

**Cost for birth delivery of rural mothers from
Kyaunkpadaung Township, Myanmar**

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The cross-sectional study was conducted during June 2005 to determine the factors influencing birth delivery utilization and to estimate cost for birth delivery of rural mothers from Kyaunkpadaung Township. Randomly chosen 750 mothers who had delivered last two years were interviewed with a pre-tested questionnaire. About 60% of mothers delivered by midwives followed by traditional birth attendants (TBAs) and auxiliary midwife (AMWs), and home deliveries were the highest (90.7%). Common reasons were financial problem, social circumstances, experiences and a local custom of giving births at home. Basically, the majority had spent a maximum of 50,000 Kyats, which ranged from 150 to 221,000 Kyats for delivery. If they were absent from work during delivery period, it increased to 794,000 Kyats. Large amount of basic expenses for delivery was contributed by consultation fee of general private practitioner/obstetrician and gynaecologist (GP/OG) and high cost of hospitalization.

INTRODUCTION

In rural areas of Myanmar, home deliveries are the highest (80%). Of which, 44.4% delivered by nurse/midwife, 38.1% by TBA and 5.5% by other unskilled personnel such as relatives, neighbours or herself. Only 11.5% were delivered by doctors (Population Department and UNFPA 1999). The same pattern was found in Kyaunkpadaung Township in 2002 - home deliveries by midwives were 41.8%, and by AMW and TBA collectively was 39% (Department of Health 2004). The reverse was observed in Kyaunkpadaung during 2003 and 2004, the percentages of home deliveries by AMW/TBA were slightly higher than by midwives - 48.3% and 42% in 2003, and 50.2% and 47% in 2004. This indicates that skilled birth attendant – midwives were not fully utilized in rural areas. However, factors influencing this

situation are not known broadly. At the same time, there was lacking in studies on cost of birth delivery in Myanmar. This study thus attempted to determine the factors influencing birth delivery utilization and cost of birth delivery. The objective is to determine cost of birth delivery and factors influencing birth delivery utilization of rural mothers from Kyaunkpadaung Township.

MATERIALS AND METHODS

A cross-sectional study design was carried out during June 2005 in Kyaunkpadaung Township. The study included 30 health centres, namely two station hospitals, seven rural health centres and a sample of 21 rural health subcentres. Health centre-based village tracts were grouped into 30 clusters of village tracts - one village tract per health centre was chosen randomly.

Regardless of the type of birth attendant, a total of 750 mothers who delivered the youngest child alive during last two years, whether they were pregnant at the time of survey or not, were chosen randomly. Those who had abortion were excluded. Twenty-five mothers per cluster were selected at random from a list of eligible mothers. If the selected cluster had not enough mothers, the adjacent cluster was taken into consideration. To obtain 750 mothers, we interviewed more than 25 mothers for some clusters since four health centres were dropped due to difficulties in transportation because of heavy rain during the main survey period. The trained interviewers asked the selected mothers with a pre-tested semi-structured questionnaire at a private environment.

RESULTS

Identification of mothers

Mean age of 750 mothers was 29.6 years with a range of 16 to 48 years. The majority of them had lower education or no schooling (73.2%) and only 3.2% were graduates. Most of the mothers' family members belonged to a lower social group* (63.3%), and the majority of mothers were working mothers (70.4%). The majority of mothers had a few children (75.5% had maximum 3 children and 24.5% had more than 4 children).

Delivery: birth attendant and place of delivery

Birth attendant was defined as a main person who pulled the baby regardless of the qualification and delivery skill. Most mothers gave births by skilled birth attendants-midwife (59.5%), hospital staff (7.6%) and GP/OG (0.8%) (Table1). Some mothers delivered by unskilled birth

attendants -TBA (19.9%) and AMW (9.1%). While 16 mothers were delivered by their female relatives, 8 mothers reported that they delivered by themselves. None of them had training for delivery; however, they had practical experiences in giving births. The majority (90.8%) gave births at their homes and about 8% at hospital (Table 1).

Cost for birth delivery of the youngest child

We considered two types of cost regarding delivery – basic expenses and an additional cost in terms of earning loss of the mother and her family for not working during delivery period.

Basic expenses

Basically, the majority (94%) had spent a maximum of 50,000 Kyats with a range from 150 to 221,000 Kyats. Generally, they used them for preparation for delivery such as transportation, firewood, clothes and medicines. Additionally, they had to spend for consultation fee and it varied depending on the situation. If they delivered by GP/OG, they were charged at least 5,000 Kyats. The fees ranged between 3,000 and 5,000 Kyats if they delivered by midwives and it ranged from 1,500 to 3,500 Kyats by AMWs. TBAs received 2,000 Kyats the most. Sometimes, instead of money, mothers gave fabrics, food or helped with the house work.

Although midwife's fee was slightly higher than of AMW and TBA, most gave births by midwives, followed by TBAs and AMWs (59.5%, 19.9%, 9.1% respectively) (Table 1). Of which, the largest number of mothers (63.3%) was from the lower group and the majority were home deliveries (441/476 mothers). When probing, nearly all mothers said the residential birth attendants-midwives, TBAs and AMWs were easily accessible for home deliveries. Among them, the majority of mothers said midwives were the most qualified person. On the other hand, some preferred TBAs because TBAs not only did cooking, washing and running errands for the mother and newborn baby

* Upper group consists of those who earn from 1,000 thousands to more than 2,000 thousands Kyat a year; middle group consists of those who earn from 200 thousands to 1,000 thousands Kyat a year; and lower group consists of those who earn from 100 thousands to 200 thousands Kyat a year.

Table 1. Types of birth attendants by place of delivery and social group of family (n = 750)

Social group and place of delivery	Birth attendant (%)*							Total (%)**
	Hospital staff	GP/OG	Midwife	AMW	TBA	Relative	Self-delivery	
Upper group	n = 6		n = 21	n = 5	n = 3			
Hospital	6 (100.0)	0	0	0	0	0	0	35(4.7)
Home	0	0	21 (100.0)	5 (100.0)	3 (100.0)	0	0	
Middle group	n = 22	n = 5	n = 148	n = 17	n = 41	n = 3	n = 4	
Hospital	22 (100.0)	0	0	0	0	0	0	240 (32.0)
GP clinic	0	4 (80.0)	0	0	0	0	0	
Home	0	1 (20.0)	147 (99.3)	17 (100.0)	39 (95.1)	3 (100.0)	4 (100.0)	
Other place	0	0	1 (0.7)	0	2 (4.9)	0	0	
Lower group	n = 29	n = 1	n = 277	n = 46	n = 105	n = 13	n = 4	
Hospital	29 (100.0)	0	0	0	0	0	0	
GP clinic	0	1 (100.0)	0	0	0	0	0	475(63.3)
Home	0	0	275 (99.3)	46 (100.0)	103 (98.1)	13 (100.0)	4 (100.0)	
Other place	0	0	2 (0.7)	0	2 (1.9)	0	0	
Total (%)***	57(7.6)	6 (0.8)	446 (59.5)	68 (9.1)	149 (19.9)	16 (2.1)	8 (1.1)	750

Note: Home delivery = 681 (90.8%), Hospital delivery = 57 (7.6%), GP clinic delivery = 5 (0.7%), other place = 7 (0.9%)

* Percent of each cell total

** Column percent

*** Row percent

Table 2. Basic expense for delivery by types of birth attendant and place of delivery (n = 750)

Birth attendant and basic expense (in Kyats)*	Place of delivery (%)**				Total (%)***
	Hospital	GP clinic	Home	Other	
Hospital staff	(n = 57)				
150 – 5000	2 (3.5)	0	0	0	
5001 – 10000	4 (7.0)	0	0	0	
10001 – 50000	13 (22.8)	0	0	0	57 (7.6)
50001 – 100000	22 (38.6)	0	0	0	
100001 – 150000	13 (22.8)	0	0	0	
150001 – 221000	3 (5.3)	0	0	0	
GP/OG		(n = 5)	(n = 1)		
10001 – 50000	0	4 (80.0)	1 (100.0)	0	6 (0.8)
100001 – 150000	0	1 (20.0)	0	0	
Midwife			(n = 443)	(n = 3)	
150 – 5000	0	0	224 (50.6)	1 (33.3)	446 (59.5)
5001 – 10000	0	0	139 (31.3)	2 (66.7)	
10001 – 50000	0	0	75 (16.9)	0	
50001 – 100000	0	0	5 (1.1)	0	
AMW			(n = 68)		
150 – 5000	0	0	29 (42.6)	0	
5001 – 10000	0	0	25 (36.8)	0	68 (9.1)
10001 – 50000	0	0	14 (20.6)	0	
TBA			(n = 145)	(n = 4)	
150 – 5000	0	0	79 (54.5)	3 (75.0)	
5001 – 10000	0	0	41 (28.3)	1 (25.0)	149 (19.9)
10001 – 50000	0	0	24 (16.5)	0	
50001 – 100000	0	0	1 (0.7)	0	
Relatives			(n = 16)		
150 – 5000	0	0	10 (62.5)	0	16 (2.1)
5001 – 10000	0	0	3 (18.7)	0	
10001 – 50000	0	0	3 (18.7)	0	
Self-delivery			(n = 8)		
150 – 5000	0	0	7 (87.5)	0	8 (1.1)
10001 – 50000	0	0	1 (12.5)	0	
Total (%)****	57 (7.6)	5 (0.7)	681 (90.8)	7 (0.9)	750

* Including consultation fee, medicine, transportation, food, fire wood, clothing, etc.

** Percent of each cell total

*** Column percent

**** Row percent

for weeks, but also accepted the fee in instalments. However, the mothers had to spend same total amount (ranged from 150 to 100,000 K) to give birth with mid-wives or TBAs. Those who delivered by TBAs said they used to consult midwives for further medication after birth, which resulted in similar expense as with mid-wives. If they were delivered at private clinic or admitted to hospital, in addition to the basic expenses, they had to spend for operation theatre including health staff and other expenses for the companions. The expenditures then went up to 150,000 K for GP delivery and 221,000 K for hospital delivery (Table 2).

Additional cost

Out of 750 mothers, 537 mothers (71.6%) said they were affected due to absence from work for weeks, months or years during delivery period particularly lacking in income. Of which, the majority (70%) were from the families of lower social group and about 82% of them were working mothers. Thus, during those periods, while some had to employ temporary workers to look after their family domestic work, a few had to use their savings or borrow money. In this case, an additional cost of absence from work was considered. If we included this cost, the maximum expense then increased to 794,000 Kyats. About 74% of them used up to 50,000 Kyats and 25 mothers spent more than 150,000 Kyats.

Influencing factors

Not every mother could afford such high expense of birth delivery and some suffered financial hardship. In addition, some had family problems for delivering at private clinic or hospital. Hence, the majority of mothers preferred home deliveries by their residential birth attendants, and their common reasons were financial problem (un-affordable to deliver at hospital, less charges for delivery), social circumstances (felt secure because of surroundings with family members and relatives, unable to find a person to accompany to hospital), experiences (used to give birth easily) and a

local custom of giving births at home.

The findings indicate that midwife was a key person for birth delivery and home delivery was the highest (90.7%) in rural areas of Kyaunkpadaung Township. About 60% of mothers delivered by midwives followed by TBAs and AMWs. The mothers perceived midwife as the qualified person for pregnancy care. However, some mothers gave births mostly with TBAs because of low charges and they were satisfied with their care after birth. Basically, the majority had spent a maximum of 50,000 Kyats with a range from 150 to 221,000 Kyats for delivery. If they were absent from work during delivery period, it increased to 794,000 Kyats. Large amount of basic expenses for delivery was contributed by consultation fee of GP/OG and high cost of hospitalization. The majority of mothers preferred home deliveries by their residential birth attendants, and their common reasons were financial problem, social circum-stances, experiences and a local custom of giving births at home.

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