

Improving maternal and newborn health in Kenya: Achievements and lessons from Kwale, Mombasa, Kericho and Nandi counties

Key project achievements

- Improved access to skilled birth attendance by 18% from an average of 62% to 80% across the four counties.
- Improved review of maternal deaths from a baseline of 6% to 96%.
- Increased perinatal death reviews from a baseline of 0% to 61%.
- Transferred skills to Ministry of Health to conduct emergency obstetric and newborn care (EmONC) assessments and increased the number of facilities able to provide EmONC Services from 9% to 34%.
- Collected 18,516 blood units for transfusion.
- Prioritised maternal and newborn health services in counties that have seen significant investments in comprehensive EmONC services at sub county level - 10 additional theatres built, of which 7 are fully operational.

Project overview

The Maternal and Newborn Improvement - Quality of Care (MANI-QC) project was a UK Aid funded 3-year project (April 2019 to March 2022) that aimed at improving maternal and neonatal survival in Kenya.

MANI-QC worked with the Ministry of Health and other development partners to implement interventions that focused on improving the quality of emergency obstetric and neonatal care (EmONC) service delivery in Nandi, Kericho, Mombasa and Kwale counties by weaving together 4 main components in 70 targeted facilities:

- EmONC facility readiness assessments
- EmONC mentorship
- Maternal, perinatal death surveillance and response systems (MPDSR)
- Targeted health systems strengthening interventions.

Figure 1: Kenya service delivery counties

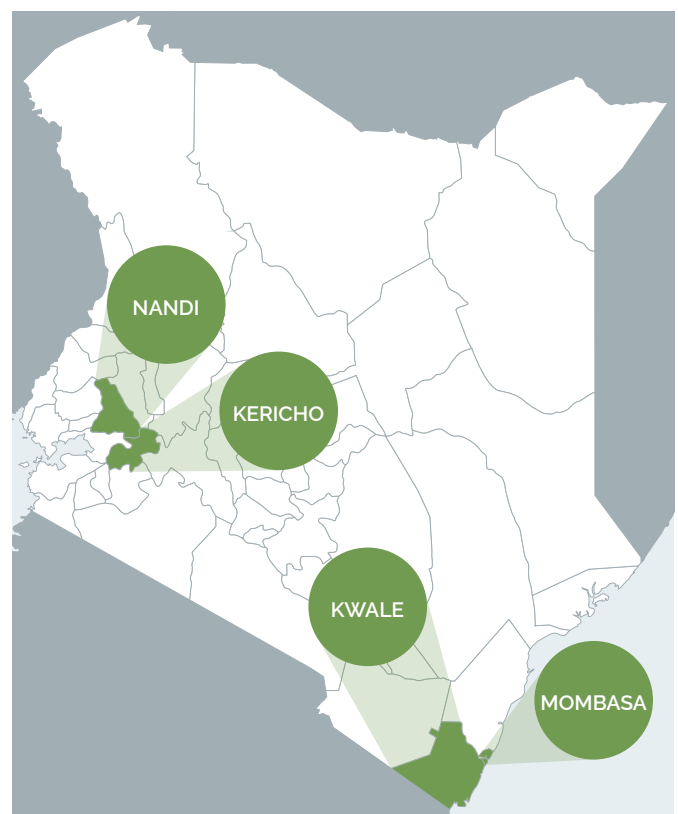
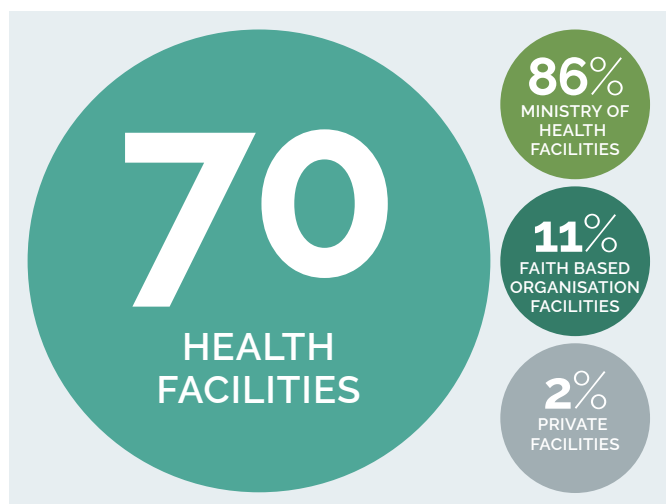


Figure 2: MANI-QC Technical Approach



Figure 3: Showing number of health facilities supported through the MANI-QC project:



Our work in Mombasa and Kwale counties was phased down between April and July 2021 as a result of budget adjustments made in the last year of our project.

Results

EmONC facility readiness assessments

The project team worked with **counties (4)** and **sub-counties (22)** to assess facility readiness to perform EmONC life-saving signal functions.

The MANI-QC team trained health management teams from both counties and sub-counties to conduct quarterly **EmONC assessments** using Options' digitised Quality of Institutional Care (QuIC) approach.

Between July 2019 and December 2020, there was a **consistent increase** in the percentage of facilities that were ready to perform all the key life-saving interventions that were required to achieve EmONC status (graph 1). However, scores for drugs and medicines fluctuated because of issues related to the central supply chain, which is not easy to influence from county health management team level. Additionally, we scaled-up the EmONC assessments to 30 new facilities Kericho and Nandi Counties in July 2021. Usually, it takes time for actions to be implemented after gaps are revealed, and the lower scores among these new facilities lowered the overall average of the scores.

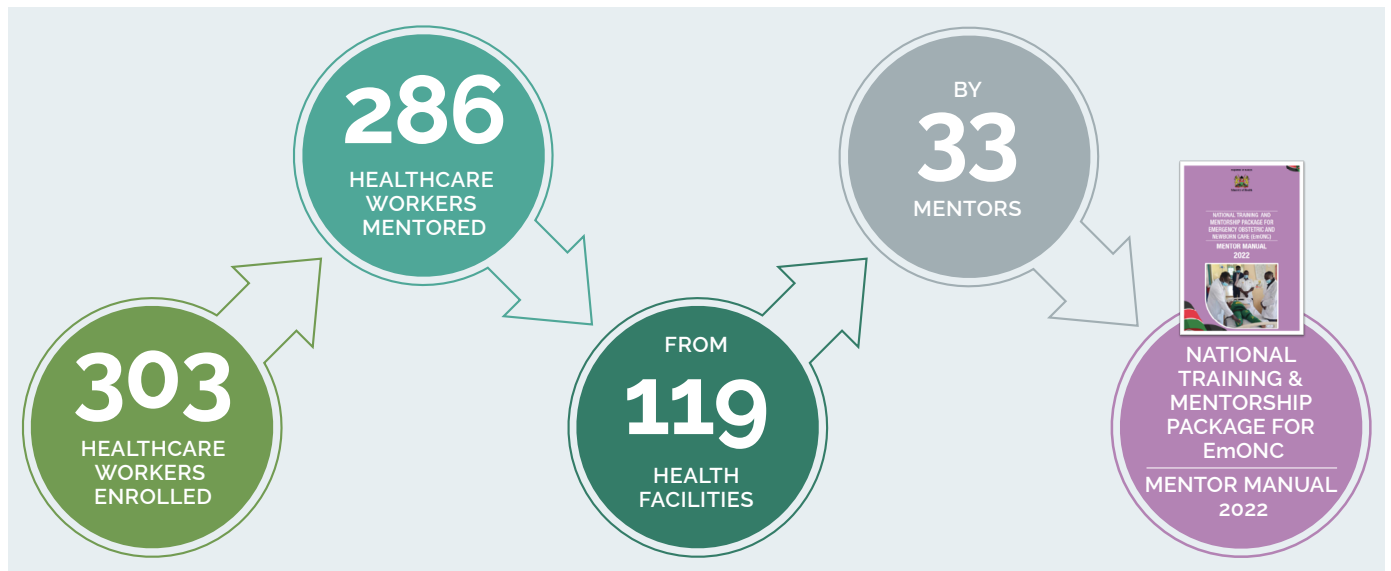
Since the project handed over interventions to Mombasa County in July 2021, the County has conducted two quarterly assessments, and the county health management teams in Kericho and Nandi accessed more facilities, which indicates that EmONC assessments can be scaled and sustained.

The project team supported the MoH to develop a harmonised national EmONC readiness assessment tool for nation-wide roll out in collaboration with other partners.

Graph 1: Proportion of health facilities with capacity to perform EmONC signal functions



Figure 4: Overview of results of EmONC mentorship scheme



MANI-QC implemented a low cost EmONC skills mentorship **scheme** that identified and trained and 286 health care workers with clinical mentorship and theoretical refresher training in EmONC life-saving skills. Figure 5 shows that the mentees' skills and clinical management practices among improved over time.

The project team also developed a National EMONC Mentorship Package with the MoH and implementing partners to harmonise in-service EmONC skills training.

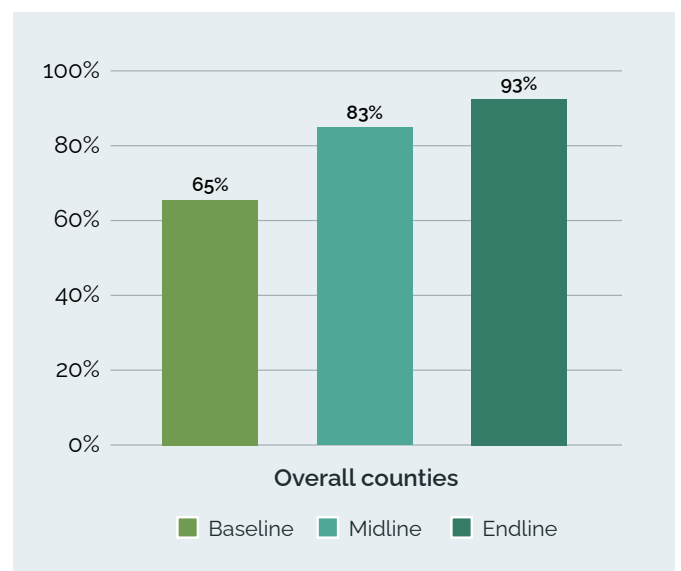
Quote 1: "When I came back, we had to restructure some things here. I had to call a meeting; we sat down and structured how to handle some cases like retained placenta. Previously I had no idea, and for most of us here, we had no idea like for that case we used to refer before. But right now, I had to teach my colleagues, and now we can handle a retain placenta well without referring. ...the mentorship has brought a lot of changes in the facility."

Mentee, Kwale County KW007 after completing the mentorship placement

Quote 2: "The Standard Operating Procedures that we saw [in the centre of excellence], it is best [to use] in our facility. I translated them to our facility, the PPH kit, the eclampsia kit, the emergency kit that we're using maternity we didn't have, but through that programme of mentorship, we saw this is the best thing. So, when we have a baby to resuscitate, everything is there; When we are managing a mother who is bleeding post-delivery, we are ready any time"

Mentee, Kericho County KRC006

Graph 2: showing improvement in EmONC skills competency scores among health care workers at start, middle & end of their time on the mentorship scheme

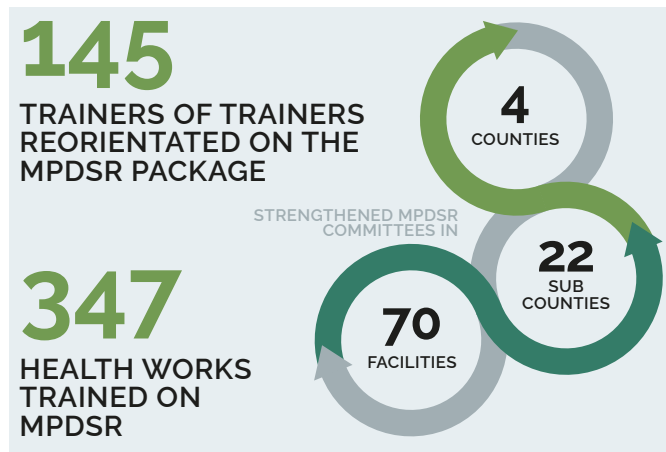


Maternal, perinatal death surveillance and response systems (MPDSR)

'What gets measured matters'

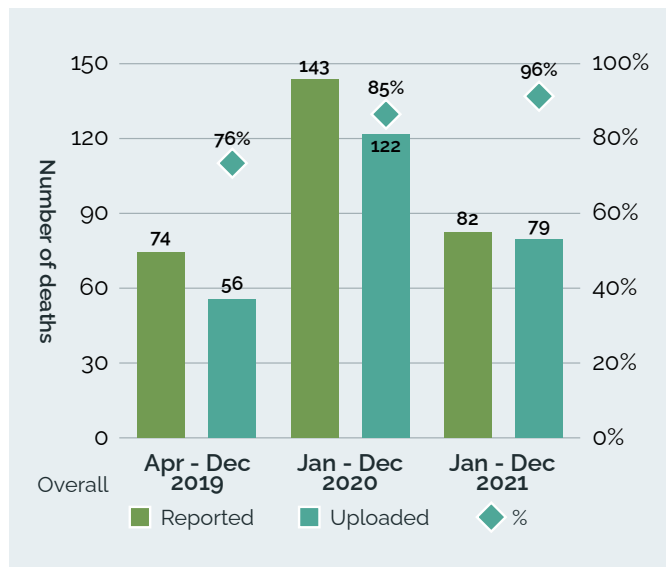
Our team worked with health managers across these 70 facilities to set up and strengthen the reporting and review of deaths among mothers and babies. Most importantly, we worked with the Ministry of Health to strengthen their use of this data to inform action planning and resource allocation to address the factors that contributed to these deaths.

Figure 5: Measured results

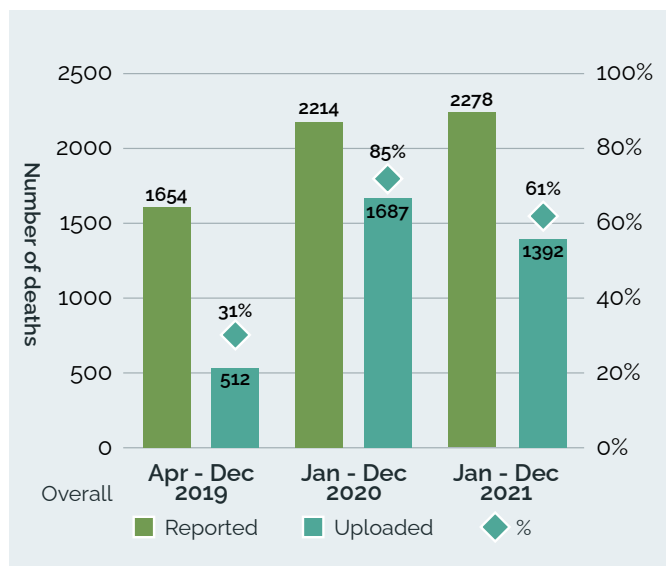


The graphs below show that supporting **MPDSR** committees to organise review meetings led to an improvement in reporting and reviewing both maternal and perinatal deaths. See graphs below.

Graph 3: Showing improvement in number and % of maternal death cases uploaded to the DHIS2



Graph 4: Showing improvement in number and % of perinatal death cases uploaded to the DHIS2



Through the **MPDSR process**, counties have made prioritised making investments in improving access of quality of care yielding the following:

- **7 new sub-county theatres** operationalized in the last 3 years.
- **Increased investment in availability of medical equipment** such as ambulances (10 in Nandi and 2 in Kericho), ultrasound machines (Mrima Hospital, Mombasa), oxygen concentrators (Momoniat, Kericho), blood bank fridges (in Nandi and Mary Immaculate Mission Hospital, Mombasa), equipping of blood satellite (Kericho).
- **13 additional private facilities** supported to implement **MPDSR**, when previously no private facilities reported maternal deaths.

Health systems strengthening

The project prioritised technical assistance based on local needs which included increasing access to blood availability and health financing, developing a human resource for health policy and strengthening health information management systems.

Blood availability

Obstetric haemorrhage is one of the main causes of maternal deaths in Kenya. In 2019, we conducted an assessment of blood availability and haemovigilance (i.e. covering the entire transfusion chain, from the donation and processing of blood and its components, to their provision and transfusion to patients). As a result, we worked with counties to strengthen the blood transfusion services. For example, the team provided technical and financial support to **Kwale County Blood Satellite** to begin screening their own blood. In collaboration with Kenya National Blood Transfusion Services, we built the haemovigilance capacity 120 health workers to make rational use of blood and blood products. Other results include:

- Blood donation drives resulted in a total of more than 18, 500 units of blood being made available for obstetric and other emergencies.
- Development of a training package on haemovigilance
- 145 Hospital Transfusion Committees being established, supported to conduct haemovigilance review meetings and linked to MPDSR committees.
- Staff from the Safe Blood Transfusion Services being mentored at satellites in Kwale.

Healthcare financing

MANI-QC provided technical assistance for enactment of the Kericho County Health Services bill 2021 in line with The Public Management Finance (PMF) Act 2012 to enable health facilities collect, retain and spend at source.

The team also supported Mombasa and Nandi Counties to enact Facility Improvement Fund (FIF) bills. Both the Mombasa and Nandi County FIF Bills have been submitted to their respective County assemblies and are, at the time of writing, being deliberated on.

We refreshed the county health management teams and health care workers in Kericho and Nandi on the National Health Insurance Fund (Linda Mama). This was to equip them with knowledge on how to implement and navigate the insurance mechanism so they are able to increase their facilities' own resource revenues through refunds from claims made on maternal and newborn health services.

The project contributed the Kericho and Nandi Counties' achievement of various indicators, such as the skilled birth attendance rate, which led to an increase in the Government's Transforming Health Systems – Universal Coverage allocations.

County	FY 2019/20	FY 2020/21
Nandi	Ksh. 61,000,000	Ksh. 102,000,000
Kericho	Ksh. 52,008,534	Ksh. 94,290,451

Human resources for health

Nandi County had identified inefficiencies in their human resourcing for health mechanisms. The project team supported the county develop its Human Resources for Health Strategic Plan 2021 – 2022/2023 as a blueprint for guiding recruitment, retention and effective distribution of its workforce. This plan was launched in October 2021.

Health information management systems

MANI-QC provided technical assistance to counties to improve maternal and newborn health data quality

and evidence-based decision making. We did this by conducting quarterly data audits and supporting quarterly data review meetings in targeted facilities. Additionally, our technical experts worked with County Health Management Teams to use this evidence to inform annual review processes and guide annual work planning and budgeting, which helped ensure prudent resource allocation.

Challenges

- The **COVID-19 pandemic** disrupted project implementation and limited access to maternal and newborn health services.
- The **project scope was reduced in year 3**, which required major adjustments in the final year. These led to a reduction in the number of counties the project supported and drew the project closure forward by 4 months, which impacted transition planning.
- A **6-month health worker strike** in 2020 reduced access and quality to maternal and newborn health services in the counties and affected our ability to implement project activities.

Conclusion

Some key lessons from implementing the MANI-QC project and achieving these results are:

- **Data drives quality:** Sharing evidence and service delivery gaps with decision-makers in appropriate formats at relevant times in the budget planning cycle helps inform relevant and timely CHMT decisions on resource allocation and action planning.
- **Clinical knowledge and skills are best learned on the job**, in health workers' actual work environment, and through sharing experiences across facilities.
- **Involving all health workforce cadres** is paramount in the review and adjustments of care from maternal and perinatal deaths.
- **Facility financial autonomy** anchored in policy and legal frameworks is essential to ensuring quality service provision.
- **Increasing access to safe blood services** is essential for maternal and newborn health as haemorrhage is still the leading cause of maternal death.



April 2022

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