Implementation of maternal and perinatal deaths surveillance and response system among health facilities in Rural Tanzania: Analytical cross-sectional study

Christina Kashililika

University of Dodoma

Fabiola Vincent Moshi (✉ fabiola.moshi@gmail.com)

University of Dodoma

Research Article

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Abstract

Background

Maternal and Perinatal Deaths Review and Surveillance (MPDSR) system when used effectively has the power to bring into reality, a revolutionary victory in the fight against maternal and perinatal mortality from avoidable causes. This study aimed at determining the status of implementation of the system among health facilities in rural settings of Tanzania.

Method

This study was conducted among 38 health facilities from three districts of Morogoro region, Tanzania from April 27, 2020 to May 29, 2020. Quantitative data was collected through document review for MPDSR implementation status. The outcome was determined by using special scoring sheet with a total 30 points. Facilities that scored 10 points or above were considered to have satisfactory status of MPDSR implementation while the facilities that scored below 10 points were considered to have unsatisfactory status of MPDSR implementation. Bivariate logistic regression analyses were used to determine the predictors of implementation status among health facilities.

Results

Majority of health facilities 20(52.6%) had satisfactory MPDSR implementation status. The predictors of MPDSR implementation in a facility were level of health facility [Hospital (AOR = 11.945 at 95% CI = 1.133 – 125.942, P = 0.039)] and ownership of the facility [Public (AOR = 0.133 at 95% CI = 0.019 – 0.920, P = 0.041)].

Conclusion

MPDSR implementation status among health facility is on average not satisfactory. More efforts are needed to raise the status of MPDSR implementation in the country so that the maximum benefit of MPDSR is obtained.

Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed. However, the latest manuscript can be downloaded and [accessed as a PDF](#).

Tables

Table 1: Facility Characteristics (n = 38)

Variable	Frequency (n)	Percentage (%)
Level		
Hospital	11	28.9
Health Centre	27	71.1
Location		
Urban	10	26.3
Rural	28	73.7
Ownership		
Public	25	65.8
Private	13	34.2

Table 2: MPDSR tools and protocols (n = 38)

Item	YES n (%)	NO n (%)
There are written policies, guidelines or protocols regarding the practice of MPDSR	11 (28.9)	27 (71.1)
Data collection forms are available	37 (97.4)	1 (2.6)
Tools include causes of deaths	35 (92.1)	3 (7.9)
Tools include modifiable factors for the cause of death	35 (92.1)	3 (7.9)
Tools include place to follow up on actions taken	3 (7.9)	35 (92.1)
Attendance is mandatory	20 (52.6)	18 (47.4)
Death review meeting are held at stated interval	1 (2.6)	37 (97.4)
Data trends is displayed or shared	0 (0.0)	38 (100.0)
Evidence of change based on recommendation arising from death review findings	0 (0.0)	38 (100.0)

Table 3: Staff involvement in MPDSR system (n = 38)

Item	YES n (%)	NO n (%)
Special persons who take specific effort in promoting death reviews including management, professionals, driving forces	38 (100.0)	0 (0.0)
The coordinator(s) have other responsibilities (e.g. information officer, QI focal point, etc.)	38 (100.0)	0 (0.0)
Clear leader(s) involved in establishing and championing death reviews	36 (94.7)	2 (5.3)
Has anyone in facility or district leadership signed a commitment or undertaken an agreement that s/he would ensure that MPDSR is implemented in the facility?	0 (0.0)	38 (100.0)
Facility in charge chairs the MPDSR meeting	21 (55.3)	17 (44.7)
Evidence that staff have received MPDSR training in the past year	0 (0.0)	38 (100.0)

Table 4: Relationship between facility characteristics and level of MPDSR implementation

Variable	Satisfactory n (%)	Unsatisfactory n (%)	χ^2	P value
Location				
Urban	6 (60.0)	4 (40.0)		
Rural	12 (42.9)	16 (51.1)	0.869	0.351
Level				
Hospital	10 (90.9)	1 (9.1)		
Health center	8 (29.6)	19 (70.4)	11.77	0.001
Ownership				
Public	7 (28.0)	18 (72.0)		
Private	11 (84.6)	2 (15.4)	10.10	0.001

Table 5: Association between facility characteristics and status of MPDSR implementation

Variable	OR	95% CI		P-value	AOR	95% CI		P-value
		Lower	Upper			Lower	Upper	
Location of facility								
Rural	1				1			
Urban	2.000	0.460	8.698	0.355	1.810	0.269	12.18	0.542
Level of facility								
Health center	1							
Hospital	23.75	2.591	217.67	0.005	11.94	1.133	125.94	0.039
Ownership								
Private	1							
Public	0.071	0.012	0.403	0.003	0.133	0.019	0.920	0.041

Figures

Figure 1

status of MPDSR implementation among health facilities (n = 38)

Figure 2

MPDSR implementation status among health facilities according to their location in Morogoro region