

Maternity Waiting Homes (MWHs): A potential solution as an intervention in the rates of neonatal and maternal mortality in rural area



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INTRODUCTION

Each year more than half a million woman were die related to pregnancy and childbirth. Almost 4 million newborns die within 28 days of birth. The world bank data showed that Indonesia in 2015 had 6400 cases and it brought Indonesia on top of maternal mortality rates in Asia region. At the same time in 2016 Indonesia had 67,862 cases on neonatal deaths. A limited access to the nearest health care service is the main cause of the high rates of maternal and neonatal death in rural area. Maternity Waiting Homes (MWHs) is a great potential solution to answer this challenge. Maternity waiting home (MWHs) is a accommodation located near a health facility where women can stay towards the end of pregnancy or after birth to enable timely access to essential childbirth care or care for complications which provide a emergency obstetric care (WHO)



METHOD

A systematic literature review was conducted to get a suitable journal for this scientific poster. The use of the following databases of the medical literature such as; PubMed, WHO document, BioMed Central and search engine such as Google Scholar was conducted. After some journals and articles with keyword (Maternal and neonatal health) were screened, we decided to fully read 8 studies which related to our topic to obtain the result. Inclusion and exclusion criteria were included. The inclusion criteria was journal or literature related to maternal and neonatal health from 2009-2016 and the other were included in exclusion criteria.

DISCUSSION

Table 2 shows number of mortality from 28th weeks of pregnancy to age five years which still highh. Studies by Say et al. in 2014 (Figure 1.1) showed the most dangerous cause is hemorrhage. Studies which were conducted by J Kelly, et al(Table 1) in Ethiopia showed that MWHs had contributed to improved pregnancy outcomes. The studies of 24,148 deliveries included 17,343 admitted directly and 6,805 via MWH reported a MMR of 89.9 per 100,000 live births for users of MWHs, and 1,333.1 per 100,000 live births for non-users. From this studies we can conclude that a good accessibility to get a primary care in obstetric and newborn care and a Professional practitioner are the keys to increase the rate of live birth and maternal health .Data above shows that MWH which was implemented in Ethiopia is effective enough in reducing MMR While increasing numbers of women are accessing prenatal care, fewer of them utilize facilities for delivery. It is therefore plausible that having a MWHlocated near the clinic could increase access for those women who pursue prenatal care but do not deliver at the clinic due to the barrier of distance

RESULTS

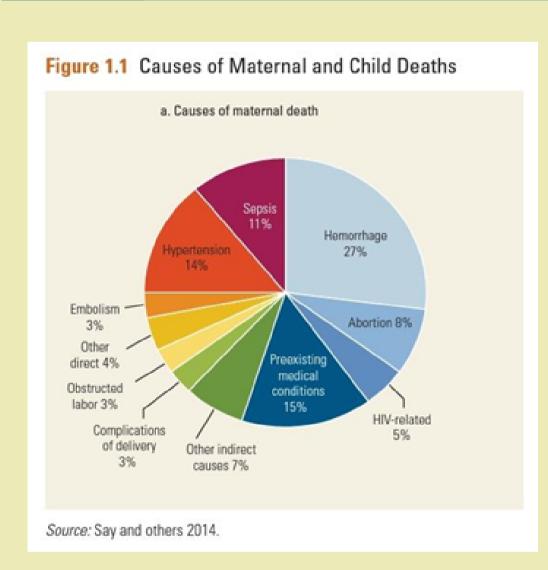
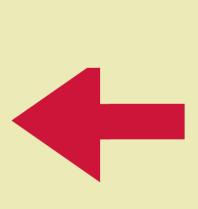


Table 2.Number of deaths from 28th
Week of Pregnancy
to Age Five Years
2000 & 2015

Year		Maternity waiti	ing area (MWA))	Women admitted directly (non-MWA)						
	Deliveries	Caesarean section (%)	Stillbirth (stillbirth rate)*	Maternal deaths (MMR)**	Deliveries	Caesarean section (%)	Stillbirth (stillbirth rate)*	Uterine rupture (%)	Maternal deaths (MMR)**		
1987	154	40 (26.0)	4 (26.0)	0	623	92 (14.8)	161 (258.4)	45 (7.2)	13 (2813.9)		
1988	188	57 (30.3)	2 (10.6)	0	581	86 (14.8)	145 (249.6)	51 (8.8)	9 (2064.2)		
989	220	69 (31.4)	6 (27.3)	0	508	46 (9.1)	138 (271.7)	49 (9.6)	8 (2162.2)		
990	205	48 (23.4)	3 (14.6)	0	520	67 (12.9)	140 (269.2)	47 (9.0)	17 (4473.7)		
991	232	80 (34.5)	6 (25.9)	0	441	73 (16.6)	137 (310.7)	48 (10.9)	9 (2960.5)		
992	202	69 (34.2)	5 (24.8)	0	567	82 (14.5)	140 (246.9)	50 (8.8)	4 (936.8)		
993	177	77 (43.5)	5 (28.2)	1 (581.4)	612	109 (17.8)	152 (248.4)	60 (9.8)	9 (1956.5)		
994	291	135 (46.4)	1 (3.4)	1 (344.8)	757	134 (17.7)	180 (237.8)	63 (8.3)	6 (1039.9)		
995	288	121 (42.0)	2 (6.9)	0	727	166 (22.8)	152 (209.1)	51 (7.0)	8 (1391.3)		
996	276	120 (43.5)	3 (10.9)	1 (366.3)	865	148 (17.1)	192 (222.0)	48 (5.5)	9 (1337.3)		
997	282	111 (39.4)	9 (31.9)	1 (366.3)	775	138 (17.8)	138 (178.1)	41 (5.3)	8 (1255.9)		
998	302	110 (36.4)	5 (16.6)	0	821	176 (21.4)	164 (199.8)	45 (5.5)	16 (2435.3)		
999	256	98 (38.3)	5 (19.5)	0	740	175 (23.6)	146 (197.3)	49 (5.6)	4 (673.4)		
0000	306	112 (36.6)	4 (13.1)	0	823	193 (23.5)	163 (198.1)	51 (6.2)	3 (454.5)		
001	353	151 (42.8)	5 (14.2)	1 (287.4)	887	193 (21.8)	135 (152.2)	48 (5.4)	3 (398.9)		
002	386	151 (39.1)	3 (7.8)	1 (261.1)	902	160 (17.7)	158 (175.2)	41 (4.5)	8 (1075.3)		
003	391	161 (41.2)	6 (15.3)	0	859	200 (23.3)	155 (180.4)	41 (4.8)	10 (1420.5)		
004	387	187 (48.3)	2 (5.2)	0	805	183 (22.7)	141 (175.2)	34 (4.2)	10 (1506.0)		
005	385	160 (41.6)	9 (23.4)	0	1045	272 (26.0)	162 (155.0)	43 (4.1)	9 (1019.3)		
006	431	167 (38.7)	7 (16.2)	0	1122	259 (23.1)	153 (136.4)	28 (2.5)	11 (1135.2)		
007	478	163 (34.1)	9 (18.8)	0	1264	373 (29.5)	141 (111.6)	48 (3.8)	11 (979.5)		
800	615	236 (38.4)	19*** (30.9)	0	1099	195 (17.7)	123 (111.9)	25 (2.3)	2 (204.9)		
otal	6805	2623 (38.5)	120 (17.6)	6 (89.8)	17343	3520 (20.3)	3316 (191.2)	1006 (5.8)	187 (1333.1)		



The diagram shows causes of maternal and child death.

Hemorrhage, hypertension, sepsis, abortion, and pre existing medical illness

	2000					2015				
World Bank region	28 weeks gestation to birth	Birth to 27 days	28 days to 1 year	1–5 years	TU5MR	28 weeks gestation to birth	Birth to 27 days	28 days to 1 year	1-5 years	TU5MR
Low- and middle- income countries	2,639	3,826	2,891	2,906	12,262	2,420	2,625	1,735	1,478	8,256
East Asia and Pacific	420	581	337	252	1,591	279	270	178	89	816
Europe and Central Asia	39	78	59	30	206	36	47	31	12	126
Latin America and the Caribbean	111	156	132	59	458	71	90	58	27	246
Middle East and North Africa	102	154	93	63	412	105	128	62	34	328
South Asia	1,130	1,755	834	932	4,651	925	1,065	416	389	2,795
Sub-Saharan Africa	836	1,103	1,437	1,569	4,945	1,003	1,025	990	928	3,946
High-income countries	54	86	49	25	213	44	58	33	16	152
World	2,693	3,912	2,940	2,931	12,476	2,464	2,682	1,768	1,494	8,408

Table 1 shows delivery factors and outcomes for women admitted via maternity waiting home and for them who don't. In 2008 there are 6 maternal deaths/100.000 live births for women who use MWH and 187 maternal deaths/100.000 for women who don't use MWH

CONCLUSION

Maternal and neonatal mortality rates can be decreased gradually by implementing MWHs in rural area. This program is really suitable for developing country which the rates of MMR is still high. Also MWHs can be a potential solution for rural area which accessibility to skilled care is limited. We realize that there are some aspects which could be developed in this scientific poster. We encourage the other authors to do more research about maternity waiting homes in preventing maternal and neonatal death especially in rural area.

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