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Assessment of Community Based Health Insurance in Sunsari District

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ABSTRACT

Background

Community Based Health Insurance (CBHI) Schemes are promising alternatives for a cost sharing health care system which hopefully leads to better utilization of health care services, reduce illness related income shocks and eventually lead to a sustainable and fully functioning universal health coverage.

Objective

This study focused on factors influencing the people's enrolment and hindrances for enrollment of CBHI program.

Method

Altogether 316 households were taken according to population proportionate sampling method.Community based cross-sectional analytical study was carried out with preformed questionnaire among members and non- member in four villages. Sample unit for enrollee were selected by using population proportionate systematic random sampling method using enrolled register and for non-enroll systematic random sampling technique was used using household list from VDC.

Result

For non- members 28.3% small benefit package was main reason for non membership. Provision of partial payment would be a motivating factor for 26.4% of the respondents. Non-members (30.5%) felt disparities in treatment while providing good medicines (11.9%). Financial help for the treatment was good part of the program for 43.0% of the respondents. Among 9.3% of members who would not renew reported of tedious process of taking service as the main reason. The educational status of the respondents is directly related to the enrolment in the CBHI scheme (<0.001).

Conclusion

The study gave some insight about factors influencing the utilization of health insurance schemes in low resourced countries. Properly implemented CBHI schemes would add on better health financing and better utilization of health care in developing countries.

KEY WORDS

Community, Enrollment, Health, Insurance

INTRODUCTION

Community Based Health Insurance is used to refer to various health insurance schemes based on the design adopted by a group of people within a given setting.[1] In many developing countries inability to pay impedes access to needed health care.[2,3] It is worse when most care is paid for by households directly. Health insurance can reduce financial barriers to health care access and provide protection of individuals and families against the risk of unpredictable health care expenditures.[4,5]

In Nepal one quarter (25.2%) of its populations in 2014 lived below the poverty line.[6] Nepal has 39% of the total health expenditure financed by public and rest by private whereas it is in average of 80-99% in developed countries.[7] Out -of pocket spending in Nepal is progressive, as on health care a proportion of richer spend marginally more than poorer. In Nepal, delays in the decision to seek care arise from financial constraints as 79.9% of people finance health costs "out-of-pocket".[8,9]

CBHI schemes are implemented in different places of Nepal by government as well as international organizations. The National health insurance program pilot phase was started in Nepal from 2014. In February 2015, the Government of Nepal constituted a Social Health Security Development Committee aimed at providing health security coverage and ensuring access to quality-assured healthcare services at an affordable cost.[10]

Although few researches have been done to evaluate the impact of CBHI in eastern region, but this study has been designed to look into the implementation of CBHI at community level and factors influencing the people's enrolment and hindrances for enrollment of CBHI program.

METHODS

This was Community based cross-sectional analytical study carried out from October 2014 to April 2015 among the enrolled and non- enrolled population. Quantitative method was used to retrieve the required information. Data Collection was conducted in the 4 (VDC's) Village Development Committee of Sunsari district. Out of total 7,366 household of the 4 VDC's, 24.3% of household were enrolled in CBHI scheme of Karuna Foundation during the study period.[11] Taking 24.3% of enrolled population in CBHI scheme as reference, 316 households were taken as the sample according to population proportionate sampling method from study population. Sample unit for enrollee were selected by using population proportionate systematic random sampling technique using enrolled register and for non-enroll systematic random sampling technique for study population was done. Every 10th household was taken as sample unit according to the house number of the four VDC's. Nearly 5% of the households refused to participate in the survey. Pretest tool validity and reliability was done for 30 household using statistical methods. Out of 316 households, 86 were currently enrolled and 230 were non-enroll population.

The validity of questionnaire was done by taking opinion from expert of the relative subject and also prepared questions were presented in seminar of School of Public Health and Community Medicine, BPKIHS and suggestions were gathered. Reliability was done after pretesting of questionnaire and necessary modification was done. Sample unit for enrollee were selected by using population proportionate systematic random sampling method using enrolled register and for non-enroll systematic random sampling technique was used using household list of VDC.

This study was conducted after obtaining ethical clearance from Institutional Ethical Review Board of BP Koirala Institute of Health Sciences, Dharan, Nepal. After explaining the objectives of the study written consent was taken from the respondents.All data was entered in Microsoft XP Excel spread sheet and converted into SPSS (Statistical Package for Social Sciences) Version 17 program for statistical analysis. For descriptive statistics, percentages were calculated along with tabular presentation. For inferential statistics chi-square test was applied to find out the significant differences between/among the groups at 95% confident interval where $p < 0.05$.

Table 1. Health seeking behavior of CBHI members

Categories	Characteristics	Frequency	Percentage
Place from where service taken (n=69)	Sub health post	49	71.0
	Referral centre	1	1.4
	Both	19	27.5
Money sufficient for treatment (n=69)	Sufficient	44	63.8
	Not Sufficient	25	36.2
Perception for money separated for different heading (n=86)	Good	76	88.4
	Not good	10	11.6
Changes required in money separated for different heading (n= 10)	More money for diagnosis	5	50.0
	More amount for Emergency services	5	50.0
Level of satisfaction with service provided	Very satisfied	24	27.9
	Average	56	65.1
	Not satisfied	6	7.0
Visited SHP before membership	Yes	67	77.9
	No	19	22.1
Perception of behavior of Health personal	Good	28	32.6
	Average	46	53.5
	Need to modify	12	14.0
Total		**86**	**100.0**

RESULTS

It was found that 71.0% of the members of community based health insurance schemes took service from the sub-health post with contractual agreement with CBHI scheme and 77.9% of the respondents used to visit Sub Health Post before being members. For 63.8% of the members their money was not sufficient for the treatment. In this study 88.4% of the members were positive about money separated for the treatment in different headings. There was average satisfaction among the members regarding the provided services and 53.5% of them had average perception regarding the behavior of health personal.

Table 2. Knowledge of members regarding CBHI program

Categories	Characteristics	Frequency	Percentage
Knowledge regarding CBHI program	Yes	77	89.5
	No	9	10.5
Knowledge regarding the procedure of benefit utilization (n=86)	Much	11	12.7
	Ok	25	29.1
	Little	41	47.7
	Don't know anything	9	10.5
If taken membership card (n=86)	Yes	69	80.2
	No	17	19.8
Members ill during membership period (n=86)	Yes	77	89.5
	No	9	10.5
Taken benefit during membership (n=86)	Yes	69	80.2
	No	17	19.8
Reason for not taking benefit (n=17)	Process tedious	13	76.4
	Didn't like the quality of services	2	11.8
	Behavior of health worker is not good	1	5.9
	No one became seriously ill	1	5.9
Years of membership (n=86)	1 yr	13	15.1
	2yrs	10	11.6
	3yrs	37	43.0
	4yrs	26	30.2
Reason for not being member in previous years (n=13)	Process tedious	5	38.5
	Didn't like the quality of services and	2	15.4
	Behavior of health worker is not good	2	15.4
	No one became seriously ill	1	7.7
	Referral is too far	3	23.1
Reasons for being member this year (n=86)	Attraction to Service	43	50.0
	Friend's request	27	31.4
	Social service	13	11.6
	Family Pressure	6	7.2
Total		**86**	**100**

In the study 47.7% of members had little knowledge regarding the procedure of benefit utilization. Most of the respondents had taken membership card and 80.2% among the members took the benefit services. 76.4% of members reported of tedious process as the main reason of non- utilization of the services. Only 15.0% of them had membership since 1 year and when they were asked the reason for not being member in previous years, again 38.5% replied tedious process for service utilization as the main reason. Half of the members reported that the attraction towards the CBHI services as the Reason for being member.

Table 3. Perception of members regarding CBHI Program

Categories	Characteristics	Frequency	Percentage
Good part of the program	Financial help for the treatment	37	43.0
	Social service	23	26.8
	Increasing trust	14	16.3
	Modified Health service	12	13.8
Requested neighbor for membership	Yes	50	58.1
	No	36	41.9
Renewal in coming years	Yes	78	90.7
	No	8	9.3
Reason for not renewal (n=8)	No use of premium this year	1	12.5
	No quality service	2	25.0
	Tedious process for taking service	4	50.0
	Not able to pay premium	1	12.5
Months best for membership	Mangsir and poush	27	31.5
	Falgun and chaitra	43	50.0
	Ashad and Shrawan	20	23.3
Changes needed for increasing membership	Large benefit package	34	39.5
	More than one referral center	18	20.9
	Provide adequate information related to program	34	39.5
Total		**86**	**100**

Table 4. Knowledge of Non- member regarding CBHI program

Categories	Characteristics	Frequency	Percentage
Knowledge about CBHI	Yes	171	75.7
	No	55	24.3
Total	226	100	
Knowledge of benefit package	Don't know anything	8	4.7
	Much	43	25.1
	Little	120	70.2
Total	**171**	**100**	

Table 5. Perception of Non-Members regarding CBHI program

Categories	Characteristics	Frequency	Percentage
Reasons for not being member	Not satisfied with the referral centre	45	19.9
	Thought no one will feel ill at home	21	9.3
	Has not understood the importance of the program	11	4.9
	Couldn't pay the premium	34	14.8
	No one came to ask	8	3.5
	Tedious service utilization package	43	18.9
	Small benefit package	64	28.3
Motivating factors for membership	Provision of partial payment	60	26.4
	Package must be large	30	13.3
	More than one referral	22	9.7
	Should reduce premium	58	25.7
	If representative comes to my home to make member	56	24.8
Place of treatment now	Private doctor	136	60.2
	Medical store	38	23.5
	Government Hospital	14	6.2
	Traditional healers	15	10.1
Source of expenditure for treatment	Taking loan	108	47.8
	Personal Saving	41	18.2
	Help from children	65	28.8
	Selling properties	12	5.2
If Disparities in treatment	Yes	69	30.5
	No	133	58.8
	Don't know	24	10.6
What sort of disparities (n=69)	Providing good medicines	27	11.9
	Providing Health services	23	10.2
	Behavior	19	8.4
Total		**226**	**100**

It was found that 43.0% of the respondents think financial help for the treatment as a good part of the CBHI program and 58.1% had even requested their neighbors for membership. In the study 90.7% of the members reported of renewing their membership in coming years.Among 9.3% of members who would not renew reported of tedious process of taking service as the main reason.

In this study 75.7% of the Non-members had knowledge about the CBHI program and 70.2% of those who knew about CBHI had little knowledge of benefit package.

Among non- members 28.3% told that small benefit package as the main reason for not being CBHI member. Provision of partial payment would be a motivating factor for 26.4% of the respondents. In the study, 60.2% of the respondents were visiting private hospitals and most of them (47.8%) manage their treatment taking loans. Among the non-members 30.5% felt disparities in treatment in providing good medicines (11.9%).

In this study 65.1% of members and 56.5% of non-members had agriculture as their main occupation. In both 45.3% of members and 45.2% of non-members only 1 family member was working whereas 95.3% and 88.7% of both the members and non-members had 4 or more family members. For 36.1% of member and 31.7% of non-members the yearly income was 101-299. Most of the members (84.9%) and non-members (67.4%) were literate. CBHI scheme was significantly associated with level of education (p = 0.0001).

DISCUSSION

The study mainly focused on factors influencing the people's enrolment and hindrances for enrollment of CBHI program. For 63.8% of the members their money was not sufficient for the treatment. There was average satisfaction among the members regarding the provided services and 53.5% of them had average perception regarding the behavior of health personal. Tedious process for membership was reported as the main reason for non- utilization of the services by 76.4% of members. For half of the members attraction towards the CBHI services was the main reason for being member while 43.0% of members think financial help for the treatment as a good part of the CBHI program and 90.7% of the members reported of renewing their membership in coming years. Among non- members 28.3% told small benefit package as the main reason for not being CBHI member. Provision of partial payment would be a motivating factor for 26.4% of the non-members.

Present enrolment of CBHI is 25.0% in Eastern region of Nepal. Penetration rates (enrolment rates) of CBHI schemes are often low, ranging between 3.0% to 5.0% of the targeted population and rarely 10%.[12-14] So, the enrolment in CBHI program should be expanded by strategic alteration in policy.

Members of CBHI had to visit Health Institution and referral centers that have agreement with the scheme. This study found 71.0% of the members of community based health insurance schemes took service from the sub-health post with contractual agreement with CBHI scheme and 77.9% of the respondents used to visit SHP before being CBHI members. In the study done in southwest Ethiopia, out of 219 who got treatment from health institution, 41.1% preferred to go to private clinics.[15] In another study done in Ethopia, about 80.0 % of household members who fell sick visited health centers within the district with a contractual agreement with the CBHI scheme.[16]

Table 6. Relation between socio-demographic variables and groups

Characteristics	Categories	Categories		Total	P- value
		Members	Non-members		
Address	Aurabani	11 (12.8%)	62 (27.0%)	73 (23.1%)	<0.001*
	Bhokra	29 (33.7%)	114 (49.6%)	143 (45.3%)	
	Madhesa	24 (39.3%)	37 (60.7%)	61 (19.3%)	
	Bhaluwa	22 (56.4%)	17 (43.6%)	39 (12.3%)	
Occupation	Agriculture	56 (65.1%)	130 (56.5%)	186 (58.9%)	<0.001*
	Business	2 (2.3%)	22 (9.6%)	24 (7.6%)	
	Service	9 (10.5%)	5 (2.2%)	14 (4.4%)	
	homemaker	10 (11.6%)	67 (29.1%)	77 (24.4%)	
	Foreign employee	9 (10.5%)	6 (2.6%)	15 (4.7%)	
Number of family members working	1	39 (45.3%)	104 (45.2%)	143 (45.3%)	0.830
	2	36 (41.9%)	87 (37.8%)	123 (38.9%)	
	More than 3	11 (12.8%)	39 (16.96%)	50 (15.82%)	
Yearly income	>=2000	1 (1.2%)	19 (8.3%)	20 (6.3%)	0.180
	1000-1999	7 (8.1%)	26 (11.3%)	33 (10.4%)	
	750-999	13 (15.1%)	37 (16.1%)	50 (15.8%)	
	500-749	4 (4.7%)	14 (6.1%)	18 (5.7%)	
	300-499	15 (17.4%)	19 (8.3%)	34 (10.8%)	
	101-299	31 (36.1%)	73 (31.7%)	104 (32.9%)	
	<= 100	15 (17.5%)	30 (18.2%)	57 (18.1%)	
Income source	Agriculture	28 (32.6%)	82 (35.7%)	110 (34.8%)	<0.001*
	Business	5 (5.8%)	29 (12.6%)	34 (10.8%)	
	Service	16 (18.6%)	6 (2.6%)	22 (7.0%)	
	Homemaker	0 (0%)	2 (0.9%)	2 (0.6%)	
	Laborer	16 (18.6%)	90 (39.1%)	106 (33.5%)	
	Foreign employee	21 (24.4%)	21 (9.1%)	42 (13.3%)	
Family Members	Less than 4	4(4.6%)	26 (11.3%)	30 (3.8%)	0.419
	4 and more	82 (95.3%)	204 (88.7%)	286 (90.5%)	
Education status	Higher education	73(84.9%)	155 (67.4%)	228(72.2%)	<0.001*
	Illiterate	13 (15.1%)	75 (32.6%)	88 (27.8%)	
Total	**86 (100%)**	**230(100%)**	**316(100%)**		

In our study there was average satisfaction among the members regarding the provided services which is similar to the study done in Ethopia. There was a significant association between health service provision and CBHI members' satisfaction scores. Almost 98.2 % of household heads reported that they were happy with the permitted healthcare institutions 17 and 53.5% of them had average perception regarding the behavior of health personal. As a member they found not being given good service then those paying cash. This may make difficult to join the CBHI. The doctors there just ignore CBHI card holders. Similar findings were reported in Ghana, where the insured population reported waiting longer at health facilities than the non-insured and being discriminated by providers, receiving low quality drugs or being asked to buy them at private pharmacies, thereby incurring additional costs, and being subjected to verbal abuse.[17,18]

CBHI has been presented as potential strategy to address the alternative mechanism of health care financing in Nepal. Catastrophic health expenditure was shown by the need to sell assets or borrow money, or even to resort to begging.[19] In our study also those who were not the members of CBHI schemes managed their expenditure for treatment by taking loan and from their personal savings. Study done by Margaret E. Kruk showed that on an average, 25.9 percent of households borrowed money or sold items to pay for health care. The risk was higher among the poorest households and in countries with less health insurance.[20] Similar study done in North West Nigeria showed over a quarter of families had difficulty settling their medical bills.[21] Families around the world are spending huge amount of out-of-pocket payments for their health care because of direct payments to access the health services. Less than half (47.7%) of the members had little

knowledge regarding the procedure of benefit utilization in this study.

For dropout, decrease in premium of the package and more number of referral centers would have motivated the dropouts to renew the membership but in study done in Burkino Faso improve perception of schemes by heads of households regarding service offered that meet expectations were some motivating factors for renewal.[22]

In this study non- members were not happy with the referral center and also had not understood the importance of health insurance program which was presented as the main reasons for non-membership. However, the lack of money to pay the premium is the main reason why some people do not become insured, as shown by surveys in Burkina Faso's Nounadistrict.[23,24]

More than half (89.7%) of the members had knowledge regarding the benefit of CBHI and 79.6% of non-members group had knowledge regarding the CBHI program. In the study of Evaluation of Community Based Health Insurance pilot schemes in Ethiopia, 95 percent of both members and non-members in pilot wored as were aware of the CBHI schemes.[25] The main sources of information are a neighbor, a CBHI official, or a house-to-house sensitization program. This clearly shows the value of the intensive sensitization work done by the organization running CBHI.

The survey also asked non-members their reasons for not being enrolled in the CBHI scheme. 34% said they were not happy with the referral center being offered while 14% of them had not understood the importance of the program. In Ethiopia the affordability of premiums and registration fee is an issue for 39 percent of non-members. This shows that there is need to further explore how the fiscal space can be expanded to ensure the full coverage of indigents by CBHI and to ensure the financial viability of the schemes.[25]

Most of the non members visit private doctors (60.2%) for their treatment. The non-members (47.8%) took loan to meet the expenditure for treatment. 58.8% of non members didn't found any disparities in treatment in health centers. For 30.5% of those non-members who faced disparities in treatment, 11.9% thinks disparity is in providing good medicines in the health centers.

Most of the members (65.1%) and non-members (56.5%) had agriculture as their main occupation. In 45.3% of member and 45.2% of non-members only 1 family member was working. In this study 95.3% and 88.7% of both the members and non-members had 4 or more family members. In the study done in Lao PDR, mean household size of CBHI member is 5.3 and for non-members 4.7.[26] For 36.1% of member and 31.7% of non-members the yearly income was 101-299. In Lao PDR study 43.1% of members and 42.7% of non-members had primary education. In the study done in Tanzania, 78% of insured and 77% of non-insured members had received primary level education.[27] Most of the members (84.9%) and non-members (67.4%) in our study were literate. CBHI schemes was significantly associated a high level of education (p = 0.0001)

This study could not cover the whole population of members and non-members of study area. So, the result might not be representative for all population.

CONCLUSION

The study gave some insight about the factors influencing the utilization of community based health insurance schemes in low resourced countries like Nepal. Among the main factors hampering people's enrolment in CBHI, there were the problems with the affordability of premiums, attractiveness of the benefit package, tedious process of utilization of service package and the quality of care that is offered by the providers (referral services). Large benefit package, provision of partial payment, reduced premium and home visit by the representative of CBHI schemes for membership were the factors that would motivate non-enrollee for taking membership according to the study. Tedious process for utilization of services, lack of quality services were the main reasons for not utilizing benefit package by members. Financial help for treatment covered by the premium was presented as the good part of CBHI program. Provision of large benefit package and providing adequate information related to CBHI program as well as its benefits were highlighted as changes required for increasing the membership. Properly implemented CBHI schemes would add on better health financing and better utilization of health care in developing countries.

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