

# Community Delay in Decision Making and Transferring Complicated Mothers at Facilities Caused Maternal Deaths: A Qualitative Study in Rural Bangladesh

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## Abstract

**Background:** Community delay is one of the major determinants of maternal mortality. Community delays include delay in decision making to seek care and delay in reaching the appropriate facility during maternal complication. Bangladesh is facing challenges to overcome the factors to reduce the community delays. The study explored the factors influencing community delays lead to maternal deaths and the challenges to overcome the delays during maternal complications.

**Methods:** A qualitative study has been conducted in two districts of Bangladesh. Five Focus Group Discussions (FGDs) and twenty In-Depth Interviews (IDIs) were conducted in rural communities of the two districts.

**Results:** Community people perceived that the maternal death is due to fate but not for any delay in seeking care or attending a health facility. The cause of community delays is mainly due to dependency on unskilled provider, poverty, lack of knowledge and practices on birth preparedness, danger signs and importance of skilled care in obstetric complications. Community people are unaware of the communication and transport necessary to reach facility. They were not interested to go to facility apprehending more chance of operative delivery at facilities, ill behavior of health care providers and expensive treatment at facility. During complications, the community people first approached the traditional birth attendant (TBA) for treatment and then to village doctors (quacks) when failed with TBA. Lastly, having no alternative, they took decision to go a facility that already made a delay. After taking the decision, a good time required to manage money and vehicle for transportation. The transportation to a facility (the second delay) was further delayed due to poor quality of vehicle and also road and communication.

**Conclusions:** The study revealed that lack of awareness on danger signs of pregnancy, importance of early seeking skill care, going to facility in right time, and lack of

preparedness for emergencies, money and transport had influenced causation of maternal death at community level. Early decision-making capacity of rural people and availability of transportation to the facility would reduce maternal mortality at community.

**Keywords:** Community delays; Decision making; Transferring; Complicated mothers; Maternal deaths; Rural Bangladesh

## Introduction

Everyday about 830 maternal deaths occur globally of them 99% in developing countries [1]. Though globally 44% maternal mortality dropped during 1990 to 2015 but the global target of maternal mortality ratio in Sustainable Development Goal is 70 per 100000 live births before 2030 [1,2]. In Bangladesh, most of antenatal, delivery and postnatal care takes place in community level rather than in health facilities where for better health outcome is expected [3]. Low community awareness and participation in primary health care act as a major obstacle to achieve Millennium Development Goals 4 and 5 for reduction of maternal and child mortality [4,5].

Three delays framework with maternal “near-miss” approach may act as an important mean to recognize the critical event around childbirth [6]. From the onset of any complication during pregnancy the outcome is mostly affected by delayed treatment with three phases of delay [7]. First delay is for lack of knowledge and information about danger sign during pregnancy and delivery, lack of money and traditional practice that restrict women from seeking health care. Second delay is for poor road, communication network and community support mechanism which causes out of reaches of health facilities. Third delay is for inadequate skilled attendants, poorly motivated staff, inadequate equipment and weak referral system [7,8]. According to WHO the social autopsy of maternal deaths aims to address the community delay or the barrier to seeking care [9,10].

The illness related health seeking behavior are due to three main delay factors includes distance, cost and quality of

treatment [11,12]. Community death notification process used to capture all maternal and neonatal deaths at community which is useful to identify the social causes of deaths at community [13,14]. A study in four districts during two years period in Bangladesh found that 52.2% occur at home or on the way to the hospital where demographic and socio-economic factors and health seeking behaviors affecting maternal mortality at community [15]. A total of 59 maternal deaths were recorded in 2010 in Thakurgaon district in Bangladesh where an area was identified as high number of death due to hard to reach and high distance from the facility [12,16]. Maternal death review findings in Bangladesh shown that around 23% of the families took more than six hours to decide to seek care during complications of mothers, whereas another around 23% cases it took more than two hours to reach to health facility [15].

Facility death review is one of the important approach to identify the cause and contributing factors for maternal deaths by the professional experts [17,18]. There are many factors responsible for maternal death where delay the decision to seek care and delay arrival at health facilities is identified as the major causes of maternal deaths in rural area [19]. The community delay is a vital social barrier that contribute the maternal and neonatal deaths [20,21]. The study explores the factors influencing community delay includes. Moreover, the study also reveals the challenges to overcome the community delay at decision making and transport during maternal complication issues.

## Methods

**Study design:** A qualitative study was conducted in Pirganj sub-district (Upazila) of Thakurgaon district and Sadar sub-district of Panchagarh district of Bangladesh from April to June 2014. Five Focus Group Discussions (FGDs) and twenty In-Depth Interviews (IDIs) were conducted in these two purposively selected sub-districts. For FGDs, we chose five groups. First group was with the pregnant mothers; second one with the recently delivered mothers (delivered a live baby in last three months), third group was selected of female

guardians of pregnant or recently delivered mothers including mother-in-laws and mothers. Forth groups were male guardian of pregnant or recently delivered mothers including husbands, fathers and father-in-laws. The respondents of last group were traditional birth attendants of that specific community. From 10 to 14 participants were present in each of group. A total of 61 respondents present in five focus group discussion. We conducted IDI with the family members including husbands, mothers, fathers, mother in laws and fathers in law of the deceased mothers who were present during death and/ or know detail about the condition of the mothers.

**Sampling method:** We have found thirteen maternal deaths occurred during January to March 2014 in three Upazila. For IDIs, participants were chosen from those deceased families. Twenty IDIs were performed with the male and female guardians of the families to understand their views on community delay. IDIs were conducted following a guideline by face-to-face interview at the households (**Table 1**).

**Table 1** List of Participants in the qualitative study.

Qualitative instruments	Age range	Participants
FGD (n=5)	18-50 years	Pregnant mothers, recently delivered mothers, female guardians, male guardians and traditional birth attendants
IDI (n=20)	25-60 years	Female guardians and male guardians of deceased mothers

**Data collection:** Before starting data collection training was provided two Research Officers and guidelines were pre-tested and modified based on the feedback from the pre-test. During FGDs, one research officer facilitated discussion whereas other Officer took important notes. The objectives of the research were clearly described to respondents before taking the interviews. A written consent was taken from each of the respondent before the interviews or FGDs. A number of probes were used to obtain the information. Audio voice was recorded prior to permission from the respondents (**Table 2**).

**Table 2** Content of the focus-group discussion and in-depth interview.

Area of discussion	Types of probes used
Perception on decision making delay and transport in the community	Idea about community delay? Idea on delay for making decision at community during maternal complication? What are the factors influence the decision-making delay and transportation delay at community? Why the responder didn't get proper ideas to prevent community delay?
Practice at Community for delay on maternal complication	What community people do after maternal complication arises and when decided to go at facility? What is the transportation facility to reach at facility and how much time need to reach there? Where and to whom they go during complication and how they influence to take decision to go at facility? What are the practices at community during maternal complication causes delay to reach at facility?
Barrier of the community to prevent community delay	What are the social and family barrier at community in preventing decision making delay and transport delay to reach at facility

**Data analysis:** From the audio-recordings and hand notes of the interviewer's, the Research Officers prepared transcripts of

IDIs and FGDs in Bengali. Later on, transcripts were translated to English. The principal researcher from randomly selected

transcripts reviewed quality of transcripts. Peer debriefing also performed to maintain its reliability of the data. Initial open coded was done, then from those open code, selective coding was done. Themes were identified after reading and re-reading of the data [22,23] and finally analysis was performed thematically.

## Results

Our study found that community people had negligence about the community delay as one of the major causes for maternal deaths during complication. It was also found that the people are late to carry the pregnant mother to facilities they didn't understand what to do at emergency time. Community people were not aware of the delivery date and time, maternal complication. Delay also occurs for transport allocation during emergency period. Maximum participants

preferred to conduct the delivery at home. They didn't have any previous preparation for delivery. They depended on the local traditional healers, known as Kabiraj, ojha and traditional birth attendants for any maternal complications. They didn't want to go to facility for delivery or treatment of the complicated mothers. The community people believed in fate for the worse consequences of any maternal complication. Most of the participants believed that government takes steps to aware people by providing more information about community delay.

Among the 81 respondents of 05 FGDs and 20 IDIs, 66 (81.5%) responded on poor socio-economic condition, 64 (79%) mentioned about negligence, 65 (80.2%) cases said on decision delay, 69 (85.2%) transportation delays and 74 (91.4%) cases responded lack of understandings of the normal delivery contributed to the maternal mortality (**Table 3**).

**Table 3** Types of responses among the participants of FGDs and IDIs.

Qualitative instruments	Participants	No Participants	Number of cases according to types of responses				
			poor socio-economic status	Negligence	Decision delay	Transportation delays	Lack understanding
FGDs (n=5)	Pregnant mothers	12	10	8	9	11	12
	Recently delivered mothers	10	8	7	7	8	9
	Female guardians	14	12	11	9	12	13
	Male guardians	13	10	11	10	9	10
	Traditional Birth Attendants	12	9	10	11	10	12
IDIs (n=20)	Female Guardians of deceased mothers	10	9	8	10	9	9
	Male guardians of deceased mothers	10	8	9	9	10	9
Total		81	66	64	65	69	74

### Causes of community delay to reach the mothers at facility

About the reasons for delay in emergency condition, most of the participants of FGD said about economic problem, social negligence, delay in getting vehicle, lack of nearby health facilities and lacking prior preparedness for such unexpected events. Most of the participants had poor awareness on pregnancy or delivery complications and what could be the responses. During IDIs, most of the participants said that they were unaware and did not know about the emergency preparedness for pregnant mothers due to prejudice. Economic problem and lack of birth planning also enhanced undue delay in making decisions for transportation.

One of the participants during FGD mentioned "We tried at home for normal delivery by traditional birth attendant. Due to scarcity of money, we were late to take decision of transferring the mother to a hospital. Moreover, it had been late due to bad communication to reach hospital and the road was broken and not good."

Another FGD participant described "If a mother develops any complications such as bleeding, it's important to take the mother immediately to hospital."

During IDI, one respondent stated, "We know usually nothing happens wrong during delivery process, it occurs spontaneously and no additional things to do further".

## Community practices during maternal complication

About the practice on emergency delivery, most of the participants from the FGDs said that they were mostly prepared for normal delivery at home. They took preparation by managing traditional birth attendants and saving some money for delivery or during pregnancy. Most of the participants from the IDIs said that they were not used to take preparation for delivery cases; they thought that it happened for long time that mother delivered normally, and they were unaware about this.

During FGD one of the participants illustrated “usually family member uses oil and water to do massage in the abdomen of mother for a quick delivery, when fail to manage then ask traditional birth attendant to try, only in worse situation mother transfers to hospital when everybody fail to conduct the delivery or serious complications arise.”

During IDI one of the participants shared “our community feel that delivery is better to conduct at home by local Dai (unskilled birth attendant), rather going to hospital, the practice is going on for many decades without any big problems”.

## Challenges in the society

Most of the participants of FGDs shared that due to poor socio-economic condition, financial constraints, delays to decide in the family to go and transportation problem are the most common challenges in the rural society. In IDIs most of the participants said that they had social and economic barriers and transportation difficulties to take the complicated mothers at the hospital for delivery and for those reasons they died.

During FGD one of the participants said “we have a huge social barrier. In most of the time either husband or father in law or mother in law done allow the mother to take to the facility for delivery.”

During IDI one participant shared her wife’s story “I had no money in my pocket, it’s too difficult to me on that stage when my wife had serious complications, finally I arranged small amount of money but took long time to get a vehicle. Only because of those, my wife passed away without treatment”.

## Way forward to minimize the community delays

About the overcome and how to relief from the situation of delay in emergency delivery most of the participants said about the awareness on delivery cases and preparation for pregnant women during pre- and post-delivery time. They suggested preparing for vehicle and savings. They also wanted to know about emergency condition of pregnant women that they can take right decision in right time. Most of the participants from the IDI said that they were feeling now that it is important to take pregnant women to the hospital and

there should be no delay in taking decision and communication.

One of the participants from the FGD said “The household head should know the importance and the publicity. If this theme spread like a drama, then that will effect on everyone.”

During FGD another one said “if the pain is within 12 hours then the delivery can take place at home; I had delivery pain for 4-6 hours, no one in this area needs to go to hospital for delivery. I was known from the Community Clinic and Family Welfare Assistant (FWA) when discussed.”

During IDI one of the participants said “It was not right to take pregnant mothers at hospital in late. There was risk for mothers and babies if delivery getting late”.

## Discussion

This study revealed that community has limited perception about the community delay influencing maternal deaths. Rather they blame the luck. Ignorance on maternal complications, dependency on unskilled health care providers during emergency, lack of awareness and knowledge on delivery preparedness are the common reasons for delays to take decision. Lack of emergency transport facilities, unavailable of emergency money, poverty and lack of access to health care facilities are responsible for decision delay and transportation delay. This study explored that poor socio-economic conditions, negligence, decision delay, transportation delay and lack of transportations of the normal delivery contributed to the maternal deaths at community.

Community ignorance on the emergency management of maternal complication and dependency on the traditional birth attendants and unskilled provider made delay in decision making followed by maternal death which support another study finding where community delay is one of the major indirect causes of maternal death where first delay or decision-making delay was found about 71% and second delay was found about 40% of the cases [24].

Our study found that unavailability of vehicle, lack of transportation facilities are the major barriers to reach at facility on time. Another study found that 32% maternal deaths in rural area and 28% in urban areas occur due to community delay in seeking treatment during maternal complications. Lack of transports delayed to reach facility identified major cause of maternal deaths in rural areas [25].

In this study the participants were found limited knowledge on the facility services influence the decision delay which is supported by another study finding that lack of confidence about available facilities is one of the crucial factor in delayed in decision making to seek care at facility [26].

Distance of the facilities from the communities and also the cost of treatment are also the major obstacles in the community for taking decision to seek care during complication was found in our study. Some people also considered the quality of care is more important than cost.

Gender and socio-economic status also contribute in taking decision to seek care [19].

This study finding focused on the community delay plays vital role for maternal complications. A study found that many women died from three key delays included seeking care, reaching health facility and receiving appropriate care management by health worker. Community engagement for improving utilization and eliminating delays can prevent maternal complication [27]. Another study revealed that the community delay includes decision delay and transport delay to access the facilities can be avoidable which can prevent many maternal deaths in the community [25].

The study found that community delay is influenced by the traditional healer as the community people depended on them during any maternal complication. Another study found that the tendency of community people for residing in and not away from the village and being at mothers' parents' home during complication and negative community effect of the referrals is identified as one of the main factors for maternal deaths in the rural areas [28]. Referral intervention within maternal health care program in continuous basis with monitoring, research and evaluation to improve this intervention can reduce community delay in reaching facilities during emergency [29].

Almost all participants emphasized the government initiatives for mass awareness to reduce the decision and transport delay in the community during emergency situation of the mother that is similar to another study in where mass community awareness and education for increasing preparedness of the family to go facility and restructuring of the referral system during emergency maternal complication can prevent community maternal deaths [30].

## Conclusion

Community people depended on the decision makers of the family to go a facility. Moreover, dependency on traditional birth attendants, traditional healers and village doctors in decision making triggers more delay and increases complication for mother. Lack of birth and emergency preparedness, readiness with money for transport, poor understanding of the importance of early referral in obstetric complications and negligence by the family members regarding maternal care are the common reasons for undue delays at community level. The community people had misperception on behavior of health care providers causing further delay in decision making.

The proper knowledge, attitude and practices on maternal complications through awareness program, early decision making and improving transportation and communication facilities can reduce maternal mortality ratio in rural Bangladesh.

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