

The study was funded by Comic Relief with technical assistance from the Future Health Systems Research Consortium.

Key Results

Five outcome indicators were used to measure change. In this brief we present some of the key results from the end line survey. *Detailed explanation of the results can be found in the main research report.*

Improved knowledge of maternal and newborn care practices

The project aimed at increasing women's knowledge of pregnancy and labour danger signs from 28% to 80%. Knowledge of at least four danger signs was used as the indicator.

- The knowledge of women about pregnancy danger signs was at least three times higher in the intervention (OR=3.39, 95%CI=2.75-4.19) compared to the control area. Furthermore, the knowledge of women about labour danger signs was at least 6 times higher in the intervention area (OR=6.17, 95%CI=5.00-7.62) compared to the control area.
- The ordered logistic regression model indicated that; the probability of knowing at least four danger signs was higher among women who: received VHT visits (adj.OR=1.32, 95%CI=1.02-1.70); attended community dialogues (adj.OR=1.87, 95%CI=1.01-3.48) and received educational talks from health workers (adj.OR=1.38, 95%CI=1.07-1.79).
- However, we found that women aged 15-19 years were less likely (41%) to know about danger signs during pregnancy (adj.OR=0.59, 95%CI=0.41-0.83).

Improved access to savings and transport support for MNH services among pregnant and newly delivered women

- There was a significant increase in pregnant women saving for maternal and newborn health (MNH) services in both the intervention area (from 10% to 70%) and control (from 7% to 64%) area. The multivariate logistic regression survey results indicated that, at end line women who were visited by VHTs while pregnant were 2 times more likely to save for maternal and newborn health (adj.OR=2.5, 95%CI=1.216-4.937). Women aged 15-19 years were 48% less likely to save for maternal health compared to women aged 30 – 34 years (adj.OR=0.51, 95%CI=0.36-0.74).
- 11% of respondents from the intervention area saved with the saving groups compared to 5% from the control group.
- The qualitative results indicated that because of the increased savings, women could easily access locally available transport to the health facilities especially for deliveries. This could have contributed to the increase in facility deliveries that was noted (increase of 10%).

Improved maternal and newborn care practices at health facilities and among women

Some of the indicators for achieving this outcome included; improved delayed bathing of newborns, encouraging the practice of putting nothing on the cord, and care for low birth weight babies at the health facility.

- Data from the survey indicated that delayed bathing increased from 14% to 20% in the intervention area and there was no change in the control area. The regression analysis indicated that at end line, women from the intervention area were 89% more likely to delay bathing compared to those from the control (OR=1.89, 95%CI=1.46-2.46).
- The practice of putting nothing on the umbilical cords of newborns increased more in the intervention arm (16% to 34%) compared to the non-intervention arm (19.5% to 21.2%) between baseline and endline (OR=0.54, 95%CI=0.44-0.67).
- A very small proportion of newborns with low birth weight received kangaroo mother care (KMC).

Increased number of pregnant and newly delivered women seeking MNH services

- The results from the household survey indicated an increase in the health facility delivery by 10% in the intervention area. The women in the intervention area were 59% more likely to deliver from the health facility compared to women in the control (OR=1.59, 95%CI=1.31-1.92). There was no change in the control area.
- At end line, women in the intervention area were 15% more likely to attend ANC 4 times (OR=1.15, 95%CI=0.96-1.38). The study survey results also indicated that women in the intervention area who saved for maternal health were at least 2 times more likely to attend ANC for at least 4 times.

- Regarding postnatal care, the percentage of women who received care within 6 days after birth increased both in the intervention area and in the control area by almost 5%. The percentage of newborns who received care within 6 days after birth did not change much in both arms of the intervention.

Postnatal care

		Baseline		End line	
		Control % (n=1020)	Intervention % (n=1218)	Control % (n=920)	Intervention % (n=1026)
Percentage of women received care within 6 days after birth	Yes	60	75	66.67	80
	No	40	25	23.81	12
Newborns received care within 6 days after birth.	Yes	60	74.6	73.76	76.94
	No	40	25.4	22.08	16.23

Improved skills among health workers and managers

Evidence from qualitative results indicated an improvement in the health workers technical and management skills. For example there was an improvement in newborn resuscitation skills and monitoring of the progression of labour using a partograph. In addition, an improvement in various management skills such as conflict management, accounting for funds, resource identification, prioritisation, allocation and teamwork was noted. This improvement has been attributed to both the clinical and management trainings undertaken by the health workers and managers, as well as the numerous opportunities that the health workers and managers had to engage in project activities at district level. Additionally, the managers are able to plan and allocate resources based on evidence and to advocate for resources from different stakeholders.

“...We the staff especially at the maternity used not to fill the partographs to completion before MANIFEST capacity building innovations. We would leave certain things un-attended to but now days the partographs are fully filled. There are times when we did not use them, but now every mother who undergoes labor is monitored using a partograph. In-charge Nankandulo Health Center IV

Conclusions

The comprehensive approach of improving the MNH services by linking the demand (community component) and supply side led to the improved MNH outcomes that were observed. The interrelationships and the interactions between the project subcomponents were critical to the project's success. The community component aspects that were successful such as community mobilisation and education, mobilisation to save money and prepare for MNH services stimulated demand for utilisation of facility based MNH services. On the supply side of health systems strengthening, interventions such as training, mentorship and rewarding of HWs and managers increased provision of quality MNH services.

The sustainability and ownership of the project interventions was embedded in its design of a multi-sectoral approach and working through and strengthening the capacity of existing Local Government (LG) and community structures, systems and processes. This was evidenced by the LGs' willingness to start budgeting and allocating funds into some current and future complementary project activities. Hence a stronger and more responsive local health system was evidenced in all the three districts.

Lessons Learnt

- A comprehensive approach contributes to a more holistic way of addressing MNH issues. Some of this change requires behaviour change which takes time.
- Community health workers are important in promoting birth preparedness and health facility utilisation.
- Saving for maternal health contributes to increased access to health facilities.
- The substantial involvement of district leadership in the design and implementation of the project promoted ownership and continuity; it is hence a foundation for sustainability of interventions.

- Committed leadership is key for achieving the desired objectives. We noted that in areas where the leadership was committed, they were able to ensure that implementation went on as planned and to identify different means of sustaining the intervention.
- Supportive supervision needs to be action oriented and underpinned by continuity for better follow-up. Continuous quality improvement targets are thereby achieved.
- The on-job focused mentorship of health workers (HWs) and rewarding best performing health facilities and staff improved the skills of HWs. However, there are still facility gaps in management of low birth weight babies as well as provision of services that are critical in assessing and preventing maternal and newborn complications.

Recommendations

- The Ministry of Health, districts and implementing partners should promote the use of multisectoral approaches in addressing barriers to maternal and newborn health care practises and services.
- MoH, Local Governments and partners should address bottlenecks that affect the implementation of the VHT strategy.
- Districts should expand on non-monetary avenues for recognising the performance of health workers and health facilities to sustain motivation among HWs and managers.
- Districts should explore ways in which similar activities implemented by different partners can be integrated, for example supportive supervision.
- Districts should strengthen the quality of maternal and newborn care by promoting on job mentorship and ensuring that essential resources for service delivery are available.
- Implementation partners should use local partners as implementers of mentorship programmes, in order to strengthen their capacity to provide mentorship.
- Future projects should prioritise interventions for pregnant adolescents to ensure that they are able to access maternal and newborn health care services.
- Greater male involvement should be promoted as part of future projects' design for improved utilisation of MNH services.

Credits

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