Original Research Article

Journal of College of Medical Sciences-Nepal, Vol-19, No 4, Oct-Dec 2023
ISSN: 2091-0657 (Print); 2091-0673 (Online) Open Access
DOI:10.3126/jcmsn.v19i4.58786

Health Insurance Utilization Pattern among Community People of Jutpani Kalika Municipality of Chitwan Nepal

Srijana Panthi,[1] Suman Lohani,[2] Alisha Manandhar,[3] Prerna Bansal,[1] Ayasha Shrestha,[1] Meera Prasai[1]

[1]Department of Community Medicine, College of Medical Sciences-Teaching Hospital, Bharatpur, Chitwan, Nepal, [2]Bharatpur Hospital, Bharatpur, Chitwan, Nepal, [3]Kathmandu Institute of Child Health, Kathmandu, Nepal.

ABSTRACT

Introduction

The Government of Nepal's Social Health Security Scheme (SHSS) is a social protection program that strives to give its inhabitants access to high-quality medical treatment without putting a financial burden on them. As a way of achieving Universal Health Coverage, this program makes an effort to overcome obstacles to utilizing health services and assure equity and access for underprivileged and poor populations. Thus, the study aimed to assess the pattern of using health Insurance Schemes by the community people of Central Nepal.

Methods

A analytical cross-sectional study was conducted at Jutpani Kalika Nagar Palika ward No 7. A total of 274 enrolled households were taken using a non-probability, convenient sampling technique. The sample size was calculated by using the formula(n)= z^2pq/e^2. Specifically designed proforma were used to assess the pattern of utilizing health insurance schemes. The collected data was entered in SPSS version 16. Descriptive analysis and Chi-square was applied.

Results

Among 274 enrolled households, 94.9% have utilized the Social Health Security Scheme (SHSS). Among the study participants, 60.9% had utilized SHSS for laboratory services. The majority of study participants 230(94.7%) were below the poverty line and were utilizing SHSS. The education of the head of the household and the number of earning members in the family were found significantly associated with the utilization of SHSS.

Conclusions

The majority of people were utilizing SHSS and they were willing to continue this program and study found that people have faith in government service.

Keywords: social health insurance scheme; household level; utilization.

Correspondence: Dr. Srijana Panthi, Department of Community Medicine, College of Medical Sciences, Bharatpur, Chitwan, Nepal. Email: srijanapanthi7@gmail.com, Phone Number: +977-9843028082.

INTRODUCTION

The Social Health Security Scheme (SHSS) is a social protection program, aims to provide quality healthcare services with out placing financial burdern.[1] The World Health Assembly appealed to countries to achieve Universal Health Coverage in 2005.[2] Government of Nepal introduced Social Health Insurance in April 2016.[3] Trial was done on 2072/73.[4] Under the Scheme a family of 5 members has to contribute Rs 3,500 per annum.[5] Several nations are implementing new financing models as Health Insurance Schemes in their countries.[6] Utilization of SHSS can be affected by the behavior of staff or treatment facilities.[7] People enroll in health insurance programs for different reasons like the education level of the household head, presence of children, elderly and frequency of illness in the home, and socio-economic factors. However, these determinants have only been briefly examined at the household level in a small number of Asian research.[8] In this context, the study aims to assess the pattern of using health insurance schemes by community people.

METHODS

A analytical cross-sectional study was conducted among 274 enrolled households at Jutpani Kalika Municipality Ward no 7. The study was conducted from March 2023 to August 2023. A specifically designed proforma was used for the face-to-face interview. Non-probability, convenient sampling technique was applied for data collection. Prevalence of health insurance utilization (P)[8] =0.772, q=1 -0.772=0.228, z score value at 95% CI=1.96, error (e)=5%=0.05. Then sample size was determined by using the formula $(n)=z^2pq/e^2$ $=1.96^2x0.772x0.228/(0.05)^2=270$.The interview schedule consists of the household characteristics of study participants and the pattern of utilization of the social health security scheme. Ethical approval was taken from the Institutional Review Committee of the College of Medical Sciences Teaching Hospital, (COMSTH-IRC)/ (Ref. No. 2023-09). One of the members of the health insurance board helped to identify the houses enrolled in SHSS. The interview was taken by the household head, where the head was not available it was taken by the spouses. The study participants were informed about the purpose of the study and verbal consent and signature were obtained from each participant before the interview. Data analysis was done using SPSS 16 software. Descriptive and chi-square were done for analysis. In this study dependent variable, insured households are the families who have enrolled in the Health Insurance Program. According to SHSS, a family consisting of 5 members benefits after paying NRS 3500 per annum. Up to Nepalese rupees one lakh. Independent variable Caste/ Ethnicity were taken according to Bharatpur Metropolitan.[9]

RESULTS

The poverty line was calculated according to World Bank standards i.e. less than USD 1.90 per day head as below poverty line and more than USD 1.90 per day per head as above poverty line (1 USD = 131.88 NPR as per 2023/07/ 14). Brahim/Chhetri-upper caste group, Janjati and Dalit Lower caste/Disadvantag e group in society. A nuclear family is comprised of parents and children, a joint family includes grandparent, parents and their children extended family is a joint family with other relatives, mainly the kinship of both sides. Among the total participants, two-thirds (66.8%) were males and nearly one-third (33.2%) were females. More (88.7%) were married. The majority of participants 76.6% were from the nuclear family. Regarding religion, 79.9% of persons follow the Hindu and 18.2 % are Buddhist. Nearly one-third (31.4%) of the participant falls on the Janjati caste where 25.2 percent were Brahmin, 24.8 percent were Chhetri, Dalit 8.4 percent, Newar 5.1 percent, 4.7 percent followed others whereas 0.4% were

Madhesi. Nearly one-third of respondents had under 5 children in a family. More than 94.2% have the presence of elderly in the family. The majority of families 83.6% have one earning member. Likewise, 88.7% of the families fall below the poverty line (Table 1).

Table1. Household characteristics of study participants. (n=274)

Characteristics	Frequency (%)
Gender	
Male	183(66.8)
Female	91(33.2)
Marital Status	
Unmarried	21(7.7)
Married	243(88.7)
Divorced	8(2.9)
Widow/Widower	2(0.7)
Type of Family	
Nuclear Family	210(76.6)
Joint Family	59(21.5)
Extended Family	5(1.8)
Religion	
Hindu	219(79.9)
Buddha	50(18.2)
Christian	3(1.1)
Muslim	1(0.4)
Others	1(0.4)
Ethnicity	
Brahmin	69(25.2)
Chhetri	68(24.8)
Newar	14(5.1)
Janjati	86(31.4)
Dalit	23(8.4)
Madhesi	1(0.4)
Others	13(4.7)
Presence of under-5 children	
Yes	91(33.2)
No	183(66.8)
Presence of the elderly in the family	
Yes	258(94.2)
No	16(5.8)
Presence of earning member in family	
1 Member	229(83.6)
>1 earning Member	45(16.4)
Socio-Economic Status	
Above Poverty line	31(11.3)
Below poverty line	243(88.7)

Table 2. Utilization of Social Health Security Scheme. (n=274)

Characteristics	Frequency (%)
Utilization of SHSS	
Yes	260 (94.9)
No	14 (5.1)
Reason for joining social security health scheme	
Inadequate money	74 (27)
Presence of health problems	70 (25.5)
Services provided by government	236 (86.1)
Services for 5 members of family	21 (7.7)
Enrolled but not using Social Health Security Scheme (n=14)	
No any health problems	5 (37.5)
Heard bad things about insurance	4 (28.5)
No provision of quality drugs	4 (28.5)
Long queue of insurance in hospital	1 (7.14)
Is there any problem joining health insurance	
Yes	14 (5.1)
Type of social health security scheme utilized by households	
Drugs	91 (33.2)
Outpatient services	101 (36.9)
Laboratory services	167 (60.9)
Inpatient services	34 (12.4)
Emergency services	90 (32.8)
No. of times households utilized social health security scheme	
Not used yet	14 (5.4)
1 time	1 (0.4)
2 times	25 (9.6)
3 times	28 (10.8)
>3times	192 (73.8)
Social health security utilized for types of morbidity	
Cancer	8 (2.9)
Mental health	19 (6.9)
Thyroid	17 (6.9)
Cardiovascular disease	32 (11.7)
Hypertension	64 (23.4)
Diabetes Mellitus	81 (29.6)
COPD	40 (14.6)
Skin disease	37 (13.5)
Impaired Renal function	5 (1.8)
Gastrointestinal disease	4 (1.5)
Willingness to continues SHSS	
Yes	255 (93.06)
No	19 (6.93)

Regarding the use of SHSS, the majority 94.9%

were using the Scheme. The reason for joining SHSS is that the majority of people have faith in government services. Among 14 participants who were enrolled in SHSS but not using the services the main reason mentioned was not having any health problems by 37.5 %. Different types of health services were used by participants, whereas laboratory services were highly used by 60.9%. The Scheme was used frequently, 73.8% of participants used it more than 3 times. The participant used the health Scheme for various health problems, whereas the services for Diabetes Mellitus was taken by a majority of them 29.6%. In concern to the continuation of SHSS, 93.06% of participants had positive responses. The association of Utilization of SHSS was assessed with various socio-demographic characteristics. The utilization of SHSS was found to be significantly associated with the education of the head of the households and no. of earning members of the family.

Table 3. Association of utilization of social health security Scheme with Individual and Household factors.

Characteristics	Utilization of SHSS		p-value
	Yes	No	
Gender			
Male	175(95.6%)	8(4.4%)	0.44
Female	85(93.4%)	6(6.6%)	
Marital Status			
Married	233(95.9%)	10(4.1%)	0.069
Not Married/Single	27(87.1%)	4(12.9%)	
Religion			
Hindu	209(95.4%)	10(4.6%)	0.844
Buddhist	46(92%)	4(8%)	
Christianity	3(100%)	0(0%)	
Muslim	1(100%)	0(0%)	
Others	1(100%)	0(0%)	
Caste			
Brahmin/Chhetri	129(94.2%)	8(5.8%)	0.498
Janajati	108(94.7%)	6(5.3%)	
Dalit	23(100%)	0(0%)	
Socio-Economic status			
Below Poverty line	230(94.7%)	13(5.3%)	0.591
Above poverty line	30(96.8%)	1(3.2%)	
Type of Family			
Nuclear	198(94.3%)	12(5.7%)	0.386
Joint/Extended	62(96.9%)	2(3.1%)	
Education of Head of households			
Literate	137(92.6%)	11(7.4%)	0.05
Illiterate	123(97.6%)	3(2.4%)	
Presence of Children			
Yes	174(95.1%)	9(4.9%)	0.839
No	86(94.5%)	5(5.5%)	
Presence of Elderly member(>60yrs)			
Yes	244(94.6%)	14(5.4%)	0.188
No	16(100%)	0(0%)	
Presence of Chronic disease			
Yes	117(97.5%)	3(2.5%)	0.083
No	143(7.1%)	11(92.9%)	
No. of Earning Members			
1	215(93.9%)	14(6.1%)	0.023
>1	45(100%)	0(0%)	

DISCUSSION

The study assessed various patterns associated with health insurance service utilization among the insured population at the individual and household levels among community people in Central Nepal. In concern to gender of the household, we found majority 66.8% of a family have a male head enrolled in the social health security scheme similarly in the study of Sushmita G et al the 83% of household heads were male.[8] Nepali society mainly consists of a patriarchal social system where the male head is found in the majority of families.The majority of the family head 88.7% were married in our study. A similar result was found in other studies done in Bhaktapur by Karanjit P et al.[4] Some of the studies showed significantly positive findings of marital status and enrolment in insurance schemes. [10-12] Enrollment of family in SHSS makes it secure and prevents out-of-pocket expenditure. Most of the enrolled family was nuclear family 76.6%, Similarly, two out of three had nuclear families found in the study of Sushmita G et al. [8] The study by Sanjeeb S et al showed that 55% of families were nuclear .[2] This would be due to the geographical differences between the hill and the inner Madhesh region. A study done in Bhaktapur Municipality and the study of Devraj et al showed that the majority of the enrolled families were joint families.[4,3] The reason would be that metropolitan cities mainly consist of

nuclear families and old cities have still value for a joint family system. The majority of families followed the Hindu religion 79.9%, similar findings were found in the study of Karanjit P et al.[4] The study done in India comparing enrolled and non-enrolled found 86.7% of enrolled households were Hindu religion and were significantly associated with the Rashtriya Swasthya Bima Yojana.[13] This would be due to the thick density of the Hindu population in Nepal and India. Cast wise majority of families belonging to Janjati 31.4% in our study. The presence of janjati in a majority of 40.4% was found in another study.[2] The study of Prabesh G et al was not inconsistence with our study found privileged ethnic groups like Brahmin, Chhetri, and Newar were 1.7 times more joined to health insurance services (AOR:1.71,95%CI:1.18-2.48).[14] Our opinion regarding coverage of more Janjati because it incorporates various caste and ethnic groups of terai, hill, and mountain. Nepal is composed of a very large ethnic group consisting of 59 groups.[15] We found education of the head of household was significantly associated with the utilization of national health insurance services p=0.05 Similar results were found in other studies.[10,13]Educated heads usually are more concerned about the health of their family member so the enrolment may be high. In our study, the presence of under 5 children was found in 33.2% of families, a similar result was found in the study of Prabesh G et al[14] but it was quite high 72.7% in the study of Satish S.[2]A large number of families 94.2% have elderly members, aged more than 60 years, though not statistically significant. The presence of the elderly was observed in other studies, which was found less in percentage than in our study, the presence of the elderly was a predisposing factor but had some role in the intention of renewing.[2,3,16] According to earning members in the family, the majority 83.6% of households have only one earning member. It showed a positive association with the utilization of health security schemes. Socioeconomic status of the family revealed 88.7% of families were below the poverty line enrolled in the health insurance scheme in our study. A Study by Meilian Liu et al done in Jordan showed a positive association between health insurance ownership and socio socio-economic status of households.[12] Whereas a study by Prabesh G et al found that enrolment of higher socioeconomic status was 4 times more in the insurance scheme.[14,17,18,21] Universal health care program intended for equity and targeted to a poor portion of people on priority. The reason for the good coverage of poor people in our study might be they were well-informed about the scheme. The majority of people 94.9% who enrolled in the scheme were utilizing the service of SHSS. The reasons for joining the social health insurance scheme our study found that the majority of participants 86% showed faith in government services and 27% of households joined because of inadequate money. Whereas a high percentage 42.2% of respondents were enrolled in health insurance schemes due to financial constraints found in the study of Devaraja A et al.[13] and the study of Ghana by Agnes M K et al reveal that health insurance reduces out-of-pocket payment and provides financial protection.[18] When assessing the type of social health security scheme utilized by households, our study found that the majority 60.9% used it for availing laboratory services whereas a study done in the Illam mentioned majority of the participants 96.2% used it for procuring drugs. These finding indicates that the primary focus of utilization is on diagnostic, and purchasing drug rather than other services. Utilization of SHSS was found high at 97.5% in our study by that household which was having a chronic disease. The presence of chronic disease was found statistically significant with the utilization of SHSS in the other studies.[8,22] Regarding the frequency of utilization of SHSS, our study found that 73.8% of households had utilized it more than three times in a year.

Whereas a mixed method study conducted in Nepal, showed that only 38.3% for more than or equal to three times calculated from the total registered and insured in three districts in 6 years.[20] The findings in our study suggest that the majority number of participants utilized the scheme, indicating the relevance and importance of the service. In terms of the specific health conditions for which the SHSS was utilized, our study found that 29.6% utilized it for treating Diabetes Mellitus, followed by Hypertension. Similar disease patterns have been reported in a study conducted among households in the Illam district in Nepal.[2] It emphasizes the burden of non-communicable diseases and the importance of health insurance coverage for these conditions. These findings reflect the prevalence of chronic diseases and the need for ongoing management and treatment.The study explored that an overwhelming majority 98% of the participant expressed their willingness to continue the scheme also similar level of willingness to continue the scheme was found in other studies.[8,16]

CONCLUSIONS

The study found that the majority of people were utilizing the SHSS more than three times a year. Health facilities provided by the government were mentioned as the main reason to enroll in the scheme. Most of the people had utilized it for non-communicable diseases. The majority of the people wanted to continue the SHSS for the coming year. A positive association was observed between the education of the head of the household and the number of earning members in a family.

ACKNOWLEDGMENT

The author would like to express the deepest gratitude to the participants and team of the social health insurance board of Jutpani.

Conflict of interest: None

REFERENCES

1. Health Insurance Board https://shs.gov.np
2. Shah S, Jha N, Khanal VK, Gurung GN, Sharma B, Shrestha M. Utilization of social health security scheme among the households of Illam district, Nepal. Plos one. 2022;17(5):93-7 [DOI]
3. Thapa R, Lamsal S, Badhu A, Shrestha S. Awareness regarding health insurance policy scheme of government of Nepal among local residents of Dharan sub-metropolitan city. Journal of BP Koirala Institute of Health Sciences. 2021 Jun 30;4(1):32-6. [DOI]
4. Karanjit P, Mali P, Khadka R, Poudel L. Factors affecting the Utilization of Social Health Insurance by the General Population in Bhaktapur Municipality. Nepal Med J. 2020;3(1):42–8. [DOI]
5. Department of Health service Annual Report. National Health Insurance. 2077;357-60. http://dohs.gov.np/wp-content/uploads/2022/07/DoHS-Annual-Report-FY-2077-78-date-5-July-2022-2022_FINAL.pdf
6. Thapa S. Perception Towards National Health Insurance Scheme among Enrollees of Central Terai: A qualitative Study. 2021; 7(2):80-84. [DOI]
7. Adam VY, Awunor NS. Perceptions and factors affecting utilization of health services in a rural community in southern Nigeria. J Biomed Res. 2014;13(2):117–24. [Google Scholar]
8. Ghimire S, Ghimire S, Khanal P, Sagtani RA, Paudel S. Factors affecting health insurance utilization among insured population: evidence from health insurance program of Bhaktapur district of Nepal. BMC Health Serv Res. 2023;23(1):159.
9. Bharatpur Metropolitan City (Government of Nepal (Citiated 2022). http://

bharatpurmum.gov.np/en/node/871
10. Astari DW. Analysis of Factors Affecting the Health Insurance Ownership with Binary Logistic Regression Model. J Phys. 2019;1320(1):201 [DOI]
11. Kirigia JM, Sambo LG, Nganda B, Mwabu GM, Chatora R, Mwase T. Determinants of health insurance ownership among South African women. BMC Health Serv Res. 2005;5(1):1-0. [DOI]
12. Liu M, Luo Z, Zhou D, Ji L, Zhang H, Ghose B, Tang S, Wang R, Feng D. Determinants of health insurance ownership in Jordan: a cross-sectional study of population and family health survey 2017–2018. BMJ open. 2021;11(3):45-47. [DOI]
13. Acharya D, Devkota B, Wagle BP. Factors associated to the enrollment in health insurance: an experience from selected districts of Nepal. Asian Soc Sci. 2019;15(2):90. [DOI]
14. Ghimire P, Sapkota VP, Poudyal AK. Factors associated with enrolment of households in Nepal's national health insurance program. Int J Health Policy Manag. 2019;8(11):636. [DOI]
15. Acharya BR, Introduction to Sociology. National Book Centre. Kathmandu. 2074. https://heritagebooks.com.np/product/introduction-to-sociology/
16. Gurung GB, Panza A. Predictors of annual membership renewal to increase the sustainability of the Nepal National Health Insurance program: A cross-sectional survey. PLOS Global Public Health. 2022;2(4):201. [DOI]
17. Kimani JK, Ettarh R, Kyobutungi C, Mberu B, Muindi K. Determinants for participation in a public health insurance program among residents of urban slums in Nairobi, Kenya: results from a cross-sectional survey. BMC Health Serv Res. 2012;12(1):1-1. [DOI]
18. Kotoh AM, Aryeetey GC, Van der Geest S. Factors that influence enrolment and retention in Ghana'National Health Insurance Scheme. Int J Health Policy Manag. 2018;7(5):443. [DOI]
19. Kutzin J, Yip W, Cashin C. Alternative financing strategies for universal health coverage. Scientific handbook of global health economics and public policy. The economics of health and health systems 2016;1(1):267-309. [DOI]
20. Paneru DP, Adhikari C, Poudel S, Adhikari LM, Neupane D, Bajracharya J, Jnawali K, Chapain KP, Paudel N, Baidhya N, Rawal A. Adopting social health insurance in Nepal: A mixed study. Frontiers in public health. 2022;10(1):732-39. [DOI]
21. Tilahun H, Atnafu DD, Asrade G, Minyihun A, Alemu YM. Factors for healthcare utilization and effect of mutual health insurance on healthcare utilization in rural communities of South Achefer Woreda, North West, Ethiopia. Health economics review. 2018;8(1):1-7. [DOI]:
22. Philip NE, Kannan S, Sarma SP. Utilization of comprehensive health insurance scheme, Kerala: a comparative study of insured and uninsured below-poverty-line households. Asia Pac J Public Health. 2016;28(1):77-85. [DOI]

Citation: Panthi S, Lohani S, Manandhar A, Bansal P, Shrestha A, Prasai M. Health Insurance Utilization Pattern among Community People of Jutpani Kalika Municipality of Chitwan Nepal. JCMS Nepal. 2023; 19(4); 432-439.