

# Knowledge on Reproductive Health Status: Study of Sunkoshi Rural Municipality, Sindhuli District

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## ABSTRACT

Reproductive health (RH) is essential for overall human development, yet rural populations in Nepal, including Sunkoshi Rural Municipality, face challenges in RH knowledge, service utilization, and male involvement. This study examines reproductive health knowledge and male participation in RH practices among ever-married women aged 15–49 in Ward No. 4 of Sunkoshi Rural Municipality. A descriptive and analytical research design was employed, collecting primary data through structured household and individual questionnaires from 160 respondents. Findings show that 88% of women accessed antenatal care (ANC), but only 25% completed the recommended four visits. Husbands played a key advisory role during pregnancy (36.8%), yet only 42.1% of women perceived their husbands as emotionally supportive during childbirth. Cultural norms, household responsibilities, and lack of awareness limited male involvement and consistent use of RH services. Significant knowledge gaps and infrastructural challenges persist in rural Nepal. The study underscores the need for gender-inclusive, community-based RH interventions that empower women and actively engage men. Strengthening healthcare infrastructure and addressing socio-cultural barriers are critical to improving maternal health outcomes and advancing public health goals in rural settings.

*Keywords:* reproductive health, antenatal care, male involvement, maternal health, Sunkoshi rural municipality

## Introduction

Reproductive health (RH) is a foundational aspect of human well-being and development. It extends beyond the mere absence of disease or infirmity, encompassing the physical, mental, and social well-being in all matters relating to the reproductive system and its functions (World Health Organization [WHO], 2018). Reproductive health is not only a matter of personal concern but also a key public health priority, especially in low- and middle-income countries where access to quality RH services is limited. Understanding and

promoting RH is crucial to improving maternal and child health results, advancing gender equality, and fostering socio-economic development.

According to WHO (2018), reproductive health is a state in which individuals have the capability to reproduce and the freedom to decide if, when, and how often to do so. This definition emphasizes the right of all individuals to access comprehensive RH services, including family planning, safe pregnancy and delivery care, prevention and treatment of sexually transmitted infections (STIs), and education on sexuality and reproductive health.

Yet, despite these internationally recognized rights, millions of people, particularly in rural and marginalized communities, lack access to essential RH information and services (National Academies of Sciences, Engineering, and Medicine [NASEM], 2019).

The 1994 International Conference on Population and Development (ICPD) in Cairo and the 1995 Fourth World Conference on Women in Beijing played pivotal roles in placing RH and rights at the center of global health and development agendas. These conferences emphasized the integration of RH into primary healthcare systems, underscoring the need for governments to ensure universal access to RH services (United Nations [UN], 1995). Nepal, aligning with these global commitments, introduced national policies and strategies to improve RH indicators, such as the National Reproductive Health Strategy of 1996, which emphasized equity, women's empowerment, and community participation (Ministry of Health and Population [MoHP], 2006).

Despite these policy efforts, significant disparities in RH knowledge and service utilization persist, especially in rural Nepal. Studies have highlighted how rural women often face challenges such as lack of education, limited autonomy, socio-cultural barriers, and inadequate health infrastructure, all of which hinder access to RH services (Devkota, 2023). Furthermore, the male partner's role, although critical in supporting maternal and reproductive health, is often overlooked in both policy and practice. In patriarchal societies, men frequently hold decision-making power over reproductive matters, yet their engagement in reproductive health remains minimal (Pokharel, 2003).

A crucial yet under-researched dimension of reproductive health is male involvement in areas such as antenatal care (ANC), postnatal care (PNC), and family planning. Increasing evidence suggests that men's active participation in RH care contributes positively to maternal and child health results, reduces unintended pregnancies, and fosters shared responsibility within households (Smith &

Brown, 2010). However, traditional gender roles and societal norms continue to marginalize men from reproductive health programs, perpetuating the belief that RH is exclusively a woman's concern (UNESCO, 2004).

Limited RH knowledge also remains a significant barrier in many parts of Nepal. The Nepal Demographic and Health Survey (NDHS, 2022) revealed that although awareness of family planning methods is nearly universal, misconceptions and knowledge gaps remain widespread. These deficiencies contribute to low contraceptive use, high fertility rates, and delayed care-seeking behavior during pregnancy and childbirth. Abajobir and Seme (2014) further notes that inadequate RH knowledge increases the risk of STIs, early pregnancies, unsafe abortions, and maternal mortality, particularly among adolescents and young women.

### **Problem Statement**

The rural setting of Sunkoshi Rural Municipality in Sindhuli District exemplifies many of these challenges. Characterized by limited health facilities, low literacy levels, and deep-rooted cultural practices, the area struggles with maternal health issues, lack of family planning utilization, and low male engagement in RH matters. Although government and non-governmental organizations have initiated various RH programs in such areas, their success often hinges on community engagement, gender-sensitive approaches, and awareness initiatives tailored to local needs (United Nations Population Fund [UNFPA], 2024).

Moreover, RH issues cannot be isolated from broader socio-economic determinants. The Social Determinants of Health (SDH) framework highlights how poverty, education, employment, and gender inequalities shape health behaviors and access to services (WHO, 18). In rural Nepal, these determinants manifest in the form of early marriage, limited mobility for women, and economic dependency on male family members, further complicating the pursuit of RH rights. Without addressing these root causes, efforts to improve RH results may yield only limited success.

Another major concern is the availability and accessibility of RH services. Studies have shown that rural women are often unaware of the services available to them or are deterred by long distances, cost, and fear of stigma (National Planning Commission, 2017). The lack of adolescent-friendly and male-inclusive RH services further marginalizes significant population groups, resulting in unmet needs and poor health results.

Given the significance of these issues, this study seeks to assess the level of RH knowledge and male involvement in reproductive health practices among residents of Sunkoshi Rural Municipality. Specifically, it aims to explore socio-economic determinants of RH awareness, family planning practices, and the extent to which men support ANC and PNC. By identifying existing gaps and barriers, the study hopes to provide insights for evidence-based policymaking and program design that promote inclusive and equitable reproductive health services in rural Nepal.

The importance of reproductive health in sustainable development cannot be overstated. Sound RH contributes to improved educational results, economic productivity, and overall quality of life (NASEM, 2019). It is central to achieving several Sustainable Development Goals (SDGs), particularly those related to health, gender equality, and poverty reduction. Therefore, understanding and addressing RH challenges in marginalized settings such as Sunkoshi Rural Municipality is essential for Nepal's broader development trajectory.

In reproductive health is a multidimensional issue that intersects with social, economic, and cultural domains. Despite global progress and national policies, rural populations in Nepal continue to face significant RH challenges, exacerbated by limited knowledge, inadequate services, and gender dynamics.

## Research Objective

By focusing on male involvement and knowledge of RH in rural Sindhuli, this study aims to contribute to the broader goal of improving reproductive health results and promoting gender-equitable healthcare practices.

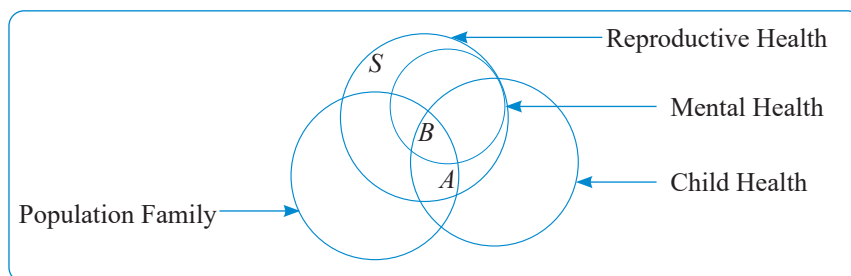
## Methodology

The conceptual framework guiding this study on knowledge and maternal health is illustrated in Figure 1. This framework, adapted from the World Bank (2001), emphasizes a holistic approach to women's health by recognizing the intrinsic link between female health and human reproduction. The framework encompasses key components of reproductive health, including adolescent health (A), breastfeeding and birth practices (B), and sexually transmitted infections/reproductive tract infections (STI/RTI) (S).

This framework informed the design of data collection tools and analysis, ensuring a comprehensive assessment of reproductive health knowledge within the study population.

**Figure 1**

*Conceptual Framework Knowledge and Maternal Health*



*Note.* A = Adolescent Health, B = Breastfeeding birth, S = STI/RTI (World Bank, 2001).

It often focuses on women's health holistically, given the close relationship between female health and human reproduction. In essence, reproductive health initiatives encompass maternal health, family planning, sexually transmitted infections (STIs) and reproductive tract infections (RTIs), and adolescent health. However, child health issues and population concerns related to other sectors are typically not within the scope of reproductive health initiatives (World Bank, 2001).

### **Results and Discussion**

This chapter describes the methodological framework adopted to investigate reproductive health knowledge and male involvement in reproductive healthcare in Sunkoshi Rural Municipality, Sindhuli District. A descriptive research design was employed to explore the prevailing knowledge and practices related to reproductive health, while analytical methods were used to examine the impacts of male participation in antenatal and postnatal care.

The study area, located in Sunkoshi Rural Municipality, includes a diverse population comprising Tamang, Rai, Newar, Chhetri, Brahmin, Dalit, and other ethnic communities. A purposive sampling technique was applied to select 160 ever-married women aged 15–49 from 1,015 households in Ward No. 4. This sample was drawn using a household list provided by the municipality.

Structured questionnaires served as the primary data collection tool, with two formats: household questionnaires (for demographic and socio-economic information) and individual questionnaires (focused on reproductive health and male involvement). Prior to deployment, the tools were pretested for clarity and cultural relevance.

Data collected from field surveys were entered, coded, and analyzed using statistical techniques such as frequency distribution, percentages, and cross-tabulation to ensure accurate interpretation and meaningful insights for policy and practice.

Maternal health encompasses the physical, mental, and social well-being of women during pregnancy, childbirth, and the postpartum period. Antenatal care (ANC) and postnatal care (PNC) are critical components of maternal health services aimed at promoting the health of both the mother and the newborn. ANC involves regular check-ups, screenings, and interventions provided by healthcare professionals during pregnancy to monitor the health of the mother and the fetus, identify any potential complications, and provide appropriate guidance and support. It includes services such as prenatal screenings, vaccinations, nutritional counseling, and education on childbirth and breastfeeding. PNC, on the other hand, involves healthcare services provided to both the mother and the newborn in the immediate weeks and months following childbirth. This includes monitoring the mother's physical recovery, assessing the newborn's health and growth, providing guidance on newborn care, breastfeeding support, and addressing any postpartum complications or concerns. ANC and PNC play crucial roles in reducing maternal and neonatal morbidity and mortality by promoting healthy pregnancies, safe childbirth practices, and early detection and management of complications, thus ensuring the well-being of both mother and child.

#### ***Antenatal care***

Antenatal care (ANC) is a vital component of maternal healthcare that ensures the health of both mother and baby during pregnancy. It involves scheduled check-ups, screenings, and health education provided by trained professionals. ANC includes physical examinations, testing for conditions like anemia and gestational diabetes, and counseling on nutrition, exercise, and birth preparedness. These visits enable early detection and management of complications, promote safe pregnancies, and reduce risks of maternal and neonatal mortality. Regular ANC attendance empowers expectant mothers with knowledge and support, contributing significantly to positive pregnancy results and the overall well-being of mothers and their newborns.

**Table 1***Distribution of Population of ANC Services*

ANC Service	Number	Percent
Yes	81	88.0
No	11	12.0
Total	92	100.0
<b>Number of ANC Service</b>		
2 times	13	8.0
3 times	5	32.0
4 times	7	60.0
Total	25	100.0

*Note:* Field Survey, 2024

Table 1 presents data on the distribution of the population utilizing antenatal care (ANC) services. Among the 92 individuals surveyed, 27.5 percent (25 individuals) reported utilizing ANC services, while the majority, comprising 72.4 percent (67 individuals), did not. Among those utilizing ANC services, the frequency of visits varied: 52.6 percent attended ANC appointments twice, 21.0 percent attended three times, and 26.3 percent attended four times. These findings underscore the importance of ANC in maternal healthcare, while also indicating a need for increased access and utilization of ANC services to ensure comprehensive prenatal care for all pregnant individuals, ultimately contributing to improved maternal and neonatal health results.

**ANC Advised Source**

ANC advised source refers to the individuals or platforms from which pregnant women receive guidance on antenatal care, such as visit frequency, prenatal routines, and health practices. These sources commonly include healthcare professionals like doctors, nurses, and midwives, as well as community health workers, outreach programs, and digital health resources. The reliability and accessibility of these sources play a crucial role in shaping maternal health behaviors. Accurate and timely ANC advice helps women make informed decisions, supports early identification of complications, and promotes positive health results for both mother and child. Strengthening these sources improves overall reproductive health service utilization.

**Table 2***Distribution of the ANC Advised*

Advised	Number	Percent
Husband	9	36.8
Herself	7	26.3
Mother-in-law	4	15.7
Friends	5	21.0
Total	25	100.0

*Note:* Field Survey, 2024

Table 2 states that the distribution of sources from which antenatal care (ANC) advice is received among a surveyed population. Out of 25 individuals surveyed, various sources were

reported for receiving ANC advice. The data shows that 36.8 percent of individuals received advice from their husbands, indicating their involvement and support in maternal healthcare. Additionally, 26.3 percent received advice directly from themselves, reflecting their proactive engagement in seeking information about ANC. 15.7 percent reported receiving advice from their mothers-in-law, suggesting the influence of extended family members in ANC decision-making. Furthermore, 21.0% mentioned receiving advice from friends, highlighting the role of peer support and social networks in ANC education and awareness. These findings underscore the importance of considering diverse sources of ANC advice to ensure comprehensive support and information

for pregnant individuals, ultimately contributing to positive maternal and neonatal health results.

### ***Suggestion in Pregnant***

The Suggestions during pregnancy refer to health-related advice aimed at supporting the physical and emotional well-being of both the mother and the unborn child. These may include guidance on maintaining a nutritious diet, engaging in safe physical activity, attending regular prenatal check-ups, taking prescribed vitamins, and avoiding harmful substances like alcohol and tobacco. Emotional support from family, friends, or support groups is also encouraged. Such advice helps in preventing complications, promotes healthy fetal development, and contributes to a safe and positive pregnancy and childbirth experience for the expectant mother.

**Table 3**

*Distribution of Suggestion in Her Pregnant*

<b>Suggestion</b>	<b>Number</b>	<b>Percent</b>
Yes	67	72.5
No	25	27.5
Total	92	100.0

*Note:* Field Survey, 2024

Table 3 presents data on the distribution of suggestions received by pregnant individuals to support their health and well-being during pregnancy. Out of the total 92 individuals surveyed, 72.5 percent (67 individuals) reported receiving suggestions during their pregnancy, while 27.5 percent (25 individuals) did not receive any suggestions. These suggestions likely encompass a range of advice and recommendations provided by healthcare professionals, family members, friends, or other sources to promote healthy behaviors, address concerns, and ensure optimal prenatal care. The high percentage of individuals receiving suggestions underscores the importance of providing guidance and support to pregnant individuals to enhance their pregnancy experience and optimize maternal and fetal health results.

### ***Source of ANC***

The source of antenatal care (ANC) refers to the place where pregnant women receive prenatal services, including hospitals, clinics, health posts, outreach programs, or home visits by health workers. The selection of a particular source often depends on accessibility, availability of services, distance, affordability, and cultural beliefs. In rural or remote areas, community health workers and mobile clinics play a crucial role. Regardless of the source, timely and quality ANC is essential for monitoring pregnancy, preventing complications, and ensuring the health and well-being of both the mother and the developing baby.

**Table 4***Distribution of the Source to Take the ANC*

Sources	Number	Percent
Hospital	7	26.3
Medical Clinic	4	15.7
SHP	7	26.3
HP	8	31.5
Total	25	100

*Note:* Field Survey, 2024

Table 4 provides data on the distribution of sources from which antenatal care (ANC) is obtained by pregnant individuals within a surveyed population. Out of 25 individuals surveyed, various sources were reported for accessing ANC services. The data indicates that 26.3 percent received ANC from hospitals, suggesting that a significant portion of pregnant individuals sought prenatal care from medical facilities equipped to provide comprehensive maternal healthcare services. Similarly, another 26.3 percent received ANC from Social Health Protection (SHP) programs, indicating the utilization of community-based or government-supported healthcare initiatives. Additionally, 31.5 percent received ANC from Health Promotion (HP) programs, which may involve educational campaigns, outreach efforts, or community-based healthcare services aimed at promoting maternal and child health. Furthermore, 15.7 percent obtained ANC from medical clinics, highlighting the role of primary care facilities

in delivering prenatal care services to pregnant individuals. These findings underscore the importance of diverse ANC sources in ensuring access to quality prenatal care for pregnant individuals, contributing to positive maternal and neonatal health results.

#### *Accompany of ANC and PNC*

Accompaniment during antenatal care (ANC) and postnatal care (PNC) refers to the presence of partners, family members, or friends who provide emotional support, assist with transportation, and help communicate with healthcare providers. Their involvement fosters a supportive environment, encourages regular check-ups, and enhances maternal confidence. Such support improves adherence to medical advice, reduces stress, and contributes to positive health results for both mother and baby. Overall, accompaniment strengthens the pregnancy and postpartum experience through shared responsibility and care.

**Table 5***Distribution of the Accompany of ANC and PNC Checkup*

Accompany	Number	Percent
Yes	14	57.8
No	11	42.2
Total	25	100

*Note:* Field Survey, 2024

Table 5 states that the distribution of accompaniment during antenatal care (ANC) and postnatal care (PNC) checkups within a surveyed population. Among the 25 individuals surveyed,

57.8 percent (14 individuals) reported being accompanied during their ANC and PNC checkups, while 42.2 percent (11 individuals) attended these appointments without accompaniment. The data

indicates that a majority of individuals received support and assistance from companions, which could include partners, family members, friends, or community members, during their prenatal and postnatal healthcare visits. This accompaniment likely serves to provide emotional support, facilitate communication with healthcare providers, and assist with practical matters such as transportation and childcare. These findings highlight the importance of social support networks in promoting maternal and neonatal health and ensuring positive pregnancy and childbirth experiences.

***Reason for Not Taking the Accompany***

Reasons for not having accompaniment during antenatal (ANC) and postnatal care (PNC) include personal choice, desire for privacy, transportation difficulties, time conflicts, cultural beliefs, and the woman’s confidence in managing alone. These factors reflect individual autonomy as well as broader social and logistical challenges. Understanding these reasons is important for designing supportive healthcare services that respect women’s preferences while addressing barriers to access and emotional support.

**Table 6**

*Distribution of Not Taking the Accompany*

Reasons	Number	Percent
She doesn't want	6	50.0
Economic problem	1	12.5
Household work	3	25.0
Traditional values and norms	1	12.5
Total	11	100

Note: Field Survey, 2024

Table 6 provides insights into the reasons why pregnant individuals opt not to have accompaniment during antenatal care (ANC) and postnatal care (PNC) checkups within a surveyed population. Among the 11 individuals who did not have accompaniment, diverse reasons were reported. The data reveals that 50.0 percent cited the pregnant individual's personal preference for attending healthcare appointments alone, while 25.0 percent mentioned household work responsibilities as a hindrance. Additionally, 12.5 percent cited economic problems and adherence to traditional values and norms as factors influencing their decision. These findings underscore the multifaceted nature of the reasons behind solo attendance for ANC and PNC visits, encompassing personal, logistical, economic, and cultural factors. Understanding these reasons is crucial for

healthcare providers to tailor support and services to the specific needs and circumstances of pregnant individuals, thereby fostering positive maternal and neonatal health results.

***Sensitiveness of Husband in Delivery***

Husbands' sensitivity during childbirth includes providing emotional support, empathy, and active involvement throughout labor. They may offer physical comfort, words of reassurance, and assist in decision-making to meet their partner’s needs. This supportive role strengthens emotional bonds, builds trust, and contributes to better experiences and health results for both mother and newborn. Encouraging such involvement is crucial for fostering shared responsibility and a positive childbirth environment.

**Table 7***Distribution of the Sensitiveness of Husband in Delivery*

Sensitiveness of Husband	Number	Percent
Yes	39	42.1
No	53	57.9
Total	92	100

*Note: Field Survey, 2024*

Table 7 displays the distribution of respondents based on the sensitiveness of husbands during childbirth. Out of the total 92 individuals surveyed, 42.1 percent (39 individuals) reported that their husbands were sensitive during delivery, while 57.9 percent (53 individuals) indicated that their husbands were not. These findings shed light on the varying degrees of emotional support and sensitivity provided by husbands during the childbirth experience, highlighting the importance of compassionate and supportive involvement

from partners in facilitating positive maternal and neonatal results.

Husband become careful in delivery time: During delivery, husbands often become more attentive and supportive, offering physical help and emotional encouragement to ensure their partner's comfort. This care reflects their commitment and plays a key role in creating a positive and empowering childbirth experience.

**Table 8***Distribution of Husband Become Careful in Delivery Time*

Reasons	Number	Percent
Relationship of husband and wife	8	20.6
For baby and mother	15	37.9
Complication of Pregnancy	7	17.2
All of above	9	24.1
Total	39	100

*Note: Field Survey, 2024*

Table 8 presents insights into the distribution of reasons why husbands become attentive during delivery, as reported by a surveyed population. Among the 39 individuals surveyed, diverse motivations were cited. A notable 20.6 percent mentioned the importance of the relationship between the husband and wife, highlighting the role of a supportive marital bond in fostering emotional care. Additionally, 37.9 percent stated husbands become attentive for the well-being of both the baby and mother, showcasing their protective instinct and commitment to family welfare. Complications of pregnancy were cited by 17.2 percent, emphasizing medical concerns as a driving

force behind heightened vigilance. Furthermore, 24.1 percent reported husbands becoming attentive for all aforementioned reasons, illustrating a blend of emotional, practical, and medical factors influencing their support during childbirth. These findings underscore the multifaceted nature of husbands' involvement during delivery, showcasing their varied motivations and contributions to the childbirth process.

### Discussions

The findings from this study provide significant insights into maternal healthcare practices, antenatal care (ANC), postnatal care

(PNC), and male involvement in reproductive health in Sunkoshi Rural Municipality, Sindhuli District. This section discusses key patterns observed in the field data, linking them with existing literature and identifying areas for improvement.

Antenatal care (ANC) is a cornerstone of maternal health, contributing to reduced maternal and neonatal morbidity and mortality (WHO, 2018). In this study, while 88% of respondents utilized ANC services, only a small proportion (27.5%) of the total population received the recommended number of ANC visits. Notably, only 26.3% of the women completed the recommended four or more visits, consistent with trends in low-resource settings where physical distance, financial constraints, and sociocultural barriers hinder full ANC adherence (Karkee et al., 2013). This low coverage may explain why maternal health risks remain high in rural Nepal, despite national policy interventions.

The source of ANC advice also plays a crucial role in shaping maternal health behavior. Husbands emerged as the leading source (36.8%), followed by the women themselves (26.3%), friends (21%), and mothers-in-law (15.7%). These findings echo studies by Mullany et al. (2007), which emphasized the importance of male involvement in influencing women's healthcare decisions in patriarchal societies. When husbands take an active interest in their partner's pregnancy, women are more likely to attend ANC and follow medical recommendations (Ditekemena et al., 2012). However, the influence of extended family members and peers also highlights the sociocultural environment's impact on reproductive decision-making, reaffirming the need for community-based health education programs.

Encouragingly, 72.5% of the surveyed women reported receiving suggestions or advice during pregnancy, reflecting community awareness of maternal health. However, nearly 27.5% did not receive any guidance—an indicator of information asymmetry, which aligns with previous findings that rural women often face barriers in accessing health education (Pandey & Karki, 2014). This suggests

a need for more robust and inclusive reproductive health education strategies, especially targeting underserved groups and isolated communities.

Access to ANC services is directly related to the location and type of healthcare provider. According to the results, 31.5% of ANC services were accessed at health posts (HP), 26.3% at hospitals, 26.3% through Social Health Protection (SHP) programs, and 15.7% via medical clinics. The significant reliance on HPs and SHP programs indicates the crucial role played by community-level health infrastructure in rural maternal healthcare (MoHP, 2022). However, studies show that health posts may often be under-resourced or lack specialized personnel, which could undermine the quality of ANC services provided. Expanding and equipping these local facilities could enhance ANC coverage and improve maternal health results.

Another important component of maternal care is the presence of support during ANC and PNC checkups. In this study, 57.8% of women were accompanied during healthcare visits, while 42.2% were not. Research consistently emphasizes the value of companionship during prenatal care, as it enhances emotional support and improves compliance with medical recommendations (Yargawa & Leonardi-Bee, 2015). Lack of accompaniment was attributed to personal preference (50%), household responsibilities (25%), economic barriers (12.5%), and traditional norms (12.5%). These diverse reasons reflect the multifactorial nature of maternal healthcare access and the nuanced gender roles within rural households. Similar barriers have been reported in studies from other South Asian contexts, where traditional beliefs and economic dependency often hinder women's full participation in health services (Thapa & Upreti, 2022).

The emotional support provided by husbands during delivery was also investigated. Only 42.1% of women considered their husbands sensitive during delivery, while 57.9% did not. This gap reflects deeply ingrained gender norms and the limited involvement of men in reproductive health

beyond financial provision. Studies have shown that involving men in childbirth through education and counseling can significantly improve maternal experiences and results (Comrie-Thomson et al., 2015). Traditional norms that exclude men from birthing spaces continue to prevail in many rural communities of Nepal, despite global trends emphasizing the benefits of shared parenting and emotional support (UNFPA, 2024).

Nevertheless, among the 39 women whose husbands were supportive during delivery, 37.9% attributed this care to concern for both mother and baby, while 24.1% cited all possible reasons, including emotional attachment, medical complications, and relational bonds. This highlights the potential to foster more male involvement through community engagement and awareness campaigns. Positive experiences of shared responsibility may serve as models for others, as emphasized in studies advocating for “gender-transformative” reproductive health programs (Greene et al., 2006).

While the data demonstrates some level of male engagement, the broader results suggest that a significant gap persists in male involvement in reproductive health in rural Nepal. This resonates with the findings of Adhikari and Khanal (2014), who noted that despite policy emphasis, the practical involvement of men in ANC and PNC remains limited due to gender stereotypes and lack of targeted interventions. Addressing this requires culturally sensitive programming that incorporates men as stakeholders in maternal health, not merely as companions but as informed and responsible partners.

Another important aspect is the role of socio-economic and educational background, though not explored in detail here, it is vital to acknowledge its influence. Women with higher education and income levels are generally more likely to utilize maternal health services (Joshi et al., 2014). Hence, empowering women through education and economic opportunities must complement health system interventions to ensure sustained improvements.

The findings also emphasize the significance of health system responsiveness. The diverse sources from which ANC services were accessed—hospitals, clinics, HPs, and SHP programs—suggest that women seek care based on availability and accessibility. Strengthening health systems, ensuring supplies, and training staff at the grassroots level could bridge the gap in service quality and reach (WHO, 2018). Additionally, integrating maternal health services into broader community development initiatives, such as women's groups and microfinance collectives, has been shown to improve maternal health-seeking behaviors (Prost et al., 2013).

Overall, the study underscores the importance of a multidimensional and gender-inclusive approach to maternal health. While access to ANC and PNC services has improved, critical gaps remain in male involvement, community education, and health system infrastructure. The challenge lies not only in increasing service utilization but in reshaping the social context in which maternal healthcare decisions are made.

In conclusion, effective strategies to improve maternal health in rural Nepal must incorporate male participation, community sensitization, improved infrastructure, and culturally adapted health education programs. Continued investment in both policy and practice is essential to ensure safe and empowering maternal health experiences for women across the country.

## Conclusion

This study underscores the multifaceted nature of reproductive health (RH), particularly in the rural context of Sunkoshi Rural Municipality, Sindhuli District. Reproductive health is not only essential for the physical and emotional well-being of individuals but also a critical component of public health and sustainable development. While global and national frameworks, such as the ICPD and Nepal's National Reproductive Health Strategy, emphasize universal access to RH services, challenges remain at the local level—especially regarding knowledge gaps, limited access to services, and low male involvement.

Findings from this research revealed encouraging levels of antenatal care (ANC) service utilization, yet adherence to recommended visit frequencies was low. Moreover, while many women received pregnancy-related advice and support, a significant proportion lacked guidance, highlighting an urgent need for expanded RH education. The role of men in RH emerged as a vital but underexplored area, with limited sensitivity and support shown during delivery and maternal care. Cultural norms, economic limitations, and lack of awareness continue to inhibit male participation.

To improve RH results in rural Nepal, integrated approaches are essential—combining community-based education, male-inclusive programs, infrastructure development, and policy advocacy. Special emphasis should be placed on empowering women, strengthening local health facilities, and fostering gender-equitable attitudes within families and communities. This study contributes to understanding the local realities of RH service utilization and can inform targeted interventions to bridge existing gaps, ultimately advancing the health, rights, and dignity of women and families in underserved regions.

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