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Enrollment, Continuity and Factors associated with Health Insurance among Insured and Uninsured People of Pokhara Metropolitan, Kaski

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Abstract

Purpose: To assess SHI and its associated factor among people of Pokhara Metropolitan.

Methodology: A comparative study using a cross-sectional design was carried out from June-December, 2018 among 184 insured and Uninsured People of Pokhara Metropolitan, Kaski using multistage sampling technique. Interview method was used using Interview schedule. Data was entered in epidata version 3 and analyzed using SPSS version 20.

Result: Educational level (p-value 0.03) was one of the major associated factors to determining enrollment status of SHIP. Similarly home ownership (p-value 0.001) was highly associated factor with insurance status. The association of perceive health status of household with enrollment status (p-value 0.043). Knowledge about SHIP was another major associated factor (p-value 0.02) of enrollment status of SHIP in this study. The study showed that 29% of household have dropout. The major reasons for discontinuity were found as no quality of health care, crowed in service delivery site and long waiting time, inappropriate benefit package, distance to health care facility, did not use service use in last year etc.

Conclusion: The major factors such as education, occupation, family income, household ownership, perceive health status and knowledge about social health insurance were found to be associated with enrollment of SHIP.

1. Introduction

Out of Pocket Expenditure (OPP) constitute 55% in Nepal 2015 (Government of Nepal, 2015). Still 48% of Nepalese does not access to essential health services. Nepal aims to achieve the status of middle income developing country from the least developed country by 2022. Therefore, social health insurance has been considered as an important health financing mechanism to reduce OOP and to achieve Universal Health Coverage (UHC) in Nepal (Government of Nepal, 2016). This program attempts to address barriers in health service utilization, ensure equity and access of poor and disadvantaged groups, reduce financial burden and protect people from falling into poverty due to health care costs. Another challenge is to increase the people's participation towards the program by enhancing trust through assurance of quality health service delivery and capacity building of health institutions. In Nepal only 0.86% of total population and 0.94% of total household enrolled in SHIP till 2017 (Government of Nepal, 2016) similarly in Pokhara the total enrollment of 13.81 percent as of total population in the district as per 2011 census. Insurance is a critical factor that may threaten the sustainability of the scheme, even if the uptake is high. In Nepal different factors may have variable influences on social health insurance continuity and drop out. This study aims to assess the enrollment, continuity and factors associated with Health Insurance among people of Pokhara Metropolitan

2. Methodology

A cross-sectional study was conducted among 184 (92 insured and 92 uninsured) family of Pokhara Metropolitan from June to December, 2018. The main tool used for the study was interview schedule with four sections of questions. Multi stage sampling technique was used to select sample. At first out of 33 wards 11 was selected randomly. For each ward required

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sample size was determined proportionate to the number of eligible household in respective ward. Then the required household was selected from the list of enrolled households through random sampling.

Data was entered in EPIDATA version 3.1 and its analysis was done using SPSS version 20. Descriptive statistics using mean, standard deviation, percentages, frequency tables, and figures were used in the data analysis and interpretation. The confidence interval was considered at the 95% level. Chi-square test as used for the evaluation and considered statistically significant if the value was less than 0.05. Ethical approval was received from Institutional Review Board of Pokhara University. Informed written consent was obtained from all the participants.

3. Results

Table 1: Socio-economic characteristics of respondents

Characteristics/Variables	Insured Frequency (%)	Uninsured Frequency (%)	Total Frequency (%)
Age (years)	(n=92)	(n=92)	(n=184)
≤30	10 (10.9)	15 (16.3)	25 (13.6)
31-45	42 (45.7)	53 (57.6)	95 (51.6)
46-60	30 (32.6)	19 (20.7)	49 (26.6)
≥60	10 (10.9)	5 (5.4)	15 (8.2)
Mean ±SD (Minimum, Maximum)	45.33±11.16 (25, 70)	41.17±11.42 (20, 75)	43.25±11.45 (20, 75)
Sex	(n=92)	(n=92)	(n=184)
Male	60 (65.2)	65 (70.7)	125 (67.9)
Female	32 (34.8)	27 (29.3)	59 (32.1)
Religion	(n=92)	(n=92)	(n=184)
Hindu	81 (88)	72 (78.3)	153 (83.2)
Buddhist	8 (8.7)	15 (16.3)	23 (12.5)
Christian	2 (2.2)	3 (3.3)	5 (2.7)
Islam	1 (1.1)	2 (2.2)	3 (1.6)
Ethnicity	(n=92)	(n=92)	(n=184)
Cheetri/Bhramin	66 (71.7)	62 (67.4)	128 (69.6)
Janajati	18 (19.6)	22 (23.9)	40 (21.7)
Dalit	7 (7.6)	3 (3.3)	10 (5.4)
Madhesi		3 (3.3)	3 (1.6)
Muslim	1 (1.1)	2 (2.2)	3 (1.6)
Education	(n=92)	(n=92)	(n=184)
Illiterate	3 (3.3)	2 (2.2)	5 (2.7)
Informal Education	8 (8.7)	5 (5.4)	13 (7.1)
Basic	20 (21.7)	11 (12)	31 (16.8)
Secondary	34 (37)	38 (41.3)	72 (39.1)
Higher Education	27 (29.3)	36 (39.1)	63 (34.2)
Family type	(n=92)	(n=92)	(n=184)
Single	53 (57.6)	60 (65.2)	113 (61.4)
Joint	39 (42.4)	32 (34.8)	71 (38.6)
Number of family member	(n=92)	(n=92)	(n=184)
Below of equal to 5 member	62 (67.4)	69 (75)	131 (71.2)
More than 5 member	30 (32.6)	23 (25)	53 (28.8)
Family member have below 5 year	(n=92)	(n=92)	(n=184)
No	67 (72.8)	71 (77.2)	138 (75)
Yes	25 (27.2)	21 (22.8)	46 (25)

Table 1 shows demographic characteristics of study participants. Among total households, majority (67.9%) household were headed by male compared to (32.1%) female. The mean age of insured and uninsured household head was 45.33±11.16 and 41.17±11.42 years respectively. Majority of the respondents were Hindu in both insured (88%) and uninsured (78.3%). Majority 69.6% of the participants were Brahmin/Chhetri. Around three fifth (61.4%) of household have nuclear family. Among both insured and uninsured group, majority household had family member equal to or less than five i.e. (67.4%) and (71.2%) respectively. Likewise, the majority of the participants had secondary education (39.1%).

Table 2: Cross Tabulation of Socio-economic variables of insured and uninsured respondents

Characteristics/Variables	Insured Frequency (%)	Uninsured Frequency (%)	Total Frequency (%)
Occupation	(n=92)	(n=92)	(n=184)
Agriculture	27 (29.3)	14 (15.2)	41 (22.3)
Business	21 (22.8)	40 (43.5)	61 (33.2)
Foreign employment	17 (18.5)	18 (19.5)	35 (19)
Labour	8(8.7)	9(9.8)	17(9.2)
Service	19(20.7)	10(10.9)	29(15.8)
Other(Pension)	0(0)	1(1.1)	1(0.5)
Family income	(n=92)	(n=92)	(n=184)
≤20000	32 (34.8)	13 (14.1)	45 (24.5)
20001-40000	37 (40.2)	37 (40.2)	74 (40.2)
40001-60000	16 (17.4)	38 (41.3)	54 (29.3)
60001-80000	2 (2.2)	2 (2.2)	4 (2.2)
≥80001	5 (5.4)	2 (2.2)	7 (3.8)
Min-Max	8000-300000	15000-100000	8000-300000
Median	30000	40000	35000
Current residence	(n=92)	(n=92)	(n=184)
Own	77 (83.7)	53 (57.6)	130 (70.7)
Rent	15 (16.3)	39 (42.4)	54 (29.3)

Table 2 shows socio-economic variables of households. Majority of the occupation was agriculture (29.3%) among insured group and business (43.5%) among uninsured group. More than 60% households in both groups had income less than or equal to 40000.

Table 3: Health condition of family (n=184)

Characteristics/Variables	Insured Frequency (%)	Uninsured Frequency (%)	Total Frequency (%)
Presence of chronic disease/disability	(n=92)	(n=92)	(n=184)
No	63 (68.5)	65 (70.7)	128 (69.6)
Yes	29 (31.5)	27 (29.3)	56 (30.4)
Presence of handicapped	(n=92)	(n=92)	(n=184)
No	87 (94.6)	88 (95.7)	175 (95.2)
Yes	5 (5.4)	4 (4.3)	9 (4.9)
Health problem seen with in the past 6 month	(n=92)	(n=92)	(n=184)
Yes	53 (57.6)	54 (58.7)	107 (58.2)
No	39 (42.4)	38 (41.3)	77 (41.8)
Perceive health status	(n=92)	(n=92)	(n=184)
Good	49 (53.3)	48 (52.2)	97 (52.7)
Poor	24 (26.1)	13 (14.1)	37 (20.1)
Excellent	19(20.7)	31(33.7)	50(27.2)

Table 3 shows that around one third (30.4%) of the participants responds, the presence of chronic disease or disability among their family members. Similarly only 4.9% of the participants responded presence of handicapped member in their family. This was almost similar in both insured and uninsured group. Four fifth (79.9%) of the respondent perceived their household health status as average

Table 4: Knowledge about SHIP among participants (n=184)

Characteristics	Insured Frequency (%)	Uninsured Frequency (%)	Total Frequency (%)
Know about SHI	(n=92)	(n=92)	(n=184)
Yes	92 (100)	83 (90.2)	175 (95.1)
No	0 (0)	9 (9.8)	9 (4.9)
Annual premium for family up to five member	(n=92)	(n=83)	(n=175)
Correct	91 (98.9)	71 (85.5)	162 (92.6)
Incorrect	1 (1.1)	12 (14.5)	13 (7.4)
Annual premium for each additional member beyond five member	(n=92)	(n=83)	(n=175)
Correct	44 (47.8)	25 (30.1)	69 (39.4)
Incorrect	48 (52.2)	58 (69.9)	106 (60.6)
Annual benefit celling for family up to five member	(n=92)	(n=83)	(n=175)
Correct	74 (80.4)	53 (63.9)	127 (72.6)
Incorrect	18 (19.6)	30 (36.1)	48 (27.4)
Annual benefit celling for each member beyond five member	(n=92)	(n=83)	(n=175)
Correct	37 (40.2)	14 (16.9)	51 (29.1)
Incorrect	55 (59.8)	69 (83.1)	124 (70.9)
Annual benefit celling SHIP will bear per family	(n=92)	(n=83)	(n=175)
Incorrect	57 (62)	67 (80.7)	124 (70.9)
Correct	35 (38)	16 (19.3)	51 (29.1)
Renewal period for membership	(n=92)	(n=83)	(n=175)
Correct	90 (97.8)	66 (79.5)	156 (89.1)
Incorrect	2 (2.2)	17 (20.5)	19 (10.9)
Know about benefit package of SHIP	(n=92)	(n=83)	(n=175)
Correct	48(52.2)	21(25.3)	69(39.4)
Incorrect	44(47.8)	62(25.3)	106(39.4)

Table 5: Reason for not enrolling in SHIP among participants (n=92, MR)

Characteristics	Frequency	Percentage
OOP is better	55	59
Far distance to health care facility	46	50
No quality of health care	43	46.7
Own interest	37	40.2
Don't trust in scheme management	34	37
Lack of education	32	34.8
Inappropriate benefit package	32	34.8
Don't know about SHIP	24	26.1
Small household size	16	17.4
Good health status of family member	16	17.4
Willingness to join	12	13
Due to poor	9	9.8
High premium	3	3.3
Other (only government hospital, long waiting time limited package etc.)	18	19.6

Table 6: Continuity of SHIP

Characteristics	Frequency	Percentage
Duration of being a member of SHIP	(n=92)	
More than 12 months	69	75
Less than 12 months	23	25
Interest to continue SHIP next year	(n=23)	
Yes	18	78.3
No	5	21.7
Renew to continue SHIP	(n=69)	
Yes	49	71
No	20	29

Table 6 shows that 75% of the household have more than 12 months being membership of SHIP and remaining 25% have less than 12 months. SHIP less than 12 months household, 78.3% of the household were interested to continue membership of SHIP and 21.7% were not interested to continue.

Figure 3 reflects 71% of the family have renewed the membership of SHIP and remaining 29% have dropout.

Table 7: Factor motivating towards the continuity of SHIP (n=49, MR)

Characteristics	Frequency	Percentage(%)
Free health service	47	95.9
Affordable	38	77.6
Quality health care	28	57.1
Appropriate benefit package	26	53.1
Illness are diagnosed and treated in time	25	51
My family member become ill frequently	23	46.9
Positive attitudes of health care providers	16	32.7
Near distance to health care facility	13	26.5
Other (using government policy, risk minimization etc.)	13	26.5

Table 8: Reason for dropout the SHIP among participants (n=20, MR)

Characteristics	Frequency	Percentage (%)
No quality of health care	18	90
Own interest	17	85
Crowed in service delivery site, long waiting time	15	75
OOP is better	11	55
Inappropriate benefit package	11	55
Far distance to health care facility	10	50
Did not service use in last year	4	20
Good health status of family member	2	10
No money to pay premium	1	5
Small household size	1	5
Other (limited package, government hospital only)	5	25

Table 8 presents, among insured household, the major cause for dropout the SHIP were no quality of health care (90%). Similarly, 85% of the household were not interested to continue to SHIP, 75% of the household were not satisfy with crowed in service delivery site, long waiting time and processes, 55% of the participants have felt OOP is better than insurance, inappropriate benefit package (55%), 50% of the household were not satisfy with distance to health care facility, 20% of the household did not service use in last year.

Table 9: Association of socio-demographic, economic, health condition and knowledge related variables with enrollment status (n=184).

Study variable Insured (%)	Enrollment status		Test of Significance	p-value
	Uninsured (%)			
Education				
Basic	31 (63.26)	18 (36.7)	$\chi_1^2 = 4.7$	0.030*
Secondary and Higher education	61 (45.19)	74 (54.81)		
Occupation				
Agriculture	27(65.85)	14 (34.14)	$\chi_1^2 = 5.304$	0.021*
Others	65 (45.45)	78 (54.54)		
Family income				
≤35000	59 (59.6)	40 (40.4)	$\chi_1^2 = 7.89$	0.005*
>35000	33 (38.82)	52 (61.18)		
Household ownership				
Own	77 (83.69)	15 (16.31)	$\chi_1^2 = 15.097$	<0.001***
Rent	53 (57.60)	39 (42.39)		
Perceive health status				
Poor	24 (64.86)	13 (35.13)	$\chi_1^2 = 4.093$	0.043*
Good	68 (46.25)	79(53.74)		
Knowledge about SHIP				
Yes	92 (52.57)	83 (47.42)	Fisher's test	0.003*
No	0 (0)	9(100%)		

*p value significant at < 0.05, **p value significant at <0.01 and ***p value significant at <0.001

Table 10: Crude odds ratios of insurance status with significantly associated variables.

Variables	OR	95% C.I.	P-value
Educational level			
Secondary(Higher education)	2.089	(1.066-4.093)	0.03
Basic			
Occupation			
Others	2.314	(1.121-4.776)	0.021
Agriculture			
Family income			
≤35000	2.324	(1.285-4.205)	0.005
>35000			
Household ownership			
Own/self	3.777	(1.893-7.536)	<0.001
Rent			
Perceive health status			
Bad/poor	2.145	(1.014-4.535)	0.043
Good			

Table 10 shows Crude odds ratios of insurance status with significantly associated variables. Respondents from education groups secondary or higher education level were 2.089 times (C.I. = 1.066-4.093, p-value=0.03) more likely to be insured than basic level of education. Respondents from occupation groups others occupation group were 2.314 times (C.I. = 1.121-4.776, pvalue=0.021) more likely to be insured than others. Similarly respondents from family income groups ≤35000 were 2.324 times (C.I. = 1.285-4.205, pvalue=0.005) more likely to be insured than family income >35000.

Respondents from household ownership own/self were 3.777 times (C.I. = 1.8937.536, p-value= <0.001) more likely to be insured than rented group. Respondents from perceive health status bad/poor groups were 2.145 times (C.I. = 1.0144.535, p-value=0.043) more likely to be insured than good perceived health status groups.

4. Discussion

The major factors such as educational level, occupation, family income, perceived health status of household and knowledge about social health insurance were found to be associated with enrollment of SHIP. The result reported from cross-sectional study conducted in Ghana by Atinga et al (2015) study in Burkina Faso by De Allegri M.,et.al (2015) and Kenya by Kiplagat I., et.al (2013) also showed similar results.

Household ownership was strongly associated with insurance status. Current study shows that, there was no association between household composition with enrollment and continuity status of SHIP. But the study conducted in Burkina Faso by De Allegri et.al (2015) found that household having higher proportion of children were strongly associated with enrollment on insurance. This disparity may be because this study was done individual not a household.

The study found 29% of household have dropout. The major reasons for dropout of current study were found as no quality of health care, crowed in service delivery site and long waiting time, inappropriate benefit package, distance to health care facility, did not use service use in last year etc. The results reported from a study conducted in Ghana by Atinga et al. (2015) Burkina Faso by De Allegri et al. (2015) and Nigeria by Dong et al. (2009) also gives almost similar result.

The major reason for not enrolling in SHIP were OOP is better, distance to health care facility, no quality of health care, don't trust in scheme management, education, inappropriate benefit package etc.

5. Conclusion

Levels of education, occupation, family income, household ownership are the major factors that influence people for enrollment and continuity of social health insurance programme. Awareness level is poor which is affecting enrollment and continuity as well. Service delivery related factors were the cause of enrollment and continuity to be default. About one in there (29%) enrolled member were not willing to continue due to service delivery related problems and distance to health care facility.

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