



Improving Maternal and Newborn Health in Rural Zomba

Maternity Worldwide Impact Report 2020

"I discovered that the role Maternity Worldwide did to train us as volunteers did not end with the phasing out of the project but rather it was our task to continue using the skills imparted in us to help save lives in child birth in our communities,"
James, Community Volunteer Field Facilitator

Foreword

Maternity Worldwide - who we are

Dr Adrian Brown, Co-founder and Chair

We have a vision of a world in which all women and their babies are able to access safe and appropriate childbirth regardless of where they live. While the majority of maternal deaths are preventable the figure remains high particularly in Sub-Saharan Africa where we work to empower and enable local people so that they can bring about lasting changes to their health and wellbeing.

We work closely with a range of partners to advocate for improved maternal health and achievement of the Sustainable Development Goals. We strongly believe, however, that words alone are not enough. We are committed to working directly with communities to improve access to high quality maternity services.

Maternity Worldwide uses an Integrated Approach to address each of the 'demand' (community) and 'supply' (health facility) issues women face when trying to access safe childbirth and quality healthcare. This is based on the vitally relevant and international accepted Three Delays Model which identifies three groups of factors which may stop women and girls accessing the care they need. The key components of our work include women's income generating activities (IGAs); health promotion; skilled birth attendant training for health facility staff and provision of equipment and resources depending on local circumstances and need.



This summary report is based on the end of project evaluation report by Dr Alfred Maluwa and Professor Address Malata, Malawi University of Science and Technology.

The case studies in the report have been collected by Maternity Worldwide staff in Malawi following appropriate consent by beneficiaries.

Project Summary

Malawi is one of the poorest countries in the world with over 50% of the population living below the poverty line. The current population of 18.2 million is increasing with a birth rate of 2.8% per annum. 51% of the population is female¹. At the start of this project the maternal mortality ratio was 370 per 100,000 live births².

Zomba District is in the Southern Region and according to Malawian National Statistics Office (2008), there were 820,309 people, in 149,524 households with a population density of 230 persons per km², more than half (52.6%) of whom are 18 years or younger. There are 22 health centres, one central hospital (tertiary) and the national psychiatric hospital. Some people continue to get medical treatment from traditional practitioners and traditional birth attendants.

Between 2015-2018, the Big Lottery Fund supported a three-year integrated maternal and newborn health programme in Zomba (extended into 2019), aimed at improving access to quality maternity care and empowering communities. Maternity Worldwide ran the project in partnership with the local Catholic Healthcare Commission (CHC) which operates six of the health facilities in the District. The project focused on communities in two Traditional Authority areas in Zomba district (Chikowi and Mwambo) covering 80 villages and worked with the CHC community hospital at Pirimiti and two health centres at Magomero and Matiya.

Objectives:

1. Improve quality and reliability of Emergency Obstetric Care (EmOC) services and strengthened referral and feedback systems, leading to improved maternal and neonatal health.
2. Increase economic literacy and empowerment of the most disadvantaged women in 80 villages in Traditional Authorities Chikowi and Mwambo, leading to improved access to financial resources and healthcare and more influence in their households and the wider community.
3. Improve knowledge of the beneficiaries about maternal and neonatal health, and improved health seeking behaviour in the selected communities, leading to increased uptake of maternal, reproductive and neonatal health services.

1 IMF Country Report no 17/184, International Monetary Fund, Washington 2017

2 World Health Organization, UNICEF, United Nations Population Fund and The World Bank, Trends in Maternal Mortality: 1990 to 2015, 2000 to 2017, WHO, Geneva, 2015-2019

Methodology

The project used an Integrated Approach to of both demand (potential service users) and supply (service provider) side interventions to address each of the delays in the Three Delay model.

Demand side interventions delivered through women's groups:

1. Income generation activities (IGA).
2. Participatory Learning and Action (PLA) cycle in maternal and neonatal health.
3. Maternal health promotion activities delivered by volunteer facilitators and government Health Surveillance Assistants.

Supply side interventions were:

1. Training of skilled birth attendants.
2. Increased provision of EmOC.
3. Improved referral pathways.

There were no other significant concurrent project interventions in the area. The Malawi University of Science and Technology led the independent evaluation under Ethics approval.

A detailed Monitoring and Evaluation Framework was produced and outcomes and targets were monitored and evaluated at baseline, midline and endline. Following power calculations, a sampling frame randomly-selected 455 participants in 30 randomly-selected villages where researchers used face-to-face household KAP (Knowledge, Attitudes and Practice) surveys to assess indicators for Objectives 2 and 3. Review of routine facility data, facility assessments against EmOC criteria and audit of health professional skills was conducted to assess indicators for Objective 1. In addition, Community Score Cards were developed to monitor and help improve quality of care. Using SPS 20.0, means, frequencies and percentages were computed for indicator variables. Endline results were compared to baseline and midline studies using Student's 't' test at the 5% level of significance.

Three Delays Model

1. Delay in *decision* to seek care due to:

- The low status of women
- Poor understanding of complications and risk factors in pregnancy and when to seek medical help
- Acceptance of maternal death
- Financial barriers

2. Delay in *reaching* care due to:

- Distance to health centres and hospitals
- Availability and cost of transport
- Poor roads and infrastructure
- Geography e.g. mountainous terrain, rivers

3. Delay in *receiving* adequate health care due to:

- Poor facilities and lack of medical supplies
- Inadequate trained and poorly motivated staff
- Inadequate referral systems

Thaddeus S and Maine D 1994

Project Impact

Objective 1:

Improve quality and reliability of EmOC services and strengthened referral and feedback systems, leading to improved maternal and neonatal health

Outputs

- Established one Comprehensive and two Basic EmOC centres
- Trained 24 skilled birth attendants
- Strengthened referral and feedback systems

Results:

The project provided equipment and capacity building to the three chosen health facilities. At the endline assessment Pirimiti Community Hospital met all nine World Health Organisation (WHO) signal functions allowing it to be designated a Comprehensive EmOC facility while Magomero and Matiya health centers met the seven signal functions to be designated Basic EmOC facilities.

Twenty-four skilled birth attendants (SBAs) received the full curriculum of training and by the end of the project 97% of all deliveries were carried out at a health facility by an SBA, compared to only 63% at the beginning of the project, surpassing the project target of 80%.

Of the participants who had given birth during the third year of project period, 61.3% gave birth at a health centre, while 36.1% at the hospital, giving a total facility delivery of 97.4%. This percentage represents a significant increase from 79.3% at the baseline (giving birth prior to the project) and 80% at the midline.

The evaluators reported that beneficiaries indicated that the provision and quality maternal and newborn health care services had improved compared to the baseline. 84.6% of the participants indicated that the personnel in the facilities were well qualified for their job, 83.3% said the personnel were passionate and 88.7% confirmed that essential medicines were readily available.



Training of 24 Skilled
Birth Attendants



Designation of 1 CEmOC
and 2 BEmOC facilities

The final evaluation also found that a functional referral system was in place and where clients could not effectively be managed at Matiya or Magomero health centres they were referred to either Pirimiti Community Hospital or direct to Zomba Central Hospital and clients who could not be managed at Pirimiti were referred to Zomba Central.

| Total number of births = 12,619 | | | |
|---|----------|---------|---------|
| | Baseline | Midline | Endline |
| | 2014 | 2016 | 2018 |
| % of births attended by SBA | 63% | 80% | 97% |
| % of births attended by Traditional Birth Attendant (TBA) | 7.2% | 3.7% | 0.1% |



85.5% of the participants had a good experience at the facility

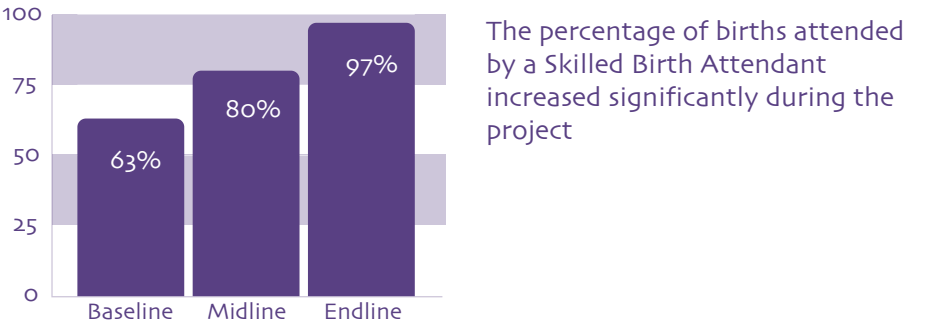


96.3% of the participants would recommend the facility to family members and friends

Community Scorecard at the end of the project

Results also show a functional referral system, where clients that could not be managed at Matiya health center were referred to either Pirimiti or Zomba Central hospitals and those that could not be managed at Pirimiti were referred to Zomba Central hospital.

“Women no longer die in the villages because they are now delivering at the facilities,” said one of the participants during a focus group discussion.





Case story – Beard Thomas:

Beard Thomas is a Nurse Midwife at Magomero Health Centre in the Zomba District, working hard to ensure that all women who come to the hospital can have a safe child birth. This is not an easy task in an area that has seen government funding for clinical services cut by a third over four years. Beard Thomas is very passionate about his job and even a 12-hour shift can't stop him smiling.

Accessing adequate healthcare once a pregnant woman arrives at a health facility in Malawi is one of the major factors affecting maternal and newborn mortality. To address this need, Maternity Worldwide has been providing a range of services including training skilled birth attendants.

Skilled birth attendants are midwives who are already qualified but because of reduced practical experience following training may lack the confidence to work independently on more complicated procedures. As part of the course, the skilled birth attendants are supported in their workplace by a midwife trainer who ensures that they are ready to work in one of the most demanding clinical environments in the country.

"On behalf of my fellow nurses, I am really thankful and appreciative for the training. I did six weeks of theory and six weeks practical. Beforehand, I wasn't competent enough in various things but with the training, I am now able to do high-risk cases like manual removal of retained placentas and breach deliveries and others," Beard says proudly.

Maternity Worldwide also provided a specialist library for the midwives' continuous professional development as well as equipment such as a blood pressure machines and oxygen concentrators. With 24 midwives trained so far and 12 trainers being trained, things are looking decidedly brighter for pregnant women in the Zomba District.

Objective 2:

To increase economic literacy and empowerment of the most disadvantaged women leading to improved access to financial resources and healthcare and more influence in their households and the wider community

Outputs

- Successful implementation of Income Generation Activities (IGAs) in 80 villages
- 1,500 women trained in developing small business and given an initial loan

Results:

The project established women groups as a way of increasing economic and health literacy and empowerment of the most disadvantaged women in 80 of the poorest villages identified during a needs assessment. Maternity Worldwide trained a group of 40 volunteer Village Group Coordinators (VGC), each covering two villages and women's groups. Each VGC received a bicycle and teaching equipment and were managed by employed Village Group Coordinator Managers.



Through provision of business management training and distribution of seed funds, women were able to start up small-scale businesses to improve their social economic status in their families and community. Women were shown how to develop simple business plans and their ideas and understanding were assessed by the VGCs before they accessed the loans. During the training, emphasis was made on the need to promote culture of saving by members of the women groups.

Focus groups and interviews conducted for the midline and endline evaluation found that the profits generated from the small businesses (which included petty trading, animal rearing, running small shops and developing bicycle taxi services) were used to meet family needs, and pay for transport and medication

98.3%

of women benefitting from the seed loans owned a business by the end of the project



The number of women who decided how household money was spent increased by

over 50%



The amount of women generating their own income increased from

to:



costs when women needed to access maternal healthcare. The percentage of women who were the main decision makers on how to spend their cash income increased from 13% to 65%. The IGA scheme also attracted a small number of male beneficiaries who were given the same training in business management and whom were also given information on maternal and newborn health by the VGCs.

| | Baseline | Midline | Endline |
|--|----------|---------|---------|
| % of women generating income | 45% | 90% | 98.3% |
| % of women who are main decision makers on their cash income | 13% | 25.5% | 64.6% |

Case story – Jenifer Pitala:

Jenifer Pitala is a 25-year-old woman from Kaselema village in Zomba District. She is married to Gift and together they have two children and are currently expecting a third child. Jenifer heard about Maternity Worldwide's project on Improving Maternal and Newborn Health and joined the Participatory Learning Action (PLA) meetings.

“Apart from the health messages we were taught in the PLA sessions about mothers and babies, Maternity Worldwide introduced a seed basket where members were helped through loans in order to start small businesses” tells Jenifer.

In 2017 Jenifer got a seed loan which she invested in an avocado selling business. She began earning her own money and explains how she made her own decision on how to use it, *“Some of the money I used to repair my bicycle which I use to travel to Mayaka Market to buy my business products. I have bought two goats and one hen, which I am now raising. In addition, I also bought manure, which I applied in my maize garden.”*

The bicycle that Jenifer was able to repair with the profit from her business, also helped her to travel to a nearby health facility to attend antenatal care appointments. *“I am very thankful for project that Maternity Worldwide brought to our village. The project has helped us women to be economically empowered through the small-scale businesses and we no longer rely on our husbands when it comes to buying items for the unborn baby like basin, wrappers, plastic paper. We also have money saved up for when we need to travel to the hospital.”* says Jenifer with joy.

Objective 3:

Improve knowledge of the beneficiaries about maternal and neonatal health, and improved health seeking behaviour in the selected communities, leading to increased uptake of maternal, reproductive and neonatal health services.

Outputs

- PLA women's groups successfully established in 80 villages
- Training in maternal health to 67 Health Surveillance Assistants (HSAs)

Results:

Participatory Learning and Action (PLA) cycle sessions were introduced to existing village women's groups and if the village did not have an existing group new groups were created by the VGCs. At the PLA sessions, the women learnt about maternal and newborn health, including danger signs during and after pregnancy, prevention and treatment of HIV, the importance of eating a balance diet, family planning methods and how to access family planning services. In the first year of the project 67 government employed local Health Surveillance Assistants (HSAs) were trained in maternal and newborn health (which had to that point not been considered within their remit) to enable them to advise families and communities on best practices during pregnancy and childbirth.

The evaluation showed that the PLA sessions led to a significant improvement in knowledge on maternal and newborn health amongst the beneficiaries and feedback participants was very positive. One of the focuses in the PLA sessions was the importance of child spacing. The results show that knowledge on the importance of limiting or spacing out the number of children increased as the number of beneficiaries who indicated that child spacing was important increased from 90.5% at baseline, 92.8% at midline to almost universal (99.3%) at endline. At the end of the project, the beneficiaries' awareness and use of contraceptives showed a marked improvement and the percentage of women reporting contraception use increased from 75% at midline to 90% at the endline. The most commonly used contraceptive methods were injection and implant.

Ninety percent of women had a broad understanding around HIV and AIDS at the baseline increasing to 99.1% at the end of the project. Moreover, up to 98.5% of the female beneficiaries had received HIV voluntary counselling and testing at the end of the project. This was a dramatic increase from 42.9% at baseline. At the end of the project, 100% of the sample of partici-

By the end of the project

98.9%

of women had knowledge around prevention of mother to child transmission of HIV



Women giving birth at health facilities increased from 79.3 to

97.4%

pants responded that that the best place for delivery was a health facility. The importance of attending antenatal care was highlighted in the PLA sessions. From beneficiaries who were pregnant during the project period, the percentage of women who attended the then 4 recommended antenatal appointments was 67.3%, which was higher than the national average of 51% from government data.

At baseline only 33.3% of beneficiaries mentioned HSAs as the main point of contact to access information on available health services. This increased to 54.3% at midline and to 74.0% at the endline. This is important for the sustainability of the project as building relationships between community members and community health care workers is essential for increasing health seeking behaviour and ensuring women have timely access to care.

| | Baseline | Midline | Endline |
|---|----------|---------|---------|
| % of women reporting contraceptive use | | 75% | 89.9% |
| % of women comprehensive HIV/AIDS awareness | 90% | 96.8% | 98.9% |
| % of women with PMTCT awareness | 61.9% | 92.2% | 98.9% |



Case story – Adora Samu:

55-year-old Adora Samu is a mother of five. Adora joined Participatory Learning Action (PLA) meetings with a women's group that was established in her village in 2015.

“Although I am not in the child-bearing age, I thought it was wise to join PLA so I could gain knowledge to assist my children and provide them with the good health advice,” Adora explains.

Lack of knowledge of danger signs during pregnancy is one of the major reasons for delays in deciding to seek care, which could lead to maternal and newborn mortality. The PLA initiative, based on previous work by Women and Children First UK, educates women about the danger signs of pregnancy and when to seek help. One of Adora's children became pregnant while still at primary school. Early in the pregnancy she suffered from vaginal bleeding. From attending the PLA meetings knew that this was a danger sign of miscarriage and she encouraged her daughter to seek medical care. From attending the PLA meetings Adora learned to recognise some the danger signs in pregnancy such as vaginal bleeding, and the PLA facilitator had urged the women not to hesitate but rather seek medical attention immediately if they encounter such problem, as this may lead to miscarriage.

“This was an eye opener to me as I related the situation to that of my daughter. I was so worried that I may lose my daughter and on the other hand we may also lose the pregnancy,” Adora ex-plains. *“When I got home, I decided to take my daughter to the hospital. My daughter was assisted accordingly and the pregnancy was still there.”* After getting the appropriate medical care, Adora's daughter gave birth to a bouncing baby boy at Pirimiti Hospital.

“Through the PLA I have managed to protect the lives of both my daughter and her son.” Adora says with a smile on her face.

Community Bicycle Ambulance Pilot project

In addition to the core Big Lottery Funded (BLF) project, during 2017 to 2019, Maternity Worldwide also implemented a Community Bicycle Ambulance Pilot project. This was funded by Transaid and BLF and was conceived to help to address the 'second delay' and to improve access to health facilities for women. The project included the purchase of five and renovating five bicycles ambulances to serve 33 villages (with an estimated 22,00 women) in areas of Zomba that are geographically are hard to reach. The target of training 60 volunteers to operate and maintain the bicycle ambulances was successfully met. Furthermore, 10 'contribution baskets' were established so the villagers could make donations to support maintenance of the bicycle ambulances. The pilot officially ended in March 2019, however to date, the villagers have kept the contribution baskets and continue to support the bicycle ambulances.



'Each and every year we are often hit by floods in this area where by making it so difficult for women to access care to the nearest health centres. The coming in of the bicycle ambulances which has a canopy to prevent the women from rains and heavy sunshine, has helped a lot to ease our mode of transportation of pregnant women to the hospital.' Benito Makawa, Field Facilitator for Muhasuwa Village.

Conclusion

Overall, there has been a reduction in both maternal and neonatal mortality in the project area supported by Maternity Worldwide. Due to the numbers being too small for statistical comparison, maternal mortality was not included as a project outcome, the number of Maternal deaths halved during the project period compared to the preceding three years. There appears to have been a reduction in the number of neonatal deaths with 16.48 per 1,000 births in the project area during the three-year period compared to 22 per 1,000 for Zomba District in 2015/2016 (and 26 per 1000 nationally in Malawi).

Final evaluation results showed that the project was implemented successfully and met the objectives and targets on all indicators that were set with BLF. In addition, both the stakeholder key informants and beneficiaries indicated that they felt the project had had a very positive impact. The IGA promotion through women's groups has been particularly effective with most women now having a reliable source of income from business activities. There is evidence that this has led to women being empowered to be decision makers around their lives and access to healthcare. The PLA women's groups have been very effective in improving maternal and newborn health awareness amongs the beneficiaries. The HSAs and VGCs have worked well as partners in the community to improve access to services in particular family planning.

On the supply side , the project training of SBAs resulted in a critical mass of skilled personnel in the project area so that now almost all beneficiaries were able to have a delivery with a skilled birth attendant. There has been improved referral system in which the health centres/community were appropriately referring to the next level of care. Furthermore, the three targeted facilities do now offer the appropriate services that designate them respectively to CEmONC and BEmONC facilities. The evaluators felt that, despite evidence of a reduction in neonatal mortality, from review of case records and interviews there needed to be a further focus, however, to improve the management of prolonged labour leading to birth asphyxia.

This project has provided further evidence of the positive impact on maternal and newborn health of an Integrated Approach across both demand and supply side intentions in a rural setting in low-income country.

Our other projects

Apart from the project in Malawi, Maternity Worldwide is supporting two other projects on improving maternal and newborn health currently in Ethiopia and Uganda.

Ethiopia

From 2011 to 2014, we ran a successful project in West Wollega district in Ethiopia, which reduced the numbers of women dying in childbirth at the hospital from 6.2% to 0.6%, and increased the number of women delivering at health centers by 51%. 1200 women participated in income generating activities with 90% of the women involved making a profit. The project has been handed over to local partner agencies and is expanding to other maternal health services in the community.

Uganda

The overall objective of our programme work in Uganda is to work with our partners in local communities to deliver effective, efficient and sustainable maternal healthcare programmes. We work in the Hoima and Masindi districts, where current healthcare services are fragmented, especially in the rural areas. We have partnership agreements with the District Health Office, Hoima Referral Hospital, the Princess Alexandria Health Centre, the Anglican Diocese (the largest provider of community health services). With support from donors We have built a new bespoke Maternity Centre, licensed and fully operating since 2017 and four antenatal outreach centres. We are simultaneously addressing the first and second delays with a network of 24 village women's groups with community savings funds and provision of bicycle ambulances.





Since 2002 Maternity Worldwide has delivered projects in 11 low income countries to help save lives in childbirth. We currently are working in Ethiopia, Malawi and Uganda. We welcome the opportunity to discuss and develop new partnerships with a range of stakeholders; around project implementation; high quality research and advocacy to improve maternal health.



LOTTERY FUNDED

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