



COLLEGE OF MEDICINE AND HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

COMMUNITY-BASED HEALTH INSURANCE MEMBERSHIP
DROPOUT RATE AND ASSOCIATED FACTORS IN BORE
WOREDA, GUJI ZONE, ETHIOPIA: MIXED STUDY DESIGN

BY: YADASA MIRA (BSC)

HAWASSA, ETHIOPIA, 2023

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SCHOOL OF GRADUATE STUDIES

HAWASSA UNIVERSITY ADVISORS' APPROVAL SHEET

This is to certify that the thesis entitled “Community-Based Health Insurance Membership Dropout Rate and Associated Factors in Bore Woreda, Guji Zone, Ethiopia: Mixed Study Design” submitted in partial fulfillment of the requirements for the degree of Master's with specialization in masters of public health (MPH), the Graduate Program of the School of public health, and has been carried out by Yadasa Mira ID. No. GPHSMR/0009/14, under our supervision.

Therefore, we recommend that the student has fulfilled the requirements and hence hereby can submit the thesis to the department.

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We, the undersigned, members of the Board of Examiners of the final open defense by Yadasa Mira have read and evaluated his thesis entitled “Community-Based Health Insurance Membership Dropout Rate and Associated Factors in Bore Woreda, Guji Zone, Ethiopia: Mixed Study Design”, and examined the candidate. This is, therefore, to certify that the thesis has been accepted in partial fulfillment of the requirements for the master’s degree.

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Abbreviations

CBHI	Community-Based Health Insurance
CBHIM	Community-Based Health Insurance Membership
EDHS	Ethiopian Demographic and Health Survey
FMOH	Federal Ministry of Health
HHs	Households
IRB	Institutional Review Board
LMIC	Low- and Middle-Income Countries
MOH	Ministry of Health
OOP	Out-of-pocket-payment
SNNPR	South Nations Nationalities Peoples Region
SPSS	Statistical Package for Social Science
SSA	Sub-Saharan Africa
UHC	Universal Health Coverage
USAID	United States Agency for International Development
WHO	World Health Organization

Abstract

Background: The community-based health insurance program in Ethiopia was introduced in 2011, and 48% of homes were enrolled in June 2015. However, 18% of families that had subscribed in the first year stopped in the second year. While still initial enrollment is crucial, a higher dropout rate threatens the sustainability of community-based health insurance. This also has a negative effect on future enrollment and the magnitude of drop-out rates in addition to reducing the size of the insurance pool. However, there is a scarcity of data on household dropout rates of community-based health insurance coverage and related factors in Bore Woreda.

Objective: Community-Based Health Insurance Membership Dropout Rate and Associated Factors in Bore Woreda, Guji Zone, Ethiopia, 2023.

Method: Community-based cross-sectional study design supplemented by a qualitative method was employed. A total sample size of 502 for the quantitative study, and a purposive sampling for key informants interviewed from scheme officers, kebele managers, health office heads, and health center directors were included. We used a multistage sampling technique to select samples from the Kebeles. Data were entered into SPSS then descriptive analysis and binary logistic regressions were computed. Qualitative data was transcribed and manually analyzed using thematic area analysis.

Result: The magnitude of the dropout from CBHIM was 21.1% with a 95% confidence interval (CI): of 17.5%-25.1%. Number of household family size, \geq six (6) (AOR:0.55, 95% CI: 0.33 - 0.93), annual family income $>$ 25000 (AOR:2.11, 95% CI: 1.26,3.53), the place they usually seek treatment in, private health facility (AOR:0.15, 95% CI: 0.07,0.93) were found to be significantly associated dropout from community-based health insurance. The overall perception towards CBHIM was found to be favorable with 96.6% among the respondents. The theme identified from the qualitative study was “increasing number of new enrollments”, there are dropouts from the scheme. And also “socioeconomic factors like household income and household family size”. The “unavailability of drugs and other medical equipment” was a major complaint for dropping out of the scheme.

Conclusion: The findings from the study showed that dropout is high in the area. Annual family income, household family size, and the place they usually seek treatment were found to be associated with dropout from community-based health insurance. The findings from qualitative also showed that there is a dropout of CBHIM in the community and also suggested that sociodemographic factors like income and family size have effects on membership. As a recommendation, we recommend emphasizing more on availing medications as well as other medical equipment and focusing on bettering health care service quality.

Keywords: Community-based health insurance, Dropout, Bore.

1. Introduction

1.1. Background

Every year, out-of-pocket medical expenses push 100 million individuals into extreme poverty (1). Thus, over the past 20 years, the concept of universal health coverage in which everyone should have access to high-quality healthcare without running the risk of going without or experiencing financial ruin has gained traction. Community-based health insurance (CBHI) has been promoted as an alternative method of financial protection and a way to increase health care access for the underprivileged in nations where governments are unable to subsidize health care coverage and large segments of the population cannot afford to buy formal health insurance (2).

The World Health Organization launched a prepayment financial payment method for healthcare with the goals of risk pooling, avoiding catastrophic and impoverishing health expenditure of people owing to seeking healthcare, and as a result CBHI was introduced which improves resource mobilization to improve health service utilization, quality of life, and decrease out-of-pocket payment (OOP) (3). However substantial percentage of subscribers to CBHI are quitting the program. Additionally, participation in most CBHIs is optional, and members are asked to re-join on a regular basis. Dropping out, which can occur at startlingly high rates of up to 70-80% in some situations, is when members fail to renew their insurance. (4,5)

Despite the significance of initial registration, it is obvious that ongoing membership is necessary for the viability of the program. However, the majority of LMICs frequently face issues with poor enrollment in CBHIs. The dropout rate is very high, according to research that focused on CBHI membership renewal. For example, the dropout rate for community-based health insurance (CBHI) was 49% and 67%, respectively, in the Indian districts of Gujarat and Maharashtra. (6)

Any scheme would be doomed if dropout rates kept rising, as reducing the risk pool would make it more difficult to mobilize resources and result in losses (7). Schemes in low-income and middle-income countries (LMICs) frequently fail to attain suitably high enrolment levels, which is thought to be due to the difficulties of registering and maintaining membership for the less endowed. (8) Dropping out of the program causes those at little risk of getting sick to no longer be included, leaving only those at high risk, which causes the CBHI programs to fail and jeopardizes their long-term viability (9). In many nations, notably those in sub-Saharan Africa, low enrollment, high

dropout rates, and a dearth of participants are compromising the sustainability of this change (SSA). (10)

In Africa, just 2 million, or 0.2%, of the 900 million individuals who would be eligible to join. The membership percentage is less than 10% in sub-Saharan countries, with the exception of Ghana and Rwanda. In 2009, the dropout percentage for three CBHI schemes in Senegal that were created between 1997 and 2001 ranged from 58 to 83%. The biggest contributing factor to dropout rates is knowledge of the low quality of healthcare services (11, 12, 5).

The enrollment rate in the Nouns district of Burkina Faso ranged from 5.2% to 6.3% from 2004 to 2006, respectively. However, the dropout rate was 30.9% in 2005 and 45.7% in 2006, respectively (14). The study conducted in this area revealed that female household heads were more likely to drop out than male household heads to be older or less educated, to have experienced fewer illnesses in the previous three months, to have children or elderly relatives living with them, to have poorer perceptions of the quality of healthcare, to have sought care less frequently in the previous month, and to have a higher dropout rate (13).

Ethiopia's 29.6% population lives below the poverty line, making it one of the least developed nations (14,15). The rest of the world and households, which account for 35% and 31% of total funding for the country's health system, respectively, are major sources of funding (16). These, in turn, put households at risk for catastrophic health costs and have a detrimental impact on people's ability to obtain and use healthcare. (17,18)

Ethiopia implemented a number of healthcare financing reforms, including revenue retention and utilization, the creation of a private wing in public hospitals, systematization of a fee waiver system, standardization of the package of exempted services, and the introduction and expansion of health insurance, all of which were intended to increase the population's access to resources for health as well as protect them from prohibitive user fees or catastrophic spending during illness. (19)

Through the CBHI program, which includes community members engaged in informal work in both rural and urban regions, the Ethiopian government began to address the issues associated with OOEPE. The program was launched by Ethiopia's Federal Ministry of Health (FMOH) in conjunction with USAID, Abt Associates, and CARE Ethiopia. It is a component of the

government's larger healthcare financing reform strategy, which aims to improve the quality and accessibility of healthcare services by identifying alternative healthcare resources (19).

CBHI program evaluation in Ethiopia revealed that the risk of poverty due to OOP health expenditures was 7% for CBHI members and 19% for non-members at the 15% threshold of non-food expenditure, and the per capita health service utilization rate of CBHI members was 0.7 visits/person as opposed to the overall outpatient department utilization rate of the country which was 0.3 visits/capita. (21) (22)

1.2 Statement of problem

Around 200 million people globally experience financial difficulties each year as a result of OOP for medical services (26,27). However, the World Health Organization (WHO) advised the OOP payment at a level of less than 15 to 20% of the overall health-care spending in order to reduce the cost of catastrophic health care to negligible levels. Additionally, the WHO announced the universal health coverage (UHC), a global initiative to provide everyone with access to affordable health services. As a result, the community-based health insurance (CBHI) program has been backed as a workable plan for protecting the underprivileged in developing nations from the crippling cost of paying for medical care (28,29).

The implementation of the CBHI system in LMIC health care financing enhanced health care seeking behavior, drug availability, and service quality by mobilizing resources in public health facilities (30). However, the CBHI scheme's ability to keep members is vital to its long-term stability, and a high rate of CBHI scheme membership discontinuance remained the obstacle to progress toward universal financial protection in LMIC (31).

According to recent research, the CBHI program is successful even in low- and middle-income nations. However, in several sub-Saharan African nations, the CBHI program has had trouble being implemented effectively due to low adherence rates, poor resource mobilization, and poor sustainability (32). While low renewal rates appear to be the norm, the CBHI scheme in Ethiopia stands out because it has a dropout rate of only 18% (24).

The enrollment rate of the 13 Woreda first-pilot programs in Ethiopia is 48% (41% payers and 7% fee waivers). And the CBHI dropout rate is 18%, with the costs of the premiums and the expected benefits from the insurance cited as the primary reasons (24).

By 2020, CBHI sought to reach 80% of Ethiopia's districts and enroll at least 80% of eligible households (23). However, the overall enrollment at the national level was 48% in 2013 and 36% in 2017, respectively. (21,24)

Bore woreda is one of the woredas that are implementing a community-based health insurance scheme. According to the woreda health office, the scheme began in 2018 with enrolment encouraging enrollment of 42% percent. However, over the years, according to the health office, the enrollment rate has decreased.

While still initial enrollment is crucial, a higher dropout rate threatens the sustainability of community-based health insurance (CBHI). Because it worsens the current issue and has a negative effect on future enrollment and drop-out rates in addition to reducing the size of the insurance pool (33).

1.3 Significance of the study

Even though community-based health insurance is becoming more popular in Ethiopia, few studies have looked at household participation and the factors that influence whether or not families decide to continue their coverage. For Ethiopia's health insurance industry to thrive, it is essential to comprehend these issues. The purpose of this study is to investigate household dropout rates of community-based health insurance coverage and related factors in Bore Woreda and so that the CBHI Scheme and Bore Woreda Health Office will use the study's findings to keep current members, mobilize new members, and make it possible for dropped-off members to re-enroll in the program. In addition, the study will add information that could be useful to policy makers and health professionals on CBHI.

2. Literature review

2.1 Magnitude of community-based health insurance dropout rate

Studies on the renewal of membership in three community-based health insurance schemes in India found that knowledge of the program is more strongly associated with staying in the program than socioeconomic position (4).

Only 2 million of the 900 million people in Africa who are eligible for community-based health insurance (CBHI) membership have enlisted, or 0.2% of the population (11). According to a study of 580 community-based health insurance (CBHI) programs, 95% of them had less than 1000 members and barely cover 10% of the population (5). Except for Ghana's enrollment rate of 34% and Rwanda's cap of 10%, the survey conducted in sub-Saharan nations also reveals (34).

Ethiopia began its CBHI program in 2011 with 13 piloted woredas. More than 1.6 million people were covered by the pilot woredas, 90% of whom qualify for the CBHI program. In the piloted woreda, 46% of the eligible population signed up for the program, according to a 2015 report by the Abt organization. The 48% membership rate was shown by a longitudinal assessment of penal data on piloted woreda. 41% of these members paid membership dues, and 7% received fee waivers under the program (24).

In contrast to the 2020 goal of 80% coverage, the national CBHI enrolment coverage in 2020 was 50%. Four developed regions and the nation's capital hold the majority of these CBHI woreda. Difficulty for Ethiopia's low enrollment rate has been membership dropout (21).

2.2 Factors associated with dropout of CBHI utilization

According to the study made in different part of Africa, CBHI dropout is influenced by a variety of factors that vary in importance and dimension. According to a review of the research, there are four major groups of factors that influence the dropout rate of CBHI enrollment. These include the price of the insurance plan, the poor quality of treatment that may be obtained through it, the state of people's health, and informational shortcomings, such as a lack of knowledge about insurance in general and insufficient instructions on how to utilize the insurance plan. (35)

There are, however, two West African outliers. A community-based health insurance (CBHI) program that had been running for three years in Burkina Faso was the subject of one quantitative analysis. The program's dropout rate ranged from 30.9 to 45.7%. The study only looks at

demographic, economic, and health-related indicators, and it concludes that female household head, older age, lower education, fewer illness episodes, fewer children or elderly in a household, poor quality health care, fewer people seeking care, higher household spending, and closer proximity to the contracted health facility are all associated with higher drop-out rates (13). And the second piece is a qualitative investigation from Guinea-Conakry, where CBHI population coverage decreased from 8% of the target population to roughly 6% the following year. Poor care quality and inability to pay the premium were the main causes of non-enrollment and dropout (13, 36).

According to a longitudinal household survey data gathered in 2012 and 2013 to examine dropout in the case of Ethiopia's pilot CBHI scheme, it has revealed that in a year following the program's launch, enrollment increased from 41% to 48%. A remarkable 82% of first-year enrollees renewed their subscriptions, while 25% of those who had not signed up did so. And also, the study has revealed lower dropout rates are connected with higher socioeconomic position, better knowledge of health insurance, and experience with and knowledge with the CBHI program. (24)

Another study on the factors influencing dropout rates in Jimma, Ethiopia, cites the following characteristics as having a significant impact on the amount of CBHI dropout among households in the Manna area, which was determined to be 31.9% after five years of operation. According to the study, factors such as the head's age, education levels, the size of the household, the perceived quality of service, the provider's attitude toward CBHI members, and trust in the contracted health facility were all associated with dropout. (37)

Socio-demographic factors

Numerous researches carried out in various places indicate that socio-demographic traits have an impact on CBHI dropout. A study conducted in Burkina Faso revealed that factors that lead to high dropout rates are similar to those that lead to low enrollment. Female household head, higher age or lower education of a household head, lower range of number of illness episodes in the past three months, less children or elderly in a household, poor perceived healthcare quality, and less seeking care in the past month all had a positive impact on dropout, and quality of care is a key factor influencing this outcome (13).

Based on the study done in Jimma zone, Southwest Ethiopia, socio-demographic characters like; the odds of dropping out of CBHI reduced by 74% among household heads aged 51 or older compared to those aged 18 to 30 years, indicating that the age of the household head had a major impact on this outcome. In the case of educational Compared to homes who couldn't read or write, households with elementary, secondary, and higher educational levels were 68% and 86% less likely to drop out of CBHI, respectively. The size of the household's family was also shown to be strongly related to CBHI dropout in this study. (37)

Health and health related factors

Health and health related factors are among the factors to affect the dropout rate from CBHI. Compared to dropout homes, member households had nearly twice as many people with disabilities and were twice as likely to have experienced an illness, accident, or injury. They were more than twice as likely as dropout members to live close to a health care provider (36). And according to study done in Burkina Faso, the likelihood of a household leaving CBI was lower in those with more illness episodes over the previous three months and higher health care use over the previous month (13). A study conducted recently in Senegal revealed that persons who dropped out were less likely to actively participate, trust management, or support the concepts of risk-sharing. On the other hand, those who continued to participate actively were more likely to experience illness episodes and drop out (5).

In study done to examine dropout of Ethiopia's pilot CBHI scheme, it was found that despite the fact that self-reported health status had no effect on contract renewal, recent episodes of chronic illness and, in particular, the usage of the CBHI card to access health services, had a significant impact. (24)

Quality of health service related factors

According to studies, worries about the standard of care also have a significant role in people's decisions to leave CBHI. This is supported by research on dropout in Burkina Faso, which shows that household heads are less likely to decide to stop their household's participation in CBI if they have a positive opinion of the quality of the care available (13). Another study conducted in Ghana found that members were three times more likely than dropout members to believe that access to healthcare is a perk of membership. Additionally, had a considerably higher propensity to say that the caliber of healthcare professionals was adequate. Compared to half of dropout members, three

quarters of members thought that the quality of care provided by all the providers contracted by the plan was good, and rates of active involvement were between 20% and 65% for members and between 8% and 48% for dropout members (35).

According to a study on the CBHI pilot program in Ethiopia, the majority of families (62%), despite the fact that this percentage does not change depending on whether the contract is up for renewal, believe that the care being provided is of poor quality. The focus group discussion also revealed that a number of participants felt that health professionals do not treat insured workers fairly. (14). The research in Ethiopia's Jimma zone also shown that CBHI program dropout is influenced by the perceived quality of the service. In comparison to other homes, those whose perception of the quality of the service was bad had a nearly 6-times higher likelihood of dropping out of the program. (37)

Awareness of CBHI related factors

Various research offers varying explanations for the effects of CBHI awareness on program discontinuation. The study on the Ethiopian pilot scheme reveals that, among them, the lack of knowledge about the specifics of how the CBHI scheme functions was the single most important reason for leaving out, despite the number of meetings attended and the high percentage of accurate answers. The qualitative data shows that although there is a general grasp of the function of CBHI, details about the benefit package, referral system, and claim reimbursement are not well recognized. Also, compared to the non-dropout group, the household heads in the dropout group had much less education. (14)

However, the awareness and attitude toward CBHI showed no statistically significant difference between respondents who had renewed and dropped out of CBHI, according to a study about the factors that influence dropout rate that was carried out in Ethiopia's Jimma zone. Unexpectedly, regardless of the individual membership status, there was a high degree of understanding of CBHI and a positive attitude toward CBHI plan. (37)

2.3 CONCEPTUAL FRAMEWORK

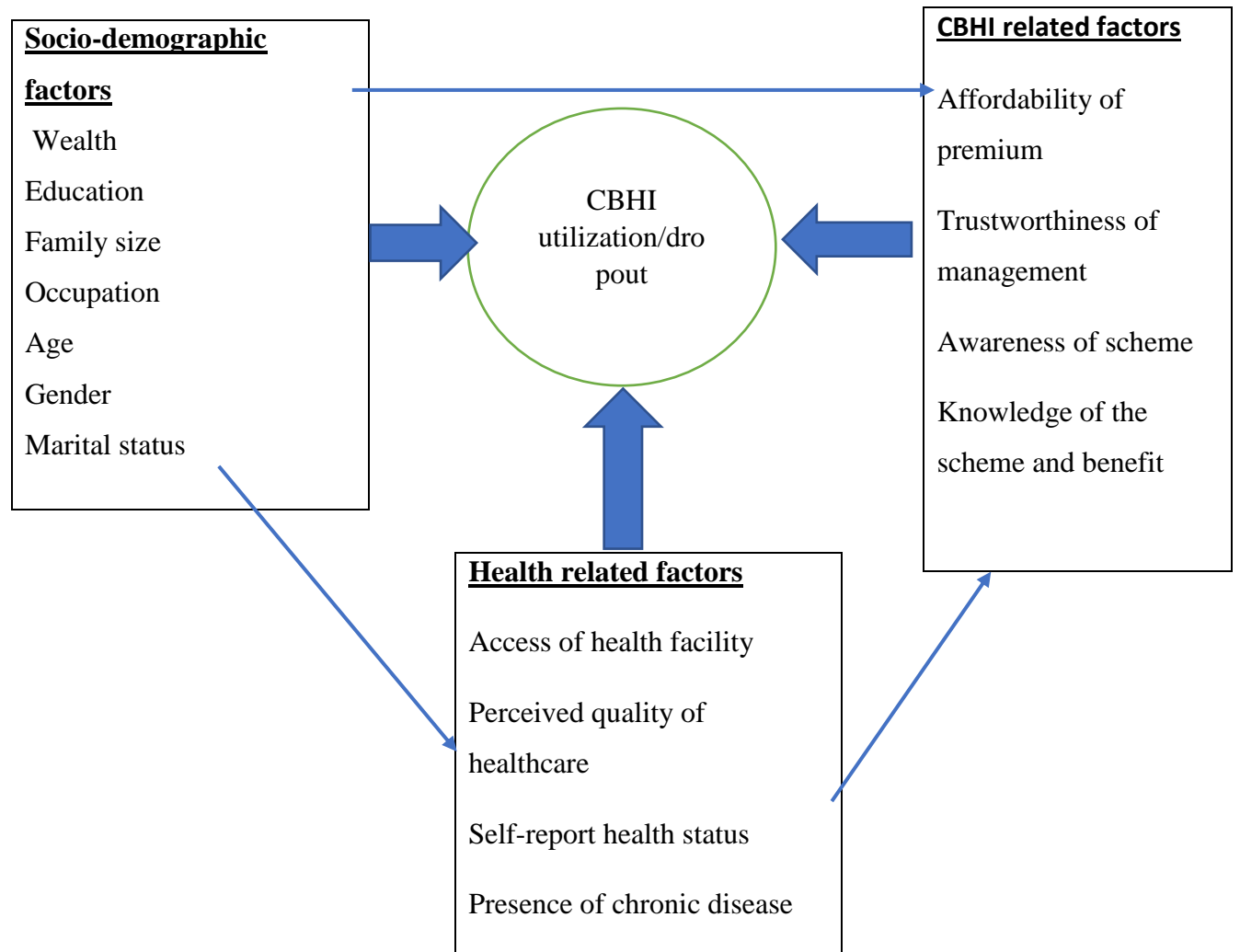


Fig 1: Conceptual framework on CBHI utilization/dropout

Conceptual framework on Bore Woreda's community-based health insurance utilization/dropout and related determinants, adjusted in accordance with this study's objectives, adopted from a research article (37).

3. Objectives

3.1 Objective

- To assess community-based health insurance membership dropout rate and associated factors in Bore Woreda, Guji Zone, Ethiopia, 2023

3.2 Specific objectives

- To determine the drop-out rate of community-based health insurance membership in Bore Woreda, Guji Zone, Ethiopia, 2023
- To identify factors associated with dropout rate from community-based health insurance utilization membership in Bore Woreda Guji Zone, Ethiopia, 2023.
- To assess community's perception about community-based health insurance membership utilization in Bore Woreda, Guji Zone, Ethiopia, 2023

4.0 Methods and materials

4.1 Study area and period

The study was conducted in the Bore woreda, one of the woredas in the Guji Zone of the Oromia region. It is located 123 kilometers from Nagelle town, the zone's capital, and 450 kilometers from Addis Abeba, the country's capital. Its southern border is formed by Ana sora woreda, its western border by Uraga woreda, and its northern and eastern borders are formed by the Sidama region.

There are 179,801 people living in this Woreda in total, 91,539 of them male and 88,262 females. The Woreda is inhabited by 37,459 households and 34 kebele, of which 3 are urban and 31 are rural. It has 6 governmental health centers, 1 primary hospital, 33 health posts and 10 private clinics and all of the governmental health institutions give CBHI service. Most of the population's main source of income is agriculture with Wheat, Maize, Barley and Enset being the main production and they are also semi-pastoralist in some part. As a result, they generate their income by selling agriculture outputs and livestock. The community-based health insurance program has been in place in Bore Woreda since 2018. (38)

The study was conducted from February 06 2023-May 05 2023.

4.2 Study design

Community-based cross-sectional study design supplemented by qualitative method was employed.

4.3 Source population

All CBHI members who have enrolled in the Bore Woreda and received CBHI program services were the source population of this study.

4.4 Study population

CBHI members who were randomly selected that meet inclusion criteria of the study were the study population

4.4.1 Inclusion criteria

Individuals who were members of community-based health insurance (CBHI) but have since dropped out, and those who renewed their membership for at least 1 year.

4.4.2 Exclusion criteria

New members of community-based health insurance during the time of data collection or those of which enrolments are less than a year and also those households who are still users of fee waivers of scheme

4.5 Sample size determination

The sample size was determined by using a single population proportion formula considering the following assumptions;

$$n = \frac{\left[\frac{Z\alpha}{2}\right]^2 p(q) D}{d^2} = \frac{(1.96)^2(0.32)(0.68)(1.5)}{0.05^2} = 502$$
, where: n=sample size, $Z\alpha/2$ =standard score for 95% confidence level (1.96), P=32% proportion of dropout was taken from a study conducted on CBHI dropout in Jimma, Ethiopia (37), d=5% margin of error, D=a design effect of 1.5 and, adding a 10% non-response rate, the final sample size was determined to be 502.

Table 1: Sample size determination for associated factors.

No	Factors	Assumptions	Sample size
1	Health and health related	CI= 95%, D=5%, p=13.2% from study in Jimma (37)	264
2	Quality of health service	CI= 95%, D=5%, p=23.4% from study in Jimma (37)	413
3	Awareness of CBHI	CI= 95%, D=5%, p=7.6% from study in Jimma (37)	162

- So, the maximum sample size which is 502 was taken instead of the others, because it increases the power of the study so that to detect the difference or effect that exists.

4.6 Sampling technique

Sampling technique for the quantitative

Multistage sampling technique was used. Bore Woreda have 4 urban and 31 rural Kebeles and we have selected one urban and nine rural kebele by using simple random sampling after stratification. After this, based on the number of enrolled households in each of the kebeles, the computed sample size was distributed proportionally to each of them and the study participants were selected using simple random sampling method after the list of households in the kebele is obtained.

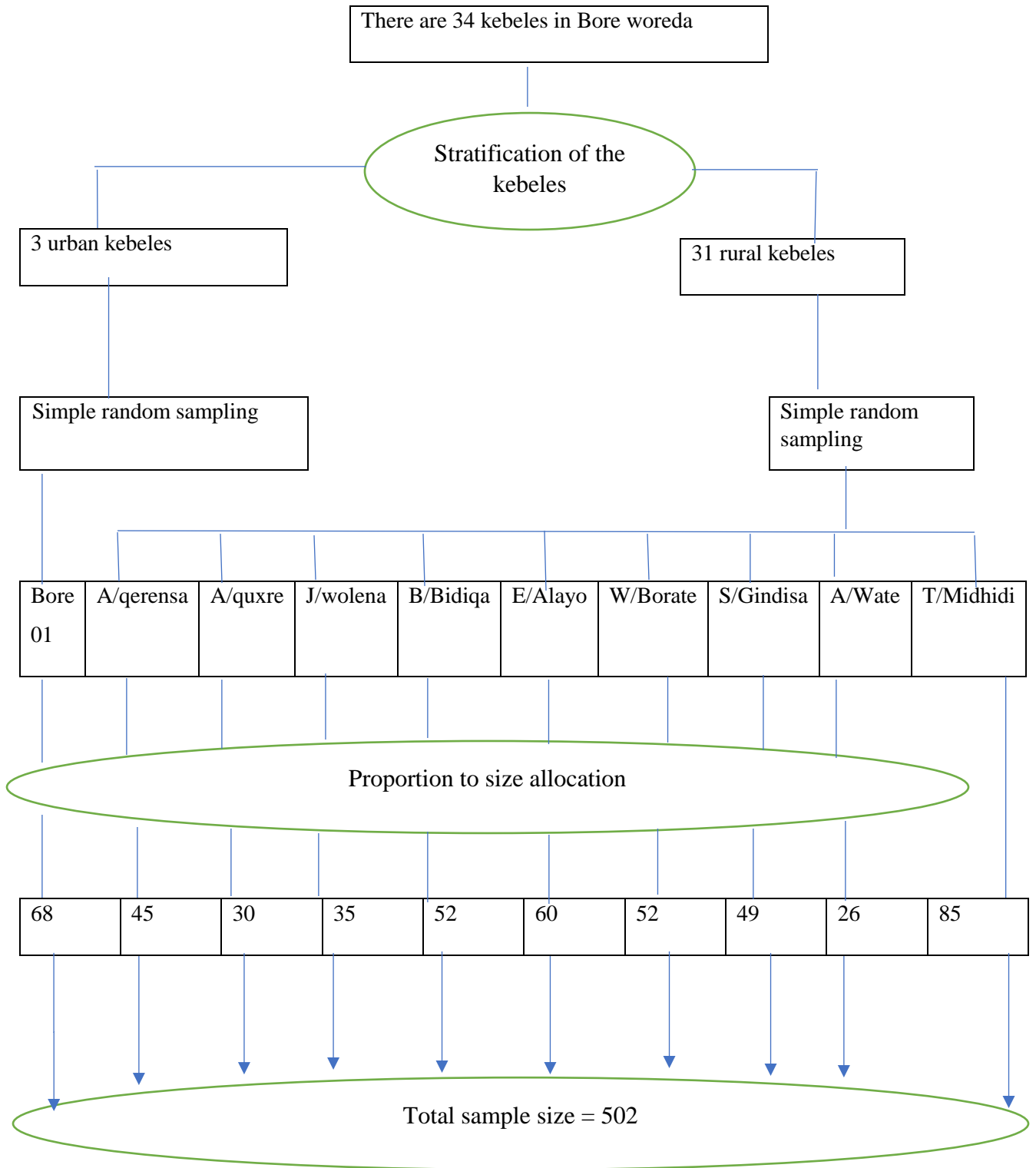


Figure 2: Schematic presentation of sampling method to assess the community-based health insurance membership dropout rate and associated factors in Bore woreda, Guji zone, Ethiopia, 2023.

Sampling technique for the qualitative

Purposive sampling was used for the qualitative study in order to obtain additional and more detailed information about the issue at hand. The type of purposive sampling used was maximum variable sampling, selecting participants in order to represent a wide range of characteristics or perspectives as well as capture a diverse range of experiences or viewpoints. This was accomplished by conducting 7 in-depth interviews with head of Bore woreda health office, Bore woreda CBHI coordinator, 2 kebele managers, 1 health center directors and 2 household heads. By looking for recurring themes, ideas, or perspectives that are consistently expressed by multiple respondents, interviews were conducted until theoretical saturation was achieved.

4.8 Data collection procedures

An interviewer-administered structured questionnaire was used for the quantitative investigation that was adapted from related literature to obtain relevant information. (37) It contains three parts, the first part contains socio-demographic characteristics, the second part questions related to CBHI utilization and the third part contains health and health related variables, while open-ended, in-depth questions was used for the qualitative study to elicit extra information that is not covered by the questioner.

The questionnaire was prepared in English and then translated in to Afan Oromo (local language of the study area) and reared into English and was checked for reliability.

The data interview-administered structured questionnaire was first uploaded to the KoBo tool box server and then distributed to the data collector's smartphones after that collection was done by using KoBo collect app on the data collectors' smart phone, which they were thoroughly trained on before going to the field.

For the qualitative study a semi-structured in-depth interview with 7 key informants (KIs) was conducted. The interview guide was developed based on the initial literature review. The participants were selected from woreda level health office, kebele level managers, primary health care unit and members of CBHI in the community. All interviewees consented to be tape recorded and recordings were transcribed. Both face to face interviews through assuring of privacy during the interview, access to private room within the woreda health office was arranged and also interview via cell phone was conducted. The interviews lasted from 12 to 37 minutes.

4.9 Study variables

4.9.1 Dependent variable

Dropout from community-based health insurance membership. (yes, no)

4.9.2 Independent variable

Socio-demographic factors: Age, household family size, education, occupation, marital status, annual income.

CBHI related factors: awareness of the CBHI, knowledge on CBHI, affordability of premium and trustworthiness in scheme management.

Health related factors: household members self-reported health status, accessibility of health care facility, perceived quality of health care, presence of chronic disease in household members.

4.10 Operational definition

Community based health insurance: one segment of health insurance initiated by government to serve communities engaged in informal sector. (24)

Member: households join to CBHI by paying the pre-set contribution and receive the scheme identification card Household: head of the family. (24)

Dropout: Households that used to have CBHI but were not enrolled at the time of the study will be classified as dropouts. (24)

Renew: Households who had CBHI for more than 1 year and who were still enrolled at the time of the survey. (37)

Perception of CBHI membership utilization: Refers to respondents' views about the overall utilization and membership of CBHI. It was measured by a total of 4 questions with five-Point scale questions and respondents' answers were allocated according to the score 1–5 for each item (1=strongly disagree, 2=disagree, 3=neither agree or disagree, 4=agree, and 5=strongly agree). Then responses of each item were summed up to get the total scores for overall and each subscale. The overall and subscale summed scores were, then, categorized into high and low levels perception by using cut-off values calculated by a demarcation threshold formula. (43)

$$\text{Cut – off value} = \frac{\text{Total highest score} - \text{Total lowest score}}{2} + \text{Total lowest score}$$

High perception: Study groups that scored above the cut-off on CBHI perception questions.

Low perception: Study groups that scored below the cut-off value on CBHI perception questions.

Benefit package: expected returns from the insurance.

4.11 Data analysis procedure

The collected data by using the KoBo collect app was checked on the KoBo tool box server every night during the data collection and backing up was also done. At the end of data collection day, the collected data was checked and imported to SPSS version 27 for analysis. Out-of-range and missing values were checked by examining the frequency distribution of the variable.

The model fitness was checked by Hosmer Lemeshow's goodness of fit test before the regression analysis.

To assess magnitude of dropout rate, descriptive analysis was used. Two-step (bivariate and multivariable) logistic regressions analysis was done to assess associated factors on dropout rate from community-based health insurance. In the first step, a bivariate logistic regression was performed to examine the relationship between each independent variable and the outcome individually. The independent variables with a p-value less than 0.25 was considered significant and were included in the second step of the analysis.

In the second step, a multivariable logistic regression was performed to examine the combined effect of the significant variables on the outcome, while controlling for the effects of other predictors. The analysis used a 95% confidence interval and a p-value less than 0.05 with 80% power.

The obtained qualitative data was transcribed and manually analyzed using thematic area analysis. This was done initially by coding the interviews and then organizing of the emerging themes according to patterns and similarities that are observed. Totally five themes were observed; current trends and status of community-based insurance and its dropout: reasons revealed, measurements/strategies used to handle the problems with membership, perception on socio-economic factors that affect membership dropout: income, family size and age, perception on whether the service

given to members and non-members is similar, and perception towards benefit package meeting community requirements

4.12 Data quality management

To attain data quality, the questioner was pre-tested on 5% of the sample size that is 25 households, in non-selected adjacent kebele called Suta, the data was also be checked for completeness, accuracy, and those find missing in addressing important variables like the outcome and other important variables were discarded. The data collectors were trained on the data collection process, accuracy and completeness. The data collected using KoBo collect app was daily uploaded by the collectors and missing values as well as other inconsistencies were checked by the PI. The data was stored in a secure place for confidentiality and in time when the data is need for a backup of the data.

4.13 Ethical consideration

The data collection was started after ethical clearance letter was obtained from Hawassa University college of health Sciences institutional review board (IRB), and support letter was obtained from Guji zone Health Bureau and Bore Woreda CBHI scheme. A formal letter of cooperation from the woreda CBHI program was delivered to every kebele, and each participant was allowed the opportunity to give their verbal consent after being informed of the study's objectives. Participants were informed that participation is voluntary, they had full right to refuse from participation or withdraw from the study at any time they want, without losing any of their right not force to stay in study and individual confidentiality is secure.

4.14 Data dissemination

The Bore Woreda Health Office, the Oromia Regional Health Bureau, the Bore Woreda Administrative Office will receive the final study report, and the Hawassa University College of Health Sciences, School of Public Health will receive both a physical copy and an electronic copy of the final thesis.

5. Results

5.1 Quantitative results

Socio-demographic characters of the respondents

A total of 502 households were included in the study with a response rate of 100%. The mean age of the respondents was 43.12 years, ranging from 20-80 years with a standard deviation of 11.23 years. Three hundred and eighty (75.7%) of respondents were males. About 88.4% (444) of the respondents were married. Orthodox and Protestant Christians constitute more than 95% of the participants 480 (95.7%). The majority 406 (80.9) of the respondents were Oromo in ethnicity. Regarding the educational status of respondents, 115 (22.9%) had primary education and 224(44.6%) could read and write. About 54.6% (274) percent of the respondents were farmers and 29.3% (147) were merchants. According to the study's participants' yearly income, 192 households (38.2%) had an annual income of at least 25,000 birr, while 310 (61.8%) had an income of less than that amount. The respondents had 1 to 15 household family size ranges with mean of 6.58 and 2.41 standard deviations (Table 2).

Table 2: Socio-demographic characteristics of the study participants on assessment of CBHI dropout rate and associated factors in Bore woreda, 2023 (n=502)

Variables	Category	Dropout		Frequency	Percent (%)
		Yes	No		
Sex	Male	303(60.4%)	77(15.3%)	380	75.7
	Female	93(18.5%)	29(5.8%)	122	24.3
Age	20-35	72(14.3%)	30(6%)	102	20.3
	36 and above	324(64.5%)	76(15.1%)	400	79.7
Marital Status	Single	1(0.2%)	0	1	0.2
	Married	362(72.1%)	82(16.3%)	444	88.4
	Divorced	7(1.4%)	5(1%)	12	2.4
	Widower/windowed	26(5.2%)	19(3.8%)	45	9
Religion	Orthodox	38(7.6%)	22(4.4%)	60	12
	Muslim	11(2.2%)	4(0.8%)	15	3
	Protestant	341(67.9%)	79(15.7%)	420	83.7
	Others	6(1.2%)	1(0.2%)	7	1.4
Ethnicity	Oromo	331(65.9%)	75(14.9%)	406	80.9
	Amhara	18(3.6%)	13(2.6%)	31	6.2
	Tigre	0	0	0	0
	Others	47(9.4%)	18(3.6%)	65	12.9
Educational Level	Unable to read and write	40(8%)	13(2.6%)	53	10.6
	Able to read and write	180(35.9%)	44(8.8%)	224	44.6
		95(18.9%)	20(4%)	115	22.9

	Primary education	67(13.3%)	26(5.2%)	93	18.5
	Secondary education	14(2.8%)	3(0.6%)	17	3.4
	College and above				
Occupation	Farmer	231(46%)	33(6.6%)	264	54.6
	Daily labor	30(6%)	7(1.4%)	37	7.4
	Merchant	103(20.6%)	44(8.8%)	147	29.3
	Other	32(6.4%)	12(2.4%)	44	8.8
Annual Family Income	≤25000	258(51.4%)	52(10.4%)	310	61.8
	>25000	138(27.5%)	54(10.8%)	192	38.2
Number of Family Size	≤5	111(22.1%)	54(10.8%)	165	32.9
	>5	285(56.8%)	52(10.4%)	337	67.1

The magnitude of CBHIM dropout rate

The magnitude of CBHI dropout in Bore Woreda, since it started back in 2018, was found to be 106 (21.1%), 95% CI=17.5%-25.1%.



Figure 3: Community-based health insurance status among households in Bore woreda, Guji Zone, Ethiopia, 2023.

Those households who dropped out from CBHI gave different reasons why they chose not to proceed with utilizing the scheme. Some of the reasons were the unavailability of medicine and other medical equipment for 45 (42.45%), low quality of health care service for 34 (32%), and illness and injury does not frequently occur in our household for 14 (13.2%) of the respondents.

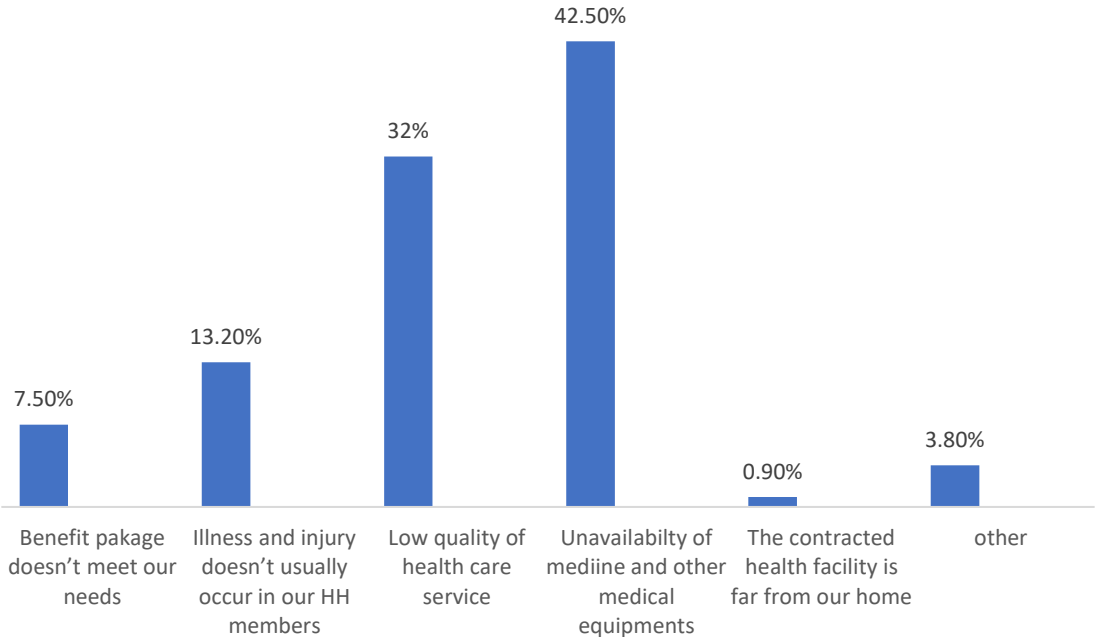


Figure 4: Single most common reason for dropping out from community-based health insurance in Bore woreda, Guji Zone, Ethiopia, 2023.

And households that did not drop out or those that renewed 396 (78.9) gave different reasons why they chose to continue with CBHI. Among the reasons they gave, the first one was that the benefit package of CBHI was good and they benefitted from it in 137 (34.6%) followed by the perception of good quality of health care service in 119 (30%).

Perception about community-based health insurance utilization among the community

In regard to the perception of community-based health insurance utilization among the community, a majority of the study group 286(57%) perceive the CBHI registration fee as affordable for their household while a very small portion of the study group 7 (1.4%) disagrees with the perception that the CBHI registration fee is affordable and a significant portion of the group 209 (41.6%) does not have a strong opinion about the affordability of the CBHI registration fee saying the neither agree nor disagree. Perception in the case of trustworthiness of CBHI management officials, majority of the respondents 359(71.5%) perceive the CBHI management officials as trustworthy while a small portion of the study group (6.0%) does not perceive the CBHI management officials as trustworthy. And in the case of regular CBHI contribution (premium) is affordability a majority of the study group 344(68.5%) perceive the CBHI regular contribution as affordable for their household while a very small portion of the study group 5(1.0%) disagrees with the perception that the CBHI regular contribution is affordable. Also, in regard to whether the timing or time interval of premium payment is convenient for their household, the majority of the households 477(95%) perceive the payment schedule as convenient while a small percentage of the study group 25(5.0%) disagree with the perception that the timing or time interval of premium payment is convenient.

Table 4: Respondent’s perception about community-based health insurance membership utilization in Bore Woreda, Guji Zone, Ethiopia, 2023.

The CBHI registration fee is affordable for my household.		
	Number	Frequency
Agree	172	34.3
Disagree	6	1.2
Neither agree nor disagree	209	41.6
Strongly agree	114	22.7
Strongly disagree	0	0
The CBHI management officials are trustworthy.		
Agree	260	51.8
Disagree	20	4.0
Neither agree nor disagree	113	22.5
Strongly agree	99	19.7
Strongly disagree	0	0
The CBHI regular contribution (premium) is affordable for my household.		
Agree	217	43.2
Disagree	5	1.0
Neither agree nor disagree	153	30.5
Strongly agree	127	25.3
Strongly disagree	0	0
The timing/time interval of premium payment is convenient for my household		
Agree	477	95.0
Disagree	25	5.0
Neither agree nor disagree	0	0
Strongly agree	0	0
Strongly disagree	0	0

Overall, almost all of the respondents (96.6%) had a high perception of community-based health insurance utilization.

Factors associated with dropping out of community-based health insurance utilization

This study identified the factors that are associated with dropout from CBHI using multivariable logistic regression. The binary logistic regression analysis showed that factors such as sex, occupation, household family size, annual family income, perception of CBHI related factors, accessibility of health care services, and preferred treatment location had a significant impact ($p < 0.25$) on the services provided under the CBHI scheme.

After conducting the binary logistic regression and determining those who had a preferable p-value (<0.25), the multivariate logistic regression model was computed to control confounders. Then, the finding showed that the number of family members, annual family income, which health facility they get treatment in when a family member gets sick were found significantly associated with dropout.

Households who have greater than five family size were 45% less likely to dropout from CBHI as compared to households who have less than and equal to five family size [AOR:0.55, 95% CI: (0.33, 0.93)]

In the case of annual income, those households who had more than 25,000 annual income are 2.11 times more likely to drop out than those who had lesser income than 25,000 [AOR:2.11, 95% CI: (1.26 – 3.53)].

The study also revealed that households who get treatment in private health facilities when they get sick are 85% more likely to drop out from community-based health insurance than those who get treatment in public hospitals [AOR:0.15, 95% CI: (0.07-0.30)] and those households who get treatment in public health center when they are sick are 46% more likely to drop out than those who get treatment in public hospitals [AOR:0.54, 95% CI: (0.32-0.94)].

Table 3: Factors associated with dropout from community-based health insurance in Bore woreda, Guji Zone, Ethiopia, 2023.

Variables	Category	Dropout		COR (95% CI)	AOR (95% CI)
		Yes	No		
Age (In Year)	20-35	72(14.3%)	30(6%)	1.78(1.08,2.91)	0.68(0.37,1.23)
	>36	324(64.5%)	76(15.1%)	1	1
Sex	Male	303(60.4%)	77(15.3%)	1	1
	Female	93(18.5%)	29(5.8%)	0.82(0.50,1.33)	0.78(0.42,1.37)
Occupation	Farmer	231(46%)	33(6.6%)	2.02(0.97,4.21)	1.62(0.50,5.23)
	Daily labor	30(6%)	7(1.4%)	1.61(0.56,4.47)	1.31(0.56,3.05)
	Merchant	103(20.6%)	44(8.8%)	0.88(0.41,1.87)	1.00(0.43,2.35)
	Other	32(6.4%)	12(2.4%)	1	
Annual Family Income	≤25000	258(51.4%)	52(10.4%)	1.93(1.25,2.98)	2.11(1.26,3.53)**
	>25000	138(27.5%)	54(10.8%)	1	1
Number of Family Size	≤5	111(22.1%)	54(10.8%)	0.36(0.24,0.58)	0.55(0.33,0.93)**
	>5	285(56.8%)	52(10.4%)	1	1
Where do you get treatment?	Private HF	20(4%)	28(5.6%)	0.12(0.06,0.23)	0.15(0.07,0.30)**
	Public HC	86(17.1)	30(6%)	0.47(0.28,0.80)	0.54(0.32,0.94)**
	Public hospital	290(57.8%)	48(9.6%)	1	1
The CBHI registration fee is affordable	Agree	127(25.3%)	46(9.2%)	0.62(0.40,0.95)	0.71(0.43,1.18)
	Disagree	269(53.6%)	60(12%)	1	1

The CBHI management officials are trustworthy.	Agree	276(55%)	83(16.5%)	0.64(0.38,1.06)	0.62(0.34,1.15)
	Disagree	120(23.9%)	23(4.6%)	1	1
The CBHI regular contribution (premium) is affordable.	Agree	266(53%)	78(15.5%)	1.36(0.84,2.20)	0.66(0.37,1.20)
	Disagree	130(25.9%)	28(5.6%)	1	1
Overall perception	High perception	381(75.9%)	104(20.7%)	0.49(0.11,2.11)	
	Low perception	15(3%)	2(0.4%)	1	

Note: 1: reference; HC: Health center; **: Statistically significant

5.2 Qualitative results

A total of 7 key informants have participated in the in-depth interviews. All of the key informants were male and within the age range of 25-45. Concerning their place of work, they were head of the Bore Woreda health office, the Bore Woreda CBHI coordinator, 2 kebele managers, 1 health center directors and 2 household heads.

The qualitative data was coded, categorized and thematized from the perspective relating to the utilization of Community-based health insurance, dropping out of the scheme, and perception of membership utilization. As a result, five main themes were identified accordingly.

Current Trends and Status of Community-Based Insurance and its Dropout: Reasons Revealed

Most of the respondents believe since it commenced in 2010 enrollment has increased every year as they suggested could be due to the implementation of CBHI being the high focus area for the government and also due to collaboration with other sectors in order to achieve the goal of enrolling as many new members as possible.

“I have worked in the health center for more than 3 years as a director of the PHCU, so when we see the trend of CBHI membership, it has increased in the past years than when we initially began. We started at 42% but now around 73% of the households in my PHCU are members owing to the increase in awareness among the community due to the high focus from the government on the implementation of CBHI. There is also collaboration with other sectors to make sure the goal of enrolling new members is assured. ” (In-depth interview with PHCU director)

Another respondent also added that there is an increase in new enrollments in comparison with the first year of enrollment as they said they have achieved majority of what was planned.

“We have tried to enroll as many households as possible, by the year 2010 when we started the service, 12,000 households enrolled in community-based health insurance. It has now been 5 years since we started it. As if last July, we had an enrollment plan of 29,966 households, this year 16,000 households were made members of the CBHI, it is now being implemented in 10 health facilities.” (In-depth interview with Head of Bore Woreda health office)

However, they have also addressed that even though there are new enrollments, some of the households have dropped out of the scheme or did not renew. The major reasons suggested by the respondents for the dropout were the unavailability of drugs prescribed and the inadequate number of health professionals.

“Of course, some members dropped out/ discontinued, and one of the major reasons was that they had the impression they would get all services in the health facility because they paid. But they mostly don’t get the drugs they were prescribed, as a result forcing them to buy from other private drug stores.” (In-depth interview with Head of Bore Woreda health office)

The unavailability of the drug as suggested by interviewees was due to incompatibility between the demand from the vast population and the low budget supply from the government. Even the allocation of government supply in addition to what the health center buys doesn’t seem to meet the required amount by the community.

“To be frank, I don’t exactly know the proportion but it was around 20% who have discontinued the CBHI. And the reason they suggested was the unavailability of drugs. The government allocates 300,000-birr worth of drugs and they will be out of stock within a week. The health center purchases quarterly but the drugs may run out within less than 3 months and also Another reason for development was the lack of a sufficient number of health professionals leading to frustration from both users and health professionals.” (In-depth interview with PHCU director)

Measurements/ strategies used to handle the problems with membership

According to the respondents, in regard to the problems leading up to community-based health insurance dropouts- unavailability of drugs and insufficient health professionals, different measures were taken and are still being carried out. The measures mentioned were increasing the availability of drugs through leveling up the budget allocation from the government, facilitating the money collected from CBHI to be well utilized for drug purchases by health centers, and communicating with EPSA (Ethiopia Pharmaceutical Supply Agency) to buy from private market suppliers sooner when they are stock out.

“The government allocates 300,000 birr of medication for a health center which is a revolving fund. This was done to generate income for the health center that usually used to buy only 90,000-birr worth of medications in a year. However last year, around 630,000 worth of

medication was purchased by the six health centers in the woreda. This year 2.1 million birr in medication purchases was planned, as of now over the last nine months 1.7-million-birr worth of medication has been purchased which is much better than what it used to be. Even so, this still doesn't meet the requirements of the community.' (In-depth interview with Head of Bore Woreda health office)

Another major problem mentioned by the respondents was the inadequate number of health professionals because based on the observation of the current head of the Woreda health office, if there is no adequate supply of professionals, those who are working will burnout and grow bored with their jobs leading to unsatisfying service for both the CBHI members and workers. So, the measures they took for this was to hire as many health professionals as possible to at least meet the minimum requirements of the community which was insufficient.

'The measures that have been taken by the woreda, for the past 2 years for example, if we take Dara Tibiro health center among the six in the woreda, there were only 6 health professionals of which 2 of them were directors only 4 served the community as professionals, so to curve this we have hired 26 health professionals last year and 19 more health professionals were hired this year, So now Dara Tibiro health center has 13 health professionals.' (In-depth interview with Head of Bore Woreda health office)

Perception on socio-economic factors that affect membership dropout: income, family size, and age

According to the respondents, PHCU directors some households, and CBHI coordinators, income and family size affect the membership renewal status than age- which they believe doesn't have much of an effect. They mentioned that although income may not have a direct effect, they believe that due to lack of medications those who have higher income will be more likely to quit the scheme than those with lower income because they have the potential to get service from private clinics and drug stores. Also, in the case of the family size, they believed more family size has more expenditure so more renewal to escape from unwanted payment. However, in regard to age, all of the respondents believed it had no effect on the renewal status. *'I don't think the income affects that much as the payment is only 410 birr but those who have high income tend to not renew their CBHI because of lack of services that provide what they need, like drugs and diagnostic equipment. Age doesn't have much effect on the renewal of the*

CBHI, but family size is different from household to household so the more the members of the household the more willing they are to renew their CBHI.’’ (In-depth interview with Bore Woreda CBHI coordinator)

‘‘Of course, there is a difference in renewal due to the money they earn although there are different factors for that; for example, there is a problem we faced around some kebeles during screening as screening is done because the government is willing to give CBHI for those who are extremely poor, about 10%. The issue here was, those who screen here may give the card for those who are not very poor and force those who are very poor to pay leading up to untrustworthy outcome from both who have high income and don’t.’’ (In-depth interview with PHCU director)

Perception on whether the service given to members and non-members is similar

The majority of the respondents believed that the services provided for members and non-members were similar however according to the Woreda CBHI coordinator, during the beginning year there was a directive that CBHI members to be treated first and were being served. But now he added that another room was prepared for those with CBHI membership, the service given however remains to be similar with the non-members.

‘‘The thing was that is previously is a directive that said to serve CBHI members first, but now another room is prepared for those who are CBHI members, but the service that is given for both is more or less similar.’’ (In-depth interview with Bore Woreda CBHI coordinator)

But on the contrary, the head of the Woreda health office has suggested that there were some complaints from the community that those who do not have the CBHI card get better served than those who have.

‘‘ Yes, we believe that both member and out-of-pocket users are treated equally but there are complaints from the community that say otherwise. The first thing is they complain that those who don’t bring the CBHI membership cards are served first than those who do, however, when we discussed this issue with health facilities during supervisions and conferences, we didn’t get this. The reason is that they believed those who bring cash deserved well even though what really benefits the health facility is the money they collect from CBHI.’’ (In-depth interview with PHCU director)

Perception towards benefit package meeting community requirements

According to almost all the respondents, the benefit package basically as a whole meets the requirements of the community due to the known nature of the economic standard of the community and the problems they usually incur during their health service visits. As a result, the scheme really helps them overcome unintended out-of-pocket payments during health emergencies. However, it is hard to consider the package meeting all requirements in a practical way when we see what is on the ground. They mentioned that it is not the benefit package that is a problem but the demand from the community like medications and health professionals that is not compatible with the supply from government and agencies like EPSA.

“Very much, I think the package meets the requirement of the community but there is still a lot to be done from the gov’t side. The first thing as I mentioned before is the supply of medical drugs and equipment. The second one is meeting or reaching the standard number of health professionals that are required in a health facility and also not only health professional but also other administrative as well as supportive staffs.” (In-depth interview with PHCU director)

“I don’t think it genuinely meets the requirement because there are lots of unfulfilled medical equipment like laboratory, medications and other equipment which make it hard to fill the intended CBHI benefit package.” (In-depth interview with Bore Woreda CBHI coordinator)

6. Discussion

This study aimed to determine the magnitude of the dropout rate and factors associated with community-based health insurance in Bore Woreda, Oromia, Ethiopia. It was found that 21.1% of the study participants have dropped out of the CBHI scheme. Factors like annual family income, household family size and the place where they usually seek treatment (private health facility, public health center and public hospital) were found to associate with the drop out from the scheme. And the single most reason for dropout from the scheme was found to be unavailability of medicine and other medical equipment. The study participant's overall perception was good for 96.6 percent of the population. And in the qualitative study the respondents have suggested that new enrollment of members has increased from time to time, however, keeping some of those who are already under the scheme has become a challenge. Also, most of the respondents suggested that drugs and medical equipment unavailability was a major reason for dropout from the scheme. They also responded that socio-economic factors like income and household family size have effects on whether to continue or not.

The analysis in the study showed that 21.1% of the community-based health insurance members have dropped out which coincides with a study done on the first pilot community-based health insurance program that was found to be 18% (24). There are however much higher reports like Jimma, Ethiopia 31.9% (37), India 45.7-80% (4), Burkina Faso 30.9% (13), and Senegal 72.6 (5). These variations can be explained by the difference in the study population's sociodemographic and economic characteristics, the study periods and knowledge about CBHI. There is also difference in health care system in these countries that could affect the community-based health insurance enrollments. The qualitative study also seems to agree with the finding that there are dropouts, as the respondents suggested that there are some who discontinued from utilizing the scheme.

This study revealed socio-economic factors affected the household on whether they dropped out or not. The study showed that households who had more than 25,000 annual incomes were more likely to drop out than those that had lower incomes of less than 25,000. This report is similar to the one done in Nigeria as it suggests that households with higher income tend to be more likely to withdraw or drop out from the scheme (40). However, a study done in Tanzania suggests the opposite of the above report (12). According to the qualitative findings, most households with

higher income are prone towards dropping out because they believe they would rather pay out-of-pocket for financial accidents than what is being provided from CBHI, so instead of renewing they would rather dropout. While those who have lower income are not certain about their income covering or resisting financial accidents due to health expenditures resulting in renewing of the community-based insurance scheme.

Another socioeconomic factor that was found to affect dropping out from the scheme was household family size which showed that households who had higher number family members which were 6 and above were less likely than those who had 5 or less. This report was similar with the findings in Jimma, Ethiopia (37) and rural India (4). This is similar with the response given from the qualitative study as they said that the financial burden as whole increases in higher family size either through the increment of the probability of people getting sick or the increase in out of pocket payment during financial accidents. Another reason for the above findings is that in our country, as long as the age of the children is less than 18 years of age they can get under the household packages. However, in study done in Burkina Faso the household with higher family sizes were more likely to drop out, this was due to the increase in payment based on the addition of individuals by considering their age; 3\$ increase for those who are aged more than 15 and 2\$ for those aged less than fifteen (13). The qualitative study also suggested that households is bigger family size tend to continue the CBHI service than those with smaller ones because they believed that more family size has more expenditure so more renewal to escape from unwanted payment.

The study also showed that households who get treatment in private health facilities when they get sick are more likely to dropout from community-based health insurance than those who get treatment in public hospitals and those households who get treatment in public health center when they are sick are more likely to dropout than those who get treatment in public hospitals. Revealing that those who get treated in public hospitals are less likely to drop out. This is supported by the study done in Ethiopia which is reported as Public health facilities were the predominant sources of OPD visits (41). This can be due to the health-seeking behavior among CBHI members being high and as the scheme is contracted with public health facilities as suggested by the above study. And also according to the qualitative study, those who usually use private health facilities may not have the motives and necessities of using public ones since they are already paying out of pocket.

The study also tried to identify the respondent's single main reason for the drop out from the community-based health insurance schemes and the majority of the households responded as the unavailability of medicine and other medical equipment in the health facility contracted. However, based on the study done in Jimma, Ethiopia, the best single reason was found to be that the registration fee and premiums are not affordable (37). The variation could be due to the studies did not use exactly the same responses but both can be explained separately, and also different study period as well as area could be another reason. As the respondents also explained in qualitative in-depth interviews lack of optimum medicine and medical equipment supply is the main thing that is deriving members to drop out and use out-of-pocket payment instead.

Regarding perception towards community-based health insurance membership majority of the respondents had good perception. This is supported by a study done in Ethiopia (42). The reason for the above could be due to aggressive community-based health insurance campaign that was being implemented in the recent times. The qualitative finding also suggested that the communities in the woreda have good perception about the scheme due to different campaigns and conferences that are held to increase the attitude of the community.

7. Strength and limitations

Strength

- The questioner was pre-tested on 5% of the sample size that is 25 households in adjacent kebele.
- Training was given for the data collectors
- The data collection was done by using KoBo collect digital application
- The study was supplemented by qualitative in-depth interview questions which gives depth to the information
- The respondents for the quantitative study were selected by using multi-stage sampling and simple random sampling was used to select the kebeles that helps to avoid selection bias

Limitations

- All factors mentioned in the study that affect dropout of community-based insurance may not be enough, other non-included factors the affect the dropout could be a possibility.
- Annual household income was obtained by estimating having probability of imperfect accuracy.

8. Conclusion

In conclusion, the dropout from the community-based health insurance scheme in this study was high in the area. Household annual income, household family size and the place they usually seek treatment was found to associate with dropout from the scheme. The single most reason for the dropout from the scheme was unavailability of medicine and other medical equipment followed by low quality of health care service. Overall most of the study participants have good perception towards community-based health insurance membership utilization. And the qualitative study also supported that there is dropout among the members and sociodemographic factors like income and family size affect the membership status.

9. Recommendation

Regional health bureau, zonal health office and the woreda health office should work together on making sure on delivering what the package is said to offer like availing the medicine and other medical equipment in order to re-enroll those who dropped out as well as recruit new members. Mainly, they should focus on fulfilling what the package promised or at least provide service that is comparable or competitive with the private health providers. And also, to increase the quality of health service, focus must be put on employing more health professionals.

Advocating and identifying members of community with higher income and lower family size to re-instate or reenroll the CBHIM by engaging with the community and fixing service demand issues through providing service according to the package with a quality that is given in private facilities.

In order to solve arising problems or complaints on community-based health insurance and increase the satisfaction of the members, kebele managers, health professionals and Woreda CBHI coordinator should engage more with the community through hosting and organizing events and conferences that helps resolve complaint as well as address questions that arise.

As community-based health insurance is a way of risk pooling, the larger the risk pool, the more predictable and stable the premiums can be so in order to do that, it is only appropriate to make the CBHI enrollment mandatory for everyone.

Lastly, intersectoral collaboration and ownership by all the stakeholders is necessary to stop the dropout from the scheme and motivate the community to renew their membership as well as enroll new ones in it.

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ANNEXES

Participant information sheet and informed consent form

My name is _____ and I will be collecting data for a study being conducted in this community to fulfill a master's degree requirement at Hawassa University's College of Medicine and Health Science Department of Health System Management. I humbly request that you give me your full attention in order for me to explain the study and your selection as a study participant.

Study title:Community-Based Health Insurance Membership Dropout Rate and Associated Factors in Bore Woreda, Guji Zone, Ethiopia

Procedure: Data will be collected using predesigned questioners for assess. The sample will be collected face to face interviewing at house hold level. Data will be collected and submitted to the investigator daily. It is not necessary to write the name of respondents instead we use code.

Risk and discomfort: No any known risk and discomfort associated with the study.

Confidentiality: The information you will provide us will be confidential. There will be no information that will classify you in particular.

The right to refuse and withdraw: Participant has full right to refuse from participation or withdraw from the study at any time they want in this study, without losing any of their right.

Contact person:

Name	Mobile phone	Email
Yadasa Mira	0932549920	yadasamira@gmail.com

Consent form

I have been briefly knowledgeable concerning the study and clearly understood the objective of the study. So I here endorse my consent with my signature to take part in the study. Name of the

Respondent _____ Signature _____ Date _____

Annex 1. Questionnaire for quantitative studies English version

Hawassa University College of medicine and health sciences, School of Public Health

Annex 1. Quantitative study questionnaire

This questionnaire is designed to collect data on the dropout rate and associated factors from community-based health insurance utilization in Bore Woreda, Guji Zone, Ethiopia, in 2023.

Kebele: _____ House code _____

Part one: Socio-demographic and economic characteristics of study population

No	Question	Response option	Skip
101	Sex of the respondent?	1.Male 2.Female	
102	Age of the respondent?	Age in years-----	
103	Current marital status?	1. Single 2.Married 3.Divorced 4.Widower/windowed	
104	Religion?	1. Orthodox 2. Muslim 3. Protestant 4.Others (specify	
105	Ethnicity?	1.Oromo 2.Amhara3.Tigre 4.Others(Specify)	
106	What is your educational level?	1. Unable to read and writes 2. Able to read and write 3. Primary education 4.Secondary education 5. College and above	
107	What is your occupation?	1. Farmer 2.Daily labor 3. Merchant 4. Other (specify)	
108	What is your annual total family income?	ETB _____	

109	Number of family members	Number-----	
-----	--------------------------	-------------	--

Part two: Questions related community- based health insurance.

Code	Question	Response option	Skip
201	When did you started enrolling to CBHI?	_____years	
202	Have you renewed your CBHI membership for this year?	1. Yes 2. No	If your answer is no skip to Qes no 204
203	If you renew membership what was the reason?	<ol style="list-style-type: none"> 1. To use modern health care service 2. Illness or injury occurs HH members 3. Perception of good quality of health care service 4. Premium payment is cheaper than out of pocket payments to get health care service 5. To protect my family from un expected catastrophic health care expenditure 6. Due to pressure /advocacy from CBHI/government office 7. The benefit package of CBHI is good and I benefit from the scheme 	

		99. Other specify	
204	If you do not renew your membership for this year, what was the reason?	1. Illness or injury does not occur frequently in HH members 2. Unavailability of medical equipment 3. Low quality of health care service 4. Lack of detail awareness about CBHI 5. Benefit package is not meet our needs 6. The contracted health facility is far from our home 99. Other specify	
Questions related to knowledge of CBHI (Q 205-Q 2014)			
205	Do you know health services covered under CBHI scheme?	1. Yes 2. No	

206	Which services do you know CBHI benefit covers?	1. Inpatient 2.Outpatient 3. both in and out patient 4.Abroad treatment 5.Cosmetic surgery	
207	In the case of CBHI programs, you have to pay money (premiums) but do not know whether you will get the money back?	1. Correct 2. Not correct 3. Do not know	
208	CBHI programmed are like savings scheme; you will receive interest and get your money back?	1. Correct 2. Not correct 3. Do not know	

209	All health care costs will be covered by CBHI programs?	1. Correct 2. Not correct 3. Do not know	
210	If you do not make claim any costs through CBHI your premium will be returned?	1. Correct 2. Not correct 3. Do not know	
211	The timing/time interval of premium payment is convenient for my household	1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree	
212	The CBHI registration fee is affordable for my household.	1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree	

213	The CBHI regular contribution (premium) is affordable for my household.	1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree	
214	The CBHI management officials are trustworthy.	1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly agree	

Part three: Health related questions

No	Question	Response option	Skip
301	In general, how do you rate the health status of this household members now?	1.Excellent 2.Very good 3.Good 4.Poor 5.Very Poor	
302	Where do you get treatment when any family member becomes sick?	1. Private Heath Facility 2.Public health Centre 3. Public hospital 4. self-treatment, 5. Traditional healer 6. local drug vendor	

303	Reasons for going there?	1. The HF was physically accessible 2. The HF was not expensive 3. The health facility not too crowded (Short-waiting time) 4. The health service was effective	
304	Perceived quality of the health care service given?	1.Very low 2.Low 3.Neutral 4.High 5.Veryhigh	
305	How much minutes do you take to walk to get nearest health facility from your home?	1. Health center..... 2. Health post..... 3. Public Hospital..... 4. Private clinics.....	
306	Distance in kilometers?	1. Health center..... 2. Health post..... 3. Public Hospital..... 4. Private clinics.....	

Annex 2: Qualitative Interview guide in English form

Dear informants, the purpose of this meeting is to collect data for a study that will investigate why households drop out of community-based health insurance in Bore Woreda, Guji Zone, Ethiopia. In general, this interview is designed to determine the effects of socioeconomic status and perceived benefit package on community-based health insurance dropout. This study is extremely useful in given information about why households drop out of community-based health insurance in Bore Woreda. As a result, I respectfully request your assistance in responding honestly.

In-depth Interview Guide Developed to Collect Data from CBHI scheme officers and kebele leaders

Starting time (hh-mm)_____ / _____

Termination time (hh-mm) _____ / _____

Date: ----- Interviewer: -----Position: -----

Interviewee: sex-----age-----occupation-----Education status: -----marital status-----family size

Duration of interview: ----- Telephone: ----- Place: -----Woreda &Name of Kebele-----

1. Can you tell me about the current status of CBHI groups? How many before and after this year

2. How is the trend of membership enrollment? Do new members enrollment increased or decreased?

What was the possible reason?

3. How many members dropout or discontinue since the last two years? What was their major and common reason? What measurement your organization took?

4. Do you think that income of household affect renewal in your kebele? And why?

5. When does collection of premium take place (Timing of collecting the premium)?

6. Do you think that family size of household and age affect renewal of membership in your kebele and why?

7. Do you think that health care service given for members and non members of CBHI is similar? If not why?

8. Do you think that the CBHI benefit package meets the requirement of your community?

9. What are the major socioeconomic and demographic as well as the perceived benefit package that affect renewal in your kebele?

Supply side (From your office side)

Demand side (From member's or household's side?)

10. What strategies/ method's you are using in order to handle the above listed problems?

11. What motivates households to renew their membership in general in your kebele?

12. What is the level of dropping rate of the household's from the program in your kebele? & what is the immediate reason for it?

13. What activity is performed by your office in order to reduce even to stop the dropping out rate of the member?

In-depth Interview Guide Developed to Collect Data from health providers

Starting time (hh-mm) _____ / _____

Termination time (hh-mm)) _____ / _____

Date: ----- Interviewer: -----Position: -----Interviewee:
sex-----age-----occupation-----Education status: -----marital status-----
---family size

Duration of interview: ----- Telephone: ----- Place: -----Woreda &
Name of Kebele-----

1. How is the trend of membership enrollment? Do new members enrollment increased or decreased?

What was the possible reason?

2. Do you think that income of household affect renewal in your kebele? And why?

3. Do you think that family size of household and age affect renewal of membership in your kebele and why?

4. Do you think that health care service given for members and non members of CBHI is similar? If not why?

5. Do you think that the CBHI benefit package meets the requirement of the community?

6. What motivates households to renew their membership in general in your kebele?

In-depth Interview Guide Developed to Collect Data from CBHI utilizers

Starting time (hh-mm) _____ / _____

Termination time (hh-mm)) _____ / _____

Date: ----- Interviewer: -----Position: -----Interviewee:
sex-----age-----occupation-----Education status: -----marital status-----
---family size

Duration of interview: ----- Telephone: ----- Place: -----Woreda &
Name of Kebele-----

1. How is the trend of membership enrollment? Do new members enrollment increased or decreased?

What was the possible reason?

2. Do you think that income of household affect renewal in your kebele? And why?

3. Do you think that family size of household and age affect renewal of membership in your kebele and why?

4. Do you think that health care service given for members and non members of CBHI is similar? If not why?

5. Do you think that the CBHI benefit package meets the requirement of the community?

6. What motivates households to renew their membership in general in your kebele?

Annex 4: Participant Information Sheet and Informed Consent form for Selected Study Participant (Afaan Oromo version).

Akkam bultaan/ooltan! Maqaan koo _____ jedhama. Aniiis sassaabduu ragaa qo’annoo ganda keessan irrati barataa digrii lammaffaa Yuniversitii Hawassa kan tahe Obboo Yaadasaa Miraatiin gaggeeffamuuti. Isiniis garee qo’annoo keenyaa taatanii waan filatamtaniif waa’ee qo’annoo kanaa isinii ibsuuf gurra fi qalbii keessan akka naaf ergiftan kabajaan isiin gaafadha.

Mata-duree qo’annichaa: Qorannoo haala fayyadamtoota Inshuraansii Fayyaa Hawaasa tahani kannen miseensuma isaani hin haromsine fi walitti dhufeenya inni wantoota biraa waliin qabu qorachuuf bara 2023 gaggeeffamu.

Kaayyoo qo’annichaa: Argannoon qorannoo kanaa waajjiira fayyaa aanaa keessanifis tahe kanneen biroof akkasumas fayyaa ummataa foyyeessuu irratti fi sagantaa Inshuraansii fayyaa foyyessuuf ni fayyada. Kanaan alattiis, kaayyoon qorannoo kanaa, qorataan qo’annoo kanaa digrii lammaffaa isaa public health hooggansa eegumsa fayyaa irratti fudhachuuf uulaagaa isa barbaachisu guuttachuuf isa gargaara.

Deemsaa fi yeroo fudhatu: Hirmaachuuf fedhii qabdu yoo tahe gaffiiwwan garaa garaa qo’annoo kanaaf qopha’an isiniifan dubbisa. Baay’inni gaaffii walii galatti 50 kan hin caalle yoo tahu daqiiqaa 30 duwwaa fudhata.

Faayidaa fi miidhaa qo’anichaa: Rakkinni qo’annoo kana keessatti hirmaachuu keessaniin isin quunnamu baay’ee xiqqaa yoo tahu, innis yeroo keessan muraasa (daqiiqaa 30) qofaa fudhachuu taha. Qo’annoo kana irratti hirmaachuu keessaniin kaffaltiin kaffalamu tokko iyyuu hin jiru. Garuu bu’aan qo’annoo kanaa ragaawwan haarawaa waajjira fayyaa naannoo keessanii fi qooda fudhattoota biroof ni argamiisa.

Iccitii eeguu: Odeeffannoon isin nutti himtan hundi iccitiin qabama. Gaaffiin enyuummaa keessan fi maqaa keessan ibsu hin jiru. Argannoon qo’annaa kanaa hawaasa qo’annaa kana irratti hirmaatan akka walii galaatti Kan ibsu yoo tahu, karaa kamiinuu dhimma nama dhunfaa hin calaqqisiisu. Haala kamiinuu namoota dhunfaa qo’annaa waliin walqabsiisuuf afaaniiniis tahe barreeffamaan ragaa hin waamsiifnu.

Mirga: Hirmaannaan qo,annoo kana keessatti gootan guutummaan guutuutti fedhii irratti kan hundaa'e. Mirga hirmaachuu fi hirmaachuu dhiisuu ni qabdu. Hirmaachuuf, yoo murteessitsn, mirga yeroo barbaaddanitti qo'annoo kanaa keessaa bahuu yommuu qabaattan kana gochuu keessaniifis faayidaan isiin argachuu qabaattanii dhabdan tokko iyyuu hin jiru. Gaaffii deebisuu hin barbaadne deebisuufis hin dirqamtaan.

Teessoo: Gaaffii yookiin qeeqa qo'annoo kana ilaallatuu kamiifuu, teessoo armaan gadiin gaafachuu fi quunnamuu ni dandeessu.

Qo'ataa muummee: **obboo Yaadasaa Miraa lakk. bilbila mobayilii: +251932549920 yookiin**

Emayilii: yadasamira@gmail.com.

Unkaa walii galtee fedhii irratti hundaa'ee:

Unkaan walii galtee hirmaattootaa naa dubbifameera/dubbiseera. Kaayyoo qo'annichaa, deemsi isaa, faayidaa fi midhaa, dhimmi iccitii eeguu, mirga hirmaachuu fi teessoon qo'ataa illee natti himamee jira. Wanta ifa hin taane akkan gaafadhuuf carraan naaf keennamee jira. Akkan yeroo barbaade qo'annicha adda kutee bahuu dandahu yookiin gaaaffii deebisuu hin barbaannee deebisuu hin dirqamnes natti himameera. Kanaafuu, akkan qo'annaa kana irratti feedhii kootjin hirmaadhe mallattoo koo armaan gadiin nan mirkanneessa.

Mallattoo hirmaattuu/ttaa_____ Mallattoo odeeffannoo sassaabduu/aa_____

Hub: Waliigalteen Kun fuul-dura hirmaataa qo'annoo fi odeeffannoo sassaabduu itti malleettaffamuun, kooppiiin isaas hirmaataa/ttuf kennamuu qaba.

Galatoomaa!

Gucni gaaffilee kun kan qophaa'e Qorannoo haala fayyadama Inshuraansii Fayyaa Hawaasa tahani kannen miseensuma isaani hin haromsine fi walitti dhufeenya inni wantoota biraa waliin qabu fi miseensi akka hin fayyadamne taasisan maal faa akka ta'an beekuuf odeeffannoo sassaabuuf gargaaru dha.

maqaa odeeffannoo sassaabaa/duu -----mallattoo -----
 maqaa to'ataa/ttuu -----mallattoo ----- **guyyaa -----sa'atii --**

Kutaa 1ffaa: Gaaffilee waa'ee abbaa warraa deebisuu kan mullisan

101	Haala Koorniyaa?	1. dhalaa 2. Dhiira
102	Umuriin kessan meeqa?	Waggaan
103	Haala gaa'elaa	1. kan fuude ykn heerumte 2. kan irraa du'e 3. kan hiike /hiikte 4. kan addaan ba'e /baate 5. kan hin fuudhin ykn heerumiin
104	Amantiin kee maali?	1. Otoodoksii 2. Musliima 3. Protestaantii 4. kan biraa
105	Qomoo kee maali?	1. Oromoo 2. Amaara 3. Tigree 4. kan (biraa)----- -----
106	Sadarkaa barnootaa	1. kan hin baranne 2. barnoota bu'uura kan baraate/tte 3. sadarkaa tokkoffaa 4. sadarka lammafa fi isaa ol
107	Galii wagga omishaa qonna ykn madda galii biro irra argatan meeqa?	Qarshii Itiyophiyaatin
108	Lakkofsi maatii kee meeqa?	lakkofsan-----
109	Hojiin kee maali?	1. Qotee bulaa 2. haadha manaa 3. daldalaa 4. kan (biraa)

110	Bara darbe kana midhaan gosa kuntaalaan meeqa argattan (gal	aKiloo/kuntaala _____
111	Gatiin kiiloo tokkoo meeqa ta'a? [midhaan gosa adda addaa tif geddugaleessaan]	Gatii omisha hundaa tilmamaan Qarshii _____

kutaa 2ffaa: Gaaffilee inshuraansii fayyaa Hawaasa waliin wal-qabatan

201	Bara kam miseensa inshurani fayyaa tatan ?	Baran _____
202	Miseensumma kessaan bara kana haaromsitani jirtu?	1. eyyee 2. Lakkii Deebin kessan lakkii yoo tahe gaffii 204 deebisa
203	Sabaabota gurguddo miseensuma insuransii fayyaa haaromsitan ibsaa?	1.dhukkubni ykn rakkon fayyaa maatii koo waan qunnamef 2.kafaltiin tajaajila fayyaa argachuf kiisi koo kessaa kafalu fi kafaltiin inshuransiif kafalu gaari waan tahef 3. dhibbaa qamoole inshuransi fayyaa ykn qamoole mootumma kan biro 4. Tajaajili fayyaa miseensota inshuransi

		fayyaa hawaasaf gama dhaabilee fayyaatin kennamu qulqulina waan qabuuf 5.Basii guddaa miseensa maati kootif fayyaf baasu irraa of eguuf 6. Kan biro (haa ibsamu)
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204	Sababoota gurguddo misensa inshurani fayyaa akka hin haromsinee isiin tasise malii ?	<p>1.Maatiin kiyyaa dhukkubnii irratii dadebi’amee waan hin geenyeef</p> <p>2. Tajaajili fayya miseensota inshuransi fayyaa hawaasafgama dhaabilee fayyaatin kennamu qulqulina waan hin qabneef</p> <p>3. Ogeeyii fayyaa miseniisotaa inshuransii fayyaa walqiixatiwaan hin kessumesanef 4. Miseeniisaa inshuransi fayya tahuus dabalataatan mallaqaa waaniin gafatamuuf 5. Ogeeyii fayyaa miseniisotaa inshuransii fayyaa walqiixatii waan hin kessumesanef 6. Maatiin kiyyaa miseenisaa tahuus fayadamuu wan hin dandeenyeef 7. Dhabilee fayyaa tajaajila inshuransii fayyaa kennuf waligalte seenan mana kenyaa irraa faagenya waan qabaniif 99. Kan biro (haa ibasmuu)</p>
Gafiile hubbano inshuraansi fayyaa waliin wal qabatan		
205	Faayidaa tajaajila fayyaa Insuraansiin fayyaa hawaasa kennu beektaa?	1. eyyee 2. Lakkii
206	Yoo beekta tahe tajaajila fayyaa isa kam kenna?	1. Tajaajila deddeebihanii yaalamuu 2. tajaajila ciisanii yaalamuu 3. biyya alaa deemanii yaalamuu 4. bareedinaaf baqaqsanii hodhuu 5. qaama jijjiruu 6. tajiijila geejjibaa kaafaluu
207	Namoota dhukkubsatan qofatu Inshuraansii fayyaa	1. sirrii dha 2. sirrii miti 3. hin beeku
	fayyadamuu qaba?	

208	Inshuraansii fayyaa fayyadamuuf qarshiin ni kaffalama garuu qarshiin kun nuuf deeba'a ta'ee hin deebi'u ta'ee beektu ?	<ol style="list-style-type: none"> 1. sirrii dha 2. sirrii miti 3. hin beeku
209	Inshuraansii fayyaa hawaasa akka qusannaa dha qaarshii kaawwatteef dhalli siif kaffalama achii booda qarshii sana ni deebifatta ?	<ol style="list-style-type: none"> 1. sirrii dha 2. sirrii miti 3. hin beeku
2010	Yeroon kafaltii inshuraansii fayyaa nuuf mijaawaa dha.	<ol style="list-style-type: none"> 1, Baayyeen irratti walii hingalu 2, Irratti walii hin galu 3, Giddugaleessa 4, Irratti waliin gala 5, Baayyeen irratti walii gala
2011	Gatiin galmee insuraansii fayyaa kafaluu ni dandeenya?	<ol style="list-style-type: none"> 1, Baayyeen irratti walii hingalu 2, Irratti walii hin galu 3, Giddugaleessa 4, Irratti waliin gala 5, Baayyeen irratti walii gala
2012	Kafaltiin inshuraansii fayyaa kafaluu ni dandeenya	<ol style="list-style-type: none"> 1, Baayyeen irratti walii hingalu 2, Irratti walii hin galu 3, Giddugaleessa 4, Irratti waliin gala 5, Baayyeen irratti walii gala
2013	hojjeettoonni inshuraan fayyaa amanamoo dha	<ol style="list-style-type: none"> 1, Baayyeen irratti walii hingalu 2, Irratti walii hin galu 3, Giddugaleessa 4, Irratti waliin gala 5, Baayyeen irratti walii gala

Kutaa 3ffaa gaafilee fayyaa waliin wal qabatan

No	Gaffii	Deebii
301	Walumaagalatti fayyaa maatii keessani akkamiin ibsita?	1. Baayyee baayyee gaarii dha 2. baayyee gaarii dha 3. gaarii dha 4. badaa 5. baayyee badaa dha.
302	Yeero maatiin kessaan dhukkubsatan tajaajila fayyaa essaa argatuu ?	1. kilinika dhuunfaa 2. buufata fayyaa 3. hospitaala 4. ofumaa mana keessatti wallaanna 5. ogeessa aadaa bira geessina 6. mana daldalaa qorichaa geesina
303	Maaliif bakka filatan kana geessitu?	1. dhiyeenya irratti waan argamuuf 2. kafaltiin isaa gad bu'aa waan ta'eef 3. namni waan itti hin baayanneef 4. tajaajilli isaa waan nama fayyisuuf
304	Qulqullinni tajaajila kennamee akkamitti ilaalte?	1. Baayyee gad bu'aa 2. Gad bu'aa 3. Giddugaleessa 4. Qulqulina olaanaa qaba 5. qulqullina Baayyee olaanaa qaba
305	Tajaajila fayyaa argachuuf mana keessan irraa dhaqaa gala daqiiqaa meeqa deemsisa	. 1. Buufata fayyaa----- 2. kella fayyaa-----
306	Tajaajila fayyaa argachuuf mana keessan irraa dhaqaa gala kiloomeetira meeqa deemsisa?	1. Buufata fayyaa----- 2. kella fayyaa-----

Annex 6: in-depth interviewee guide in afaan Oromo Version

Akkaam jirtuu anii Obboo Yaadasaa Mira jedhama .Uniiversiti kollejjii dame fayyaa hawaasa kessaatti miseensa qorranno gaggessan kessaa tokkoo kaniin tahee dha.

Kabaajamtoota hirmatoota gaafanno afaani kan tatan kayyoon gaaffanno kana misensoota inshuransii fayyaa hawaasa Aanaa Bore tahan sabaabota gurguddo miseensumma isaani addaa kutaan fi wantoota kanaan wal qabatan adda baasu fi beekuf yoo tahu haaluma kanaan isiinis hirmattonni qorranno kanaa kessattii hirmataan rakkole gama inshuransii fayyaa hawaasan jiru addaa baasun kallattii furmaata ka'uun inshuransii fayyaa hawaasa akkaa foyya'uu taasisuf deggarsa isiin irraa egaamu akka tasiftaan abdiin irra qabna.

Annex 7 in -depth interviewee questionnaire in Afaan Oromoo Version

Guyyaa ----- Gafatama: -----Position: -----Gafatama -----Sadarka barnoota: -

Yeero gafanno fudhate -----Bilbila: ----- Iddoo: -----Woreda & Name of Kebele: -- -----

Yeero gafanno : -----

Haala Gaffanno

1. yeroo amma kana kessa haala fayyadama inshuransi fayyaa hawaasa inni irra jiru nu himuu dandessu ?

2. Haali horanna miseensa inshuransii fayya hawaasa maal fakkata ? horannan miseensa haara yeroo ammaa kanaa dabala jira mo hirracha jira? Sabaabni isaa hoo maali?

3. Woggotan laman dura miseensonni inshuransii fayyaa hawaasa adda kutaan meqaa nitahu ? Sabaabni beekamo kanaan walqabatan mal fa'ii? Akka waajjiratti rakkoo kana furuuf tarkanfii isiin fudhatan maalfa'ii ?

4. Akkaa gandaa kessanittii galiin abbaa warraa haromsaa miseensa inshuransi fayyaa irraatti dhibba ni qaba jette yaada ? maalif?

5. Yeero kam kessaa kafaltti miseensa inshuransii sasabdu?

6. Akkaa gandaa kessanitti bayyini miseensoota abbaa warra fi Umurrin miseensoota haromsaa inshuransii fayya irraatti dhibba ni qaba jette yaada ?
Malif? _____

7. Tajaajili fayyaa miseensoota inshuransii fayya kan tahani fi hin taneef kenaamu walfakata jette yaada? Yoo lakki jette maalif?

8. Faayyidawaan inshuransi fayya hawaasatin uwwifaman feedhii hawaasa ni guuta jette yaada ?

9. Rakkolen gama dinaagde ,Hawaasumma ,haala abbaa warra waalin walqabate fi faayyida wan inshuransii fayyaa hawaasa jalati hammatamani walqabate akka ganda kessanitti dhibba haromsa miseensa inshuransii fayya hawaasa irraatti dhibba ni qaba?

Rakkolee gama dhihessin walqabate jiru (kallattii waajjiratin kan jiru)

Rakkolee gama Feedhin walqabate jiru (kallatti miseensoota Inshuransi fayyaatin hawaasatin jiru)
