

Reducing Maternal Deaths Due to Obstetric Haemorrhage in Ethiopia: What are the Priorities?

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DECLARATION OF INTEREST

- None

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PRESENTATION OUTLINE

- Background information
- Problem statement
- Objectives
- Methods
- Results and Discussion
- Conclusion and Recommendation

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BACKGROUND INFORMATION

- Population(2017): 95,146 Million
- Female: 47,365 Million
- Urban Population: 20.4 %
- TFR: 4.6
- GFR:156
- CBR: 31.8
- Adolescent pregnancy rate: 12.5%
- CPR: 35.9%
- ANC (1st visit, >= 4th): 62.4%, 31.8%
- SBA: 28%
- PNC (1st 48 hours): 16.5%
- MMR: 412, CI: (273,551)
- Annual number of maternal deaths: 12,466

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BACKGROUND INFORMATION

- **Maternal Death Surveillance and Response (MDSR):** is a form of **continuous surveillance** of maternal deaths, as well as the use of this **information to respond** with actions that will **prevent future deaths**
- Ethiopia started to implement MDSR in **May 2013**, and it is integrated with the Integrated Disease Surveillance and Response (**IDSR/PHEM**) system in **2014**.
- **Evidence for Action Project (E4A):** Hosted at WHO Ethiopia Country office.
 - Partnerships in the project: Options Consultancy, University of Aberdeen IMMPACT program, Eth. Gov't.
 - Funded by DFID, BMGF
 - supported MDSR in seven of the eleven regions of Ethiopia

Problem statement

- ❖ **Obstetric haemorrhage** is recognised as the primary cause of **maternal death** in Ethiopia, and
 - ✓ Identifying effective means of **prevention and management** is an urgent **health service priority**

OBJECTIVE

- To review national MDSR data on obstetric haemorrhage and compare it to information on service availability and use of maternal health services.
 1. To determine the extent to which Obstetric haemorrhage contributes to maternal mortality in Ethiopia
 2. To describe population coverage of high impact interventions targeted against obstetric haemorrhage
 3. To describe provision of high impact intervention services targeted against obstetric haemorrhage in health facilities of Ethiopia

METHODS

- Three separate sources of data were used in this study for comparative analysis:
 - (1) MDSR data drawn from the national database of case based maternal deaths.
 - May 2013 and April 2016 from the seven E4A project sites.
 - A total of **1031 maternal deaths** were reviewed
 - (2) The 2014 Ethiopian Mini DHS
 - 10 January 2014 to the end of April 2014
 - **8,475 households and 8,070 women of reproductive age** (15-49 years of age)
 - (3) The 2014 national Service Provision Assessment plus survey (SPA-plus 2014)
 - A cross-sectional survey, March 10, 2014 to July 25, 2014
 - **1,327 sampled health facilities**

METHODS

Step-1
MDSR

Describe
**obstetric
hemorrhage**
deaths

Step 2
DHS-
2014

Demand or use
of maternal
health services

Step 3
SPA+
2014

Availability
of maternal
health
services

Continuum of care targeted towards Obstetric haemorrhage:

- Pre-pregnancy (**Family Planning**), pregnancy (**ANC care**), delivery service (**EmOC**), and postpartum period (**PNC care**)

RESULTS

- A total 1031 maternal deaths were reviewed and
- **84.6 percent were due to direct obstetric causes** and 15.4 percent were due to indirect causes of maternal deaths.
- **447** (43.4 percent) maternal deaths were due to **obstetric haemorrhage**

RESULTS: MDSR Obstetric Hge deaths

CHARACTERISTICS		FREQUENCY	PERCENT	VALID PERCENT
AGE	10-24	81	18.1	18.1
	25-29	110	24.6	24.6
	30-34	127	28.4	28.4
	35-39	104	23.3	23.3
	40-49	25	5.6	5.6
MARITAL STATUS	Married	415	92.8	96.7
	Not married	14	3.1	3.3

RESULTS...MDSR-Obstetric He deaths

CHARACTERISTICS		FREQUENCY	PERCENT	VALID PERCENT
PARITY	Null parity	40	8.9	8.9
	Prim parity	70	15.7	15.7
	Para two-four	157	35.1	35.1
	Grand Multipara	180	40.3	40.3
TIMING OF DEATH	Antepartum	40	8.9	9.3
	Intrapartum	58	13.0	13.5
	Postpartum	332	74.3	77.2
PLACE OF DEATH	Facility	229	51.2	52.3
	Non Facility	209	46.8	47.7

RESULTS...(MDSR Vs DHS-2014)

	Number of maternal deaths reviewed	% of maternal deaths due to Haemorrhage	% of maternal deaths due to Direct causes	% of maternal deaths due to Indirect causes	% of married women who received any Modern FP*	% of women who received ANC from a skilled provider*	% of LBs delivered by a SBA*	% of women who received PNC in the first two days*	% of LBs delivered by C/S*
Tigray	161	44.8	40.6	14.7	28.6	67.4	24.2	20.6	3.9
Amhara	364	49.4	37.7	13.0	44.9	43.1	10	6.2	0.2
Oromia	248	45.7	38.0	16.3	42.8	34	14.4	11.2	1.2
SNNP	107	36.8	47.4	15.8	38.6	35.9	9.4	9.2	2.5
Harari	10	11.1	44.4	44.4	41.2	65.9	40	34.1	10.6
Addis Ababa	49	45.5	43.2	11.4	57.4	94.2	86	70.1	22.9
Dire Dawa	91	19.8	65.4	14.8	34.5	78	58.4	48.9	11.5
Total/Average	1031	43.3	42.0	14.7	42	40.68	14.87	12.29	2.05

Region	Maternal health service utilization (DHS 2014)						
	Utilization of specific Family planning methods by married women, 15-49 years of age					Quality of ANC provided	
	Pill	Injectable	IUD	Implant	Female sterilization	% of women with ANC who took iron during pregnancy	% of women with ANC who are informed about vaginal bleeding
Tigray	1.8	24.5	0.2	2.2	0	62.6	29
Amhara	1.2	35.1	0.2	8.2	0	41.9	14.8
Oromia	3.8	32.2	1.3	4.6	0.3	25.5	10.1
SNNP	1	32.7	1	2.3	0	38.7	35.8
Harari	4.3	25.5	2.6	7.1	0.3	43.1	19.1
Addis Ababa	10.7	26.5	7.5	8.5	0.4	44.9	36.8
Dire Dawa	4.3	16	4.4	8.7	0.5	49.1	6.7
Total/Average	2.7	31.3	1.1	5.2	0.15	36.9	22.6

Region	Provision of Family planning services (SPA-plus 2014)			Provision of EmOC services in health facilities that provide labour and delivery service (SPA-Plus 2014)				
	Intrauterine contraceptive device	Implant	Tubal ligation	% of facilities that provide Oxytocic	% of health facilities that provide Manual removal of placenta	% of facilities that provide removal of retained conceptus or placental tissue	% of facilities that provide Blood transfusion	% of facilities that provide Caesarean delivery
Tigray	70	87	19	90	76	79	6	8
Amhara	50	64	20	71	64	68	2	2
Oromia	43	66	10	85	77	75	3	3
SNNP	55	71	27	66	60	52	2	4
Harari	91	91	41	100	38	77	23	31
Addis Ababa	54	63	27	73	54	59	15	18
Dire-Dawa	94	97	32	88	58	67	17	17
Total Average	50.7	68.1	18.8	76.26	67.87	66.98	3.6	4.39

Regions	Availability of Guidelines in health facilities		Availability of at least one trained health care provider			Availability of essential commodities				
	Family planning	IMPAC or EmOC	Insertion, removal of IUCD	Insertion/removal of Implant	IMPAC or EmOC	Intrauterine contraceptive device	Implant	Iron or folic acid	Injectable uterotonic (oxytocin)	Misoprostol capsules or tablets
Tigray	71	70	28	36	40	94	95	75	91	89
Amhara	48	19	22	27	24	91	95	58	61	20
Oromia	29	22	19	23	22	95	93	59	77	36
SNNP	44	4	18	21	12	85	85	41	56	37
Harari	64	23	32	33	8	94	100	47	69	46
Addis Ababa	43	17	28	29	14	98	98	36	57	22
Dire Dawa	59	46	30	36	21	82	87	44	71	33
Total Average	41.4	20.02	21.3	25.4	21.08	91.5	91.5	54.02	67.5	34.7

CONCLUSION

- Triangulating MDSR data with other sources of information on use and availability of life-saving services facilitates identification and prioritisation of appropriate interventions to target Ethiopia's main cause of maternal mortality.
- The data highlight co-existence of low MCH service uptake and poor quality or inadequate readiness in many facilities to prevent or manage obstetric haemorrhage.

RECOMMENDATION

- Both demand and supply aspects of MCH services need to be strengthened, including
 - Targeting high parity women with long-acting family planning,
 - Expanding coverage of Iron supplementation,
 - promoting safe delivery, and
 - ensuring facilities have oxytocin, adequate blood, and capacity to provide caesarean sections.

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Thank you!