Maternal Perinatal Death Surveillance Review (MPDSR): Strengthening Reviews to Save More Lives in Uganda

This short report describes the content and process analysis of the maternal death review aimed at addressing the underlying causes of maternal and perinatal deaths.

We examined Maternal and Perinatal Death Surveillance Review (MPDSR) from both process and content perspectives. A sample of 45 maternal death reviews were examined to assess regional variations and the underlying causes of maternal deaths and events leading up to maternal deaths at Lacor Hospital, Mbarara Regional Referral Hospital, and Lira Regional Referral Hospital in Uganda. Interviews were conducted with MPDSR focal persons to identify strengths and gaps in the MPDSR process and to explore solutions appropriate to each level of MPDSR in accordance with the MPDSR guidelines at three levels: facility, district, and national. The interviews and analysis aimed at exploring the MPDSR cycle at all three levels to determine existing strengths, gaps, and solutions appropriate for quality improvement. The processes of MPDSR were analyzed using a score card with indicators largely drawn from MPDSR guidelines and supported with DHIS2 statistics.

MPDSR INDICATOR SCORE CARD FOR FACILITY (LACOR HOSPITAL), DISTRICT (GULU DISTRICT), AND NATIONAL (UGANDA) LEVELS (APR-JUL 2018)

	Indicator	Lacor Hospital (Apr-Jun 2018)	Gulu District (Jun-Jul 2018)	Uganda (Apr-Jun 2018)
Death Reviews (DHIS2)	Number of maternal deaths in the last 3 months	6	29	475
	Number of maternal deaths reviewed in the last 3 months	0	21	204
	Percentage of maternal deaths reviewed	0	72%	43%
	Number of perinatal deaths in the last 3 months	Missing	461	1020
	Number of perinatal deaths reviewed in the last 3 months	Missing	69	694
	Percentage of perinatal deaths reviewed	Missing	15%	68%
Functionality of MPDSR Committee	National/District/health facility has an MPDSR committee	Yes	Yes	Yes
	MPDSR committee is constituted according to the guidelines	Yes	Yes	Yes
	MPDSR committee notifies maternal and perinatal deaths	Yes	Yes	N/A
	MPDSR committee synthesizes findings and gives feedback	Yes	Yes	Yes
	MPDSR committee recommends actions on basis of MPDSR	Yes	Yes	Yes
	MPDSR committee mobilizes resources to implement recommended actions	No	No	Yes
	MPDSR committee follows up implementation of recommendations	Yes	No	Yes
	MPDSR committee institutionalizes Maternal Death Reviews	Yes	No	Yes
Orienta-tion	MPDSR members are oriented on MPDSR process	No	No	Yes
	MPDSRs are done within 7 days, aggregation and cleaning of data at national level done by 15 days after the end of the quarter	No	No	Yes
Use of MPDSR Evidence	MPDSR committee has an action plan	No	No	No
	Action plan contains clearly defined activities	No	No	No
	MPDSR committee has verifiable means of monitoring implementation of action plan	No	No	No
Quality Improvement for MPDSR	There is a QI team that closes performance gaps identified during the review	No	No	Yes
	QI team/MPDSR team has a change/intervention being tested currently	No	No	No
	There are means of verifying improvements by MPDSR team	No	No	No
	There are confidential inquiries by independent assessors for maternal & perinatal death	No	No	Yes
Key	*Within guidelines*	N/A	*Not applicable*	*Outside of guidelines*	*DHIS2 statistics*

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Process Analysis of MPDSR

- There is an MPDSR committee at facility, district, and national levels
- MPDSR committees are largely constituted according to guidelines
- MPDSR committee makes recommendations based on MPDSR
- MPDSR committee notifies maternal and perinatal deaths (at varying degrees of response to timelines)

Opportunities to Strengthen the Process

- MPDSR process is more of a data collection and reporting tool than an improvement tool
- No documented action plans to close gaps at all levels
- No verifiable means of monitoring implementation of action plans
- No QI teams to close performance gaps at facility and district levels
- MPDSRs at facility and district levels not done within set timelines
- MPDSR committees are not well oriented on their roles at the facility and district levels

Content

- The causes of death are those within the common knowledge (i.e., postpartum hemorrhage, eclampsia and pre-eclampsia, sepsis, obstructed labor, etc.), so we want to better understand why these events happened
- Avoidable factors are mainly delay in seeking care (25%), lack of blood products, supplies and consumables (16%), inappropriate intervention (15%), and lack of transport (15%)
- Majority of the referrals to Lacor Hospital were from Health Centre III facilities (67%) whereas 70% of referrals to Mbarara Regional Referral Hospital were from other hospitals (i.e., district hospitals)

Strength and gap analysis of the MPDSR at facility, district and national levels

Strengths	Weaknesses	Additional Comments
– There is an MPDSR committee at each level – MPDSR committees are constituted as per the guidelines – MPDSR committee recommends actions on the basis of MPDR – MPDRS committee synthesize findings and give feedback	– There is no action plan for the MPDSR committee at all levels – MPDSR process is focused on reporting and not improvement – MPDSRs are not done within the stipulated time – MPDSR members are not oriented on the process – There are no verifiable means of monitoring implementation of recommendations – There are no QI teams to close performance gaps	– Guidelines envisage actions to avert future occurrence – Notification & improvement are provided in guidelines – Guidelines require auditing within 7 days – Orientation is key for the functioning of committees – Periodic reviews at all levels will ensure coordination and implementation of actions

Conclusions and Recommendations

The MPDSR process identifies gaps responsible for maternal and perinatal deaths and makes recommendations on corrective action. However, any such death reviews without a follow-up action is futile. The absence of improvement structures to follow through with these recommendations is simply recycling causes of maternal and perinatal deaths over years. To significantly interrupt the repeated cycles of maternal and perinatal death, we propose: 1) activities to systematically enable MPDSR committees to follow through with their recommendations to change the health system at the national, district, and health facility levels, using evidence-based science, 2) the reviews should describe in detail why the woman died, and 3) holding periodic reviews of actions implemented at each level.

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