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Determinants of Post-natal Care Utilization in Gandaki Province

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Abstract

Post-natal care is critical for maternal and neonatal health care and responsible for substantially minimizing mortality risks both for mothers and newborns alike, the current study was carried out to identify determinants influencing PNC use in Gandaki Province, Nepal, in terms of socio-demographic and economic, factors. This analyzing data from as many as 180 respondents, a logistic regression model was used to evaluate the effect of factors contributing to PNC utilization (maternal age, education, birth order, caste/ethnicity, residence, religion, and wealth quintile). Education level and economic status were found to be the most significant predictors of PNC commitment. Women with higher levels of education were 26 times more likely to seek PNC services (OR = 26.37; p= 0.001), emphasizing the importance of health literacy and decision-making autonomy. The wealthier showed significantly greater PNC acceptance, whereby respondents in the richer quintile were nearly seven times more likely to receive such services (OR=6.93; p=0.027) against the poorest. Urban dwellers showed a higher frequency of PNC utilization rate (86.1%), whereas residence in the rurality did not contribute significantly to its access, thereby emphasizing the need to strengthen health care delivery. However, the deprivation experienced by the social minorities, especially Dalits and Janajatis, as regards their health care can be significantly concluded upon. Those young mothers (<20 years) and those who stand farther in the birth orders give less importance to PNC, which means a lack of awareness and priority regarding maternal health. The enhance the acceptance of PNC services, a few policy measures suggested by the study are increasing education efforts, providing economic aid to poor families, educational rural health arrangement, and running culturally inclusive health programs. When these determinants are addressed, maternal and neonatal health results will be expected to improve throughout Gandaki Province.

Keywords: *Postnatal care, Gandaki province, socio-demographic, healthcare disparities, Wealth quintile, caste/ethnicity*

1. Introduction

Perinatal care (PNC) is a vital component of maternal and neonatal health services that significantly contribute to reducing maternal and child mortality. Gandaki Province, with its varied geographical features and socio-cultural uniqueness, has its own set of challenges and determinants that may impact Perinatal Care Usage. These socio-demographic and economic determinants that affect PNC usage in Gandaki Province and highlight disparities and their policy implications. Certainly, the mother's age has a significant impact on PNC utilization in Gandaki Province. Young mothers, especially those under 20 years, are less likely to utilize PNC services due to lack of knowledge and less decision-making power (Bastola et al., 2023).

Younger women like this are more likely to have poor attitudes toward PNC. The PNC rate for them is higher because they have better enactment in promoting health education. Ages above 30 might have multiple childbirth experiences, being compiled to be inattentive toward the PNC. Education is associated with PNC usage in a significant way highly in Gandaki Province. Educated women have more access to higher maternity health service information and autonomy in decision-making (Poudel & Bhattarai, 2022).

However, the inequality of access is spatially skewed, especially in rural areas where resources are scant. Among Indigenous women, these educational inequalities do not seem to improve; which underscores the need to engage in aggressive programs to raise female literacy amongst these groups. Additionally, economic status plays a major role in PNC usage. Women from wealthier families in Gandaki Province find themselves with better trading power, as they have increased options in terms of accessing healthcare services thanks to their ability to afford transportation, medical costs, and higher-quality services (Sharma et al., 2023). Women at the other end of the spectrum, i.e., the poorer quintiles, face a big economic barrier against the utilization of PNC areas. These differences in economic standing are much greater farther in the rural areas, where health care has a limited presence, as well as higher out-of-pocket expenses (Adhikari et al., 2023).

In Gandaki Province, caste and ethnicity are determinant for PNC utilization, whereas caste is a known as inequitable practices, particularly concerning childbirth care, which are less likely to be eliminated. The most significant PNC include Dalits and Janjatis; this biased category referred to is composed of marginalized groups just because they do not enjoy a level playing field with Brahmins and Chhetris in terms of economic, social, or political rights (Gurung et al., 2023). Culture and social practices contribute to limiting the forecasts of these community marginal in regard to PNC service access. The divide between the urban and rural regions is quite visible in Gandaki Province, and the primary beneficiaries of

health campaigns with several helpful arrangements of high quality and accessibility are women in urban areas. Women in the rural areas had to conditions, but better give rides in their face-to-face contact with women came with difficult travel situations, poor road conditions, and limited availability of health care personnel (Karki et al., 2022). Despite these specific challenges, extending services into the remote areas of Gandaki Province can act to change broad maternal health results.

Several major religions are followed in Gandaki Province as (Hindus), followed by Buddhists and Christians. Women from lesser religious communities mostly practice traditional ways that often discourage the use of modern healthcare services (Tamang et al., 2022). Consequently, involvement of religious leaders as culturally sensitive healthcare would address the barrier and there will be more use of postnatal care. Among several variables named as the birth order, there is significant positive association with postnatal care utilization particularly during the first pregnancy, which may decrease during the subsequent pregnancies (Subedi et al., 2022). The decreasing trend in late pregnancies originates from heightened attention paid to first pregnancies in comparison with others, often receiving emphasis due to resource constraints and household circumstances.

Cultural practices of the people are significant determinants of PNC use in Gandaki Province. The cultural norm of 'sitting the month' has traditions of rearrangement; once in motion, such women seeking modern health services are seen as somehow breaking traditional dependency and supportiveness. Health education focused on take credit on the traditional ethos to eliminate 'sitting the month' should be examined on the PNC uptake potential.

Wealth and literacy occupy the same dais; however, caste, ethnicity, and residency are yet unattended. At the local level, things can be handled using localized action that exceeds financial support, community empowerment, and infrastructural reinforcement. Gandaki Province can improve maternal care uptake, ensuring that maternal and neonatal health results improve by placing considerations of equity and inclusivity center stage in the policies surrounding maternal health. This study will explore the determinants influencing postnatal care utilization in Gandaki Province.

2. Objectives

The general objective of this paper is to find out socioeconomic, cultural, and health system factors responsible for non-availability, non-access, or non-existence of postnatal care services.

Specific Objectives

- To examine maternal understanding, service availability, healthcare quality, and effect of maternal education and income levels on PNC.
- To identify various barriers and disparities, giving policy recommendations and maternal health results in the province.

3. Data and methods

This study employs logistic regression to investigate the effect of socio-demographic, and economic having on the approval of Postnatal Care (PNC). The collected data for 180 clients. This study concludes with several recommendation points for improving access and results in maternal healthcare; PNC within 48 hours at initiation. Even though there might be huge global reliance in perfecting ease of access, utilization still remains poor in resource-poor settings, due to various socio-economic and demographic weaknesses. This study attempted to scrutinize some of the factors more broadly while examining likely PNC timely use, taking into account age, birth order, religion, caste/ethnicity, education, residence, and wealth quintile. The dependent variable was PNC utilization. A logit model was applied; 180 respondents were selected according to the key socio-demographic and economic factors. The derived measure in the model was the ability to predict timely PNC use. The odds ratios were computed to ascertain the likeliness of someone seeking timely postnatal counseling. Logistic regressions were run on data, and each variable was affected by SE, t-values, p-values, and 95 percent confidence intervals. Probability values were taken as significant where ***$p < 0.01$, **$p < 0.05$, and *$p < 0.1$.

4. Results

Socio-demographics provide a comprehensive view are not simply traits pertaining to - human beings, but also indicators of various and larger structural forces that determine the possibilities, access to resources, and results of living. The essentials about the variables constitute an acknowledgment of their interaction with an individual identity and the societal framework available to explore.

Age: At the onset, age equals dependency, learning, and more rapid growth. Through family life and school, children and adolescents are cared for and educated to prepare them for life as adults. For adults, age translates into issues of productivity and social contribution, hence becoming a phase featuring employment, family formation, and active community involvement. For instance, the age for marriage, moving up and down, and retirement are as severely distinct across societies.

Birth order: Birth order-the position of a child in birth order within a family-has a profound impact on personality development, academic performance, and one's trajectory of life. Firstborns usually enjoy a privileged position, with all the parents' diverted attention at the start. The youngest child, being the "baby" of the family so often, would be often argued as having advantages and disadvantages as they approach their growth. While the birth order has an embedded effect rather than a deterministic one shaping opportunities and results, the order mostly acts along with other variables such as family size, socio-economic status and cultural assimilation.

Education: It empowers individuals, filled with power, knowledge, skills, thought. From early childhood programmes to high learning, there are varying standards' education access to quality education. Geographic setting, family income, and systemic obstacles will definitely impact the way education is fostered. A traditional case might be where rural settlements have missing or improper schools, whereas some groupings bear the yoke of institutional discrimination. Policies ahead are to fight educational inequalities and recognize that education is not only a personal asset but also a driver to the benefit of an entire community.

Religion: Religion resides in cultural and historical contexts, influencing individual and communal lives as faith systems frame values, ethics, and social norms while forwarding meaning and a sense of belonging. In time, religious establishments may become bastions of community, providing education, health services, and social welfare. However, religion can further exacerbate social segmentation when it pushes the discrimination or exclusion of religious minorities from sharing resources or taking part in public life.

Caste/Ethnicity: Caste and ethnicity serve as chief markers of identity, closely linked with cultural, social, and economic structures. Caste, more particularly entrenched in South Asia, serves to dictate a social hierarchy that determines access to goods and services, opportunity, and social mobility. The making concerted efforts toward the elimination of caste- and ethnicity-based injustices is essential to advancing the cause of an inclusive society.

Place of residence: The urban, rural-urban setting-alter life incredibly. Urban locations are full with opportunity by way of the best education, healthcare, and attractive employment but are also challenged with issues of overpopulation, pollution, and income inequality. Rural areas, meanwhile, have closed communities, but not much in terms of infrastructure and services; exemplify in rural settings; basic facilities such as schools, clinics, and roads are hardly there.

Wealth quintiles: The combination of societies into five equal wealth quintiles into various wealth categories based on income or assets makes possible the tracing of economic disparity internal to societies. The highest quintile has unmatched access to health care,

education, and housing-and these incite privilege across generations. On the contrary, the challenges faced by the poorest quintile. Even wealth categorization causes disorder and reveals exceptional criticism over disparities in opportunity and result.

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

Variable	No		Yes		Total	
	Number	Percent	Number	Percent	Number	Percent
Age						
<20	9	21.7	14.5	10.6	24	13.2
20-24	15	35.0	35.0	25.5	50	27.8
25-29	11	24.8	52.3	38.1	63	34.9
30-49	8	18.5	35.5	25.8	43	24.1
Birth order						
First	23	53.1	69	50.4	92	51.0
Second	12	28.1	50	36.7	62	34.7
Third or higher	8	18.9	18	12.9	26	14.3
Level of education						
No Education	6	13.5	3	1.9	8	4.6
Basic Education	32	76.4	82	59.8	115	63.7
Higher Education	4	10.2	53	38.4	57	31.7
Religion						
Hindu	36	85.3	118	86.3	155	86.1
Other religion	6	14.7	19	13.7	25	13.9
Caste/Ethnicity						
Dalit	12	27.2	31	22.4	42	23.5
Janjati	0	0.0	1	0.9	1	0.7
Other Terai	20	48.1	67	48.5	87	48.4
Brahmin/Chhetri	1	1.3	2	1.3	2	1.3
Place of residence						
Urban	36	85.3	118	86.3	155	86.1
Rural	6	14.7	19	13.7	25	13.9
Wealth quintile						
Poorest	16	37.6	13	9.8	29	16.4
Poorer	7	15.9	21	15.4	28	15.5
Middle	11	26.3	32	23.0	43	23.8
Richer	5	12.4	42	30.6	47	26.3
Richest	3	7.8	29	21.2	32	18.0
Total	**43**	**100.0**	**137.3**	**100.0**	**180**	**100.0**

Source: Nepal Demographic and Health Survey, 2022

Age: 25-29 of age was the largest group where they accounted for 34.9 percent, whereas the age group fell between 20-24 at 27.8 percent. The lowest percentage (<20 years) was only 13.2 percent, whereby the rest occurred among 30-49 years old. That is to show that a large part of the respondents comes in the reproductive age group. A very limited number of respondents remain in the <20 years' group, with the 30–49 category irregular far behind.

Birth order: The first-born subgroup accounted for the biggest share; they were estimated at 51.0 percent, followed by the next that was the highest birth order, 34.7 percent. The third or higher members of the family accounted for the smallest percentage 14.3 percent; hence, it is very likely that larger families may be quite underrepresented in the data.

Level of education: A majority of the respondents already possessed a basic education, 63.7 percent; a sizeable group, 31.7 percent, was highly educated. The amount with no education was fewer, merely 4.6 percent, displaying a relatively strong educational composition of the sample. The group with basic education is larger than education which shows the educationally advanced sample (31.7%).

Religion: The vast majority of the respondents belonged to the Hindu religion (86.1%), while very few were members of any other religious community. From these data, it is quite clear that Hinduism takes the pole position among the many religions in the study population.

Caste/Ethnicity: The major ethnic/caste group in the study population was the ones falling under 'Other Terai', at 48.4 percent, closely followed by the Dalits, at 23.5 percent. Janjati, which is a very small group, and a even smaller one were Brahmin/Chhetri with one member each at 0.7 percent and 1.3 percent respectively. Other Terai groups are in a commanding position, and Janjati and Brahmin/Chhetri groups are underrepresented.

Place of Residence: The urban residents (86.1%) with very few rural residents making up the 13.9 percent. This division of urban and rural reflects the very marked urban bias that may influence access and utilization of services. A very few rural individuals at 13.9 percent evidence the huge bias towards urban residents, which will have an effect on the result regarding access and utilization of services.

Wealth quintile: The largest fraction of the sample belonged to respondents from the third quintile-middle wealth quintile (23.8%), which was followed closely by the richer quintile (26.3%). The poorest quintile nearly doubled the richest quintile by almost a full percentage point at 16.4 percent and 18.0 percent respectively, signifying a more balanced economic distribution with fewer people at the extreme poles of wealth making a more equitable wealth distribution apart from the dynamics of poverty.

Table 2: Factors association of post-natal care within 2 days of the respondents

Backgrounds variable	Odds ratio	Std. err.	t	P>|t|	95% Conf. Interval	Sig
Age						
20-24	1.058922	0.6883689	0.09	0.93	0.2879444-3.894206	
25-29	2.448727	1.600059	1.37	0.176	0.6613985-9.066037	
30-49	2.049713	2.024245	0.73	0.47	0.2834697-14.82107	
Birth order						
Second	1.539083	0.907928	0.73	0.468	0.4721049-5.017482	
Third or higher	1.179704	0.8901123	0.22	0.827	0.260221-5.348156	
Religion						
Other religion	0.7459033	0.4969761	-0.44	0.662	0.196348-2.833601	
Caste/Ethnicity						
Janjati	1.723266	1.030281	0.91	0.367	0.5202492-5.708119	
Other Terai	1.048509	1.170143	0.04	0.966	0.1121118-9.806033	
Brahmin/Chhetri	0.537657	0.3103008	-1.08	0.287	0.1691997-1.708484	
Educational attainment						
Basic Education	5.857057	3.398145	3.05	0.004	1.832-18.72551	***
Higher Education	26.37159	24.61909	3.51	0.001	4.064009-171.1268	***
Residence						
Rural	0.9197575	0.5089213	-0.15	0.88	0.3035889-2.786511	
Wealth quintile						
Poorer	3.159057	1.785134	2.04	0.047	1.018442-9.798933	**
Middle	2.584063	1.657055	1.48	0.144	0.71517-9.336772	
Richer	6.933715	5.91002	2.27	0.027	1.25723438.23983-	**
Richest	3.35441	3.255221	1.25	0.218	0.4801151-23.43619	
_cons	0.0816986	0.0626912	-3.26	0.002	0.0175641-0.3800178	***

Source: Nepal Demographic and Health Survey, 2022

Age: The proportion of PNC use was increased among respondents aged 25-29 years: OR = 2.45, p = 0.176 and among those aged 30-49 years: OR = 2.05, p = 0.47, but not statistically significant.

Birth order: none of this category-second born: OR = 1.54, p = 0.468; third-born or higher in birth order: OR = 1.18, p = 0.827 showed a significant relationship with PNC use. Although age and birth order showed no significant influence on PNC utilization, the drop findings nevertheless reflect the tendency that younger mothers and mothers with fewer children might like to tap into prenatal services. This further underscores the importance of information distribution concerning maternal care.

Religion: Other religions did not contribute much in terms of looking for PNC services (OR=0.75, p=0.662), but not statistically significant.

Caste/ethnicity: Janjati and Other Terai had a positive but statistically insignificant correlation with the use of PNC (OR = 1.72, p = 0.367; OR = 1.05, p = 0.966). The Brahmin/Chhetri groups reported a negative non-significance (OR = 0.54, p = 0.287).

Educational attainment: Basic education was found to predict higher odds of PNC utilization significantly (OR = 5.86, p = 0.004). Higher education was a major predictor with accompanying respondents 26.37 times more likely to utilize PNC services (OR = 26.37, p = 0.001). The most significant predictor is one's education: higher education means an exponential decrease of opportunities to receive PNC. This emphasizes the insistent need for improving educational contributions to create awareness of maternal healthcare.

Place of residence: Rural residence has no significant relationship in explaining PNC use (OR = 0.92, p = 0.88).

Wealth quintile: Within the levels of wealth, there was a significant positive relationship of utilization of ANC services: poorer quintile: OR = 3.16, p = 0.047, richer quintile: OR = 6.93, p = 0.027, richest quintile: OR = 3.35, p=0.218 (not significant). It clearly stands out that wealthier respondents used PNC services slightly more often bearing in mind that the poorer respondents had negative capitals. Financial aid and assistance are significant from equity perspectives. The negative constant (OR = 0.08, p = 0.002) shows the very low odds of prenatal care utilization.

The most significant determinants of utilization of PNC have been established to be educational levels and wealth. Addressing this with appropriate policies and programs could lead to better maternal and neonatal health results. This study may further look into longitudinal trends and develops a bit deeper into qualitative meaning.

5. Discussions

Postnatal care (PNC) utilization is a critical aspect of improving maternal and newborn health results, particularly in regions like Gandaki Province that remain inaccessible to healthcare due to geographical and socio-economic disparities. This analysis highlights some critical factors like age, education, birth order, caste/ethnicity, place of residence, and wealth that determine the utilization of PNC. The discussion would explore these determinants and their implications for maternal health care in Gandaki Province with the support of further recent research.

Age and postnatal care utilization: Age perpetuates one of the major determinants that influence PNC utilization in Gandaki Province. The OR for respondents of the age group of 25–29 raised at 2.45 times, nearly one, thus recognizing the intervention target for maternal health programs (Thapa et al., 2023). The results for the women in the age group 30–49 years also base a similar trend, though statistically insignificant (OR = 2.05; p = 0.47). Younger mothers (<20 years), on the other hand, constituted merely 13.2 percent of the sample, meaning that were underrepresented; meanwhile, these mothers confronted unique challenges like early marriage, no decision-making power with regard to maternal health, and a lack of knowledge about maternal health services. These results suggest a strong need for focused health education campaigns for young mothers to move them toward PNC services (Gurung et al., 2023).

Birth order and matters of health care resource allocation: Birth order plays a significant role in influencing the pattern of PNC use and care, limited in a continuous trend from the first births, with 51.0 percent of antenatal care practice rated earliest in line. Hence, this can be translated to the great attention given to first pregnancies by families and healthcare teams (Acharya et al., 2023). However, third and higher-order births (14.3%) were less likely to result in postnatal care utilization, with a non-significant OR statistic (OR = 1.18; p = 0.827). The challenges and competing family-centric care practices for higher-order births might play a part in declining focus on maternal healthcare for these births. Implementing family-centered healthcare involvements that prioritize equal allocation of care for all pregnancies could go a long way not only in justifying such injustice but also in addressing potential disparities (Bhandari et al., 2023).

Education as a major determinant: Education emerged as the most impacting predictor for PNC utilization in Gandaki Province. As a matter of fact, respondents with higher education were 26 times more likely to access PNC services (OR = 26.37; p = 0.001), and basic education equally exhibited a good influence on PNC utilization (OR = 5.86; p = 0.004). This follows to worldwide evidence that education prepares females with informed decision-making skills, autonomy and confidence to cross the healthcare systems (Sharma et al., 2023). This also is a demonstration of the increased educational access opportunities in Gandaki Province with quite higher proportions of respondents with even basic (63.7%) and higher education (31.7%). But the low proportion of women with no education (4.6%) indicates more movement and expansion in educational programs, particularly among the marginalized communities (Poudel & Tamang, 2023).

Caste/ethnicity and persistent inequities: Caste and ethnicity still play vital roles in forming health care access in Gandaki Province. Other Terai groups formed the largest

ethnic group (48.4%) followed by Dalits (23.5%). However, the odds of PNC utilization among Other Terai groups are not statistically significant (OR = 1.05; p = 0.966), and Brahmin/Chhetris reveal a non-significant, negative relation (OR = 0.54; p = 0.287). Janjati, under-represented (0.7%), shows positive but statistically non-significant odds (OR = 1.72; p = 0.367). These patterns highlight the systemic inequities faced by the marginalized groups, especially Dalits and Adivasi communities, who usually face cultural stigma and structural barriers to healthcare (Adhikari et al., 2023). The gap can be reduced by using integrated policies and community-based health promotion programmes based on the needs of marginalized groups (Basnet et al., 2023).

Accessible health care and an urban-rural: The urban-rural divide is stark in Gandaki Province, with city residents dominantly representing the sample (86.1%) but be more than by rural residents (13.9%). However, rural geographic areas present no limited significant effect on PNC utilization (OR = 0.92; p = 0.88). This implies that inequalities affecting rural healthcare access are being connected, even if infrastructural limits and barriers in remote areas still persist (Subedi et al., 2023). Efforts to avoid this divide can help ensure universal access to the healthcare services for rural populations using mobile health clinics and telemedicine and the promotion of environmental health through improved transportation infrastructure (Karki et al., 2023).

Religion and cultural beliefs: Religion had no statistically significant effect on PNC utilization, whereas other religious groups had lower odds compared to Hindus (OR = 0.75; p = 0.662). Hindus were in the majority in the sample (86.1%), reflecting the religious composition of Gandaki Province. While religion and strict religiosity do not influence healthcare use directly, their active practices may. For example, the practice of postpartum confinement and reliance on traditional healers in case of illness are common, and these can often impede timely PNC (Bista et al., 2023). If religious and community leaders are engaged in health promotion programs, cultural barriers could potentially be eradicated, thus promoting more acceptable health practices.

Wealth quintile: The wealth quintile emerged as a determinant of PNC services utilization. The richer quintile (OR = 6.93; p = 0.027) and the poorer quintile (OR = 3.16, p = 0.047) showed a robust association with an increased use of PNC compared to the poorest quintile. The richest quintile, although with a higher unadjusted positive odds of PNC utilization, did not approach significance (OR = 3.35; p = 0.218). The consistent evidence from literature, as put forward by Edmond et al. (2013), is that financial enabling must to occur obviously in the setting to enhance access to healthcare in a distant setting where long distances and costs

of services are challenging. Financial frameworks such as conditional cash transfers and free maternal healthcare for poorer families must be prioritized.

The determinants of postnatal care utilization in Gandaki Province reveal a complex association between socioeconomic, demographic, and cultural factors. The most critical determinants from the multivariate analysis were noted to be education and wealth, suggesting a notable community-level disparity with respect to the predictors in wide variation. The treatment of these problems necessitates an integrated approach covering education, economic support, infrastructure, and culturally sensitive intervention. By promoting equity and inclusivity in its maternal health policies, Gandaki can increase its PNC acceptance rates and subsequently improve maternal and neonatal health results.

6. Conclusion

Postnatal care is necessary for improved maternal and neonatal health results. PNC sufficiency is governed by complex interaction between socio-demographic, economic, and societal factors among the residents in Gandaki Province. Critical factors indicated an associated dependence on education and healthiness, while other differentials related to caste/ethnicity and place of residence remain in force.

Those within the age 25–29 years were more likely to visit postnatal care centers with an OR of 2.45, but the figures were not statistically significant. Meanwhile, mothers aged less than 20 years showed the lowest service utilization, and this being so, the barriers met include premature marriages, awareness, and decision-making power shortages. Thus, younger mothers need and deserve health education. Schooling was the most powerful predictor of PNC usage: those with higher schooling were 26 times more likely to appropriately occupy postnatal services when compared with others (OR = 26.37; p = 0.001), whereas basic education also positively influenced the complete use of PNC services (OR = 5.86; p = 0.004). Thus, the concern for enhancing the access to education would be of greater importance, particularly for underprivileged communities. After adjusting for wealth quintile, respondents in the richest and less wealthy quintiles had higher advantages (OR = 6.93; p = 0.027; OR = 3.16; p = 0.047) compared to the lowest. The socio-economic barriers are governed by the necessity for financial support interventions, including cash transfers and subsidized and free maternal healthcare. This has the long-lasting effect of shackling health, access to deprived groups like Dalits and Janajatis. Terai's other natives showed a weak positive association (OR = 1.05); these barriers validate in equity from purely structural obstacles preventing fair access, which are of significant magnitude. Mainly urban people reside Nepal with an informal approval of 86.1 percent, property the support of good health coverage. The study indicates no significant impact with regards to rural residences,

suggesting progressive steps to enhance an equitable regional coverage in healthcare infrastructure while challenges. To drive increased PNC uptake in Gandaki Province, policy should focus on an expanded education setting, addressing economic disparities, promoting rural health infrastructure improvements, and exercising inclusivity pointed toward the underserved communities. These strategies can have protected further improvements to maternal and neonatal health results in the whole province.

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