Global experience with Maternal Death Surveillance and Response: building for the long-term

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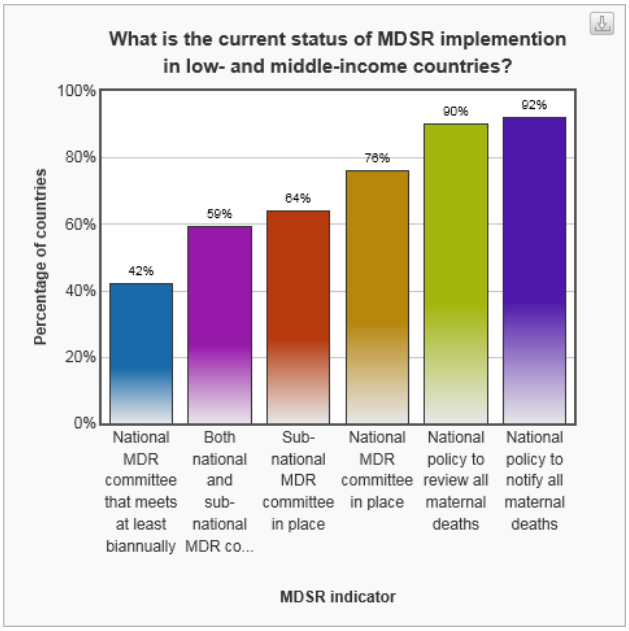
The primary goal of maternal death surveillance and response (MDSR) is reducing preventable maternal mortality. MDSR involves a continuous surveillance and action cycle of identification, quantification, notification and review of all maternal deaths. The interpretation of the aggregated information is used to recommend actions that will prevent future deaths.

What is the history of national MDSR systems?

The MDSR approach was launched in 2012 by WHO and partners (UNFPA, CDC, FIGO, E4A, DFID UK, International Stillbirth Alliance, Canadian network for Maternal Newborn and Child health, ICM). The "S" in MDSR emphasizes the importance of surveillance for a relatively rare but critical event such as maternal death. The "R" in MDSR focuses on the response portion of the surveillance. MDSR allows countries to link the health information system and the data on maternal deaths to quality of care improvement processes, at both local and national level.

MDSR builds on already existing programmes for maternal death reviews (MDR) where each maternal death in a health facility is reviewed by a local committee to examine the medical and non-medical contributory factors. Although MDRs have been institutionalized in many countries for many years, transitioning to MDSR and capturing all maternal deaths can be challenging as national health information systems are often weak and routine quality improvement processes are still evolving. Putting in place MDSR also requires human and financial resources at central and peripheral levels, government support and leadership, staff training, as well as a permissive legal framework.

What is the current state of implementation of national MDSRs?



In March 2015, WHO and UNFPA initiated a global survey among all member states to assess the level of implementation of MDSR in countries. The purpose of this first survey was to have baseline information on the degree of implementation to better target support and to follow progress over time. Apart from progress data, countries and partners were asked to provide case studies describing the implementation of MDSR, including challenges and success factors as well as innovations, to serve as a learning platform for other countries and implementers.

Six requirements for establishing an MDSR were used to assess the stage of implementation in each country, as shown in the Figure opposite. This information was available for 105 low-middle-income

countries (LMICs) in the WHO database: for 61 countries the data came from the MDSR implementation monitoring survey (April-Sept 2015), and for the remaining countries from the MNCAH Policy indicator survey (2013-14).

The Figure shows that around 90% of countries reported having national policies to notify all maternal deaths and a policy to review all maternal deaths. Only 76% of the countries had a national maternal death review committee (64% have sub-national maternal death review committees). As per MDSR guidelines, the national maternal death review committee is expected to meet at least bi-annually to review the maternal death reports and to recommend actions. As can be seen from the Figure, only 42% of countries fulfilled this requirement, which suggests that the most immediate challenge in MDSR implementation is to step-up and strengthen the response mechanisms to avert maternal death, at both national and sub national levels.
(Visit: http://www.who.int/maternal_child_adolescent/epidemiology/maternal-death-surveillance/progress/en/)

What lessons have been learnt from countries about MDSR?

From the Global MDSR monitoring initiative just described and the MDSR Action Network (see below), many country case-studies are now available. While there is considerable variation in experience, reflecting different starting points and health systems, six main lessons emerge:

1. Establishing a fully-functioning MDSR is a long-term endeavour.
The longest running enquiry system can be found in the United Kingdom. Here the process has evolved continuously over 60 years from the original launch in 1954. A similar long-term process can be seen in LMICs, such as Malaysia, Sri Lanka, Brazil, and South Africa, with most systems following incremental steps to both improve coverage of deaths – starting in hospitals and then moving to lower-order facilities and then the community, and to improve the scope and reliability of reporting, whilst always emphasizing the crucial need to use the findings for action.
(Visit: http://www.who.int/maternal_child_adolescent/epidemiology/maternal-death-surveillance/case-studies/en/)

2. Sustaining MDSR requires major commitment at multiple levels.

Given the long-term nature of establishing MDSR and the need for continuous development, maintaining both stakeholder confidence and commitment is key. MDSR is a multi-agency, multi-professional and multi-level initiative which can also help to build bridges within and beyond the health sector. Evidence for the importance of high-level political commitment is apparent from several country case-studies. In Nigeria, for example, The Society of Gynaecology and Obstetrics of Nigeria (SOGON) and other partners worked with the Federal Ministry of Health (FMoH) to draft National Guidelines, but it required persistent advocacy before the guidelines were approved by the Minister of Health in 2013 and subsequently the National Council on Health.
(Visit: http://www.who.int/maternal_child_adolescent/epidemiology/maternal-death-surveillance/case-studies/nigeria/en/)

Introduction of national recognition awards have also been used in some countries to acknowledge and sustain efforts, as show in the photograph above from Ethiopia. Moreover, the importance of establishing a budget line for MDSR in national and regional financial plans is also crucial. Ultimately, however, most enquiry processes into maternal deaths depend on the commitment and unpaid participation of health professionals.

3. Strengthening the health system and quality improvement are key benefits from MDSR.
Acting on the findings from MDSR not only prevents further maternal deaths, but also brings wider benefits in terms of strengthening the key functions of a health system, such as the referral chain and quality of care, so aiding improvements beyond maternity services. A case- study in Senegal and Mali in West Africa, for example, found that the systematic processes for reviewing hospital maternal deaths brought wider benefits by providing health-care professionals with the knowledge and the confidence to identify and implement quality improvements. (See: Dumont A, et al. Lancet (2013) ;382(9887):146-57.)

4. Progressive realisation of legal safe guards around reporting and use of MDSR data is essential.
Legal challenges encountered in establishing and implementing MDSR represent a significant barrier to patients, families, health workers and facilities due to the lack of an enabling legal framework and minimal confidentiality and anonymity. The poor management of these issues can result in fear of punitive measures and liability, as well as poor transparency and quality of data. In India, for example, factors helping to overcome legal issues included creating a confidential, non-threatening environment to describe and analyse factors leading to adverse maternal outcomes; ensuring informed consent; and maintaining confidentiality when sharing findings. These steps led to openness in reporting, trust and a more complete picture (See: http://mdsr-action.net/wp-content/uploads/2015/08/E4A_2012_FIGO-legal-briefing.pdf)

5. Community engagement is key.
Many country case-studies highlight the importance of early and sustained engagement with community leaders and members. For example, in Malawi where MDSR is still at a relatively early stage of development, it is already yielding successes. Improvements have been seen in both community reporting due to the introduction of new forms and engagement with village leaders through their inclusion in Community MDSR Committees, and in the proportion of maternal deaths that are reviewed. A 2011/2012 pilot programme in the Mchinji district, for example, showed that a community-linked approach doubled the number of maternal deaths being reviewed.
(See http://www.who.int/maternal_child_adolescent/epidemiology/maternal-death-surveillance/case-studies/malawi/en/)

6. Sharing of lessons learnt locally is crucial.
To sustain commitment to MDSR and the essential actions steps to prevent further deaths, regular opportunities are needed to share good practice and to acknowledge the efforts of those involved – from community health workers through to regional heads of MCH. In Uganda, for example, regular sharing of findings on maternal mortality with communities was found to be key for increasing prevention and community mobilization activities. Following presentation of these data in village health team meetings, the leadership of Kibaale district allocated resources for building a bridge that helped connect several communities with high mortality rates to the main road and increased access to emergency obstetric care.
(Visit: http://mdsr-action.net/case-studies/saving-mothers-giving-life-initiative-establishing-a-maternal-death-surveillance-and-response-system-in-uganda/)

Sharing lessons globally is also crucial: join the global community of practice in MDSR

The MDSR Action Network aims to support the development of a global community of practice in the area of MDSR, so that together every maternal death counts. Launched in October 2012, it is hosted by the Evidence for Action programme, on behalf of the World Health Organization's Maternal Death Surveillance and Response Working Group. The Action Network connects healthcare providers and professionals, academics, politicians, decision-makers and activists committed to end all preventable maternal deaths. It inspires through the sharing of stories of success and aims to motivate all those with a part to play.

The global MDSR Action Network currently counts 400 members from more than 70 countries. Country-level networks linked to the global Action Network are also being developed. These country-level networks will bring together national experts, policy-makers, managers, clinicians and civil society actors to advocate for and strengthen MDSR in their own settings.

Join the Action Network by visiting: http://mdsr-action.net/about/about-the-network/

Further reading on MDSR:

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- Mathur A, Awin N, Adisasmita A, Jayaratne K, Francis S, Sharma S, Myint T. (2014) Maternal death review in selected countries of South East Asia Region. BJOG. 2014 Sep;121 Suppl 4:67-70. doi: 10.1111/1471-0528.13001.
- Godefay H, Byass P, Kinsman J, Mulugeta A. (2015) Understanding maternal mortality from top-down and bottom-up perspectives: Case of Tigray Region, Ethiopia. J Glob Health. 2015 Jun;5(1):010404. doi: 10.7189/jogh.05.010404.
- Mathai M, Dilip TR, Jawad I, Yoshida S. (2015) Strengthening accountability to end preventable maternal deaths. Int J Gynaecol Obstet. 2015 Oct; 131 Suppl 1:S3-5. doi: 10.1016/j.ijgo.2015.02.012

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