Hawassa University

College Of Medicine and Health Sciences

School of Public Health

Willingness to Renew Community Based Health Insurance Membership and Associated Factors in *Maraka woreda*, *Dawuro zone,* South-west Regional State, Ethiopia

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A thesis submitted to Hawassa University, College Of Medicine and Health Sciences, School of Public Health in partial fulfillment of the requirements for a Public Health Masters degree (MPH) in Health Systems Management

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Declaration

I declare that this thesis paper on “Willingness to Renew Community Based Health Insurance Membership and Associated Factors in Maraka woreda, Dawuro zone, South-west Regional State, Ethiopia” is my own original work with assistances and guidance from my advisor and not submitted before for any institution and any purpose. I further declare that all the sources used in this thesis paper have been properly recognized and acknowledged as citation and listed in as references.

Mikiyas Zelalem Benalfew

Signature ______________________

Date ________________

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Approval Sheet

This is to certify that the thesis paper prepared by Mikiyas Zelalem entitled "Willingness to Renew Community Based Health Insurance Membership and Associated Factors in Maraka woreda, Dawuro zone, South-west Regional State, Ethiopia. Which is submitted in partial fulfillment of the requirements for a Public Health Masters degree (MPH) in Health Systems Management, complies with the regulations of the University and meets the accepted standards with respect to standards to originality and quality.

Approved by Board of Examiners:

Advisor (1) ____________________ Signature __________________ Date ____________

Advisor (2) ____________________ Signature __________________ Date ____________

Internal Examiner ____________________Signature ________________Date ______________

External Examiner _____________________Signature _______________Date _____________

Examiner's APPROVAL SHEET-I
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(Submission Sheet-2)

We, the undersigned, members of the Board of Examiners of the final open defense by Mikiyas Zelalem Benalfew have read and evaluated his/her thesis entitled "Willingness to Renew Community Based Health Insurance Membership and Associated Factors in Maraka woreda, Dawuro zone, South-west Regional State, Ethiopia", and examined the candidate. This is, therefore, to certify that the thesis has been accepted in partial fulfillment of the requirements for the degree.

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List of Acronyms

CBHI	Community Based Health Insurance
CHIs	Community Health Insurances
EHIA	Ethiopian Health Insurance Agency
FGDs	Focus group discussions
FMOH	Federal Ministry of Health
HEWs	Health Extension Workers
HH	Household
HHs	Households
HSTP-II	Second Health Sector Transformation Plan
KII	Key Informant Interview
PCA	Principal Component Analyses
PI	Principal Investigator
ODK	Open Data Kit
OOP	Out of pocket expenditure
SDG	Sustainable Development Goal
SAHS	Self-Assessed Health Status
SHI	Social Health Insurance
SNNPR	Southern Nations Nationalities and Peoples Region
SSA	Sub-Saharan Africa
USAID	United States Agency for International Development
WHO	World Health Organization
WTR	Willingness to Renew

Abstract

Background: Although potential instrument to achieve Universal Health Coverage, Community Based Health Insurance schemes commonly suffer from low membership renewal, which threatens the schemes' sustainability in many developing countries. Hence, this study investigated the willingness to renew Community Based Health Insurance membership and associated factors among enrolled households in *Maraka woreda*, *Dawuro* zone.

Objective: To assess willingness to renew Community Based Health Insurance membership and associated factors in *Maraka* woreda, *Dawuro* zone.

Methodology: Community based cross-sectional mixed methods design with sequential explanatory qualitative methods was employed. Using multi-stage random sampling, 5 *kebeles* were included in the study, from which 693 enrolled households were selected through systematic random sampling (k=5). Descriptive, bivariate, and multivariate logistic regression analyses of data was done using SPSS version 25 software, with statistical significance considered at P-value <0.05. Qualitative data were collected through focus group discussions and key informant interviews, with samples selected using maximum-variation methods. The obtained data were coded and thematically analyzed using ATLAS.ti 9 software.

Results: Willingness to renew Community Based Health Insurance membership was shown to be 79.1%. Presence of chronic illness (AOR = 0.30; CI: 0.18-0.52), proportion of household members with poor self-rated health status (AOR = 2.01; CI: 1.04-3.72), recent hospitalization history (AOR = 0.2; CI: 0.11-0.35), perceived availability of medications (AOR = 2.52; CI: 1.48-4.29), premium affordability (AOR = 2.2, CI: 1.26-4.79), perceived benefit packages adequacy (AOR = 2.90; CI: 1.76-4.79), enrollment duration (AOR = 4.01; CI: 2.12-7.56), and participation in scheme related meetings (AOR = 2.40; CI: 1.27-4.58) were predictors shown to be significantly associated with members' willingness to renew membership.

Conclusion: Magnitude of willingness to renew Community Based Health Insurance membership in the *woreda* was shown to be relatively lower than the *woreda's* renewal target for 2016 E.C. Therefore, increased scheme transparency and community engagement, along with policy interventions involving differential premium pricing based on ability to pay and upgrading of the current scheme design to a larger regional or federal pool are recommended to increase members' desire to renew membership.

***Key words:** CBHI, Pre-payment scheme, Ethiopia, Membership renewal, Willingness to renew*

1. Introduction

1.1. Background

Globally, one hundred fifty million people suffer financial catastrophic shock each year, and one hundred million are pushed into poverty because of direct payments for health services (1). Ethiopia along with most developing countries has always suffered from high out-of-pocket (OOP) expenditure, which has led to inequitable health care provision, especially to the poor and rural community (2). As part of a global effort to overcome this problem, Universal Health Coverage (UHC) was endorsed in 2005. UHC is a global initiative to give everyone access to affordable health-care. The Sustainable Development Goal three (SDG 3), under its target 3.8. aims to “Achieve universal health coverage (UHC) including; financial risk protection, access to quality essential health-care services, access to safe, effective, quality and affordable essential medicines as well as vaccines for all, by 2030” (3).

In a move towards UHC, Community Based Health Insurance (CBHI) schemes emerged as a suitable instrument to improve accessibility and affordability of health care services to the rural and informal sector community, in most developing countries (4). CBHI is a not-for profit type of health insurance mechanism that allows the involvement of its members in designing and administration of the scheme (1). Ethiopia launched CBHI in 2011 as part of its health sector reform program (5). However in 2020, the country was unable to meet its 2020 target of reaching 80% CBHI enrollment coverage, and the enrollment rate remains at 53% in 2022 (6). Currently the country is working towards a target of achieving 80% CBHI coverage by 2024/25, along with its target of reducing the OOP payment health expenditure share to 25% as part of its Second Health Sector Transformation Plan (HSTP-II) agenda of “transformation in health financing” (7).

The sustainability of any insurance scheme, particularly of CBHI schemes greatly relies on the schemes ability to attract and retain members, in order to create a large enough risk pool to be able to provide adequate services to the schemes’ members (8). As such, membership retention capacity of CBHI is a measure of the scheme’s current performance as well as its long term sustainability (8). The two of the major indicators to measure membership retention capacity in CBHI are renewal rates and members’ willingness to renew (WTR) membership (2).

1.2. Statement of the Problem

In recent years, advocacy of CBHI schemes as viable strategies to achieve UHC has grown. The schemes are proven to be useful especially in Sub Saharan African (SSA) countries, given the schemes' suitability for covering rural residents and informal sectors, which make up majority of the population in these countries (10). Many studies have also indicated the potential of such schemes in enhancing members' health-care-seeking behavior. Which, subsequently has shown to positively impact the quality of the provided health care services, as a result of additional financial resources mobilization in the involved facilities (1, 7, 9, 11).

However, despite having their potential, many CBHI schemes commonly suffer from low membership retention. And membership discontinuation remains a major challenge threatening the schemes' sustainability in most developing countries, particularly in most SSA countries (9). For instance in 2009, the average membership rate in SSA countries was found to be less than 10% (13). And according to a 2009 study in Burkina Faso, the drop-out rate has been high ranging from 30.9% to 45.7% since the launch of the scheme (14). As a result, according to Manuela *et al.* (2009) vast majority of CBHI schemes in SSA countries, find it hard to be self-sustaining without relying on external aids to survive exclusively with internally generated revenues of premium collection (13).

Similarly in Ethiopia, although the scheme showed remarkable uptake and growth during its pilot implementation years (41% in 2012, 48% in 2013, and 52.4% in 2014), by 2020; not only was the scheme unable to meet its target of reaching 80% enrollment coverage, but also a decline was shown to 49% (7). And as of 2022, the enrollment rate in the scheme remains at 53%, which again failed to meet the country's HSTP-II mid-term target of reaching 63% (6, 7). Indicating the existing challenge of low membership retention in the scheme. These was also indicated as a major challenge facing the financial sustainability of CBHI schemes in Ethiopia, by a 2022 qualitative study done by Addis K. *et al.* (2).

Thus, for CBHI schemes to enable the achievement of universal health coverage, aside from the schemes' establishment it's also essential to generate continues empirical data concerning the schemes' membership retention capacity and factors affecting the schemes' performance with this regard. Based on previous literatures, membership retention in CBHI schemes is influenced by several factors involving: socio-demographic factors (age, gender, marital status, religion, distance, economic status, level of education, and household size), scheme related knowledge/ understanding, need and benefit factors (perceived health status of household,

presence of chronic illness, recent illness episodes, and presence of children under 5 years of age or elders above 65 years of age in the household), perceived quality of health care services, participation in scheme and other voluntary groupings, and other scheme operation and policy related factors (satisfaction with scheme experiences, attitude towards the scheme, visit by agents during the renewal period, convenience and affordability of premium collection, trust in insurers), perception on benefit packages, and exemption policy (3, 5, 9, 15).

Although few previous studies have tried to assess CBHI schemes' membership retention capacity, most did so by measuring the scheme's 'renewal rate', which is most likely to produce biased results, since officials' pressure is one of the major reasons reported to drive CBHI renewals, particularly in Ethiopia (9). And given the voluntary enrollment design of CBHI scheme in Ethiopia, all CBHI renewal decisions need to be solely based on the members' willingness to renew. Therefore, if directly assessed, CBHI members WTR membership can give a better measure of the scheme's membership retention capacity than the assessment of renewal rates. Additionally, the assessment of members' WTR can provide a clear picture of the scheme's overall acceptability and suitability in the particular community (2).

However despite its importance, previous studies on CBHI members' WTR membership are almost none, particularly in Ethiopian context. And the ones that exist were conducted during the scheme's pilot implementation period. The results of which are most likely affected by promotional bias, due to the extreme promotion of the scheme during its pilot years. These is evident as two consecutive studies from these period both showed favorable findings of 96.1% and 97% WTR respectively (9, 15). Whereas, the most recent (2018) study done on the topic reported only 64% WTR (9). Moreover, most previous studies that tried to measure CBHI members' WTR have only did so through quantitative methods. Which may not be sufficient to encompass the first hand experiences and perceptions of the community. Therefore, the topic could be better assessed by using both quantitative and qualitative approaches.

Hence, this study investigated the magnitude and determinants of CBHI members' willingness to renew membership in *Maraka woreda, Dawuro* zone, by employing both quantitative and qualitative approaches.

1.3. Significance of the Study

This study assessed the willingness to renew Community based health insurance membership and its associated factors among CBHI members in *Maraka* woreda, *Dawuro* zone, through quantitative and qualitative methods. The results expected to provide valuable in-depth empirical information concerning the issue to policymakers and other concerned stakeholders to over-come implementation challenges and develop better membership retention strategies. Moreover, the results obtained from this study can serve as a baseline information for further investigations to be, in the study area.

2. Literature Review

A good health financing system is essential requirement for health systems to deliver efficient and equitable health services, so to break the vicious circle of poverty and ill health (16). In two thirds of all low income countries, one third of total health expenditure comes directly from patients (12). And, the increment of such an expenditure can have catastrophic effects and may deplete the patients' ability to generate current and future income (17). As a result, providing health care for the poor is considered as one of the major challenges that many developing countries face (18). Thus, as part of a global effort to resolve this issue, UHC was endorsed in 2005, and is one of the SDG targets the globe is working towards (19). And, to achieve UHC, there needs to be a shift from an OOP based health financing system to a health insurance funded health systems, and for developing countries CBHI has emerged as a suitable instrument to do so (10). And, is believed to hopefully lead to better utilization of health services, reduce illness related income shocks and eventually lead to a fully functioning universal health care system (20).

In Ethiopia the scheme was launched in June 2011, with the objective of improve financial access to health services, improving quality of health care, and improving community engagement and resource mobilization in the health sector (21). And, after three years of pilot implementation, the scheme was scaled up to the entire country and by now it is established in 80% *woredas* in the country (7).

2.1. CBHI schemes Performance in terms of Membership Retention

According to Guy (2003), CBHI scheme's membership status is one of the performance criteria of the scheme's performance in health care financing, particularly of revenue collection (8). Large membership retention enhances the risk pooling of the scheme, and reduces vulnerability to unforeseen events. As it allows for the retention of healthy members while avoiding adverse selection, resulting in higher revenue, lower marginal costs, and lower health care spending (8). In the event of decreasing coverage, members who remain in the scheme are more likely to be chronically ill and in high-risk age groups, leading to higher claim costs, jeopardizing the financial sustainability of the scheme (7). Thus, low membership rates can be taken as a warning that adverse selection is taking place. And, broad membership is needed to make a scheme viable over the longer run (8). Unfortunately, despite CBHI scheme emerging as suitable health care financing mechanisms, the scheme's actual implementation in developing countries, particularly in SSA countries are plagued by high rates of membership

discontinuation (4, 22). Although, there are few SSA countries that have implemented the scheme relatively successfully such as Rwanda, which according to a 2010 analysis report was able to scale up CBHI coverage from 35% in 2006 to 85% in 2008 (23).

Based on a systematic review of 46 CBHI studies conducted in low- and middle- income countries, according to Mebratie A. *et al.* (2013), CBHI schemes in these countries largely suffer from high dropout rates (24). Similarly, according to a review by Manuela *et al.* (2009), the average enrolment rate in SSA countries was less than 10%. Due to which, as indicated by Manuela *et al.* (2009), vast majority of CBHI schemes in SSA find it hard to be self-sustainable, to survive exclusively with the revenues generated through premium collection without relying on external aid (13).

Ethiopia, as compared to the experience of most African countries, has had remarkable uptake rate of the scheme, particularly during the scheme's initial pilot years as concluded by the systematic review analysis of Anagaw (2015) (5). However, despite the scheme showing remarkable uptake and growth rates during its initial pilot years (41% in 2012, to 48% in 2013, and to 52.4% in 2014), in recent years, the country's enrollment coverage has rather declined. By 2020, not only was the country unable to meet its target of reaching 80% enrollment coverage, but also the enrollment rate had decreased back to 49% (7). And, as of February 20/2022, the enrollment rate remains at 53% nationally, which is again way below the country's HSTP-II mid-term target of reaching 63% by 2022 (6, 7). Moreover, as outlined by HSTP-II report, the low coverage of the informal sector through the ongoing CBHI scheme as one of major financial challenges in the health sector (7). At local levels as well, similar challenges of low renewal rates is reported by contemporary studies, including a study conducted in Addis Ababa, which reported a CBHI membership renewal rate of 67.3% (35).

Aside from renewal rates, another major indicator of CBHI scheme's membership retention capacity, is the scheme beneficiaries' level of WTR their membership policy (2). Which, also measures, the overall acceptability of the CBHI scheme and its performance in providing suitable practices to the community. In Ethiopia, empirical information concerning beneficiaries' WTR are almost none. And, the ones that exist are conducted during the scheme's pilot implementation, with favorable findings of 96.1 and 97% (9, 15). Which are most probably biased results, due to the extreme focus and budgeting provided to the promotion of the scheme during its pilot years. Which is evident as, the most recent study on the topic, done by Atnafu (2018), reported only 64% willingness to renew (9).

2.2. Factors Affecting Beneficiaries Decision to Renew CBHI Membership

Although very limited in number, few previous studies have examined the determinants factors of membership renewal decision of beneficiaries' in CBHI scheme. Based on these literatures, beneficiary's willingness to renew membership is influenced by several factors, as discussed in detail in the following sub-sections.

2.2.1. Socio-Demographic Factors

The household head's age, gender, marital status, level of education and religion, distance to the nearest public health facility, and economic status are factors reported by several studies as important socio-demographic determinants of the renewal decision of CBHI scheme beneficiaries (3, 5, 9, 15, 25). Regarding the household head's age, according to the reports of a systematic review done by Ewunetie (2019), households having older household heads to be positively related with higher willingness to pay (WTP) as well as renew (WTR) membership (26). While a systematic review on barriers and facilitators CBHI policy renewal by Mohammed (2022), mixed effect of household heads' age on the households' WTR (27). Similarly, whether the household leader is male or female has been reported to directly affect households' decision on renewal. According to a study by Atnafu (2018), Female-headed households were more likely to renew their membership than males, with 1.9 time's higher probability. Which might be due to high-risk aversion intention of females than males (9). On the contrary, according to a study in Burkina Faso, and a 2017 study by Shiferaw, it was reported that, female household heads, and higher age were associates to the increased drop-out rate (14, 28).

Regarding marital status, a systematic review by Mohammed (2022), indicated that four out of the six reviewed studies found that married household heads were more likely to renew their policy compared with their counterparts (27). The review also indicated that level of education plays an important role in influencing the members' renewal decision. According to the results a systematic review by Anagaw (2015), there is a clear inverse relation between education of the household head and scheme drop-out, and household heads with primary education are less likely to leave the scheme. The review also found Orthodox Christians to be more likely to remain the scheme as compared to other religions, although the reason behind the effect was not clear (15).

With regard to distance, the distance of the household's residence from the nearest public health facility is reported to be inversely related to their willingness to renew (8, 15, 27). For instance,

according to Guy (2003), in a Rwandan CBHI scheme, it was found that households residing within 30 minutes of the contracted health facility had a much larger probability of enrollment and retention in the scheme than those who lived farther away (8). Economic status is another factor that influencing households' policy renewal decision. And, according to a systematic review by Mohammed (2022), all 13 studies reviewed concerning the variable found that higher economic status was positively associated with renewal decision (27). On the contrary, according Anagaw (2015), in Ethiopian CBHI program the lowest-income quintile were more likely to remain in the scheme, with 33 to 34 percentage point increase from higher income quintiles (15).

2.2.2. Scheme Related Knowledge/ Understanding

According Anagaw (2015), greater understanding of CBHI scheme may lead to a greater appreciation of the potential usefulness of such a scheme and knowledge of the manner in which the scheme operates may make it easier for households to obtain benefits. And, knowledge of insurance may also mitigate the tendency to drop out. As limited knowledge about the details of the scheme was found as one of the major reasons for dropping out of the scheme (15). With this regard, pilot scheme evaluation report by EHIA (2015), found that 95 % of both members in pilot woredas are aware of the CBHI schemes. With the main sources of information being neighbors, a CBHI officials, and a house-to-house sensitization program, these three represented 86 % in SNNPR (Southern Nations Nationalities and Peoples Region). Moreover, the study also showed that more than 96 % of member households know that it is not only those who are sick who should enroll in CBHI, which according to the study was an indicator of the value of the intensive sensitization work done by government (6).

2.2.3. Need and benefit factors

These factors include, HH size, self-rated health status, presence of chronically ill HH members, recent illness/injury episodes in the HH, presence of children under 5 or elders above 65 years of age in the HH, recent history of health service use and hospitalization. With regard to which, according to Guy (2003), voluntary CBHIs tend to attract members with 'bad' health risks instead of a mixture of members with good and bad health risks (8). Based on a systematic review analysis conducted by Anagaw (2015), large household size is associated with a 69% increase in the probability of enrolment (5). Similar conclusions were drown by Shiferaw (2017) (28). And, according to Ekman (2004), based on a systematic review of 36 studies, about 67 % (6 out of 9) of the studies found that individuals suffering from chronic health

conditions, a proxy for adverse selection, are more likely to join CBHI schemes as compared to those in good health (29).

In terms of household members' perceived health status, a study by Atnafu (2018), found that self-rated health status was one major determinant of whether households are willing to renew their membership. And, household heads with poor self-rated health status were found to have 2.5 times higher odds of renewing membership than those with good self-rated health status (9). In disagreement to this conclusion a study by Anagaw (2015), indicated that self-rated health status was not a factor for drop out from Ethiopian pilot CBHI (15). On the other hand, with regard to HH's recent history of inpatient health service use, according to a study done in rural India, such recent history of hospitalization within the past one year had negative association with the probability of renewing CBHI membership (34).

2.2.4. Perceived quality of health care services

With regard to this variable, according to FGD (focus group discussion) results of a 2015 study in India, poor perception of the quality of health services provided was alleged as one major factor affecting the community's willingness to join as well as remain in the CBHI scheme (30). And, according to Atnafu (2018), the odds of willingness to renew among respondents with good and medium perceived quality of health services was found to be 4.3 and 4.7 times higher than respondents with the poor perceived quality (9). Similar findings were reported by a study done in *Gedeo* zone by Abdene (2022), on the magnitude and factors associated with beneficiary's WTR CBHI membership, which indicated that respondents who perceived health service quality as well were 4.21 times more likely to renew their CBHI scheme membership compared to their counterparts (25).

2.2.5. Social Capital

Social-capital, is a concept defined as the existence of a certain set of norms and networks that enable individuals to act collectively and permit cooperation among the community. It refers to circumstances such as, social life-networks, norms, and trust that enables households to act together more effectively to pursue shared objectives in which individuals can benefit from group membership. And, it can be assessed through the extent of horizontal trust and vertical trust. Horizontal trust refers to elements of social structure that create opportunities for stronger sense of social solidarity and trust among the community members (31). And, it can be proxy measured through households' level of involvement in informal voluntary associations like religious groups, credit/savings associations, and scheme membership duration (31). The

existence of such entry-points as traditional groupings can facilitate the process of winning the population's trust and feeling of ownership (22). It also reported as an enabling factor for membership renewal decision, as having such kind of experiences could improve understanding of the scheme (27). In terms scheme membership duration, as indicated by Mohammed (2022), respondents with more years of experience as a scheme member were found to be more likely to renew their membership (27). Similar findings are also reported by several other studies, including a study in *Gedeo* zone, a study in *Amhara* region, and a study in Addis Ababa (9, 15, 25, 35).

Vertical trust, refers to elements of social structure that create opportunities for stronger sense of trust towards hierarchical figures, such as the authorities, and CBHI insurers. And, it can be proxy measured through households' level of participation in the CBHI scheme, including, participation in awareness-raising and decision-making, and history of administrative or community leadership positions (31). Community participation in transparent and participatory decision-making about the scheme, also enhances the level of the community's thrust and overall satisfaction with the scheme (8). According to Anagaw (2015), active participation in the scheme, is associated with greater information and understanding of the scheme, which is associated increased retention the scheme (15). And, according to a study by Anagaw (2015), ever having held an administrative position, including village official, head of traditional organizations, and religious groups was associated 11-12 percentage increased retention in CBHI scheme (15).

2.2.6. Scheme operation and policy related factors

These factors include, level of satisfaction from scheme, attitude towards scheme, visit by agents during the renewal period, trust in the scheme, convenience in card and premium collection, premium affordability, and exemption policy. Regarding affordability, respondents who perceived the annual premium fee as affordable were reported to have 13 times higher likelihood of WTR membership than those who perceived it as unaffordable, according to a 2022 study done in *Gedeo* zone (25). Similarly, a 2018 study in Rwanda reported unaffordable premium as a significant predictor of high CBHI scheme drop-out rates (33). Moreover, according to Anagaw (2015), affordability of premiums was found to be a major factors influencing households' decisions to renew CBHI membership (15). Regarding trust in the CBHI scheme, according to Atnafu (2018), the odds of willingness to renew CBHI membership increased by 1.4 points (40 %) for each one unit increase in the CBHI trust score (9).

2.3. Conceptual Frame-Work

The following Conceptual framework is derived from a systematic review analysis by Mohammed (2022), on Barriers and Facilitators of Community-Based Health Insurance Policy Renewal, with modifications to fit the study objectives (27).

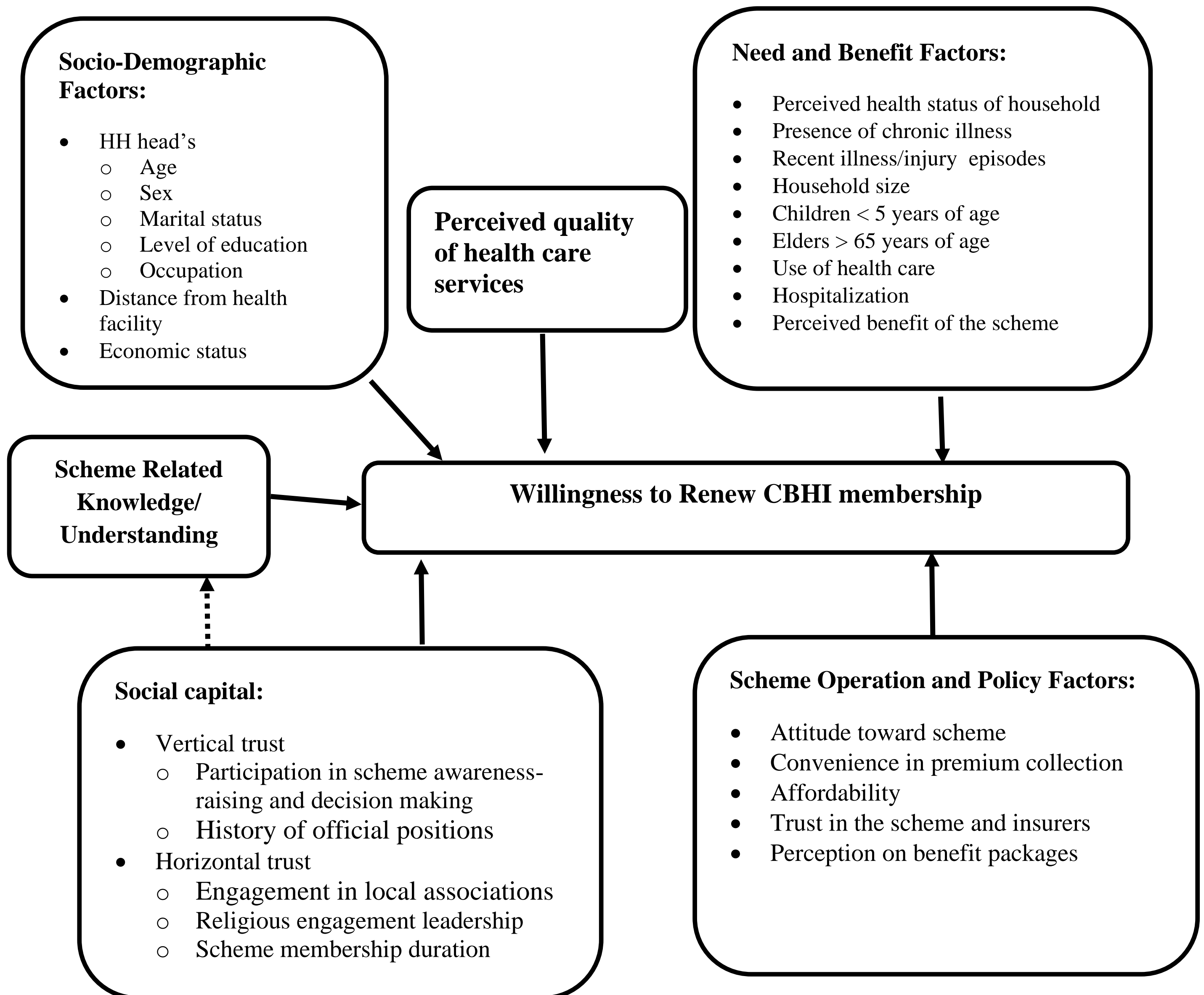


Figure 1: Study Conceptual framework, Mareka woreda, 2023

3. Objectives

1. General Objective

To assess willingness to renew Community based health insurance membership and associated factors among CBHI scheme members in *Maraka* woreda, *Dawuro* zone.

2. Specific Objectives

- To determine willingness to renew CBHI membership in *Maraka* woreda.
- To assess factors associated with willingness to renew CBHI membership.

4. Methodology

4.1. Study Area

This study was conducted in *Maraka woreda*, *Dawuro zone*, which is a zonal administration under South-West regional state of Ethiopia, with *'waka'* town serving as the zonal capital. The *woreda* has a total population of 65,542 people; and a total of 11,946 households. According to the *Maraka woreda* Health Bureau and CBHI office, the *woreda's* CBHI scheme was initiated in 2008 E.C. And, as of 2015 E.C, the scheme has enrollment rate of 31.7% (3,787 households) and renewal rate of 29.1% (36). The *woreda* comprises of 15 *kebeles,* and 5 of these *kebeles,* namely; *Waka*-01, *Waka*-02, *Gudumu* (*kebele* 05), *Gobo-Shamana* (*kebele* 09), and *Gendo-Bacho* (*kebele* 12) were included in this study.

Maraka woreda was selected for the study, because of the *woreda's* extremely low recorded rates of CBHI enrollment and renewal. Moreover, the *woreda* is was selected due to its convenience, given it is located near *Tarcha* town, which is the work area of the principal investigator (PI), thus making it feasible for the PI to be personally present and supervise the data collection process.

4.2. Study Design and Period

A community based cross-sectional mixed methods study was employed with sequential explanatory design to triangulate the quantitative data with qualitative methods (35).

The quantitative phase of study was conducted from April 6 to May 19, 2023. Whereas, the qualitative phase of study was carried out from September 16 to 26, 2013. Results from the quantitative study were used for the qualitative phase, as the basis for maximum-variation sampling of respondents and probe questions for interview topic-guides (37).

4.3. Populations

4.3.1. Source Population

- All CBHI enrolled households in *Mareka Woreda*.

4.3.2. Study Population

- All selected CBHI enrolled households in the selected *kebeles* of *Mareka woreda*.

4.3.3. Study Unit

- Household heads/ de-fact representatives of selected CBHI enrolled households.

4.3.4. Inclusion and Exclusion Criteria (Quantitative Study)

Inclusion Criteria

- Households with current paying CBHI membership status and at least 6 months of residency history in the selected *kebeles* of *Mareka woreda*.
- Households with a head/de-fact head, capable of providing informed consent (mentally competent and >18 years of age), and capable of being interviewed (physically competent, present, and willing)

Exclusion Criteria: Households that fail to fulfil any one of the inclusion criteria.

4.4. Sample Size Determination and Sampling Procedures

4.4.1. Sample Size Determination (Quantitative Study)

Sample size determination was done using single population proportion formula for the first objective of magnitude assessment, and using double population formula with 90% power for the second objective of predictor variables determination. And, it was carried out with assumptions of; 64% proportion for the outcome variable of WTR membership, different proportion assumptions for the predicting variables (9), 95% confidence level, 5% margin of error, 10% non-response rate, and 1.5 design effect (25). Additionally, since the source population for the study is less than 10,000 (3,787 CBHI enrolled HHs), population correction formula was applied to each of the resulting sample sizes. Therefore, the maximum sample size of 693 was obtained [Table 1].

Table 1: Sample size determination, Mareka woreda, 2023

No.	**Variables**	**Proportion Assumptions**	**Sample size after application of:**	
			Population correction	**10% non-respondent and 1.5 design effect**
1.	CBHI members' WTR membership for the next period	P= 64%	323	532.5~533
2.	Sex of HH head	P1=60% P2=77%	146	240.9~241
3.	Age of HH head	P1=72% P2=62%	420	**693**
4.	Occupation of HH head	P1=80% P2=63%	134	214
5.	Marital status of HH head	P1=78% P2=63%	180	297

6.	Length of enrollment	P1=34% P2=53%	133	220
7.	Family size	P1=58% P2=25%	216	356
8.	Illness in last 12 months	P1=47% P2=36%	375	618
9.	Self-rated health status	P1=47% P2=62%	224	369
10.	Membership in solidarity group	P1=77% P2=63%	244	402
11.	Perceived quality of health service	P1=39% P2=25%	215	254.9~255

4.4.2. Sampling Procedures (Quantitative Study)

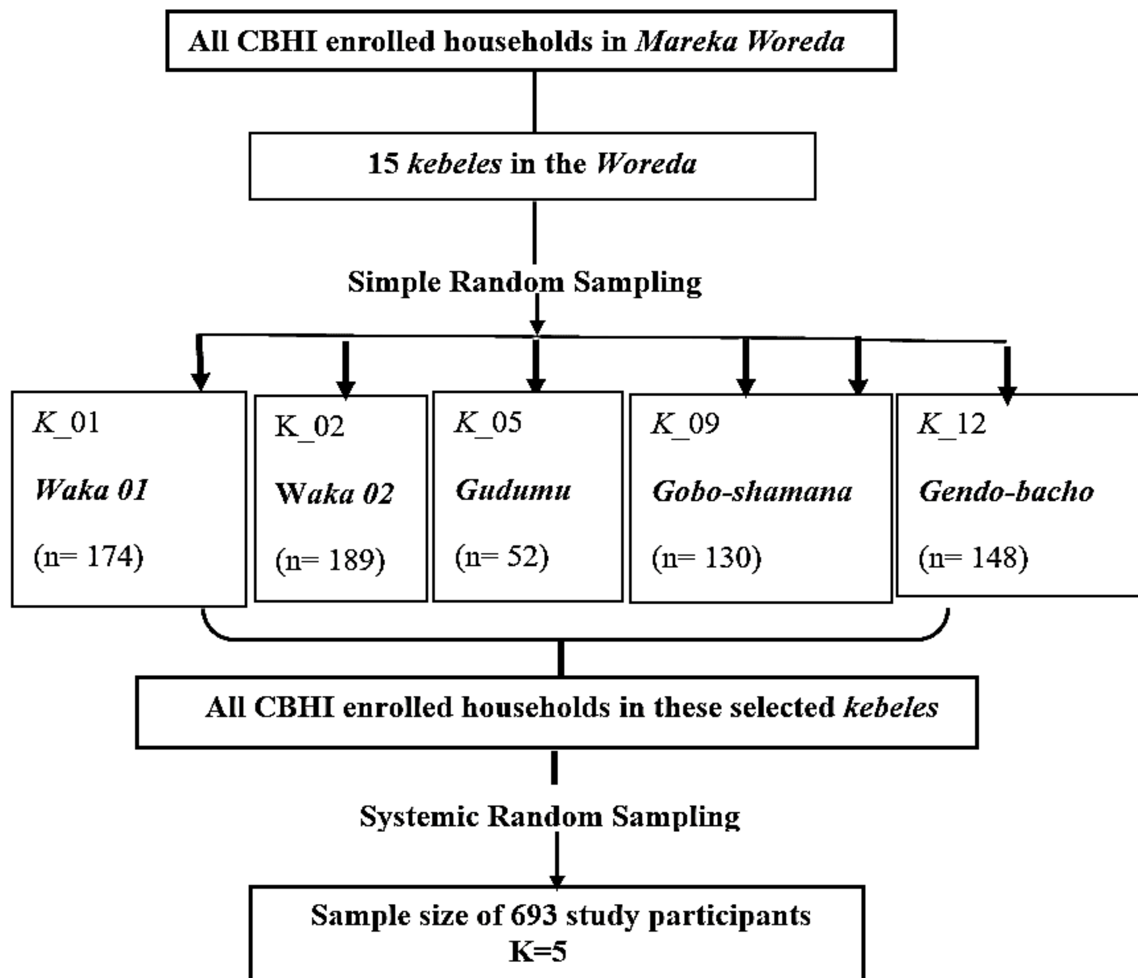
Through multi-stage random sampling, 5 (30%) of the 15 kebeles in the *woreda* were randomly selected as primary sampling unit (9). Then based on the respective CBHI enrollment rates in the selected 5 *kebeles*, the required 693 CBHI enrolled HHs were proportionally allocated and selected from each *kebele* through systematic random sampling (k=5), by using the registries of paying CBHI members as sampling frames *[Figure 2].* Then the selected HHs were located with the help of HEWs of the respective *kebeles*, which were marked with HH codes prior to the start of data collection. During the data collection, in the few cases where the selected HHs were not able to be interviewed, the next HH on the registry were seeked and interviewed.

4.4.3. Sampling Procedures (Qualitative Study)

Maximum-variation sampling procedure was used to obtain representative sample for the FGD and KII sessions. As such, a total of 3 FGD and 6 key informants were selected to the points of data saturation (10). For the FGDs, out of the quantitatively surveyed 5 *kebeles*, the 3 with; lowest (*Gendo-bacho;* 77.02%), medium (*Waka-02*; 88.4%), and highest (*Waka- 01*; 94.4%) observed magnitudes of WTR were selected. Then, FGD participants were selected with the help of HEWs of the respective *kebeles*. The inclusion criteria used for the selection was for the HHs to have already fulfilled all the aforementioned quantitative study inclusion criteria, in addition to having CBHI enrollment duration of $\geq$1 year and the HH's head/de-facto representative being perceived as knowledgeable by the selecting HEW (9). HEWs were also made aware of the need to select FGD participants with diverse backgrounds and characteristics. As such, each FGD session was conducted with 6-8 participants, with a range of documented variations in; sex (11 male; 9 female), age (28-55 years), and CBHI membership duration (2-5 years).

And, 6 key informants were selected, involving; *Mareka woreda* CBHI office head, *woreda* CBHI scheme coordinator, 2 HEWs, and 2 health care providers from '*waka*' health center.

Figure 2: Sampling technique for Household survey, Mareka woreda, 2023



4.5. Data Collection and Quality Assurance Procedures

4.5.1. Quantitative Data Collection Procedures

Quantitative data was collected through face-to-face interviews conducted with heads/de-facto representatives of CBHI enrolled HHs, using a semi-structured and pre-tested questionnaire. The questionnaire was originally prepared in English language, and then it was translated to locally spoken *Amharic* language. And it was devised to gather information on HHs' socio-demographic characteristics, financial assets, perception regarding quality of health care services, CBHI related knowledge/understanding, involvement in CBHI and other voluntary groupings, CBHI related experience and expectations, and the HH members' health status and health services use. Data collection was carried out by three interviewers and one supervisor, who were recruited among undergraduate public health students at Wolaita Sodo University

Dawuro Tarcha Campus, based on their academic achievements. And, was closely supervised by the supervisor and the PI, who were also responsible for ensuring the timely submission of completed questionnaires and the logical consistency submitted data within 24 hours.

4.5.1.1. Training and Pre-testing

Training and pre-testing were carried out from April 01 to 04, 2023. The training was provided to the data collectors, at Wolaita Sodo University Dawuro Tarcha Campus. During the training, explanations regarding the study objectives, ethical concerns, and the contents of the questionnaire were made to the trainees. The training additionally involved practice sessions, with the aim of familiarizing the data collectors with the use of the data collection software; ODK (open-data kit) mobile application. Then, pre-testing was carried out with 5% (35) of the total sample households in a nearby district of *Loma woreda*, located outside of the study area. And, few modifications in-terms of improving overall accuracy, clarity, and logical consistency were made to the questionnaire based on the findings of the pre-test.

4.5.2. Quality Assurance Procedures (Quantitative Data)

To ensure quantitative data quality, in addition to data collectors' training and pre-testing of the questionnaire, data collection was carried out through ODK collect mobile application, which enable the addition of specific restriction codes to each survey question. As a result, submission of incomplete questionnaires was avoided, which ensured data completeness. Additionally, the application filtered out non-pertinent questions from getting displayed for the interviewer based on the respondent's answers to previous questions, which enhanced data consistency. Moreover, upon submission of completed questionnaires, the data was automatically stored in to a "Google-*Spreadsheet*" on Google-Drive, which was only accessible to authorized research team members (research advisors, PI, and supervisor), who were able to review the submitted data at any time.

4.5.3. Qualitative Data Collection Procedures

Interview topic guides were used during FGD and KII sessions, with probe questions derived from the initial quantitative survey results (37). The topic guides were devised to gather follow-up explanatory information to help build upon the initial quantitative results concerning challenges affecting the *woreda's* CBHI scheme membership retention. Originally prepared in English language, the topic guides were translated to the local *Amharic* language, prior to data

collection. As such, qualitative data was collected in *Amharic* language. To keep accurate account of collected data, all sessions were audio-recorded with full permission of all participants. The FGD sessions lasted between 30 to 40 minutes, the KII sessions lasted between 8 to 23 minutes. To ensure the privacy of key informants, all interviews were conducted in private rooms arranged by the interviewees. And, to ensure anonymity of FGD participants in the recordings, initial briefings was provided during each FGD session, explaining the importance of keeping all matters discussed confidential (9).

4.5.4. Trustworthiness of Qualitative Data

- **Credibility:** Data triangulation through; method triangulation and source triangulation was done, in addition to 'member checking' by presenting HH survey findings to FGD participants and FGD findings to key informants for data confirmation (10). Moreover, peer- debriefing of all FGD and KII transcription files and their corresponding audio-recordings was done with senior research advisors (37).
- **Transferability:** Maximum variation sampling was used to select representative study participants, with varying perspectives. Moreover, clear and detailed description of the research setting, methods, and results was done in the reporting (37).
- **Dependability:** Audit trial of the accurate accounts of methods and practices undertaken in the study was done. Moreover, reflective journal of interpretative judgement decisions that were made during transcription were kept by the moderator responsible for the transcriptions (37).
- **Confirmability:** Intensive reading of data was done before and after coding, in addition to the aforementioned techniques of audit trial and reflective journal keeping (37).

4.6. Data Processing and Analysis

4.6.1. Quantitative Data Analysis

Preliminary coding and cleaning of quantitative data was done on *Google- Spreadsheet*, before transferring to SPSS version 25 software, where data re-cleaning and re-codding was done, along with construction of composite variables in preparation for analysis. Then descriptive and inferential (bivariate and multivariate logistic regression) analyses of data was carried out. Descriptive results of categorical variables were reported using frequencies and percentages, whereas continuous variables were reported using mean and standard deviation. For inferential statistics, statistical significance was considered at P-value <0.05. In bivariate logistic regression, all independent variables with association significance of P-value <0.05 were

retained and entered for further analyses into multivariate logistic regression (9, 25, 35). Prior to which, model fitness was checked through Hosmer-Lemeshow's goodness of fit test, and presence of multicollinearity was checked through variance inflation factor (VIF), with VIF >10 considered to indicate strong correlation between independent variables (37). Then, in multivariate logistic regression, all independent variables with association significance of P-value <0.05 were further retained and reported with their adjusted odds ratio (AOR) and corresponding 95% confidence interval (CI).

4.6.2. Qualitative Data Analysis

First, audio recordings of FGDs and KIIs were transcribed using verbatim technique by the moderator, responsible for the sessions. And prior to analysis, the transcriptions were reviewed for consistency against their corresponding audio recordings by the PI, the files were shared with senior research advisors of the study for further review. Then, since the main aim of the qualitative analysis was to triangulate and provide explanatory details for quantitative findings of the study. A decision was made to use pre-determined quantitative themes and codes of the study; as shown in the conceptual frame-work [Figure 1] for the qualitative analysis (9). The finalized transcript files were then transferred to ATLAS.ti 9 software, along with the pre-defined codes and code groups. In the software, each transcript was read intensively, followed by data coding in deductive approach, by reducing the data in to pre-defined codes and themes. As such, thematic analysis of qualitative data was done using a total of 6 themes and 9 sub-themes [Table 2], with emphasis given to challenges affecting membership renewals in the scheme (37). Finally, qualitative results were presented in narration and quotations, and triangulated with quantitative results.

Table 2: Themes and sub-themes used in qualitative data analysis, 2023

Themes/ Code groups	**Sub-themes/ Codes**	**Number of coded responses**
Quality of Health Care services	Drug supply sufficiency/ availability	29
	Providers' Moral Hazard/ Reception	19
Scheme operation/policy related issues	Affordability of annual premium fee	32
	Benefits package adequacy/ comprehensiveness	10
Social capital related issues	CBHI members' participation in the scheme	11
Scheme related knowledge	Scheme Related Knowledge/ Understanding	7
Household level issues	HH level Economic and Education status	7
Need and benefit factors	Members' Moral Hazard	1

4.7. Variables

4.7.1. Outcome variables

- Willingness to renew (WTR) CBHI membership

4.7.2. Independent variables

- **Socio-Demographic Factors:** HH head's age; sex; religion; marital status; and level of education, HH level wealth quintile; and distance to nearest health facility.
- **Scheme Related Knowledge/ Understanding**
- **Need and Benefit Factors:** HH size, self-rated health status, presence of chronically ill HH members, recent illness/injury episodes in the HH, presence of children under 5 or elders above 65 years of age in the HH, recent history of health service use and hospitalization.
- **Perceived quality of Health Care services**
- **Social-capital/ Participation in CBHI Scheme and/or Other Voluntary Groupings**
- **Scheme Operation and Policy Factors:** respondents attitude toward the scheme, trust in the scheme and insurers, perceived adequacy of benefit packages, perceived affordability of premium payments, and convenience in premium collection.

4.7.3. Operational Definitions

- **Willingness to Renew CBHI membership**: Is CBHI member households' desire to renew their membership contract for the following year. It was assessed by asking respondents whether they have the will to renew their CBHI membership card upon its expiration; and measured as a binary variable with "1= unwilling to renew" and "2= willing to renew" (9).
- **Self-assessed health status (SAHS):** Also known as "self-rated health status", it refers to the respective proportions of HH members (age $\geq$ 6) ; with 'poor', 'fair', and 'good' health status, as perceived and rated by the HH head/representative (15).
- **Level of Understanding/Knowledge:** Is a composite variable constructed from a set of five CBHI scheme related questions. Then, based on the respondents correct response to each question, they are classified in to three categories; high ($\geq$80%; $\geq$4 correct), moderate (60%; 3 correct) or poor (<60%; <3 correct) (15).
- **Attitude:** Is a composite variable constructed from a set of six questions assessing the so far experience and expectations of respondents in the CBHI scheme. Each question was measured with 3 point Likert scale ("agree", "neutral/indifferent', "disagree"). Then, based on respondents final summated numerical score (highest score 18 and lowest 6) a composite

variable with 3 categories was constructed; “unfavorable” (score < 12), “neutral” (score =12), or “favorable” (score >12) attitude (9).

- **Perceived quality of Health Care services**: Is a composite variable constructed from a set of four indicators assessing respondents’ satisfaction with the quality of different health service dimensions. Each indicator was measured with 5 points Likert scale (very good to very poor). Then, based on respondents final summated numerical score (highest 20 and lowest 4) a composite variable with 3 categories was constructed; “poor” (score < 12), “medium” (score=12), and “good” (score > 12) (9).
- **Wealth Index/quintiles:** Is a composite variable, computed to measure the relative income of the studied households. It was constructed through a principal component analysis of a set of 24 wealth indicators, involving; household assets ranging from a radio to ownership of agricultural land; and housing characteristics including source of drinking water and toilet facilities. Specific values were assigned to each indicator. Based on which, each HH was given a score and then ranked in to a wealth distribution, which was then divided into 5 quintiles; each comprising around 20% of the total sample (32).
- **Far from health facility:** Is the distance between a HH and its nearest public health facility. Defined as a walking distance that takes ≥ 30 minutes to reach the facility (25).

4.8. Ethical considerations

Ethical clearance was obtained from Hawassa University College of Health Sciences and Medicine, Institutional Review Board (IRB). Permission papers were obtained from *Dawuro Zone* administration, confirming the absence of any known risk posed by the study. Prior to data collection, interviewers and moderators obtained verbal informed consent from each study participant. To ensure confidentiality, the questionnaire and interview guides did not contain the name or any personal information that can identify the individual study participants. Instead of name codes were used in all data collection tools.

4.9. Dissemination of Study Results

The results will be presented in a symposium in the presence of peer students, instructors, and other interested bodies. The thesis results and recommendations will be disseminated to the CBHI agency of South-West regional state, and to the CBHI scheme administration of *Maraka woreda;* the study area. Furthermore, efforts will be made to publish the findings in reputable scientific journals for online dissemination.

5. Results

5.1. Socio-Demographic and Basic Household Characteristics

In this study 693 CBHI enrolled HHs were surveyed, thus the study had 100% response rate. Out of the total surveyed HHs, majority (90.5%) were led by male HH heads. The mean age of the HH heads was 45.09 years (±10.26 SD), majority (90%) of them were currently married, 278 (40.1%) of them have attended primary (1–8th) school, 427 (61.6%) of them were farmers, and 489 (70.6%) were leading HHs with five or less members under one roof. In terms of household composition, 321 (46.3%) of the surveyed HHs consisted at least one under 5 years old child member and 559 (80.7%) of them consisted at least one over 65 years of age elderly member. Concerning health status of HH members, 423 (61%) of study respondents reported of having at least one chronically ill HH member, and 356 (51.4) of the study respondents reported of having at least one HH member with a history of illness episode within the last one year. On the other hand, 50% or more of HH members in 176 (25.4%) of the studied HHs were reported to have poor SAHS [Table 2].

Table 3: Socio-demographic and basic household characteristics of study participants in Maraka woreda, South-west regional state, Ethiopia, 2023 (n=693)

Variable	Category	Frequency (n)	Percentage (%)
Educational status of the HH head	Can’t read and write (illiterate)	136	19.6
	Primary school	278	40.1
	Secondary school	219	31.6
	Certificate/ diploma	50	7.2
	First degree or above	10	1.4
Occupational status of the HH head	Housewife	59	8.5
	Private organization employee	427	61.6
	Trading/Self employed	179	25.8
	Farming	20	2.9
	Other	8	1.2
Marital status of the HH head	Married	624	90.0

	Divorced	34	4.9
	Widowed	26	3.8
	Never married	9	1.3
Distance to the nearest Health facility	Near	48	6.9
	Far	645	93.1
Economic Status Wealth quintiles	Richest quintile	145	20.9
	Richer quintile	128	18.5
	Middle quintile	139	20.1
	Poorer quintile	138	19.9
	Poorest quintile	143	20.6
HH member with chronic illness	Yes	423	61.0
	No	270	39.0
Proportion of HH members with poor SAHS	<50%	517	74.6
	>=50%	176	25.4
Recent history of Hospitalization (inpatient care utilization)	Yes	252	36.4
	No	441	63.6
Perceived quality of health care services	Poor	162	23.4
	Medium	69	10.0
	Good	462	66.7

5.2. Health Care Service Use and Perceived Quality

In this study, 530 (76.5%) the study respondents reported of having a HH level recent history of health facility visit, and 252 (36.4%) of the study respondents reported of having a HH level recent history of hospitalization, within the last one year. Regarding quality of health services; based on the composite score of four indicators (laboratory, staff friendliness, medications/drugs availability, and overall quality), the majority (66.7%) of respondents perceived the quality as ‘good’, while 162 (23.4%) of the respondents perceived the quality as “poor”. And, in terms of sufficient medications availability, while the majority (52.4%) of

respondents perceived the health service quality as "good", the remaining 330 (47.6%) of study respondents perceived the quality as "poor" [Table 2].

5.3. CBHI related Knowledge, Experience and Social-capital

In this study, CBHI related knowledge; measured as a composite score of five indicators, was "poor" among majority (57.6%) of the study respondents. In relation to this finding, one key informant mentioned the following: "*The main reason for the slow renewal rate is people's lack of understating about the scheme. For instance; the renewal period for last year lasted from October 1 to February 30. And even after that, given the low number of members, we talked to Zonal and regional administration and had extended the renewal period by around 15 days; to the mid of March. It was after the season [Renewal period] was over that, a lot of people started asking for their card to be renewed. Explaining how they were under the impression that the registration period will not end at all. So, they were just waiting until they get the money to renew their membership. But then, despite their reasoning we couldn't register them because the renewal period was over at both Zonal and regional levels, and we had already reported the list of the registered members.*" *(Mareka woreda CBHI office Coordinator, Key Informant)*

In this study, overall attitude towards CBHI scheme; measured as a composite score of six indicators, was favorable among majority (72.9%) of the study respondents. And, in terms of perceived benefit from the CBHI scheme, 434 (62.6) of the study respondents agreed to have benefited well from their CBHI membership, although 61 (8.8%) of the respondents disagreed to the notion of having benefited well from their scheme membership. Regarding benefit packages adequacy, the majority (73.6%) of respondents perceived it as adequate, while the remaining 183 (26.4%) perceived the packages it as inadequate to satisfy the health care needs of their HHs.

With regard to health care providers' equal treatment of CBHI members and non-members at public health facilities, 436 (62.9%) of the study respondents agreed with the notion of equal treatment, while 21 (3%) of the study respondents expressed disagreement with the notion of health providers' equal treatment of CBHI member and non-members, five of whom further mentioned having experienced the issue of providers' "Moral-Hazards" first-hand. In relation to this finding one FGD participant stated the following: *"They don't like it when they are not paid in cash. When they prescribe for cash payer, they provide the drugs from the health center.*

But for a CBHI card holder, they would instead send to outside pharmacy, even when the drugs are available." (40 years old male, CBHI member for 5 years, FGD participant).

Another FGD participant from *Gendo-bacho Kebele* had a different take on the issue, as he explained the problem to be an issue of the past that the health center has since fixed. *"This issue was very apparent last year. They used to refuse to dispense drugs to us [CBHI members], even when the drugs were available in the store. Sometimes even the cheapest drugs like headache pills. They basically just hated us. To the point where they used to whisper behind our backs like: 'Here look the indigents; the CBHI people came'. It was like they considered the drugs to be their own personal property, when the drugs clearly belonged to and were getting distributed by the government. But then after sometimes, they somehow changed and were able to fix all those problems. I tell you the truth when I say, the facility went through a revolutionary fashion change; almost overnight." (52 years old male, CBHI member for 2 years, FGD participant)*

Regarding affordability of the annual premium payment, 590 (85.1%) of the study respondents agreed that the amount was affordable, although 103 (14.9%) study respondents perceived the premium to be unaffordable. In terms of horizontal trust measures of social-capital, majority (94.1%) of the study respondents were involved in local voluntary groupings, and 600 (86.6%) of study respondents reported of having at least one HH member with active engagement in a religious group. In terms of vertical trust measures of social-capital, 348 (50.2%) of the study respondent have been CBHI members for a duration of two years or more, and 78 (11.3%) of the respondents reported of having a HH member with a history of government official position. On the other hand, while only 3 (0.4%) of the study respondents reported of having ever participated in local CBHI related awareness creation campaigns, only 115 (16.6%) of study respondents reported of having participated in CBHI related local meetings [Table 3].

Table 4: CBHI related knowledge, experience and social-capital of study participants in Maraka woreda, South-west regional state, Ethiopia, 2023 (n=693)

Variable	**Category**	**Frequency (n)**	**Percentage (%)**
CBHI related knowledge	Poor	399	57.6
	Good	294	42.4
Overall Attitude	Unfavorable	114	16.5

	Neutral	74	10.7
	Favorable	505	72.9
Benefit packages adequate to satisfy health care needs of the HH's	Disagree	61	8.8
	Neutral	198	28.6
	Agree	434	62.6
Local CBHI management is trustworthy	Disagree	2	.3
	Neutral	128	18.5
	Agree	563	81.2
Satisfied with CBHI office experience	Disagree	25	3.6
	Neutral	183	26.4
	Agree	485	70.0
Local CBHI staff put in adequate effort and hard-work	Disagree	132	19.0
	Neutral	167	24.1
	Agree	394	56.9
Participation in CBHI related meetings (Decision-Making activities)	Yes	115	16.6
	No	578	83.4
Duration of CBHI membership	<2 years	345	49.8
	>=2 years	348	50.2
Annual Premium Affordability	Affordable	590	85.1
	Not-Affordable	103	14.9
WTR CBHI membership for the next renewal period	Yes	548	79.1
	No	145	20.9

5.4. Magnitude of Willingness to Renew CBHI Membership

In this study, 548 (79.1%) of the study respondents were willing to renew their CBHI membership for the next period. And, the following figure shows the most cited reasons mentioned for un-willingness among the remaining 145 (20.9%) study respondents, who were not willing to renew their CBHI membership [Figure 3].

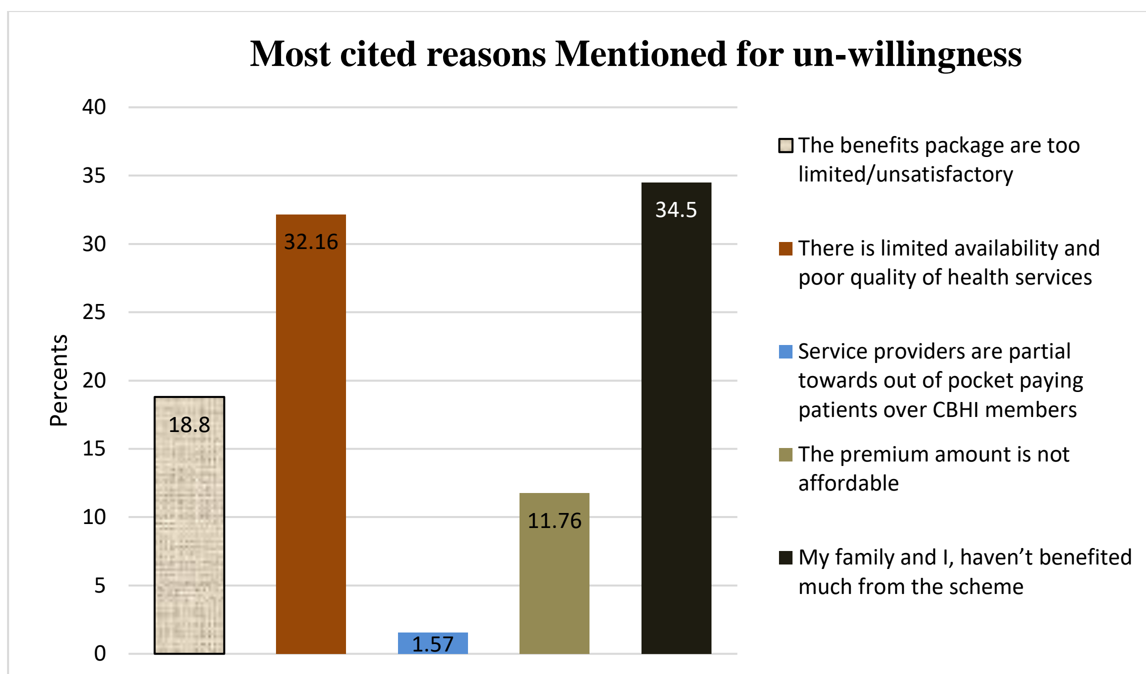


Figure 3: Most cited reasons for unwillingness to renew CBHI membership

5.5. Factors Associated with Willingness to Renew CBHI Membership

In this study, several factors were identified as having significant association with CBHI members' WTR membership. In bivariate analysis; marital status, distance, presence of chronic illness, proportion of HH members with poor SAHS, recent hospitalization, participation in CBHI related local meetings, CBHI membership duration, perceived health service quality in terms of medications availability, perceived benefit packages adequacy, and premium affordability were significantly associated with WTR CBHI membership. Whereas, in multivariate analysis, presence of chronic illness, proportion of household members with poor SAHS, recent history of inpatient care utilization, participation in CBHI related meetings, duration of CBHI membership, perception regarding availability of sufficient medication/drug supply, perception regarding adequacy of benefit packages, and perception regarding affordability of premium fee were found to be significantly associated WTR membership.

In the study, HHs with chronically ill members had a 70% lesser odds of WTR membership when compared to those with no chronically ill members (AOR = 0.30; CI: 0.18-0.52). Respondents with recent history of inpatient care utilization had 80% lesser odds of WTR membership than their counter parts (AOR = 0.2; CI: 0.11-0.35). HHs with higher (≥50%) proportion of members with poor SAHS had 2 times more likelihood WTR membership as compared to those with lower (<50%) proportions (AOR = 2.01; CI: 1.04-3.72).

In the study, the odds of WTR membership among respondents with a history of participation in CBHI related meetings was 2.4 times higher than those with no such participation history (AOR = 2.40; CI: 1.27-4.58). In relation to this finding, all key informants of the study indicated the so far absence of community participation in scheme related meetings and other general CBHI related activities in the district. And according to one FGD participant this lack of involving the community in CBHI related matters has kept the community unaware of achieved progresses, thus still distrusts the scheme for no longer existing past problems.

"Last year, there were a lot of problems. We were usually getting sent to pharmacies for drugs. I personally had complained a lot about this problem. But then there was some interventional meeting at the health center about this problems. After which, the issue was resolved. Also, back then, the health center staff used to sit outside and gossip about people like me. But now; their reception has become very welcoming. This is the undeniable fact on the ground. However, there is still distrust in the community; and I think it will be better if they tried to be more transparent. They should let the people know about the current improvements." (A 50 years old female, CBHI member for 2 years, FGD participant).

In the study, respondents with membership duration of two years and above had 4 times higher odds of WTR membership than those who have been members of the scheme for less than two years period (AOR = 4.01; CI: 2.12-7.56). The odds of WTR membership among respondents who perceive the benefit packages as adequate was nearly 3 folds to that of those who perceive the benefit packages as inadequate (AOR = 2.90; CI: 1.76-4.8). In relation to this finding, many of the FGD participants in the study mentioned how the CBHI would be better able to retain its members, if it was provided at regional or federal levels. One FGD participant explained the issue as follows:

"I personally have received referrals on three occasions for my leg condition, and traveled to Jimma. But over there, what they told me was that, because the membership money that I've paid is not transferred to them, I don't belong in their CBHI, hence I couldn't use my CBHI card to cover my treatment costs. So, my one question is; why doesn't the scheme work together with other schemes in the region, or at federal level? Now it is at zonal level, hence the services don't go outside the zone, we can only get referred from here to 'Tarcha' hospital only. Because, if the scheme allowed there to be a referral service from 'Tarcha' to other places like 'Jima' or 'Hawassa', or even places within our region; South-West region; renewal of

membership or the intention to do so would even be an issue of debate."(A 55 years old male, CBHI member for 3 years, FGD participant).

A similar point was made by another FGD participant: "*One major issue I have noticed is that, the reach of its services got limited. It's only up to 'Tarcha' only. From there, they can't refer you with CBHI. I think it would have been better if the services were at a country-wide level. If I have the referral. I should be able to get treated at 'Tigray'; at 'Harar', or 'Gojam' or 'Gondar". And also, if the CBHI was as regional level, or even federal; the collected money would also get larger. So it would be possible to include more non-paying people as well. (A 52 years old male, CBHI member for 2 years, FGD participant).*

In this study, respondents who perceived health services quality in terms of sufficient medications/drugs availability as 'good' had 2.5 times higher odds of WTR membership than those who perceived the quality as 'poor' (AOR = 2.52; CI: 1.48-4.29). In relation to this finding one FGD participant mentioned the following: *"There is a big problem regarding availability of medications. A person tells his problem to the physician, and what they end up telling him is that 'the drug is not available', and send him to a pharmacy. Therefore, despite having CBHI, people are still having to pay for their treatment costs. That's why people get frustrated, and raise the question 'if we still have to pay to pharmacies from our own pocket, why not just withdraw from the CBHI, and cover our treatment costs personally'." (A 34 years old male, CBHI member for 3 years, FGD participant).*

And another FGD participant added: *"The thing that doesn't make sense to me is that, there are people who the kebele has registered as fee free (indigent) service users. But then they send them to buy drugs from outside pharmacies. Now, these people are already registered as indigents; so, when they get told to buy drugs from an outside dispenser, where one strip of drug is sold for over 50 birrs; how are they expected to pay for it? Because sometimes, even I can't afford this prices, let alone the indigents.*" *(A 55 years old male, CBHI member for 3 years, FGD participant).*

Additionally, one key informant stated the effect that medications shortages have had on the recorded low CBHI renewal as follows: *"Although the program has shown undeniable progress over the years. In terms of our target to include all households in the woreda in to the scheme, there are shortcomings. And, the reason for that is problems in the service provision at the health facilities, most importantly problems related to medications supply at the facilities. Thus, leading to members discontinuing their membership from 2014 to 2015. The*

medication shortage by itself is directly related to existing shortages at country level, but together with problems in the way the services are provided at facilities, it could be one major reason for the [membership] issue." (Head of Mareka woreda CBHI office, Key Informant).

On the contrary, one key informant disagreed with this finding as follows: *"This year, even while going through budgetary shortages, we were able to solve the issue of medication shortage completely, in both health centers under the Woreda scheme; Waka and Gindo. Because of it being annual auditing season, to medications can't be purchased from PPC in the months of July and August. Which could've led to potential shortages, which we tackled by foreseeing the issue before hand. And provided a loan to both these facilities so that they can procure all the medications they might need. In an effort to avoid any delays, we even disregarded the practice of pre-auditing of the facilities budgetary requests." (Mareka woreda CBHI office Coordinator, Key Informant).*

In this study; respondents who perceived the CBHI annual premium fee as affordable had 2.2 times higher likelihood of WTR membership than those who perceived it as unaffordable (AOR = 2.2, CI: 1.26-4.79). In relation to this finding one FGD participant explained the following: *"When the CBHI started it was targeted for the poor people, hence the fee was set to be 205 birr. Which the people were fine with. But, after a year the fee was raised to 300 birrs. And, now, last year it was again raised to 375 birrs. But, due to inflation in living costs since the start of the scheme, the community's ability to pay has decreased, and not the other way around. That's why, people ask 'instead of paying this much for an illness that might or might not happen, why not just pay for treatments by ourselves when and if illness does happen'" (A 34 years old male, CBHI member for 3 years, FGD participant).*

Two other FGD participants shared their thoughts on this issue as follows: "*The annual fee, when it keeps raising; it shouldn't consider the people who are well-off; the people with good living status, but instead it should consider those with poor living status. Because, I for instance can afford to pay even if it was 1000 birrs or more; I with most of us here may afford it, but there are people who can't. Now it is 375, it will definitely keep raising in the future. But when it does, it should do so by keeping in mind those who might not be able to afford it. Hence, those are the people are that complaining and on the verge of discontinuing their memberships. Even I personally know such people. It's because, they don't have the ability to pay. Some can't even afford 200 birrs let alone 375." (A 52 years old male, CBHI member for 2 years, FGD participant).*

"There are people who get salaries of 9000, 8000, 7000; who are CBHI members. So, how can these people be seen at similar standards with poor people like; a woman who sells "Areqe" for a living, who bakes "Injera" for a living. Therefore, they should work on making the amount more balanced for everyone."(A 43 years old male, CBHI member for 3 years, FGD participant).

All key informants of the study agreed on the negative effect of premium fee unaffordability on WTR membership. In particular, one key informant explained on how the price unaffordability was a direct result of improper CBHI renewal period scheduling, as follows: *"The time when CBHI renewal takes place doesn't match with the community's crop production and work schedule. Farming is the livelihood of most of our community, thus there is a specific season when the farmer collects his crop and brings it to market. Secondly, there are also a group of people in the area who don't have their own farming land, and therefor seasonally migrate to other places for work. Now the problem is that, CBHI renewal period does not match this seasonal change in the community's work activity. For instance; it's around January and December that farmers bring their crops to market, so if the CBHI registration and renewal period was to get pushed towards these months, more people would be attracted to join or renew in to CBHI, since they have the money to do so." (Health service provider at Waka health center, Key Informant)*

Furthermore, the head of the *Woreda* CBHI office as a key informant explained the issue of unaffordability as being the result of the current top-to-down decision making process followed in premium pricing. *"So far, premium pricing has remained one of those things that get decided at the top and are passed down to the community. But, in terms of it being the preferred method for the process; since the community are the ones best aware of their economic status and paying ability, it would have been better if it started at the bottom, and the decision was passed upwards to the administration bodies, who can then add further necessary elements to it. Although, it's a possibility that the current decision making also involves such practices as surveys and as such to get an input from the public." (Head of Mareka woreda CBHI office, Key Informant).*

Table 5: Factors associated with willingness to renew CBHI membership in Maraka woreda, South-west regional state, Ethiopia, 2023

Variables	Willingness to Renew Membership		COR	AOR	p-value
	No	**Yes**			
Marital status of HH head					
Married	137	487	1	1	
Other	8	61	0.466 (0.218, 0.998)	2.675 (0.962, 7.435)	0.059
Distance to the nearest public health facility					
Far	128	517	1	1	
Near	17	31	0.451 (0.242, 0.841)	0.512 (0.204, 1.286)	0.154
Presence of chronic illness					
No	32	238	1	1	
Yes	113	310	0.369 (0.241, 0.565)	0.307 (0.180, 0.524)	0.000
Proportion of HH members with poor SAHS					
<50%	119	398	1	1	
>=50%	26	150	1.725 (1.085, 2.743)	2.027 (1.104, 3.721)	0.023
Recent history of hospitalization					
No	82	359	1	1	
Yes	63	189	0.685 (0.472, 0.995)	0.198 (0.113, 0.346)	0.000
Perceived quality of sufficient medication availability					
Poor	104	226	1	1	
Good	41	322	3.614 (2.424, 5.389)	2.518 (1.478, 4.290)	0.001
Participation in CBHI related meetings					
No	134	449	1	1	
Yes	16	99	1.78 (1.012, 3.122)	2.407 (1.266, 4.575)	0.007
Duration of CBHI membership					
<2 years	104	241	1	1	
>=2 years	41	307	3.231 (2.168, 4.815)	4.006 (2.124, 7.556)	0.000
Premium affordability					
Not-Affordable	36	67	1	1	
Affordable	109	481	2.371 (1.504, 3.738)	2.223 (1.263, 3.914)	0.006
Benefit packages adequacy					
Disagree	66	117	1	1	
Agree	79	431	3.078 (2.093, 4.525)	2.905 (1.760, 4.797)	0.000

In this study, in addition to the quantitatively confirmed associated factors, providers' 'Moral-Hazard' was indicated by both FGD and key informant sources of the study as a hindrance factor affecting CBHI members' WTR membership. As such, two FGD participants explained the issue as follows: *"They clearly discriminate between those with CBHI and those who pay out of pocket. Starting form diagnosis. They ask about CBHI card, after that they start holding back on the care, and don't give as much attention to the patient with CBHI. Because of this, the community complains and raise the question 'if this is how we get treated, wouldn't it be better if we were not members". (A 34 years old male, CBHI member for 3 years, FGD participant).*

"The health center staff do not like CBHI card holders; they like those who pay cash out of pocket. If the payment is in cash, they give more attention to that case. For medications also, when it is a cash payer, they provide the drugs from the health center, when they just sent a CBHI card holder to an outside pharmacy, for the same drug." (A 43 years old male, CBHI member for 4 years, FGD participant).

And one key informant confirmed the effect of facility level mistreatment and unsatisfactory service provision on membership renewal as follows: *"The community's desire to be CBHI members is very high, but there are problems at our facilities, including problems with reception and service provision at health facilities. So currently, we are working to modernize the service provision. Which includes making our health facilities; Health Centers, Health Posts, Hospitals all to provide 24 our services. Along with educating and enabling our health professionals to serve their community in the best manner possible, which also involves making available all the necessary materials and supplies to them. So no-one discontinuous their membership because of unsatisfactory services at health facilities." (Head of Mareka woreda CBHI office, Key Informant).*

In relation to this issue, a health service provider key informant at *Waka* health center mentioned one of the potential reasons for providers' lack of full commitment to the CBHI and its members, as follows: *"For instance, I am a health professional, yet I can't really tell you much about CBHI. Because I haven't received any proper information about the program. I only learnt about it from a notice board announcement. Thus, this lack of training and orientation to health professionals in general is a major reason, hindering the professional from developing a sense of ownership to the CBHI." (Health service provider at Waka health center, Key Informant).*

6. Discussion

This study investigated the membership retention capacity of CBHI in *Maraka woreda*, by assessing the magnitude and determinants of CBHI members' WTR membership. In this study, the magnitude of WTR membership was shown to be 79.1%, which is lower than the *woreda's* CBHI renewal target of 100% for the coming renewal period of 2016 E.C (36). This finding is also lower than the findings of 2 nation-wide pilot CBHI scheme evaluation studies that reported 96.1% and 97% WTR respectively (6, 24). This variation might be due to the study period difference between the studies, since the 2 nationwide studies were conducted during CBHI pilot implementation period (2015) and the current study is conducted after 12 years from the pilot implementation. This explanation is more evident since our finding is very close to the findings of other contemporary studies from *Amhara* region (64%), Addis Ababa (67.3%), and *Gedeo* zone (82.7%) (9, 25, 35).

This study identified CBHI members' perception regarding benefit packages adequacy as one of the major determinants of WTR membership. This finding is in line with the findings of a studies from Addis Ababa and *Amhara* region (9, 35). Furthermore, this finding was supported by the qualitative study based on FGD sources. The qualitative findings indicated limited benefit packages as main hindrance factor affecting CBHI members' desire to renew membership in the scheme. And suggested the current benefit packages provided under the CBHI as being too restricting, since the benefit packages only cover health care costs incurred at *Zonal* level and don't include referral services. This study revealed that CBHI members' perception of premium fee as affordable had a positive influence over their desire to stay in the scheme. Which is in line with the findings of studies from Rwanda, *Gedeo* zone, and a nationwide pilot CBHI study done in Ethiopia (15, 25, 33). Furthermore, this finding was supported by the qualitative study based on FGD and key informant sources. The qualitative findings indicated unaffordable and rising price of premium fee in the study area as one of the major hindrance factors affecting CBHI members' WTR.

This study revealed the increased willingness to renew membership among those who perceive poor health status among most of their household members. Which in line with the findings of a study done in *Amhara* region, which indicated that perception of poor health in the HH was a strong determinant of WTR and can be used as a proxy measure to indicate the presence of adverse selection in the CBHI (9). The study also showed a strong positive association between increased CBHI enrollment duration and members' WTR membership. This finding is in line

with the findings of several studies including a study done in *Gedeo* zone, *Amhara* region, and Addis Ababa, as well as the report of a 2021 systematic review in low and middle income countries (9, 15, 25, 27, 35). Which might be because households with previous renewal history have already gone through evaluating the scheme and found its benefits worth renewing for, which might have made their current decision of whether or not to renew, rather easy to make than those with lesser experience with the scheme.

In this study, CBHI members' perception of health service quality in terms of availability of sufficient medications was shown to be a major determinant of their WTR membership. This finding was in line with the findings of studies from Addis Ababa *Amhara* region (9, 35). However, this finding is in disagreement with the findings of a study in Rwanda (33). Which might be due to differences in study area and population between the two studies. Furthermore, qualitative findings of this study based on FGD and key informant sources were in support of this finding. This study also identified HHs' participation in CBHI related local meetings as one of the main determinants of WTR membership. This finding is in line with the findings of a study in Addis Ababa, as well as a nation-wide Ethiopian pilot CBHI evaluation study, which concluded that community participation in transparent CBHI scheme related decision-making activities enhances the level of the community's thrust and overall satisfaction with the scheme (24, 35). Furthermore, qualitative findings of this study based on FGD and key informant sources were in support of this finding, which indicated the lack of community participation in CBHI related matters and the negative effect it has had on CBHI members' WTR.

In this study, presence of chronic illness in a HH was found to have a negative effect of their WTR membership. This negative association is in agreement with the findings of a study in India and a study in *Amhara* region, although neither studies showed significant association (9, 34). This negative association could be explained by prescription medication shortages reported by the qualitative findings of this study, and since chronically ill patients may require recurrent medication refills, the frequent drug shortages might be causing frustration on such patients. This study also revealed a negative relation between HHs' recent history of inpatient health service use and their WTR membership. This finding is in line with the findings of a study done in rural India, which indicated similar negative association between having hospitalization history and the probability of renewing CBHI membership (34). This negative association might be due to, HHs having had recently experienced the benefit packages limitations of the scheme to cover referral cases, since most hospitalized patients usually require referral treatments.

7. Strengths and Limitations of the Study

7.1. Strengths of the Study

This study used members' WTR membership as an indicator to measure CBHI scheme's membership retention capacity, instead of the renewal rate, which would have produced biased results. Additionally, the results of this study were not affected by any promotional bias, since it is conducted 12 years after the pilot implementation of CBHI in the country. The effect bias was further minimized through training of data collectors, use of ODK collect application for survey data collection, random sampling of survey participants, maximum variation sampling of FGD participants, and multivariate analysis control of confounders.

The other strength of this study was the use of mixed methods approach. The incorporation of qualitative methods served to strengthen the quantitative findings, by confirming the direction of association relations shown between the outcome and independent variables, which would've been difficult to infer solely through the cross sectional design. Additionally, the qualitative data was used to check consistency of quantitative results through triangulation.

7.2. Limitations of the Study

One major limitation of this study might be the use of cross-sectional study design, which might not be adequate to infer the causation and direction of association relations shown in the study. Although, the addition of qualitative methods might minimize this limitation. Moreover, the quality of data might have been compromised due to data collectors' lack of experience, the effect of which was tried to be minimized by providing training for the data collectors.

8. Conclusion and Recommendations

8.1. Conclusion

In the study, the membership retention capacity of CBHI in *Maraka woreda* was shown to be lower than the *woreda's* CBHI renewal target for the coming renewal period. The magnitude of WTR membership was also relatively lower than the findings of other studies. In the study, presence of chronic illness, proportion of household members with poor SAHS, hospitalization history, perceived availability of medications/drugs, perceived premium affordability, perceived benefit packages adequacy, CBHI membership duration, and participation in CBHI related meetings were shown to be significant predictors of CBHI members' WTR

membership. Additionally, medication shortages, limited benefit packages, unaffordable and rising price of premium payment, lack of community participation in CBHI scheme, and provider's 'Moral-Hazard' were cited by FGD participants and key informants of the study as major hindrance factors affecting the scheme's membership retention performance.

8.2. Recommendations

Based on the findings of this study, in order to improve CBHI members' interest to renew membership and boost the membership retention capacity of the *woreda's* CBHI scheme, the following policy and practice level interventions are recommended,.

The *Woreda* CBHI Administration: Should consider undertaking practical measures to improve the transparency of its practices, and work on increasing the community's engagement in local CBHI related matters. This includes, involving the community in regular CBHI related meetings, and allow CBHI members to express their concerns, while at the same time giving the community an opportunity to appreciate CBHI related achievements and any undertaken intervention strategies. The scheme administration should also work adjusting the schedule of CBHI renewal period to be more in line with the community's work and money acquiring seasonal changes, including that of farmer's yearly season of crop collection and marketing.

HEWs in the Woreda: Should strengthen their work on awareness creation, and they should also consider working on sharing regular information updates with the community, regarding achievements and any undertaken intervention strategies by the scheme.

The Regional CBHI Agency: Should consider changing the current to-to-down practice of decision making for premium pricing, to a decision making process that involves more input and engagement from the community. And, let the community have a role in the premium pricing process, which could solve the issue of unaffordability, and also strengthen the community's sense of ownership towards the scheme.

Higher level Policy Makers: Should consider to enforce a policy intervention involving the assignment of different premium pricing for population groups of different economic classes, so the premium fee required from households will be based solely on their ability to pay. Which could solve the problem of unaffordability. Moreover, policy-makers should work on a strategy to combine district level CBHI schemes in to a larger regional or even federal level pool. Which could solve the issue of benefit packages limitedness, while also potentially enabling the CBHI scheme to be less reliant on government subsidies.

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ANNEXES

Annex 1- Household Survey Tools

Annex 1.1- Informed Consent Sheet

Hello, my name is ______________________, and I am going to conduct an interview with you on behalf of Mr. Mikiyas Zelalem, a graduate student at Hawassa University, school of public health. He is now conducting a research entitled “Willingness to Renew Community Based Health Insurance Membership and Associated Factors in Maraka woreda, Dawuro zone, South-west Regional State, Ethiopia". As the study is directly related to households, you are one of the randomly selected households to participate in this study. Therefore, you are kindly requested to participate in this study and provide the information required from you. The interview lasts approximately for 30 minutes.

During the interview, should answering any question make you uncomfortable, you can always refuse to answer the question. You also have the right to end the interview at any time. All your responses will be kept confidential, and there will be no way of linking your individual responses to the final results of the study findings. Aside from the satisfaction knowing that the responses that you may provide are very essential, not only for the success of the study, but also for producing relevant information which will be helpful in the further implementation and performance of the *woreda* CBHI scheme; you will not get any individual benefit or payments of any kind for participation. Thus, you are asked to participate from your own good will. And, your right to not to participate unless you’re willing is fully respected.

Are you voluntary to respond to the questions?

- Yes
- No ☐ → Thank him/her and end the interview

Interviewer: “I have read the consent to the respondent and she has understood it.”

Interviewer Name: ______________________Signature ____________Date:___________

Supervisor Name: ________________________Signature___________ Date: ___________

Annex 1.2- የቤት ለቤት ቃለ-መጠይቅ፤ የሚስጥር አጠባበቅ ስምምነት

ጤና ይስጥልኝ!

እኔ..እባላለሁ፡እናም በአሁን ሰኣት በአቶ ሚኪያስ ዘላለም ተወክዬ ለጥናት የሚውል ቃለ-መጠየቅ በማካሄድ ላይ እገኛለሁ። አቶ ሚኪያስ ዘላለም በሀዋሳ ዩኒቨርሲቲ በሕብረተሰብ ጤና የማስተርስ ተማሪ ስሆኑ፤ በአሁኑ ሰዓት የመመረቂያ ጥናታቸውን "በማረቃ ዎረዳ የማህበረሰብ አቀፍ የጤና መድህን አባላት አባልነትን ለሚቀጥለው ዓመት የማደስ ፈቃደኝነት እና ከዚህ ጋር ተያያዥ የሆኑ ጉዳች" በሚል ርእስ በማካሄድ ላይ ይገኛሉ። ለዚህም ይረዳ ዘንድ ከማህበረሰቡ መረጃ ማገኘት አስፈላጊ ስለሆነ፤ እርሶ ለመጠየቁ እርሰዎ በአጋጣሚ ተመርጠዋል። እናም በጥናቱ እንዲሳተፉና የሚያውቁትን እንዲያጋሩ በትህትና እንጠይቆታለን።

ይህ ቃለ-መጠይቅ ቢብዛ 30 ደቂቃ የሚስድ ሲሆን፤ በቃለ-መጠይቁ ወቅት ለማንኛውም ጥያቄ መልስ ለመስጠት ምቾት ካልተሰማዎት ጥያቄውን ያለመመለስ መብቶ የተጠበቀ ሲሆን፤ አስፈላጊ መስሎ ከታዮት ቃለ-መጠይቁን ሙሉ በሙሉ የማቋረጥም ሙሉ መብት አሏት። ከእርሶ የሚገኝ ማንኛውም መረጃ ለሶስተኛ ወገን የማይገለፅ ሲሆን፤ የተሳትፎትን ሚስጥራዊነት ለመጠበቅ ሲባልም ማንኛውም አይነት እርሶን የሚገለፅ መረጃ (ስም፡ ስልክ-ቁጥር፡ የቤትአድራሻ.....) አይወሰድም።

በዚህ ጥናት በመሳተፎ፡ የሚሰጡት መረጃ: ለወረዳው ማኀበረሰብ አቀፍ የጤና መድህን ፕሮግራም ቀጣይነት እንዲኖርው፤ አንዲሁም በአገልግሎት ረገድ የተሸለ አፈፃፀም እንዲኖረው ከፍተኛ አስተዋፅኦ እንደሚኖረው በመረዳት ከሚያገኙት የውስጥ እርካታ ውጭ ለተሳትፎ የሚከፈሎት ምንም አይነት ክፍያ አይኖርም።የሚሳተፉትም በእርሶ ሙሉ በጎ ፈቃድ ሲሆን፤ ያለ መሳተፍ መብቶ የተከበረ ነው።

በዚህ ጥናት ለመሳተፍ ፈቃደኛ ኖት?

- አዎን ☐
- አይደለሁም ☐ → አመስግነህ ቃለ-መጠይቁን አቁም!

ጠያቂ፡- *"የሚስጥር አጠባበቅ ስምምነቱን ለተሳታፊው/ዋ አንብቤ ተረድተው በቃል አረጋግጠውልኛል። "*

የጠያቂ ስም: ....ፊርማ.............ቀን.....................

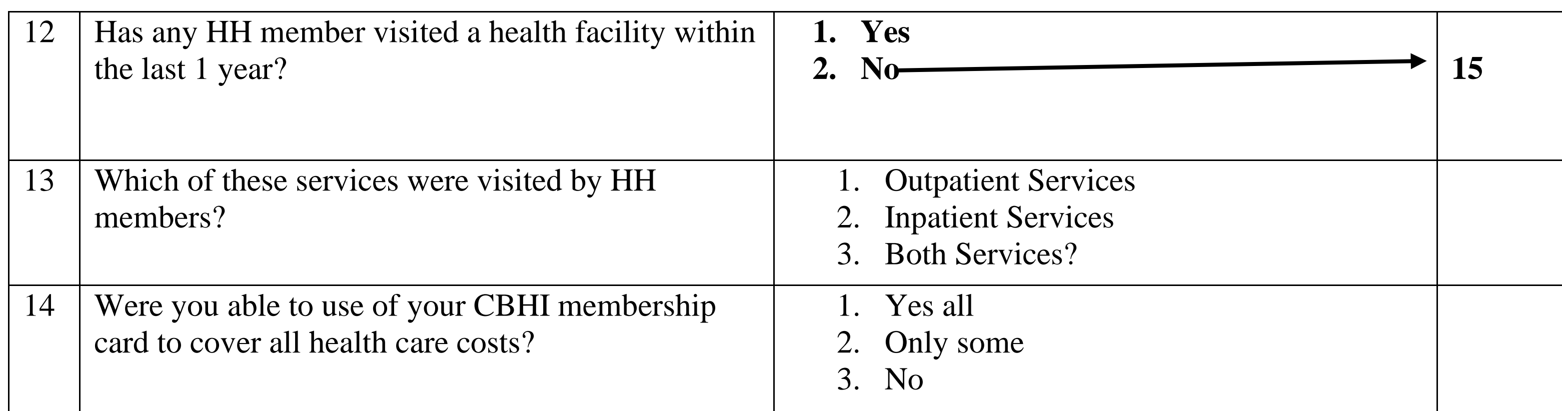
የሱፐርቫይዘር ስም:...ፊርማ............ቀን....................

Annex 1.3- Household Survey Questionnaire

Name of Investigator: ______________________________Signature: _____________

Kebele: ____House code No.: ________ Starting Time: ___________ Ending Time: _____________

No	Questions	Coding categories and answering alternatives	Skip to Qn.
SECTION 1: Socio- Demographic Conditions			
1	Sex of the head of the household?	1. Male 2. Female	
2	Age of the head of the household?	Age in completed year __________	
3	Educational status of the head of the household?	1. Can'treadandwrite(illiterate) 2. Primary level (1-8th class) 3. Secondary level (9- 12th class) 4. Certificate and diploma 5. First degree and above	
4	The current marital status of the head of the household?	1. Married 2. Divorced 3. Widowed 4. Never married	
5	Occupation of the head of the household?	1. Housewife 2. Private organization emplyee 3. Trading/Self employeed 4. Farming 5. Other (specify…………………..)	
6	How much time does it take to walk to the nearest government health facility from your home (in minutes)?	1. ≤ 30 minutes **2.** > 30 minutes	
SECTION 2: Health Status and Health Care Use			
7	How many of HH members are in the following age classification?	Number of children age (<5)___________ Number of members age (6-18)__________ Number of members age (18-64)_________ Number of member aged =>65________	
8	Can you please classify all members over the age of 5, based on their overall health status?	1. Poor health status___________ 2. Medium____________ 3. Good____________	
9	Do any of these household members suffer from Chronic illness?	1. Yes 2. No →	11
10	Which chronic illness?	1. Diabetes 2. Hypertension 3. Other	
11	Has any HH member experienced an illness/injury of any kind within the last 1 year?	1. Yes 2. No	



12	Has any HH member visited a health facility within the last 1 year?	**1. Yes** **2. No** →	**15**
13	Which of these services were visited by HH members?	1. Outpatient Services 2. Inpatient Services 3. Both Services?	
14	Were you able to use of your CBHI membership card to cover all health care costs?	1. Yes all 2. Only some 3. No	

15	How do you perceive the quality of health services provided under the scheme? **In terms of:** **Coding categories** 1. Very good 2. Good 3. Medium/indifferent perception		**Indicate the code for questions here**	
		Overall quality of service?		
		Availability of drugs/medical supplies?		
		Availability of diagnostic facilities?		
		Friendliness of staff?		

SECTION 3: Scheme Related Knowledge/ Understanding			
16	Understanding of CBHI **Coding:** 1. Correct 2. Not correct 3. Do not know		**Indicate code Here!**
		Only those who fall sick should consider enrollment in CBHI.	
		Only the very poor who cannot afford to pay for healthcare need to join the schemes.	
		Under CBHI program, you pay money (premiums) in order for the CBHI to finance your future health care needs.	
		CBHI program are like savings scheme, you will receive interest and if you needed get your money back.	
		If you do not make claims through CBHI, your premium will be returned.	
		CBHI covers only services from public health facilities	
SECTION 5: Participation in the Scheme			
17	Have you or any of your HH members participated in CBHI awareness-raising?	**1.** Yes **2.** No	

18	Have you or any of your HH members attended any CBHI related meetings in your kebele?	1, Yes 2. No	
SCTION 6: Involvement in voluntary networking associations			
19	Does any household member have an active participation in terms of teaching, operational work, or leadership/ administration in any religious group?	1. Yes 2. No	
20	Is your household enrolled in any traditional solidarity group like "*iddir*" and "*equb*"?	**1.** Yes **2.** No →	22
21	Have you or any of your HH members ever held a leadership position in these traditional associations	**1.** Yes **2.** No	
22	Have you or any of your HH members ever held official (governmental) administrative positions, such as; village/*kebele* official?	**1.** Yes **2.** No	
SECTION 7: CBHI experience and expectations			
23	How long has it been since you started enrolling in CBHI?	1. For less than 1 year 2. For more than 1 year	
24	Is the annual CBHI contribution (premium) affordable to your household?	1. Yes its easily affordable 2. It is somewhat affordable 3. No its unaffordable	
25	Do you believe the timing/time interval of the premium payment is convenient for your household.	1. Agree 2. Indifferent (somewhat convenient) 3. Disagree	27 (for 1, 2)
26	Can you explain more on why you found the timing of premium collection inconvenient?	Specify……………..*(use tape recorder)*	
27	The local CBHI agent tries hard to solve CBHI implementation problems	1. Agree 2. Indifferent 3. Disagree	

28	The benefit package comprehensive enough to meet the requirements of my household.	1. Agree 2. Indifferent 3. Disagree	
29	Health professionals treat patients of CBHI membership as much as out of pocket paying patients (none members)	1. Agree 2. Indifferent 3. Disagree	32
30	Is this based on what you have experienced or witnessed firsthand?	1. Yes 2. No →	32
31	Can you specify more on that?	Specify………………*(use tape recorder)*	
32	The local CBHI management is trustworthy.	1. Agree 2. Indifferent 3. Disagree	
33	I am satisfied with the experience at the local CBHI office when I go to register, and pay the regular contribution.	1. Agree 2. Indifferent 3. Disagree	
34	My family has benefited from my CBHI membership	1. Agree 4. Indifferent 2. Disagree	
35	When your current membership expires, would you be willing to renew your membership status, for the start the next fiscal year?	1. Yes → 2. No	38
36	What are your reasons for not wanting to renew your membership? *(multiple responses allowed)*	1. Illness and injury does not occur frequently in our HH 2. Premium amount is not affordable 3. Limited availability and poor quality of health services 4. Benefit package is too limited/unsatisfactory. 5. Health service quality is partial towards out of pocket paying patients over CBHI members 6. Other / More… →	37
37	If Other or More reasons:	Specify………………*(use tape recorder)*	
SECTION 8: HOUSEHOLD ASSETS			
SECTION 8.1: Productive Assets			
38	Does your household own a farm land?	1. Yes 2. No	

<table>
<tr><td>39</td><td>Does your household own any farm animals?</td><td colspan="3">1. Yes
2. No</td><td></td></tr>
<tr><td rowspan="15">40</td><td rowspan="15">How many of these farm animals do this household currently own?

Coding:

1=Yes

2=No</td><td></td><td>Indicate the code Here!</td><td>Number (currently owned)</td><td rowspan="15"></td></tr>
<tr><td>Milk cows</td><td></td><td></td></tr>
<tr><td>Oxen</td><td></td><td></td></tr>
<tr><td>Horses</td><td></td><td></td></tr>
<tr><td>Donkeys</td><td></td><td></td></tr>
<tr><td>Mules</td><td></td><td></td></tr>
<tr><td>Goats</td><td></td><td></td></tr>
<tr><td>Sheep</td><td></td><td></td></tr>
<tr><td>Chickens</td><td></td><td></td></tr>
<tr><td>Others</td><td></td><td></td></tr>
<tr><td colspan="3">Means of transportation</td></tr>
<tr><td>Bicycle</td><td></td><td></td></tr>
<tr><td>Motorbike</td><td></td><td></td></tr>
<tr><td>Animal-drawn</td><td></td><td></td></tr>
<tr><td>Car/truck/tract</td><td></td><td></td></tr>
<tr><td colspan="6">SECTION 8.2: Non-productive assets</td></tr>
<tr><td rowspan="4">41</td><td rowspan="4">Does your household own any of the following assets?

Coding:

1=Yes

2=No</td><td></td><td>Indicate the code Here!</td><td>How many, in number?</td><td rowspan="4"></td></tr>
<tr><td>Radio</td><td></td><td></td></tr>
<tr><td>TV</td><td></td><td></td></tr>
<tr><td>Mobile/cell-phone</td><td></td><td></td></tr>
<tr><td colspan="6">SECTION 8: HOUSING CHARACTERISTICS</td></tr>
<tr><td>42</td><td>Type of dwelling/housing?
▪ Based on Observation!</td><td colspan="3">1. Permanent/modern building
2. Traditional (grass roofing) building
3. Temporary settlement</td><td></td></tr>
<tr><td>43</td><td>Dwelling/Housing status?</td><td colspan="3">1. Owned by family or one of its members
2. Rented
3. Occupied without payment
4. Other (specify________)</td><td></td></tr>
<tr><td>44</td><td>What is the <u>main</u> type of material for the floor in your house?</td><td colspan="3">1. Mud/dung
2. Stone/cement/bricks
3. Wood/grass
4. Other (specify)______________</td><td></td></tr>
<tr><td>45</td><td>How many Bed-Rooms are there in the house?</td><td colspan="3">▪ Specify in No. ______________</td><td></td></tr>
</table>

46	What is the main source of lighting?	1. Electricity 2. Solar 3. Kerosene 4. Candle/Firewood 5. Other (specify) ____________	
47	What is your main source of cooking fuel?	1. Firewood 2. Charcoal 3. Firewood /Charcoal 4. Kerosene 5. Electricity 6. Other (specify) ____________	
48	What is the main source of water for the household?	1. Piped into the residence 2. Piped into a public compound or plot 3. Protected well with pump 4. Well without hand pump 5. Pond/River/Stream/Dam/Spring 6. Others (specify)__________________________	
49	What type of toilet facility does the household use?	1. Traditional pit latrine (Owned/ Shared) 2. Ventilated Improved Pit Latrine (Owned/ Shared) 3. Other (specify) :_________________ 4. No toilet (Open field)	

Thank you very much for your Cooperation!!

Annex 1.4- የቤት ለቤት አማርኛ መጠይቅ

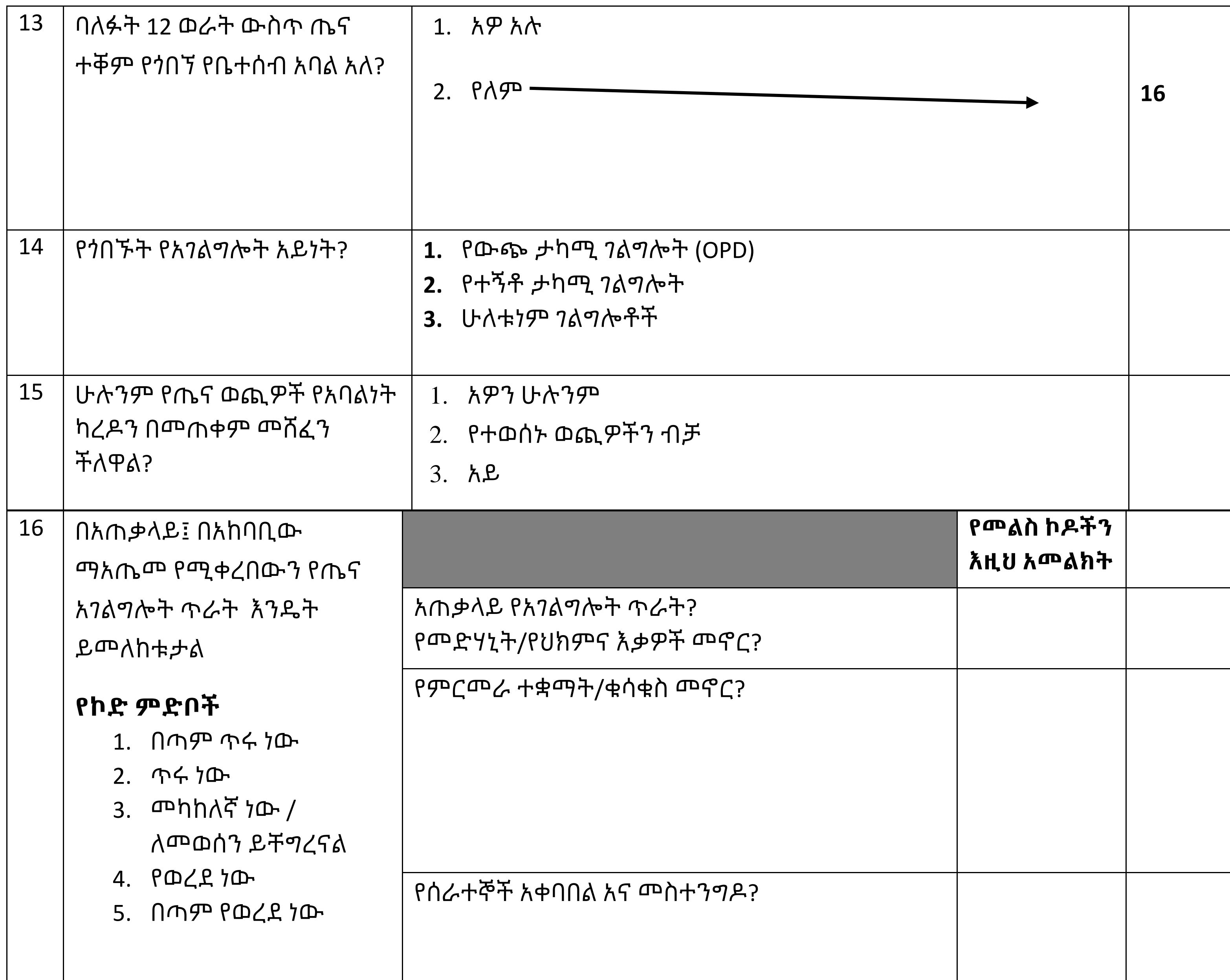
የጠያቂ ስም:- ....ፊርማ:-.....................

ቀበሌ:-...............**የቤት ኮድ:-................**

መልስ ሰጪው በቤቱ ውስጥ ያለው ድርሻ: 1. Head 2. De facto head

ቁጥ ር	**ጥያቄ**	**የምለሽ አማራጮች**	**ወደ -ዝለል**
ክፍል 1:- መሠረታዊና ኢኮኖሚያዊ ሁኔታወችን የተመለከተ			
1.	የቤተሰብ አስተዳዳሪው/ዋ ጾታ?	1. ወንድ 2. ሴት	
2.	የቤተሰብ አስተዳዳሪው/ዋ እድሜ ስንት ነው ?	1. በሙሉቁጥርግለጽ________________	
3	የቤተሰብ አስተዳዳሪው/ዋ የት/ርት ደረጃ ?	1. አልተማረም/ችም 2. 1ኛደረጃ (ከ1-8ክፍል)	

		3. 2ኛደረጃ (ከ9-12ክፍል) 4. ስርተፊኬት/ዲፕሎማ 5. 1ኛዲግሪና ከዛ በላይ	
4.	የቤተሰብ አስተዳዳሪው/ዋ የስራ ሁኔታ ?	1. የቤት እመቤት 2. የመንግሥት ስራ 3. የግልስራ/ንግድ 4. ግብርና 5. ሌላ(ግለጽ........................)	
5.	የቤተሰብ አስተዳዳሪው/ዋ የጋብቻ ሁኔታ ?	1. ያገባ/ች 2. የፈታ/ች 3. ባለቤት የሞተበት/ባት 4. ያላገባ/ች	
6	በመኖርያ ቤቱ ውስጥ ቋሚ ነዋሪ የሆኑ ስንት የቤተሰብ አባላት አሉ?	▪ በሙሉ ቁጥር ግለጽ____________	
7.	የቤተሰብ አባላቱን በተከታዮቹ የእድሜ ክፍልፋዮች ቢከፋፍሉልኝ?	▪ ከ 5 ዓመት በታች ዩሆኑ ብዛት፤___________ ▪ ከ 6-18 ዓመት ዩሆኑ፤__________ ▪ ከ 18-64 ዓመት የሆኑ፤__________ ▪ 65 ዓመት እና ከዛ በላይ የሆኑ ፤__________	
8	ከ5 ዓመት በላይ የሆናቸውን የቤተሰብ አባላት በአጠቃላይ የጤና ሁኔታቸው መሰረት በመመደብ የተባበሩኝ?	1. መልካም የጤና ሁኔታ ያላቸው_____________ 2. መካከለኛ የጤና ሁኔታ ያላቸው____________ 3. ዝቅተኛ የጤና ሁኔታ ያላቸው______________	
9.	ከመኖርያ ቤቶ ቅርብ ወደሚገኝ የመንግስት ጤና-ተቋም በእግር ለመጓዝ ምን ያህል ጊዜ ይፈጃል ?	1. ቅርብ............≤30 ደቂቃ 2. እሩቅ............>30 ደቂቃ	
ክፍል 2: ስለ ጤና ሁኔታ እና የጤና አገልግሎቶች አጠቃቀምን በተመለከተ			
10	ከጠቀሱልኝ የቤተሰብ አባላት መካከል እንደ ስኩዋርና ደመ-ግፊተ ያሉ ቋሚ ህመሞች ያለባቸው አሉ?	**1.** አው **2.** የሉም →	12
11	የህመሙ አይነት?	ይግለፁ...........................	
12	ባለፉት 12 ወራት ውስጥ ማንኛውም አይነት የህመም እክል ወይመወ አደጋ ያጋጠመው የቤተሰብ አባል አለ ?	**1.** አው **2.** የለም	



13	ባለፉት 12 ወራት ውስጥ ጤና ተቋም የጎበኘ የቤተሰብ አባል አለ?	1. አዎ አሉ 2. የለም ⟶	16
14	የጎበኙት የአገልግሎት አይነት?	**1.** የውጭ ታካሚ ገልግሎት (OPD) **2.** የተኝቶ ታካሚ ገልግሎት **3.** ሁለቱነም ገልግሎቶች	
15	ሁሉንም የጤና ወጪዎች የአባልነት ካረዶን በመጠቀም መሸፈን ችለዋል?	1. አዎን ሁሉንም 2. የተወሰኑ ወጪዎችን ብቻ 3. አይ	

16	በአጠቃላይ፤ በአከባቢው ማአጤመ የሚቀረበውን የጤና አገልግሎት ጥራት እንዴት ይመለከቱታል **የኮድ ምድቦች** 1. በጣም ጥሩ ነው 2. ጥሩ ነው 3. መካከለኛ ነው / ለመወሰን ይቸግረናል 4. የወረደ ነው 5. በጣም የወረደ ነው		**የመልስ ኮዶችን እዚህ አመልክት**	
		አጠቃላይ የአገልግሎት ጥራት? የመድሃኒት/የህክምና እቃዎች መኖር?		
		የምርመራ ተቋማት/ቁሳቁስ መኖር?		
		የሰራተኞች አቀባበል አና መስተንግዶ?		

ክፍል 3፡ በማህበረሰብ ጤና መድን ዙሪያ ያለ መረጃና የግንዛቤ ደረጃ በተመለከተ			
17	የ CBHI ግንዛቤ **የኮድ ምድቦች፡** 1. ትክክል 2. ትክክል አይደለም 3. አላውቁም		**የመልሶችን ኮድ እዚህ ያመልክቱ**
		በማዐጤመ መመዝገብን ግምት ውስጥ ማስገባት አለባቸው የታመሙ ሰዎች ብቻ ናቸው፡፡	
		ፕሮገራሙን መቀላቀል ያለባቸው ለጤና አገልግሎተ መክፈል የማይችሉ በጣም ድሆች ብቻ	
		በማዐጤመ ፕሮግራም መሰረት፣የማዐጤመ የወደፊት የጤና እንክብካቤ ፍላጎቶችዎን እንዲሸፍን ገንዘብ (ፕሪሚየም) ይከፍላሉ።	

		በማዐጤመ ፕሮግራም ልክ እንደ ቁጠባ እቅድ ነው፣ በማዐጤመ በኩል የጤና አገልግሎቶችን ካላገኙ፣ ፕሪሚየምዎ ይመለሳል።	
ክፍል 5፡ ተሳትፎን በተመለከተ			
18	እርስዎ ወይም ሌላ የቤተሰብ አባላት ከማአጤመ ግንዛቤ ማሳደግ ፕሮግራም ላይ ተሳትፈው ያቃሉ?	1. አዎን **2.** አይ	
19	እርስዎ ወይም ሌላ የቤተሰብ አባላት፤ ከፕሮገራሙ ጋር ተዛማጅ ስብሰባዎች ላይ ተገኝተው የውቃሉ ?	1. አዎን 2. አይ	
ክፍል 6፡ ማህበራዊ ተሳትፎን በተመለከተ			
20	የእርስዎ ቤተሰብ በአካባቢው በሚገኙ እንደ እድር እና እቁብ ያሉ ባህላዊ የአንድነት ማህበራት ውስጥ በአባል ተሳትፎ አለው?	1. አዎን 2. አይ →	22
21	በነዚህ ባህላዊ ማህበራት ውስጥ እርስዎ ወይም ሌላ የእርሶ ቤተሰብ አባል የመሪነት ቦታ ይዘው ያውቃሉ?	1. አዎን 2. አይ	
22	ከቤተሰቡ አባላት ውስጥ ብሃይማኖት ረገድ በማስተማር፣ በተግባራዊ ስራ ወይም በአመራርነት ንቁ ተሳትፎ ያለው አለ?	1. አዎን 2. አይ 3.	
23	እርስዎ ወይም ወይም ሌላ የእርሶ ቤተሰብ አባል ማንኛውም መንግስታዊ/አስተዳደራዊ ቦታዎች ሽገልግለው ያውቃሉ?	1. አዎን 2. አይ	
ክፍል 7፡ በማዐጤመ ፕሮገራመ ስለነበረ ልምድ እና የወደፊት እቅዶች በተመለከተ			
24	በማህበረሰብ አቀፍ የጤና መድህን አገልግሎት የታቀፍከዉ/ሽዉ መቸ ነው?	1. ከ 1 አመት በታች 2. ከ 1 አመት በላይ	
25	የማዐጤመ መደበኛ መዋጮ (ፕሪሚየም)ለቤተሰቦ ተመጣጣኝ ነው ብለዉ ያስባሉ?	1. በቀላሉ ተመጣጣኝ ነው 2. በመጠኑ ተመጣጣኝ ነው 3. ተመጣጣኝ አይደለም	
26	የፕሪሚየም ክፍያ የሚከናወንበት ጊዜ ወይም የጊዜው ልዩነት ለቤተሰቦ ምቹ ነው።.	1. እስማማለው 2. ልዩነት አልፈጠረብኝም 3. አልስማማም	28
27	ምቹ ሆኖ ያላገኙበትን ምክንያት ቢገልፁልኝ?	ይግለፁ..................***(ቴፕ ሪከርደር ተጠቀም)***	

28	በማእጤመ የሚሸፈኑ የጤና አገልገሎቶች (የጥቅማጥቅም ጥቅል) የቤተሰቤን የህክምና ፈላጎቶች ለማሟላት በቂ ናቸውብለዉ ያስባሉ?	1. እስማማለው 2. ልዩነት አልፈጠረብኝም 3. አልስማማም	
29	የጤና ባለሞያዎች የማዐጤመ አባል ታካሚዎችን ከኪስ ክፍያ ከሚከፍሉ ታካሚዎች እኩል ያክማሉ ብለዉ ያስባሉ?	1. እስማማለው 2. ልዩነት አልፈጠረብኝም 3. አልስማማም	33
30	በዚህ ጉዳይ ላይ አርሶ ላይ የደረሰ ወይም በሌላ ሰው ሲደርስ የታዘቡት ገጠመኝ አለ?	1. አዎን 2. አይ	33
31	ስለተመለከቱት ገጠመኝ ተጨማሪ ገለፃ ሊሰጡኝ ይችላሉ?	ይግለፁ.................***(ቴፕ ሪከርደር ተጠቀም)***	
32	የአካባቢው የማዐጤመ አስተዳደር በታማኝነት እየሰራ ነው ብለው ያምናሉ?	1. እስማማለው 2. ልዩነት አልፈጠረብኝም 3. አልስማማም	
33	ለመመዝገብ ስሄድ እና መደበኛ መዋጮን ስከፍል በአካባቢው የማዐጤመ ቢሮ ባገኘሁት መስተንግዶ ረክቻለሁ ብለዉ ያስባሉ?	1. እስማማለው 2. ልዩነት አልፈጠረብኝም 3. አልስማማም	
34	የአካባቢው የማዐጤመ ሰራተኖች የአተገባበር ችግሮችን ለመፍታት በቂ ጥረት እያደረጉ ይገኛሉ ብለዉ ያምናሉ?	1. እስማማለው 2. ልዩነት አልፈጠረብኝም 3. አልስማማም 4.	
35	በማአጤመ ከታቀፉ በኋላ ለእረሶና ለቤተሰቦ ጥቅም አግኝቼበታለው ብለዉ ያስባሉ?	1. እስማማለው 5. ልዩነት አልፈጠረብኝም 2. ማማም	
36	የያዘነው አመት ሲጠናቀቅ፤ ለምጪው አመት የማአጤመ የአባልነት ካርዶን የማደስ ፍላጎቱ አሎት?	3. አዎን 4. አይ	39

37	የአባልነት ካርዶን ለማደስ ያልፈለጉበት ምክንያት ምንድነው ብለው ያስባሉ? ***(ከአንድ በላይ መልስ መመለስ ይቻላል)***	1. በቤተሰቡ ውስጥ ህመም/ጉዳት ብዙም አይከሰትም 2. የአባልነት ክፍያው ተመጣጣኝ አይደለም 3. በፕሮግራሙ የሚሸፈኑት የጤና አገልገሎቶች በቂ አየደሉም 4. የሚሰጡት የጤና አገልገሎቶች ያልተሙአሉ እና ጥራት የጎደላቸው ናቸው 5. የማዐጤመ ካርድ የያዙ ታካሚዎች ከኪስ ክፍያ ከሚከፍሉ ታካሚዎች እኩል አይስተናገዱም 6. ከፕሮግራሙ ብዙም አልተጠቀምኩም 7. ሌላ ወይም ተጨማሪ ምክንያቶች-------------------------------	**38**
38	ሌላ ወይም ተጨማሪ ምክንያቶች ካሉ------------	ይግለፁ.................(ቴፕ ሪከርደር ተጠቀም)	

ክፍል 8፡ የቤተሰቡ ንብረቶች					
ክፍል 8.1: ምርታማ ንብረቶች					
39	የእርስዎ ቤተሰቦ የእርሻ መሬት አለው?	1. አዎን 2. አይ			
40	የእርስዎ ቤተሰብ የግብርና እንስሳት አሉት?	1. አዎን 2. አይ			
41	ይህ ቤተሰብ በአሁኑ ጊዜ ከሚከተሉት ውስጥ ምን ያህሉ የእርሻ እንስሳት አሉት? **የመልስ ኮዶች፡** **1=**አዎ **2=**አይ		**የመልሶችን ኮድ እዚህ አመልክት**	**ቁጥር**	
		የወተት ላሞች			
		በሬዎች			
		ፈረሶች			
		አህዮች			
		በቅሎዎች			
		ፍየሎች			
		በግ			
		ዶሮዎች			
		ሌሎች			
		ለማጓጓዣነት የሚያገለግሉ			
		ብስክሌት			
		ሞተ			
		የእንስሳት ጋሪ			
		መኪና / የጭነት መኪና / ትራክተር			
ክፍል 8.1: ምርት የማይሰጡ ንብረቶች					

42	ከሚከተሉት ንብረቶች ውስጥ፤ የእርስዎ ቤተሰብ የትኞቹ ንብረቶች አሉት? **የመልስ ኮዶች:** **1=አዎ** **2=አይ**		**የመልሶችን ኮድ እዚህ አመልክት**	**ቁጥር**	
		የሚሰራ ሬዲዮ			
		የሚሰራ ቲቪ			
		ሞባይል/ሞባይል ስልክ			
		የቤት ውስጥ ስልክ			
ክፍል 8፡ የመኖሪያ ቤት ባህሪያት					
43	የመኖሪያ ቤት ዓይነት? ▪ **በእይታ መሰረት!**	1. ቋሚ / ዘመናዊ ቤት 2. ባህላዊ (የሳር ክዳን) ቤት 3. ጊዜያዊ መኖሪያ			
44	መኖሪያ ቤቱ የግል ነው ወይስ የኪራይ?	1. የቤተሰቡ/የግል 2. የኪራይ 3.ሌላ _________			
45	የመኖሪያ ቤቱ የመሬት ወለል ምን ዓይነት ነው?	1. አፈር / እበት 2. ድንጋይ / ሲሚንቶ 3. እንጨት / ሣር 4. ሌላ (ይግለጹ)______________			
46	በቤቱ ውስጥ ስንት መኝታ ክፍሎች አሉ?	▪ በቁጥር ግለጽ. ______________			
47	ዋናው የመብራት ምንጭ ምንድን ነው?	1. ኤሌክትሪክ 2. ሶላር 3.ነጭ ጋዝ 4.ሻማ / ማገዶ 5. ሌላ (ይግለጹ) ____________			
48	ቤተሰቡ ለማብሰነት በዋነኝነት የሚጠቀመው መንድነው?	1. የማገዶ እንጨት 2.ከሰል 3.እንጨት/ከሰል 4. ነጭ ጋዝ 5.ኤሌክትሪክ 5. ሌላ (ይግለጹ) ____________			
49	ለቤተሰቡ ዋና የውኃ ምንጭ ምንድን ነው?	1. የግል ቧንቧ 2. የህዝብ/የሰፈር ቧንቧ 3. በፓምፕ የሚቀዳ የህዝብ ቦኖ 4. የእጅ ፓምፕ የሌለው ገደል 5. ኩሬ / ወንዝ / ዥረት / ግድብ / ምንጭ 6. ሌላ (ይግለጹ)___________________________			
50	ቤተሰቡ የሚጠቀመው ምን ዓይነት መጸዳጃ ቤት ነው?	1. ባህላዊ ጉድጓድ መጸዳጃ ቤት (አየር ማስውጫ የሌለው) 2. የተሻሻለ ጉድጓድ መጸዳጃ ቤት (አየር ማስውጫ ያለው) 3. ሽንት ቤት የለም (ክፍት ሜዳ) 4. ሌላ (ይግለጹ) :___________			

ስለ ትብብሮ እጅግ ብጣም አመሰግናልሁ!

Annex 2- KII Topic Guides

Instructions for Interviewer: After introducing yourself and greetings, explain briefly the purpose of the study, and the importance of the interview. Obtain verbal informed consent to take part in the interview and ask what time would be convenient for them to be interviewed. Then, obtain an appointment for another time, or proceed to the interview, after thanking them for the meeting and providing the following information.

The purpose of this study: is to assess the membership retention performance of the woreda's CBHI scheme in terms of members' willingness to renew their membership, and to explore the existing facilitators and challenges with this regard. Any information you will provide as part of this interview will be held strictly confidential. Any reference to the information you provide in our analysis will be made without mentioning or implicating your name in any way.

Annex 2.1- KII with Woreda CBHI Office and Health Bureau Staff

Date: ________________ Name of Interviewee: __________________________

Organizational position: ________ Time of interview: ____________

1. Although the current coverage of CBHI scheme in Mareka woreda is low (31.7%), how do you describe the status of the scheme in terms of its progress over the years? ***Probe*** - New enrollment vs renewal of membership
   - What are the immediate reasons for this?
2. The CBHI renewal from last year (29.1%) was also low. So, would you tell me:
   - What are the main challenges related to the resistance to renew?

[***Probe in details] -*** *Supply side*: premium price, health services delivery; availability of medicine, "moral hazard" against CBHI members or mistreatment at health facilities, etc.

- *Demand side*: ability to pay, level of understanding, satisfaction, etc.

3. How do you describe the community's perception towards current practices of the CHBI scheme? ***Probe -*** Which practices are perceived positively and which are perceived negatively? Why?

[Probe in details]- (Premium price, benefit packages comprehensiveness, quality of health services and supply of drugs, etc.….)

4. What strategies are currently performed to motivate as well as to implement CBHI renewal? (E.g. awareness creation activities, manner of premium collection, etc.) ***Probe*** – Do you think, these strategy is effective and efficient?
   - How is these strategy (activity) perceived by the community and other stakeholders?
5. What strategies are at place to maintain community engagement/participation in the renewal process and the CBHI scheme in general? (E.g. involving members in CBHI related meetings, and awareness creation campaigns, etc.)
6. How is the price of membership renewal fee (premium) introduced or decided for each year? Is it in a top-down manner or bottom up approach; involving high level of community participation? ***Probe*** - Why do you prefer to follow such approach?
7. Any recommendation to improve and boost the CHBI renewal and the communities' interest to renew?

Annex 2.2- KII with Health Center Head and Staff

Date: ________________ Name of Interviewee: ________________

Occupation: ___________ Time of interview: _____________

1. How do describe the implementation of CHBI based treatment in your Health center? ***Probe*** - What magnitude of patients attending the HC have CBHI membership card?
2. What challenges have you and your team identified related to CBHI based treatment provision?

[***Probe in details]*** – *(*availability of medicine, "moral hazard" against CBHI members or mistreatment by health service providers, benefit packages comprehensiveness, etc.)

3. What part do you and your team/staff play in CBHI renewal process/activities? ***Probe***

- Do you believe your engagement is adequate and with good strategy?
- How well are CHBI renewal activities being performed at HC? And, what is still lacking?

4. What challenges do you think are affecting the CHBI renewal in the district, mainly from the communities' side?

➢ For instance: ability to pay, level of satisfaction from health service provided under the scheme? Drug out stock? Gap between expectation and reality at HC, level of understanding, etc.

5. What do you recommend should further be done (be improved) to boost the willingness of CBHI members' to renew membership and stay in the scheme?

Annex 3- Focus Group Discussion Topic Guide

Instruction for the Moderator: Start by thanking all participants for coming to the meeting. Then explain briefly the purpose of the study and provide the following information.

Information to be provided to the participants: The purpose of this study: is to gather data to assess the membership retention performance of the woreda's CBHI scheme in terms of members' willingness to renew their membership, and to explore the existing facilitators and challenges with this regard. In this group there is no right or wrong answers. Everybody should express the opinions or attitude relevant to themselves. Any information you provide as part of this discussion will be held strictly confidential. And, any reference to the information you provide in our analysis will be made without mentioning or implicating your name in any way.

Date: ______________**No. of Participants: ____Males**: ______**Females: _____**

1. What is the community's perception/attitude towards the current practices of the woreda's CBHI scheme? ***For Instance:***

- Do you believe the amount of premium payment is affordable to the community? What about the timing of premium collection? Is it convenient for the community?
- Is the benefit package (services provided under the scheme) adequate or comprehensive enough to cover the community's health care needs?
- What is the community's perception about the quality of health care received from CBHI contracted facilities?

2. What other factors are affecting CBHI members' willingness to stay in the scheme? Both positively and negatively? ***For Instance:*** scheme related knowledge, premium affordability, perceived quality of health care services?
3. Based on your observations, how willing is the community (enrolled members of the scheme) to renew CBHI membership for the coming renewal period? Starting from yourselves?
4. Finally; what do you recommend for the future to improve CBHI members' willingness to renew their membership?

Thank you for your cooperation!!