Factors Associated with Enrollment in Social Health Insurance in Sundarharaicha Municipality, Morang, Nepal

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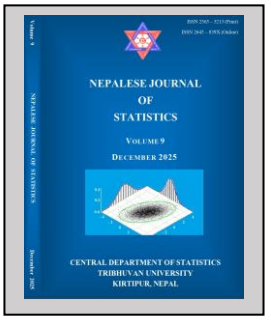

ABSTRACT

Background: The government of Nepal introduced the Social Health Insurance (SHI) program to improve access to health services and to reduce out-of-pocket health expenses of the people. The program aims to pool financial resources to provide health-care coverage and subsidies to people. It aims to prevent people from financial hardship at healthcare center while getting treatment. It provides support for quality health services. Only a few studies have been conducted on an enrollment status of SHI in Nepal.

Objectives: The main aim of this research is to identify the significant socio-demographic and health-related factors towards the enrollment status of Social Health Insurance Program of Sundarharaicha Municipality Morang, Nepal.

Materials and Methods: The study was based on a cross-sectional study design in three wards of Sundarharaicha Municipality in Morang district. The study was entirely based on primary data among 392 households using a structured questionnaire and data were directly collected from individuals using the personal interview method.

The findings of the study consist of both descriptive as well as inferential results. Descriptive analysis, chi-square tests, Fisher exact test, and binary logistic regression were used to analyze relationships among enrollment status and socio-demographic variables. Internal consistency of awareness items was assessed using Cronbach's alpha.

Results: The majority of respondents (52.6%) were enrolled on SHI. From bivariate analysis, enrollment was significantly associated with variables such as age, education status, chronic illness, family history of chronic illness, monthly income, awareness on health insurance, and heard about government insurance ($p < 0.05$). A binary logistic regression identified educational level, awareness, and chronic illness of household's head as key factors associated with enrollment status. Both forward and backward likelihood ratio methods were used and the same result was obtained

Conclusion: This study identified factors associated with enrollment status towards social health insurance (SHI). A binary logistic regression analysis identified educational level, awareness, and chronic illness of household's head as the key factors associated with SHI.

Keywords: Binary logistic regression, Cramer's V, cross-sectional study, enrollment status, social health insurance.

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INTRODUCTION

The Government of Nepal introduced the Social Health Insurance (SHI) Program to increase the access of people to good health care services and reduce the out-of-pocket money during treatment at health care services. The SHI program has great significance especially for people of low income who are suffering from financial hardship at health care service during treatment. This program was launched in Nepal to ensure equitable access to quality health services to provide financial protection against high health care cost. It aims to reduce the problem of out-of-pocket expenditure during medical treatment that many people face during medical treatment. Many studies, sectoral assessment and reviews of Nepalese health care system have emphasized the need to reduce the reliance on this out-of-pocket expenditure, as it is one of the inequitable and regressive methods of financing health services (Government of Nepal, Health Insurance Board, 2022). In this context, the SHI program tries to remove existing barriers to health care access and promote equity, particularly among poor and disadvantaged population groups, as a part of Nepal's broader commitment to achieving Universal Health Coverage (UHC). According to the World Health Organization, UHC refers to a situation in which all individuals are able to access a comprehensive range of quality health services when needed without any financial hardship. This includes essential preventive, promotive, curative, rehabilitative and palliative health services across the life course (World Health Organization, 2022).

A study conducted in Nigeria to find the determinants of enrollment among women of reproductive age indicates that the factors such as age, education, geo-political zone, socio-economic status (SES), and employment status were significant predictors of enrollment in the NHIS among women of reproductive age (Aregbeshola et al., 2018). A study conducted by Afriyie et al., (2022) to investigate the equity in health insurance scheme enrollment in low and middle-income countries revealed that the desired level of enrollment in health insurance had not been attained in low and middle-income countries, with an average enrollment rate of only 36%. Sharma et al. (2021) conducted a study to determine the enrollment status of the health insurance scheme among adults in Pokhara, 40% had enrolled in SHI. Age, ethnicity, marital status, history of chronic illness, family history of chronic illness and awareness was significantly associated with Enrollment status.

Ranabhat et al. (2020) conducted a descriptive study in three districts - Bardiya, Chitwan, and Gorkha of Nepal to determine the enrollment and dropout rates of health insurance. The

enrollment rates in these districts were found to be 1%, 5%, and 9%, respectively, while the dropout rates among the enrolled households were 67%, 44%, and 38% correspondingly. There are limited studies examining the enrollment status of SHI program and its associated factors at the municipal level in Nepal. In particular, no study has conducted to assess SHI enrollment in Sundarharaicha Municipality. Addressing this gap, this study examines the enrollment status of SHI and identifies factors associated with enrollment at household level. The findings are expected to provide context specific evidence to help policymakers and relevant stakeholders in strengthening SHI policy design and implantation.

MATERIALS AND METHODS

Data

The study was conducted in three wards (4, 8, and 9) of Sundarharaicha Municipality, Morang District, Nepal. A cross-sectional study design was employed. The research relied entirely on primary data, which were collected directly from individuals through personal interviews. Both descriptive and inferential statistical analyses were performed to achieve the objectives of the study. The required sample size (n) was calculated using Cochran's formula (Cochran, 1977) for estimating proportions at the α% level of significance.

$$n = \frac{Z^2_{1-\frac{\alpha}{2}} \times p \times (1-p)}{e^2} \times (1 + NR) \qquad (1)$$

Assuming a 50% expected proportion (p = 0.50) as a conservative assumption to maximize sample size in the absence of prior estimates of SHI enrollment at the municipal level-a standard practice in cross-sectional studies, a 5% non-response rate (NR), a 5% margin of error(e) and 95% level of confidence were considered. Based on Cochran's formula, the calculated sample size was 403. During data collection, an actual non response rate of approximately 3% (≈ 2.7 %) was found, resulting in an actual sample size of 392 households.

Table 1. Population and sample size in each ward.

Ward No	Total number of households (Ni)	Allocated sample size $n_i = \frac{Ni \times n}{N}$
4	1449	131
8	1209	110
9	1782	162
	Total households (N) = 4440	Total sample size (n) = 403

Table 1 shows the population size and proportionally selected sample size of the each selected three wards-4, 8, and 9 of Sundarharaicha Municipality. A two-stage sampling technique was used. In the first stage, three wards out of twelve wards of this Municipality were selected using simple random sampling. In the second stage, households were selected using systematic sampling through a transect walk method. The transact walk method is a field implementation of

systematic sampling, especially in community surveys. In this method, the study area is transversed along a predetermined route(transect) from a central or randomly selected starting point and then enumerators select households at pre-defined sampling interval (k) calculated by dividing the total households in the study area by the required sample size. Dividing the total number of households in the ward by the allocated sample size, a fixed sampling interval (k) was determined. Within each selected ward, a starting point of survey was identified in consultation with local representatives. Then we followed a predetermined walking route and selected every k^{th} household until the required sample size was achieved. If a selected household was unavailable or refused participation, the next immediate household was approached to maintain the required sample size.

To ensure data quality, both reliability and validity of the study instrument were carefully addressed. Content validity of the questionnaire was established through expert review by research committee members of Central Department of Statistics (CDS), Tribhuvan University (TU). The dependent variable, enrollment status on SHI (Yes/No), was a binary outcome and therefore did not require internal consistency assessment. Awareness of SHI was measured using ten dichotomous items. Internal consistency reliability of the awareness scale was assessed using Cronbach's alpha, which yielded a value of 0.88, indicating high reliability. After computing the total awareness score, respondents' awareness was categorized into "high" and "low" groups based on the median score.

Statistical analysis

For the univariate analysis, frequencies and percentages were computed for the dependent variable, Enrollment Status, and for 14 independent variables: age, gender, ethnicity, religion, marital status, family type (nuclear or joint), family size, occupational status, education level, income level, history of chronic illness of the household head (HHH), family history of chronic illness of the HHH, awareness of government insurance, and overall SHI awareness. Respondents who answered at least 5 out of 10 SHI-related questions correctly were classified as high aware, while those scoring below this threshold were categorized as low aware. Chi- square and Fisher's exact tests were used to identify significant variables associated with enrollment status for the bivariate analysis. By taking "Enrollment Status (Yes/No)" as dependent variable and significant factors identified from the bivariate analysis as predictors, a binary logistic regression was to identify the factors associated with enrollment in SHI program. A binary logistic regression is:

$$\ln\left(\frac{Y=1}{Y=0}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_k X_k + \varepsilon \qquad (2)$$

where, Y = response variable which takes value 1 for "Yes" and 0 for "No" response to enrollment status, β_i = unknown parameters, X_i = independent variable, and ε = error.

Model's performance diagnosis

Before fitting the logistic regression model, multicollinearity among significant categorical predictors identified from bivariate analysis was assessed using pairwise association measures. Although the Chi-square test identifies the association between categorical variable, it does not quantify the strength of that association and is sensitive to sample size. Therefore, Cramer's V was used to quantify the association between categorical predictors and to evaluate potential of multicollinearity prior to logistic regression analysis. According to Gravetter & Wallnau (2017), when contingency table is of r × c and min {(r-1), (c-1)} =1, Cramer's V values of approximately 0.10, 0.30, and 0.50 respectively represent small, moderate and large effect size of association. In this study, a Cramer's V value greater than 0.50 is considered indicative of potential multicollinearity. After fitting the logistic regression model, several diagnostic tests were conducted to assess model adequacy. These included the Omnibus Test of Model Coefficients to evaluate the overall significance of the predictors, the Hosmer-Lemeshow goodness-of-fit test to examine calibration, and classification accuracy tables before and after model fitting to assess predictive performance. Additionally, Pseudo R-squared measures, including Cox and Snell R^2 and Nagelkerke R^2, were computed to evaluate the explanatory power of the model.

Statistical software

All analyses were performed using the Statistical Package for Social Science (SPSS), version 25.

RESULTS AND DISCUSSION

The percentage distribution of enrollment status in Social Health Insurance (SHI) among the 392 surveyed households is illustrated in the bar diagram, Fig. 1. Out of the 392 participants, more than half of the surveyed households (52.6%) were enrolled in SHI, 47.4% were not enrolled. The enrollment rate observed in this study is consistent with the previous research conducted by Sharma et al. (2021) who reported that approximately 40% of households were enrolled in the SHI program in Pokhara Metropolitan City.

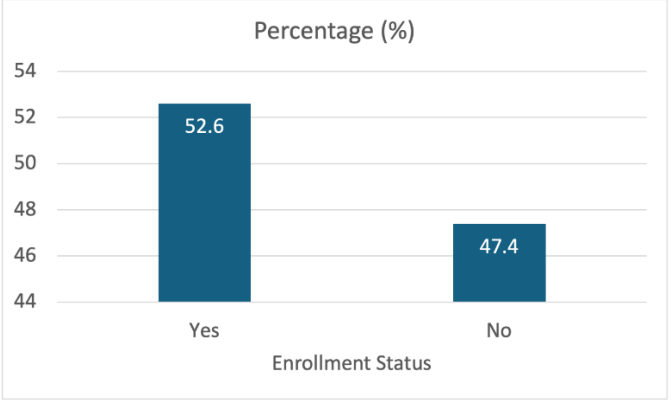


Fig. 1. Percentage distribution of respondents by enrollment status in SHI program.

Table 2 summarizes the distribution of demographic, socio-economic and health related characteristics of the respondents by their enrollment status In the SHI program. Enrollment varied across age groups. Enrollment was higher among individuals aged 35 years and above (55.7%) compared to those aged 18-35 years (42.4%), which is consistent with findings from Afriyie et al. (2022) who noted that purchasing insurance policy often increases with age due to high vulnerability to illness. Male respondents had higher enrollment rate (55.6%) than female (46.6%). Across ethnicity, Brahmin, Chhetri and Janajati respondents had more than 50% enrollment rate whereas Dalit had the lowest enrollment rate (40%). Hindus (53.4%) had higher enrollment rate compared to others (47.2%). Enrollment rate was similar across nuclear families (53.3%) and joint families (52.1%). Households with larger family (more than five members in the family) had higher enrollment rate (59%) than smaller families (50.3%). Enrollment rate was found high among respondents having Bachelor or higher education level (71.6%) followed by illiterate (63.9%), higher secondary level (48.1%), and primary level (45.2%). Respondents from households with monthly income (> NRs. 20,000) showed higher enrollment rate in SHI (61.6%) compared to those from lower monthly income households (47.6%). Health related variables showed strong associations with enrollment status. Respondents from household in which household head a chronic illness (76.7%) and those with a family history of chronic illness (76.5%) demonstrated noticeably higher enrollment rate compared with households reporting no history of chronic illness. This result is consistent with the studies conducted by Ranabhat et al. (2020) and Sosa-Rubí et al. (2009), who found that individuals with greater health needs are more inclined to join insurance schemes to reduce financial risk associated with long-term treatment.

Similarly, respondents who had heard about the insurance program had higher enrollment (57.5%), while none of the uninformed participants were enrolled. Regarding information sources, relatives (77.8%), media (60.8%), and health personnel (57.4%) were the most influential channels associated with higher enrollment. Respondents engaged in government job had higher enrollment rate (69.9%) followed by those in "other" occupations (61.0%), daily wage (55.4%), business (51.1%), foreign employment (48.9%), and agriculture sector (46.2%). Enrollment in the SHI program was higher among the respondents with high awareness (67.6%) than among those with low awareness (14.4%). This result is consistent with the findings of previous studies in Nepal. Sharma et al. (2021) reported that 52.8% respondents among aware were enrolled in the program. According to Thapa et al. (2021), among aware about SHI program, 65.9% respondents were enrolled in the program. Dhungana et al. (2020) also mentioned that only 47.15% respondents were satisfied among 60.66% aware respondents about SHI program. Although awareness of SHI is important, the findings indicate that awareness is not sufficient to ensure enrollment in the program. Other factors such as socio-economic, demographic and health related chronic illness play significant role in enrollment decision.

Table 2. Bivariate analysis of independent variables with enrollment status.

Characteristics	Enrollment Status			Chi-square	p-value
	Yes (n = 206)	No (n = 186)	Total		
Age				4.976	0.026
18-35	39 (42.4%)	53 (57.6%)	92		
35+	167 (55.7%)	133 (44.3%)	300		
Gender				2.843	0.092
Male	144 (55.6%)	115 (44.4%)	259		
Female	62 (46.6%)	71 (53.4%)	133		
Ethnicity				4.508	0.342
Brahmin	67 (58.3%)	48 (41.7%)	115		
Chhetri	68 (53.1%)	60 (46.9%)	128		
Janajati	45 (50.6%)	44 (49.4%)	89		
Dalit	18 (40.0%)	27 (60.0%)	45		
Others	8 (53.3%)	7 (46.7%)	15		
Religion				0.712	0.399
Hindu	181 (53.4%)	158 (46.6%)	339		
Others	25 (47.2%)	28 (52.8%)	53		
Marital Status				2.284	0.131
Married	191 (51.6%)	179 (48.4%)	370		
Unmarried	15 (68.2%)	7 (31.8%)	22		
Family Type				0.060	0.807
Nuclear	80 (53.3%)	70 (46.7%)	150		
Joint	126 (52.1%)	116 (47.9%)	242		
Family Size				2.239	0.135
≤5	147 (50.3%)	145 (49.7%)	292		
>5	59 (59.0%)	41 (41.0%)	100		
Occupation				6.137	0.293
Agriculture	49 (46.2%)	57 (53.8%)	106		
Business	48 (51.1%)	46 (48.9%)	94		
Foreign Employment	22 (48.9%)	23 (51.1%)	45		
Daily Wages	46 (55.4%)	37 (44.6%)	83		
Government Employee	16 (69.6%)	7 (30.4%)	23		
Others	25 (61.0%)	16 (39.0%)	41		
Educational Level				15.836	0.001
Illiterate	23 (63.9%)	13 (36.1%)	36		
Primary	61 (45.2%)	74 (54.8%)	135		

Higher Secondary	74 (48.1%)	80 (51.9%)	154		
Bachelor and above	48 (71.6%)	19 (28.4%)	67		
Chronic Illness of HHH				21.002	<0.001
Yes	56 (76.7%)	17 (23.3%)	73		
No	150 (47.0%)	169 (53.0%)	319		
Family History of Chronic Illness				24.904	<0.001
Yes	65 (76.5%)	20 (23.5%)	85		
No	141 (45.9%)	166 (54.1%)	307		
Monthly Income				6.985	0.008
≤ 20,000	121 (47.6%)	133 (52.4%)	254		
>20,000	85 (61.6%)	53 (38.4%)	138		
Awareness				90.319	<0.001
High Aware	190 (67.6%)	91 (32.4%)	281		
Low Aware	16 (14.4%)	95 (85.6%)	111		
Heard about Government Insurance					<0.001*
Yes	206 (57.5%)	152 (42.5%)	358		
No	0 (0%)	34 (100%)	34		

* Fisher's exact test

From the above bivariate analysis, enrollment status in Social Health Insurance (SHI) was significantly associated with several factors, including age ($p = 0.026$), educational status ($p = 0.001$), chronic illness of the household head ($p < 0.001$), family history of chronic illness of the household head ($p < 0.001$), monthly income ($p = 0.008$), awareness of health insurance ($p < 0.001$), and having heard about the government insurance program ($p < 0.001$). This result matches with findings of study conducted by Adebiyi & Adeniji (2021) who reported that age and income were significant factors influencing utilization of National Health Insurance Scheme in Nigeria (Adebiyi & Adeniji, 2021). In the contrast, Gender ($p = 0.092$), ethnicity ($p = 0.342$), religion ($p = 0.399$), marital status ($p = 0.131$), family type (0.807), family size ($p = 0.135$), and occupation ($p = 0.293$) were not found significantly associated with the enrollment status in SHI program. The bivariate analysis revealed that enrollment status in the SHI program was significantly associated with demographic, socio-economic, and health related factors. Age ($p = 0.026$), educational status ($p = 0.001$), the presence of chronic illness in household head ($p < 0.001$), a family history of chronic illness ($p < 0.001$), household monthly income ($p = 0.008$), awareness ($p <0.001$), having heard about SHI program ($p < 0.001$) were found significantly affecting the enrollment status in the SHI program. This result is consistent with findings of the study conducted by Adebiyi & Adeniji (2021) who reported that age and income were significant factors influencing utilization of National Health Insurance Scheme in Nigeria. In contrast, variables such as gender, ethnicity, religion, marital status, family type, family size, and occupation did not show statistically significant association with enrollment status in SHI, as they had p-value more than 5%.

Final model

Binary Logistic Regression Model was applied to identify the association between enrollment status and significant factors identified from the bivariate analysis.

Table 3. Binary logistic regression analysis of factors associated with enrollment in SHI.

Variable	Category	Beta (β)	SE (β)	p-value	Odds Ratio (Exp β)	95% CI for OR
Educational Level	Primary	-0.824	0.489	0.092	0.439	0.168 - 1.143
	Higher Secondary	-1.203	0.491	0.014	0.300	0.115 - 0.787
	Bachelor or above	-0.520	0.545	0.341	0.595	0.204 -1.732
	Illiterate (Ref)	-	-	-	-	-
Awareness	High Aware	2.575	0.330	<0.001	13.130	6.875 - 25.076
	Low Aware (Ref)	-	-	-	-	-
Chronic Illness of HHH	Yes	1.092	0.340	0.001	2.979	1.529 -5.805
	No (Ref)	-	-	-	-	-
Constant	-	-1.155	0.471	0.014	0.315	-

Table 3 shows that three variables were significantly associated with enrollment in Social Health Insurance (SHI) at the 5% level: educational level, awareness, and chronic illness of the household head. Regarding educational status, only the higher secondary category was statistically significant. The odds ratio of 0.300 ($p = 0.014$; 95% CI: 0.115-0.787) indicates that individuals with higher secondary education had 70% lower odds of being enrolled compared to illiterate individuals. An odds ratio less than 1 shows reduced likelihood of enrollment relative to the reference group. Awareness of health insurance was a strong predictor of enrollment. Respondents who were high aware of SHI had an odds ratio of 13.130 ($p < 0.001$; 95% CI: 6.875-25.076), meaning they were about 13 times more likely to be enrolled than those who were low aware. Chronic illness of the household head was also significantly associated with enrollment. Households where the head had a chronic illness had nearly three times higher odds of being enrolled (OR = 2.979; $p = 0.001$; 95% CI: 1.529-5.805) compared to those without chronic illness, which is similar to the study of Sharma et al. (2021) chronic illness of HHH was found to be significant.

Model adequacy and diagnostic assessment

Classification performance

Table 4 represents the classification performance of the logistic regression model before and after model fitting. Before model fitting, the null model classified all respondents as enrolled, resulting 100% sensitivity for enrolled cases but 0% specificity for non-enrolled cases. The overall

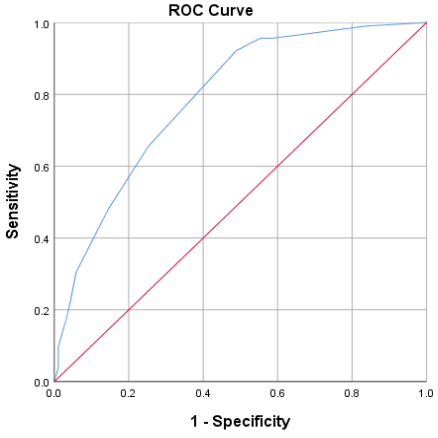
classification accuracy was 52.6%, indicating that the null model had low discriminatory ability of classifying enrolled and non-enrolled. After fitting the logistic regression model, the predictive performance improved. The model correctly classified 51.1% of non-enrolled cases and 92.2% of enrolled cases, resulting an overall classification accuracy of 72.7%. This improvement indicates that the inclusion of explanatory variables enhanced the model's discriminatory ability.

Table 4. Classification performance of logistic regression model.

Model	Observed \ Predicted	Not Enrolled	Enrolled	Percentage Correct
Before model fit	Not Enrolled	0	186	0.0
	Enrolled	0	206	100.0
	Overall accuracy			52.6
After model fit	Not Enrolled	95	91	51.1
	Enrolled	16	190	92.2
	Overall accuracy			72.7

Receiver operating characteristic (ROC) curve

The ROC curve is a graphical tool used to evaluate the discriminative ability of a predictive model by plotting sensitivity (true positive rate) against 1 – specificity (false positive rate) across a range of threshold values. The area under the curve (AUC) provides a single summary measure of model performance. An AUC between 0.7 and 0.8 indicates acceptable discrimination, values from 0.8 to 0.9 indicate excellent discrimination, and values above 0.9 reflect outstanding model accuracy (Fawcett, 2006). In this study, Fig. 2, the ROC analysis, showed an AUC of 0.789 (95% CI: 0.744-0.834), indicating that the model has good discriminative ability. Although it does not reach the "excellent" threshold, it is close to that range, suggesting that the fitted model performs well in distinguishing between enrolled and non-enrolled households.



AUC= 0.789, CI (0.744-0.834)

Fig. 2. ROC curve

Assessment of multicollinearity

By Cramer's V statistic, the associations among the key categorical predictors identified from bivariate analysis were examined to assess the multicollinearity prior to running logistic regression. The values of Cramer's V are presented in table 5.

Table 5. Pairwise Cramer's V values among categorical predictors.

Variables	Awareness	Educational Level	Age	Monthly Income	Chronic illness of HHH
Awareness	-				
Educational Level	0.315	-			
Age	0.106	0.198	-		
Monthly Income	0.096	0.335	0.005	-	
Chronic illness of HHH	0.141	0.149	0.157	0.045	-
Family History of Chronic Illness	0.207	0.136	0.175	0.118	0.702

As shown in Table 5, most pairwise associations among the categorical predictors were weak to moderate in strength (Cramer's V < 0.40), indicating no serious multicollinearity. However, a strong association was observed between family history of chronic illness and chronic illness of the household head (Cramer's V = 0.702). To avoid multicollinearity, only chronic illness of the household head was retained in the multivariable logistic regression analysis.

Overall model fit

The omnibus test of model coefficients indicated that the logistic regression model provides a significantly better fit than a null model, confirming meaningful relationships between the dependent and independent variables. The Hosmer–Lemeshow goodness-of-fit test further showed that the model fits the data well, with no evidence of poor calibration. The classification table demonstrated an improvement in predictive accuracy, with the overall correct classification increasing from 52.6% before model fitting to 72.7% after the model was applied. The Pseudo R-square statistics also supported the adequacy of the model. The Cox and Snell R^2 (0.246) and Nagelkerke R^2 (0.352) values indicate that the variables in the model explain 26.4% to 35.2% of the variations in enrollment status.

Limitations

The research was carried out solely in the three wards of Sundarharaicha Municipality, Morang, Nepal. Therefore, the findings can only be generalized to Sundarharaicha Municipality.

Information was gathered through a structured questionnaire. One independent variable, "awareness," was assessed using 10 questions, which may not fully represent the concept; however, a Cronbach's Alpha of 0.88 suggests that the scale is reliable. The Binary Logistic Regression Model accounts for just 26.4% to 35.2% of the variation in enrollment, suggesting that significant influencing factors might be missing from the analysis.

CONCLUSION

The present study examined the enrollment status of households in Social Health Insurance (SHI) in Sundarharaicha Municipality and identified factors influencing enrollment. Bivariate analysis initially revealed that 6 out of 13 variables were significantly associated with enrollment status. These significant variables were then included in a binary logistic regression model to determine their adjusted effects. The final model identified three predictors with a statistically significant impact on SHI enrollment: educational status, chronic illness of the household head, and awareness of health insurance. These findings highlight the importance of both socioeconomic and health-related factors in shaping SHI uptake within the study population.

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CONFLICT OF INTEREST

The authors declared that there is no conflict of interest.

AUTHOR CONTRIBUTION

KP conceptualized the study, conducted data collection, performed the statistical analysis, and drafted the manuscript. AKY supervised the research process, critically reviewed the manuscript, and finalized the paper, addressing all reviewer's comments.

FUNDING

Nepal Re-Insurance Company Limited provided the M. Sc. thesis grant, and this research paper is a part of this thesis work.

DATA AVAILABILITY

The datasets used and analyzed in the study can be available upon the request.

ETHICAL STATEMENT

This study involved a household-based survey with no clinical intervention or procedure. The study is a part of M.Sc. Statistics thesis work and was closely assessed by the Research Committee of the CDS, TU and therefore ethical clearance was not obtained from Ethical Review

Committee since it was not mandatory at the time of study. Participation from respondents was completely voluntary. Informed consent was obtained from all respondents before data collection. Respondents were assured that their information would be confidential and anonymous.

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