Maternal death reviews

Understanding and addressing why mothers are dying

Key messages: **Maternal death reviews are a key factor in preventing maternal deaths, especially in northern Nigeria, but on-going commitment and teamwork are essential for them to be effective.**

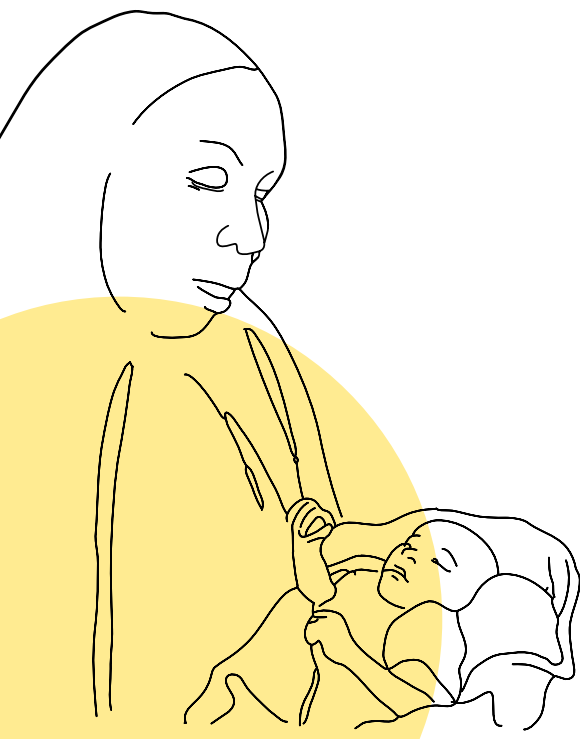
1. To help counter significantly higher maternal death rates, PRRINN-MNCH initiated facility-based Maternal Death Reviews to identify causes of death and potential shortcomings of care in an anonymous, blame-free environment.
2. MDR training and mentoring for health staff has led to improved procedures, new equipment, better use of existing resources and identification of new requirements.
3. Impediments to MDRs have been identified and targeted for improvement, but each state needs a dedicated committee to ensure effectiveness, leading to better patient care and improved survival rates for new mothers.

The challenge: improving maternal survival rates in Northern Nigeria

Nigeria has some of the highest rates of maternal, neonatal and child mortality in the world. These high mortality rates are also characterised by wide disparities between the north and the south, with consistently poorer indicators for maternal, newborn and child health (MNCH) in northern states.

In order to address this issue and achieve the Millennium Development Goals related to MNCH, it is crucial that not only is the coverage and access to vital MNCH interventions increased, but that the quality of care is also improved.

Maternal death reviews (MDR) in health facilities play a vital role in identifying important quality of care problems. They identify the obstetric causes of death but, crucially, they also shed light on other, avoidable, contributing factors. This can highlight shortcomings in care and weaknesses in the organisation and provision of health services. In short, they provide an understanding of the 'whole story' of why a mother has died.



The purpose of MDR is to identify avoidable and remedial factors, initiate action to solve the identified problems, improve the quality of care and prevent future deaths. The MDR aims to solve problems, rather than punish people. It works on these following principles:

- Anonymity
- Confidentiality
- No apportioning of blame
- Interviews are conducted in a non-threatening environment
- There is a commitment to act.

The response: training staff to review maternal deaths

In 2011, PRRINN-MNCH initiated facility-based MDR in Emergency Obstetric & Newborn Care (EmONC) facilities in Katsina, Yobe and Zamfara as part of a wider Quality Improvement (QI) initiative.

Members of QI teams at each facility were trained to review maternal deaths after the chairperson (the 'champion' of the MDR process) has collected all the information required. This includes patient records and additional data from interviews with staff who were involved in the case. The review teams include:

- A doctor, either the principal medical officer or the doctor in charge of maternity
- The matron in charge of the maternity unit
- The chief nursing officer
- The in-charges of the laboratory, operating theatre and pharmacy.

Sometimes a community member of the health facility committee takes part, and for small EmONC facilities the Officer in-charge and the MCH coordinator or PHC director of the Local Government Area (LGA) may also be a member.

Mentoring support is given to the QI teams in initiating and conducting MDRs through supportive supervision visits. At subsequent QI workshops and through quarterly meetings at LGA level, the QI teams present and discuss some of their

THIS DOCUMENT IS ONE OF A SERIES OF KNOWLEDGE SUMMARIES THAT DRAW ON THE ACTIVITIES, RESULTS AND LESSONS LEARNED FROM THE PRRINN-MNCH PROGRAMME

cases and share experiences with MDR.

The results: improving the quality of care and building capacity

During an evaluation of the MDR process in 2013, it was found that all members of the QI teams interviewed expressed enthusiasm about the process and provided much positive feedback. Improvements initiated in quality of care include:

- Better treatment of patients by following protocols after training
- Better utilisation of human resources
- The acquisition of equipment, such as resuscitation equipment
- The establishment of emergency cupboards with life-saving drugs in labour wards
- Posting of additional skilled staff.

In early 2013, a review of the MDR process was conducted. 105 forms were analysed from the beginning of 2012 when the MDRs began. The following was highlighted:

- Only 11% of patients had been to ANC;
- 53% of patients were admitted from home, with only 13% from other facilities;
- 66% died post partum while 34% died undelivered;
- Most of the patients were admitted in a critically ill condition and about half died in the first 24 hours;
- The direct causes of death were hypertensive disorders (26%), post partum haemorrhage (25%), puerperal sepsis (11%), abortions (3%) and one death from obstructed labour. In 16% of cases there was no direct cause of death.
- The most common indirect cause of death was anaemia (28%);
- In all cases, there were other (non-medical) factors that contributed to the patient's death. In 53% of cases, there were multiple causes. Most frequent contributing factors were delays caused by patients or family, including delays in agreeing to the management plan proposed by the health worker. Health worker problems included incomplete initial assessment and inadequate patient resuscitation. Administrative problems included absence of trained staff and lack of blood products.
- Of the 61 babies delivered, records for 54 were found, of which 25 were live born and 29 were still births. Of the 12 babies assessed, mean weight was 3kg and mean Apgar score at 5 minutes was 7.5.

To build capacity in the states, some team members have been taught to train and support others. Existing MDR recording and reporting tools from other countries had previously been reviewed and adapted for northern Nigeria. The set of tools was presented to and approved by the State Ministries of Health.

Policy implications

Throughout the implementation process, there have been some challenges which will need continued focus. These include:

- Health workers fearing they will be blamed for deaths
- A shortage of staff and high workload making it difficult to convene the review team, resulting in irregular MDR meetings
- A relatively small proportion of reported maternal deaths being reviewed, particularly when hospitals have a large number of deaths
- Frequent transfer of key members of the QI teams which has stalled the MDR process in several health facilities
- Insufficient and infrequent support of the QI teams, resulting in piecemeal application of the process
- Poor record keeping making it difficult to review all maternal deaths effectively
- Difficulty institutionalising the MDR process within the structures of the Ministry of Health at LGA and state level.

It is also clear that facility-based MDR does not provide information on women dying in the community, where different contributing factors may play a role.

Conclusions

To be successful, MDR requires teamwork and commitment and health facilities need a 'champion' to spearhead regular facility-based MDRs. Obtaining additional information on the maternal death cases through interviews and during discussion at the MDR meetings is important to obtain the full story, since patient records are poorly kept. Supportive supervision of MDR committees is very important, particularly in the initiation stage of the MDR process when the review teams need technical, team-building, and moral support.

Quarterly MDR meetings at LGA or cluster level facilitate sharing of experiences and help in capacity-building. These should be attended by staff from various health facilities, who present and discuss some of their reviewed maternal deaths. Such meetings often depend on donor-funding.

To institutionalise MDR, there is need to establish a committee at state level, which oversees MDRs and Peri-Natal Death Reviews (PNDRs), provides guidance and support, and monitors the process. There is also a need for written policy guidance on MDR from the Federal Ministry of Health.

PRRINN-MNCH
Partnership for Reviving Routine Immunisation in Northern Nigeria; Maternal Newborn and Child Health Initiative

The PRRINN-MNCH programme works with federal, state and local governments and local communities to improve the quality and availability of maternal, newborn and child health services.

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