



Home to hospital: a crucial link to avert maternal deaths in Myanmar

Maternal and Reproductive Health Division, Department of Public Health
Department of Medical Research

September 2017

Key Messages

- Myanmar has the second highest of maternal mortality rate in South East Asia.
- Maternal deaths mostly occur during delivery and postnatal period (71%) in Myanmar.
- The lack of timely access to care around child birth is the major contributor to maternal deaths.
- Two thirds of maternal deaths were related to delay in decision to seek care and one fourth to delay to reach care.
- Unaffordability of cost of delivery (48%) and inaccessibility to skilled birth attendants (37%) were the main contributors of lack of timely access to care.
- Providing financial support emergency referral transportation and meal during delivery at public hospitals will be an option to significantly reduce maternal deaths by 38%.



Photo: MRH Division, MOHS, 2014

Problem Statement

Maternal deaths in Myanmar: second highest in South East Asia

In spite of a recent decline in Maternal Mortality Ratio (MMR), Myanmar has failed to achieve 2015 MDG targets for maternal health and has one of the highest MMRs in South East Asia [1]. According to the 2014 census, MMR amounts to 282 deaths per 100,000 live births [2]. The analysis of annual Maternal Death Review revealed that the trend in number of deaths stays stagnant, hovering between 815 and 846 annually between 2014 to 2016 [3], and that lack of timely access to care (delay in decision making to seek care and delay to reach care) around child birth is the major contributor to those deaths. In 2016, 67% of maternal deaths were related to delay in decision to seek care and 25% were related to delay to reach care.

Who dies and why?

As per the 2016 Maternal Death Review, 66% of women whose cases were described had primary education and below, 86% were low waged workers or housewives and 74% resided in a rural area. MMR is the highest in the rural areas of Chin State, Ayeyarwaddy Region, Magway Region, Bago Region and Rakhine State [2]. Maternal deaths mostly occurred during delivery and postnatal period (71%) and most of them were due to direct obstetrics causes (71%). Although 70% of the death cases lived within five miles of health centers, the majority of the mothers died due to lack of timely access to care around child birth from skilled birth attendants and/or access to Emergency Obstetric Care (EmOC) at the time of obstetrics emergencies.



Reasons for lack of timely access to care

Concern about the cost of delivery with skilled birth attendants (SBA) or delivery at hospitals and lack of referral support and emergency transport are the major factors influencing the lack of timely access to care.

Based on studies done in Myanmar, unaffordability of cost of delivery (48%) and inaccessibility to SBA (37%) were the main reasons for not seeking skilled birth attendance [4]. On average, households earned 4,000 kyats per day. However, they had to pay more than 20,000 kyats for delivery with SBA at home and 100,000 to 150,000 kyats for normal delivery at various levels of government hospitals. This is compared to the average cost per delivery with unskilled attendant, which is 10,000 kyats. Catastrophic health expenditure was found among 13% of households where mothers underwent delivery with SBA, mainly by delivery at hospitals [5, 6].

Table 1. Out-of-pocket payments per delivery type (2017)

Delivery type	Out of pocket payment per delivery (kyats)	Equivalent in days worked (per average daily earnings)
Unskilled attendant, home	10,000	2.5
SBA, home	20,000	5
Normal delivery*, MOHS hospital	100,000-500,000	25-125

*absence of obstetric complications

- The 2014 census mentioned higher maternal mortality among households without motorized transport (322 and 227 per 100,000 live births respectively) [2].

Actions taken and remaining gaps

With the aim of improving timely access to care, the 3MDG platform funded an emergency referral support program for child birth, which has been implemented in 42 townships in Myanmar since 2013. This program resulted in a gradual reduction in maternal deaths in targeted townships, from 155 per 100,000 live births in 2013 to 117 per 100,000 live births in 2016. Despite this success, this program covers only 13% of total 330 townships in Myanmar, and it will be phased out in 2018 [7].

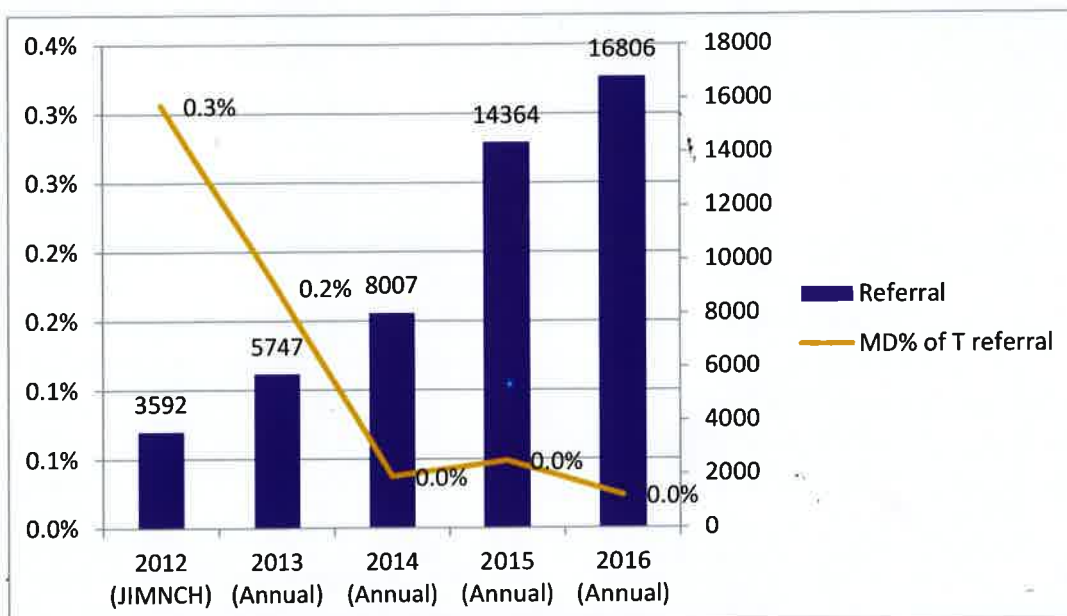


Figure 1. Maternal deaths among total emergency referrals. Source: MDG3, 2016.



A Maternal and Child Health (MCH) Voucher Scheme was piloted in two townships in Myanmar in 2011 to overcome financial barriers to access maternal and child health care. The program increased deliveries with SBA from 51% to 71% and had a 52% chance of being a cost-effective option to avert a daily-adjusted life year. However, the program was not extended nationwide due to financial constraints [8, 9].

Policy Options

Reaching-care support from home to health facility

Option 1: Financial support for transportation and meal

The first policy option is to provide mothers financial support for transportation to the health facility for delivery and meal cost during hospital stay through cash transfer mechanism. This policy option is expected to result in a 24% increase in facility deliveries, a 12% increase in emergency referrals among home deliveries with SBA, and a 38% reduction in maternal deaths per annum. (The average amount of financial support for transportation and meal per pregnant woman is US\$ 35.)

Option 2: Incentive for skilled delivery, transportation and meal support

The second policy option is to provide the financial supports, as indicated for the first policy option, as well as a financial incentive of 20,000 kyats per pregnant mother for those who deliver with skilled birth attendants. This policy option is expected to result in 60% increase facility deliveries, 30% increase in delivery with SBA at home, and a 49% reduction in maternal deaths per annum.

Table 2. Policy options programmatic costs and effectiveness

Policy option	Additive programmatic cost (US\$) per annum	Life-years saved	Incremental Cost effectiveness ratio (US\$/Live Year Saved)
No Intervention	-	776	-
Option 1: Transportation and meal support	3,373,722	35,711	125
Option 2: Incentive to deliver with skilled birth attendants, transportation and meal support	15,527,212	10,858	1,018

*Less than GDP per capita> Highly cost-effective, Between 1-3 times GDP per capita cost-effective, More than 3 times GDP per capita> not cost-effective (GDP per capita in Myanmar for the year 2016-1275.02US\$)

Recommendations and next steps

Although both policy options are effective, policy option 1 has lower programmatic costs and will result in more life-years saved. To implement the policy option one, we recommend the following:

- High level of commitment from the Ministry of Health and Sports and member of Parliament to ensure financial resource allocation;
- Interest and support from development partners;
- planning, implementation and evaluation of recommended policy option to be initiated in high MMR regions;
- implementation plan to include sustainability and exit strategy.



Home to hospital: a crucial link to avert maternal deaths in Myanmar

Therefore, the evidence indicates that alleviating financial barriers for timely access to care around child birth reduces maternal deaths effectively. Through providing financial support to mothers for transportation and meals related to delivery at hospitals, the subsequent mothers' lives saved will lead to healthier children and families as well as a better future of the nation.



Photo: MOHS, 2016



Photo: UNFPA, 2016

Contributors

1. Dr. Hla Mya Thway Einda, Director, Maternal and Reproductive Health Division, Department of Public Health, Ministry of Health and Sports, Myanmar
2. Dr. Khaing Nwe Tin, Deputy Director, Maternal and Reproductive Health Division, Department of Public Health, Ministry of Health and Sports, Myanmar
3. Dr. Wai Wai Han, Research Scientist, Department of Medical Research, Ministry of Health and Sports, Myanmar

References

1. WHO, 2015. Trends in Maternal Mortality: 1990 to 2015. Geneva: WHO; 2015.
2. Department of Population, Ministry of Immigration and Population. The 2014 Myanmar Population and Housing Census: Thematic report on Maternal Mortality. Nay Pyi Taw; 2016.
3. Maternal and Reproductive Health Division, Ministry of Health and Sports, Myanmar. Maternal Death Review (MDR) Report in Myanmar, 2015. Nay Pyi Taw; 2015.
4. Han WW, Saw S, Myint T, Lynn Z, Mon MM, Tun KM. Access and utilization of maternal and child health care services among migrants in Delta Region, Myanmar. Myanmar; 2015.
5. Han, W. W., Saw, S., Einda, H. M. T., & Zayar, N. N. (2017). Out of pocket expenditure on maternal and child health care services among rural households in Dedaye Township, Myanmar. Myanmar Medical Journal, 59 (2), 37-49.
6. Min Aung. Out-of-pocket payments for Caesarean section deliveries among post-partum women who attended maternity wards in Selected hospitals. University of Public Health; 2015.
7. The 3MDG Fund. Reducing financial barriers to health service: a program summary report of emergency referral programs supported by the JI-MNCH and the 3MDG fund. Yangon, Myanmar; 2016.
8. Teerawattananon Y, Tantivess S, Werayingyong P, Kingkaew P, Tin N, Aye SS, Myint P. (2014). Evidence-informed policy formulation: the case of the voucher scheme for maternal and child health in Myanmar. WHO South-East Asia Journal of Public Health;3(3&4): 285-288.
9. Kingkaew, P., Werayingyong, P., Aye, S. S., Tin, N., Singh, A., Myint, P., & Teerawattananon, Y. (2015). An ex-ante economic evaluation of the Maternal and Child Health Voucher Scheme as a decision-making tool in Myanmar. Health policy and planning, 31(4), 482-492.