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**ASSESSING REASONS FOR WILLINGNESS-TO-JOIN TO COMMUNITY-BASED HEALTH
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ASSESSING REASONS FOR WILLINGNESS-TO-JOIN TO COMMUNITY-BASED HEALTH INSURANCE SCHEME AMONG RURAL HOUSEHOLDS OF GAIBANDHA DISTRICT

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ABSTRACT

Sultana MS (2022) Assessing reasons for willingness-to-join to community-based health insurance scheme among rural households of Gaibandha district. *J. Innov. Dev. Strategy*. 13(1), 17-24.

In Bangladesh, to ensure health security and to get relief from the heavy burden of out-of-pocket (OOP) payments, especially for the rural poor and vulnerable segments, the community-based health insurance scheme (CBHI) was recommended by many policymakers. The objective of this study was to explore the reasons for WTJ's to the scheme. A cross-sectional household survey was conducted to explore the reasons for WTJ of the households for the CBHI scheme and identify which socio-demographic factors would influence the reasons for WTJ in the research area. A total of 465 (90.1%) households were willing to join and 51 (9.9%) households were not willing to join the scheme from a total of 516 sampled households. Among the identified four reasons, the highest percentage of agreed reasons for the WTJ was "By reducing the burden of out-of-pocket spending this scheme will alleviate poverty in my community". The highest percentage of disagreed reasons for WTJ to the scheme was "I think this scheme will protect my family against any social disasters such as chronic diseases which may lead to death". However, the age category, marital status, and education level significantly influenced the reasons for WTJ. Exploration of the reasons for the WTJ to the CBHI scheme would help the policymakers to realize which factors are needed to be considered and given special attention to this context. Delivering updated information with communication procedures was suggested for increasing enrolment in the CBHI scheme.

Key words: *community-based health insurance, willingness-to-join, out-of-pocket, gaibandha*

INTRODUCTION

Bangladesh, a low and middle-income country (LMIC) is heavily dependent on out-of-pocket (OOP) payments for healthcare financing like many LMICs (Ahmed *et al.* 2016). It is reflected by 63.3% of OOP payments that constituted in total healthcare expenditures of Bangladesh (BNHA 1997-2012). Unfortunately, the rural poor and vulnerable segments of the country suffer the most due to the large burden of OOP payments. To get relief from financial hardship, a healthcare financing system is needed to be developed for providing all people with their required healthcare services along with sufficient quality, and thereby, Universal Health Coverage (UHC) can be ensured (Dror *et al.* 2007; Atnafu and Tariku, 2020). Hence, a prepaid healthcare financing system such as the community-based health insurance (CBHI) scheme has been introduced as an alternative to healthcare financing in many LMICs (Ekman 2004).

The tax base of Bangladesh is insufficient with resource scarcity and hence, the government financing in the health sector is quite low. On the other side, private health insurance companies are not interested in offering any health insurance scheme for the rural poor populations due to their profit motive activity. As a consequence, low-income rural people are unable to access proper healthcare services and fall into financially impoverished situations in absence of financial protection against the cost of illness. Besides, in order to make considerable progress toward UHC as well as achieving the goals of sustainable development goals (SDGs), OOP expenditures are needed to be reduced at a significant level considering the importance of health security (SDGs 2030). In this situation, the CBHI can be considered as an alternative measure for healthcare financing like other LMICs.

The CBHI schemes are of common characteristics as group-based, not-for-profit type, voluntary joining, and participatory nature in which the involvement of community people in designing the benefit package with the premium setting as well as in the settlement procedure of claims (Desai *et al.* 2014; Binnendijk 2014; Demeke 2021).

The study found limited literature on health insurance in Bangladesh. However, most of the research explored that health insurance schemes were initiated within the framework of microcredit programs. A pre-paid health insurance scheme by Gonoshasthya Kendra (GK) and Grameen Bank, started their programs on a voluntary basis in the 1970s and 1990s respectively, which were the starting private initiatives of health insurance in Bangladesh (Howlader *et al.* 2001). However, a government pilot project named "Shasthaya Shurokkha Karmoshuchi, (SSK)" has been launched to reduce OOP payments of poor people as well as increase their access to healthcare services (Ahmed *et al.* 2018; SSK 2014).

The objective of the present study was to explore the reasons for WTJ to the CBHI scheme and to assess the acceptability of the scheme through willingness-to-join (WTJ). There was no published data on demand for the CBHI scheme in the study area, Gaibandha district. Thus, the level of acceptance of the hypothetical CBHI scheme with the influencing factors for reasons of WTJ was unknown. To fill this gap, the present study was conducted to explore the demand of the households for the CBHI scheme and identify which factors would influence the reasons for WTJ in the research area. The study is expected to give insight to policymakers for developing the CBHI policies in accordance with the influencing factors behind the reasons for WTJ to the scheme for rural households in Bangladesh.

MATERIALS AND METHODS

Research Approach

The study was explorative in nature and both quantitative as well as qualitative data have been used for the research.

Study area, Study time, and Study focus

A cross-sectional household survey was carried out in the rural areas of the Gaibandha district, selected as the study area. The survey was conducted from February 2019 to March 2019 and the focus of the study was on the rural people of the Gaibandha district.

Characteristics of the Proposed CBHI Scheme

There are various types of CBHI schemes that differ with regard to their objectives, design, implementation, and overall context within which they have developed (Poletti *et al.* 2007). A hypothetical CBHI scheme was presented in front of the respondents in the study area to express their WTJ of the scheme. It is noted that most of them had very poor knowledge or no knowledge about some context of it, though considering the variation of household utilities in different geographic regions (Haile 2014). Among population groups the proposed CBHI scheme will run on a cross-subsidization method, such as; the richer group will subsidize the poorer ones and the younger people will subsidize the older people, etc. A low intensity of hospital care had been included at the initial stage of the scheme which will increase with the raising of pooling funds.

Sampling

A simple random sampling technique has been used in two ways for the study. Firstly, four Upazilas were selected from seven Upazilas of the Gaibandha district named Fulchhari, Gaibandha Sadar, Gobindaganj, and Sundarganj (BBS 2011). Secondly, a total of 516 households have been selected finally by using the same technique for interviewing.

Sources of Data

The primary data had been collected from the respondents in the study area. Relevant books, journal articles, web pages, Bangladesh budget, and the "Population and Housing Census, 2011, Zila report: Gaibandha" had been used as the sources of secondary data.

Data Analysis and Presentation

Before designing a questionnaire, key informants such as community leaders, teachers, health workers, and village-level non-government (NGO) staff were interviewed for identifying the factors for implementing the scheme in the research area. Thus, four reasons were identified for WTJ to the scheme. Firstly, the Likert scale was used to self-report the extent to which the respondents rated their degree of agreement with a given proposition as the reasons for WTJ to the CBHI scheme. Secondly, the reasons were examined from socio-demographic perspectives. The chi-square test was used to identify the statistical significance between demographic and socioeconomic variables with the reasons of WTJ to the CBHI scheme. A p-value less than 0.05 and 0.10 was considered significant at 5% and 10% levels of significance respectively. Then, using the software of SPSS version 21; coding, re-coding, editing, and analysis were carried out. To demonstrate the data in tabular and graphical forms, Microsoft Excel had been used also.

RESULTS

Demographic and Socioeconomic Status

Of the total 516 samples, 65.9 % were males and 34.1% were females (Table 1). The males are the key decision maker of a household in the rural social structures of Bangladesh. However, the majority of the male household heads are usually engaged in their daily duties in the daytime. Hence, the male household heads were not present at home while interviewing in some cases. Nevertheless, most of the respondents were from male-headed households. The age distribution of household heads ranged from 18 to 80 years where the percentages were very close to each other within the age group between 31-45 (38.4%) and the lowest up to 30 (38.2%) years. The age group with the lowest percentage was 45 years above (23.4%), which was explored as the oldest group in the study. Thus, this portion of households had more possibilities of suffering from illness as older

individuals suffer more than younger individuals because of declining immunity. However, the mean age of the household heads was identified as 38 years.

A total of 97.3% were married and bearing family responsibilities. On the other hand, a small percentage (2.7%) were unmarried as well as divorced. The household heads of families were observed to be encouraged to enroll in the CBHI scheme, which might be considered as a strategy to meet up their health care necessitates.

Generally, daily labor is the main occupation in rural areas of Bangladesh. In the study areas, the highest percentage (37.8%) of the household heads were daily laborers, whereas the second highest percentage was (22.7%) service holders. However, most of them were employed in informal sectors like a salesman, waiters, etc. with a very insignificant portion employed in formal sectors. Besides, 21.3% of them were self-employed in businesses whereas 18.3% were self-employed in agriculture. A minor proportion of those who do not earn a living has been excluded from the study.

The major portion of household heads did not avail of formal, even primary education considering 37% and 42.8% respectively. A total of 15.5% availed of secondary or higher secondary education, and only 4.7% had a graduation or higher degree.

The average number of family members in the households was 5 people, which was similar to the national context of 4.3 persons (Health Bulletin, 2017), though the numbers varied greatly among the sampled households in the study areas. The frequency of household sizes with up to 3 persons was 378 (73.3%), accounting for the highest number of respondents. The frequency with a household size between 4 to 7 was 133 (25.8%) which was the second highest and the least frequency was only 5 which comprised a household size greater than 7 (1.0%).

The average annual income was BDT 112852 with a minimum income of BDT18000 and a maximum income of BDT 650000 annually. The majority (64%) of the households earned less than BDT 100000, followed by 26.9% earned BDT 100001 to 200000, and the least 9.1% earned above BDT 200000 annually.

Table 1. Demographic and socioeconomic status of the study respondents in Gaibandha District (n=516)

Variables	Percentage	Mean	Minimum	Maximum
Gender				
Male	65.9	–	–	–
Female	34.1			
Age group				
Lowest up to 30	38.2			
31-45	38.4	38	18	80
45 above	23.4			
Marital Status				
Unmarried	0.6			
Married	97.3	–	–	–
Widow/Divorce	2.1			
Family size				
Lowest up to 3	73.3			
4 to 7	25.8	5	1	14
>7	1.0			
Education				
No education	37.0			
Primary	42.8	–	–	–
Secondary and Higher Secondary	15.5			
Graduation / Masters	4.7			
Occupation				
Service holder	22.7			
Business	21.3	–	–	–
Farmer	18.2			
Daily labor	37.8			
Annual income				
Lowest up to 100000	64.0			
100001-200000	26.9	112852	18000	650000
200000 above	9.1			

Note: The mean, minimum and maximum values have been shown only for continuous variables

WTJ to CBHI scheme

The Fig. 1 shows that a total of 465 (90.1%) households were willing to join and on the other hand, 51 (9.9%) households were not willing to join the CBHI scheme from a total of 516 households in the study areas.

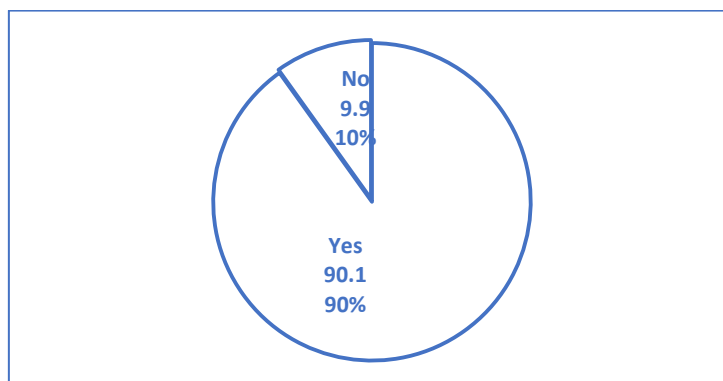


Fig. 1. WTJ to CBHI scheme

In a study in Ethiopia (Haile *et al.* 2014), 78% of the respondents were willing to join for CBHI scheme whereas, in another study in Ethiopia, it was 60.5% (Atnafu and Tariku, 2020). Thus, high demand has been reflected for the scheme among the respondents in the Gaibandha district.

Knowledge of the CBHI scheme

A total of 97.1% had no knowledge of the CBHI scheme, whereas only 2.9% had very limited knowledge of that (Fig. 2). Thus, regarding the knowledge of the CBHI scheme, a very low rate was found for those who had heard it from mass media and friends or relatives.

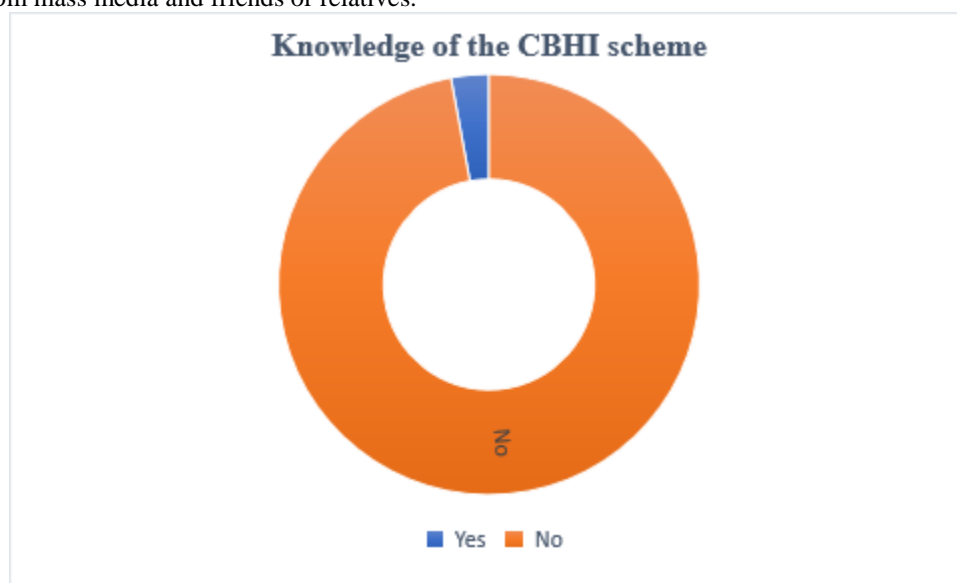


Fig. 2. Knowledge of the CBHI scheme

Annual Healthcare expenditures among households

Among the sampled households, about 94.2% reported their health expenditures during the year preceding the survey (Table 2). This indicates the health-seeking behavior of the households in the study areas enhanced.

Table 2. Annual Healthcare expenditures among households

Variables	Percentage
Households with health expenditures	
Yes	94.2
No	5.8
Annual healthcare expenditures	
Lowest up to BDT 1000	34.5
BDT 1001-10000	43.4
BDT 10001-25000	14.0
Above BDT 25000	8.1

The highest percentage of respondents (43.4%) spent between BDT 1001-10000, whereas the second highest percentage (34.5%) spent the amount up to BDT 1000. However, the lowest percentage of households (8.1%) spent BDT 25000 or above to meet up healthcare expenditures. Therefore, it reflects that healthcare expenditures were high in the study area considering a disaster-prone area with an economically less solvent population.

Reasons for WTJ to CBHI scheme

The identified reasons or statements for WTJ to CBHI scheme were as follows:

Reason-1: As I always become sick this scheme will improve my health.

Reason-2: I think this scheme will protect my family against any social disasters such as chronic diseases which may lead to death.

Reason-3: I would like to have health insurance like other citizens in urban areas.

Reason-4: By reducing the burden of out-of-pocket spending this scheme will alleviate poverty in my community.

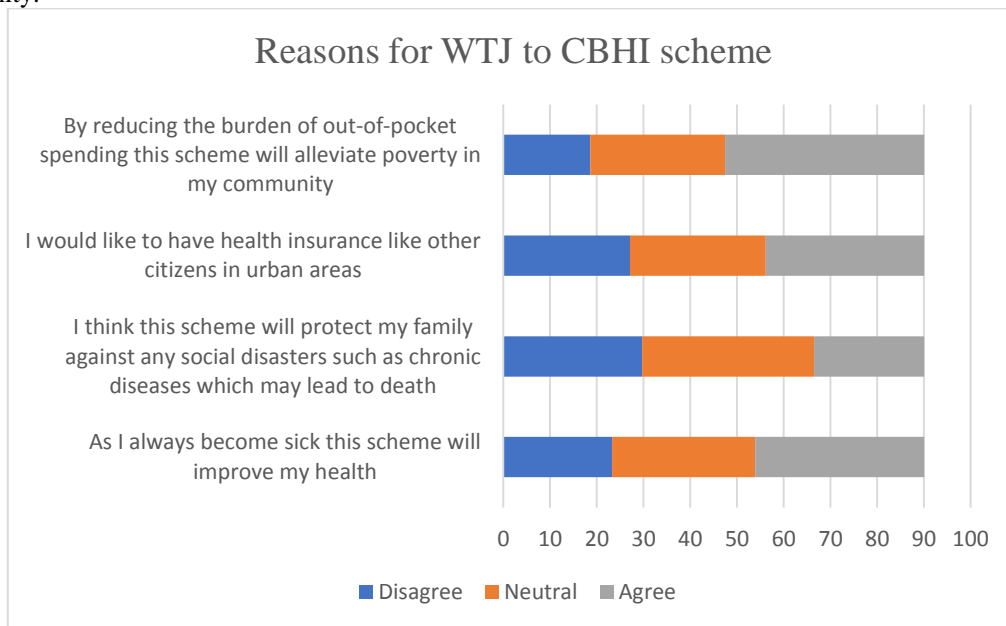


Fig. 3. Reasons for WTJ to CBHI scheme on a Likert scale

Fig. 3 shows that the highest percentage of agreed (42.6%) to the reason cited by the respondents for the WTJ to CBHI scheme was “By reducing the burden of out-of-pocket spending this scheme will alleviate poverty in my community”, followed by the reason (36.2%) “As I always become sick this scheme will improve my health”. On the other side, the highest percentage of disagreed reason as well as neutral (29.7% and 36.8%) for WTJ to the scheme was “I think this scheme will protect my family against any social disasters such as chronic diseases which may lead to death”. In a study in Ethiopia “To ensure financial security by accessing free service”, was identified as the main reason for WTJ to the CBHI scheme (Ebrahim *et al.* 2019). The statement of the present study “By reducing the burden of out-of-pocket spending this scheme will alleviate poverty in my community” accentuates the study done by Ebrahim *et al.* 2019.

Reflection of the reasons from socio-demographic perspectives

In the chi-square test results (Table 3) significant findings related to the reason for WTJ by the married respondents were “As I always become sick this scheme will improve my health” (p=.10). Thus, a significant difference was reflected in marital status with reason-1. It was observed that the married respondents agreed more with reason-1, compared to unmarried or others. The married respondents have more family responsibilities and have to bear the healthcare expenditures of their family members. Hence, the ill health of the family members of the married respondents was the reason for WTJ to the CBHI scheme.

Table 3. Reflection of the reasons from socio-demographic perspectives

Reasons for WTJ		Gender	Age	Marital status	Education	Occupation	Annual income	Family size
As I always become sick this scheme will improve my health	Chi-square	2.10	7.01	7.73	9.25	5.18	3.89	1.81
	P-value	0.34	0.13	0.10*	0.16	0.52	0.42	0.76
I think this scheme will protect my family against any social disasters such as chronic diseases which may lead to death	Chi-square	0.23	2.61	2.08	3.18	4.13	2.17	7.17
	P-value	0.88	0.62	0.72	0.78	0.65	0.70	0.12
I would like to have health insurance like other citizens in urban areas	Chi-square	0.31	0.33	1.65	4.82	2.16	0.91	12.21
	P-value	0.85	0.98	0.79	0.56	0.90	0.92	0.01**
By reducing the burden of out-of-pocket spending this scheme will alleviate poverty in my community	Chi-square	1.65	9.28	8.06	11.16	9.28	7.50	6.62
	P-value	0.43	0.05*	0.08*	0.08*	0.15	0.11	0.15

Note: **P significant at 0.05 for the chi-square test (5% level of significance), *P significant at 0.10 for the chi-square test (10% level of significance)

A significant relationship was found between the reason for WTJ as “By reducing the burden of out-of-pocket spending this scheme will alleviate poverty in my community” with age, marital status, and education level. It was found in the study that the respondents who were of age up to 30 years compared to the age group from 31-45 and 45 above years, agreed more with reason-4. The respondents of age up to 30 years, who were considered as the younger group, received the new concepts easily. However, the married respondents agreed more with reason-4 compared to unmarried or others.

The respondents who had primary and or no education agreed more to join the scheme compared to secondary and higher secondary as well as graduation or masters. Therefore, a significant difference between age categories, marital status, and education level with reason-4 was explored.

Family size was found to be associated significantly with reason-3 of WTJ to the CBHI scheme among households in the study areas. It was found that the households with family members of 4-7, agreed more with reason-3 compared to the families with the lowest up to 3 and 7 above numbers. Thus, households with large family sizes agreed more with reason-3 to join the scheme. However, family sizes with 7 above numbers were less interested to join the scheme which was considered as an exception. Therefore, a significant difference was found for WTJ with reason-3 as “I would like to have health insurance like other citizens in urban areas” and the number of family members. Health insurance companies are interested in offering health insurance schemes in urban areas, thereby the health protection of urban inhabitants is ensured. Thus, they explored their understanding behind their agreement with the reason.

DISCUSSION

Financial security was noticed to be the main concern in the present study for WTJ to the CBHI scheme. In other studies, service quality was identified as the reason for WTJ to the CBHI scheme and satisfaction with the scheme (Badacho *et al.* 2016; Atnafu and Tariku, 2020). Hence, for the proper functioning of the CBHI scheme and the renewability of membership, service quality must be ensured. Thereby, insight has been illustrated in the study for the policymakers to put special attention to this context.

The younger group wanted to become more knowledgeable about health issues through community participation in the CBHI scheme. Further, the younger respondents were more concerned about their own health as they did not want to lose their working time due to illness. Their perception accentuated statements such as “primary detection and prevention was a cost-effective way to ensure a healthy society” which is an effective way to reduce the burden of OOP expenditures while receiving healthcare services (Ogawa *et al.* 2003).

The married respondents were more conscious about health issues. They have to bear other family expenses with health expenditures because of family responsibilities. Hence, they wanted to minimize the burden of OOP expenditures for healthcare financing by joining the CBHI scheme.

Daily labor was the main occupation with low education levels and observed deficiencies in the study areas with regular cash flow of income. Thus, it was very hard to bear the OOP expenditures for the rural people during healthcare financing which sometimes forced them to cope with strategies such as borrowing with interest and asset selling, resulting in financial impoverishment. Thus, to relieve themselves from their impoverished situation, they wanted to join the CBHI scheme. Besides, education significantly affected the decision of

enrolling in the health insurance scheme which accentuates the similarities with a study in Nigeria (Adedeji *et al.* 2017).

Households with large family sizes thought the scheme will relieve them from large expenditures and wanted to join the CBHI scheme as health insurance, like other citizens in urban areas. A study by Haile *et al.* 2014 in Ethiopia showed that the age structure of a household head, family size, educational status, and annual income were some of the socio-demographic characteristics that influenced the WTJ to the CBHI scheme which was similar to the present study, and the only exception was found in the case of annual income.

CONCLUSION

The study reflected that launching the community-based health insurance (CBHI) scheme will be well accepted in the research area, though some socio-demographic influencing factors had been identified for the reasons of willingness-to-join (WTJ). Thus, age category, marital status, family size, and education level significantly influenced the reasons for WTJ. Ensuring the service quality, regular monitoring of the scheme activities with marketing initiatives by the national stakeholders, and delivering updated information with modern communication procedures were recommended. Hence, increasing public awareness campaigns would help to deliver better information to rural communities about what a community-based health care “prepayment scheme” is all about. Finally, government subsidies must be ensured with the partnership of non-government organizations. Besides, donor funding is needed to be included in at least the initial stage of the CBHI scheme for the proper functioning of the scheme (Purohit 2014).

CONTRIBUTION OF RESEARCHER

Formulating the research questionnaire, data collection, and processing with analyzing the collected data by the SPSS software. Finally, the researcher finalizes the manuscript.

LIMITATIONS OF THE STUDY

In some cases, the male household heads were not present at home while interviewing which reflected the actual views of the household heads regarding the CBHI scheme were not reflected in the study more often.

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