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Community Perceptions of Facilitators and Barriers to Maternal and Child Health Service Use in Dang and Rukum District of Nepal

Implementation Research Report

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(Note: Previously known as Rukum district represents West Rukum district of Nepal in this report)

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Acronyms

AHW	Auxiliary Health Worker
ANM	Auxiliary Nurse Midwifery
ANC	Antenatal Care
APH	Antepartum haemorrhage
CAH	Community Action for Health
CEHP	Community Empowerment for Health Promotion
CEONC	Comprehensive Emergency Obstetric and Newborn Care
CHU	Community Health Unit
COVID-19	Corona virus disease 2019
CS	Cesarean Section
DHO	District Health Office
DoHS	Department of Health Services
FCHV	Female Community Health Volunteer
FBD	Facility-based delivery
FGD	Focus Group Discussion
FP	Family Planning
FWD	Family Welfare Division
GoN	Government of Nepal
HCP	Healthcare provider
HF	Health Facility
HP	Health Post
HFOMC	Health Facility Operation and Management Committee
HHs	Households
HMG	Health Mothers' Group
HMIS	Health Management and Information System
HWs	Health workers
IDI	In -depth Interview
IMR	Infant mortality rate
LA	Local authority
MCH	Maternal and Child Health
MDG	Millenium Development Goal
MHM	Menstrual Hygiene Management
MMR	Maternal Mortality Rate
MNCH	Maternal, Neonatal and Child Health
MNH	Maternal and Neonatal Health
NCDs	Non-Communicable Diseases
NDHS	Nepal Demographic and Health Survey
NHSS- IP	Nepal Health Sector Strategy Implementation Plan
NRCS	Nepal Red Cross Society
NMR	Neonatal Mortality Rate
PHC/ORC	Primary Health Care/Out Reach Clinic
PNC	Postnatal Care
PPH	Postpartum haemorrahage
RHD	Regional Health Directorate
RM	Rural Municipality
RMNCAH	Reproductive, Maternal, New-born, Child and Adolescent Health
SBA	Skilled Birth Attendant
SDG	Sustainable Development Goal
SMRF	Safe Motherhood Revolving Fund
SRHR	Sexual and Reproductive Health Rights
USAID	United States Agency for International Development

Executive Summary

Background of the study

Globally the burden of maternal mortality ratio is very high, approximately 810 women died daily in 2017 with preventable cause of pregnancy and childbirth[1]. Ninety-four percent of maternal deaths occurred in low and lower middle-income countries. Nepal is one of the countries who shares burden of high MMR.

Nepal is far behind in achieving the SDG target of MMR to less than 70 per 100,000 live births and facility delivery 90% by 2030. Evidence from Nepal Demographic and Health Survey (NDHS) 2016 revealed maternal mortality ratio 239/100,000 live births and mortality under 5 were 39 deaths/1000 live births[2]. The leading causes of reported maternal deaths from 28 hospitals during a four-year period (2015-18) are eclampsia and postpartum haemorrhage, infection (usually after childbirth), and complication due to abortion [3]. More importantly, there is increase in deaths during deliveries conducted in health institution compared to that of home deliveries. Death is highest during the postpartum period up to 48 hours [4]. This indicates that timely decision-making at individual and family level is important to prevent delays and thus decreasing the maternal and neonatal mortality around the time of giving birth and the possibility of succeeding complications.

The SRC supports maternal, neonatal and child health (MNCH) services in Karnali and Lumbini province in Nepal. Despite various interventions on the health system (=provider side) and on the community side (=demand side) deliveries with a skilled health provider and post-natal care have not substantially increased. This study was conducted to understand barriers and facilitators in decision-making in regard to the place of delivery and place of care both at normal and in emergency situations with a special focus on the needs and experiences of disadvantaged women of all ages in rural area.

This research is designed to improve the understanding of social determinants of institutional delivery also referred as facility-based delivery with the aim to explore the community perceptions of facilitators and barriers on maternal and child health service utilization and generate the knowledge on socio-cultural and behavioral barriers and enablers for facility-based delivery. Community expectations, perceptions and experiences was examined to characterize local beliefs about available services, including whether/when they are necessary, their quality of care, factors that encourage or reduce intention to use services, and facilitators and barriers to acting on such intention. In particular, the study compares experiences of women (and their families) of different socio-cultural background who have experienced healthy births as well as those who underwent complications, considering both community-based and facility-based delivery.

Methodology

This qualitative study is part of a four-country study in SRC supported MNCH programmes in Asia. All programmes used the same methodology, adapted to their local context and local language, comprising of focus group discussions, location and pregnancy pathways mapping, as well as individual interviews with women, husbands, in-laws, health professionals and local authorities; health service manager and political leader of the municipality.

The study was carried out in the catchment area of Hansipur Health Post of Banglachuli Rural Municipality of Dang district (ward 7,8) and catchment area of Simrutu Health Post of Tribeni Rural Municipality of West Rukum district (western part of previous Rukum district, now a separate district)-(ward 1, 2). Those districts and municipalities were purposefully selected because of the different topography (flat land and hills), as well as different ethnicities and low socio-economic indicators.

Eight Focus groups discussions separated by community men and women, health care providers and a group of stakeholders were held. Mapping of location and providers, as well as pregnancy pathways were determined jointly. Furthermore, 43 individual interviews were conducted, comprising

of 21 women who had delivered within the past 6 months prior to the study, 13 husbands, two mother-in laws, four health providers (2 male and 2 female) and five local health authorities.

Qualitative interviews were coded and analyzed along the stages of pregnancy, delivery and post-partum period, including experiences and decision-making for normal deliveries as well as for complications.

Findings

Through the different stages of pregnancy, delivery and post-partum women and her families have to make decisions around whether and where to seek care. The study showed that decisions as well as the decision makers change throughout different stages of pregnancy and childbirth. Decision making processes were therefore dynamically changing influenced by the progress of pregnancy and delivery, the family's situation, the influence of community people along with available logistics, such as transport, availability of health staff, competence and confidence of health staff and available medical supplies.

During antenatal care many respondents claimed of having joint discussions among couples or family members to seek health services after they identified their pregnancy. ANC was the most utilized service among all types of maternal health service which is also supported by national data. Only few women had said they made their own decision of seeking antenatal care. In fact, husbands and family members with more knowledge about pregnancy and childbirth and who were able to anticipate risks, has a positive influence on women who otherwise may not have anticipated to seek care. Interestingly, local health authorities stated that women nowadays are so empowered and informed, that they take their own decisions. Some women uttered however, that they feel shy in front of the health staff, and were embarrassed because of being very young and pregnant very early in life and thus disclosing in the community that they were sexually engaged. Women whose husbands have migrated for labour work, also stated that

Although many women had made either sole or joint decision with their spouse or family members about the location of childbirth before starting of labor, half of them could not actualize it, whether the choice was home or health facility. After the onset of labor, women played a more passive role in decision making. Women in this study often recognized labour pain too late, or communicated it too late to family members. When going through labor pain they felt that they were in no position to comprehend the situation fully and assert their decision, and thus other family members or local community took over. Even though the majority of women and their families had a birth preparedness plan (including money and phone number of health staff and ambulance) a delay in decision-making by the family and/or not anticipated factors such as poor mobile phone network was then the most common reason for delay then for delivering the baby on the way to the health center. External factors such rainy season, festivals, unreliable mobile networks, lack of support at household, long distance from health facility discouraged them from trying to seek care. Proximity to the health facility stood out as facilitators for seeking institutional care. However, money was not pointed outright as a cause of delay by the family members as much as onset of labor at night, road access and transportation were. However, both community people and health care provider perceived poverty as barrier that influences the overall ability to access needed care. Poverty was seen as linkage to knowledge of health issues and care seeking behavior apart from the ability to purchase the service. Health care provider and local authorities associated poverty with lower awareness on importance of health services and thus lower utilization.

Women who had their second child, after having delivered their first time in a health facility, preferred a home delivery. Also, those women in the study, who had faced a complication were not satisfied with the services they received. Reasons were insufficient quality of care and feeling cold and uncomfortable in the health facility. There were complains of too many vaginal examinations, longer labor with no medication to augment labor, not providing with concrete decision if delivery was possible in health post level, etc. There was a lack of trust whenever health staffs could not provide the family members with clear information and effective counselling. The competency of health care

providers to confidently assist deliveries and complication management were also a concern of providers themselves along with periodic stock out of necessary equipment and drugs. However, families with relatives who worked as health workers received more support in timely seeking health care. Even social mobilizers who have knowledge on maternal health issues have played significant role in positively influencing the final decision of going to health facility. Health providers stated that it is the responsibility of the Female Community Health Volunteer to keep track of the pregnant women in the community and that they do not know about the women in the community.

Postnatal care (PNC) service was the least utilized maternal health services and were linked with considering of service as curative and not necessary if mother and babies were apparently normal. It was a hassle for women to travel with newborn on difficult roads just for regular checkups. The cultural practice of secluding postnatal mothers (*sutkeri baarne*) was also prevalent in study sites. However, women and their families involved in this study stated they could visit health facility any time if they face health issues.

Conclusion and Recommendations

Increased knowledge and awareness about pregnancy and childbirth contribute to an early and informed decision-making of the women and household members to seek professional care. The preparation of different scenarios in birth preparedness plans, as well as the early anticipation of labour pain, arises of complication will help to take decisions and change decisions and plans quicker. There seems to be a disconnect between information and assumptions of the health provider staff and the needs and practices of women in their homes. Including FCHV perception and information on the pregnant women in the community, their needs and social situation at home during the regular meeting with health provider staff may help to better address the women's needs. Positive birth experiences help to create and spread awareness about the importance of institutional deliveries with skilled birth attendants. Level of preparedness, a functional supply chain and work in teams are crucial to meet the needs of women during delivery. Besides, initiatives of the health post in charge to make the health center more comfortable and cater for the needs of the women should be encouraged, including catering with food, overnight stay, allowing presence of husbands and preferred caretakers. These factors could encourage facility-based deliveries not only for prime mothers but also for subsequent deliveries. Awareness on the importance of post-natal care, for mother and the baby, as well as an important entry-point for family planning and birth spacing, seems poor. New approaches, as for example, outreach visits to the homes of the mothers, as well as integrating PNC in vaccination services to emphasize the mother-baby-dyad in all MNCH services, could help to increase the PNC uptake and detect and improve health needs post-partum.

1 Introduction

The reduction of the maternal mortality rate globally has seen major attention and investments over the last decades. It was one of the prominent goals in MDGs and continues to be the number one indicator to be tackled in the Sustainable Development Goal (SDG) 3. However, Maternal Mortality Rate (MMR) is still stagnating in many countries and facility–based deliveries are only slowly increasing.

Globally the burden of maternal mortality ratio is very high, approximately 810 women died daily in 2017 with preventable causes of pregnancy and childbirth[1]. Ninety-four percent of maternal deaths occurred in low and lower middle-income countries. In order to achieve SDGs, countries around the world are putting efforts to reduce maternal, neonatal and child death by implementing various interventions. In effort to achieve SDGs 3 and 5 the World Health Organization (WHO) recommend encouraging all women to seek facility-based delivery, skilled care before, during and after childbirth. Also, family planning can play a major role to save the lives of mothers and newborns. Despite the WHO recommendations and the proven intervention that reduce maternal and neonatal morbidity and mortality, there are numerous social and demographic factors that influence on the decision-making of facility-based delivery for example, poor healthcare service, distance to health facility, financial barriers which includes service fee, medicine and transportation cost, lack of parental education, lack of information about services, women empowerment, and cultural practices. [2][5][6][7]

The Government of Nepal (GoN) has prioritized maternal and new-born health as an important program within Family Welfare Division (FWD). Different policies and strategies have been developed since more than two decades in order to improve the status of maternal and child health. These policies and programs have emphasized the access to services and ensured availability of necessary resources. These include an increase in the capacity and availability of Skilled Birth Attendants (SBAs) in health facilities to increase the utilization of services to save numerous complications and maternal and/or newborn death during pregnancy, delivery and after delivery.

In the past, though Nepal had made significant progress in reducing maternal mortality; from 539 in 1996 to 281 per 100,000 live births in 2006, it is far behind in achieving the target of MMR 70/100000 live birth and 90% facility-based delivery by 2030 in goal 3 of SDG. However, Nepal is one of the countries who shares high burden of MMR. The MMR is 239 per 100,000 live births, mortality under 5 were 39 deaths per 1000 live births and the Neonatal Mortality Rate (NMR) is 21 per 1000 live births in 2016 [2]. Furthermore, 57% of the women had institutional delivery throughout the country. However, in general, out of 43% of home delivery, there is huge difference between urban and rural which is 31% and 56% respectively [2]. The leading causes of reported maternal deaths from 28 hospitals during a four-year period (2015-18) are eclampsia and postpartum haemorrhage, infection (usually after childbirth), and complication due to abortion and the timing of death is higher during postpartum period up to 48 hours.[4]

More importantly, the percentage of maternal deaths occurred in health institution compared to in the community is higher irrespective to the complications arose[4]. This is because people are accessing the services from health facilities at the very late stage of complication, which is- only after it cannot be managed at home. This indicates the timely decision-making at individual and family level is important to prevent 2nd and 3rd delay decreasing the maternal and infant mortality at time of birth and post- delivery due to different obstetric complication. All women need access to antenatal care in pregnancy, skilled care during childbirth, and care and support in the weeks after childbirth in order to minimize risks during pregnancy, childbirth, and postpartum period.

Considering these aspects, the GoN along with several supporting partners are implementing different interventions on maternal and child health focusing on access and quality of services. The Nepal Health Sector Strategy Implementation Plan (NHSS-IP 2016-2021) identifies equity and quality of care gaps as areas of concern for achieving the SDG target of maternal health. Therefore,

in order to address this gap, NHSS-IP has been providing guidance to improving quality of care, equitable distribution of health services and utilization particularly 4th ANC and facility delivery[8].

Nepal Red Cross Society (NRCS) implemented Community Action for Health (CAH) projects with support of Swiss Red Cross (SRC) in 4 remote districts (Dang, Rolpa, West Rukum and Kalikot) with coverage of 4 rural municipalities (one in each district) focusing on MNCH. The project led evidence-based interventions to increase access to facility-based deliveries including improvement of the quality of health services and health education about benefits of FBD through ANC, birth preparedness plans, provision of incentives for ANC and FBD, access to community health funds and local transport arrangements. These interventions are backed by policies and suggested interventions by the GoN. However, choosing to give birth at a heath facility is a complex decision also depending on numbers of social and interpersonal factors as highlighted above. So far, it is needed to understand barriers and facilitators in decision-making regarding the place of delivery and place of care during both normal and emergency situations with a special focus on the needs and experiences of disadvantaged women of all ages in rural areas.

This document is related to the findings of the research in the SRC supported program districts in Karnali and Lumbini province of Nepal to understand barriers and facilitators in decision-making in regard to the place of delivery and place of care both at normal and emergency situation with a special focus on the needs and experiences of disadvantaged women of all ages in rural area.

2 Rationale of the study

In the SRC supported countries in Asia namely Nepal, Bangladesh, Laos, and Pakistan, the maternal and newborn health projects have been implemented. All four countries are facing challenges to decrease maternal and neonatal mortality. Home deliveries make up around 50% or more in the intervention site of these countries, suggesting that access and barriers to FBD still exists despite many interventions from government and supporting partners. There is insufficient program relevant data on community level, barriers to women's access to maternal health care, especially facility births and emergency maternal services, in case complications occur. In particular, the lack of women’s voice in understanding low use of facility birth was noted.

Considering this, all the four countries, individually wanted to carry out qualitative studies which can produce findings useful for better local targeting of health interventions which are conducive in overcoming access barriers and in minimizing delays in seeking help and care during adverse events. The study aims and objectives are the same for all four SRC program countries under study. It was agreed that qualitative method is well suited to providing community voice and deepen understanding of local dynamics around decision-making and care-seeking in specific social contexts. Furthermore, these projects have plan to use the results of the study to analyze the existing gaps and target those in future programming and local advocacy to the respective authorities and Governments. Findings are intended to be applied both to in-country programming and to informing future regional planning. In order to achieve a certain degree of comparability over the countries in the region, the four countries used the same methodology to be applied in all four countries, and locally adapted to the specific context.

3 Literature Review

Numbers of qualitative studies have been carried out in Nepal to explore determinants for use of institutional delivery and decision-making in Nepal under different aspects. These studies have identified factors; which determines the use of the healthcare services, such as socio-cultural norms and values, perceptions regarding poor quality of health services, health facility readiness, and preparedness of staffs including level of confidence as influencers. Lack of knowledge about importance of facility-based delivery, delay in identifying the problem and its severity, and limited access to transportation services also compromised prompt care seeking practice [9] [10] [11].

Women particularly in rural setting are low empowered in terms of education and employment leading to economic dependency on men including decision-making for utilization of health services. Early marriage and insistence from family to have children soon after marriage limited information on maternal health issues and lack of autonomy including other factors in decision making leading to low utilization of health facilities for facility-based delivery [12].

As compared to national data (DoHS 2019/20), In Lumbini Province (including Districts Dang and Rolpa– a SRC project area) figures were higher than the national data, on the other hand, in Karnali Province (including District Kalikot and Rukum another SRC project area), figures were lower than that of national data.

Table 1 Percentage of institutional delivery, ANC check-ups, and SBA delivery as per HMIS indicators [13]

Indicators	Dang	West Rukum	Nepal
% of Institutional delivery	57.4	73.8	65.5
% of pregnant women who had four ANC check-ups (as per protocol*)	51.4	65.1	52.6
% of SBA delivery	56.3	65	62.3

*ANC protocol as per MoHP- ANC visit at 4th, 6th, 8th and 9th months

The national data further revealed that educated and women with higher economic status were using institutional delivery and antenatal care in greater numbers than less educated and women with low economic status. Also, women who resided in urban areas were observed to utilize more institutional delivery and more than four ANCs than those in rural areas. Women from advantaged ethnic groups (Brahmin and Chhetri) were using the service in higher number than those from disadvantaged groups (Dalit and other background). Moreover, women aged 30-49 were more likely to give birth in health facility than that of 20-24 aged women. And women aged 25-49 were likelier to utilize more than four ANC service compared to the 20-24 age group women [11].

These figures indicate that level of education, economic background, ethnic groups, age as well place of residence are important attributes for either using or not using health facility for delivery as well as for maternal and child health services. In recent years, diverse qualitative studies have been carried out in order to explore the use of institutional delivery in Nepal under different aspects.

Regarding barriers and facilitators to institutional delivery, a study carried out in rural area of Chitwan District identified three main themes that played a role in deciding the place of delivery. They were: socio-cultural norms and values, such as deeply held beliefs about childbirth being a normal life event or the wish to be cared-for by family members that kept women from institutional delivery; access to birthing facilities such as the facilitator of having birthing centers nearby or the barrier of lack of road and transportation; and perceptions regarding the quality of health services such as perceived incompetence of ANMs that made women choose giving birth at home[10].

A more detailed insight in the decision-making process in case of maternal and newborn illness is provided by data from a study done in rural Sarlahi District. It showed that, though signs of illness were typically recognized early, delays were made in perceiving the severity of the illness which compromised prompt care-seeking in both maternal and newborn cases. Key decision-makers were usually female family members. Barriers to seeking care at any type of health facility included for example transport problems, lack of money, and distance to facility. Health facility service was often sought only after referral or following treatment failure from an informal provider. Respondents perceived government facilities' services as low quality and reported staffs' rudeness and types of required medicine and amenities provided for maternal service were short. Among maternal illness cases, delays in receiving appropriate care when at a facility were also seen [9].

Some of the findings on the facilities and health workers reflected in data from another study carried out in the same district (Sarlahi) identified supply-side weaknesses such as critical gaps in facility

readiness and health worker preparedness to provide quality ANC, labor/delivery, and immediate newborn care services. Most of the health workers at all the assessed health facility agreed that more drugs and supplies were needed for improved and quality service delivery[9].

Besides these technical barriers, personal beliefs and experiences about perinatal sickness and death play a crucial role in understanding decision-making of mothers. A study carried out in villages of mountain region in Nepal showed that religion and cultural beliefs led to acceptance and fatalism about perinatal death and sickness, which contributed for the under-utilization of the available health services [14].

Also, a special focus has to be placed on young mothers as number of barriers are faced by young mothers in addition to those experienced by the pregnant women in general. Insistence from family members to give birth early without any planning, lack of knowledge about reproductive health issues, and limited autonomy make them vulnerable to risky pregnancies. Data from a rural part of Dang on married adolescent girls showed that they face a number of barriers that limit their access to health care services, for example work overload in respect to their age, rude behaviour by health care providers (either male of female provider) to the married adolescents, and the shyness and embarrassment felt by the married adolescents in order to utilize the health services [12].

However, choosing to give birth at a heath facility is a complex decision also depending on numbers of social and interpersonal factors as highlighted above. So far, it is needed to understand barriers and facilitators in decision-making regarding the place of delivery and place of care during both normal and emergency situations with a special focus on the needs and experiences of disadvantaged women of all ages in rural areas.

So far, no study as such has been published to understand barriers and facilitators in decision-making in regard to the place of delivery and place of care in times of emergencies and complications, with a special focus on the needs and experiences of disadvantaged women of all ages in rural areas of Dang and West Rukum. This study has made effort in meeting the identified gaps in this regard.

4 Study Objectives

This research is designed to improve understanding of social determinants of institutional delivery also referred as facility-based delivery with the aim to explore the community perceptions of facilitators and barriers on maternal and child health service utilization and generate the knowledge on socio-cultural and behavioral barriers and enablers for facility-based delivery. Community expectations, perceptions and experiences was examined to characterize local beliefs about available services, including whether/when they are necessary, their quality of care, factors that encourage or reduce intention to use services, and facilitators and barriers to acting on such intention. In particular, the study compares experiences of women (and their families) of different socio-cultural background who have experienced healthy births as well as those who underwent complications, considering both community-based and facility-based delivery.

4.1 Specific objectives

The specific objectives of the study are as follows:

1. To understand the process of decision-making mainly related to facility-based birth, including birth planning and choices made if complications emerge
2. To identify facilitators and barriers to use of existing services under normal circumstances and at onset of complications/emergencies
3. To explore experiences and perceptions of relevant maternal health services as defined above, including local views of their accessibility, acceptability, and quality, and how these affect care-seeking

4. To document experiences and perceptions of local healthcare providers, including their opinions regarding community decision-making, facilitators and barriers related to maternal health services use.

4.2 Research questions

To meet the study objectives, the following guiding questions will be answered:

- How do women make decisions about whether to use/ not use available services during pregnancy and labor, and what are the respective roles of women, family members, and other stakeholders in this decision-making?
- What are the facilitators and barriers to using available services, both during pregnancy/ normal labor and in cases of emergency?
- At the onset of complications/ obstetric emergency, what contributes to the "3 delays" from the perspective of community members?
- How do health care providers view facilitators and barriers experienced by the community to uptake of facility-based delivery and related services, including during complications or emergency?
- How do women, family members, and others in their communities perceive the quality of services?

5 Methodology

5.1 Study Design

This is a qualitative study that explored a range of community, family and health system dynamics that influence knowledge, perceptions, and use of facility-based delivery through focus group discussions and in-depth individual interviews.

5.2 Study Area

The study was carried out in Banglachuli rural municipality (RM) and Tribeni RM, which were representative of Dang and Western Rukum (previously called as Rukum) districts respectively. Although Dang is a terai district, the study site of Dang was remote and has diverse socio-economic status, ethnic composition and service utilization is very poor with facility-based delivery being only 24% [8]. Western Rukum represents a typical hilly district of Nepal. Catchment area of Hansipur Health Post with birthing center of Banglachuli RM of Dang (ward 7,8) and catchment area of Simrutu Health Post with birthing center of Tribeni RM of West Rukum (ward 1, 2) were the selected data collection sites.

These were selected as study sites, as SRC supported program were implemented in these two RMs. Therefore, in order to understand the barriers and facilitators in regard to the place of delivery at normal and emergency situation, of these particular districts were purposively selected. This also made it convenient to access the study sites as the project's field office was already based in these RMs.

The other service sites mentioned in the report by the respondents for the service utilization are:

- Lahape Community health unit (Banglachuli RM, Dang district)
- District hospital Rukum (Salle/Khalanga, Rukum District)
- Rapti Zonal Hospital (Tulsipur, Dang district)
- Rapti Academy of Health Sciences-Province level hospital (Ghorahi, Dang district)
- Nepalgunj Medical College and Teaching Hospital-Province level hospital (Koholpur, Nepalgunj district)
- Bheri Hospital, Province level hospital (Nepalgunj)
- Lumbini Provincial Hospital (Butwal, Rupandehi district)

5.3 Study population:

The study population considered for in-depth individual interviews was:

(1) Community women (who had home delivery or institutional delivery in the last six months)
(2) Community men (Husband/mother-in-law of the women who had home delivery or institutional delivery in last six months/ or mother-in-law of the women who had home delivery or institutional delivery in last six months)
(3) Healthcare Provider and
(4) Local authority

Focus group discussions were held in the following four groups:

(5) Community women
(6) Community men
(7) Healthcare providers and
(8) Other stakeholders (considered to be key informants and/or influential in the decision-making process i.e., community leaders, teachers, traditional healers, ward representatives, key persons of the marginalized group representatives, private health practitioners, FCHVs)

5.4 Sample size and sampling techniques

Altogether 4 focus group discussions and 22 in-depth individual interviews (IDIs) were conducted in Dang and 4 focus group discussions (FGDs) and 21 in-depth individual interviews were conducted in West Rukum. Altogether 8 focus group discussion and 43 individual interviews were conducted in this study. Total 8-12 people were included in each focus group discussion. Initial proposed sample size for the individual interview was 40 but study has included 3 more respondent; 2 in Dang and 1 in West Rukum as per the felt requirement during data collection process.

Table 2 depicts the sample size considered for in-depth individual and FGDs interviews *(please refer annex III for details)*

Data collection method	Respondents	Dang	West Rukum	Total
IDI	Community people	18	16	34
	Local Authorities (LA)	2	3	5
	Health Care Providers (HCPs)	2	2	4
	Total	22	21	43
FGD	Community people	2	2	4
	LA	1	1	2
	HCP	1	1	2
	Total	4	4	8
	Total IDI and FGDs	26	25	51

For the FGDs, the selection of respondents was based on their role in the community, and reflecting local diversity, ensuring that the findings will match a theoretical representation (rather than numerical representation) of local experiences. Selection of study cluster/communities for focus group discussion was based on local diversity, socio-economic differences and vulnerability, ethnicity composition, women representing diverse background and birth experiences i.e., normal delivery to complication, people having knowledge about decision making and different social dynamics etc. Both "purposive" and/or "convenience" sampling technique was used to organize the focus group discussions and individual interviews. The different types of community members were purposively selected to represent different recent experiences including experiences of complication and referral from one service site to another. For the group discussion and service provider interviews, a mix of purposive and convenience sampling was done. Types of respondents were

specified in advance by characteristics and social groups elicited through discussion with local authority and healthcare providers.

Individual interview respondents from the category of community women who have delivered at home or health facility were purposefully selected based on a combination of identification methods:

(1) Through the group discussions, where specific individuals were identified/referred by the community who were found to clearly meet the inclusion criteria for individual interview.

(2) "Snowball sampling" through recommendation of other community members/key informants, and women; and

(3) Through the local health worker, Female Community Health Volunteers (FCHVs), Health Mothers' group (HMG) members who were familiar with women/households who experienced pregnancy outcomes/care engagement.

The sample mapping framework is included in annex III.

For stakeholder/ key informant respondents and local health staffs, project staff identified possible candidates who were most relevant cadres of MNCH providers and most likely to have "insider knowledge" of service use.

5.5 Inclusion and exclusion criteria

Inclusion criteria for the study were:

- Women from the research sites belonging to diverse ethnicity, literacy and socio-economic status who had experienced childbirth during last 6 months either at home or health facility with diverse pregnancy outcome.
- Husband and mother-in-law (family members) belonging to diverse ethnicity, literacy and socio-economic status who have experience of taking care of their wives/daughter-in-law during pregnancy and childbirth with diverse pregnancy outcome.
- Government health professional providing MNCH services at the selected health providers site for at least one year
- Key stakeholders who have some role and influences upon their community's health seeking behavior.

Exclusion criteria for the study were:

- Participants with cognitive impairment and those who could not give informed consent,
- Participants with other health conditions which make it difficult to participate in the interview and discussions.
- Men and women who are health professionals were excluded from focus group discussion in community men and women categories.

6 Data Collection Methods

Qualitative data was collected in order to elicit community-level norms, experiences and perceptions related to facility-based delivery service use. Two methods were employed: 1. Interactive focus group discussions (FGD), which drew on participatory research techniques to engage participants in analyzing the local situation; and 2. In-depth individual semi-structured interviews, which encouraged respondents to share their stories, experiences, points-of-view, and suggestions through an open-ended and narrative format.

Four local research assistants (2 male and 2 female) were hired as research assistants and trained in the application of the FGD and individual interview tools and topic guides. They were accompanied by two senior project staff and supervised by them, one in each study site. The research assistants were trained by the project staff from 18th to 20th of March 2021 on the process of data collection and the use of the data collection tools.

6.1 Pretesting

Pretesting of the tools was conducted from 22nd March to 23rd March 2021 in the catchment area of Rangsi Health Post with birthing center (ward 2) of Pariwartan Rural Municipality, Rolpa District. Identification of respondents for IDI and FGDs were done prior to field movement with the support of project staff from the area. During the pretesting, two community women and two community men (1 husband of a woman who had delivered at a health facility and 1 husband of a woman who delivered at home) were interviewed. Also, FGD of a women group and a men group were conducted. All fieldworkers had the opportunity to practice the tools for individual interviews and focus group discussions taking on different roles (facilitator, note taker, interviewer). The audio records of the interviews and discussion were also transcribed in Nepali during and after pretesting.

A brief review meeting was conducted to share the experiences of organizing FGD and IDIs and administering data collection tools in real setting. Observing each other facilitate discussion and take interviews in real setting added more clarity i.e., flow of the question, appropriate probing and careful listening. Listening to audio records and transcribing immediately helped to improve probing for the next interview. Reviewing performance of moderators soon after completion of interview and discussion helped to improve moderators' skills. Pretesting also helped to improve the tools, the probing skills of the interviewers, emphasized the careful selection of the venue for the FGD, improved safety measures for COVID-19 prevention and time management for transcribing.

Based on these learnings the topic guides and guidelines for the FGDs and IDIs were reviewed to elaborate probing questions and developed a common understanding among research assistants in regard to the application of the tools. Participants of the FGD were provided with number tags to track who said what in the discussion, in order to ease note taking. A simple listing of facilitators and barriers was used for part 3 (Horse & Cart) of the group discussion especially for the stakeholder and health care provider. Participants were briefed that the discussion is about sharing of experiences and not about testing their knowledge to make them feel more comfortable.

6.2 Fieldwork

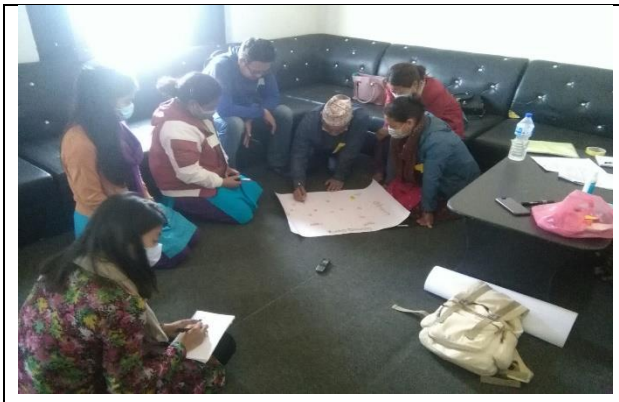
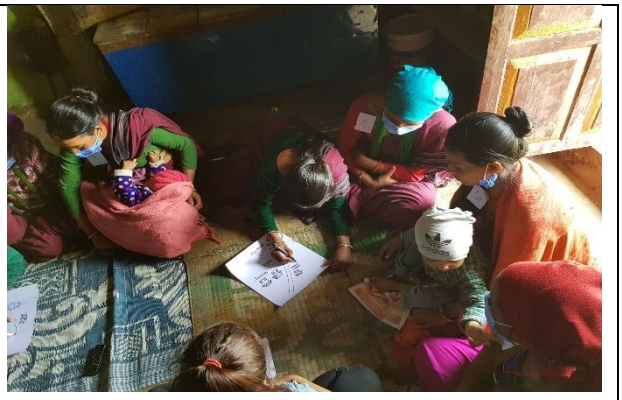
Data collection was conducted from March 26th to April 9th, 2021. Fortunately, COVID-19 restrictions had been lifted and field movement was allowed during the time of data collection, following adherence to safety measures. Before the data collection, courtesy meetings were conducted by each team with the respective Rural Municipality authorities and health units where the objectives and the process of data collection were explained, and the ethical approval from the NHRC shared. Supervisors were responsible for monitoring the field work to ensure the quality. Supervisors reviewed every IDI and FGD with the research assistants at the end of each day, collected completed notes and verified completeness of assigned data collection, the status of recording/ note transcription, checked for problems encountered, and made arrangements for the next day. At the end of each day of fieldwork, the study teams of both sites compared experiences, discussed

emerging findings, and reflected on the data collection process. During the data collection, ethical responsibilities, privacy, and confidentiality were strictly maintained.

Focus Group Discussion:

Each FGD was designed to last 90-120 minutes. They were initiated with an “ice breaker’’ which brought respondents together to share their experience or circumstances around child birth and decision-making. Groups were facilitated to work together during group activities to build a picture of different types of community members' attitudes towards services and their views on current practice of service utilization. Three separate components (Community Mapping; Pregnancy Pathway; Horse & Cart) guided the session. The discussion was guided by the FGD guideline *(see annex II).*

The mapping, local understanding of pregnancy pathways as well as the knowledge about barriers and facilitators to facility-based delivery helped to understand what is considered “common,” “normal” or “expected” in communities. It also helped to describe a "typical” case, such as how a family might decide a) when a woman gives normal birth, and b) when a woman develops an obstetric complication. The use of interactive activities, such as mapping, listing, and ranking, helped to break down barriers between researchers and participants and encouraged respondents to share ideas, work together and reflect as a group on locally relevant issues. Each group consisted of about 8-12 participants. Discussions also offered an opportunity to identify individuals who may have particularly useful information or experiences, and who were subsequently recruited for an individual interview.

	
FGD of healthcare providers	FGD of women

Individual In-depth Interviews

In-depth interviews were used to explore "real life" experiences of decision-making and barriers/facilitators to health service use from a range of perspectives. Individuals were purposively selected to represent local diversity, such as by experience of normal pregnancy/birth or complications/adverse outcomes, and by social group and/or role in the community (*see sampling framework annex III*) for the description of the sample. The individual interview was guided by the IDI guideline along with open ended questions and additional questions depending on the flow of the conversation *(Please refer to annex II for the IDI guideline).*

Interviewees provided information on how people actually act in different situations, and what and who influenced their actions. Individual narratives demonstrated to what extent people adhere to social norms and expectations and when and under what circumstances their behavior diverges from what is considered "normal" or "typical" in comparison to the information elicited from the FGDs.

7 Data Management

All study participants were asked for their written consent prior to engaging in the interviews and discussions. For those respondents, who were unable to read and provide their signature, the interviewer read out the consent form loud and requested approval through a thump stamp. Field researchers provided information about the study, study objectives and use of the collected information to the respondents. Time was allocated for participants to ask questions. Contact details of the field supervisor and the principal investigator of the study was shared with respondents in case they may have additional questions at a later stage. Everyone was reminded that participation was entirely voluntary and that the respondents could leave or stop the interview at any time. To maintain anonymity, a separate list of code-to-name match-ups was kept A code for each participant was used to label data instead of using names. To maintain anonymity, a separate list of code-to-name match-ups was kept.

7.1 Data Storage

Data were recorded using an audio recorder, after having received the consent from the participants. Notes were taken and recorded in notebooks. Every recording was re-named using the format-Location's name-date-and-type of data collection method.

The recording was downloaded and backed up with the audio record in the project's computer/laptop once the recording of the day ended. All audio records were transcribed into Nepali language at the end of the day. After transcribing the recorded data, data were entered in the coding sheet. Thereafter, recordings were deleted from the recorder.

7.2 Data Analysis

The study was not designed to test any specific hypothesis but rather to understand existing social phenomena. An inductive approach through qualitative exploration was used to generate new theories based on the data. The analysis was based on coding and prioritizing recurring issues mentioned during the interviews. The analysis was done using the following steps in two phases:

Primary analysis:

(1) familiarization of the data was done by the researchers by reading and rereading the transcribed data and the notes.
(2) discussion within the study team to develop a framework for primary analysis using Ms. Excel.
(3) three separate analysis sheets for IDI of community people, IDI of stakeholders, and FGD were used. FGDs and individual interview's transcripts and notes were read several times by members of the research team to develop familiarity and categorized the data according to the stages of pregnancy and categories of questions asked.

Secondary analysis:

(4) agreement of a coding framework for general emerging themes, data from FGD and IDIs were analyzed in the different rows of the same excel sheet in order to triangulate the information.
(5) code generation by team members and comparison of coding for consistency.
(6) discussion of main codes and then grouping them into themes and/or sub-dividing them into sub-codes/categories.
(7) checking for outliers and rechecking the transcripts to ensure there aren't examples of data that contradict or challenge the main findings.

This qualitative study was able to identify a broad range of issues brought up in the primary analysis that could influence the use of maternal health services throughout different stages of pregnancy. The major themes that emerged upon the analysis of data, as influencers of service seeking during the different stages of the pregnancy-delivery-postpartum cycle were:

- Physical access
- Economic access
- Understanding of labor pain & complications

- Personal factors (knowledge, attitude, experience, and beliefs)
- Hierarchy within the family and community
- Social support
- Availability and quality of services

During the analysis it was observed that a diverse mix of respondents from women who had recently given birth, their family members, health workers, stakeholders, and local authorities through FGDs and IDIs have identified experiences and/or perceptions of respondents to be similar sometimes also contrasting depending on the respondent's type. Since the study tools (IDI/FGD guideline) followed the chronological cycle of pregnancy, childbirth and post-delivery stage, the findings from the data analysis are also organized in similar order in this report.

7.3 Validity / reliability

The research design and tools were used by implementing partners of the SRC program countries for country specific studies but linked through shared aims and objectives. The other three countries used the same methodology and tools to be applied in their countries, which were locally adapted to the specific context. With experts from all four countries, a generic set of tools and topic guides for the research were jointly developed. The tools and guides were translated to the local language and further adapted after pre-testing to the local context and literacy level of the respondent group.

7.4 Ethical consideration

Ethical approval of the study was obtained by the Nepal Health Research Council (NHRC) on 28th July 2020 (s*ee annex I for ethical approval).* Written approvals from the respective municipality were taken while applying for the ethical approval at the NHRC.

8 Findings of the study

The study findings are organized according to the chronological cycle of pregnancy, child-birth and post-delivery, including normal deliveries and complications.

8.1 The demographics of the study population

Among the respondents most of the people belonged to Janajati and Bhramin/Chettri ethnic group (almost equal in number), whereas very few represented Dalit ethnic group (see table 3).

Table 3: Ethnicity of the respondents

Ethnicity	Number of respondents
Dalit	1
Janajati	17
Brahmin/Chettri	16
Total	34

The representation of people who live in a joint family setting was slightly higher than that of a small family-type. Most of the male respondents (i.e., husbands) were between 20-29 years of age whereas the mothers-in-law were in the age group of 50-59 years only.

Regarding the age of the women, out of the total 34 women (respondent women as well as the women represented by husband and mother-in-law), most of the women's age group were 20-29 years followed by ≤19 years age group in the second and the 30-39 years age group in the third which shows that there is still practice of early marriage and early pregnancy in the study sites (see table 4).

Table 4: Age of women who had experienced childbirth during last 6 months of data collection

Age of women	Number of women
≤19	5
20-29	25
30-49	4
Total	34

More than half of the women had two children followed by only one child, as most of the women were between the age group of 20-29 years. Out of the total 34 IDIs done among the community people, the sample size of respondents having experience of facility delivery was slightly higher than that of home delivery.

Regarding the occupation of the husbands of the women, most of them were migrant worker mostly in India and very few in other countries. Among them, almost half were seasonal migrants who looked after agriculture and farming back at home during planting season. Most of the husbands travelled back home during the pregnancy, delivery, or post-natal period to support his wife/family during that time financially as well as with the workload. The major occupation of the other family members, was agriculture and farming; therefore, mostly the women were involved in household chores, agriculture, and farming activities along with child-rearing.

Table 5: Occupation of the husband

Husband's occupation	District		
	Dang	West Rukum	Total
Migrant labor	14	9	23
Agriculture and farming	2	3	5
Business	1	1	2
Labor	1	2	3
Others (Technical work)	0	1	1
Total	18	16	34

8.2 Pregnancy and Antenatal Care

8.2.1 Self-identification and disclosing of the pregnancy

The need for utilization of maternal health service begins with suspicion of pregnancy by the women herself or her family members, followed by its confirmation. Regardless of their demographic background, for most women interviewed, the suspicion of pregnancy was associated with loss of appetite, nausea, vomiting, missing of monthly period, and fatigue.

> *"At first, we keep track of the menstruating date, after monthly period is missed; some feel fatigue, nauseous and so on" (Rukum -FGD women)*

> *"I came to know after I missed my period and lost the appetite. After that, I went to Hansipur HP for confirmation if I was pregnant. I shared my decision to go to HP with my husband and he accompanied me to the facility." (Dang -facility-based delivery with complication /woman)*

After suspecting a pregnancy, women's decisions of seeking antenatal care were influenced by various personal factors such as knowledge, shyness, previous experiences as well as people around her. Some women first told their husbands about their pregnancy, while some shared it to their female relatives followed by the FCHV or health facility staff.

> *"They share pregnancy related issues to their husband, then to FCHV, and FCHV gives necessary advice". (Rukum- FGD men)*

> *"At first, I shared the news with my husband. In my case, firstly I missed my monthly period, and I lost the appetite for food and then I came to know I was pregnant. I went for check-up after a month only". (Rukum -facility-based delivery with complication/ woman)*

"There is already a circle of women and information about pregnancy, delivery of any women goes around them as FCHVS keep all the record based on which she provides the advice for checkup at health facilities". (Rukum -FGD stakeholder)

One of the mothers-in-law shared that her daughter-in-law felt shy to share about her pregnancy to any of the family members and thought that they should find it out by themselves. Shyness sometimes links with pregnancy at early age and short interval between the pregnancies. However, women are comfortable to exchange such information with their close friends.

"We came to know at late stage of pregnancy; 8 months. The daughter-in-law didn't share any information about it, so I was not fully aware about it. I came to know about it when people in the community told it during meetings. She is very young and she herself was not aware about it". (Dang- home delivery normal/ mother-in-law)

"After I came to know I was pregnant, I went to Lahape Community Health Unit (with ANC service but not a birthing center) as advised by the health worker. I didn't share this information with others (family members), as they already knew it though I didn't share such information with them". (Dang -facility-based delivery normal /woman)

Most of the women and husbands that were interviewed had perceived their last pregnancy as being healthy because there were no signs of complications and mothers felt physically well and continued their daily work were physically active. Some also considered their pregnancy "healthy" as they normally linked it with the outcome of the pregnancy. They considered the pregnancy had been "healthy" when the delivery was normal without any complications and the child was physically well.

"My wife's delivery was normal. She had a healthy pregnancy too. Therefore, she hasn't had any issue till now". (Rukum -facility-based delivery normal/ husband)

"I didn't feel any difficulties, that is why I felt my child and I were healthy". (Rukum- home delivery normal/ woman)

Some women did not consider their last pregnancy as healthy because of physical discomforts such as abdominal pain, back pain, and feeling of "heartburn" which affected their daily activities. Women who faced these discomforts had sought advice either from their family relatives or health facilities staff.

"I didn't feel any discomfort during my first child, but when I was pregnant with my second child, I couldn't sit properly for 6-7 month. I felt pain inside the abdomen. It used to be less when I walked but increased when I sat or bent over". (Dang -home delivery with complication /woman)

"I felt my abdomen being tight at times with feeling of pain. I felt that from 6 months till delivery. Therefore, I went to the nearest health post and asked for their advice. They informed me that it was due to the size of my womb. They said, "it is small and the felt pain is due to the lack of space in the womb". (Dang- home delivery normal/ woman)

The pregnancy and antenatal care were a topic of inclusive discussion within the family for most women and services were sought through joint decisions. Many husbands had sought advice from experienced female family members such as their mothers, sisters, or mother-in-law regarding care and service seeking during pregnancy.

"My aunt (father's sister) works in an outreach clinic (gau-ghar clinic) of Simrutu HP. Therefore, we used to visit there on monthly basis for her suggestions". (Rukum- home delivery normal /husband)

Most of the husbands supported women's decision in seeking ANC care, but family hierarchy and patriarchal structure also influenced the decision-making for some women. In some cases, even though husbands weren't involved much in caretaking of their wife and child, they still held power of decision-making. Usually influences of family members and community people in the decision-making process were positively leading to utilization of ANC services. Therefore, knowledge, experience, and beliefs of not just women herself but of husband, family members and community people can also lead women to seek ANC services. In general community people believed that there has been increase in knowledge and awareness about getting checkups during pregnancy.

"My husband used to say that I shouldn't work more during this period, he suggested to go to health facility for checkups. The decision to visit the HF was my own". (Rukum home delivery normal woman)

"During first few ANC visits my mother accompanied me to the HF, and my husband accompanied once". (Dang facility-based delivery normal woman)

Husbands and family members of most women were supportive about seeking ANC services and accompanied women to visit health facilities.

"Actually, my husband and I didn't know much about what had to be done during pregnancy. I shared it with others who had experience, and they suggested to go to the HF. My mother-in-law was supportive in this regard" (Dang- home delivery/ woman)

"I sought advice from my husband and mother-in-law and else from health workers. I was suggested to focus on my diet by health worker. My husband made decisions regarding the place for utilizing health services". (Rukum- facility-based delivery /woman)

In some nuclear families, these discussions and decisions were limited between husband and wife and women's agency was prominent in some cases. However, some couples excluded their parents from discussions to avoid influence of traditional thoughts and beliefs and exercised their own decision-making practice.

"My spouse and I used to discuss things with each other and with my mother in the family. My mother has traditional beliefs. She suggested to work during pregnancy as well. Therefore, I used to seek advice from health workers from the health facility rather than my mother. (Rukum- facility-based delivery normal /husband)

"I didn't ask anyone's advice regarding the care of the child during the pregnancy. I shared it with my husband and a close friend only". (Dang- facility-based delivery normal/ woman)

Some women who did not have any knowledge related to pregnancy approached family members for advice at first but did not receive any. Then they visited HF for the advice from HWs.

"There is no practice of seeking/providing advice from family members. My husband doesn't advice anything at all even though he is asked. There was no discussion at home among family members regarding the care during pregnancy. If there had been any discussions as such, my husband would make the decisions for things to be done. I was suggested by HWs to deliver at HF, when I went for ANC check-up". (Rukum -home delivery /woman)

8.2.2 Participation in health mothers' groups make a difference in awareness

The trend of seeking advice from FCHVs and health mothers' groups (HMGs) was also prominent. Some women mentioned that they received advice from HMG. HMGs were also mentioned by the interviewed health care workers as being a source for advice seeking. One of the service providers shared that the level of the awareness and the utilization of services is different between women who are a member or participate regularly in the mother's group and those women who don't. Overall, the level of knowledge of the people influences the practice of health service utilization.

"Ms. B (FCHV), who works in the HF, lives nearby. She used to come for visits and suggested to go to the HF. Then, I asked my family members and mother-in-law whether to visit HF or not. My mother-in-law said, "I have heard it is essential to go for check-up during pregnancy, you should go." My husband also suggested to go for check-up". (Dang- home delivery normal /women)

"Those mothers who are involved in mothers' group suggest to use the HF which is different to the mothers who are not involved with the mothers' group. Those who are not involved are not aware about ANC, PNC services, transportation allowance provided by the HFs, importance of facility delivery for healthy mother and child. Therefore, they don't plan for a HF visit or for HF delivery". (Rukum -ANM Healthcare provider)

"At first, my wife was advised to go to the HF for check-up by my mother, mother-in law, elder sisters, neighbors, and by the FCHV as well". (Rukum- home delivery normal /husband)

"People around us (neighbors) used to suggest her to go to the health facility. My wife was experienced and was aware about it. We decided to ask for suggestions from an FCHV. She then suggested to visit HF. Therefore, we did as per the community people suggested". (Dang-facility-based delivery with complication /husband)

"I used to seek advice and learn information from the mother's group and staff from Nepal Redcross Society and FCHVs". (Rukum- home delivery normal/woman)

Nowadays people are educated and aware about the importance of utilizing healthcare services, as health subjects are taught from school level. People who work in the health sector have more knowledge regarding this and they advise the older generations in the community". (Rukum- FGD women)

Health authorities also stated that knowledge and information about available services either through the previous experiences or through other different sources make a difference in deciding the utilization of services by pregnant women.

"People are more inclined to utilize the HF services firstly, if they have any prior experience of service utilization. Secondly, if they are aware about the health services provided at HF. Nowadays, it's rare to find uneducated people. People become aware through various means such as radio, news, and other communication mediums. The respective pregnant women also get all the information by herself as well as from her mother's experience and experience from the community people. Therefore, there is an understanding in the community that HF delivery is safe, and women get various facilities on top of that. Therefore, people prefer to utilize HF delivery". (Rukum-_local authority)

"All the mother's groups in the community must be made active. We need to monitor and motivate them in order to be health service oriented rather than money oriented. I wish to increase the flow of Hf visit by mobilizing mother's group because the members involved with mothers' group have better utilization of services than others." (Dang-Local Authority)

Local authorities were also concerned about some HMGs, which are only occupied to collect money and work as a micro-lending institution rather than focusing on their prime objective in awareness raising for mother and child health issues. They emphasized the need to re-focus the groups again.

8.2.3 Starting early and including men in awareness raising

Local stakeholders and health authorities mentioned that awareness raising should be done with a focus on the family not only on the women. One of the health care providers suggested to work with the school. Empowering the girls would be important contribution for future. Involvement of the husband including the youth in awareness raising program is another recommendation mentioned by the local authority as all the programs have focused on women only in the past.

"We are continuously providing awareness through mother's group, and during individual counseling during ANC visit. For those who are not member of mothers group, it is difficult to provide counseling to them, though we provide awareness to women, the decision making is done either by husband or father-in-law. Therefore, we should promote family education rather than mass awareness." (Dang- healthcare provider)

"Till now, all the awareness activities we have conducted were focused to women, girls in the schools but not to the men and boys. What I think is women can't make her own decision unless she is financially independent. The source of income in family are usually men, that is why they become the decision-maker. Therefore, we should raise awareness to change our strategy to take both men and women together." (Dang_local authority)

However, involvement of men is not always easy. One health provider stated that even if men are involved in the awareness and counselling, they agree in front of the health worker to bring the woman for a facility-based delivery, but later on, due to alcohol and other problems, they do not put their promise into practice.

8.2.4 Presence and awareness of family members supports decision-making

Whether a woman utilize the healthcare services during ANC and delivery depends on who is present in the home at the exact time, who would decide on her behalf if she should utilize service or not. If the decision maker at home is aware, it allows/supports woman to utilize the services but if they are not aware, it restricts woman to utilise the services though she might be willing.

> *"It is easy to counsel and advice the educated family and those who are aware about the importance of utilization of healthcare services, but for those who don't understand, it still exists as a problem." (Dang-Healthcare Provider)*

> *"If we provide counselling to the family members, women get support and necessary care." (Dang-Healthcare Provider)*

However, social issues such as husband's migration for labor work, lack of supportive family and disabled family members left a few women with no support during pregnancy.

> *"I used to feel pain in between chest (referred as heart pain) during pregnancy. I was alone to do the chores. I had to cook and feed anyway though I was in pain. There was no one to help". (Rukum -home delivery normal /woman)*

> > *"I think absence of husband is also a barrier as many household managements i.e., financial managements or anything that a husband would plan ahead will be lacking in practical life without the husband being present there." (Rukum -home delivery normal /woman)*

One woman who didn't seek ANC service indicated she had chosen not to go by herself despite she received counseling and support from a social mobilizer because she had never done any checkup in her previous pregnancies. In addition to her lack of experience, her hesitance seems to be rooted in her personal context of being pregnant after multiple children at a late age (30 years considered to be late age for bearing child). However, she was able to take herself a decision whether to keep her child or abort.

> *"I became pregnant while I was using family planning. At first, I thought of aborting. I discussed with my husband, and he also wanted to abort the child. At that time, my husband was in India. Later, I alone decided to keep the child. Firstly, I didn't have plan for delivery in the HF because of shyness as I was pregnant in older age but the HWs suggested that it was important for pregnancy at older age to deliver at the HF. Previously, though they used to suggest the HF for delivery, I never went because I was unaware about its importance as the practice of institutional delivery was very rare during that time". (Dang- facility delivery normal/women)*

Regardless of who made the decision, almost all women stated of going to the health facility for antenatal checkups at least once. ANC services were utilized either at local health facilities or outreach clinics and some utilized self-referred higher centers for advanced diagnostics. Although the ANC service seeking trend is increasing, healthcare workers indicated that many women didn't complete their four ANC visits, and this still needed more focus for the improvement.

> *"I went for ANC check-up firstly at 4 months, then at 6 months, then at 8 months and at 9 months. At 4 months, I did video x-ray as they suggested. I was given an ANC card, did blood test in this HP. I ate iron and calcium tablets as provided". (Rukum- facility delivery with complication /women)*

> *"We went 3-4 times for ANC check-up. Firstly, we went in two months gaps, later on a monthly basis. At first, we went to Simrutu HP. They did video x-ray and told that the child was in a wrong position. Later, I went to Khalanga (district hospital), referral hospital for follow-up, but they said it was normal". (Rukum - home delivery /husband)*

> *"I went to Simrutu HP for ANC check-up 4 times. I went first during my first month and again the third month with 1 month of gap between each visit". (Rukum -facility delivery normal/woman)*

> *"I was called for ANC checkups by health workers, and I did accordingly. Later on, they suggested to do video x-ray as well". (Dang- home delivery /woman)*

> *"ANC service utilization is satisfactory overall. The situation is improving gradually. In addition, the institutions for providing such services are increasing. Likewise, the indicator of total 4 ANC*

visits and 1st ANC visits are increasing. But the total four ANC visits to be done by pregnant women are still low and we need to improve it". (Rukum local authority)

"Actually, the ANC check-ups should be done according to the protocol, but some women come more than that as per their need. Some do not come at all for ANC but only for delivery service. Some come 1-2 times only. It's because of lack of awareness". (Dang -AHW healthcare provider)

Some of the responses also indicated that husband and family members were supportive for ANC service seeking if there was anticipation of complications during pregnancy.

"I was worried about "how would I deliver my child?". I was afraid of death during delivery because I used to feel pain in my abdomen. I shared this with my husband only but not with others. I shared a few things with my mother-in-law as well. She was supportive regarding the utilization of health services when needed". (Dang-home delivery/women)

"When my stomach was getting bigger, I could feel the movement of my child and that made me happy. However, I always feared about the delivery". (Rukum -facility delivery normal /husband). Furthermore, people are traditionally able to recognize that some of the symptoms are unusual and seek for health care like Ante partum hemorrhage (APH).

"They are well known and traditionally aware that it is not good for a person to bleed before giving birth to a child". (Dang-Healthcare provider)

"When my daughter-in-law said there were traces of blood and wanted to go the HF, I suggested to go for the checkup. She went for ANC visits regularly". (Dang -facility delivery normal/ mother-in-law)

8.2.5 Advanced services are appreciated and used

Availability of advanced technology and diagnostics services such as ultrasound at local level, is considered a benefit. It is perceived as getting services in the urban areas. This suggests that there is an important role of available technology at local health facilities in encouraging women's use of services.

"Our village is also developing and provides better services these days, not as much as the city though. Therefore, my wife and I decided to seek for available x-ray services because we knew it was a beneficial thing to do". (Rukum -facility-based delivery with complication /husband)

"Counsellors are lacking as per the need of the people in the community. We need to go to health facility to seek advice. I would rather prefer to send my wife to referral center in city rather than the Simrutu health post (first service point)". (Rukum -facility-based delivery complication/ husband)

"The thing is, we don't have much privilege here. We need to go to Hansipur to get facilities and services. At least, they have a doctor there (HW referred as doctor). There are no hospitals nearby. Of course, we face many difficulties to access services, but we are happy we get service from a doctor to the least". (Dang-Facility Delivery with Complication /Husband)

Almost all women who went for ANC checkup have also done ultrasound (video x-ray) at private clinics to know the status of fetus as suggested by the health facility staffs. But some couples also decided to do ultrasound on their own. The use of ultrasound service for gender identification of the fetus was also shared during multiple interviews and discussions although none of the respondents stated the reason as related to gender selective abortion. Fear of having multiple girls and the social expectation of giving birth to a son were also expressed.

"I was advised to do video x-ray to know the position of the child. I had my video X-ray when there was camp conducted at Simrutu HP. (Rukum-Home Delivery Normal/ Women)

"We went to Ghorahi (city) for video x-ray. My husband was here with me, so we went for it together. I was not advised by anyone to do so. I had done it before during my first pregnancy as well". (Dang- facility delivery with complication/ woman)

"I used to send her to Salle (district hospital) for x-ray every 3-4 months. We also did our ANC checkups at Salle. We didn't go to the local HP as the services like video x-ray were not available there therefore, I preferred to send her to Salle, Khalanga (district hospital)". (Rukum-Facility Delivery with Complications/ Husband)

"I wanted to know the gender of my child". (Rukum-Home Delivery Normal Husband)

Awareness about ANC checkup, inclusive discussions, a supportive husband, and family members along with anticipation of complications encouraged to seek ANC care whereas factors such as poor physical access, unavailability of advanced services and shyness were still hindering community women from receiving complete antenatal care service.

8.2.6 Traditional practices as supporting methods prevail

While the use of ANC service seemed increasing, traditional practice and cultural beliefs still prevailed. Even while using ANC services from health facilities, some women consulted traditional healers because of their beliefs. And some sought healers for minor ailments and when health care was not easily accessible. Traditional healing by traditional healers (called dhami and jhankri) is viewed as complimentary rather than an exclusive treatment method.

"It is said that medication must be avoided during pregnancy, therefore we seek traditional methods if we get sick (chamal heraune- reading of rice grains done by traditional practitioner). It's a different situation when we get labor pain. At that time going to the doctor is a must. For example, if the delivery is due in 2-3 months and we get sick, we go to dhami-jhankri to take away the evil spirit that caused the illness". (Rukum- facility delivery normal/ husband)

"It is common in the village that we believe in dhami and jhankri. If anything happens due to evil spirits, we seek traditional methods (paani fukaune- releasing the evil from the water by the traditional practitioner). My wife used to seek such services, went to treat evils, and drank the treated water. I don't believe in such traditional practices. But these two (referring to wife and mother), believe in such practices. They also believed that, when the child didn't eat food, it was due to evil spirits and believed the child would eat only after the water was chanted to cleanse the evil". (Rukum -facility-based delivery with complications /husband)

"There are traditional practitioners in the village. Sometimes when we feel sick like headache, dizziness we get treatment from the dhami/jhankri. Usually there are no doctors in the villages, therefore we go to traditional healers. I have done that many times". (Dang -home delivery with complication/ woman)

In some cases, poor people are more inclined towards utilizing the traditional healer when they are unable to seek health services due to financial constrain and service is not easily available.

"In our community, people who are financially well-off go for HF service utilization, others prefer treatment from traditional healers like dhami-jhankri. Nowadays, people go to HF service utilization more, but still there are people who utilize service from traditional healers." (Dang-healthcare provider-FGD)

"During pregnancy and after the delivery there is trend of using both the services. People utilize service at HF, but still believe in traditional healers if problems arise during this time, as people still believe the illnesses are caused by evil spirits." (Dang-Healthcare Providers FGD)

8.3 Birth Preparedness and birth preparedness plans

Apart from their experience of pregnancy and ANC service use, respondents were also asked about their birth preparedness plan. The general information on birth preparedness comprises of preparedness of money, preparedness for transportation services, choosing the place of delivery, and being able to identify danger signs during pregnancy and childbirth. Among these different aspects of birth preparedness and complication readiness, the major four aspects were discussed during the interviews identifying place of birth, financial preparation, transportation services, and identifying a blood donor.

In both study districts, women could give birth in either a health post (HP) at Palika level, which normally have a birthing centre with capacity to provide services for normal deliveries and basis emergency obstetric and neonatal care (BEmONC) or in the district hospital. The DH is the next primary referral centre, where comprehensive emergency obstetric and neonatal care (CEmONC) is available from trained medical doctors who have the capacity to perform Cesarean sections (CS). The secondary referral hospital in Nepalgunj, Butwal provides CEmONC including other advanced services from obstetricians and gynaecologists.

8.3.1 Previous positive experience and perception of safety

Previous positive experience and perception of safety influence preference and choice for giving birth in a health facility. When asked about their choice of place for delivery, almost all respondents of West Rukum expressed their choice of place for delivery was a health facility and more than half of respondents in Dang also responded the same.

> *"It was planned already that the delivery would be in a HF. We knew it was safe to do so, there might arise complications at home". (Dang -facility delivery normal /woman)*

> *"We planned to deliver our child at the HF because it would be easy, safe and would be good for the health of mother and child. A home delivery might have caused complications for mother and child". (Rukum-Home Delivery Normal /Husband)*

Most of the respondents related the decision with the past experience. "I used to go for regular check-up. Mostly, people deliver at HP with birthing center (referred as Hospital by community people) here, only few seek for referral centers. The services here are good. My brother's child was also delivered in this HP". Rukum-Facility Delivery Normal /Husband)

> *"We had planned and prepared for HF delivery. Joint decision making was done with the family members because there were complications during the delivery of the first child. We sought advice from the family members this time". (Rukum-Facility Delivery with Complication/ Women)*

8.3.2 A socially supportive environment and awareness about complications

A socially supportive environment and awareness about complications support facility-based birth. In addition, many had received counseling to deliver at a health facility by health workers during ANC checkups and were advised the same by their family members, relatives and FCHVs which fostered a socially supportive environment to choose health facilities for giving birth.

> *"Everyone in the family suggested to go to HF for delivery. They suggested that the time has changed, and people need to seek a safe delivery at the HF. They emphasized that it was not safe to deliver at home as complications may arise. Therefore, we went to the health facility for delivery". (Rukum-Facility Delivery Normal/ Women)*

> *"Actually, we had planned for a HF delivery. I was advised by the FCHV and other experienced sisters that my first child should be delivered at the HF compulsorily". (Rukum-Home Delivery Normal/ Women)*

To some extent, people's understanding of complications also influenced their choice. Fear of possible complications, awareness on availability of complication management services at a health facility and past experience of complicated birth had also encouraged them to prefer health facility for delivery.

"I was aware about the danger signs during delivery; therefore, we had planned to deliver at Hansipur" HP. (Dang- home delivery normal /woman)

"Actually, I wanted a doctor's attended delivery rather than delivering alone at home. I was afraid. I always wanted to go to a HF for delivery because I believe that they would save me if any complications arrive. There are people who don't want to seek such service, but for me, I wanted to go". (Dang-Home Delivery Normal /Woman)

8.3.3 Preference for home delivery still exist

Though most of the women preferred health facility for delivery there were also some women who wished to give birth at home. Although they had gone for ANC checkups, either to know their health status or because of the family's decision and advise, they still stated reasons of previous positive birth experience at home, negative experiences in a health facility, family responsibilities and the hassle of travelling to a health facility to choose their home as place of delivery. W

Women mostly from Dang expressed shyness (related to exposure of body parts) to deliver at health facilities. Some preferred to be in the comfort of their home while giving birth where they are supported and comforted by other women or their husband.

"I preferred to deliver at home than go to the doctors. HWs at HF had suggested and they gave me number to contact them in case of abdomen pain. But, as I delivered my first child at home, I didn't feel it necessary to seek service at HF". (Dang-Home Delivery with Complication/ Women)

"It was same during delivery of my first child. I didn't utilize health service at HF because I feel shy doing so". (Dang -home delivery normal /mother-in-law). Travelling far to the health facility to just give a normal birth was considered more as a hassle than a necessity.

"If everything went well, I would deliver at home, if not, I had thought to go to health facility". (Dang-Home Delivery Normal/ Women)

Lack of social support to take care of the household and young children was also a reason for some women to prefer home delivery, especially when living separately from their in-laws.

"There was no one at home, only my young son. I did talk (with my husband) over telephone. He said if the baby is born normally at home than it is good but if not then go to health facility. My sister-in-law also said the same thing. If the delivery happens at home, she will look after me and support me. It would be good if it happens at home. If there is difficulty, then we should go to a health facility." (Rukum-home delivery normal/women)

The preference of home delivery was also influenced by their previous bad experience of a facility delivery either of their own or others. For some, the experience of service utilized at local health facility previously, was not as expected. Some women recalled feeling extreme cold while delivering at the health facility due to lack of warm delivery room and associated it as the cause for the longer labor period. A woman who faced prolonged labor shared they were not confident about the skills of health worker as they were not able to give precise decision whether they needed to be referred. In these conditions, the women and their family made decisions for self-referral to a higher center in the end. Fortunately, these women delivered normally at higher centers or on their way. But incidents like these also highlight the influence of technical skills and decision-making capacity of health workers which may lead women to face the third delay.

8.3.4 Decisions about the place of delivery: a family matter

The decisions about choosing the place of delivery were mostly joint decision made between husband and wife with positive support from other family members. In some cases, women made this decision themselves.

"First of all, I planned it and discussed it with my family members as well." (Rukum-Facility Delivery with Complication /Women)

"I too shared it with family members. My husband also suggested to go to a HF for delivery." (Rukum-Home Delivery Normal/ Women)

In some instances, the husband was so supportive towards the plan of his wife that he even overlooked the views of parents. The interviews also showed that husbands have strong agency in decision-making and are convincing the family members if needed.

> *"My wife told me that the delivery should be done at a HF. There were no objections from my parents". (Dang-Facility Delivery Normal /Husband)*

> *"My husband is the only person I share opinions with. I told my husband and in-laws that there might be complications at home, so it is better to deliver at a health facility. (Dang-Facility Delivery Normal /Women)*

> *"My sister-in-law (elder brother's wife) suggested for a HF delivery. Therefore, they decided to take me to my aunt's house (nearby HF), where my mother and sister-in-law joined me. I asked for their suggestions and my husband's. Therefore, the decision was jointly between my husband and I." (Dang-Facility Delivery with Complication /Women)*

However, women's wish to deliver at home, particularly in second and consecutive pregnancies, was overruled by decisions of family members and community to deliver in the health facility. These factors were further influenced by other people's opinions about facility-based delivery.

> *"I wished for the normal delivery at home as I used to have long labor period. I feared to go to the hospital but I went this time. (Dang- Facility Delivery with Complication /Woman)*

> *"I had thought that I would deliver my child at home and would not go to a HF. Everybody forced me to go but I didn't want to. My first child was delivered at home. And when I was pregnant with my second child, I thought of delivering the child at home as well. It's shy to go to the doctor and expose oneself, that's why I didn't want to go". (Dang-Facility Delivery Normal /Woman)*

8.3.5 Preparation for the delivery: money, clothes and transport

Families prepared for the delivery in various ways.

> *"We had kept the contact number of ambulances. And some money as well." (Rukum Home Delivery Normal /Husband)*

Stretchers were made available by HF and/or local governments in places where ambulance or road access were not available. Most of the respondents knew where they could access those stretchers when needed.

> *"We have to carry women in stretcher from here. We had prepared for clothes and other materials needed for delivery. There is a stretcher at the school which was given by the health post for emergency use. I had also prepared for money. My brothers had sent it from abroad (India). I had kept it separately almost one and half month before delivery." (Rukum-Home Delivery Normal /Husband)*

> *"Vehicles do come here but not all the time. So, we had to carry her. I had requested my friends and brothers in the village for support. I also consulted with FCHV. We also prepared some money, clothes and foods like ghee, honey and chickens for mother." (Rukum-Home Delivery Normal /Husband)*

Mostly husbands supported to be financially prepared even when not present at home.

> *"My husband was working in India during my delivery. He had sent home some money to use if needed while delivering the baby." (Dang-Facility Delivery Normal /Woman)*

Few of the women faced challenges to receive the services outside of the communities due to restriction of movement during COVID-19 pandemic. One of the women had difficulty to manage the ambulance due to the COVID-19 pandemic as the ambulance was used for carrying the COVID-19 patient.

> *"I went for the X-ray at 5 months, and I was advised to have another one at 9 months but due to the lockdown I couldn't go". (Dang facility delivery normal/ women)*

However, only few husbands did share that collecting funds on their own was difficult therefore they had to take loans or ask for financial support from relatives, local co-operatives, and Health Mother's Groups.

> *"There might have been difficult situation, so I called my sisters and uncles. My mother is involved in a microfinance program. We borrowed money from there." (Dang-Facility Delivery with Complication/ Husband)*

> *"I had already packed some clothes for the child and for myself in a bag. My mother-in-law had borrowed ten thousand Rupees from the mothers' group. My husband also had around ten-eleven thousand. We went to a health facility with this money." (Dang-Facility Delivery with Complication /Woman)*

> *"Our neighbors supported us as well. They suggested not to deliver at home and even offered help for money if needed. We also have an emergency fund in our Health Mother's Group, and we borrowed money from there to go to the health facility." (Rukum-Facility Delivery with Complication /Woman)*

Among the four aspects of birth preparedness and complication readiness, none of the respondents stated identifying blood donors or availability of blood and only around half of the respondents had prepared for transportation services. Money however, was well prepared and none of the respondents had mentioned lack of financial means- not to avail services. Regardless of the choice of birthplace, most respondents stated to have followed some level of birth preparedness. such as clothes for the mother and the child, nutritious food, money, and arrange for an ambulance or people to carry.

There were also some respondents who could not prepare anything due to pre-term delivery, which indicates that better understanding of the birth preparedness and complication readiness is necessary reminding them of the possibility of early delivery and the need to plan in more advance than expected.

> *"The delivery date was on 15th, but the child was born on 1st. We were thinking of preparing for the delivery, but it happened 15 days early. There was no plan of how to travel to the health facility or how much it would cost. There was some savings. So, money was ready however." (Rukum-home delivery/women)*

> *"I had prepared clothes. I did not prepare anything else. She (sister-in-law) had told me to prepare some clothes for delivery and nothing else." (Rukum- home delivery/women)*

Those who intended to deliver at home also somehow had prepared for the birth and had anticipated complications.

> *"We had prepared some money before delivery. My husband, sisters, aunts, and neighbors all helped me. My aunts had advised me to keep a set of new blade, thread, and clothes handy. I had kept everything accordingly." (Rukum-Home Delivery Normal / Woman)*

Local authorities are aware about the importance of good planning and their contribution to better preparedness and service utilization.

> *"We need to promote all health facilities to birthing centres and arrange an ambulance in each ward in respect to the policies we talk about." (Dang-Local Authority)*

> *"Due to the geographical hardship in this place, it takes one whole day for the women to visit HF and the other day to travel back. Due to this, if we can arrange that the facility allows women to stay for few days, this might help women from hard-to-reach areas for HF delivery." (Dang-Local Authority)*

> *"I think we can identify, level of poverty and financially support ultra-poor because they have to feed people in order to carry the women to the HF during delivery though they can't afford." (Rukum-healthcare provider)*

8.4 Delivery

The above chapter showed that most of the respondents had planned to give birth at a health facility. However, only half of the women who had planned to deliver at health facility could actually make it to the facility. Similarly, half of the women who wanted to deliver at home ended delivering at health facility. There was a significant difference between birth preparedness plan made and the actual birth in regard to their experience.

Women of both districts could avail normal delivery services from the HP with birthing center or Primary Health Care Centers (higher level HF than HP where birthing service is mandatory) at local level or at higher-level health facilities at district hospital or regional hospital as referral centers. Women who were categorized as 'high-risks' by HPs during antenatal check-ups, were counselled, and were referred to deliver at the respective District hospitals. Most of the respondents' first choice was to deliver at the health post or go to the higher facility as referred by the health workers if complications arose.

Regardless of the place of the delivery, most of the women were accompanied by female family members during the childbirth. Even in the health post, one of the family members was allowed to be present in the delivery room, mostly a female companion which was more like a culturally appropriate choice. Indeed, many women's husbands were also there to support the women but waited outside the delivery room to run errands as needed. During home delivery, experienced female members of the family and neighbors supported the birthing woman while the husbands waited nearby and made other arrangements necessary in case of an emergency. It was also a personal preference of women whether they wanted their husbands to witness the birth. Some preferred their presence outside the delivery room whereas some were happy they had their mothers or mother-in-law at their side.

8.4.1 Women who planned to deliver in the health facility and actualized the plan

→ Timely recognition of labour onset and decision-making

Only half of the women who had planned to give birth at facility were able to actualize their plan. They expressed their happiness of experiencing the childbirth as they had planned. The common pattern among those who were successful with their plans was timely recognition of labor pain and timely decision making to seek care. The decision of when to seek care exactly was mostly made by husbands or family members who were present at the time of labor.

Decision-making was done by family members on a woman's behalf as women were exhausted in labor pain. Mostly these decisions had already been discussed by woman with her husband and/or family members as stated in the birth preparedness plan, which was then enacted during the time of labor.

> *"My wife and I used to discuss. She used to say that it would be difficult to deliver at home, we should go to Simrutu HP, and I agreed with her." (Rukum-Facility Delivery Normal/ Husband)*

→ Role of people present at time of labour in deciding place of delivery

The people present at time of labour play a significant role in deciding to give birth in a health facility. Most of the times women who actualized their plans had husband and family members present with them to support in reaching health facility.

> *"I started having labor pain at night 12.00am. I shared with my husband. He took me to the health facility at 7.00am in the morning. Once I reached HF, sister(nurse) checked me over and asked me to move around. I gave birth of the baby at night 11.00Pm, my husband was around, my mother and mother-in law were with me". (Rukum-Facility Delivery Normal /Woman)*

> *"My wife said she is having abdomen pain badly since morning. At around 7-8 am she started to appear more restless due to pain. Then we decided to call the ambulance and take her to the health facility. My mother called the ambulance and took her to Hansipur at 10.00am". (Dang-Facility Delivery Normal/ Husband)*

In some cases, however, there was a shift in agency/decision-making power during the time of delivery. The nature of decision made depended on the knowledge and understanding of the decision maker. This was apparent in responses of women who ended up giving birth at health facilities although they had planned to give birth at home.

> *"When I gave birth to this child, I started having labor pain at 2 am in the morning. I told my mother-in-law about it. I went to the health facility in an ambulance. My mother-in-law called a woman who works in SUAHAARA (a community-based project working on MCH funded by USAID) and gave her our location as she was there at the health facility. However, I did not want to go to health facility, I wanted to give birth at home. I went there because everyone (family members) wanted me to go." (Dang-Facility Delivery Normal /Woman)*

> *"It was nighttime when she (daughter-in-law) started to have labor pain, we told her that we were calling ambulance to go to Hansipur, but she didn't want to go. She didn't have long labor as it started 5.00am and baby was born at around 7.30 am". (Dang-Facility Delivery Normal /Mother-in-law)*

The changes in decision or shift in agency did not necessarily result in hindering to reach the health care facility. There were some women who received support from community people such as social mobilizers or FCHV other than their own family to reach the health facility. This highlights that apart from birth preparedness, people present during labor play a significant role in both decision making to seek care as well as in reaching the health facility to the benefit of the women.

→ Understanding the value of quality care, and previous experiences

Understanding the value of quality care and previous experiences are important facilitators for facility-based deliveries. A common theme among women who decided as well as delivered at HF was their understanding of complications and previous experience of a difficult childbirth. These women and their family members who planned and delivered at health facility also expressed their fear of birth complications that could occur at any time during childbirth. They believed that skilled health workers can help in managing such complications. Reaching a health facility on time became their priority. They were also prepared to go to the referral center if needed. This is complimented by their perception of quality of care provided at their local health facilities. Some women also expressed they were satisfied with the services they received and had a positive experience of delivering at health facility.

> *"They do regular checkups once in a month for mother and baby. If there is any problem, the staff also visit mothers at home. All services provided from this health facility are good." (Rukum-Health Facility delivery/Husband)*

> *"To have ambulance service is very supportive. After we seek advice and a decision is made for a delivery in the health facility, it is not a mandatory for us to go to Hansipur HP. But at the nearest health facility, they said that they don't have any commodities for delivery, so they suggested that we go to the other HP at accessible distance, or Hansipur HP for delivery." (Dang-community men FGD)*

When the women who had delivered at HF previously were asked what they would recommend to their friends, most of the women stated to recommend to deliver at a health facility along with things to be done during the pregnancy like eating nutritious food, avoiding heavy work, and taking rest. They also suggested to be financially prepared as an important thing to think about.

Quality and availability of services are also an important aspect that has been brought up frequently during the discussion among the health care provider and stakeholders' group. Health worker having proper skills including capacity for dealing with complications is important for gaining trust towards the services provided from the health facilities and towards increasing the service utilization trend. Availability of advanced services like blood transfusion, C-section, X-ray including equipment and supplies are important aspect for people in seeking services.

One of the health providers added that some women who have the financial means bypassed the local health facilities and self-referred to higher level facilities in anticipation to risks in pregnancy and birth complications.

"There are certain gaps in our service delivery. For example, if a woman comes with post-delivery eclampsia, is unconscious, or faces PPH during the delivery or gets into shock, then we don't have commodities like oxygen to manage such situations. If these situations could be managed that would be great. When suddenly an eclampsia occurs and the child needs to be delivered using suction, then we might need oxygen immediately which is not available." (Dang- ANM healthcare provider)

"On the one hand we are instructed that we shouldn't provide higher level services. Only those health facilities having surgical service, can use vacuum extraction. We can perform that service, but the thing is, we are not capable of conducting the operation required after the vacuum failed. But still whatever has been said, in case of emergency, if required we conduct vacuum service." (Dang- ANM healthcare provider)

"Sometimes we refer women prior delivery to the referral centre for safety reasons, if any symptoms of complications are seen. In order to avoid the late referral during the last stage of delivery, some people prefer to use referral service beforehand, and we refer them as well." (Dang-Healthcare provider FGD)

→ Proximity to a health facility and personal fitness are conducive to reach the health facility

The physical access was equally a challenge for these women of both districts. It was somewhat easier for those who lived nearby. Other respondents who reached the health facility had timely called for transport as suitable to their context. Some of the women preferred walking rather than being carried on a stretcher due to narrow roads. Fortunately, these women were in good condition to walk even a long distance.

"My husband called the ambulance which arrived within 10 minutes. On the way the road was blocked due to dropped stones. However, we reached to health facility within 10-15 minutes. We were also thinking to go to another facility if the delivery could not happen there (HF). But everything went well, and our child was born there (HF) like we thought". (Rukum-Facility Delivery Normal /Woman)

"My wife started to have labor at night 12.00am. I called friends, and they came. We asked her whether she wanted to walk or be carried by people. She walked up to Simrutu HP; it took 2-hours. The baby got delivered in the morning. Then by 3 pm in the afternoon she was brought back home by stretcher". (Rukum-Facility Delivery Normal /Husband)

→ Education and level of awareness are drivers of facility-based deliveries, irrespective of ethnic groups

Education level of the family members also has an influence in utilizing the services. Counselling and education to family members to raise the awareness creates a supportive environment for women in seeking care.

"Among those women who hesitate to deliver at HF or prefer home delivery are mostly women from the Dalit community. They have low source of income, and the family members have poor awareness, and they care less for decision making in respect to a facility-based delivery." (Dang FGD- Healthcare Providers)

Not only at family level, general awareness of the community also has direct or indirect impact in health service seeking practice. The community people as well as local groups in the community support women in seeking services. One of the local authorities mentioned that women have access to different meetings, they participate in local clubs and hold political positions. While this has supported a positive change in the status of women, the decision of seeking and utilising health services still depends on other family members i.e., husband and mother-in-law.

"When women need support from the community and society, they should correct if a husband takes a stupid and wrong decision i.e., drinking, substance abuse". (Dang- Healthcare Provider)

Some of the health care providers and local authorities mentioned that service utilization also depended on affiliation to an ethnic group. They stated that Brahmin and Chhetri use services more often compared to lower ethnic groups and among poor people. The lower ethnic groups and poor

people have low knowledge due to lacking opportunities to participate in mother groups and different health activities because of poverty and being busy with their daily work. It has been noted that women who are a member of a health mother group tend to have a facility-based delivery. However, some local authorities and health providers stated that few people from "higher" caste do not utilize health services despite of having more knowledge.

> *"People come for service utilization for incentives rather than for the safety. There is not much difference in terms of caste or any specific group as such regarding this behavior. Sometimes, so called educated Bhramin/Chettri also has such practice. Due to this, I have seen that there is no difference due to the awareness level or caste related categories in the community. There might be a misunderstanding that, Dalit are less educated but sometimes Thakuri (upper caste) are also not aware about it. Therefore, there is not much difference due to any caste or any group as such." (Dang- Healthcare provider)*

8.4.2 Women who planned to deliver at HF but could not deliver there

Half of the women who had planned to deliver at a health facility were not able to actualize their plan. Many of them delivered at their home whereas some of them delivered on their way to the health facility. The delay in decision making for seeking health care services was due to various factors.

The social context of labor migration, nuclear family and farm work commitments sometimes left women alone at home with young children even around their delivery date.

> *"There was no one at home, only my young son. I did talk (with my husband) over telephone. He said if the baby is born normally at home than it is good but if not then go to health facility. My sister-in-law also said the same thing. If the delivery happens at home, she will look after me and support me. It would be good if it happens at home. If there is difficulty, then we should go to a health facility." (Rukum-home delivery normal/women)*

→ Night time - a significant barrier to materialize birth plans

For several women who ended up delivering at home or on their way, time of onset of labor and its duration had influenced the outcome of their birth plans. Mostly when the onset of labor happened at night, women and their families tended to wait until morning to take any action to reach the health facility. Some women didn't share about their labor pain with their husbands or family members until it was morning. And by the time the transportation and other necessary materials were arranged, the labor had progressed. At night, respondents found it difficult to call people for help to carry the woman. Availability of ambulance was also perceived as uncertain in comparison to daytime. The understanding of labor seemed to be lacking as well because some women who didn't make it to health facility had expected their labor to be longer just like their first childbirth and therefore delayed the decision of calling transport/ambulance.

> *"Her labor pain had started at midnight and the baby was born at 12 in afternoon the next day. She was having labor pain since midnight, but she only told me in the morning. Then I tried to call (for ambulance) but the number was not reachable. And while I was trying to contact the health facility, she already gave birth at home." (Dang-Home Delivery Normal /Husband)*

> *"While we were trying to search for previous documents (ANC cards, reports) and call for ambulance, the baby was already born. The labor pain started at around 8 and the baby was born after half an hour." (Dang-Home Delivery Normal /Woman)*

> *"It was already late by the time we could arrange for all materials and vehicle. It took time to arrange everything. My labor pain started at midnight and the baby was born in an hour." (Rukum-Home Delivery Normal /Woman)*

In addition, some women failed to recognize the onset of labor on time. Women often experienced pain and discomfort as their pregnancy progressed and confused onset of labor pain with those discomforts. This was also elaborated by health workers as one of the reasons for delay. Since women in rural areas are exposed to heavy works, they had higher tolerance for pain and would not perceive it until it got severe.

> *"I used to have abdomen pain during pregnancy. So, I couldn't recognize labor pain. We were only two and later my mother-in law came. We were calling the ambulance, but they didn't pick*

up the phone and by the time the baby got delivered at home". (Dang-Home Delivery Normal /Woman)

"When we asked them reasons behind the home delivery, they usually mentioned that it got delayed while calling neighbor for help, there was no stretcher, pain started before the due date and that they couldn't recognize the labor. Similarly, women belief that if you work hard, the delivery would not be difficult. Some mentioned that labor pain was not strong, we were about to come to the HF. Sometimes they think rather than pay the ambulance it would be better to have a home delivery". (Rukum-Healthcare Provider)

In most cases time and duration of labor were further compounded by other unfavorable situations. Rainy season, lack of road access/transportation and unreliable communication network hindered them from reaching health facility on time. Even when an ambulance is available, often the roads don't reach at the doorstep of the women's house. Women usually have to walk a certain distance to reach the ambulance. Some of them delivered on the footpath while walking up to the ambulance.

One of such examples is that of a husband who had thought of taking his wife to HP for delivery according to the counselling he had by a health worker during ANC visit but couldn't actualize it.

"She (wife) said that she had a slight pain in the abdomen around 9-10 pm at night. I had no idea whether the abdomen pain was normal regular pain or it's a labor pain and hence I was confused whether to take her to HF or not. At the same time there was a heavy rainfall and there were no one to leave small kid. There is not delivery facility nearby, to take Hansipur, road access was problem due to rain and raised level of river and it was difficult to manage people to carry as they were busy in agricultural work at daytime and didn't feel comfortable to call at mid of night." (Dang Home Delivery Normal /Husband)

→ <u>Prepared- or not prepared?</u>

Despite respondents stated that they were prepared, at the time of need, these arrangements were still not ready or not sufficient, as unforeseen barriers appeared. This applied not only at night time, but in other circumstances as well. Many families hadn't planned very thoroughly taking various local challenges into account like the lack of communication network, timing of the delivery at night and the importance of keeping contact numbers of the ambulance and HF and all medical records ready and at hand.

"I started to have abdomen pain after dinner. I informed my husband and my mother-in-law. It was nighttime, all were sleeping. All were discussing about to take me to Hansipur health facility and started to find the number (ambulance). While searching the number and all the previous record cards the baby was born". (Dang-Home Delivery Normal/ Women)

Some of the women and their husbands who had a home delivery mentioned that access to the health services due to the difficulty in managing transportation, the distance to the health facility and issues of poor network and communication prevented them from utilizing the health facility for delivery.

"I tried to contact the ambulance and HP but couldn't reach neither the ambulance nor HP. The doctor of the private medical center had gone somewhere at night and even his phone was out of reach which resulted that I had a home delivery". (Dang-Home Delivery Normal woman)

One of the local authorities of Dang highlighted that poverty because of lack of income and drinking problems among Dalit and Janajati community has an effect in utilization of the services. Husbands who drank alcohol, would not agree to their wife seeking care from the health facility. Reason is that women are not given authority to handle financial resources.

"The men of Dalit and lower castes among Janajati, usually don't prefer get involved with long term employment. If earned anything, they use their income for alcohol consumption but don't buy anything nutritious for their wife. They don't even have any money to take the wife to the HF for check-ups and delivery." (Dang -Local Authority)

"A first step would be to stop drinking and substance abuse by men", men should join women's groups and take part in society programmes to increase awareness. They should visit health facilities to understand its importance". (Dang_Local Authority)

→ Other female family members take the lead of decision-making and care during delivery

As mentioned previously, family members who are present during labor also influence the decision making. Some women were assured by their female relatives that it would be more comfortable to deliver at home with a warm fireplace, food and hot oil massage. These situations discouraged women from taking actions to seek care even if they felt like going to health facility as their labor progressed. They encouraged women to wait and see if they could deliver normally or else, they could go to health facility if they could not deliver normally. In those cases, such influencers were female relatives who had experiences of childbirth and were also assisting the woman and were ultimately outweighing previous decisions. If family members or relatives were aware enough and were prompt to arrange transportation, this could influence women's practice to utilize service at health facility even in the last moment. However, this would mean someone else taking decision of how and where to go rather than the woman herself.

> *"I was sleeping when I started to have labor pain. My husband was saying that we should call the neighbors and go to the health facility as there is no facility in the village. But no one called the ambulance. Neighbors were getting ready to take me to the health facility. I started to have pain at 9pm and baby got delivered at 1.00am at home. There were sisters helping me at the time of delivery, they were giving hot oil massage and hot water with sugarcane. I was saying it would be easy if I would have been taken to health facility. But they said that we continue the oil massage and if you have difficulties then we will take you. Then I had to wait 3 hours". (Rukum-Home Delivery Normal /Woman)*

> *"I started to have labor pain at 4.00am and the baby was born at around 7.00am. When I started to have labor pain, I also had slight bleeding. I called my sister and shared this with her. She said that it is better to have the baby at home, if not we need to go to the HF. I also called my sister-in law and shared this with her then she came to us. She also said if I delivered at home, it is good if not then we will go to HF. She gave me an oil massage. Then the baby was born at home". (Rukum-Home Delivery Normal/ Woman)*

In one case, the woman herself changed her own decision after the labor pain started. Although she had planned to go to health facility, later she wanted to give birth at home.

> *"I was having labor pain, but I didn't go to the health facility. I wanted to deliver at home only. But my husband didn't agree, and he called for an ambulance. I thought I will be able to give birth, but I couldn't then we walked further up, then I delivered the baby (on the way)". (Rukum-Home Delivery Normal/ Woman)*

As much as the presence of family members affects the birth experience of a woman, so does the absence, particularly if women are the head of household.

> *"I started to have labor pain at 2:00 AM at night. It was rainy season, and no transportation would have come though it used to come during dry season. I was alone at home, and it was difficult to call for help as all the men were migrated to India and there are only older people at home. I was waiting and gave birth at 5.00am. I didn't call at time of delivery but I called them after delivery in the morning". (Rukum-Home Delivery Normal /Woman)*

Another notable insight from experiences of women who delivered at home was about traditional delivery care and cord cutting practices. Women with some experiences of assisting birth were usually helping women to give birth at home except for one case who had called a relative who is also health care provider to assist the delivery. Most women and husbands from Rukum had prepared a new blade in anticipation that delivery may happen anywhere. However, some stated using knife and scissors found at home in Dang.

> *"Actually, I don't know much, but we had bought a new blade for cord cut, in case if the situation became worse and we should deliver on the way. Some of the children were born on the way as there were no transportation facilities before like now. So, we carried a new blade in case, any emergency occurred and the delivery happened on the way, and then the situation could be managed properly". (Rukum-Home Delivery Normal/Husband).*

→ Availability of care is key

Some factors were beyond community people's decision, pertaining to quality of service. There was also an incident where the woman went to health facility in suspicion of labor pain but returned as there were no health care providers present due to festival season. The woman ended up giving birth at home the next day.

> *"On the 10th of Dashain, I had pain abdomen. I went to the health facility with my sister-in -laws for the first time but we returned as there were no health workers at the HF and even the HF was closed due to Dashain festival. Because of Dashain, those who were staying in their rented home have gone to their family home to celebrate the festival season. After a few days my baby had born at home". (Rukum-Home Delivery Normal /Women)*

8.4.3 Women who planned for and had a home delivery

Three women in the study sample, who had planned for as well as delivered at home, did not seek any formal health care during childbirth. Among them, one woman even denied the help offered by her family members to go to a health facility.

Personal factors such as shyness and previous experience of home delivery strongly influenced their decision of not seeking care from professionals. The infrastructure and amenities available at health post were also influencing their decision to some extent. These women recalled either their own or others' experience of feeling very cold during delivery. The health facility buildings are made of concrete and lack heating systems whereas traditional homes are made of mud with fireplaces inside to make it warmer. These women also expressed that the presence of family members did not only ensure comfort like warm food, and hot oil massage, but also ensured the necessary arrangements during emergency.

> *"There are no facilities of warming like fire at home, there is not heater in health facility for pregnant woman hence they shiver from the cold. During the delivery of first child too, I had prolonged labor pain due to cold at HF. So, we had to take her(child) to a higher-level health facility in the city. This is the reason, most of the woman usually like home delivery rather than institutional delivery". (Rukum-Home Delivery Normal/ Woman)*

> *"If the labor is too long, then we go to the health facility otherwise the child can be delivered here at home. It is too cold in the health facility. At home there will be fire to keep me warm. There is no heater in the health facility. Probably because of the cold, my first baby was born after very long labor at health facility. It is much warmer at home. Therefore, I thought their (neighbors) advice of delivering at home was better at first. But when the labor started, I wanted to go to the health post." (Rukum- Home Delivery/Woman)*

Regarding childbirth companion, only one of the family members, mostly a female companion, sometimes none are allowed to be present in the delivery room of the health facility. This sometimes restricts women's right to choose her childbirth companion for social support during birth which is mostly either her mother or mother-in-law while few expressed their preference to have their husband by their side during the delivery. At home, it is easier to have more people at one's side during delivery.

Lack of family support in regards to money, transportation, and interest of family members to take the women to a HF at the time of labor were other reasons, why women delivered at home. They felt that they had no choice. In addition to the difficult geography, distance and difficult road are also mentioned by participant of the group discussion.

> *"Most of the health facilities are not easily accessible. Some hard-to-reach settlements have to walk through the jungle with only 8-10 households. People residing there are not aware about these things." (Dang-Healthcare providers FGD)*

> *"Regarding the barrier, there is a problem for access to ambulance service, as there is only one ambulance available, and they get called from multiple places at a time. People rely on ambulance service they have called when the slight labor pain has started, but the availability of the service can't be assured. If they would know this beforehand, they would arrange for*

some alternatives like carrying in doko (bamboo weaved basket)." (Dang-Healthcare provider FGD)

"It would have been easy if the roads were black-topped, as the roads are not accessible for vehicles during the rainy season. At least, if the roads were pitched (black-topped), we would have access to the transportation in order to use HF service." (Rukum- Women FGD)

8.5 Delivery with Complications

Among the nine respondents who either represented the women who had complicated delivery normally husband or women who experienced complicated delivery, eight deliveries took place in a HF and one at home. also had possibility to seek service from local private provider when she encountered the PPH with shock. Most of the respondents reported that they were not aware that they had complications. Rather these complications were realized by them during the interview, while sharing their birth experiences. Likewise, the 8 focus group discussions with different group 2 in each; community men, community women, health care provider and group of stakeholders were explored about health seeking norm during complication. In general, participants of the group discussion among the men and women have knowledge about the need of referral and level of the care available at different facilities; local health facility and referral hospital. They have shown the trust and confident on advice and counselling by health worker in relation to referral. They shared that some people normally choose the higher-level facility in case of emergency which is normally District hospital or above where obstetric emergency services including cesarean section is available.

Few of the participant mentioned that the first choice of service site in case of complication is the local health facility (HP). They were aware that if any complication arises, they normally are referred to the higher-level facility.

"If there are chances that the services are not available at the Simrutu HP, we go to District hospital Salle. If the treatment is not available there as well then, we are referred to Nepalgunj (Province level hospital). Salle hospital has better facilities than the HP. They provide facilities like video x-ray, service for operation, service for blood transfusion which is not available in Simrutu HP. Also, air lifting by helicopter are managed in case of emergency referral to Nepalgunj. Only normal delivery is attended at Simrutu HP". (Rukum-Community women group)

'If any complication arises to pregnant women or during delivery, firstly we go to Hansipur HP and then to Ghorahi (district hospital). We go to Hansipur first in order to seek advice from doctor (HW) for utilization of referral service. Then if it can't be managed at Ghorahi, we seek service from Nepalgunj (Provincial level hospital)." (Dang-Community women Group)

"Firstly, we seek suggestions from the doctor (HWs) at Hansipur HP either to be treated in the HP or the referral center according to the complication. If they suggest referral service immediately, we seek service at Ghorahi (district hospital)". (Dang-Community Male Group)

"If the local Health post says they would not be able to deal with the complication and asked us to go district then we go to the district. When the district says they would not be able to deal then we have to go Dang or Nepalgunj (referral hospital)". (Rukum-Community Women Group)

"If the woman has any problem and she is already in the 9 months of pregnancy, we normally discuss and decide at home where to go. We call the ambulance and normally go to Salle (District hospital). If the delivery would not happen then they refer to Nepalgunj or Kathmandu." (Rukum-Participants-Community Women group)

8.5.1 Timely recognition of complications during antenatal care visits and sharing information among the couple helps to be better prepared.

Some women were detected by health workers as high-risk pregnancy during the antenatal period. Health workers advised them to have a facility-based delivery due to anticipation of possible complications of the mother and/or the newborn, for example a breech presentation. Those women with high risk who were counselled during the antenatal check-ups. Husbands of these women

expressed that they went to the local health facility for delivery, and they were mentally and financially ready to be referred even further to a higher-level facility if needed.

> *"When I went to the health facility for delivery, health providers mentioned immediately that the blood group of mother and baby didn't match. The mother needed to take injections immediately otherwise it could create problem later and they advised us to go to Tulsipur hospital (referral level hospital) immediately, so we went there". (Dang-Facility Delivery with Complication /Husband)*

Personal knowledge to recognize the complication is an important factor for community people in seeking health care during an emergency. Health care providers provide education and counselling about complications during ANC. If women never visited a service provider or a health facility, they lacked the knowledge about danger signs and complications.

> *"We have already counselled people individually about the risk and danger signs of pregnancy, during and after delivery while they come for ANC check-up. Discussion on this is also done in most of HMG meeting and normally they discuss this during their other gathering too". (Dang-Healthcare Provider)*

Once complications appear, even women who decided to deliver at home, made a quick decision in seeking care from a health facility. One of the women who had a home delivery and a PPH thereafter also sought health care services from a local private provider after problems occurred.

> *"During the birth of first child (upside down), the local health provider was called only after I had labor pain. In the recent delivery too, I was unconscious and the health provider has been called near by the communities and after providing IV fluid, I became conscious". (Dang-Home Delivery with Complication/ Woman)*

A husband of a woman who had complications also shared their personnel perception that early decision to go to a health facility as well as birth preparation is important.

> *"Now it is better to go to the health facility as soon as possible if there is a labor pain. I have seen pregnant woman who have been kept at home for two or three days in some places". (Rukum-Facility Delivery with Complication/ Husband)*

> *"It will be better to go to Hansipur HP nearby for delivery rather than do a home delivery. Complications may arise like-excess blood loss during a home delivery. If we go to a HF, it has many more basic facilities for delivery care. I suggest visiting a HF for delivery to minimize the complications. It is safer to deliver the baby at a HF than at home". (Dang-Facility Delivery with Complication/ Woman)*

In all situations where complications had occurred, decision to seek care from a health facility were dependent on the husband or family members, mainly the mother-in-law as she is the senior and most experienced person of the house. Most of the time either the mother-in-law or the mother of the women was stated as the preferred person to accompany the women at the time of labor. Only a few of women expressed their preference towards husband.

The knowledge of the labor and complication are two important factors to take timely decision in seeking health care services. Some of the women were not able to recognize that labor has started and sign of complication and complication. If the mother is not having severe pain, it is not considered the time to go HF which leads to delay in decision-making at home.

> *"They are unable to judge the benefit and risk in seeking and not seeking the care from health facility and think that the baby will be delivered at home. They think that pain and long duration of labor is normal and usual to everyone." (Dang-Local Authority)*

Some women and their families were aware about modern health care service, but some considered it as a service to be used only if there was a difficulty or complication during delivery. They would wait for their child to be born normally at home and if the woman faced prolonged labor (usually a day or two), then only they would decide to seek care. One women's family member called a private health care provider when she was unconscious soon after delivering the child.

> *"I told it to family members once I started having slight abdominal pain. They were planning to call the traditional healer, but I refused as slight pain at the month of delivery is normal. Once the labor progressed, they were asking me whether to call ambulance or local private provider.*

I refused as I wanted to deliver at home. Finally, my child was born normally, but I went to shock after delivery. The local health provider was called, and he injected saline solution. I woke up after a while". (Dang-Home Delivery with complication /Woman).

Another aspect to be considered is the patriarchal social system, as decision making power in relation to the service utilization is on husband which indicate the importance of male involvement to raise the awareness.

"Society should influence men first. Awareness raising and counselling is necessary for every man. If husband of any women works/or has migrated to a more developed area with access to health services, they are aware about its importance and they share this knowledge with the wife and are more supportive in regard of health service utilization." (Dang-Healthcare Provider)

Local health care providers and authorities described that people normally come to the health facility in case they encounter complications, which they define as experiences which differ from what they experienced in the past pregnancy and when the family is supportive.

"Before women stayed at home, had no idea about complications, had too long pain and prolonged labor". (Rukum-Healthcare Provider)

"People decide to deliver at home themselves. They seek for service from health workers only if the complication arises during home delivery." (Dang-healthcare provider-FGD)

Health care providers and local authorities mentioned that there are still issues of delay in decision making to seek health care in emergencies due to different factors. One of the local authorities of Dang mentioned that sometimes community people have their personnel perception about availability of the services in local HF and anticipation of further referral and are sometimes unable to judge and identify the benefit of health care services.

"Delay in decision is due to the personal perception about available treatment at the health facility and further need of referral to another level of facilities in case of big issues/complication". (Dang_Local Authority)

"I couldn't recognize that the pain in the first day was due to start of labor as I had fever as well and I was asking myself why I am having pain in abdomen." (Dang-Facility Delivery with Complication /Women)

"I recognized a very little pain. I had a similar pain during the birth of first baby. I thought why to visit the HF during minimal labor pain and stay all day at HF, so I didn't visit to HF earlier and decided to go when there will be more labor pain". (Rukum-Facility Delivery with Complication /Women)

While there were many factors interacting to delays in seeking of care, personal beliefs were also interfering with the timely recognition of labor. Some women thought their pain and long labor might be due to bad spirits and went on to seek help from traditional healers. This belief was more common if the pain started way before or later their expected delivery date. Although women sought traditional healer to relieve pain and have short labor, they did not state of depending on healers for delivery care itself. This trend is observed in both women who ended up delivering at health facility and at home.

"I went to see traditional healer to know if there is any bad spirit (lagat). I came to know there is a bad spirit. The healer came home and did his ritual, but she didn't get better. He did the same on the next day then she got better". (Dang-Facility Delivery with Complication/ Husband)

The participants of the women and men group have shown acceptance and readiness for referral to a next higher-level facility in case of complications, where the local health facility cannot deal with. Some health care providers stated that the referral leads to another delay, delay in decision making because of asking other family members and arranging transportation. At times, family members also perceived that a further referral is due to lack of confidence of the staff and the family was given an extra unnecessary burden with the referral.

"Normally they come to the health facility but in case of referral needs it is difficult for them to take a decision" (Dang_ Healthcare Provider FGD)

"Usually, delay occurs while making decision after we refer them to seek higher level service. They take their time for about 6-7 hours to make arrangements and to decide to use or not use referral service. They easily utilize services from HP but take time to decide for using referral service. They come to the HP first". (Dang-Healthcare Provider FGD)

"If we refer them to use higher level service, people have a misunderstanding and consider it as their fault to have sought for service where they couldn't receive it. They feel like they had to pay for nothing. This happens when we refer them if their due date crosses 7 days. It is mandatory for us to do so. But they have a misunderstanding regarding this". (Dang-Healthcare provider-FGD)

While delay in decision making to access a health facility exacerbates the already critical condition of the women, the local facility itself may not be ready or not have the capacity to deal with the complication. By the time further referral is done, the life of the woman could be at stake.

"People bring pregnant woman to a HF to seek a delivery service suddenly along with some complications which needs to be referred to a higher hospital. But a woman dies due to delay in delivery service until we refer to higher hospital." (Dang- Local Authority)

"After reaching the HP, sister (ANM) examined but was confused herself. She didn't give any specific direction whether to seek for referral service or not. Seeing her in confusion, I demanded to seek referral service, though they don't refer. After few verbal conflicts, she wrote a referral form and we went to referral centre at Salle (district hospital). I don't know if it's lack in her capacity or it is due to any other reasons." (Rukum- facility delivery with complication /husband)

8.5.2 Social cohesion and support are strong in times of emergency

Most of the participants of the group discussion highlighted that decision making is influenced based on the family hierarchy. Normally mother-in-law and other family member and sometimes relatives are the decision makers in case of referral to the next higher health facility, as they are the ones who accompany the woman in the labour room. However, sometimes this can be overruled if the decision is linked to finances. Decision depends then on the breadwinner and money-giver which is normally the father-in-law or husband.

Most of the participants shared about a positive social inclusion in their community in case of need. Community people support either with money or people to carry the woman to a health facility in case of an emergency. However, some participants mentioned that is can be a challenge for some people to arrange money, transportation, and a person to accompany the woman if the referral is far from their locality.

"We seek for support from our own community. We seek for financial support as well as human resource support if the woman has to be carried on a stretcher. They also support to communicate with the health worker in times of emergency". (Dang-Community Male FGD)

"First thing is the financial support. Besides that, person to accompany with mother to provide support and care during the post-natal period". (Dang-Community Male FGD)

8.5.3 More transport facilities ease access to care in emergency situations

Physical access especially availability of the transportation and distance of the health facility were hindering factors for one woman in seeking care from local health facility during the complication.

"During the rainy season last year, a woman gave a birth to a child, but she died after giving a birth as the ambulance couldn't reach to the place due to flood and landslides. So, the roads in hilly areas are not reliable and hence people feel it is difficult to reach the health care facilities due to unfavorable geographic conditions". (Dang-Local Authority)

However, in most cases, availability of transportation had also facilitated access to health care services

"We have an ambulance since last one year, this helps to access the service and refer people in dangerous situations immediately." (Rukum_Local Authority)

"We have special services for the referral cases provided by the municipality, the municipality bears the costs for the referral (Rukum_Local Authority)

8.5.4 Families are trusting in the health services and service quality

Availability of service specific to complication management, timely decision-making and referral, confident service providers are other important themes mentioned during the interviews. Almost all women and their husband who experienced complications clearly expressed that they decided to seek health care to avoid possible risks to the mother and newborn. They perceived that a health facility would provide all the necessary services to deal with complications through advanced obstetric and neonatal services and augmentation of the labor in case of delay or prolonged labor.

"After reaching the HF, the health provider came to know that the baby was upside down. They mentioned that the mother would have been at risk if she had not been brought to the health facility on time. The baby was delivered and it went all well" (Dang-Facility Delivery Normal /Husband)

One of the women shared her positive experience on her decision for facility delivery considering the services she received from the service provider when she had complications after the delivery. This type of experience had made women realize the importance of professional support during complications during the antenatal, delivery and post-partum period. Women who had previous experiences of complication management at the HF are committed to advice others for birth preparedness and a facility-based delivery and as complication might arise at any time.

"It is better to visit a HF and consult with the doctor during the delivery as we get services there if we have a problem. I had never consulted a medical staff before as I used to feel ashamed. It was the first time that I went due to early leaking even though wanted to have a home birth". (Dang-Facility Delivery with Complication/ Woman)

If health providers identify a high-risk pregnancy, which is difficult to manage at the local facility with the available capacity and resources, they refer the woman to the next higher referral hospital. The primary referral site is the district hospital of the respective district or other secondary level referral sites like in Nepalgunj and Butwal where comprehensive emergency obstetric care is available.

"If any complication happens, then it should be discussed with husband, mother-in-law, older sister-in-law and other family for decision-making." (Dang Healthcare Provider)

Patient involvement and communication about complication with the women and family member had been considered as an important aspect of quality care and to get patient cooperation and establish trust before referral.

"In case of an emergency, danger signs get told to the woman and her family in the health center, and according to this, they are mentally prepared and get ready for such a case of complication." (Rukum -Local Authority)"

Professional confidence in dealing with complication and prompt identification of further need of referral and quick decision are also considered important by the health care providers. In general decisions are made in consultation with the team members of the service provider team.

"We can manage some minor complications during delivery. But if there are major complications like, convulsion or unconscious cases during delivery, we mostly refer to higher level facilities." (Dang-ANM Healthcare Provider)

One health provider particularly shared her challenging experience when the patient is reluctant to be referred to a higher-level facility due to the anticipated costs and poor economic condition.

"Once, we had provided a service to a woman with APH. We tried to convince her, but she didn't accept the referral under no circumstances. She said that if she dies, she prefers to die under our hand. However, we took consent with her family members while explaining the situation. We provided the services with signing an approval of the family. (Dang-ANM Healthcare provider)

The same health provider stated that sometimes she had to refer the cases following the protocol, even though she had the skill and confidence to deal with the complication according to her

experiences. Since the protocol did not allow her to act, she would not have any legal protection in case anything goes wrong.

Some women were not happy to be further referred to the next higher facility level as they perceived that service providers in both facilities have the same qualification. Many of them clearly showed their concern on the confidence of the service provider and their dissatisfaction towards the service they received. Timely recognition of the complications, prompt management or timely upward refer and readiness of the staff at referral site had important influence on to positive experiences.

> *"I delivered my child at district hospital Khalanga. It was easier in earlier delivery when I delivered my daughter as the HW had injected an injection and saline water which made the delivery quick (within 2 hrs). But they didn't inject it this time. Therefore, we wanted to go to Nepalgunj (provincial referral centre) and were ready to book a flight ticket but then, a doctor came, and she made it easier and I delivered there." (Rukum Facility Delivery normal/ woman)*

> *"When we reached the HF there was a separate department for delivery. After we reached, sisters (ANMs) immediately responded. They injected saline water and injection, and then only our son was delivered. HWs at Salle (district hospital) were also mentioning that, my wife should have been given Saline water earlier. This could have been done at Simrutu HP but they didn't do anything while referring. (Rukum Facility Delivery with complication /Husband)*

8.5.5 Availability of services and medical supplies enhances trust and satisfaction

The health providers capacity in dealing with complications together with the availability of the medicine and supplies are perceived as important elements of satisfaction with the services and perceived quality of care. Health providers are aware about the consequences of the absence of life-saving medication.

> *"We experienced a lack of loading dose of Magnesium sulphate for eclampsia and a woman was close to die. After this incident, which happened in front of my eyes, we are now having emergency medicines. This one accident gave us a big learning". (Rukum_Local Authority)*

> *"In case a post-partum mother would be brought in with an eclampsia or unconscious or undergoing a shock due to PPH during the delivery, we immediately may need to provide suction or oxygen supply to the patient. But we lack such facilities in our HF. It would be better if such facilities can be managed in the HF". (Dang_Healthcare Provider)*

A woman who had home delivery for 4 previous pregnancies and decided to have a facility delivery for her recent (5^{th}) pregnancy shared her positive experience of facility birth and change her mindset.

> *"I felt having a baby at health post is a little easier and safe than giving birth at home" (Dang-Facility Delivery Normal /Woman)*

Behaviour of the staff was another aspect that some of the women and husband had shared during the interview. Staff behavior was closely linked to their satisfaction with the services they received. Some mentioned that they also expressed their discomfort and dissatisfaction towards the service provider in relation to some procedure for example frequent vaginal examination. One of the participants during a FGD mentioned that women sometimes delay decision-making and prefer to have a home delivery due to the health workers' behavior. They either by own experience or heard from friends that women were scolded if they cry or make noise during labour pain.

> *"If somebody has fear and is not sure if he/she gets help or not, after they got good treatment, they do not have fear the next time." (Rukum-Local Authority)*

> *"Proper communication skills "ramro boli" is very important. We have a staff who does very good counselling, this is very important." (Dang- AHW Health Focal person)*

> *"At first, we have doubts regarding HF delivery. Additionally, when other women share their experience about the treatment done in the HF like scolding, if we cry during delivery, then we feel like delivering at home rather than being scolded at HF." (Dang-Women Group FGD)*

One of the local authorities emphasized that capacity building of the health provider and improvement of the infrastructure are important. He also suggested to improve the record keeping

and follow up of pregnant women and encouraging for birth preparedness plan. Home visits and the incentive program for pregnant women encourages health seeking.

8.5.6 Respondents' (having normal delivery) knowledge in regard of anticipated complications

Women and their family members who had a normal delivery at a health facility or at home were probed about their health seeking behavior in the hypothetical case of a complication. Almost all the respondent who had a home delivery mentioned that they would have sought care at health facilities in case of emergency. Those who had a delivery at a health facility also expressed their readiness to be referred to a higher-level facility if complication arise that could not be managed at the local health facilities as they anticipate possible risk to the mother and newborn. In this connection, many of them have expressed their trust and confidence towards service provider's suggestions and decisions either in managing the complications or in further referral.

> *"I advise others to go to the nearby health facility if it seems that a normal delivery would happen. If it looks like a normal delivery would not happen then I advise to go higher level facilities". (Rukum-Facility Delivery Normal/ Husband)*

Some women's decisions to seek health care in case of complications were influenced by incidents which happened around their communities and sometimes within the family

> *"I have heard that women can have a lot of bleeding during delivery. Near the Gothiban village, one woman has lost her life during the home delivery due to excessive blood loss, however the newborn baby was safe". (Dang-Facility Delivery Complication /Woman)*

> *"My sister-in-law went to shock after her delivery at home. I am not sure why it has happened, may be due to blood loss. Even during the pregnancy, she used to be unconscious, and hand and feet were swollen. Even she was not taken to the HF for checkup even during pregnancy and after the delivery she went to shock". (Dang-Home Delivery Normal Women)*

Their views on health seeking during complications have close linkages with their knowledge and perception of quality and availability of the care at local health facilities and higher-level referral site in dealing with complications.

> *"We should go to a HF for delivery as doctors can help with any complications and prescribe medicine accordingly. If there is excessive blood loss, they clean and suture the wound if there is excess bleeding". (Rukum-Home Delivery Normal /Woman)*

> *"Health workers in health facilities provide a lot of support, and provide us with medicine. Those who go to the HF for delivery, they won't face problems of bleeding, HWs clean the wounds and do the stitching as well in case of tearing". (Rukum- home delivery normal/ woman)*

> *"It is better to deliver at HF than delivering at home. There might be excess bleeding, complications. Therefore, if the delivery is at a HF, sisters (ANM) provide proper care".(Rukum home delivery normal husband)*

Some women shared their personnel belief that there is high risk for the mother and newborn if the pregnancy is prime and sometimes in late pregnancy as well.

> *"It will be difficult to give a birth to a baby during old age". (Dang-Facility Delivery Normal /Women)*

There were few women who didn't have knowledge about the complication and were not aware about what should be done during complications. They even didn't have knowledge of birth preparedness such as transportation and arranging blood in case of complication as their previous delivery went well and they didn't encounter any issues. However, they normally seek advice and information from FCHV and other community people in case of complication. Family support is one of the strong aspects that some of the of the women were confident to get during complication. One of the women was happy to have cooperation from her husband in case she had to go for higher level facilities.

"If there had been any complication, we would seek for referral service at Ghorahi. My family supports me in what I ask for. For some people they might not get such support". (Dang-Home Delivery Normal/ Women)

"In case of complications, their guardian has to support." (Rukum Local Authority)

Few of the women were also sharing that they have good financial support from their husband as they are working in India and send money which would make it easy in taking a decision.

Not only at family level, but community inclusion is also another support mechanism that many of the women and their husband shared that they would get in case of emergency i.e., financial support, community people to carry the mother to health facility. But this was not same for one of the husbands who is from Dalit family and didn't have confidence in getting the support from the community but was completely reliant on himself.

"I should have done something myself too. I should have done as much as I could have, maybe I could have carried my wife to the HP". (Dang-Home Delivery Normal /Husband)

While discussing with all women and their family member who had normal delivery both at HF and home regarding the possible challenge they would encounter in case of complication; transportation is the more frequently mentioned followed with finance and risk to the mother and newborn. Few of the women also mentioned road access due to geography and blockade during the rainy season.

"The life of a mother and newborn can be at high-risk if we think of waiting at home and plan to visit HF at last hour due to long distance travel to HF". (Rukum-Facility Delivery Normal/ Husband)

One of the women also mentioned the time of onset of labor mainly if it started the nighttime, it would make challenge in seeking care and one of the women mentioned about not having any of the family member around to take her to the health facility.

Similar to seeking ANC and delivery services, decision making in times of complications is hugely influenced by family hierarchy. Family members basically mother-in-law is the major decision making in seeking care. However, husband is also equally involved along with family member but in few instances, mother-in-law is sole decision maker. Some of the respondents mentioned that husband's agency over the wife's and family members was more prominent during emergency and referral Sometimes, decision depends on who had the financial control. Two of the women mentioned that father-in-law is the decision maker in case of higher-level referral as it required the money.

One of the health workers also shared that there is some traditional belief around some of the complications where families seek the traditional healer and get delayed in deciding and reaching the health care facilities.

"If women encounter a retained placenta, there is the traditional belief that this is due to ghosts, and they seek service from the traditional healer and also go for health care services". (Dang_Local Authority)

8.6 Postnatal Care

8.6.1 In a hurry to return back home - the overlooked importance of post-natal care

The national guideline for maternal care recommends three postnatal visits after the delivery. However, the narratives of women and community people reveal that women hardly completed their three postnatal visits even if they had delivered at a health facility. In the opinion of health care workers, women and their families usually want to go back home soon after the delivery, if there are no apparent health issues for the mother or the baby. This was in alignment with the narratives shared by community people. Many of the women didn't even complete their 24-hour observation period in the health center. Those who had completed their 24-hour observation after delivery were women who had either delivered with a complication or delivered at the health post late in the evening.

> *"No, nobody came to see me during PNC from the HF, we are well known about the protocol of PNC. But we too didn't go to HF to seek the service, thinking that everything is normal". (Rukum-Home Delivery Normal Woman)*

> *"As per protocol, PNC service should be taken within 24 hours and a whole day after delivery. But people aren't convinced to take the PNC services as per protocol, they ask us to discharge the patient immediately after the delivery. However, we advise them to stay for 24 hours, even though they are not ready to stay, and we forcefully make them to stay at least for 6 hours at HF and discharge them. Some people seek the PNC service for 24 hours too, if there is an evening delivery which stays over night at the HF. They simply think that after giving the birth to a baby, everything is ok, there will be no complications or any problems to the mother or a newborn". (Rukum-Healthcare provider)*

While women who delivered at a health post had received at least their first PNC checkup within 24 hrs. of delivery, women who delivered at home or on the way didn't receive any PNC checkup at all. Those who delivered on the way returned back home instead of going to the health facility as the mother and baby both appeared to be normal.

> *"My sister and sister in laws helped my wife when the baby was born on our way to health facility. The birth happened near to our house. It would be difficult to carry her and newborn to the health facility. Since the baby was already born, we just came back to home." (Rukum-Husband-Home delivery)*

Mostly women had visited a health facility after one or two weeks when the child had to be immunized. Even then the purpose of the visit was not about postnatal checkup and health providers also did not use this opportunity to do a PNC check-up, missing an opportunity of patient-centered care. Some women did recall being told to come back for PNC check up by health care workers. The most common reason was not having apparent health issues and therefore no reason to make efforts to seek postnatal care. This hints about lack of awareness and strong counseling from health workers to convince them in completing their postnatal visits. In some cases, health workers were more assertive about keeping woman in observation.

> *"Nobody came from the HF for PNC service. My mother, sister and other relatives had come to visit the mother and child at home. Health service provider had advised to visit the HF immediately, if there will be any health problems to mother and child. However, my husband and me had gone for medical checkup of our child on 18th and 19th day. We usually visit the HF during the immunization service day". (Rukum-Facility-based Delivery Normal Husband)*

> *"No one came for follow-up after delivery, even nobody from HF suggested to visit the HF for follow-up checkup after the birth of a newborn. During the discharge only, the health service provider provided some medicine and iron tablets and suggested to go to nearest HF for vaccination". (Rukum-Facility-based Delivery with complication Woman)*

> *"The health service provider advised my family not to take mother and child immediately after the delivery as there may be some problems during the transportation. Hence, we stayed a night at HF". (Dang-Facility-based Delivery Normal Mother-in-law)*

"I was advised by service provider to come to Simrutu HP for follow-up on the 3rd and 7th day of delivery if in case my newborn baby has fever or if I experienced blood loss. However, it was good that there were not any health problems like blood loss or fever neither to my child or me. One of the reasons was this, while the other reasons of not visiting the HF were not able to walk and vomiting during travelling". (Rukum-Facility-based Delivery Normal Woman)

"Generally, we visit the HF in case of any health problems only, otherwise we don't go for regular health checkup as the condition of the road is not good and a bit far away. It is hard to get a public vehicle timely and we even can't walk with a child. There is no tradition that health service providers come to our homes here and provide health care services". (Rukum-Stakeholders Group FGD)

From the quotes it is obvious that women expected health workers to provide PNC at their homes rather than them going to the HF. Women stated that they are often feeling physical discomfort during early postnatal days and find it difficult to travel through rough roads even by vehicles. Unlike the ANC period, where women could go to the health facility on their own, in PNC they need a companion to take care of themselves and their baby which may not be available. Both study sites didn't have service of home visits for postnatal checkups by health care providers. Although home visits are not foreseen in the national policy, some neighboring local governments were implementing such services as shared by one woman from Rukum.

"The health service provider didn't come to visit me at home. In Rolpa district, health service provider comes to visit at home 3 times, possibly during the period of 3rd day and 7th day, but here they didn't make the follow-up visit". (Rukum-Facility-based Delivery Normal Woman)

"PNC service doesn't depend upon people and community; it depends on the distance of the HF to seek the service. Generally, people of the nearby community come to take PNC service while people staying far away to HF don't come to take this service. This is why PNC service utilization is low in rural areas". (Rukum-Healthcare Provider)

Although home visits by health care providers were not done, a few of them managed to receive PNC checkup at home because of their personal relation with health care providers or because they lived very near to health post and community health units. Some mothers were visited by FCHVs at their home, especially those who delivered at health facilities. Even FCHVs would miss some of the women who delivered at home until informed by the family themselves about the delivery.

"Health service provider has suggested to consult with Ms. S, who is also a health worker, and call her for PNC follow-up. After the communication with her, she has visited twice; once on 3rd day and next on 7th day of delivery and examined the blood and told that everything is normal". (Rukum-Facility-based Delivery Normal Women)

"I did not know about the weight of my child. When my mother called the health workers from the HF, later a FCHV weighed my child, and I was happy to know that my child weighs 2.5 kg". (Dang-Home Delivery Normal Husband)

Most of the women affirmed that they received family support and care during the postnatal period. Even in nuclear families, when the husband was not at home, some relatives from women's side of the family would take care of the mother and the baby. Most of the women also stated that either husband or in-laws had more decision-making agencies in matters of child's care and seeking of health service for the baby while some would make a joint decision within the family.

"Generally, mother-in-law supports the necessary preparation and readiness during and after the birth of a child." (Dang-Home Delivery with Complications Women)

"My mother came from my native home and took care of me and my child the whole night. Later my mother-in-law continued to take care of us. All the decision about caring a child, feeding the child, and seeking health care of the child in case of any health problems was made jointly in consultation between my husband and my in-laws (father-in-law and mother-law)" (Dang-Home Delivery Normal Woman)

8.6.2 Post-natal traditions and beliefs

Post-natal traditions and beliefs are still strongly embedded in the culture, yet do not hamper PNC seeking in case it is needed. In Nepal, there are various cultural practices associated with the postnatal period. Many women in West Rukum stated to stay separately from other family members until the naming ceremony of the child was over, which would be around 7 to 9 days after the delivery. During this time, women stay in a separate place with fireplace nearby and are not allowed to touch her in-laws, water taps and have dairy products depending upon their beliefs. Most of the time female relatives would take care of the mother and the child. Some husbands also claimed to have been thoroughly engaged in caring for their wives. Even though women are not allowed to go out during this period, many of the women disclosed that they could visit health facilities if they have any health issues. Most of the community people did not point to this cultural practice as a barrier to take PNC service. Rather reasons for not accessing PNC were focused on perceiving themselves as healthy and not requiring the check up and finding it difficult to travel long distance multiple times in a short period.

> *"My mother had come to provide care as we are staying separately from the family. She prepared food, bathed the child, put oil, and gave massage to the child. She also helped in fetching the water as I was not allowed to do this traditionally and had to stay separately for 7 days. As per our tradition, after giving birth to a child, we (women) are not allowed to touch water tap/handpump and not allowed to go to others room until the naming ceremony of a child on the 7th day after childbirth is completed. Then we are allowed to move around at home but are still not allowed go outside the home until 11th day. But if there is any difficulty we can go out". (Rukum-Home Delivery Normal/ Women)*

While discussing about cultural practices; there were also few accounts, where traditional healers were sought for the child. One of the women shared about going to a healer as her child did not breastfeed well.

> *"Usually, people go to traditional healers for treatment if they are cursed with God and goddess. Once I had also gone to traditional healer when my elder daughter was born, as my daughter didn't take breast milk for 16-17 days. The traditional healer did the treatment according to his own procedure, later my daughter started to take milk regularly". (Dang-Home Delivery Normal /Woman)*

8.7 Supply side responses regarding easy access to FBD

Health service providers responses to increase facilitators and decrease barriers for facility-based deliveries. The service providers, the local authorities; political leaders and health managers of the concerned municipalities were asked about the effort that has been made to make service use easier during pregnancy and childbirth. Their view and recommendations were explored to improve the utilization of the maternal and child health with a focus on facility-based delivery.

Breaking down financial barriers through monetary incentives the Government of Nepal has launched a maternity incentive program for institutional delivery, for women having 4 ANC visit as per the protocol and a *"nyano-jhola"* (warm clothes for mother and newborn) which continues in both municipalities under study. Despite the incentive, this amount is some time not enough due to the other opportunistic cost which pose a barrier for some of the women. The female Palika sub-chair of Dang has created additional incentives to motivate the pregnant women and families for ANC visit and facility-based delivery which has made positive impact.

> *"I have started nutrition incentives for pregnant women and new mothers for continuous 2 years now. I had initiated this service with the objective to target those women whose utilization rate of health services is extremely low. In order to increase this rate of women who deliver at HF. Previously, the data of institutional delivery of Banglachuli rural municipality was 28% while it has increased to 52% now. This increment was seen after starting such an initiative". (Dang-Local Authority)*

She further added that being a women leader, she feels responsible for the health and wellbeing of women and children of the entire community. She looks at the problem of women through her own eyes and therefore made some decisions regarding the health of the women and children. An effort has been made to improve the access of the services through the expansion of the birthing centers

with improved physical facilities and free ambulance services particularly for those wards which are considered geographically difficult to access. Advocacy to prevent child marriage, having children only after 20 years of age and utilization of the health services are on her agenda. This indicates a certain flexibility of local authorities in prioritizing women and children, needs are especially recognized under a female leadership.

> *" Recently, we, the local representatives from ward level started an awareness campaign to stop early marriage and multiple marriage, awareness regarding planning of child only after the women reaches 20 years, and delivery at the HF" (Dang-Local Authority)*

Awareness raising at the community level by FCHVs is key to provide health information during the health mother groups. To motivate FCHVs for their work, Rukum's local authorities have provided extra incentives.

> *"We are also motivating FCHVs. Beforehand, FCHV used to only receive incentives for their uniform. Now, we have arranged that each FCHV gets Rs.400 for attending the mother's group meeting. They also follow-up pregnant women for their timely and complete ANC visits. This has made it easier for us to achieve our objectives and they feel motivated as well." (Rukum-Local Authority)*

Coordination with supporting partners and referral hospitals is another initiative that Rukum district authorities have made to improve the maternal health services and referral linkages.

> *"There are different organizations such as Nepal Redcross Society, Suaahara program, System Strengthening for better health, Manab bikas community hospital, they work on software part like orientation and all. These organizations are supporting us." (Rukum-Local Authority)*

> *"We coordinated through our effort a program from Suaahara for the mapping of pregnant women in the community. Firstly, they collect information on the total population and map out the households including pregnant women and follow-up these household for advice on ANC checkups. If all the ANC check-ups are done timely, they get green mark. Non-doers get red mark and are followed up". (Rukum Local Authority)*

In order to increase awareness, health facilities are closely working together with mother groups and FCHVs focusing on the hard-to-reach people. Proper counselling and education to improve the service seeking behavior especially on facility-based delivery, as well as keeping the health facility well organized and clean to give a feeling of safety and confidence in seeking services are aspects where health facilities focus on. In Dang, follow up by phone for ANC and facility delivery encourages women and makes them feel looked after and cared for. Further to this, personnel initiatives of the health staff increase the convenience and acceptability of staying in the HF. Providing food for the mother and caretaker while they are staying the health facility has made it easier for people to come and stay longer after the delivery.

> *"We have provided counseling service more intensively to mother's group, PHC-ORC clinics. We talked and provided counseling to clients in in a way, that they felt satisfied to have received such a service. Besides that, we try our best to provide quality services and maintain cleanliness in the health facility. We try to deliver quality service from the organization as a whole and focus on safety and hygiene in all possible way". (Dang-healthcare provider)*

> *"We also provided follow-up service through phone communication to the pregnant women in order to track their ANC visit. Whenever we called them from the HF, they felt that the HF was concerned about them, and they wanted us to visit them timely. Sometimes when the husband received the call, we would counsel them, and they would send their wife the next day. We had provided Rs.500 as the fund for communication for this." (Dang- Healthcare provider)*

> *"We also arranged lodging and food at the HF for women and one companion as some might have to stay for 2/3 days. Some can arrange it by themselves, but it is not possible for everyone. Some can't afford to stay and eat at a hotel." (Dang-healthcare provider)*

Monitoring visits from the local authorities are carried out. When they detect any issues, they provide suggestion and feedback to the service provider. Palikas also coordinate with the local health facilities' organization and management committees to review the achievements and challenges in relation to quality of service. This also helped in creating a feeling of constructive competition among

health facilities, appreciation towards achievement and creating a positive attitude to act on the feedback for further needed improvements.

> *"We have been monitoring the health facilities regularly. Whenever we hear any complaints regarding service delivery, we go for monitoring and ask for their clarification on that matter and provide suggestion for the area to improve." (Dang-Local Authority)*

> *"We need to check the situation in our palika, what problems we face, and we need to tackle them accordingly. There are still some weaknesses in the health provision." (Rukum_Local Authority)*

One of the local authorities from Rukum highlighted the availability of the policy and decision making by local government, regular review of the program and organizing the public audit will support in service improvement. Allocation of more fund for maternal and newborn health is important to improve the access and quality of the services in general

8.8 Collaboration is key to maximize impact

Apart from the Government programmes and activities from the Palika other organizations are helping to improve the maternal health situation in the local communities, such as the Nepal Red Cross, SUHARA and another INGO working for maternal and child health and strengthening system for better health (SSBH), a USAID funded project.

All respondents mentioned that programmes from supporting organization make a positive impact on the health mother groups. One of the health care providers emphasized that such activities should continue as the Palika alone cannot achieve the results. Maximizing each other's potential without duplication was mentioned as a key success factor.

> *"Women go to the mother's group meeting regularly and learn about health and education. Therefore, the utilization of health services by pregnant women has increased. It has made easy for us." (Rukum healthcare provider)*

> *"If we jointly run the health services from the five organisations which work in our district, we could manage well. We need to help each other." (Rukum-Local Authority)*

A local authority in Dang highlighted the support activities from Red Cross in improving the quality of the services through equipment support and improvement of the infrastructure. Linked with awareness raising activities it encouraged women to utilize services.

> *"The Nepal Red Cross Society has done a great job regarding the mother and child health program. They have supported necessary commodities at the birthing center, which has increased the flow for institutional delivery. They have motivated us in this regard." (Dang-Local Authority)*

One of the health providers noted that the activities are not 100% successful but have a positive influence on service utilization. Another health worker further added that reaching community people especially the hard-to-reach ones is still difficult and not accomplished yet. They mention that each health professional is different and works differently with the mothers' groups and also people respond differently to the awareness and information. Maturity of the client and their understanding is important to induce a behavior change. Local authorities stated that an individual approach, including individual male involvement and counselling is important.

> *"Firstly, it depends on the awareness we provide. Secondly how many people we can reach to with that information. And how much of the information has been grasped by the people and how much they utilize it in real life." (Dang-local Authority)*

8.9 Needs are huge-resources are scarce: putting policy into practise remains a challenge

Respondent who are responsible for the overall management of the health services in their community have described numerous challenges at strategic and management level which have a direct impact in service delivery and its utilization. Putting the policy into practice to meet the needs is a major challenge due to the lack of resources One of the local authorities described the weak relationship with central government. Resource allocation is centralized and there are always issues

of timely disbursement and inadequate consideration of the needs of rural communities. This made it difficult to gain trust in the community and authorities are made accountable and are questioned about the resource allocation. The respondent further added that there is lack of team spirit among the political leader which creates conflicts and a political divide in the community. This distracts local authorities from their responsibility. The interviewee acknowledged the importance of the coordination and partnership with different actors including the private sector to execute the policy and plan to achieve the result. Finally, close monitoring to ensure transparency and accountability is important: once this is fulfilled and resources are properly used, then community needs can be met.

> *"We develop the policy, but whatever we do we need the partnership with others. We accept the co-existence of the private sector, and we need partnership with different actors, also the private actors". (Rukum- Local Authority)*
>
> *"We need to be accountable to the people. We sit in a glass house." (Rukum- Local Authority)*
>
> *"There is a lot of investment in health and education, but this is in transparent, we see no impact." (Rukum- Local Authority)*
>
> *"Delay in logistic supply and lack of accountability from higher authority exists." (Rukum- Healthcare provider)*

9 Discussions on findings

This qualitative study was able to identify a broad range of issues that could influence the use of maternal health services throughout different stages of pregnancy. The major themes that emerged were physical access, family dynamics and hierarchy, understanding of labor and complications, personal factors and availability and quality of care. During analysis it was observed that a diverse mix of respondents from women who had recently given birth, their family members, health workers, stakeholders, and distinct local authorities through FGDs and IDIs have brought out narrative that were sometimes similar and at some point, were contrasting. In this discussion, the findings and perspectives that were derived from this study will be organized to answer the research questions while also comparing them with the available national data and literature relevant to the topic in focus, through other studies either conducted in Nepal or in places with similar socio-economic context.

The themes that emerged during the analysis cannot be seen as absolute for or against of health service utilization. The influence of these factors depended on people's background, level of knowledge, their family and living conditions. It can also be said that the influence of these themes kept evolving through the stages of pregnancy.

9.1 Decision making to seek care

It is important to seek timely maternal health services to save lives of mother and their children and ensure their good health. Through different stages of pregnancy, women and her families had to make decisions to seek care whether it was normal situation or facing complications. However, the analysis shows that the decisions as well as the decision makers can change throughout different stages of pregnancy and childbirth. Decision making processes were therefore dynamic changing with the progress of pregnancy, family's situation, and influence of community people along with available logistics.

The scenario around decision making and seeking Antenatal care seems to be progressing as many respondents claimed of having joint discussions among couples or family members followed by husbands and in-laws after they identified their pregnancy. ANC care service was the most utilized service among all types of maternal health service which supported by national data. Only few women had said they made their own decision of seeking health care. As identified in other studies [15], Husbands did hold financial position thus giving them more power of decision making. So, did mother-in-law base on the family hierarchy [16]. However, this was not seen as a significant barrier to use of ANC service. At times when husband and family members had more knowledge or were able to anticipate risks, they ended influencing women's decision of not seeking care instead. Social support received from family and community encouraged them to seek antenatal care services.

Personal factors such as feeling of shyness were significant in interfering with decision making. Even though when encouraged by family, women may decide not to seek care due to shyness, especially when they were young or go pregnant early. This is similar to the experience of women from Pakistan and Uganda [17][11].This shyness was not just about physical privacy but associated with the community knowing they were sexually engaged. Although this is a very personal perception and trait, this needs to consider significant as women tend to hide their pregnancy and even give birth all alone which often blocks the possibility of intervention.

ANC visits are considered as crucial contacts between women and the health workers and has been identified as a significant indicator of institutional delivery[15][16][17]. But the findings in this study shows that many women who had done ANC visits still didn't go to health facility for delivery which raises the question on quality of health education counselling provided at local outreach clinics and health facilities.

Among all three stages of pregnancy, the changes in plans and decisions were most frequently seen during delivery. Although many women had made either sole or joint decision with their spouse or family members about the location of childbirth before starting of labor, half of them could not actualize it, whether the choice was home or health facility. After the onset of labor, women played more passive role in decision making. The process of decision making followed the recognizing of labor and women informing her husband or family members who then played the role of decision makers which is similar to the process described in a study conducted in Tanzania [18]. Even though a study in Southwest Uganda showed that women who didn't depend on others were more likely to use maternal health services, the women in this study when going through labor pain felt they were in no position to comprehend the situation fully and assert their decision. Therefore, the final decision of going to health facility depended on the family members not only due to family structure and hierarchy but also due to the poor physical state of woman when in labor.

The findings in this study did not show that the decision makers other than the women perceived health service unnecessary. Even when it is decided that the baby will be delivered at health facility, the decision maker's knowledge and understanding about labor, complications and their previous experiences did determine timeliness of seeking care. The delay in decision at family level was the most common reason for women delivering on the way or at home in this study. How urgent do they feel, and do they fear that the mother may face complications seemed to determine if the family promptly started the arrangement for travelling to health facility. Often, they waited until morning even though the labor started at night. Other external factors such rainy season, festivals, unreliable mobile networks, lack of support at household, long distance from health facility, etc. discouraged them from trying to seek care. This goes along with the concept highlighted in other studies[15][16] about including husbands and mothers-in-law in Antenatal counselling and birth preparedness. This was also shared by some health workers interviewed as being focused on while providing service. However, not all husbands claimed of attending ANC with their wives which shows the gap in implementation and thus the delays happening at family level.

Apart from husband and in-laws, the course of birth plan and seeking health care were also stirred by the other female relatives and community people at times. Families with relatives who worked as health workers received more support in timely seeking health care. Even social mobilizers who have knowledge on maternal health issues have played significant role in positively influencing the final decision of going to health facility. It is also worth noting that it is always female relative who accompanies the woman during birth either as an emotional support when woman is delivering at health facility or as an attendant when woman is delivering at home or elsewhere. Therefore, these female relatives even when they are not in decision making position have significant part in either fastening or delaying the process of seeking care.

Other factors such as physical access to health facility and financial arrangement also stood out as conditions that were considered by family members while making decision to seek care. However, money was not pointed outright as a cause of delay by the family members as much as onset of labor at night, road access and transportation were.

As for postnatal care, the decision making for seeking care was done by Husbands or in-laws. Postnatal care service was the least utilized maternal health services and were linked with considering of service as curative and not necessary if mother and babies were apparently normal. It was a hassle for women to travel with newborn on difficult roads just for regular check-ups. The

practice of secluding postnatal mothers (*sutkeri baarne*) was also prevalent in study sites. In one the study conducted in Nepal; seclusion practice has been linked with delay in seeking care[19] But in contrary, women and their families involved in this study stated they could visit health facility if they have health issues.

9.2 Barriers

All respondents including health workers and local authorities shared about perceived barriers that hindered women from receiving maternal health services, especially delivery care service. Physical access barriers were readily perceived barriers among all types of respondents which has already been found as a barrier in many other studies conducted in Nepal as well as low-income countries [11] [18]. Physical access barriers are considered as cause for second delay and could occur in many different forms such as unavailability of vehicles, delay in arrival of ambulance, roadblocks, rainy season, dangerous roads, etc. Even health care providers were aware that number of ambulances was not enough and since the roads were difficult, maintenance was also a big challenge. The challenges of physical access however do not only make it difficult for non-users only. Even those who did deliver at health facility faced these challenges and overcame them to reach health facility.

Community people and stakeholders saw distance to health facility as a barrier to physically access maternal health care. Analysis of NDHS data has also shown that institutional deliveries decreased with longer distance from health facilities and this affected women in hills and mountains even more[2]. This pattern was also observed in the study as respondents who delivered at home lived at longer distance. Health workers and local authorities were also aware of this pattern. Another factor making physical access more difficult and also playing a significant role in second delay was communication barriers because of unreliable network or ambulance not answering the call.

The delivery service is free of cost in government health facilities. Yet, respondents in general considered lack of money as a barrier to institutional delivery which is also reflected in a systematic review conducted in Nepal[20]. The economic barrier considered in this study were associated with other informal costs that accrued when reaching out institutional care such as cost of transport, food for people who accompany, cost of people if women were carried to the facility, etc. The informal cost was even higher when women were referred to larger health facility for advanced care. However, none of the community women and their husbands who delivered at home stated lack of funds as their sole barrier which is similar to the findings of another study on barriers and facilitators of institutional delivery in Nepal [11]. However, both community people and health care provider perceived poverty as barrier that influences the overall ability to access needed care. Poverty was seen as linkage to knowledge of health issues and care seeking behavior apart from the ability to purchase the service. Health care provider and local authorities associated poverty with lower awareness on importance of health services and thus lower utilization.

Poverty and economic factor also influenced other barriers such as presence of husband at home. Due to lack of economic opportunities locally, very high numbers of men have out migrated for work. This might be helping to address the economic status, but it also meant lesser availability of support for women at home. This posed more difficulty for women living in nuclear family burdening her with household chores and childcare tasks. In situations where women lacked support and had to make decision alone, they were less likely to go to health facility [21]. The effect of migration is also significant for people living in places with no road access as this meant not being able to find people to carry women to health facility when needed creating second delay. The accessibility of maternal health services was described mostly in terms of physical and economic access in this study. Although lack of money was considered a possible barrier in accessing maternal health service, there were also financial support available in different forms at the community level. However, the cost that accrued when mothers had to be referred were still considered as difficult aspect of seeking care. In comparison to economic access, physical access was considered more challenging and was pointed out to be reason of not being able to reach health facility on time.

Another noticeable finding was that lower level of awareness as a prominent barrier. Health care providers and local authorities believed that awareness was increasing gradually with improved access to education and media, but it hasn't increased enough. This is reflected in the perceptions of some community people who consider birth as a normal process and seeking care only when complication raised. This was more common among women who were living in families in which

none of the women delivered at health facility, thus reinforcing the concept of birth as normal process. This 'wait and see' tendency was common among women who intended to deliver at home and also among the family members of the women whose labor started at night. This pattern of behavior has been observed in other studies related to maternal health care seeking [10] [22]. This pattern of care seeking could potentially cause first delay. Many women and their husbands viewed onset of labor at night and shorter duration of labor as a barrier, expecting their second or subsequent birth to be as long as their first. At times women even failed to recognize labor pain until it progressed too far to travel. There seems to be a gap in level of understanding of labor and complications. Increasing awareness about when to seek care through quality health education can not only break these patterns but also help women overcome shyness which is a personal level barrier. Also, when respondents were asked about their advice to other in choosing the place of birth, most of them responded they would advise delivery in health facility because it would be safer and easier. This suggests towards a gap in knowledge and practice of community people. Lack of birth preparedness also emerged as a barrier in this study. Although most of the women and husbands said to have prepared for birth, it mostly included provisions of nutritious foods, preparation of clean clothes for mother and baby, and arranged money. Some of those who intended to deliver at health facilities had also contacted health workers, prepared for transportation, and also communicated with relatives for possible needs of support. This is similar to findings of NDHS, 2011. When critically analyzed, it seems that people are less focused on the bigger challenges such as transportation, family support and tackling uncertainties that surrounds labor and childbirth. A thorough birth and complication preparedness can well position women in facing external challenges such as physical access, economic factors and social barriers. Studies have shown positive association between the level of birth and complication preparedness and institutional delivery [23] [24].

Findings has shown that with increase in service utilization both ANC and delivery, some of the women and husband had shown belief toward the traditional healer and consulted. However, few husbands were reluctant to express their belief towards traditional healer during the interview possibly due to social desirability bias. This has further proved during the discussion with stakeholder and health care provider that they prominently mentioned most of the community people do have belief towards the traditional healer and they normally seek care. As for the seeking of traditional healers, there was specific conditions for which people were mostly likely to suspect the cause as a doing of 'bad spirit' or *'laagat'*. It was more common when women had labor earlier than given date or in cases of prolonged labor, for which they would drink spiritually treated water or food. Although community people didn't seek their help in assisting the delivery itself, it may have delayed the decision-making process for some.

During focus group discussions, factors related to service were also considered as barrier by community people. Community people seem to perceive quality of service in terms of availability of needed service, infrastructure and amenities and attitude of health workers. Regular Availability of needed services was also a significant factor in the opinion of both community people and health care providers. The use of advanced service such as video X-ray during ANC is increasingly become popular to know the status of the baby inside the womb. Likewise, patient had to be referred if they need blood transfusion or oxygen support. So, many women who seek or might need such services tend to self-refer to higher center and bypass local health facilities so they can receive all services in one place. Infrastructures such as lack of warm rooms were frequently mentioned by women especially in West Rukum. Husbands and families also shared about lack of waiting rooms so they could go to health facility earlier than actual labor starts. In a meta-synthesis of studies from across Africa, Asia and South America, disrespect and abuse by health workers was identified as a major barrier[22]. The poor attitude of health workers was highlighted in women's group discussion especially. There were accounts of stories (someone else's experience) that were shared about rude behaviors such as scolding women for screaming while in labor pain, physical violence when women could not follow their instructions and of neglect such as not informing about impending complications on time which led to death of a newborn. The experience shared by fellow women with her peers were important influencer in decision making because new mothers could form misconceptions such as they would be operated if they go to health facility. Misconception such as this has been noted in a study conducted in eastern Nepal as well[25]. Women didn't have to experience it firsthand, even perceived potential of being ill-treated was strong enough to influence their decisions.

Other factors that also emerged during discussion were related to gender issues such as household works considered as responsibility of women, lack of financial freedom for women, alcohol abuse and domestic violence, unwanted pregnancy and preference of male child all leading to situations where women are either not able to access or decide not to access maternal health services.

9.3 Facilitators

Although physical access is a known challenge, the interventions placed forward by the local government and health facilities were helping women in overcoming this challenge. Availability of stretcher nearby and free ambulance service in some areas were considered as a facilitator by the respondents. However, the reliability of ambulance service was still low. Since the number of ambulances is few, it could be in use by someone else or may be broken or blocked by bad roads. Those who had prepared well by having contact numbers of multiple ambulance or other vehicles were able to overcome these challenges.

Similarly, living near the health facility was seen as enabling factor against the long distance. Community people also described living nearby the health facility when delivery date approached as a solution to the problem of distance. However, very few had actually done it. It was easier if they had relatives whose house were near to health facilities. Otherwise, there was no provision of waiting place at health facilities.

To encourage the uptake of maternal health services, Government of Nepal has been providing with cash incentives for completing four ANC visits and delivering at the health facility which is furthermore topped up by local governments. During focus group discussions, many respondents stated these incentives to be an enabler of using institutional delivery service. But the experience shared by both community women and health care providers revealed that these incentives were distributed later after verification and approval of higher authority. Usually, women were not able to use this incentive at the time of delivery when actual expenses occur. Even if they do, the incentives were considered not enough to cover all the informal cost accrued during institutional delivery. One of the women even asserted that incentives cannot be a facilitator instead of safety of the mother and child.

As discussed above in barrier section, money helped in arrangement of other needs such as transportation and informal costs while seeking delivery services. In this study, it was found that arrangement of money was usually done as a part of birth preparedness through savings usually by husbands. But there were also various options for arranging funds such as through ask help from relatives, neighbors, and in-laws. Loans were also available through Health Mothers Groups, local cooperatives, or personal loans. During the discussion family and community's support in arrangement of money was also considered a significant enabler.

Indeed, family support was another significant facilitator in seeking maternal health care services. Other than providing economic support, husband and family's support made things much easier for women. There is always a need of more human resources during childbirth for various purpose such as accompanying woman, carrying her to facility, preparing hot foods for mother, taking care of household and young children. Women who received sufficient support felt more emotionally stronger to travel to health facility. Lack of support from husband and family members would strongly diminish the possibility of seeking health care, especially for women who living in nuclear family or have dependent family members.

As mentioned in barriers, level of awareness on importance of skilled birth attendants and level of birth preparedness has a strong association with utilization of institutional delivery services. On contrary to those who would consider the process of childbirth 'normal' and chose to delivery at home, women who acknowledged that pregnancy is uncertain and unexpected problem could happen at any time were more likely to seek health services. During discussions, community people and health workers both shared that more and more people are being exposed to health information and importance of institutional delivery through various methods such as radio, facilitated discussions in Health Mothers' Groups by various non-profit projects, through health workers at health post or outreach clinics and even through schools' education.

People who had more knowledge and were aware of various complications that could occur during pregnancy and childbirth would associate their own pregnancy with possible risks. This fear of complication would motivate women and their families to seek 'safety' from someone who had better

knowledge about managing obstetric complications. Seeking health service for safety of the mother and the child was rated higher than other facilitators such as cash incentives. This seeking of safety along with perception of health facility being a 'safe place' to deliver which provides necessary health service and referral during complication played a significant role, especially in decision making and thus preventing first delay.

As described above, attitude and behaviors of health workers can act as a barrier whereas a trusting relationship with health workers who assist the delivery also enabled women to feel comfortable delivering at health facilities. Women felt comfortable when health workers briefed them about their progress of labor, talked about what will happen next, how she is expected to cooperate in each step and comforted them with kind words. When community people felt confident about the clinical skills and timely decision of referral by the local health workers, people were more likely to visit health facility for services and advice.

9.4 Perceptions on availability, acceptability and quality of services at local health facilities

Government of Nepal introduced the policy of having one health facility in each ward level. With this policy, local governments have expanded Community Health Units in areas of need. However, only limited antenatal and postnatal services are provided from these units while delivery service is still limited to older health posts with birthing centers. Even though birthing service is available 24 / 7, women and her families still found it difficult to access it if labor started at night attributing the delay to transportation difficulties. While normal delivery service and complication management such as postpartum hemorrhage, eclampsia, neonatal resuscitation are usually available at health post level, other advanced service of Comprehensive Emergency Obstetric and Newborn Care (CEONC) and advanced diagnostic service such as Video X-ray / Ultrasound needed referral to bigger facility in another city.

Acceptability of health service is largely determined by the user's perception of health service meeting their expectation while also remaining sensitive to socio-cultural appropriateness and medical ethics. In the experience of women who delivered at health facility, most of the women stated of feeling satisfied with the service they had received from local health posts. Most women who were treated with kind and supporting behaviors by health workers, described their experience of delivering at health facility as a positive experience. But there were few incidents where women and her family members felt ill-treated and ignored by local health staffs while women were in labor. This had resulted in self-referral to higher center by family members where they delivered normally. The attitude and behavior of health staffs and their ability develop a trusting relationship with mothers largely determined the acceptability of the service.

Apart from behaviors of health staffs, quality of services was also linked with infrastructure/ amenities and clinical competency of health staffs. Many women recalled feeling cold while delivering at health facility. The buildings of health facility are generally concrete buildings that get cold without proper large heating systems. The arrangements at health facility also doesn't make it allow mothers to carry out their traditional practices of keeping mothers and babies warm such as hot oil massages and feeding hot foods. This was mostly shared by women who had their first baby at health facility but delivered their second at home.

In general mothers who utilized health services relied on the clinical decisions and suggestions of health staffs as these matters are beyond their own knowledge. But some women who delivered at local health facility had perceived not receiving required clinical care and lacking confidence in the skills of health care providers. There were complains of too many vaginal examinations, longer labor with no medication to augment labor, not providing with concrete decision if delivery was possible in health post level, etc. There was a lack of trust whenever health staffs could not provide the family members with clear information and effective counselling. The competency of health care providers to confidently assist deliveries were also a concern of providers themselves along with periodic stock out of necessary equipment and drugs.

10 Strengths and Limitations of the study

This qualitative study includes experiences and opinions of diverse respondents throughout pregnancy, birth and postpartum including complications. It has brought multiple perspectives and comparative information on decision making to seek maternal health services at different stages of pregnancy capturing views of women and family members who delivered at home as well as health facility along with health care providers and local authorities. The triangulation of various perspectives has helped to understand these facilitators and barriers to maternal service use, which may be useful in further designing of interventions to overcome barriers. During the analysis it was observed that despite of covering small geographical area, there is still heterogeneity in the experiences and opinions among women.

Since childbirth is a significant for women as well as their families and is considered to less likely to affected by recall bias. However, to minimize recall bias, women who had delivered within last 12 months were included in the IDIs. The analysis was conducted in original language to preserve the essence of their experiences and opinions.

The study design and methodology applied tried to limit bias, as much as possible. Given the inclusion criteria for the study and the small geographical area of study, the purposeful selection of the sample may have introduced some bias. While research assistants were hired from externally, the field supervisors were project employees, and thus partly known by the interviewees, mainly the health providers and stakeholder authorities, which may have influenced their responses.

Lastly, the volatile epidemiological situation because of COVID-19 may have influenced the decision-making and health seeking behavior of the pregnant women, mothers and their families, and thus may have impacted the results of the study. This biased was addressed by ensuring that only women who delivered after the national lockdown were included in the study.

11 Conclusions

Although Nepal has made much progress in reducing maternal mortality and increasing maternal health service utilization in last few decades, there is still a long way to go. The study showed that women were using institutional delivery services when decisions regarding service seeking were done more inclusively involving the husband and/or other family members. Women are dependent on decisions of family members. Particularly when she is in labor, the awareness level and sense of urgency of family members becomes significant. This insight underscores the importance of engaging husbands and family members in caring of pregnant women in a decision-making role that is broader than only a financial provider.

Delays in decision making to seek health service is hindering women from actualizing their plan of delivering at a health facility. The ‘wait and see’ behavior arising from shyness, inability to recognize labour pain in time, community’s perception of childbirth as a normal process and from still being “unprepared” despite preparedness plans considering seeking care from the health facilities as more of curative service affect the decision-making process and eventually makes women not materialize their plan to deliver in a health facility. The health education provided during ANC needs to focus on increasing the understanding of the nature of labor as well as possible complications and needs for referral so that women and families could take timely decisions for seeking services. Physical access is still a significant barrier, especially for institutional delivery and for people who live far away from the next health provider. Poor transportation service, difficult geography, limited road access and seasonal rain bring more uncertainty in reaching the health facility on time. While it will take a large effort and commitments from government to fully address issues of transportation and good road access, more robust and tangibles plans for emergency transportation addressing all eventualities needs to be emphasized while preparing for birth and complications. The education of birth preparedness should focus on how the local challenges can be overcome and also requires a rigorous follow-up by health staff during subsequent ANC visits.

The quality of care as reflected by clinical competency of care providers, their behaviors, warm accommodating facilities for women in labor are central and need to be enhanced to provide a positive birth experience for the woman and encourage decisions to seek services during pregnancy

and childbirth. Strengthening clinical capacity of health care providers to make timely decisions for referral along with increasing their understanding of respectful maternity care can be helpful in building a trusting relationship with mothers and their families. There have been extensive efforts from both central and local governments in expansion of birthing services with a utilitarian approach to reach more people with very basic maternal services. Adjustments in available infrastructures and physical environment to ensure physical comfort and accommodating local care practices may help women feel more comfortable delivering at the health facility. However, a functional logistic supply, sufficient staff and a good team spirit are further elements to be assured.

PNC services are the least utilized among ANC, delivery, and PNC services. While new mothers find it difficult to travel to health facility within few days of delivery to just check up without any apparent health issue, interventions of bringing postnatal services closer to women through home visits and focused outreach service could be more effective in increasing PNC service use.

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Annexes

Annex I: NHRC Approval

Government of Nepal
Nepal Health Research Council (NHRC)
Estd. 1991

Ref. No.: 153.

28 July 2020

Ms. Tulasa Bharati
Principal Investigator
Swiss Red Cross/Nepal Red Cross Society, Kathmandu

Ref: Approval of research proposal

Dear Ms. Bharati,

This is to certify that the following protocol and related documents have been reviewed and granted expedited from review by the Expedited Review Sub-Committee for implementation.

ERB Protocol Registration No.	259/2020 P		**Sponsor Protocol No**	NA
Principal Investigator/s	Ms. Tulasa Bharati		**Sponsor Institution**	NA
Title	Community Perceptions of Facilitators and Barriers to Maternal and Child Health Service Use in Dang and Rukum District of Nepal			
Protocol Version No	Version 12.0		**Version Date**	27 July 2020
Other Documents	1. Data collection tools		**Risk Category**	Minimal risk
Expedited Review	Proposal	√	**Duration of Approval** 28 July 2020 to 28 July 2021	**Frequency of continuing review**
	Amendment			
	Re-submitted			
	Meeting Date: 24 July 2020			
Total budget of research	**NRs 7,76,900.00**			
Ethical review processing fee	**NRs 10,000.00**			

Investigator Responsibilities

- Any amendments shall be approved from the ERB before implementing them
- Submit progress report every 3 months
- Submit final report after completion of protocol procedures at the study site
- Report protocol deviation / violation within 7 days

Tel: +977 1 4254220, Fax: +977 1 4262469, Ramshah Path, PO Box: 7626, Kathmandu, Nepal
Website: http://www.nhrc.gov.np, E-mail: nhrc@nhrc.gov.np

Government of Nepal
Nepal Health Research Council (NHRC)
Estd. 1991

Ref. No.: 153.

- Comply with all relevant international and NHRC guidelines
- Abide by the principles of Good Clinical Practice and ethical conduct of the research

If you have any questions, please contact the Ethical Review M & E Section at NHRC.

Thanking you,

Dr. Pradip Gyanwali
Executive Chief
(Member-Secretary)

Tel: +977 1 4254220, Fax: +977 1 4262469, Ramshah Path, PO Box: 7626, Kathmandu, Nepal
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Annex II: Guideline for data collection

Interactive Focus Group Discussion Facilitation Guide

Introduction (10 minutes):

- Welcome the participants and introduce yourself.
- Explain the purpose of the group discussion: read out the Informed Consent form about the aims and objectives, and how participation is entirely voluntary, and they can opt-out of any part of the discussion and are free to leave at any time. Ask individual participants to sign the consent form.
- Go through any COVID-related arrangements, such as the distance that must be kept between participants, whether masks must be worn, and encourage everyone to wash their hands at the start and end of the activity (and provide handwashing facilities).
- Inform participants that the discussion will be audio-recorded, explain that this is to aid notetaking and so researchers can more accurately capture what was said.
- Explain that the research team will not record any names and will keep all information shared during the activity anonymous. However, because this is a group activity, confidentiality cannot be assured.
- Ask if there are any questions, and if anyone would like to leave right away.
- Ask everyone to introduce themselves briefly in case not everyone knows each other, and if appropriate, to say something about their interest in the topic of maternal health in their communities, or what they feel is a local priority. This will help break the ice and improve focus but keep it short – this is not the time to get into an in-depth discussion.

Part 1: COMMUNITY MAPPING: What does the community look like? *30 mins.*

The participants will draw maps of their community and locate where women visit to get needed health care services. This section is intended to help visualization of their community and set the scene for further discussion.

Part 2: PREGNANCY PATHWAYS: What are common local experiences for pregnant women? *30 mins.*

In this section participants try to identify common incidents, events, milestones related to various stage of pregnancy through timeline drawing. This gives more information about what women usually experience during pregnancy and childbirth, where does she go for health care and how the decisions are made. We look into the difference among different social groups in terms of experience and decision making. This section also identifies preferred and avoided services.

Part 3: HORSE & CART: Facilitators and barriers to health care seeking. *30-45 minutes*

The last section is about identification of barriers and facilitators in health care seeking through visual interactions. The components that help the cart move forward are considered facilitators whereas components that hinders the forward movement of cart are barriers. The discussion will also focus on determining the value and significance of each component as well.

Part 4: WRAP UP: Ask the group to look at all 3 of the visuals they have produced, and if there are any additional ideas or information they would like to share. Ask permission to photograph the diagrams/maps but leave the originals with participants to keep or dispose of as they wish.

Thank the group for their active participation. Tell them we appreciate their time and thoughts, which will be added to other information that is being used to better understand local perspectives on maternal health services in the area.

Inform the group that individuals might be approached to participate in an individual interview, where they could share more of their thoughts and experiences. In particular, the researchers may invite women who gave birth in the past 6 months in the community or at a health facility to share their individual experiences. Also, ask participants to suggest women in the community who experienced a complication/emergency during their pregnancy or birth and may be willing to be interviewed. Women who have experienced pregnancy and childbirth both before and after the time of COVID-19 would be especially welcome to share their experiences.

Anyone asked to participate in an interview can refuse to do so. They are under no obligation to agree to participate, but if they are asked and would like to be part of an interview, a time will be scheduled that is convenient for them, and the interview held somewhere in private.

Individual Interview Guides

13.1.1.1 Women who gave birth in past 6 months (no complications)

Areas of Inquiry	Specific Topics	Suggested Probes
Introduction/ Background	Please ask the respondent to introduce herself and talk about herself and her family. During the interview, if the respondent mentions the effects of COVID on their decision-making, care-seeking behavior, or health outcomes, let them tell their story. Gently remind them, however, that you are also interested in their thoughts, experiences, and decisions *before* the COVID situation. There will be time at the end of the interview for them to share any specific COVID-related experiences.	• Please can you describe your family and living situation? • How many children do you have, and what are their ages? • What kind of work is your family engaged in? What are your daily tasks?
Experiences of pregnancy and childbirth	Now let's talk to you about your most recent pregnancy. Did you consider it to be a “healthy pregnancy”? Why or why not? During the pregnancy, what (if anything) specific did you do to have a healthy pregnancy and birth experience?	• What made you feel it was healthy or not healthy? • How did it compare to any previous pregnancy? [if relevant] • Did you care for yourself in specific ways? • Did you change any of your regular habits or behaviors?

Areas of Inquiry	Specific Topics	Suggested Probes
ANC use Birth planning	Whom did you consult about your pregnancy? Can you tell me what kind of advice you received from different kinds of people? As your pregnancy progressed, what were your thoughts about care? What kind of informal or formal care did you receive during your pregnancy? Are there any other types of care that you wanted to have but were not able to obtain? As your pregnancy advanced, how were you feeling? What were your thoughts about where you wanted to give birth? With whom did you discuss your decision about where to give birth? Did you make any plans prior to the birth, such as where and with whom you wanted to give birth? Who else helped you plan?	• Are there other things you wanted to do during your pregnancy to help make it healthy but that you found difficult? Please explain • Whom else did you consult? • What about your husband or family members? [PROBE: spouse, parents, in-laws, siblings, friends, traditional healers, other community members] • Describe any providers or services that you consulted. • Can you describe how you decided whether or not to have care during your pregnancy and where? • With whom did you discuss these decisions? • Why? Can you give examples? • Did you disagree with anyone about what care you should have? Can you explain? [PROBE: spouse, parents, in-laws, siblings, traditional healers, other community members] • Can you explain how you made your decision? • What did they tell you? Did you agree or disagree with them? Did you consult anyone else?
Giving birth	Please tell me about your birth experience. What happened step-by-step, from the time you went into labour? Please take your time to think about everything that happened and how your felt about it. How did your birth experience compare to what you had planned? Were there any decisions that had to be made during your labour and birth? If so, please describe. Do you feel you had a good birth experience? Why or why not? Looking back, what would you have liked to do differently or would do differently in future?	• Where were you/ what were you doing at onset of labour? • Who else was around? • What did you do? Whom did you call or tell? • Then what happened? • What happened next? • Was anyone present at the birth? Who? • What did they do? • Anyone else? • Did anything unexpected happen? • What do you feel went well or poorly compared to your expectations? • Would you change the place you gave birth? • Would you change who was present?

Areas of Inquiry	Specific Topics	Suggested Probes
	What advice would you give to a friend who is pregnant about care during pregnancy and birth?	• What would you recommend for pregnancy care? Why? • Where would you recommend women to give birth? Why?
After the birth	Tell me about any care you and your baby have received since you gave birth? Has anyone come to visit you in the home to check on your and the baby's health? Who and what do they do? How were decisions made about the kind of care you should receive after the birth? How are decisions about your baby's care normally made? [IF the birth occurred during the time of COVID] Thinking about the whole process from pregnancy through birth and the care afterwards, do you feel that your decisions or care were affected at all by the local situation regarding COVID?	• What kinds of care have you received? • From whom? • Do any traditional providers or health workers visit? How often and for what purpose? • Who was involved? [PROBE: spouse, parents, in-laws, siblings, traditional healers, other community members] • What do other people advise? • Are there any disagreements about care? Please describe. • Why or why not? • What kinds of changes have you noticed?
Planning for complications/ emergency	Luckily your last pregnancy was healthy, and you had a routine birth. But if you had experienced a health problem or complication during the pregnancy or at time of birth, what do you think you would have done? Where would you have gone for help? What kinds of barriers might have made it difficult for you to get good care in an emergency? Can you describe the kinds of challenges women in this community face during pregnancy and birth if they have a complication or emergency? Do you think there have been any changes to these challenges since the time of COVID?	• Please explain? • Who would have made the decision about what to do? • How could help be obtained? [PROBE: means and costs of transport] • Why would you have gone there? • Please can you describe any situations you know or have heard about? • What happened? • Please can you explain? Can you give any examples of how COVID has affected care during a complication or emergency?
Wrap-up	Thank you for sharing your personal experiences with me. Is there anything else you would like me to know?	• Do you have any final questions for me about the study?

Women with previous complications/ obstetric emergencies

2 a. Complication During pregnancy

Areas of Inquiry	Specific Topics	Suggested Probes
Introduction/ Background	Please ask the respondent to introduce herself and talk about herself and her family.	• Please can you describe your family and living situation? • What kind of work is your family engaged in? What are your daily tasks?
Experiences of complication/ emergency	Please tell me about your last pregnancy. I understand this is a difficult subject and a sad and frightening experience for you. Please take your time and tell me in your own words what happened. You do not have to tell me about experiences that you do not want to share, or that make you upset. Maybe first you can tell me about the early stages of your pregnancy and how you felt? Whom did you consult about your pregnancy? Can you tell me what kind of advice you received from different kinds of people? During the pregnancy, what (if anything) specific did you do to have a healthy pregnancy?	• Whom did you tell when you first felt you might be pregnant? [PROBE: spouse, parents, in-laws, siblings, friends, traditional healers, other community members] • Describe any providers or services that you consulted.
ANC use	Before you experienced the complication, what kind of informal or formal care did you receive during your pregnancy?	• Can you describe how you decided whether or not to have care during your pregnancy and where? • With whom did you discuss these decisions? • Can you explain how you made your decision?
Birth planning	What were your thoughts about where you wanted to give birth? With whom did you discuss your decision about where to give birth? Did you make any plans prior to the birth, such as where and with whom you wanted to give birth? Who else helped you plan?	[PROBE only if respondent does not continue narrative in her own way] • How did you realise something was going wrong? • Whom did you consult/ discuss the situation? • How was the decision made about what to do next? • Who made this decision? [probe: spouse, parents, in-laws, other family, other community members, health providers] • Where did you go? • Why were this provider or service chosen? • Who made the decision? • How did you get to the provider or service? How was transport arranged? • What kinds of challenges were encountered when seeking care? • What happened once you reached the provider? • How do you feel about the care you received?
	If you feel ready, please tell me about your experience of what went wrong during the pregnancy/ labour. Take your time and tell me step-by-step about what occurred. [**Interviewer** should not interrupt too often if respondent is comfortable describing her experience. Use probing questions only at the end to fill in any gaps OR if respondent gets “stuck” and seems unable to continue. It is good to regularly ask “And then what happened? What occurred next?] **IMPORTANT**: If respondent shows signs of becoming distressed, *pause* the interview and check she is willing to continue. Take a *short break*. If it is not feasible to continue, thank the respondent	

Areas of Inquiry	Specific Topics	Suggested Probes
	and *stop the interview*. *Referrals* for counseling should be made for any distressed respondent.	
Feelings about the experience	I am sorry you went through such a difficult and frightening experience. Can you tell me how you are feeling about what happened? What advice would you give to other women who might experience the same thing, what would you tell them? How would you advise them to plan for possible complications or emergencies?	• What would you recommend for pregnancy care? Why? • Where would you recommend women to give birth? Why? • What kinds of preparations do you think women and their families should make in advance? Please describe, • Looking back, would you have done anything differently? Can you explain?
After the birth	Tell me about any care you received afterwards? Has anyone come to visit you in the home to check on your health? Who and what do they do? How were decisions made about the kind of care you should receive?	• What kinds of care have you received? • From whom? • Do any traditional providers or health workers visit? How often and for what purpose? • Who is involved? [PROBE: spouse, parents, in-laws, siblings, traditional healers, other community members] • What did other people advise?
Advice to others	Given your experience, what would you advise other pregnant women about care during pregnancy and childbirth? What makes it easier for you to get the care you wanted during the pregnancy and at the time of the birth? What might make it more difficult?	• What would you suggest pregnant women do to have a healthy pregnancy? • Where do you think it is best for women to give birth? • Can you think of any actions women and their families can take to increase chances of getting the care they need? • What kinds of challenges might women face?
Wrap-up	Thank you for sharing your difficult personal experiences with me. Is there anything else you would like me to know?	• Check if respondent would like to be referred for counselling or further assistance. • Do you have any final questions for me about the study?

2 b. If complication had occurred during labor

Areas of Inquiry	Specific Topics	Suggested Probes
Introduction/ Background	Please ask the respondent to introduce herself and talk about herself and her family.	• Please can you describe your family and living situation?

Areas of Inquiry	Specific Topics	Suggested Probes
		• What kind of work is your family engaged in? What are your daily tasks?
Experiences of complication/ emergency during childbirth	Please tell me about your last pregnancy and delivery. I know this is a difficult subject and a sad and frightening experience for you. Please take your time and tell me in your own words what happened. You do not have to tell me about experiences that you do not want to share, or that make you upset.	
Pregnancy (See woman without complication) Birth planning	Maybe first you can tell me about the early stages of your pregnancy and how you felt? Whom did you consult about your pregnancy? Can you tell me what kind of advice you received from different kinds of people? During the pregnancy, what (if anything) specific did you do to have a healthy pregnancy? What were your thoughts about where you wanted to give birth? With whom did you discuss your decision about where to give birth? Did you make any plans prior to the birth, such as where and with whom you wanted to give birth? Who else helped you plan?	• Whom did you tell when you first felt you might be pregnant? [PROBE: spouse, parents, in-laws, siblings, friends, traditional healers, other community members] • Describe any providers or services that you consulted. • Can you describe how you decided whether to have care during your pregnancy and where? • With whom did you discuss these decisions? • Can you explain how you made your decision?
Giving birth	If you feel ready, please tell me about your experience of what went wrong during the labor. Take your time and tell me step-by-step about what occurred. [**Interviewer** should not interrupt too often if respondent is comfortable describing her experience. Use probing questions only at the end to fill in any gaps OR if respondent gets "stuck" and seems unable to continue. It is good to regularly ask "And then what happened? What occurred next?] **IMPORTANT**: If respondent shows signs of becoming distressed, *pause* the interview and check she is willing to continue. Take a	[PROBE only if respondent does not continue narrative in her own way] • How did you realize something was going wrong? • Whom did you consult/ discuss the situation? • How was the decision made about what to do next? • Who made this decision? [probe: spouse, parents, in-laws, other family, other community members, health providers] • Where did you go? • Why were this provider or service chosen? • Who made the decision? • How did you get to the provider or service? How was transport arranged?

Areas of Inquiry	Specific Topics	Suggested Probes
	short break. If it is not feasible to continue, thank the respondent and *stop the interview*. *Referrals* for counselling should be made for any distressed respondent.	• What kinds of challenges were encountered when seeking care? • What happened once you reached the provider? • How do you feel about the care you received?
Feelings about the experience	I am sorry you went through such a difficult and frightening experience. Can you tell me how you are feeling about what happened? Can you tell me how you are feeling about what happened now? What advice would you give to other women who might experience the same thing, what would you tell them? How would you advise them to plan for possible complications or emergencies?	• What would you recommend for pregnancy care? Why? • Where would you recommend women to give birth? Why? • What kinds of preparations do you think women and their families should make in advance? Please describe. • Looking back, would you have done anything differently? Can you explain?
After the birth	Tell me about any care you received afterwards? Has anyone come to visit you in the home to check on your health? Who and what do they do? How were decisions made about the kind of care you should receive?	• What kinds of care have you received? • From whom? • Do any traditional providers or health workers visit? How often and for what purpose? • Who is involved? [PROBE: spouse, parents, in-laws, siblings, traditional healers, other community members] • What do other people advise?
Advice to others	Given your experience, what would you advise other pregnant women about care during pregnancy and childbirth? What makes it easier for you to get the care you wanted during the pregnancy or at the time of the birth? What might make it more difficult?	• What would you suggest pregnant women do to have a healthy pregnancy? • Where do you think it is best for women to give birth? • Can you think of any actions women and their families can take to increase chances of getting the care they need? • What kinds of challenges might women face? •
Wrap-up	Thank you for sharing your difficult personal experiences with me. Is there anything else you would like me to know?	• Check if respondent would like to be referred for counselling or further assistance. • Do you have any final questions for me about the study?

2 c. If complication had occurred after delivery

Areas of Inquiry	Specific Topics	Suggested Probes
Introduction/ Background	Please ask the respondent to introduce herself and talk about herself and her family.	• Please can you describe your family and living situation? • What kind of work is your family engaged in? What are your daily tasks?
Experiences of complication/ emergency	Please tell me about your last pregnancy and delivery. I know this is a difficult subject and a sad and frightening experience for you. Please take your time and tell me in your own words what happened. You do not have to tell me about experiences that you do not want to share, or that make you upset.	
Pregnancy Birth planning	Maybe first you can tell me about the early stages of your pregnancy and how you felt? Whom did you consult about your pregnancy? Can you tell me what kind of advice you received from different kinds of people? During the pregnancy, what (if anything) specific did you do to have a healthy pregnancy? What were your thoughts about where you wanted to give birth? With whom did you discuss your decision about where to give birth? Did you make any plans prior to the birth, such as where and with whom you wanted to give birth? Who else helped you plan?	• Whom did you tell when you first felt you might be pregnant? [PROBE: spouse, parents, in-laws, siblings, friends, traditional healers, other community members] • Describe any providers or services that you consulted. • Can you describe how you decided whether to have care during your pregnancy and where? • With whom did you discuss these decisions? • Can you explain how you made your decision?
Giving birth	Please tell me about your birth experience. What happened step-by-step, from the time you went into labor? Please take your time to think about everything that happened and how your felt about it.	• Where were you/ what were you doing at onset of labor? • Who else was around? • What did you do? Whom did you call or tell? • Then what happened? • What happened next? • Was anyone present at the birth? Who? • What did they do? • Anyone else? • Did anything unexpected happen?

Areas of Inquiry	Specific Topics	Suggested Probes
	How did your birth experience compare to what you had planned?	• What do you feel went well or poorly compared to your expectations?
	Were there any decisions that had to be made during your labor and birth? If so, please describe.	
	Do you feel you had a good birth experience? Why or why not?	
	Looking back, what would you have liked to do differently or would do differently in future?	• Would you change the place you gave birth? • Would you change who was present?
	What advice would you give to a friend or your sister who is pregnant about care during pregnancy and birth?	• What would you recommend for pregnancy care? Why? • Where would you recommend women to give birth? Why?
After birth complications	If you feel ready, please tell me about your experience of what went wrong during the labor and afterwards. Take your time and tell me step-by-step about what occurred. [**Interviewer** should not interrupt too often if respondent is comfortable describing her experience. Use probing questions only at the end to fill in any gaps OR if respondent gets "stuck" and seems unable to continue. It is good to regularly ask "And then what happened? What occurred next?] **IMPORTANT**: If respondent shows signs of becoming distressed, *pause* the interview and check she is willing to continue. Take a *short break*. If it is not feasible to continue, thank the respondent and *stop the interview*. *Referrals* for counselling should be made for any distressed respondent.	[PROBE only if respondent does not continue narrative in her own way] • Whom did you consult/ discuss the situation? • How was the decision made about what to do next? • Who made this decision? [probe: spouse, parents, in-laws, other family, other community members, health providers] • Where did you go? • Why were this provider or service chosen? • Who made the decision? • How did you get to the provider or service? How was transport arranged? • What kinds of challenges were encountered when seeking care? • What happened once you reached the provider? • How do you feel about the care you received?
Feelings about the experience	I am sorry you went through such a difficult and frightening experience. Can you tell me how you are feeling about what happened now?	• What would you recommend for pregnancy care? Why? • Where would you recommend women to give birth? Why? • What kinds of preparations do you think women and their families should make in advance? Please describe,

Areas of Inquiry	Specific Topics	Suggested Probes
	What advice would you give to other women who might experience the same thing, what would you tell them? How would you advise them to plan for possible complications or emergencies?	• Looking back, would you have done anything differently? Can you explain? • Looking back, would you have done anything differently? Can you explain?
After the birth complication	Tell me about any care you received afterwards? Has anyone come to visit you in the home to check on your health? Who and what do they do? How were decisions made about the kind of care you should receive?	• What kinds of care have you received? • From whom? • Do any traditional providers or health workers visit? How often and for what purpose? • Who is involved? [PROBE: spouse, parents, in-laws, siblings, traditional healers, other community members] • What do other people advise?
Advice to others	Given your experience, what would you advise other pregnant women about care during pregnancy and childbirth? What makes it easier for you to get the care you wanted during the pregnancy and at the time of the birth? What might make it more difficult?	• What would you suggest pregnant women do to have a healthy pregnancy? • Where do you think it is best for women to give birth? • Can you think of any actions women and their families can take to increase chances of getting the care they need? • What kinds of challenges might women face?
Wrap-up	Thank you for sharing your difficult personal experiences with me. Is there anything else you would like me to know?	• Check if respondent would like to be referred for counselling or further assistance. • Do you have any final questions for me about the study?

(3) Health Care Providers

Areas of Inquiry	Specific Topics	Suggested Probes
Introduction/ Background	Please can you tell me about your role and work? What do you do on a day-to-day basis related to maternal health?	• Describe your job? • Where are you based? [PROBE: health facility, community, or both

Areas of Inquiry	Specific Topics	Suggested Probes
	During the interview, if the respondent mentions the effects of COVID on health service provision, emphasize that the aim of this study is to understand the broader situation, focusing on what happens *in normal circumstances/ before the start of the COVID situation*. Highlight that there will be specific opportunities for them to explain how things have changed over time, and we are interested in all changes they have observed through their work, including those due to COVID and those that are not.	• What are all the different MCH services provided in this facility, including clinical or other care support? •
Local Health Seeking Norms	Tell me about the local community's use of MCH services, including ANC, giving birth and PNC? What are the differences in health behavior and use of services between groups of people in this community?	• What do pregnant women do when they first realize they are pregnant? Where do they get advice? • What kind of care do women normally get during pregnancy? • Tell me about where women usually give birth? • What are the differences between groups? • Which women are more or less likely to use ANC (describe different characteristics)? • Which women are more or less likely give birth in a facility (describe different characteristics)?
Decision Making for MCH	How do you think women and their families decide whether they will use MCH care? How do you think women and their families decide where to give birth? Over the time that you have been working here, what kinds of changes in birth practices have you seen over time? What about in the last year or so? What kinds of changes have you observed?	• Who is involved in the decision-making? Who has more influence? • What do community members base their decisions on? (e.g., available information, perceptions of care quality, previous experience, rumors, etc.) • Do you notice any patterns, i.e., what kinds of women/families are more likely to plan to deliver at home or in a facility? • Why do you think these changes occur? • Are some parts of the community more affected by changes than others? Please explain.
Complications/ Emergencies	Now think about when a woman experiencing a complication during pregnancy or an obstetric emergency in this community. Can you describe what commonly happens, step-by-step, when something suddenly goes wrong during the pregnancy or during labor at home?	• How do women, families or other community members recognize a problem? • Whom do they consult? • Where do they usually get help? • How do you think the decision is made?

Areas of Inquiry	Specific Topics	Suggested Probes
	If the woman is brought to your health facility during the emergency, what happens next?	• Who makes decisions about seeking care in an emergency? • How are health workers contacted or involved? • What care is most provided? • Do you feel there are any gaps in providing emergency care? If so, what are these and why do they occur? • When are referrals made? • How is the decision to refer elsewhere made?
Facilitators and Barriers	In your opinion, what are the difficulties that women face in getting good MCH care? Why do these barriers occur? In your opinion, what are the difficulties that women face in delivering in a safe facility? Why do these barriers occur? Are there any factors that make it easier for women to receive MCH care, especially for giving birth? Please describe	• When do women face these barriers? • Are some groups more affected than others by these barriers? • How can they overcome them? • What makes it easier for women to access ANC? What makes it easier for women to give birth in a facility? • Is it easier for some kinds of women to access ANC and facility births compered to others? Please describe the differences.
Specific Example	In you experience as a health provider, you may have encountered situations where a woman has had an emergency or “near miss” during her pregnancy or labor/giving birth. Please can you describe some examples in detail and tell me what happened, step-by-step? What was your role in the situation? What was the outcome? Can you describe any other examples?	PROBE only after respondent provides detailed account first, if additional information required: • What happened? • How did the woman or family realize something went wrong? • What did they do? Who was involved? • Do you know how they decided to seek care? Who made the decision? • What arrangements were made? • What barriers were faced in the situation and were they overcome? How? • Were there any circumstances that helped the woman reach care? What were these? • How were you involved? • What happened next? • How common or “typical” are these cases of what you feel happens in the community?

Areas of Inquiry	Specific Topics	Suggested Probes
Existing programmes (if relevant)	What efforts have been made in your facility to make it easier for pregnant women to obtain good services during pregnancy and at the time of birth? Please describe. Do you do anything specific in your work to improve pregnancy and birth care for women who need it most? What about community-level activities to improve health service use during pregnancy and birth? Please describe any projects or efforts you know about. What do you think about these programmes? If you could decide, what kinds of new programmes would you like for there to be in this area?	• What is successful and what is less successful about these efforts/ activities? • Do they reach most women who need them? Why or why not? • What is the quality of the programmes/ services offered? • What motivates people to participate in activities? • What reduces success of these programmes? • Who would they be for? What would they do? • Are there any activities that could help increase maternal health in this area?
Wrap-up	Thinking about the whole process from pregnancy through birth and the care afterwards, do you feel that these have been affected at all by the local situation regarding COVID? Thank you for sharing your experiences with me. Is there anything else you would like me to know?	• Please describe • Do you these will be long term changes, or the situation will go back to how it was before COVID? • Do you have any final questions for me about the study?

(4) Local Representative/Authority/Manager

Areas of Inquiry	Specific Topic	Suggested Probe
Introduction/ Background	Please can you tell me about yourself, your role and work? How does your work relate to maternal health?	• Describe your work as a local authority/ Manager of Health Section. • What are all the different MCH services provided in this municipality? • How does your daily work affect maternal health?
Local Health Seeking Norms	Tell me about the local community's use of MCH services, including ANC, giving birth and PNC?	• What do pregnant women do when they first realize they are pregnant? Where do they get advice? • What kind of care do women normally get during pregnancy and after delivery?

Areas of Inquiry	Specific Topic	Suggested Probe
Decision Making for MCH	What are the differences in health behavior and use of services between different groups of people in your municipality? How do you think women and their families of this municipality decide whether or not they will use MCH care? How do you think women and their families decide where to give birth? Particularly facility delivery? How do you think women and their families decide where to give birth in case of emergencies/complications? ÷ In which situation women and their family have difficulty in taking decision, ANC, Delivery, PNC, and any kind of obstetric complication? How do you think perception of services influences decision-making by women and their families?	• Tell me about where women usually give birth? • What are the differences between groups in relation to utilizing maternal health services? • Which women are more or less likely to use ANC (describe different characteristics)? Why do you think this is? • Which women are more or less likely to give birth in a facility (describe different characteristics)? Why? • Who are involved in the decision-making? Who has more influence? • What do community members base their decisions on? (e.g., available information, perceptions of care quality, previous experience, education, rumors, etc.) • Do you notice any patterns, i.e., what kinds of women/families are more likely to plan to deliver at home or in a facility? • Do you think women and their families make decision differently if they are facing emergencies/complications during pregnancy or birth? How?
Facilitators and Barriers	In your opinion, what are the difficulties that women face in delivering in a health facility? Why do these barriers occur? Are there any factors that make it easier for women to receive MCH care from HF, especially for giving birth? Please describe	• When do women face these barriers? • Are some groups more affected than others by these barriers? • How can they overcome them? • Who can help them overcome these difficulties? • How can local government help women overcome them to increase use of maternal health services, particularly facility-based births? • What makes it easier for women to access ANC specifically in this municipality?

Areas of Inquiry	Specific Topic	Suggested Probe
	How do you see the quality of service delivery within this municipality and its utilization? Is there any relation?	• What makes it easier for women to give birth in a facility in this municipality? • Is it easier for some kinds of women to access ANC and facility births compared to others? Please describe the differences. • What could be the reason for such difference? • How can it be solved from the level of local government? • Are there any measures that the health system management could take?
Existing and possible interventions	What efforts have been made by local government/health section to make it easier for pregnant women to obtain good services during pregnancy and at the time of birth? Please describe. Have you done anything specific in your work to improve pregnancy and birth care for women who need it most? What about community-level activities to improve health service use during pregnancy and birth by other stakeholders/partners? Please describe any projects or efforts you know about. What do you think about these project/programmes? If you could decide, what kinds of new intervention/project would you like to introduce in this area?	• How do you think these efforts make it easier to obtain maternal services? • What is successful and what is less successful about these efforts/ activities? • What reduces success of these programmes? • Do they reach most women who need them? Why or why not? • Who would they be for? What would they do? • Are there any activities that could help increase maternal health in your area specifically? • What type of intervention would you like to be started? • To start this new intervention what do you think should be in place? Perquisites? Partners?
Wrap-up	Thank you for sharing your experiences with me. Is there anything else you would like me to know?	• Do you have any final questions for me about the study?

Annex III: Sampling framework

Table1: Overall sample size

Data collection method	Respondents	Dang	West Rukum	Total
IDI	Community people	18	16	34
	LA	2	3	5
	HCP	2	2	4
	Total	22	21	43
FGD	Community people	2	2	4
	LA	1	1	2
	HCP	1	1	2
	Total	4	4	8
	Total IDI and FGDs	26	25	51

Table2: Sample size of IDI- Dang

Data collection method	Place of delivery	Respondents of IDI-Dang					
		Women	Husband	Mother-in-law	Total	Local Authority	Healthcare Provider
IDI	Facility based delivery Normal	3	1	1	5	2	2
	Facility based delivery with Complication	2	3	0	5		
	Home Delivery Normal	3	3	1	7		
	Home Delivery with Complication	1	0	0	1		
	Total	9	7	2	18	2	2

Table3: Sample size of IDI- West Rukum

Data collection method	Place of delivery	Respondents of IDI- West Rukum					
		Women	Husband	Mother-in-law	Total	Local Authority	Healthcare Provider
IDI	Facility based delivery Normal	3	2	0	5	3	2
	Facility based delivery with Complication	2	1	0	3		
	Home Delivery Normal	5	3	0	8		
	Home Delivery with Complication	0	0	0	0		
	Total	10	6	0	16	3	2

Annex IV: Demographic details

Table 1: Place of delivery

Place of delivery	Number of women
Facility based delivery	18
Home delivery	16
Total	34

Table 2: Ethnicity of respondents (community people)

Ethnicity	Number of respondents
Dalit	1
Janajati	17
Madhesi	0
Muslim	0
Brahmin/Chettri	16
Others	0
Total	34

Table 3: Age of respondents (community people)

Age of respondents	Number of respondents			
	Husband	Women	Mother-in-law	Total
≤19	0	1	0	1
20-29	7	16	0	23
30-49	3	2	0	5
50-59	0	0	1	1
Total	10	19	1	30

Table 4: Age of women

Age of women	Number of women
≤19	3
20-29	16
30-49	2
Total	21

Table 5: Type of family

Type of Family	Number of respondents
Nuclear family	16
Joint family	18
Total	34

Table 6: Number of children of the women

Number of children of the women	Number of women
1 child	9
2 children	19
3 children	4
4 children	1
5 children	1
Total	34

Table 7: Husband's occupation

	District		
Husband's occupation	Dang	Rukum	Total
Migrant labor	14	9	23
Agriculture and farming	2	3	5
Business	1	1	2
Labor	1	2	3
Others	0	1	1
Total	18	16	34

Annex V: Country specific definitions

The structure of health system delivery points at local level (in general referred as health facilities)-

1. Primary Healthcare Center Out-reach clinic (PHC-ORC) (*gau-ghar c*linic) for outreach services including ANC services for hard-to-reach population conducted by HWs from nearest HF
2. Community Health Unit (CHU)/ Basic Health Service Center- without birthing center (ANC services available)
3. Health post with birthing center /or without birthing center
4. Primary Healthcare Center (PHC)
5. District level hospital
6. Province level hospital