



IMPLEMENTING MATERNAL DEATH SURVEILLANCE & RESPONSE (MDSR)

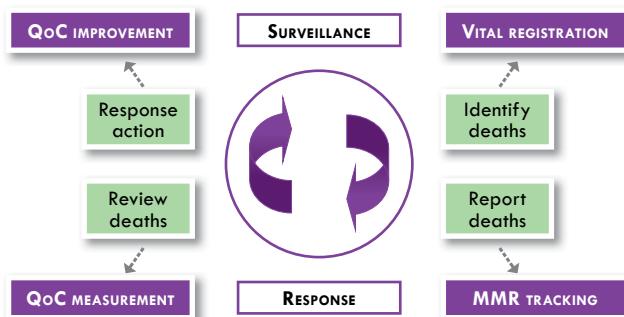
RATIONALE

Mothers continue to die needlessly before, during and after childbirth due to preventable conditions. The Maternal Death Surveillance and Response (MDSR) approach (Figure 1) provides the means to understand the underlying causes and factors that lead to maternal deaths and develop solutions to save lives. MDSR facilitates gathering of information and allows for its strategic use in guiding public health actions and monitoring the impact of those actions. Effective implementation of MDSR can directly impact the quality of care and improve maternal and perinatal health outcomes.

GETTING STARTED

Evidence from country experiences has shown the importance of an enabling environment. Support for MDSR from MOH leadership is essential. MDSR must be recognized as an important component of any MOH strategy to reduce or eliminate preventable maternal mortality. Active involvement of and support from health providers and is critical particularly for understanding and identifying solutions for the problems that contribute to maternal deaths in health facilities. There is also need to engage the government for providing legal protection for families, communities and service providers and professional organizations for their role in ensuring medical practice is aligned to accepted standards.

Figure 1:
Maternal Death Surveillance & Response (MDSR) system:
a continuous action cycle



APPROACHES

MDSR consists of four steps: (i) identification and notification on an ongoing basis; (ii) review of maternal deaths; (iii) analysis and interpretation of aggregated findings from reviews; (iv) response and action.

An enabling environment of collaboration rather than blame is needed to conduct MDSR and apply the findings toward action.

1. IDENTIFICATION & NOTIFICATION OF MATERNAL DEATHS

Suspected maternal deaths that occur in a hospital or other health facility are usually easier to identify. Nevertheless,

someone should be made responsible for checking death logs and other records from the previous 24 hours on a daily basis and collecting a line listing of deaths of all women of reproductive age (WRA) to ensure no maternal deaths are missed. If there is evidence the woman was pregnant or within 42 days of the end of a pregnancy the death will be notified as a suspected maternal death to the authorities - generally to the district office, but in some countries the chain of communication may include municipalities or other levels.

Reporting of suspected maternal deaths from the community is usually done by community health workers (CHW). Where no CHWs exist, other community representatives can do the reporting to the appropriate authority.

Methods for death notification depend on the level of development of information and communication systems:

- In many countries, systems have already been established for communicable diseases (such as IDSR) and maternal death notification can be incorporated.
 - Where Internet is available, this is the method of choice.
 - Phone service is an alternative where it is available. Where no phone service exists radios are an alternative.
 - Finally, reporting using paper and some type of messenger service can be utilized.

2. REVIEW OF MATERNAL DEATHS

WHO recommends that each case of maternal death be reviewed with the following objectives: (a) to check the completeness and accuracy of the maternal death report and request additional information if needed; and (b) to determine causes of death, identify preventable areas and associated factors, and suggest interventions.

The review should be done at facility level or at district level by multidisciplinary committees, including the health facility staff. This is essential for changing practices, fostering ownership, and ensuring the best possible data quality. MDSR methodologies include facility-based and community-based reviews, depending on the place where the deaths occur (home, first level, or referral facility) and the availability of data sources. Often, a combination of methods may be considered to collect as many information on maternal deaths as possible.

3. PROVIDE RESPONSE

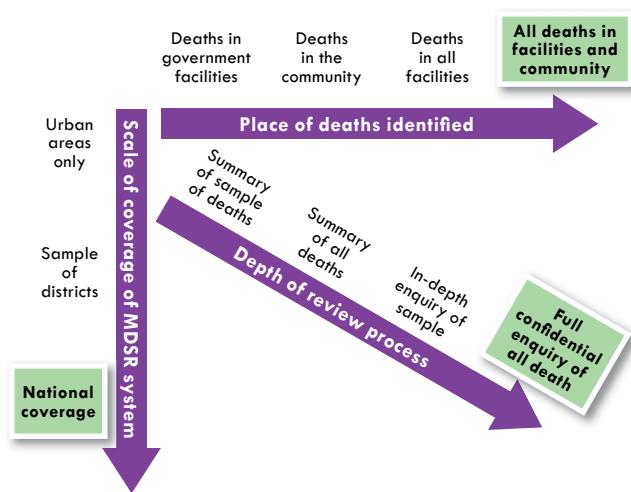
The primary purpose of maternal death reviews is action. Based on information obtained from the investigation, the MDSR committee will make recommendations to prevent such deaths in the future. These may include community- or facility-based interventions, guideline development and introduction, improving access to services or health system reform. Usually the recommendations will be tailored to the specific location and appropriate for different stakeholders depending on where decisions and action can be realistically taken. Recommendations should be specific and link with

avoidable factors. Without the support of key stakeholders, recommendations cannot be turned into actions. Thus, the importance of the support of local community leaders, facility directors, or national or state government entities for such reviews cannot be overemphasized.

4. PLANNING FOR MDSR IMPLEMENTATION

Facility based deaths are usually easier to capture than community based deaths and MDSR should be implemented in all facilities at a minimum. Hence it is recommended that countries adopt a phased approach to introducing MDSR and strengthening existing systems (Figure 2). The initial focus should be on maternal deaths. Starting in urban areas and large facilities, the system expands to include a sample of entire districts, and finally to national coverage. Once facility-based surveillance and response component is well functioning, the approach can then be expanded to the community level, and gain depth by adding perinatal deaths.

Figure 2:
Main Dimensions for a Phased Roll-out of MDSR system



5. MONITORING AND EVALUATION

Monitoring of the MDSR system is needed to ensure that the major steps in the system are functioning adequately and improving with time. It is also important to assess the timeliness of the information and the coverage of the system. Monitoring is carried out primarily at the national level. However, some of the indicators are also pertinent to the district level and permit assessments of whether the system is improving. A monitoring framework with indicators should be agreed to and indicators assessed annually.

6. STRENGTHENING CIVIL REGISTRATION/VITAL STATISTICS SYSTEM (CRVS)

Mortality data are a critical component of the public health information. Ultimately, all deaths, including maternal deaths, should be reported to the civil registration / vital statistics system (CR/VS). In developed countries, maternal mortality ratios are derived from vital statistics. MDSR can contribute to the development of the CR/VS system. In many countries, forms for death reports include duplicates with one copy sent to the appropriate health authority and a second copy sent to the CR/VS authority.

7. USE MDSR FOR ACCOUNTABILITY AND ADVOCACY

Government accountability for maternal health requires periodic and transparent dissemination of key results, particularly maternal mortality, and its discussion with stakeholders including civil society.

The stories generated from the MDSR process can support efforts to increase awareness of women and their needs is one way to use evidence to support the case for more or different resources. The evidence and stories behind the maternal deaths are the ingredients for powerful and effective advocacy for saving mothers and babies' lives.

COUNTRY EXAMPLE

In Malaysia, after two decades of MDSR implementation, confidential enquiry into maternal deaths has been institutionalized in all states and districts. The vital registration system is also well established.

ROLE OF ACTORS

Under the stewardship of the MOH in countries, roles and responsibilities of different departments and ministries need to be identified. Understanding the linkages and interfaces between ministries and their interaction with the civil society and the private sector is critical to the development of multisectoral coordination and response.

Collaboration with families, communities, health service providers and development partners is critical and enhances the likelihood of success.

RESOURCES

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- For further information, contact: mncah@who.int

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