



## FACTORS INFLUENCING PLACE OF DELIVERY

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### ABSTRACT

#### BACKGROUND

Health issues associated to pregnancy and delivery can have a significant impact on the mother, the child, the family, and the community. The delivery of a child without receiving a proper treatment is one of the biggest public health issues. India has been diligently striving to promote institutional delivery through community wide programmes with various beneficiary schemes for pregnant woman. The place of delivery could influence the outcome of labour and child birth hence it is very vital that a woman makes the right decision as regard with the place of delivery to safeguard both her and the wellbeing of her child. Thus, the present study was undertaken with the aims to assess the factors influencing the place of delivery.

#### METHOD:

The study design was cross sectional exploratory descriptive study. A community based study was conducted in Diezeph, where a total of 77 samples were collected using convenient sampling technique.

#### RESULT:

Our study results shows that out of 77 samples collected 79% had home delivery with 30% stating – I delivered my previous baby at home, as the most common reason, 21% had institutional delivery with 19% stating – institutional delivery is safe for me and my child. There was a significant association between factors influencing the place of delivery with Age (OR-3.18, CI-1.01-9.94, P value-0.042), Education of mother (OR-1.44, CI-1.20-1.73, P value-0.002) Education of husband (OR-1.43, CI-1.20-1.71, P value - 0.002), Family income (OR-8.25, CI-1.73-39.45, P value -0.003), Religion (OR-10.79, CI-2.24-51.77, P value-0.001) and Number of ANC visits (OR-12.71, CI-3.56-45.35, P value- 0.000).

#### CONCLUSION:

The study findings unveiled a number of factors influencing the place of delivery. Therefore, the study can be taken as guidelines by health care policy maker and necessary steps can be taken to proactively motivate mothers from their first ANC visit onwards.

**KEYWORDS:** Factors influencing place of delivery, home delivery, Institutional delivery, Antenatal care and mothers.

### INTRODUCTION

One of the greatest public health issues today is the birth of a baby without skilled care, which results in an increase in mother and newborn death rates. Individual perceptions of institutional delivery services have a negative influence, with major consequences for maternal and child health.

Pregnancy related health problems can have major effects for the mother, her child, her family, and her community. Every year, around four million babies die in their first week of life, while an estimated 529,000 mothers die as a result of pregnancy-related conditions. Many deliveries in low and middle-income nations continue to take place at home, without the support of trained attendants<sup>1</sup>.

An estimated 42% of maternal deaths worldwide are due to birth or the first day after birth, with the majority occurring in underdeveloped nations. Intrapartum-related neonatal death is a major issue during delivery, particularly South Asia and Africa, accounting for nearly all intrapartum-related neonatal deaths (73%). Ethiopia is one of ten nations that account for more than 65% of all intrapartum mortality, along with India, China, the Democratic Republic of the Congo, Pakistan, Nigeria, Bangladesh, Indonesia, Afghanistan, and Tanzania<sup>2</sup>.

According to a study conducted among 6,99,686 women of reproductive age group (15–49) years mothers in India. The study used the National Family Health Surveys (NFHS)-4 (2015–2016) data from states and union territories of India for analysis. This study provides evidence that in India, more than one in every five mothers delivered at home and believed that it was not necessary to deliver at a healthcare facility. One in every five mothers stated that the healthcare facility was too far away, they had no transportation to get to the facility, high expense of going to a healthcare facility and few said that this was because the facilities were closed and one in every eight mothers who delivered at home stated that they were not allowed to go to a healthcare facility to deliver their children<sup>3</sup>. India has been diligently striving to promote institutional delivery through community-wide programmes with various beneficiary schemes for pregnant women. However, most women still prefer to give birth at home, owing to the community's opinion that giving birth is a normal process and that the home is the optimal environment. The proportion of women using institutional delivery services is lower than projected. Institutional deliveries in India have increased from



79% in 2015-16 to 88.6% in 2020-21, with states such as Tamil Nadu, Puducherry, Kerala, Goa, and Lakshadweep claiming 100% institutional deliveries yet home deliveries remain the norm, particularly in the north-eastern states such as Meghalaya, Manipur, and Arunachal Pradesh, where institutional deliveries are less than 80%, with Nagaland ranking lowest (46%), MMR in India decreased from 130 in 2014-16 to 97 in 2018-20, with the increase of institutional delivery playing a substantial role<sup>4,5</sup>. According to the Nagaland Civil Registration System's Annual Report 2021, untrained midwives assisted 42.3% of total deliveries in rural areas and 32% in urban areas<sup>6</sup>. The investigators are interested in assessing the factors influencing the place of delivery with reference to the aforementioned studies and considering that no study regarding the same has been conducted in the region.

## REVIEW OF LITERATURE

1. A study was conducted to identify the factors influencing the place of delivery among mothers residing in Jhorahat VDC, Morang district, Nepal. A mixed-method approach was used, comprising interviews with 93 mothers through a semi-structured questionnaire and two focus group discussions involving household decision-makers and female community health volunteers. Data were collected between November and December 2012. Quantitative data were analyzed using the Chi-square test and Fisher's Exact test to determine associations between selected variables and the place of delivery. The findings revealed that 58.1% of the mothers had institutional deliveries, while 41.9% delivered at home. The most frequently cited reason for home delivery was the perception of an easy and convenient environment (66.7%), whereas safety (77.8%) was the most common reason for choosing institutional delivery. Significant associations were found between the place of delivery and caste, education of the mother, education of the spouse, spouse's occupation, per capita income, travel time to the nearest health facility, parity, previous place of delivery, number of antenatal visits, knowledge regarding place of delivery, and planned place of delivery<sup>7</sup>.

2. A cross-sectional study was conducted to assess the factors determining the place of delivery among pregnant women in the western region of Gujarat. The objective was to examine how demographic factors and antenatal care (ANC) influence delivery location. This community-based retrospective study was carried out across eight Primary Health Centre areas in the Jamnagar district from September 2015 to August 2016. Using multistage sampling, a convenient sample of 400 mothers who had delivered within the previous six months was selected. Data were analyzed using the Chi-square test and Fisher's Exact test. Among the participants, 384 mothers (96%) had institutional deliveries, while 16 mothers (4%) delivered at home. Significant differences in place of delivery were found across caste ( $P < 0.05$ ), socioeconomic status ( $P < 0.01$ ), and maternal education level ( $P < 0.01$ ). Notably, among the 16 home deliveries, 10 mothers (62.5%) were neither registered for antenatal care nor had received a Mamta Card<sup>8</sup>.

3. A community-based cross-sectional study was carried out to examine the factors influencing delivery service utilization in the rural areas of Dadeldhura District, Nepal, during January-March 2014. The primary objective was to identify determinants affecting the use of institutional delivery services

among mothers in this region. The study included 376 mothers, and data were collected through individual interviews. Both descriptive and inferential statistical methods were applied. The findings revealed that institutional delivery service utilization was 72.9%, which was higher than the national average. Several factors were found to be significantly associated with institutional delivery service utilization, including ethnicity, husband's education, previous history of institutional delivery, ANC attendance, distance to the nearest health facility, availability of care, pregnancy monitoring by Female Community Health Volunteers (FCHVs), perceived quality of services, behavior of health workers, husband's involvement in decision-making, perception of home delivery as risky, perception of institutional delivery as safe, and knowledge regarding Safe Delivery Incentive Programme (SDIP)<sup>9</sup>.

4. A qualitative cross-sectional study was carried out to explore the factors influencing the place of delivery in rural Meghalaya, India. Data were collected through focus group discussions and in-depth interviews with pregnant women, married women of reproductive age (15-49 years), and elderly women aged 50 years and above. The findings revealed that most women preferred home delivery assisted by traditional birth attendants (TBAs), whose skills were highly trusted within the community. Financial constraints, fear of out-of-pocket expenses, lack of awareness about government schemes, unavailability of transport, poor road conditions, and long distances to health facilities were major factors influencing this preference. The study also highlighted that illiteracy, increasing maternal age, and higher parity were significant risk factors for choosing home delivery. Additionally, a low perceived need for institutional delivery, negative staff attitudes, and unnecessary referrals further shaped women's decisions regarding the place of delivery<sup>10</sup>.

5. A community-based cross-sectional study was conducted to assess the level of institutional delivery service utilization and its associated factors among mothers who had given birth within the previous twelve months. A total of 580 women participated in the study, of whom 264 delivered in health facilities. The most common reasons reported for choosing institutional delivery included the expectation of better services and recommendations from health professionals to deliver in a health facility. The study found that urban residents were 3.6 times more likely to deliver in a health facility compared to rural residents. Maternal education level was also significantly and positively associated with institutional delivery service utilization. The findings suggest that strategies aimed at increasing antenatal care uptake and improving the educational levels of mothers and their partners could enhance the utilization of health facility delivery services<sup>11</sup>.

6. A study was conducted to identify the factors influencing the choice of delivery place among women in Gindiri, Mangu Local Government Area. This mixed-method research involved a descriptive cross-sectional survey complemented by focus group discussions to explore determinants of delivery choices among pregnant women. A total of 107 women participated, of whom 67.8% had facility-based deliveries. The most commonly cited reasons for choosing home delivery were financial constraints (61.7%) and the perceived bad attitude of midwives (16.8%). The study found a significant association between place of delivery and maternal education ( $p = 0.037$ ), as well as higher parity ( $p = 0.033$ )<sup>12</sup>.



## RESEARCH METHODOLOGY

**Problem statement:** A cross sectional exploratory descriptive study to assess the factors influencing the place of delivery among mothers residing in Diezephe, Chumoukedima

**Objectives:** To assess the factors influencing the place of delivery

**Sample Size:** The sample size for the study was calculated based on a pilot study. During the pilot, data were collected from 20 mothers, of whom 75% had delivered in a health institution and 25% had delivered at home. The sample size was calculated using the formula -  $n = t^2(p \times q)/d^2$ . Based on this calculation, the required sample size was determined to be 288. However, in the study area of Diezephe, only 77 mothers met the inclusion criteria.

### Inclusion Criteria

- Mother who resides in Diezephe.
- Mother who gave birth in the past 5 years.
- Mother who can understand English and Nagamese.

### Exclusion Criteria

- Mother who are not willing to participate in the study.

## DATA COLLECTION PROCEDURE

### Flow Chart of Data Collection Procedure

Approval was obtained from the nursing research committee College of Nursing and CIHSR IRB.



Permission was obtained from authorities of Diezephe, Chumoukedima.



Identified the mothers who meet the inclusion criteria.



Approached the mother.



Introduced self, explained the procedure, and provided the participants information sheet and obtained the written informed consent from the participants before conducting the study.



Conducted the interview



Entered data for analysis

- Mother who are mentally challenged.

**Sampling Technique:** Non-probability convenience technique  
**Data Collection Instrument:** The instruments consist of two sections,

### SECTION A

- Socio-demographic Variables- It consists of Age, Family size, education of the mother, education of the husband, income per month, occupation of the mother, occupation of the husband, religion.
- Clinical variables- distance from home to the nearest preferred health care facility, number of pregnancy, number of delivery, planned pregnancy, number of ANC visits.

### SECTION B

•Factors influencing the place of delivery –It is a Semi structured interview method to assess factors influencing the place of delivery.

**Validity and reliability of the tool:** Content validity of the tool was established through evaluation by five experts, yielding a Content Validity Index (CVI) of 0.95. Inter-rater reliability was assessed for the two interviewers, with the Cronbach's Alpha value calculated as 1, indicating excellent reliability



**Data Analysis:** The data was analyzed using descriptive and inferential statistics.

**Ethical Consideration:** Approval for the study was obtained from the Nursing Research Committee of the College of Nursing, and permission was also secured from the village authorities. Written informed consent was taken from all

participants prior to data collection. Confidentiality and anonymity were ensured by using code numbers instead of names, and all information provided was handled with strict privacy. Participants were clearly informed that their participation was voluntary and that they could withdraw from the study at any stage without any consequences

## RESULTS

**Distribution of mother’s demographic and clinical variables (n=77)**

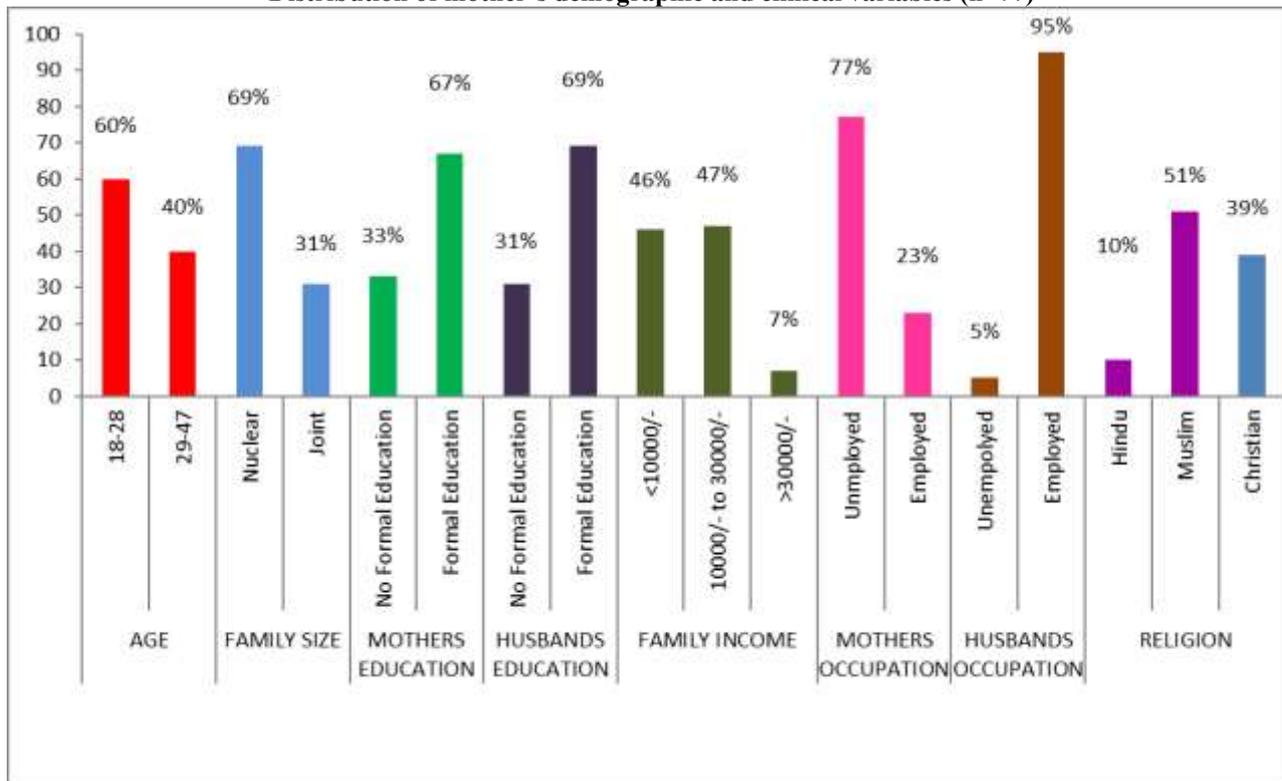


Figure 1 shows that out of 77 participants majority 60% of the mother comprises of the age group between 18-28 years, 69% mothers belongs nuclear family where 67% had formal education and 69% of husband with formal education, 47% of the families income per month falls under 10000/- to 30000/- ,

the unemployed mothers consist of 77% with an employed husband consisting of 95% and majority of the women follows Muslim religion that is 51%.

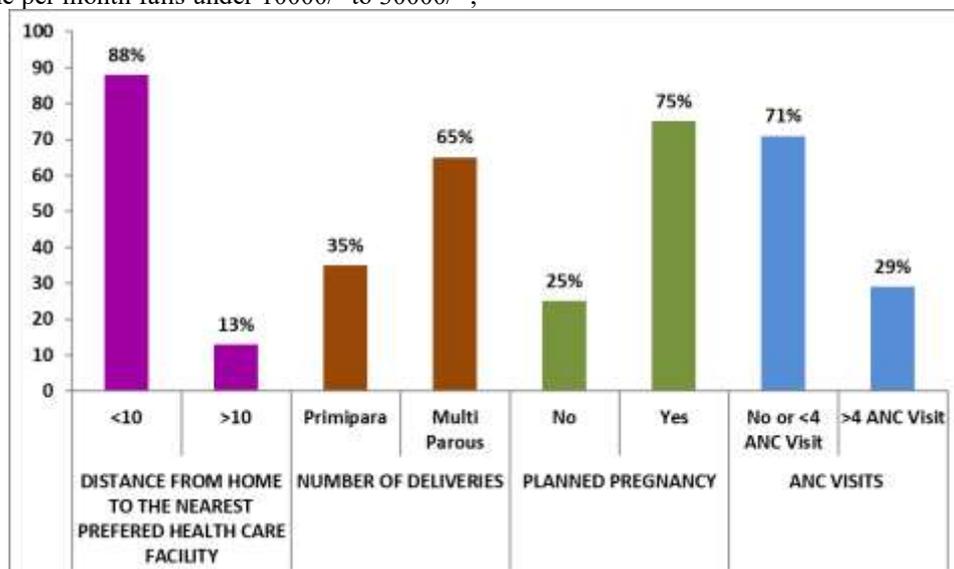


Figure 2 shows that out of 77 participants 88% of the mother resides in the distance of <10km from the nearest preferred health care facility, 65% of the mother were multiparous, where

it was found that 75% had planned pregnancy and 71% of the mothers had no or <4 ANC visits (71%)

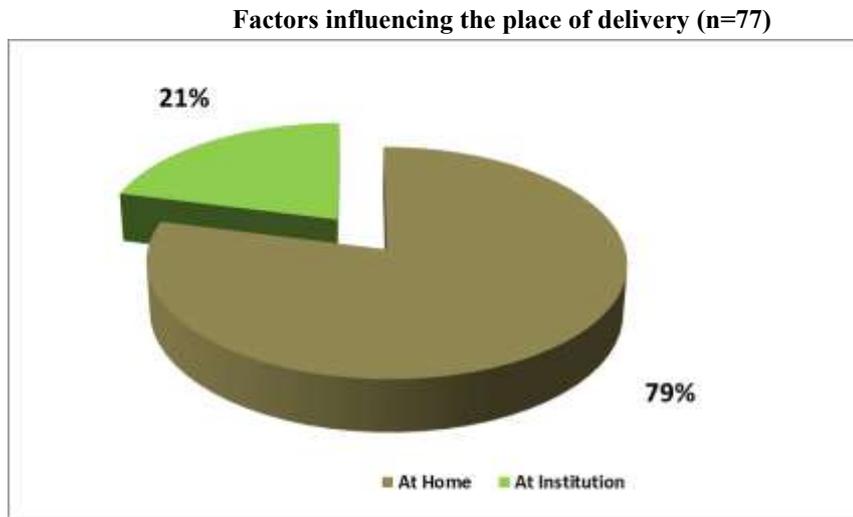


Fig 3: Projects the place of delivery was 79% of the mothers had home delivery and 21% had institutional delivery.

**Reasons for home delivery (n=61)**

SL.NO	REASONS FOR HOME DELIVERY	FREQUENCY (n=61)	PERCENTAGE (%)
a	I delivered my previous baby at home without any problem	18	30
b	It is easy and suitable at home	9	15
c	My pain started suddenly	7	11
d	Availability of an experience Dai nearby home	6	10
e	The hospital expenditure is very high	5	8
f	I didn't have any health problems during my pregnancy	5	8
g	It is far from my home	3	5
h	We have transportation problem	2	3
i	Delivery is a normal process and so we all deliver at home	2	3
j	Privacy is not maintained	1	2
k	I deliver at home because of lockdown during Covid 19	1	2
i	I delivered at home because it was all God's plan	1	2
j	Presence of male health care personnel during delivery in the hospital setting during delivery	1	2

Table 1 shows among the 61(79%) participants who delivered at home, the most stated reasons by the mothers were, “I delivered my previous baby at home without any problem

(30%), it is easy and suitable at home (15%), my pain started suddenly (11%).

**Reason for Institutional delivery (n=16)**

SL.NO	REASONS FOR INSTITUTIONAL DELIVERY	FREQUENCY (n=16)	PERCENTAGE (%)
a	It is safe for me and my child	3	19
b	I want a high quality service	2	13
c	Previous history of delivering by operation	2	13
d	There can be chances of problem during child birth	1	6
e	Transportation is easily available from our home	1	6
f	My delivery pain was too long	1	6
g	My baby was already post dated and i had no pain	1	6
h	Tried delivering at home but failed	1	6
i	Nobody is there to take care of me and my baby at home	1	6
j	The position of my baby was abnormal	1	6
k	It was my first baby and i did not wanted to take any risk	1	6
l	I was told by the doctor that the placenta had obstructed the way to deliver normally	1	6

Table 2 shows that among the 16 (21%) mothers who had institutional delivery some of the major stated reasons were, “It is save for me and my child (19%), I had previous history of

delivering by operation (13%) and i want a high quality care (13%)”.

**Information on Institutional delivery (n=77)**

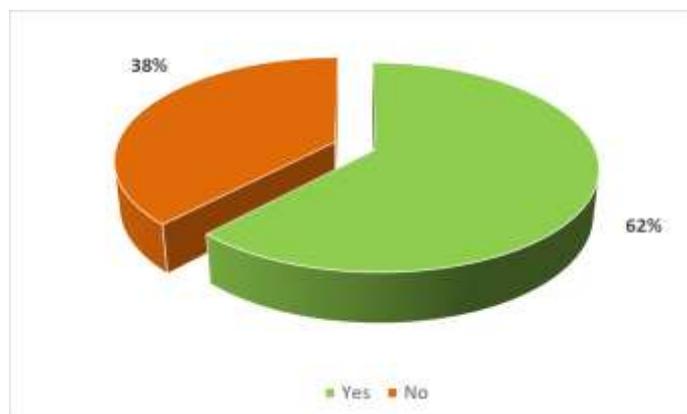


Figure 4 shows that 62% of the mothers received information on the “Importance of hospital delivery” whereas 38% of the mothers did not received any information on hospital delivery.



**Association of Factors influencing place of delivery with the selected demographic and clinical variables. (n=77)**

Sl.no	Variables	Home	Institutional	Total	OR	95%CI	Chi Square	P value
1	<b>Age</b>							
	18-28 years	40	6	46	3.18	(1.01-9.94)	4.154	0.042*
	29-42 years	21	10	31				
2	<b>Family Size</b>						0.358	0.549
	Nuclear	41	12	53				
	Joint Family	20	4	24				
3	<b>Mothers Education</b>				1.44	(1.20-1.73)	9.71	0.002*
	No Formal Education	25	0	25				
	Formal Education	36	16	52				
4	<b>Husbands Education</b>				1.43	(1.20-1.71)	9.146	0.002*
	No Formal Education	24	0	24				
	Formal Education	37	16	53				
5	<b>Income per month</b>				8.25	(1.73-39.45)	8.847	0.003*
	<10000/-	33	2	35				
	>10000/-	28	14	42				

Sl.no	Variables	Home	Institutional	Total	OR	95%CI	Chi Square	P value
6	<b>Mothers Occupation</b>						0.699	0.403
	Unemployed	48	11	59				
	Employed	13	5	18				
7	<b>Husbands Occupation</b>						0.046	0.831
	Unemployed	3	1	4				
	Employed	58	15	73				
8	<b>Religion</b>				10.79	(2.24-51.77)	11.759	0.001*
	Muslim	37	2	39				
	others: Christian/Hindu	24	14	38				
9	<b>Distance from home to the nearest preferred health care facility</b>						0.594	0.441
	<10 km	54	13	67				
	>10km	7	3	10				
11	<b>No. of delivery</b>						1.979	0.16
	Primipara	19	8	27				
	Multiparous	42	8	50				
12	<b>ANC visits</b>				12.71	3.56-45.35	15.67	0.000*
	No or <4 Visits	50	5	55				
	≥4 Visits	11	11	22				

Table 3 shows a statistical significant association in the area of age (p=0.042), mothers education (p=0.002), husbands education (p=0.002), income per month (p=0.003), religion (p=0.001) and ANC visits (p=0.000)

**DISCUSSION**

**Prevalence according to place of delivery**

The present study found that 79% of mothers delivered at home and 21% opted for institutional delivery. Similar findings have been reported in various rural settings across India. A community-based study in rural Maharashtra reported that 19.5% of women delivered at home, highlighting persistent reliance on non-facility births in underserved areas<sup>13</sup>. Another study conducted in a rural community of Pune district found a 26.5% home-delivery rate, despite the presence of male health-care personnel<sup>14</sup>. At the national level, an analysis of Indian data also reported that home deliveries remain more prevalent among socioeconomically disadvantaged and marginalized populations, with an overall home-

delivery prevalence of 22%<sup>15</sup>. These studies collectively demonstrate that home delivery continues to be a common practice in rural and low-resource communities, aligning with the high prevalence observed in our study.

**Reasons for the place of delivery**

**Reasons for home delivery**

In the present study, the most common reasons reported for choosing home delivery were: "I delivered my previous baby at home" (30%), the belief that it is easy and suitable to deliver at home (15%), sudden onset of labour (11%), availability of an experienced Dai (10%), absence of health problems during pregnancy (8%), high hospital expenses (8%), transportation difficulties (3%), the perception that delivery is a normal process and therefore done at home (3%), the belief that delivery is God's plan (2%), and discomfort with the presence of male health-care personnel (2%). Similar findings were reported in a study conducted by Ikrama Hassan et al. in Lafia, Nigeria, where the main reasons for home delivery included sudden onset of labour, lack of transportation, high cost of care, long distance



to health facilities, convenience, and absence of perceived complications. These similarities highlight that both contextual barriers and personal beliefs continue to strongly influence women's decisions regarding place of delivery across different settings<sup>16</sup>.

### Reason for institutional delivery

In the present study, the commonly stated reasons for choosing institutional delivery included the belief that it is safe for both mother and child (19%), the need for high-quality services (13%), a history of operative delivery (13%), easy availability of transportation (6%), prolonged labour (6%), failed labour at home (6%), awareness of complications during childbirth (6%), post-dated pregnancy (6%), abnormal foetal position (6%), first pregnancy (6%), medical advice to deliver in a facility due to placenta previa (6%), and the lack of someone at home to care for the mother and newborn (6%). These findings are supported by a study conducted by Rokshana Begum et al. in Bangladesh, where the most frequently reported reasons for institutional delivery included the desire to avoid complications (48%), the expectation of better care (27%), and the belief that institutional delivery is safer (24%)<sup>17</sup>. Similarly, a study by Kassahun Asras Mitikie et al. in Ethiopia reported that the majority of women (74%) chose institutional delivery to ensure better outcomes for themselves and their babies, followed by the desire for improved service quality (14%), and proximity of the health facility to their home (4%)<sup>22</sup>. Collectively, these studies affirm that safety concerns, perceived quality of care, and medical or obstetric indications strongly influence women's decisions to seek institutional delivery services.

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### Husband's Education

The study found that mothers whose husbands have no formal education are 1.43 times more likely to deliver at home (AOR = 1.43, 95% CI: 1.20–1.71,  $p = 0.002$ ) compared to those whose husbands are formally educated. Similarly, Prativa Dhakali et al. reported a significant association between husbands' lack of formal education and home delivery ( $p < 0.001$ )<sup>23</sup>. In contrast, Nahom Kiros Gebregziabher et al., in Akordat town, Eritrea, observed that despite high literacy rates among husbands, many (48%), the expectation of better care (27%), and the belief that institutional delivery is safer (24%)<sup>17</sup>. Similarly, a study by Kassahun Asras Mitikie et al. in Ethiopia reported that the majority of women (74%) chose institutional delivery to ensure better outcomes for themselves and their babies, followed by the desire for improved service quality (14%), and proximity of the health facility to their home (4%)<sup>18</sup>. Collectively, these studies affirm that safety concerns, perceived quality of care, and medical or obstetric indications strongly influence women's decisions to seek institutional delivery services.

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### Family Income

According to the study findings, families with low income were eight times more likely to have home deliveries (OR = 8.25, 95% CI: 1.73–39.45,  $p = 0.003$ ) compared to families with higher income. Similarly, a study by Jared Otieno Ogolla reported that families with low socioeconomic status were three times more likely to deliver at home compared to those with higher socioeconomic status (AOR = 3.19, 95% CI: 2.1–4.7,  $p = 0.001$ ), indicating a statistically significant association between family income and home delivery<sup>25</sup>. However, in contrast, Rokshana Begum et al. found that despite low family income, 61.6% of participants in their study still opted for institutional delivery<sup>17</sup>, suggesting that factors other than income may also influence delivery choices.

### Factors influencing the place of delivery

#### Age

According to the findings of the present study, the majority of mothers aged 18–28 years delivered at home, and there was a statistically significant association indicating that mothers in this age group were more likely to have a home delivery compared to those aged 29–42 years (AOR = 3.18, 95% CI: 1.01–9.94,  $p = 0.042$ ). A similar study conducted by Maddy et al. in Haiti reported that women aged 19–25 years were also more likely to give birth at home (AOR = 2.6, 95% CI,  $p = 0.02$ )<sup>19</sup>. However, the findings of Islam and Shahjahan (2022) differed from the present study, showing that mothers aged 30 years and above had nearly twice the odds of delivering at home (AOR = 1.98, 95% CI: 1.09–4.37,  $p = 0.023$ ) compared to mothers aged 20–29 years<sup>20</sup>.

#### Mother's Education

In the present study, the commonly stated reasons for choosing institutional delivery included the belief that it is safe for both mother and child (19%), the need for high-quality services (13%), a history of operative delivery (13%), easy availability of transportation (6%), prolonged labour (6%), failed labour at home (6%), awareness of complications during childbirth (6%), post-dated pregnancy (6%), abnormal foetal position (6%), first pregnancy (6%), medical advice to deliver in a facility due to placenta previa (6%), and the lack of someone at home to care for the mother and newborn (6%). These findings are supported by a study conducted by Rokshana Begum et al. in Bangladesh, where the most frequently reported reasons for institutional delivery included the desire to avoid complications (48%), the expectation of better care (27%), and the belief that institutional delivery is safer (24%)<sup>21</sup>. Similarly, a study by Kassahun Asras

#### Religion

The study found a significant association between religion and home delivery, with Muslim women being ten times more likely to deliver at home than women of other religions (AOR = 10.79, 95% CI: 2.24–51.77,  $p = 0.001$ ). Similarly, Jyotiranjana Sahoo et al. in North India reported that Muslim women were more likely to deliver at home, with religion remaining a significant predictor of delivery place (OR = 6.24, 95% CI: 2.64–14.75,  $p = 0.001$ )<sup>2</sup>. Munmun Ahmed in Bangladesh also found religion significantly associated with institutional delivery (OR = 0.76, 95% CI: 0.56–0.98,  $p = 0.01$ )<sup>27</sup>. In contrast, Agulu Gilbert Gangloba et al. in Northern Ghana observed that more Muslim women delivered in institutions than Christian women, and religion was not significantly associated with place of delivery ( $p = 0.21$ )<sup>28</sup>, highlighting the influence of contextual factors.

#### ANC Visit

The present study found that mothers with fewer than four antenatal care (ANC) visits were significantly more likely to deliver at home compared to those with more than four visits (OR = 12.71, 95% CI: 3.56–45.35,  $p = 0.000$ ). This finding aligns with the study by John Kitui, Sarah Lewis, and Gail Davey, which reported that mothers attending fewer than four ANC visits had higher odds of home delivery (AOR = 6.79,



95% CI: 4.16–10.61,  $p = 0.001$ ), highlighting a strong association between ANC attendance and the choice of delivery place<sup>29</sup>. ANC visits provide opportunities for health education, counseling on birth preparedness, and risk identification, which likely encourage institutional deliveries.

However, in contrast, a study by Envuladu E.A., Agbo H.A., Lassa S., Kigbu J.H., and Zoakah A.I. found that even with high ANC attendance, a significant proportion of women still opted for home deliveries<sup>30</sup>. This suggests that while frequent ANC visits are important, other factors—such as cultural beliefs, family influence, perceived quality of care, financial constraints, and accessibility of health facilities—may also strongly influence the decision on place of delivery. Therefore, strategies aimed at increasing institutional deliveries should not only focus on improving ANC attendance but also address these contextual and socio-cultural barriers to ensure that the knowledge gained during ANC visits translates into safe delivery practices

### LIMITATION

The study had several limitations. First, the sample size was smaller than initially calculated, as only 77 mothers in Diezeph had a history of childbirth in the last five years, compared to the targeted sample size of 288. Second, the responses obtained were subjective, relying on the mothers' ability to recall past events, which may have introduced recall bias. Finally, the majority of participants were Muslim immigrants from Bangladesh, which limits the generalizability of the findings to the broader Naga community

### Nursing Implications

The findings of this study have important implications for nursing practice, education, research, and administration. These implications can guide efforts to promote institutional deliveries and improve maternal and neonatal outcomes.

### Nursing Practice

- Community nurses are encouraged to provide structured health education to mothers on the importance of institutional delivery and available maternal and newborn support schemes.
- Nurses can identify and address factors contributing to home deliveries within their communities.
- Community Health Nurses may collaborate with grassroots health workers (e.g., ASHA, ANM, or Dia) to raise awareness about safe delivery practices, using proper protective measures to prevent complications.

### Nursing Research

- The study offers a foundation for future research with larger sample sizes and in diverse settings, allowing for broader generalization.
- Incorporating qualitative approaches in future studies could help explore why mothers continue to choose home deliveries despite available institutional services.

### Nursing Education

- Findings can enhance nursing students' understanding of targeted health education strategies and community-based maternal care.

- Induction or refresher training programs for healthcare workers can emphasize the benefits of institutional delivery and effective counseling techniques.

### Nursing Administration

- Nursing administrators may engage with local leaders, including village chairpersons, to develop community strategies that encourage institutional deliveries.
- Training programs for nursing staff on maternal and newborn health promotion are highly encouraged.
- Administrative support can be provided to conduct community-based health education programs, including allocation of resources and logistics.
- Community Health Nurse administrators are encouraged to collaborate with governmental bodies and NGOs to develop policies, mobilize resources, and create coalitions that support institutional deliveries.

### CONCLUSION

The findings of the study reveal that a significant proportion of mothers opted for home delivery. Key factors influencing the choice of place of delivery included the mother's and husband's age and education, family income, and religion. These determinants highlight that decisions regarding childbirth are influenced not only by access to health services but also by socio-demographic and cultural factors.

Based on these findings, it is recommended that targeted health education programs be strengthened to improve mothers' and families' awareness about the importance of institutional delivery and the maternal and newborn support schemes available. Community-based interventions, involving healthcare workers and local leaders, can help address cultural beliefs and misconceptions, promote safe delivery practices, and encourage utilization of healthcare facilities.

In addition, continuous efforts to improve maternal health services, enhance accessibility, and provide supportive policies are essential to reduce home deliveries and improve maternal and neonatal outcomes. Future research should explore the underlying reasons for home delivery choices, particularly through qualitative studies, to develop more effective, context-specific interventions.

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