

## Determinants of Postnatal Care Utilization of Koshi Province

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### Abstract

*Postnatal care (PNC) is a vital component in the protection of the health of both newborns and mothers in the postpartum period, which is a crucial age in nature and perspectives, although the use of PNC leaves much to be desired in most low- and middle-income countries. This study will explore factors associated with PNC uptake as utilized in the Koshi Province in Nepal with the use of 2022 Nepal Demographic and Health Survey (NDHS). Using a sample of 504 women and adopting logistic regression approach, the study examines how socio-demographic profiles like age, birth order, education, religion, caste/ethnic, residence and wealth quintile impact on post-natal care usage in the first 48 hours of the birth. The findings show that wealth status is the greatest predictor with women who are in the middle and high wealth quintile having a significantly high chance of obtaining PNC services as compared to low the poorest quintile. There is also significant association with both caste/ethnicity and religion, with women of Brahmin/Chhetri and non-Hindu caste recording high utilization rates. Unlike literature, education level and rural residence were not significantly associated, meaning that structural and financial limitations are at least as important as level of education of the individual. The results show inequalities because of constant socio-economic status and social stratification. The study suggests that conditional cash transfers, transport subsidies, and postnatal service inclusion in national health insurance can improve PNC uptake to indicate economic interventions to be implemented. These initiatives combined with outreach and health policies that are sensitive to cultures are critical in ensuring every woman in Koshi Province can get equitable access to maternal healthcare. The research will play a part in the evidence base of the policy changes in Nepal to decrease the maternal disparities in health.*

**Keywords:** Koshi Province, Postnatal Care, Socio-Demographics, Healthcare Disparities, Wealth Quintile, Caste/Ethnicity and Urban-Rural Divide

## Introduction

Post-natal care (PNC) is considered an essential aspect of maternal and child health since it deals with health care of the mother and the newborn in the critical postpartum period. Postnatal care is considered one of the important global interventions to enhance reductions in maternal and neonatal morbidity and death. World Health Organization (WHO), the majority of deaths among mothers and newborns happen during the postnatal stage, and this is the reason they need immediate and effective postnatal care (WHO, 2020). Nonetheless, the availability and usage of postnatal care services are inadequate in numerous low- and middle-income countries (LMICs), and Nepal is not an exception; specifically, in such a region as Koshi Province.

Koshi Province is one of the seven provinces of Nepal is geographically and socio-culturally diverse. It is made up of urban and rural territories, including such domains as the plains of the Terai and the hills, which introduces inequality in terms of receiving medical care services (Paudel et al., 2023). Nepal Demographic and Health Survey (NDHS) 2022, the usage of postnatal care services within 48 hours of giving birth in rural areas of Koshi Province is not as high as they are in the urban centers. The explained by the degree of education, income, cultural practices, and accessibility to the healthcare infrastructure (Sharma et al., 2022). These determinants should be understood to come up with specific interventions that will lead to better maternal and newborn health results within the province.

The social-economic forces are vital in development of healthcare utilization trends. The important determinant of the use of postnatal care is education especially among women. Highly educated women would be more aware of the necessity of postnatal care and would be able to access it than uneducated or rather poorly educated ones (Adhikari & Singh, 2022). Nevertheless, the rate of literacy in Koshi Province is still lower, particularly that of rural women, than the national level, which is another entry barrier to health care (Bista et al., 2021). Besides, wealth quintiles, which shows the economic differences, affects healthcare use. Women in low-income families are regularly in distress since they lack money to cover transportation expenses, health expenses, or access to mandatory postnatal care (Karki et al., 2023).

Due to the improved healthcare facilities of cities such as the existence of hospitals and skilled birth attendants, women can easily receive postnatal services. On the contrary, small towns and rural locations are characterized by sufficient health infrastructures, poor transport systems, and impractical distances, and women feel no need to receive them (Dhakal et al., 2023). Also, physical geography of Koshi Province includes geography of

hills which means the provision of healthcare in distant regions presents a logistical problem (Ghimire & Pandey, 2022).

Mothers are still isolated after delivering and traditional healing is still used in most cases in rural society. When implemented they tend to deter women in accessing formal healthcare (Tamang & Rai, 2023). Also, the gender norms that deny women their freedom in decision-making processes aggravate the issue since most women depend on male relatives to make decisions regarding access to healthcare (Lama et al., 2023).

Post-natal care utilization is also influenced largely by the availability and quality of healthcare services. Effective care after birth, skilled birth practitioners as well as well-equipped health care settings are essential. Nevertheless, lack of available opportunities when it comes to accessing quality care due to the inadequacy of armed healthcare professionals in rural Koshi Province restricts access to quality care (Shrestha et al., 2023). Additionally, some not filled services, such as follow-up visits and community-based health education programs, also add to the low utilization (Gurung & Shrestha, 2022).

The socio-economic, geographic, and cultural barriers should be addressed in the quest to enhance the use of postnatal care in Koshi Province. Success has been observed in government programs and community outreach (Safe Motherhood Program and community health workers) in facilitating the expansion of health care access to rural and underserved locations. Nevertheless, these programs should be expanded and adjusted to the individual needs of Koshi Province in order to guarantee fair access to postnatal care (Bhattarai et al., 2023). The cooperative work of governmental authorities, non-governmental organizations, and the population that live in the area is needed to overcome all these difficulties and establish maternal and child health.

To deal with these determinants, there should be specific interventions that ensure more focus on education, economic equality, healthcare infrastructure, and cultural sensitivity. Recognizing and overcoming these obstacles, policymakers and other healthcare professionals can enhance maternal and neonatal health results in Koshi Province and play a role in a more significant objective of Nepal universal health coverage. This study attempts to investigate factors affecting the postnatal care utilization in Koshi Province. It attempts to determine socio-economic and cultural and health system influences to access and use. The goals are the research of maternal awareness, the access to services, the quality of healthcare and the influence of education and the income level. It also assesses obstacles and differences and provides policy proposals that would advance uptake of postnatal care and maternal health results within the province.

## Methodology

The data consists of 504 observations that are separated into two groups according to used postnatal care: "No (129 respondents) and Yes (375 respondents). Socio demographic factors at age, birth order, level of education, religion, caste/ethnicity, residential status, and quintile of wealth. Ratios and percentages were used to investigate trends and differences in the adoption of postnatal care. The study will use logistic regression analysis to measure the effect of these variables in determining the use of postnatal care as a binary result. The value of odds ratios (OR) is determined to measure the odds of postnatal care use with each variable. The statistical significance and its precision are analyzed using p-values and confidence intervals (CIs). When there is  $p < 0.05$ , the variables are stated to be significant and when there is  $p < 0.1$ , the results are said to be insignificant but provide some hint to the analysis done. The analysis provided below on the basis of the Nepal Demographic and Health Survey (NDHS) will attempt to establish any key factors that are affecting the use of postnatal care and the disparities based on socio-demographic characteristics and will also shed some light with the evidence to provide some recommendations on the delays related to maternal and child health services.

## Results

The aspects of socio-demography are to a great extent crucial in the process of determining the experiences and the opportunities of people and the communities. The establish a context in which they can inform on how individuals relate with their surroundings, use and experience resources and usually cross-cut with confusing effects on education, health, and livelihoods.

**Age:** It affects his or her roles, responsibilities and the expectation in the society. Being young, age is equated with learning, growth, and dependence and being an adult, it symbolizes productivity and contribution to the society. Once people get older, age becomes the sign of wisdom and experience, yet it can also be associated with physical dependency. Social policies tend to divide into age groups to assign resources well, e.g. education of the children, work of the adults, and pension to the elderly. Milestone features such as schooling, marriage and retirement are also defined by age and different cultures do this differently.

**Birth order:** The birth order of the child can decide, first child, middle child, or younger child, and influence the personality of the child, his educational prospect and employment. Most first-born children are supposed to lead and bear big responsibilities and are given more parental care and resources. Middle children, in a way, are interpreted as having the role of mediators between seniors and juniors. The youngest person in a family can be termed as the baby of the family who can be less responsible yet more free. The birth order

may have some effect on educational and professional success, but this is usually determined by family size, influence of parents, and cultural practices.

**Education level:** Education is one of the most important factors of social-economic status of an individual. It also gives people power of knowledge, skills and capacity to think. All the levels of education including primary and tertiary levels of formal education indicate investment of the society in human capital. Advanced education is usually associated with the improved employment prospects, an elevated income level and living standards. Education however is affected by wealth, gender, and location.

**Religion:** Religion is a very personal and at the same time communal part of the life of human being that creates values, ethics and traditions. It does not only affect personal conduct but also social standards and currents in most places of the world. Religious identity may promote solidarity of the community but may result into divisions or discrimination in other situations.

**Caste/ Ethnicity:** Caste hierarchies occur in certain communities thus determining social relations, jobs, and access to resources. Discrimination of the marginalized groups is structural along with insufficient opportunities that create poverty trap and exclusion. An ethnicity that implies similar language, tradition, and inherited heritage can give the sense of belonging but be a conflictual dimension in a multi-ethnic environment. To deal with the inequality based on caste and ethnicity, governments and organizations are paying more attention to the affirmative action policy, social inclusion, and anti-discrimination policy.

**Place of residence:** The location of the residence, be it urban, rural or even the suburbs is very critical in the way a person lives and has access to things. Cities have more opportunities of infrastructure, education, healthcare and jobs. This causes rural-urban migration, which usually leads to overcrowding and emergence of informal settlements. Obviously, the rural landscape is less developed, although these locations can provide a very tight community and slower lifestyle, but it can largely be deprived of such basic needs as clean water, roads, and schools. The differences in geography will show the necessity to have equal development of regions in order to provide picturesque access to resources and opportunities.

**Wealth quintile:** Wealth quintiles segregate the population into five categories depending on income or wealth and demonstrate stratification in the economy of a given society. The people on the top quintile are able to afford high quality healthcare, education, and housing which are usually inherited by future generations. On the other hand, there are the poorest 20 percent who struggle to get good nutrition, decent housing, and needed services. Inequality in wealth distribution may result in social instability and hamper inclusion toward

growth. One of the important measures needed to reduce inequality and enhance social justice is progressive taxation.

**Table 1: Distribution post-natal Care within 2 days of the respondents**

Variable	No		Yes		Total	
	Number	Percent	Number	Percent	Number	Percent
<b>Age</b>						
<20	9	7.3	34	9.1	44	8.7
20-24	31	24.0	134	35.7	165	32.7
25-29	48	37.0	118	31.4	165	32.8
30-49	41	31.8	89	23.7	130	25.8
<b>Birth order</b>						
First	41	31.5	177	47.3	218	43.2
Second	51	39.7	142	37.8	193	38.3
Third or higher	37	28.8	56	15.0	93	18.5
<b>Level of education</b>						
No Education	25	19.7	38	10.1	63	12.6
Basic Education	96	74.0	287	76.7	383	76.0
Higher Education	8	6.3	50	13.3	58	11.5
<b>Religion</b>						
Hindu	88	67.9	263	70.3	351	69.7
Other religion	39	30.4	111	29.7	151	29.9
<b>Caste/Ethnicity</b>						
Dalit	17	13.4	39	10.5	57	11.3
Janjati	9	7.0	29	7.7	38	7.5
Other Terai	81	63.1	175	46.7	256	50.9
Brahmin/Chhetri	10	7.4	34	9.1	44	8.7
<b>Place of Residence</b>						
Urban	78	60.5	247	65.9	325	64.5
Rural	51	39.5	128	34.1	179	34.5
<b>Wealth quintile</b>						
Poorest	57	44.3	72	19.2	129	25.6
Poorer	29	22.5	82	21.9	111	22.1
Middle	19	14.8	84	22.4	103	20.4
Richer	13	10.0	94	25.0	107	21.2
Richest	11	8.5	43	11.6	54	10.8
Total	129	100.0	375	100.0	504	100.0

Source: Nepal Demographic and Health Survey, 2022

**Age:** The highest (32.8%) age group was 25-29 with almost similar proportion of those indicating No (37%), and Yes (31.4). Close behind were the respondents age 20-24 with 32.7 percent; with significantly more of the respondents in the Yes category (35.7 percent) than No (24 percent). Respondents who were under 20 years old were 8.7%, although this is again a bit higher in the case of those who responded Yes (9.1%). The number of older respondents (3049) was higher in the no section (31.8%) and lower in the yes section (23.7), which implied age differences in results.

**Birth order:** Exact 43.2 percent of the total sample were first born individuals, a large percentage of which (47.3 percent) belonged to the Yes group, as opposed to the No group (31.5 percent). The percentage of the second-born respondents was 38.3 which was spread evenly. Individuals of third or greater birth orders were highly underrepresented in the Yes group (15%) compared with the No group (28.8%), which suggested an unfavorable position of individuals with higher birth orders. It is an evident superiority of first-borns. The campaign to facilitate iconic distribution of resources in the family is necessary.

**Level of education:** The percentage of respondents having higher education was also high among the respondents of the group Yes (13.3%) than in group No (6.3%). The commonest level was basic education which constituted 76 percent of the total with slight variations among the groups. Nevertheless, the number of those who had no education in the group of people responding with a No (19.7%) was considerably higher than in the Yes (10.1%) group. Further point out the importance of education in bringing out positive results. Good education has tremendous impacts on positive results. The policies must be aimed to distribute more access to education and particularly to the underserved.

**Religion:** With 69.7 per cent of the samples, the Hindu was dominant where there were also no significant variations between the No (67.9 per cent) and Yes (70.3 per cent) categories. Other religions constituted 29.9 percent of the sample, and it was more or less equally divided among the groups and it is likely that the difference in religion may not make that much of a difference according to this dataset.

**Caste/Ethnicity:** The other Terai groups were the majority (50.9 per cent), although in the No group there were more prevalent (63.1 per cent) as compared to the Yes group (46.7 per cent). The percentage of Dalits stood at 11.3 with slightly larger percentages of the measure in the No (13.4) than the Yes (10.5) side. Respondents of zero Brahmin or Chetri categories (8.7%) demonstrated a slight increment of those that gave the answer as Yes (9.1%) against the No (7.4%). Janjatis proportions were also similar in the two groups (7.5%). There is challenge among Terai groups and the Dalits are not well represented in the Yes group. It is important to have inclusive policies towards marginalized groups.

Place of Residence: 64.5 percent of the total respondents were urban with a larger percentage of the YES respondents at 65.9 percent and the No respondents at 60.5percent. There were 34.5 percent of rural respondents who recorded higher in the No camp (39.5 percent) than in the “Yes” camp (34.1 percent). These findings indicate the slight urban advantage. The urban dwellers are doing much better, and thus there is the necessity of focusing on rural development.

**Wealth Quintile:** The poorest quintile was overrepresented among respondents giving response No (44.3%) as compared to the Yes (19.2%). The richest quintile on the other hand was more common (11.6%) in the Yes group compared to the No group (8.5%). Middle and higher quintiles were identified as closer to the group of people who gave answers of Yes, realizing that wealth is a peak factor in result determination. The economic inequalities are highly associated with results

**Table 1. 1: Factors association of post-natal Care within 2 days of the respondents**

Variable	Odds Ratio	Std. Err.	t	P> t	5% Conf. Interval	sig
<b>Age</b>						
20-24	1.014336	0.5147369	0.03	0.978	0.3687571-2.79012	
25-29	0.5399517	0.2937589	-1.13	0.261	0.1824875-1.597632	
30-49	0.5804891	0.3672584	-0.86	0.393	0.1644097-2.04956	
<b>Birth order</b>						
Second	0.6964056	0.1807285	-1.39	0.168	0.4150802-1.168403	
Third or higher	0.6422107	0.2723409	-1.04	0.3	0.2757099-1.4959	
<b>Religion</b>						
Other religion	1.987329	0.7208526	1.89	0.062	0.964196-4.096133	*
<b>Caste/Ethnicity</b>						
Muslim	0.4086601	0.3063119	-1.19	0.237	0.0916814-1.821558	
Janjati	0.5525293	0.2266789	-1.45	0.153	0.2438315-1.252047	
Other Terai	0.6318589	0.363182	-0.8	0.427	0.2008544-1.987736	
Brahmin/Chhetri	2.444576	1.041721	2.1	0.039	1.045171-5.717675	**
<b>Educational attainment</b>						
Basic Education	1.176961	0.4513969	0.42	0.672	0.5478265-2.528605	
Higher Education	1.501744	1.17049	0.52	0.603	0.3174316-7.104635	
<b>Residence</b>						
Rural	0.8883045	0.2405168	-0.44	0.663	0.5177205-1.524152	
<b>Wealth quintile</b>						
Poorer	2.070233	0.7467333	2.02	0.047	1.008481-4.249821	**

Middle	3.744792	1.443828	3.42	0.001	1.736009-8.077993	***
Richer	5.460876	2.730377	3.4	0.001	2.015082-14.79899	***
Richest	2.529228	1.356693	1.73	0.088	0.8679263-7.370437	*
<b>Constant</b>	2.329749	1.534833	1.28	0.203	0.6263508-8.66564	

Source: Nepal Demographic and Health Survey, 2022

Age: the values of age groups did not have a statistically significant effect on the result: Age 20-24 (OR = 1.01, p = 0.978) does not affect the result in a significant sense compared to the reference group (<20 years). No significant effect was also found on age 25-29 (OR = 0.54, p = 0.261) and age 30-49 (OR = 0.58, p = 0.393). These findings suggest that age might not be a major factor in the examined population and this can be because of its interrelationship with other factors like education and wealth.

Birth order: The Second-born (OR = 0.70, p = 0.168) and birth order third or more (OR = 0.64, p = 0.300) did not show any significant value when compared to first borns. The negative odds ratios, although not statistically significant, indicate the possible trends, which need more exploration especially concerning the distribution of resources among families.

Religion: All those responses who did not affiliate themselves with Hinduism religion had higher odds of the result (OR = 1.99, p = 0.062). This discovery suggests that there could be a factor of religious identity involved, and one involving the differences between cultures or systems. This relationship could be further investigated to obtain useful information about the role of religion in affecting access, and result. Religious affiliation had taken on marginal significance which indicated influences due to cultural or systems.

Caste/Ethnicity: Caste/ethnicity gave inconclusive findings: a significant increase was found in Brahmin/Chhetri respondent compared to the other groups (OR = 2.44, p = 0.039), implying preference in having favorable results. No other caste/ethnic groups (Janjatis/OR = 0.55, p = 0.153; Muslims/OR = 0.41, p = 0.237) were found significantly associated with each other. The importance of the factor Brahmin/Chhetri raises the possibility that social stratification may influence an individual and the insignificance of all other categories testifies to the necessity of a more analytical approach. Brahmin/Chhetri group showed a very large benefit, and that was significantly due to social stratification.

Educational attainment: There were no significant relations to education levels: Basic education (OR = 1.18, p = 0.672) and higher education (OR = 1.50, p = 0.603) did not bear significant influence on the result. Such result is surprising, taking into consideration the defined educational relationship to socio-economic mobility. It can point to the conclusion that education is not the only resource that will help break structural disadvantages in this

group. Differentially, though, age and education were found to be of minor importance, so indicating the primacy of the structural forms of power, such as wealth and caste.

Residence: Rural residence did not contribute much to predictor (OR = 0.89,  $p = 0.663$ ). It indicates that it is possible that urban-rural differences are not so significant in the study sample, and this might be mediated by such factors as access to resources or socio-economic status.

Wealth quintile: poorer in the respondents (OR = 2.07,  $p = 0.047$ ) had better chances of getting some positive results as opposed to the poorest quintile. The strongest associations were observed with the middle and richer quintile (OR = 3.74,  $p = 0.001$  and OR = 5.46,  $p = 0.001$  respectively). This difference was marginal in the richest quintile (OR = 2.53,  $p = 0.088$ ). The importance of economic resources as depicted in these findings supports the importance of economic resources in determining opportunities. The contrasting gradient scale of the odds ratios highlights inequalities across the system with regard to wealth distribution. The strongest determinant is economic status and the richer the more likely to yield favorable results.

## Discussion

This study examines the impact of socio-demographic and economic determinants involved in influencing PNC use according to the Nepal Demographic and Health Survey (NDHS, 2022). There is quite a substantial variation that is subjected to factors like age, birth order, level of education, religion, caste/ethnicity, area of residence, quintile of wealth.

The age groups less than 20 years and age 20-24 had higher proportions of the “Yes” in the group of PNC utilization, logistic regression analysis did not show significant differences among various age groups. This is contrary to the current body of research whereby, younger maternal age is commonly linked to increased utilization of health services because they would be exposed to more health promotion campaigns (Yadav et al., 2023). Nevertheless, the insignificance in this data set leads to the great possibility of the interaction of age with other factors, which can neutralize its independent impact on the matter, including the factors based on education or economic level.

Birth order showed the trends that could suggest the potential differences but were not statistically significant in the logistic regression analysis. The first-born children were also overrepresented in the Yes category, which speaks of the possible allocation of resources and attention to the first pregnancy. It correlates with the research by Lama et al. (2023), who claim that first-time mothers usually get more attention, even counseling, in both pregnancy and postpartum stages. Nevertheless, other children born within the same family might receive fewer opportunities to contact health facilities due to economic or

geographical barriers. These results highlight the importance of implementing interventions to equalize access to PNC services based on the birth order.

Determinants of health status, education, surprisingly, did not demonstrate any significant effects in the use of PNC. Most of the respondents belonged to basic education and there were no significant differences between the affirmative and the negative groups. There was a somewhat positive trend in higher education, but which was not statistically significant. Sharma et al. (2024) emphasizes the revolutionary nature of education in uplifting the health-seeking behaviors. The absence of meaning here could be an indication of structural impediments, e.g., financial limitations or accessibility to health care that may not be resolved by education. This conclusion points out the significance of focusing on addressing the systemic inequities in addition to education opportunities.

The affiliation in religious life was found as a weak, yet differentiating factor where the inclinations of respondents to different religions other than Hinduism had a higher probability of use of PNC. It shows that there is variation in health-seeking behavior across religions or internal to any culture or system. Regarding community-based support systems that could promote maternal health among some religious minorities, these systems do exist, as it states of Singh and Thapa (2024). Therefore, the marginal nature of the significance presents the need to explore this issue in order to comprehend the processes behind this connection.

On the utilization odds, Brahmin/Chhetri respondents indicated much stronger odds of usage of PNCs as an indicator of the socio-economic advantage and access to healthcare. On the contrary, lesser communities like the Dalits and Janjatis represented low numbers in the Yes category. Bhandari et al. (2024), which emphasize the discrimination of lower castes when obtaining healthcare. These disparities should be curbed through special policies that lead to social inclusion and breaking of caste-based barriers to health services delivery.

Living in the city was linked with the more use of PNC, albeit not statistically significant. Karki and Ghimire (2024), urban places usually have more convenient healthcare infrastructure and have access to information. But lack of significant urban-rural difference in the present study can be due to better access to healthcare in the rural regions, which can pertain to governmental program or non-governmental organizations. This study indicates that geographic disparity is improving, but more work has to be done to make access equitable.

Based on higher wealth quintiles, in a clear odds ratio strike, the likelihood of using PNC services was significantly high. There were the strongest associations in the middle and richer quintiles, whereas the poorest quintile was experiencing bleak disadvantages. This

observation is in line with other studies that hold that economic assets are paramount in ensuring that one accesses effective health care (Adhikari et al., 2025). Financial differences also play a critical role as it is important to work out the policy that would maximize the affordability of low-income groups and reinforce them with greater protection of finances, i.e., subsidized health care and conditional cash transfers.

This study pointed out that there are considerable socio-economic and demographic gaps in the use of PNC throughout the Koshi Province and the most crucial factor is wealth. Although the independent impact of age, birth order and education were low, the caste, religion, and place of residence combinations provide the complexity of the maternal health status. The comprehensive interventions focusing on equity to help eliminate these disparities would focus on implementing education, economic, and inclusive-based policies to make sure that no woman gets to miss out on obtaining the basic postnatal care services that the require.

### **Conclusion**

The study highlights the intertwining relationship between socio-economic, demographic and cultural drivers that have been affecting the usage of postnatal care (PNC) in Koshi Province in Nepal. Although, worldwide, PNC has been identifying as a key intervention to decrease maternal and neonatal morbidity and mortality, uneven assimilation of the intervention has been observed to be present among various subgroups of the population. The logistic regression model, wealth is the best and consistent predictor of PNC utilization in Nepal, the odds of postnatal care were significantly greater on women falling in the middle and higher quintile to women in the poorest quintile, showing that economic resources are central in providing access to health services. Although it is evident that other variables like maternal age and education, and rural residence were not statistically significant when we considered them independently, caste/ethnicity, and religion was significant. Possession of structural advantages and community support systems that could contribute to health-seeking behaviors existed among Brahmin/Chhetri women or non-Hindu religious groups, who were more likely to seek PNC services than others. Education, which is a historically very powerful influence in health service use, was not found as a significantly strong influence in PNC utilization, showing the presence of very systemic and financial barriers limiting the potential profit of educational attainment.

The relative disadvantage of women with higher order birth children as well as women who lived in the rural areas in the study was also highlighted although the variables did not show much statistical significance. These trends are indicators that there are deep-rooted disparities that, unless tackled, could interfere with efforts to achieve universal access to

maternal healthcare. The results lead to a paradigm change in maternal health programming in Koshi Province away of uniform service delivery to stratified and equity focused interventions that explicitly address the underlying causes of exclusion.

Economic interventions personalized as per the need should be implemented to enhance the use of postnatal care in Koshi Province. The focus of the policymakers should be on financial support mechanisms that include conditional cash transfers, transport subsidies, and post-natal services in the national health insurance program. These would alleviate the economic expenses on poor and disadvantaged households towards ensuring all families receive equal, convenient and quality postnatal services, particularly the women in the lowest wealth quintiles who have the highest barriers.

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