International Journal of Gynecology and Obstetrics 135 (2016) 365–371

Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo

EVIDENCE FOR ACTION

Maternal Death Surveillance and Response Systems in driving accountability and influencing change

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ARTICLE INFO

Keywords:
Accountability
Low- and middle-income countries
Maternal Health
Maternal Death Surveillance and Response
Quality of care

ABSTRACT

Good progress has been made in reducing maternal deaths from 1990–2015 but accelerated progress is needed to achieve the Sustainable Development Goals (SDGs) in ending preventable maternal deaths through a renewed focus on accountability and actions. This paper looks at how Maternal Death Surveillance and Response (MDSR) systems are strengthening response and accountability for better health outcomes by analyzing key findings from the WHO and UNFPA Global MDSR Implementation Survey across 62 countries. It examines two concrete examples from Nigeria and Ethiopia to demonstrate how findings can influence systematic changes in policy and practice. We found that a majority of countries have policies in place for maternal death notification and review, yet a gap remains when examining the steps beyond this, including reviewing and reporting at an aggregate level, disseminating findings and recommendations, and involving civil society and communities. As more countries move toward MDSR systems, it is important to continue monitoring the opportunities and barriers to full implementation, through quantitative means such as the Global MDSR Implementation Survey to assess country progress, but also through more qualitative approaches, such as case studies, to understand how countries respond to MDSR findings.

1. Background

Globally, there has been a 44% reduction in maternal deaths and a drop in the annual number of maternal deaths from 532 000 in 1990 to 303 000 in 2015 [1]. Despite notable progress there is still wide disparity, with low- and middle-income countries making up 99% of global maternal deaths [2]. More than 80% of maternal deaths are avoidable, even in resource-constrained countries, and often minimal changes can improve maternal survival [3]. To achieve the target of decreasing the maternal mortality ratio to less than 70 per 100 000 live births under the Sustainable Development Goals (SDGs), renewed focus and accountability toward ending preventable maternal deaths are needed.

The Commission on Information and Accountability (CoIA) in 2011 and the recent Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) recommend accountability as a core principle to drive progress for health outcomes [4,5]. A continuous monitor–review–act cycle is recommended, which includes national oversight, monitoring of results, multi-stakeholder reviews, and action—all ingredients of surveillance and response systems [6,7].

In response to CoIA recommendations, the World Health Organization (WHO), the United Nations Population Fund (UNFPA), the International Federation of Gynecology and Obstetrics (FIGO), Centers for Disease Control (CDC), and the International Confederation of Midwives (ICM) released a Maternal Death Surveillance and Response (MDSR) Technical Guidance document in 2013 that builds on the continuous learning and action cycle under CoIA to bolster accountability for maternal health outcomes (Fig. 1) [8].

MDSR is a comprehensive system building on facility-based maternal death reviews (MDRs) implemented in many countries, but focuses more explicitly on notification of maternal death, findings being acted upon, and accountability for responses undertaken [7–9]. It also provides opportunities to ensure that learning from maternal deaths influences more systemic responses to quality of care improvements from local to national levels [9].

Established MDSR systems can contribute to improved maternal mortality measurement by counting all maternal deaths, location of death,

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http://dx.doi.org/10.1016/j.ijgo.2016.10.002

Fig. 1. Maternal Death Surveillance and Response (MDSR) monitoring and evaluation (M&E) cycle.

causes and contributing factors of death, and linking it to routine health information systems [1,7,10–13]. Findings from MDSR can provide powerful evidence to influence actions and advocacy among those in the health sector but also beyond including policy and decision-makers, non-governmental organizations, and communities among others [3]. Every maternal death has a story to tell and provides information to unlocking barriers to improve services [11,14], but these findings must be acted upon for real change to occur at policy, program, and facility levels as demonstrated in South Africa, Egypt, Mali, Senegal, and South-East Asia [3,8,10,12,15,16].

Since the launch of the technical guidance on MDSR, a number of countries have been working toward implementing comprehensive MDSR systems by building on their existing approaches, including MDRs, confidential enquiries, and verbal autopsies to count, review, act, account for, and reduce preventable maternal deaths. In 2015, WHO and UNFPA undertook a baseline survey that will be repeated regularly, to assess the implementation status of MDSR across low- and middle-income countries and identify where further efforts could strengthen the transition into a comprehensive MDSR system. This paper looks at how MDSRs strengthen response and accountability for better health outcomes by analyzing key findings from the WHO and UNFPA Global MDSR Implementation Survey and examining two concrete examples from Nigeria and Ethiopia on how findings have influenced systematic changes in policy or practice.

2. Nigeria: Accountability influencing local action and strategic decisions

Many countries are currently implementing facility MDRs as they build up to a more comprehensive MDSR system. We looked at Nigeria as an example of how it is using lessons on actions and accountability from MDRs to evolve into a Maternal and Perinatal Death Surveillance and Response System (MPDSR).

Nigeria has 19% of the world's maternal deaths—a health challenge that urgently needs to be addressed [1]. According to the Global MDSR Implementation Survey, the country has a long way to go to strengthen notification. Only seven of 37 states are reporting maternal deaths, with zero notified to the national committee and extremely low numbers of deaths notified at facility and community levels. Despite reporting challenges, there are concrete sub-national level efforts focused on using MDR findings and accountability for those maternal deaths that are captured to drive systemic health sector changes at local and policy levels.

Evidence for Action (E4A; see acknowledgements) worked with state health officials to introduce scorecards in Northern Nigeria. It is one of the first countries to track the implementation status of MDRs across all secondary facilities in selected states using questions adapted from the Global MDSR Implementation Survey. Scorecards (Fig. 2) appear to be an effective accountability tool to improve MDRs as Nigeria transitions into the implementation of an MPDSR system with the potential to realize systematic improvements beyond the facility level. Data captured in the

INDICATORS	FACILITIES	KAFIN HAUSA GENERAL HOSPITAL	GWARAM COTTAGE HOSPITAL	BIRNIN KUDU GENERAL HOSPITAL	JAHUN GENERAL HOSPITAL	GUMEL GENERAL HOSPITAL	HADEJIA GENERAL HOSPITAL	KAZAURE GENERAL HOSPITAL	BABURA GENERAL HOSPITAL	RINGIM GENERAL HOSPITAL	DUTSE GENERAL HOSPITAL	BIRNIWA GENERAL HOSPITAL	BALANGU COTTAGE HOSPITAL
Number of maternal deaths in the last 3 months		7	4	10	35	31	31	13	11	7	8	5	1
Number of maternal deaths reviewed in the last 3 months		7	4	3	8	0	0	7	0	6	0	0	1
Percentage of maternal deaths reviewed		100	100	30	23	0	0	54	0	86	0	0	100
USE OF MDR EVIDENCE													
MDR Committee has an action plan for current quarter		No	Yes	No	No	No	No	Yes	No	Yes	No	No	No
Action plan contains clearly defined activities		N/A	Yes	N/A	N/A	N/A	N/A	No	N/A	Yes	N/A	N/A	N/A
Number of activities in this quarter's action plan		N/A	3	N/A	N/A	N/A	N/A	3	N/A	1	N/A	N/A	N/A
Number of activities in action plan implemented during this quarter		N/A	2	N/A	N/A	N/A	N/A	2	N/A	1	N/A	N/A	N/A
Percentage of actions implemented		N/A	67	N/A	N/A	N/A	N/A	67	N/A	100	N/A	N/A	N/A
MDR MEETINGS AND REPORTING													
MDR Committee holds monthly meetings with minutes of meeting		Yes	Yes	No	Yes	No	No	Yes	No	Yes	No	No	No
MDR focal person is promptly notified of all maternal deaths		Yes	No	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes
All maternal deaths are reviewed within 48 hours		Yes	No	No	No	No	No	No	No	No	No	No	Yes
MDR forms are completed		Yes	Yes	No	Yes	Yes	No	Yes	No	No	No	No	No
Causes of each maternal death are clearly defined		Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
Health staff are using evidence from MDR to improve quality of care		Yes	No	No	Yes	No	No	Yes	No	Yes	No	Yes	Yes
Completed MDR forms are submitted monthly to the State M&E officer		Yes	Yes	Yes	No	No	No	Yes	No	No	No	No	Yes

Fig. 2. Jigawa Maternal Death Review (MDR) scorecard.