



ST. PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE

**EFFECT OF COMMUNITY-BASED HEALTH INSURANCE ON
UTILIZATION OF OUTPATIENT HEALTH CARE SERVICE IN
ADDIS ABABA, ETHIOPIA: A COMPARATIVE CROSS-
SECTIONAL STUDY**

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Acronyms and Abbreviations

AA	Addis Ababa
AACA	Addis Ababa City Administration
AACAHB	Addis Ababa City Administration Health Bureau
AOR	Adjusted Odds Ratio
CBHI	Community-Based Health Insurance
CHE	Catastrophic Health Expenditure
CI	Confidence Interval
COR	Crude Odds Ratio
EC	Ethiopian Calendar
ETB	Ethiopian Birr
FGDS	Focus Group Discussions
FMOH	Federal Ministry of Health
HHS	Households
MCH	Maternal And Child Health
NHA	National Health Account
OOPS	Out Of Pocket Spending
R	Reference
SNNPR	Southern Nations, Nationalities, And Peoples' Region
SPHMMC	St. Paul's Hospital Millennium Medical College
SPSS	Statistical Product and Service Solution
THE	Total Health Expenditure
UHC	Universal Health Coverage
WHO	World Health Organization

Abstract

Background: *Community-based health insurance schemes are becoming increasingly recognized as a potential strategy to achieve universal health coverage in developing countries. Ethiopia has been implementing community-based health insurance across all the regional states and city administrations, especially in all woredas of Addis Ababa since 2011 EC. However, in Addis Ababa, the positive impact of insured households from non-insured ones was not well described and not justified with evidence concerning the status of outpatient utilization.*

Objective: *To assess the effects of the community-based health insurance scheme on the utilization of healthcare services in Addis Ababa, Ethiopia.*

Methods: *The study was done using a comparative cross-sectional study design through a mixed approach. 664 (332 insured and 332 non-insured) households were recruited for the quantitative part. Concerned stakeholders were identified and focus group discussions were used, for the qualitative part of the study. Pearson Chi-square (χ^2) test and multivariable logistic regression were used to have in mind the effect of community-based health insurance on healthcare utilization and to identify the independent factors by controlling the confounders, respectively.*

Result: *The evidence from Pearson Chi-square (χ^2) test shows that there is a significant difference in the utilization of outpatient health care services between CBHI –insured and non-insured households ($\chi^2=47.776$, $P<0.001$). The study reveals that insured households were about 4.4 times more likely to utilize outpatient healthcare than their noninsured counterparts [AOR: 4.41;95% CI: (2.59,7.49)]. In all the focus group discussions participants assured that the mobilization and the message delivered by community health workers during the time of the scheme registration had an impact on health facility visits for their illness.*

Conclusion: *Community-based health insurance is an effective tool to enhance the utilization of healthcare services since the study remarks that the scheme has had a positive effect on the utilization of outpatient healthcare services.*

Key Words: *Community-Based Health Insurance; Utilization of Outpatient Health care; Comparative Cross-Sectional Study.*

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CHAPTER ONE

1. INTRODUCTION

1.1. Background

Universal health coverage (UHC) is an aspiration that underpins “the enjoyment of the highest attainable standard of health” which, as stated in the world health organization’s (WHO) constitution, is “one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition”⁽¹⁾. Working towards UHC, to ensure that all people obtain all the health services they need (i.e., prevention, promotion, treatment, rehabilitation, and palliation) without risk of financial ruin or impoverishment, now and in the future, is a powerful mechanism for achieving better health and well-being, and for promoting human development⁽²⁾.

Achieving universal and equitable access to quality health care requires a sustainable financial resource base that meets the population’s health needs without causing impoverishment. Such access can contribute to the attainment of national development goals and economic growth through improved health status⁽²⁾. However, an enormous mismatch exists between countries’ health financing needs and their health spending^(3,4).

In every country, there are people unable to pay directly, out-of-pocket, for the services they need, or who may be seriously disadvantaged by doing so. When people on low incomes with no financial risk protection fall ill, they face a dilemma: if a local health service exists, they can decide to use the service and suffer further impoverishment in paying for it, or they can decide not to use the service, remain ill and risk being unable to work^(5,6).

Globally, there is a long way from achieving UHC because governments, especially in low-income countries, cannot usually raise sufficient funds by prepayment to eliminate excess out-of-pocket spending (OOPS) for all the health services that people need. But countries at all income levels have recently made important progress towards that goal by raising more

funds for health, pooling them more effectively to spread financial risks, and becoming more efficient ⁽⁷⁾.

Despite this progress, today millions of people cannot use health services because they must pay for them when they receive them. And many of those who do use services suffer financial hardship or are even impoverished because they must pay. According to WHO, 1.3 billion people do not have access to effective and affordable health care, 150 million people globally suffer financial catastrophic shock each year, and 100 million are pushed below the poverty line because of direct payments for health services^(8,9).

The total health expenditure (THE) per capita in the African region is the lowest in the world. Thirty-five countries (76% of all countries in the region) spent less than USD 34 per capita. The proportion of government health spending of total government spending in the African regions is 8%⁽⁸⁾. With increasing disease burden, low economic growth, huge informal sector, high unemployment, high levels of poverty, inequitable distribution of income, and weak public sector management, countries in the African region are facing the challenge of ensuring access to essential and quality health care services that are financed equitably. The health systems of most African countries depend largely on households' direct OOPS (averaged 28% of total health spending)⁽¹⁰⁾. The need for improved financial and technical support in implementing health-financing reforms in the African region is critical.

According to the 7th National Health Account (NHA), in Ethiopia, around 31% is derived from household OOPS in 2016/17, with a significant proportion of households (4.2%) facing catastrophic health expenses. This is the most regressive way of funding health care and contradicts the WHO recommendations that direct OOPS at the point of service should not exceed 15-20% of THE to reduce the likelihood of catastrophic financial expenditures for health service users, especially in low-income countries like Ethiopia^(7,11).

Many countries, including Ethiopia, are experimenting with health financing reforms, which are ultimately designed to achieve UHC⁽¹²⁾. Community-based health insurance (CBHI) schemes are becoming increasingly recognized as an instrument to finance health care in

developing countries as an alternative to user fees. The CBHI is an emerging and growing tool for providing financial protection to deprived individuals against health-related events. It is one among the diverse health insurances ensuring that the healthy and wealthy cross-subsidize the costs of health services for the sick and the poor, and among the mechanisms that help to achieve the UHC goal and to resolve financial hardship because of receiving the health care. It is typically not-for-profit and aims to be community-owned and controlled(13,14).

Therefore, CBHI has become part of an overall health financing strategy in several countries, several governments in these countries have embraced community-based health financing with national policies and administrative support for the implementation of several CBHI for improving the utilization of healthcare services by reducing OOPS for health(15). At the same time, the enrollees are relieved from selling their assets or searching for credit that may predispose them to catastrophic health expenditure (CHE). Health-care seeking might also be quicker and recovery from disease could be earlier among the enrollees(16).

CBHI schemes partly could be explained by a reaction to the adverse effects of user fees. The schemes are heavily influenced by contextual factors, and the revenues from the schemes have been small. The net impact of the schemes is inconclusive in that they have the potential to increase community participation and access to health care but struggle with small risk pools, adverse selection, failure to protect the poorest poor, dependency on subsidies, financial, managerial, and sustainability problems(17).

In 2011, the Ethiopian government introduced CBHI as a pilot project in 13 districts of the four major regional states of the country (Tigray, Oromia, Amhara, and Southern Nations, Nationalities, and Peoples' Region (SNNPR)). According to the Ethiopian health insurance agency 2012 annual report, the CBHI project was expanded to 824 woredas with 8,000,000 insured households and over 37,000,000 individual beneficiaries throughout the country. This project scored substantial success in the initial stage but dropped in the following years, that is, the enrolment decreased by 18%(18).

While the scheme has been introduced by the government, the community determines whether to join the scheme since it is “community-based”. Enrollment is being done in a household, not on an individual basis, to reduce the possibility of adverse selection. The CBHI benefit package covers all outpatient and inpatient services at the health center and nearby hospital levels except false teeth, eyeglasses, and cosmetic procedures(19). But in Addis Ababa, the meaning of utilization and benefits of insured households from non-insured was not well described and unjustified with evidence. Hence, this study will aim to identify differences in CBHI insured and non-insured households in Addis Ababa city administration, Ethiopia.

1.2. Statement Of the Problem

Development policymakers across the world are beginning to understand the healthcare financial burden and then impact evaluation research has become a major tool to inform the policy dialogue(13). An impact evaluation measures the impact of a program relative to the outcomes that would be seen in the absence of that program(20). Such evaluations lead to crucial decisions to scale-up programs, alter them or replace them with alternative mechanisms(14). As policymakers and researchers in the field, it is our responsibility to ensure that these evaluations take place, that they are done using the most robust methods possible and the findings are applied to the real world(21).

As part of its health care financing strategy in general and its health insurance strategy in particular, the Government of Ethiopia has endorsed and launched CBHI schemes since 2011 EC to provide risk protection mechanisms for those employed in the rural and the informal sectors(12). CBHI is an emerging and promising concept that has attracted the attention of policymakers as it addresses health care challenges faced by the poor. The objectives of launching CBHI in the country were to improve financial access to healthcare services; increase resource mobilization; improve the qualityhealthcarecare services; and strengthen community participation to contribute to the improvement of health-seeking behavior, health care utilization, and service quality. Different evidence suggests that CBHI membership has positive effects on health care utilization(22).

Despite this positive pattern, the overall health risk profile of those who have enrolled in the scheme does not seem to be very different from those who have not yet enrolled(12). To the best of my knowledge, evidence is scarce regarding the role of CBHI on outpatient health care services utilization in the country particularly in AA or in similar settings on this specific topic. Therefore, the main aim of this study will be to analyze the effect of CBHI on the utilization of outpatient health care services among insured and non-insured households using a mixed approach in Addis Ababa, Ethiopia.

1.3. Rationale/Significance of Study

Most developing countries including Ethiopia face a dearth of evidence regarding the effectiveness of the CBHI program. To fill the gap studies like this may have great importance in providing useful evidence for policymakers, health managers, and planners to scale up the existing program, revise, or change the platform of the program to assure its effectiveness. The study's findings can serve as a source of information and hypothesis generation for the interested researchers in the area and might also help influence the regional and national policymakers to develop appropriate plans and intervention programs.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. The Overview of Previous Experiences

The World Health Report 2010 defines the concept of UHC as a target in which “all people have access to services and do not suffer financial hardship paying for them”⁽⁹⁾. By this definition, UHC’s goal is clear-namely, guaranteeing access to health care and financial protection for all. Community-Based Health Care was a means towards achieving good health status by way of involving the people in taking an active and dynamic action towards a health action in identifying their health problems and taking appropriate action in solving them. But in most developing countries financing quality health care for the community is a major problem⁽²⁰⁾.

The CBHI schemes are usually voluntary and characterized by community members pooling funds to offset the cost of healthcare. Proper health insurance coverage for the poor in developing countries is one of the snapping lines for access to adequate health care. Consequently, CBHI has been considered an effective means to reach the poor with health care services^(3,13,16). CBHI runs by combining resources and risks at the individual and community levels. CBHI schemes can reduce CHE by reducing out-of-pocket payments and increasing resource mobilization^(13,23). Establishing CBHI schemes is presumed to improve health care financing, and has the potential to increase utilization of health care services, better protect people against CHE, and address issues of equity of access⁽²⁴⁾.

There is strong evidence that CBHI provides financial protection for its members in terms of reducing their OOPS, and that it improves the utilization of inpatient and outpatient services ⁽²⁰⁾. A study conducted in Kerala (India) approved that insured participants had higher inpatient service utilization (OR = 1.57; 95% CI = 1.05-2.34). The mean OOPS for inpatient services among insured participants was significantly higher than that of the uninsured households⁽²⁵⁾.

A systematic analysis of evaluating CBHI reviewed by Anagaw shows that 74 percent of the studies (26 out of 35 reviewed studies) find positive and statistically significant CBHI membership effects on health care utilization. The scheme does not only increase the probability of using care, but also leads to an increase in the frequency of visits to health care providers. The CBHI membership participation leads to an increase in the number of outpatient visits per household member to a public facility by about 0.05 to 0.07 (45 to 64% increase)(26). A study conducted in (Yirgalem city located at SNNPR) Ethiopia showed that the utilization of outpatient healthcare among members of CBHI is three times higher than that of noninsured households [AOR: 2931; 95% CI (1.039, 7.929); p-value=0.042](27).

The evaluation report of the pilot CBHI scheme in Ethiopia by FMOH indicated that 72.3% of members visited health facilities while non-members from the pilot area had visited 69.3% of the total. Another study on the impact of Ethiopia's pilot CBHI scheme on healthcare utilization and cost of care by Mebratie also found that utilization of outpatient services from public providers was 35% and 22% of CBHI members and non-members, respectively(12).

A study on the “effect of Ethiopia's Community-Based Health Insurance Scheme on Revenues and Quality of Care” by Zemzem Shigute ascertained that there is a sharp increase (111%) in the number of outpatient visits to CBHI-affiliated health centers. The increase in patient flows was accompanied by increases in health center revenues of 47%(28).

However, still, there are ongoing unsolved challenges facing the CBHI in the quality of services provided and then the community toward the effective utilization of health care service is retarded. A study on the impact of Ethiopia's pilot CBHI scheme on healthcare utilization and cost of care by Mebratie have been identified core challenges; for example, contracted providers differ in their readiness in terms such of pharmacy services, laboratory facilities, reception, and outpatient services, and health facilities, especially hospitals, are frequently in shortage of drugs and patients must buy items from outside (private) retailers(12,24).

Still, there are reported barriers to implement the program like cases of moral hazard and inappropriate practice both by providers and CBHI members. When contracted services are not available, members must pay out of pocket for drugs, diagnostic, and other health services in non-contracted health facilities.

This affects CBHI members more than it does the public. Those who have no money, in part because they spent it on their CBHI fee and premium are not able to access care. The other recurrent challenge in AA, CBHI members should be reimbursed by the scheme for full or partial payments, they often are not - their expenditures might be not allowed by scheme bylaws, the pharmacist at the contracted health facility fails to stamp the back of the member's prescription, or the reception might not record/register it in the patient's file(12,26).

2.2. Conceptual Framework

As households of a community become members of CBHI, their risk of unplanned healthcare costs is reduced. Hence their interest in health care utilization improved. As CBHI brings down the price of health care, there would be better access to health facilities and higher utilization of outpatient healthcare services by insured households than non-insured ones. Below is the Figure 1 diagrammatic representation of the conceptual framework attached.

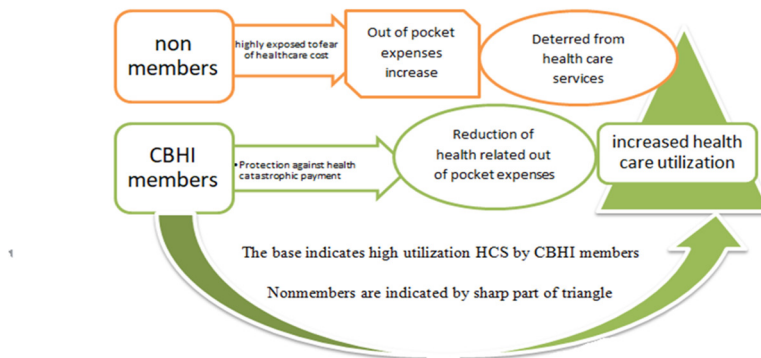


Figure 1 Diagrammatic representation of the conceptual framework, Addis Ababa, Ethiopia, March 2021

CHAPTER THREE

3. OBJECTIVES

3.1. General Objective

The general objective of the study was to compare the difference in outpatient healthcare service utilization between CBHI insured and noninsured households and to determine the factors affecting outpatient healthcare utilization of households in Addis Ababa, Ethiopia, 2021.

3.2. Specific Objectives

- ⇒ To compare the difference in outpatient health care service utilization between CBHI insured and noninsured by 2021 in Addis Ababa, Ethiopia.
- ⇒ To determine the factors affecting households to visit health facilities for their illness by 2021 in Addis Ababa, Ethiopia.

CHAPTER FOUR

4. METHODOLOGY

4.1. Study Design

A community-based comparative cross-sectional study design was used with a mixed-methods approach (both quantitative and qualitative data collection methods) employed to collect the data among CBHI member and non-member household heads (Figure 2).

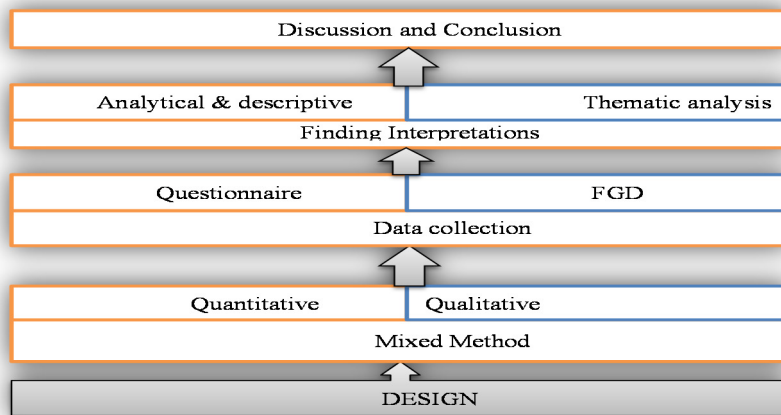


Figure 2 Diagrammatic representation of the Study Methods, Addis Ababa, Ethiopia, 2021

4.2. Study Setting

The study was conducted in Addis Ababa (AA) City Administration which is geographically located at the epic center of the nation, 9° 6'N latitude and 38° 54'E longitude which encompasses a total area of 540 sq. km land and is surrounded by Oromia special zones. AA is the most important commercial and cultural center as well as the capital city of Ethiopia and the diplomatic center of Africa. The city is administratively structured into 11 sub-cities and more than 120 woredas (the smallest administrative unit of the city unlike that of the country, kebele). The city has an estimated total population of 3.6 million in 2017(29).

AACA has started to implement CBHI in 10 health centers one from each sub-city as a pilot phase since 2010 EC and is currently expanded to all woredas (120) across the city with 10 schemes in 11 sub-cities. In this program, households are expected to pay 350 ETB for basic family members and an additional 70 Birr for extra dependents if any, annually as a premium (12,30,31). The city has 6 city administrations and 7 federal hospitals, and 97 public health centers all having linked with Addis Ababa CBHI schemes.

4.3. Study Population

A. For a quantitative approach

The source population for this study was all CBHI eligible households (both CBHI insured and non-insured) found in AA and all CBHI eligible households found in randomly sampled woredas were the study population for the quantitative part of the study. The study unit was household (whether male or female) since CBHI coverage is modeled as the households' coverage according to the scheme.

B. For the Qualitative approach

The study populations were board and management members of the health centers (medical directors, CEOs, family health heads, CBHI Focal persons & health office heads); and community representatives from randomly selected woredas were participants of FGDs.

4.4. Inclusion and Exclusion criteria

4.4.1. For the Quantitative study

A) Inclusion Criteria

- Household heads who reside at least six months in the study area, and
- Household heads who are not covered by other insurance schemes for health (i.e., social health insurance and Private Health Insurance).

B) Exclusion Criteria

- Household heads who are employed in the formal sector for the source of living (including pension)(30),

- Household heads' that had been included in the scheme within six months before the study were excluded to minimize the immature effect of the scheme.

4.4.2. For the Qualitative study

A) Inclusion Criteria

- Board and management members to the health centers who have served for at least 6 months and above before the data collection period.
- Health center CBHI focal persons.

B) Exclusion Criteria

- Participants who are not current staff of health facilities (found in study woreda) will be excluded to keep the homogeneity of the participants.

4.5. Sample size determination

4.5.1. For Quantitative Study

The sample size (n) for this study was estimated using the double population proportion formula (Figure 3) with the following assumptions: 80% statistical power with an expected margin of error of 5% and 95% confidence level ($Z_{(\alpha/2)}$), insured to the non-insured ratio of 1:1, and the proportion of health service utilization was 35% for the insured households and 20% for the uninsured household(26). The design effect is taken as 2 to account for the multi-stage level of the sampling method.

$$n_1 = n_2 = \frac{(z_{\alpha/2} \sqrt{2\bar{p}\bar{q}} + z_{\beta} \sqrt{p_1q_1 + p_2q_2})^2}{\Delta^2}$$

Where $\bar{p} = \frac{p_1 + p_2}{2}$ $\bar{q} = 1 - \bar{p}$.
 $\Delta = p_1 - p_2$

Figure 3 Sample size Determination Formula

The minimum sample size required for each group of the study will be 316 and the final calculated sample size will be 632 for both insured and uninsured households in the selected

study area for the quantitative part of this study. To determine the sample size for the second specific objective of this study, the researcher is going to use EpiInfo, version 7 computer-based sample size calculator software.

Table 1: Sample Size for Association Factors of the Second Specific Objective

Variable (exposed)	Variable (unexposed)	Proportion among exposed	Proportion among unexposed	Total sample size	Reference
CBHI insured HHs were used OPD services	Non insured HHs who were used OPD services	0.35	0.22	412	12
OPD services used HHs having formal education	Illiterate HHs who were used OPD services	0.79	0.74	1542	28
OPD used HHs with higher & middle income	HHs having lower incomes who were used OPD	0.84	0.67	199	28

632* is the preferred and the selected sample size for both objectives of the study

For the second objective, the highest sample size is 1,542. However, because of logistic and time issues, I considered the 2nd highest sample size which is 412. Therefore, the higher sample size of the 1st and 2nd objectives is 632, and with an expected (5%) nonrespondents' rate 664 is taken as the final sample size for the study.

4.5.2. For Qualitative Study

The investigator planned to use FGDs with 8 participants in each group and the discussion and groupings will be continued until the saturation or redundancy of ideas will have to be met.

4.6. Sampling technique

4.6.1. For the Quantitative Study

The sampling technique used for this study will be the multistage sampling technique at four stages stratified methods. At the first stage of the technique, 3 sub-cities (27%) will be randomly selected among the eleven CBHI implementing sub-cities found in AACAA. In the second stage of the sampling, to select among the 38 woredas found in the three selected sub-

cities, the investigator randomly selected 9woredas (24%)³ from each selected sub-city as a second sampling unit.

Table 2: Allocated Sample Sizes to each Selected Ketena in Addis Ababa, Ethiopia, 2021

S.no	Selected sub-cities (27%)	Selected Woredas (24%)	Selected Ketenas	No. of HHs in each Ketena	Sample Size
1	Kolfe keranio subcity	Woreda 3	Ketena 5	2481	217
		Woreda 4	Ketena 1	945	83
		Woreda 8	Ketena 2	675	59
2.	Addis Ketema subcity	Woreda 4	Ketena 2	687	60
		Woreda 9	Ketena 6	372	32
		Woreda 12	Ketena 3	256	22
3	Nifas Silk Lafto subcity	Woreda 2	Ketena 1	853	74
		Woreda 3	Ketena 1	580	51
		Woreda 13	Ketena 1	756	66
	Total	9 woredas	9 ketenas	7605	664

In the third stage out of 72 ketenas found in 9 woredas, 9 ketenas will be randomly selected one from each woreda and the study participants will be allocated to each ketenas according to the number of households, proportionally. In the fourth stage of sampling to select the study participants from the selected ketenas, the investigator planned and used a simple random sampling method among the study population. Then every 11th household (calculated by dividing the total number of households found in the selected Ketenas by the sample size) will be selected to be the final sampling unit of this study. The first participant among the study population will be selected randomly by lottery method (using numbers from 1-11).

4.7. Variables of the study

The dependent variable of the study will be the utilization of outpatient services for illness episodes of the family members among insured and non-insured households who are going to use outpatient services in the previous 6 months. Independent variables of the study will be the status of the households; demographic and socioeconomic characteristics of the individual head and the household (educational status, family size, occupation, and marital

status); insurance status, perceived quality of care, knowledge HHs, and cost of care incurred.

4.8. Operational Definitions

- a) Utilization of health-care service: - household members who had visited health facilities for outpatient healthcare services from modern healthcare providers (such as public health centers and hospitals, and private clinics and hospitals).
- b) Community-based health insurance: - is a system or a formal arrangement where individuals or households in the informal sectors pay small contributions or prepayments to get health care services from contracted health facilities.
- c) Household head: is an adult person, male or female, who is responsible for the organization and care of the household, or who is regarded as such by the members of the household.
- d) Outpatient department: - is an area in which the patient is treated in ambulatory care.
- e) Services: - activities that the health facility provides for the community.
- f) Formal sector: - all those types of employment which offer regular wages & hours so that income tax is paid.
- g) In-depth interview: - this study indicates an open-ended method/way of discussion to obtain detailed information about CBHI through FGDs.
- h) Knowledge of CBHI: - any acquired information and knowledge about CBHI related issues from local health institutions.

4.9. Data Collection Procedures

4.9.1. For Quantitative Study

Structured questionnaires were developed, after a thorough review of various kinds of literature, for data collection for the study. Six-degree holder data collectors and 2 public health supervisors administered face-to-face interviews. The questionnaire was designed to obtain information on the socio-demographic characteristics of respondents, general knowledge about healthcare utilization, and their trend of health facility visits with the

different components of the health center's outpatient services. It will be addressed to household heads at home and interviewees who were aged 18 and above years were interviewed.

To ensure the quality of data, the questionnaires developed in English were translated into Amharic, a local working language of the study setting that everybody can understand and use, and then back to English by a separate translator to ensure consistency. The training was given for two days to both data collectors and supervisors on the objective of the study, the data collection tools, methods of data collection and checking completeness of data, the importance of obtaining the respondent's informed consent, and respecting their rights to respond and not to respond to any part of a question and ensuring the respondent's privacy and confidentiality.

A pretest study with one ketena in similar settings in the city other than the selected ketenas with 5% of sample size had been conducted for consistency and ease of understanding and then the necessary adjustment has been made to the data collection tools to improve its quality. Data quality control was also assured through daily supervision, checks on the spot, and reviewing of the completed questionnaires by supervisors daily and throughout the data collection period. The principal investigator cross-checked the questionnaires for completeness, accuracy, and consistency.

4.9.2. For Qualitative Study

Semi-structured and open-ended questionnaires were used to conduct the qualitative part of this study to obtain information from the study participants. Concerned stakeholders (medical directors, CEOs, family health heads, CBHI Focal persons, and health office heads) from randomly selected woredas participated in FDGs and after getting consent the recording of the voice and pictures was taken. The discussion was facilitated by 1 trained and experienced moderator (the investigator himself) and one well-trained and experienced note-taker to record notes during the discussion. The focus group discussions were done at selected venues convenient to the participants in each selected Sub-city. All focus groups were moderated by

the investigator with the aid of a trained research assistant who operated the tape recorder, take thematic notes & minute book by acting as a secondary facilitator.

4.10. Data Processing and Analysis

4.10.1. For Quantitative Study

Data cleaning was performed to check for frequencies, accuracy, consistencies, and missing values. The collected data was entered into the computer using Epidata manager version 3.1 and exported to Statistical Product and Service Solution (SPSS) version 20 for further analysis. Frequencies, proportion, and summary statistics were used to describe the study population about the study variables as a uni-variable analysis. Pearson χ^2 test was used to assess whether the differences between the insured and non-insured were statistically significant with outpatient healthcare services utilization. Further, the bi-variable analysis was used to identify the significant effect of independent variables of the study on the utilization of outpatient healthcare services. Factors with $p < 0.2$ resulting from the bivariate analysis had been subjected to a multivariable analysis to determine the effect of CBHI membership and other factors on the probability of utilization of outpatient healthcare services. The final p-value ≤ 0.05 was considered to declare the significant factors along with the odds ratio and the correspondent 95% CI.

4.10.2. For Qualitative Study

The qualitative part was analyzed and interpreted using the thematic method of analysis with the English language manually. The data was analyzed manually using Microsoft Word 2007 and codebook. Notes were taken, and the entire discussion had been audio-recorded and then transcribed for analysis. By doing so the matured themes were coded and summarized under different thematic areas. The researcher quantified the responses and presented the quotes, from participants, textually.

4.11. Ethical Considerations

The data collection started as the official letter of ethical clearance from IRB of SPHMMC was being written to all concerned bodies and after the ethical review and clearance, AACAHB wrote a support letter to the selected sub-cities. Informed consent was obtained from the respondents after explaining the purpose of the study. The researcher considered the

research values of voluntary participation, confidentiality, and anonymity to ensure the protection of respondents from any possible harm that could arise from participating in the study. Thus, the researcher introduced to the data collectors the purposes of the study as partial fulfillment of a masters study program, the evidence generated from this study could be used for improving the pro, gram and the necessary permission is received from concerned government bodies to conduct the study and to request the respondents to participate in the study voluntarily such that refusal or abstaining from participation is permitted and that they can withdraw from the study at any time if they are not comfortable.

4.12. Dissemination of Results

The result of this study was submitted to SPHMMC, the department of public health. It is disseminated to AACAHB and respective sub-city health offices and other concerned bodies. The paper may also be presented at workshops, seminars, and other professional gatherings. Furthermore, the maximum effort would be made to publish the findings of this study in scientific journals of the article.

CHAPTER FIVE

5. RESULT

For the quantitative part of the study, a total of 648 households participated in the study, consisting of 324 CBHI members and non-members each. The response rate was 97.6%.

About 21 concerned stakeholders participated in three FGD groups from all randomly selected sub-cities, for the qualitative part of the study.

5.1. Result from Quantitative Part of the Study

5.1.1. Socio-demographic characteristics of respondents

Heads of the sample households were predominantly females with 247 (76.2%) and 249 (76.9%) for CBHI insured and non-insured HHs respectively. Accordingly, more than half of non-insured HHs 177(54.6%) and 183(56.5%) of the scheme members were between the ages of 30 and 49 years whereas about 149(23.0%) of the study participants were aged above 50 years old. Most of the sampled HHs had formal education, of which 52.2% of the insured HHs and 59.3% of the non-insured HHs had at least completed primary level education. About half of 335 (51.7%) the household heads had a monthly income of less than ten thousand Ethiopian birrs and of which 173(51.6%) were from non-insured HHs. Households having less than 3 family members were 93(28.7%) and 68(21.0%) for non-insured HHs and enrolled members, respectively (

Table 3).

Table 3: Socio-demographic characteristics of study participants in Addis Ababa, Ethiopia, 2021/22 (n=648)

Variables	Category	CBHI* Membership status			
		Non-Member (n=324)		Member (n=324)	
		Freq.	Percentage	Freq.	Percentage
Age	18-29	95	29.3	44	13.6
	30-39	122	37.7	112	34.6
	40-49	55	17.0	71	21.9
	>=50	52	16.0	97	29.9
Sex	Male	75	23.1	77	23.8
	Female	249	76.9	247	76.2
Current marital status	Single*	57	17.6	55	17.0
	Married	267	82.4	269	83.0
Educational status	Illiterate	43	13.3	54	16.7
	Read and write	89	27.5	101	31.2
	Primary	87	26.9	91	28.1
	Secondary	71	21.9	59	18.2
Occupational status	Higher education	34	10.5	19	5.9
	Housemaid	178	54.9	176	54.3
	Employee	50	15.4	62	19.1
	Others*	96	29.6	86	26.5
Number of HH members	<3	93	28.7	68	21.0
	3-5	187	57.7	193	59.6
	>5	44	13.6	63	19.4
HH* monthly Income	<10,000	173	53.4	162	50.0
	10,000-20,000	104	32.1	122	37.7
	>20,000	47	14.5	40	12.3

Single*=unmarried, divorced, separated others** = Merchant, urban farmers, laborers

HH*=household CBHI*= community-based health insurance,

5.1.2. The OPD utilization status of study participants

Among the study participants 297(91.7%) of CBHI insured respondents have utilized outpatient healthcare services in the past 6 months before this study while 228(70.4%) of the non-insured respondents have utilized outpatient healthcare services in the same period before the study period([Figure 4](#)).

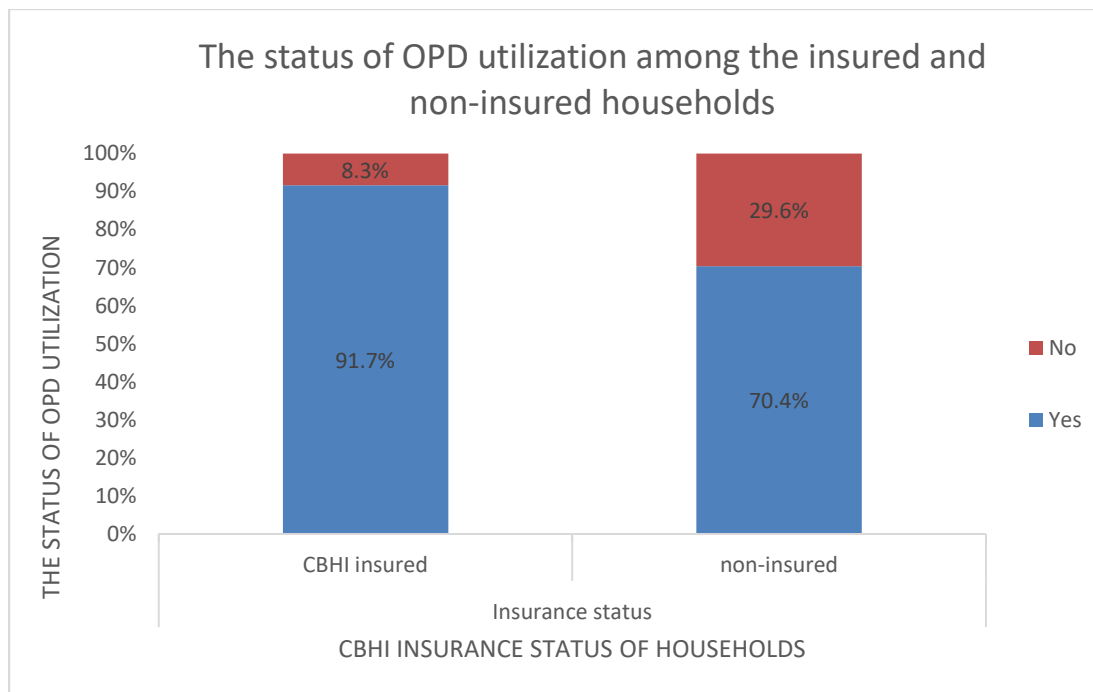


Figure 4: OPD Utilization among the CBHI-insured and non-insured households in Addis Ababa, Ethiopia, 2021/22

5.1.3. Utilization of Community-Based Health Insurance Related Factors

The majority 302(93.3%) of the CBHI members decided to renew their membership status and only 54(16.7%) among the scheme members are non-payers of the premium cost. The study shows that 284(87.7%) of the non-member households were mobilized by community health workers to join the scheme. Their most common reasons for non-member households not joining CBHI are lack of interest/ignorance to join 113 (34.9%), lack of CBHI premium cost/fee 144(44.4%), and low quality of services 67(20.6%) (

Table 4)

Table 4: The experience of respondents with CBHI and their OPD utilization status, Addis Ababa, Ethiopia, 2021/22

Variables	Category	Did you utilize OPD?	
		Yes	No
		Freq. (%)	Freq. (%)
<i>Do you think CBHI premium is affordable?</i>	Yes	383(83.9)	73(16.1)
	No	142(73.9)	50(26.1)
<i>How long have you been a CBHI member?</i>	1 to 2 years	241(91.9)	21(8.1)
	3 to 4 years	56(90.3)	6(9.7)
<i>What is your CBHI membership type?</i>	payer	244(90.4)	26(9.6)
	Non-payer	53(98.2)	1(1.8)
<i>What is the source of your information about CBHI?</i>	friends/health workers	109(88.6)	14(13.4)
	workshop seminar	86(87.8)	12(12.2)
	radio or tv	102(99.0)	1(1.0)
<i>Are you ready to renew your membership next?</i>	Yes	277(91.7)	25(8.3)
	No	20(90.9)	2(9.1)
<i>Have you ever been mobilized by health workers to join CBHI?</i>	Yes	206(72.5)	78(27.5)
	No	22(55.0)	18(45.0)
<i>What are the reasons behind your not joining the CBHI scheme?</i>	lack of fee/money	88(61.1)	56(38.9)
	poor service of HF*	39(97.5)	1(2.5)
	due to ignorance	85(75.2)	28(24.8)
	Others	16(59.3)	11(41.7)
<i>Are you ready to join CBHI now (if there is an opportunity)?</i>	Yes	206(71.3)	83(29.7)
	No	22(62.9)	13(37.1)

*HF= health facility

5.1.4. Healthcare System-Related Factors

Of the total, OPD served HHs 81.7% had been served from government health facilities. The insured and non-insured HHs had a line share of 279 (65.0%) and 150(35.0%) by OPD service utilization from government health facilities. According to the study, insured HHs had a lesser utilization rate of 18(18.7%) than non-insured HHs 78(81.3%) in private health facilities. The frequent visits to health facility and their rationale for visits (type of illness) varied significantly with the CBHI enrolment status of households (Table 5: The Frequency of other outcome variables by CBHI membership status, Addis Ababa, Ethiopia, 2021/22). However, the duration of recovery after their healthcare visit, the friendliness of healthcare

professionals, and the confidentiality of clinical attachment did not vary significantly with the CBHI enrolment status of households. About 456(70.4%) of the respondents perceived that the premium cost of CBHI is affordable. Accordingly, 297(65.1%) and 159(34.9%) of them were insured and non-insured HHs. Most of those who attended health facilities, 338(64.4%), have utilized OPD service due to their chronic and follow-up cases, and then 200(59.2%) of them are scheme member HHs whereas non-insured HHs were 138(40.8 %)(Table 5: The Frequency of other outcome variables by CBHI membership status, Addis Ababa, Ethiopia, 2021/22).

Table 5: The Frequency of other outcome variables by CBHI membership status, Addis Ababa, Ethiopia, 2021/22

Variables	Category	CBHI Membership Status			
		Non-insured (n=324)		Insured (n=324)	
		Freq.	Percent	Freq.	Percent
Do you think that CBHI* premium cost/fee is affordable?	Yes	159	34.9	297	65.1
	No	165	85.9	27	14.1
Have you visited any health facilities?	Yes	228	43.4	297	56.6
	No	96	78.0	27	22.0
What types of health facilities have you visited?	Government	150	35.0	279	65.0
	Private	78	81.3	18	18.7
how many times have you visited health facilities?	1	100	100.0	0	0.0
	2 to 3	104	51.7	97	48.3
	>=4	24	10.7	200	89.3
What was the reason/cause for you have been visiting health facilities?	infectious disease	90	48.1	97	51.9
	chronic diseases	50	32.1	106	67.9
	Follow-up	88	48.4	94	51.6
For how long days stayed the illness you had faced?	For at most 6 days	188	44.2	237	55.8
	7 to 15 days	13	20.3	54	79.7
	>15 days	27	75.0	9	25.0

CBHI*= community-based health insurance

Regarding the utilization of OPD, in the past 6 months before the survey, households who were CBHI insured 297(91.7%) are more likely to use outpatient healthcare services than households who were not insured 228(70.4%) ($\chi^2 = 47.78$, $P < 0.001$) (Table 6: The effect of CBHI on OPD service utilization in Addis Abab, Ethiopia, 2021/22 (N= 648).)

Table 6: The effect of CBHI on OPD service utilization in Addis Abab, Ethiopia, 2021/22 (N= 648).

<i>Variable</i>	<i>Category</i>		<i>CBHI* membership status</i>		<i>χ2</i>	<i>P-value</i>
			Insured	Non-insured		
<i>Have you visited any HF in* the last 6 months?</i>	Yes	Freq.	297	228	47.78	<0.001
		Percent	91.7	70.4		
	No	Freq.	27	96		
		Percent	8.3	29.6		
<i>Total respondents</i>			<i>324</i>	<i>324</i>		

CBHI*= community-based health insurance, HF*= health facility

To approve that the observed differences were not just simply caused by the individual HHs or household characteristics, the bivariate analysis of explanatory variables, including CBHI scheme membership status, with the outcome variable of the study was computed. Then, all the independent variables with a p-value < 0.25 in the bivariate analysis were subjected to multivariable analysis. Accordingly, variables such as age, sex, marital status, educational status, family size, monthly income, CBHI premium fee affordability, and CBHI membership status were significant in the bivariate analysis.

In the multivariable logistic regression analysis, there exists a statistically significant association between CBHI scheme membership status ($p < 0.001$), age older than 50 years old ($p < 0.01$), and educational status of household heads ($p < 0.05$) with the utilization of outpatient health-care services. Compared with non-insured households, insured households were about 4.41 times more likely to utilize outpatient healthcare services during their respective illness (AOR: 4.41; CI: (2.59, 7.50). Household heads older than 50 years old were 3.54 times more likely to utilize OPD health care services than those who were younger than 30 years (AOR= 3.54; (95% CI; 1.66, 7.52). Respondents who had an educational status of

reading & write were 2.93 times more likely to report healthcare service utilization than those illiterate ones (AOR= 3.97; (95% CI; 1.45, 5.92). The study respondents having higher educational levels were four times more likely to utilize OPD services than that illiterate HHs (AOR= 4.01; (95% CI; 1.40, 11.4). (Table 7)

Table 7: Multivariable Analysis of OPD utilization among Explanatory Variables, Addis Ababa Ethiopia, 2021/22 (N= 648)

Variables	Category	Utilized OPD* Services				COR, 95% CI	AOR, 95% CI	P-value
		Yes	%	No	%			
Age	18-29	102	73.4	37	26.6	R	R	
	30-39	185	79.1	49	20.9	1.4 (0.8, 2.2)	1.2(0.7, 2.1)	0.520
	40-49	103	81.7	23	18.3	1.6 (0.9, 2.9)	1.3(0.7, 2.4)	0.476
	>=50	135	90.6	14	9.4	3.5 (1.8, 6.8)	3.5(1.7, 7.5)	0.001
Sex	Male	116	76.3	36	23.7	R	R	
	Female	409	82.5	87	17.5	1.5 (0.9, 2.3)	1.9(1.0, 3.6)	0.064
Marital status	Single*	85	75.9	27	24.1	R	R	
	Married	440	82.1	96	17.9	1.5 (0.9, 2.4)	1.5(0.8, 2.6)	0.196
Educational status	Illiterate	73	75.3	24	24.7	R	R	
	Read & write	167	87.9	23	12.1	2.4(1.3, 4.5)	2.9(1.5, 5.9)	0.003
	Primary	143	80.3	35	19.7	1.3(0.74, 2.4)	2.0(1.0, 4.0)	0.050
	Secondary	97	74.6	33	25.4	1.0(0.5, 1.8)	1.8(0.9, 3.8)	0.109
Occupational status	Higher education*	45	84.9	8	15.1	1.9(0.8, 4.5)	4.0(1.4, 11.4)	0.010
	Housemaid	293	82.8	61	17.2	R	R	
	Employee	90	80.4	22	19.6	0.9 (0.5, 1.5)	0.8(0.4, 1.7)	0.612
	Others*	142	78.0	40	22.0	0.7(0.5, 1.2)	1.2(0.6, 2.3)	0.577
Family size	<3	128	79.5	33	20.5	R	R	
	3 to 5	300	78.9	80	21.1	0.9(0.6, 1.5)	0.8(0.5, 1.4)	0.506
	>5	97	90.7	10	9.3	2.5(1.2, 5.3)	2.2(1.0, 5.1)	0.061
Monthly Income	<10,000	276	82.4	59	17.6	R	R	
	10,000-20,000	176	77.9	50	22.1	0.8(0.5, 1.1)	0.6(0.4, 1.0)	0.074
	>20,000	73	83.9	14	16.1	1.1(0.6,2.1)	1.2(0.6, 2.5)	0.632
CBHI Membership	Non-insured	228	70.4	96	29.6	R	R	
	Insured	297	91.7	27	8.3	4.6 (2.9, 7.3)	4.4(2.6, 7.5)	<0.001
Does CBHI premium affordable?	No	142	74.0	50	26.0	R	R	
	Yes	383	84.0	73	16.0	1.9 (1.2, 2.8)	1.0(0.6, 1.7)	0.941

R*= reference for each categorical variable, Higher Edu*= diploma and above

Single*= unmarried, divorced, separated. Others**= merchant, urban farmers, laborers

HH*=household, CBHI*= community-based health insurance, OPD*= outpatient department

5.1.5. Findings from Qualitative Part of the Study

Three groups were formed which comprised of 6-8 concerned stakeholders (medical directors, CEOs, family health heads, CBHI Focal persons, and health office heads) from each randomly selected Sub-cities who were involved in CBHI membership recruitment and healthcare service manager and/or provider. (Table 8)

Table 8: FGD groupings and Participants in Addis Ababa, Ethiopia, 2021/22

<i>Targeted Sub-cites</i>	<i>Concerned stakeholder Participants</i>				<i>Overall Total</i>
	CEOs	MDs	HO heads	CBHI focal	
<i>Kolfe Keraniyo</i>	2	2	1	3	8
<i>Addis Ketema</i>	1	2	1	3	7
<i>Nifas-Silk Lafto</i>	1	2	1	2	6
<i>Total</i>	4	6	3	8	21

The thematic analysis of the qualitative data from the three FGDs inspires that the aim for enrollment for the scheme was not only risk pooling and social solidarity for the non-predicted illness and incidences of family members of the households, but also for improving health-seeking behaviors of the community. All the FGDs participant assures that the mobilization and the message delivered by community health workers during the time of the scheme registration had an impact on health facility visits for their illness. The OPD utilization is incremental from time to time, especially for patients with chronic illnesses who prefer government health facilities for their follow-up and cost-wise stress. Most of the participants discussed in the three FGDs agreeably said there is an increment of OPD service visitors to the government's health facilities.

The findings from the FGDs also establish the quantitative descriptive facts that the scheme members are most frequently utilizing the health service for their illness, unlike non-members by which they are rarely visiting public health facilities. As the community representative (board members from Alembank HC), FGD participant reported: the *patient load particularly in the OPD unit has been increasing these days*.

Among the participants, the CEO of Alembank health center said that “*especially for the last two years OPD visitors were increased in our health center due to the increase in insured households in our catchment*”. Among 2417 OPD visitors of September 2021, 1368, of them were the scheme member HHs.

According to the speech from the medical director from Addis ketema, even if the patients were noninsured, they would like to prefer public health facilities for their illness because the medication cost in private health facilities is expensive. However, *the role of CBHI has undeniably increased outpatient health care utilization among the scheme members*, he said.

Accordingly, FGD participant from Kolfe woreda 3 HC, CEO stated that most OPD service utilizers were the scheme member HHs especially chronic patients since they are preferring HCs for their continuous follow-up and relatively the expensiveness of medication cost by pocket money.

Another participant from Nifasilk Lafto Sub-city reported that “*I am CBHI officer, as far as my exposure to the scheme last year we had paid a high amount of service fees for concerning health facilities more than the previous year.*” He also informed us that in the future we couldn’t reimburse the service payment since the premium cost was not enough to cover.

And a few participants expressed a preference for the utilization of OPD services from private providers due to the perceived quality of healthcare services and the presence of more competent and compassionate care providers.

6. DISCUSSION

As part of its health care financing strategy in general and CBHI, the Government of Ethiopia has endorsed and launched CBHI schemes since 2011 EC to provide risk protection mechanisms for those employed in the rural and the informal sectors (12). CBHI is an emerging and promising concept that has attracted the attention of policymakers as it addresses health care challenges faced by the poor. Different evidence suggests that CBHI membership has positive effects on health care utilization (13,23,24,32)). To the best of my knowledge, evidence is scarce regarding the role of CBHI on outpatient health care services utilization in the country particularly in AA or in similar settings on this specific topic.

This study applied quantitative techniques to household-level survey data and qualitative evidence with FGDs to analyze the effect of the CBHI scheme effect on the utilization of outpatient health services for the scheme member compared to non-member households. The study aimed to compare differences in outpatient healthcare service utilization between insured and noninsured households, and the study identified factors for OPD utilization in the two groups.

6.1. The Utilization of Healthcare Services with the CBHI Membership Status and Related Factors (Quantitative Part)

Health care utilization of households is explained in the study in terms of the frequency of visits to health facilities to get health care services. This includes the six months history, before the study time, of outpatient health care services utilized by HHs. Consistent with previous studies (12,25,27,28), in this study, the insured households were more likely to use health services than non-insured households. The study showed that the utilization of outpatient health care services was higher among the insured compared to the non-insured HHs in the last 6 months. The logistic regression run showed that controlling for other variables, households with insured resemble to utilize health services more than households that are not enrolled in the scheme. As the result of this study, 297(91.7%) individuals from insured households had utilized OPD services compared to 228(70.4%) individuals from non-insured households and the difference was significant ($P < 0.001$). Compared with non-insured households, insured households were about four times more likely to utilize outpatient healthcare services during their respective illness.

The finding is consistent with other related previous studies. In a study conducted in Bangladesh; utilization of healthcare services was 11.0% higher for the scheme members than for non-insured households. Another study conducted in Kerala (India) approved those insured participants had higher inpatient service utilization. The study conducted in (Yirgalem city located at SNNPR) Ethiopia showed that the utilization of outpatient healthcare among CBHI insured is three times higher than that of non-insured households(25,27).

The other important variable, linked to OPD utilization, in this study is found to be age. As a result, household heads aged above 50 years were 3.54 times more likely to utilize OPD service compared to that household heads aged (18-29) years. This could be because people of the youngest age group were less likely to be exposed to a frequent illness that leads to health facility visits and because of their immunity. This is consistent with the study done in the USA concludes that older adults use far more health care services than do younger

groups. Although older adults vary greatly in terms of health status, most of them have at least one chronic condition that requires care(33). Another study conducted in Indonesia approves that the need for OPD service is likely to increase as the population ages (34). However, research done in the Amhara region, Ethiopia finds out older age is significant that negatively affected the utilization of modern health services. This might be the older patients in rural Ethiopia, may prefer traditional remedies to modern health services(35).

In this study, the respondents' educational status is significantly associated with increased odds of utilizing modern healthcare services following an illness. Households with an educational level of {read and write} were four times more likely to utilize outpatient healthcare services relative to those illiterate households. With the low level of educational status, the utilization of healthcare is decreasing. This is consistent with the study conducted in Ghana's rural communities that education had a positive and significant influence on the utilization of OPD services(36). Another study conducted in the Amhara region of Ethiopia identified that the educational status of households is strongly significant with healthcare service utilization as the educational status of the household increases the ability to decide and take action to visit modern health facility enhanced(35).

This study showed that 93.7% of the study participants were mobilized by community health workers, and so they were aware of CBHI, which is a percentage almost consistent with a previous study done in Bahir Dar, Northwestern Ethiopia (93.8 %), and higher than that of a study conducted in Jimma Zone (31.0%) as well as a study done at Adamma, East Shoa, Oromia (90.7%). Health professionals have been identified as the primary source of information on CBHI. The difference might have resulted due to study time difference and the initiation of the CBHI scheme in the study areas as well as study setting differences.

6.2. The Explored Trend Between OPD Utilization and Membership Status (Qualitative Part)

Accordingly, the qualitative finding noted that both the CBHI scheme member and non-member households, for their illness, were utilized gov't health facilities with some exceedance for scheme member HHs. The finding also indicates that the scheme members utilized OPD services more frequently than nonmember HHs. This was due to a follow-up trend for chronic illness and the relative expensiveness of medication cost by pocket money or self-sponsorship. These findings are consistent with other studies that found that distance to facilities, transportation costs, and poor quality of care create additional cost barriers that limit access to services even in the presence of insurance. But in case of severe illness; they usually prefer healthcare services from hospitals in preference to the availability of qualified providers and quality healthcare services

7. Limitation of the Study

As this study was cross-sectional, the factors particularly age and educational status do not establish a temporal relationship. Therefore, inference of causation is not possible. Another limitation of this study was the use of 6 months recall period, to get an adequate study population with health care needs for the assessment of the effect of CBHI on utilization of healthcare services and its associated factors. Thus, it may induce recall bias in the study, especially in recalling the frequency of health facility visits and visitors from HH members for utilization of outpatient services for the given illness in the household.

8. Conclusion

This thesis comes out with a way to advance the understanding of the effect of the CBHI scheme on the utilization of outpatient healthcare services in Addis Ababa, Ethiopia. highlights two remarkable findings: the scheme has had an incremental effect on the utilization of outpatient healthcare services, and the insured households visited the public health facilities more than private health facilities to seek health care for the illness of their members. Hence, the study indeed established that the CBHI scheme was identified as the incremental factor for the utilization of OPD services during episodes of illness.

The study also identified other factors like age, and educational status of the participants had a significant impact on the OPD service utilization. Older adults use far more healthcare services than do younger groups, and illiterate households were less likely to utilize outpatient services than higher educational status groups.

Parallel to the findings from the quantitative study, the qualitative part of the study assures that the mobilization and the message delivered by community health workers during the time of the scheme registration and the CBHI status had an impact on health facility visits for their illness.

9. Recommendations

As the study reveals that CBHI has a positive impact on the utilization of OPD healthcare services and the insured households tend to serve more in gov't health facilities than private health facilities. Therefore, the following actions need to be taken: -

9.1. Ethiopian Health Insurance Agency

- ⇒ The Ethiopian health insurance agency needs to improve administrative and monitoring strategies to maximize the quality of OPD service. And there is a need to strengthen the scheme further by opening special service delivery points through all gov't health facilities.
- ⇒ Due attention to addressing the whole eligible community to join the scheme as much as possible to improve the universal health coverage of the country.

9.2. Addis Ababa Health Bureau

- ⇒ Community awareness and engagement are necessary especially for unprivileged communities and come across their financial shortcomings.
- ⇒ In addition, AA regional health bureau needs to develop supportive strategies for households who had a member with chronic illness/disabilities, considering fee waivers for poor households and improving the quality of health services in government-owned health facilities to benefit both poor and rich households.

9.3. Public Health Facilities

- ⇒ The public health facilities need to be capacitated to assure their readiness for quality and timely outpatient healthcare service delivery.
- ⇒ Medical equipment and pharmaceuticals must be mobilized and easily accessed for their customers' demands.
- ⇒ More effort is needed to expand insurance coverage for the elderly, particularly for those of the lower economic status, and to improve access to outpatient services

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1. Declaration

I, the undersigned, declare that the thesis entitled, “**Effect of community-based health insurance on utilization of outpatient healthcare service in Addis Ababa, Ethiopia**” is my original work, it has never been submitted to any higher institution of learning for any award. All sources of the materials used in this study have been duly acknowledged.

Name: Enga Erketa Limaga

Signature: _____ Date _____

1. Certificate

This is to certify that this master thesis on the '**Effect of community-based health insurance on utilization of outpatient healthcare service in Addis Ababa, Ethiopia**' was carried out by Enga Erketa Limaga, a student of master's in public health, Department of Public Health in St Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia. He has been working under our supervision and finalized this thesis to our satisfaction as a final draft which could be summited for further processing as per College. The rules, terms, and conditions of the Research and Publication Directorate or/and Department of Public Health of St Paul's Hospital Millenium Medical College led to the award of a master's degree in general public health (MPH).

Name 1. _____ Signature _____ Date _____

Name 2. _____ Signature _____ Date _____

Annex I: Information Sheet and Participant Consent Form

St. Paul's Hospital Millennium Medical College

Study topic: - Effect of Community Based Health Insurance on Utilization of Outpatient Health Care Service in Addis Ababa, Ethiopia.

Greeting- Hello! You are invited to a research study. Before you decide whether to take part in this research study, please take some time to understand why the research is being done and what it includes. My name is _____ came from _____; I am here on behalf of Enga Erketa, a student at St. Paul's Hospital Millennium Medical College department of Public Health, General Public Health Master Student. He is researching the effect of community-based health insurance on the utilization of outpatient health care services. He has received permission from St. Paul's Hospital Millennium Medical College and the respected Addis Ababa City Administration Health Bureau, and the sub-city health office as well. Participants of this study are household heads who have used outpatient health care services in selected woredas for the last 6 months.

The purpose of this study is to analyze the effect of CBHI on the utilization of outpatient health care services among insured and non-insured households and to forward evidence-based recommendations to concerned bodies. The interview is completely based on your voluntary basis, you have the right to refuse participation and you can stop at any time if you feel inconvenient, but your participation is very important to the outcome of this study. So, I would like to ask you some questions which may take about ----- minutes. Participating or not-participating and refusing to answer questions will not affect your life. All the information that you are going to provide me will remain confidential and used only for the intended purposes and you do not need to mention your name. If you have any further information, please do not hesitate to contact the researcher via phone number +251912743333 or at alihaw143@gmail.com. Agreeing to this interview means the research study including the above information has been described to you orally and that you are voluntarily agreeing to participate.

Annex II የጥናቱ አጭር መግለጫና የተሳታፊዎች ፈቃደኝነት መጠየቂያ ቅጽ

በቅዱስ ጳውሎስ ሆስፒታል ሚሴኒየም ህክምና ኮሌጅ

የህብረተሰብ ትምህርት ክፍል

የጥናቱ ርዕሥ :- በአዲስ አበባ ከተማ አስተዳደር የማህበረሰብ አቀፍ የጤና መድሀኒት ተጠቃሚነት በጤና ተቋማት ተመላላሽ ህክምና አገልግሎት ላይ ያለው ተፅዕኖ

ስሜ ----- ይባላል ፤ የመጣሁት በቅዱስ ጳውሎስ ሆስፒታል ሚሴኒየም ሜዲካል ኮሌጅ (ቅ/ጳ/ሆ/ሚ/ሜ/ኮ) የህብረተሰብ ጤና የማስተርስ ዲግሪ ተማሪ የሆነው እንጋ እርቀታን ወክቶ ነው። የማህበረሰብ አቀፍ የጤና መድሀኒት (ማክሌመ) ተጠቃሚነት በጤና ተቋማት ተመላላሽ ህክምና አገልግሎት ላይ ያለው ተፅዕኖ እና ተጓዳኝ ምክንያቶች ላይ ጥናት እያደረገ ነው። ይህንን ጥናት ለማድረግ ጉዳዩ ከሚመለከታቸው አካላት ማለትም ከኮሌጁ፣ ከአዲስ አበባ ጤና ቢሮ፣ እንዲሁም ከክፍለ ከተማ ጤና ጽ/ቤት ፈቃድ አግኝቷል።

ስምዎ በዚህ መጠይቅ ውስጥ የማይካተት ከመሆኑም በላይ የሚሰጡት መረጃ በሙሉ ሚስጥራዊነቱ የተጠበቀና ለጥናቱ ዓላማ ብቻ የሚውል መሆኑን በመጀመሪያ ላረጋግጥሎት እፈልጋለሁ። ይህ መጠይቅ በእርስዎ ፈቃደኝነት ላይ የተመሰረተ በመሆኑ ያለመሳተፍ መብትዎ የተጠበቀ ከመሆኑም በላይ በማንኛውም ሰዓት ቃለ-መጠይቁን የማቋረጥ ሙሉ መብት አለዎት እንዲሁም በጥናቱ በመሳተፍዎ የሚያገኙት ቀጥተኛ ጥቅም እንደሌለ ሁሉ ባለመሳተፍዎም በእርሶ ላይ የሚያመጣው ምንም ዓይነት ተጽዕኖ የለም ነገር ግን የእርስዎ ተሳትፎ ለጥናታችን ውጤት በጣም አስፈላጊ በመሆኑ በመጀመሪያ በጥናቱ እንዲሳተፉ በአክብሮት ጥያቄያችንን እናቀርባለን።

ጥናቱ በከተማው የማክሌመ አባል በመሆንና ባለመሆን በጤና ተቋማት የተመላላሽ ህክምና አገልግሎት ላይ የሚፈጥረው ተፅዕኖን እና የልዩነቱን ተያያዥ ምክንያቶች በማወቅ የጤና መድሀኒት ተጠቃሚነት ለማሻሻል እየተደረጉ ያሉ ጥረቶችን የበለጠ ውጤታማ እንዲሆኑ በጥናት የተደገፈ ወቅታዊ መረጃ ጉዳዩ ለሚመለከታቸው ወሳኝ አካላት ለማቅረብ ነው። የተጠቃሚዎችን መረጃ በቃለ-መጠይቅ የምንወስድ በመሆኑ እውነተኛ መልስዎን እንዲሰጡኝ በትህትና እጠይቃለሁኝ።

በዚህ ጥናት ለመሳተፍ ፈቃደኛ ነዎት?

ሀ) አዎ ለ) አይደለሁም

በጥናቱ ለመሳተፍ ፈቃደኛ ከሆኑ ትክክለኛ መልሶችን በመስጠት እንዲተባበሩን በታላቅ አክብሮት እየጠየቅሁኝ ወደ ቃለ_መጠይቁ እሻገራለሁኝ፡፡

Annex V. Questionnaire (English)

Section I- Socio-demographic characteristics of respondents:

- 1) Age of the respondent
 1. (18 - 29 years) 2. (30 – 41 years)
 3. (42 – 53 years) 4. ($\geq$ 54 years)
- 2) Sex of the respondent
 1. Male 2. Female
- 3) Marital status of the respondents
 1. Unmarried 2. Married 3. Divorced
 4. Widowed 5. Separated
- 4) Educational status of the respondents
 1. Illiterate 2. Read and write 3. Primary education (Grades 1-8)
 4. Secondary education (Grades 9-12) 5. Diploma and above
- 5) Occupational status of the clients'
 1. Housewife 2. Urban farmer 3. Employee (gov't/ private)
 4. Merchant 5. Daily laborer 6. Other (specify) -----
- 6) Family size of the respondent
 1. ($<$ 3) 2. (3-5) 3. ($>$ 5)
- 7) Estimated annual income of the respondents
 1. ($<$ 10,000) EtB 2. (10,000 - 20,000) EtB
 3. ($>$ 20,000) EtB

Section II. Outpatient healthcare visit experiences and knowledge all about CBHI among respondents (for CBHI uninsured)

1) Have you ever been mobilized by health workers/ any concerned personnel to join CBHI?

1. Yes
2. No

2) What are the reasons you have not been joining the CBHI scheme?

1. Lack of premium cost/fee
2. Due to poor services of the health facilities
3. Simply due to ignorance
4. Other (specify) -----

3) Do you think that the CBHI premium cost/fee is affordable?

1. Yes
2. No

4) Are you ready to join CBHI now (if there is an opportunity)?

1. Yes
2. No

5) Have you ever visited any health facilities for the last 6 months?

1. Yes
2. No

6) What types of health facilities have you visited?

1. Government health facilities
2. Private health facilities
3. Other (specify) -----

7) How many times have you visited this health facility? (Based on Q₆)

1. Not at all
2. Only once
3. Two to three times
4. Four times and more

8) What was the reason/cause for you have been visiting health facilities?

1. Acute infectious disease

2. Non-infectious chronic disease 3. Follow up case
- 9) For how long days stayed the illness you had faced?
 1. (1 to 6) days 2. (7 to 15) days 3. For more than 15 days
- 10) Got prescribed drugs?
 1. Fully (all prescribed) 2. Partially/some of them 3. None
- 11) Do you agree that health care service providers of health facilities (you have been visited) are friendly?
 1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree
- 12) Do you agree with the information provided to you about your problem by health workers?
 1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree

Section III. Outpatient healthcare visit experiences and knowledge all about CBHI among respondents (for CBHI insured)

- 1) How long have you been since you joined the CBHI scheme?
 1. one to two years 2. Three to four years
- 2) What type of CBHI membership do you have?
 1. Payer 2. Indigent/non-payer
- 3) What is the source of your information about CBHI?
 1. Friends/colleagues/neighborhoods 3. Radio/ Television
 2. Workshops/seminars 4. Internet 5. Newspapers/Books
- 4) Do you think that the CBHI premium cost/fee is affordable?
 1. Yes 2. No
- 5) Are you ready to renew your membership next?
 1. Yes 2. No
- 6) Have you ever visited any health facilities for the last 6 months?
 1. Yes 2. No
- 7) What types of health facilities have you visited?
 1. Government health facilities
 2. Private health facilities 3. Other (specify) -----

- 8) How many times have you visited this health facility?
1. Not at all 3. Two to three times
 2. Only once 4. Four times and more
- 9) What was the reason/cause for you have been visiting health facilities?
1. Acute infectious disease
 2. Non-infectious chronic disease 3. Follow up case
- 10) For how long days stayed the illness you had faced?
1. (1 to 6) days 2. (7 to 15) days 3. For more than 15 days
- 11) Got prescribed drugs?
1. Fully (all prescribed) 2. Partially/some of them 3. None
- 12) Do you agree that health care service providers are friendly at the health facility visited?
1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree
- 13) Do you agree with the information provided to you about your problem by health workers?
1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree

Thank you very much for giving us your time, to respond to this questionnaire. Your honest and unbiased response will certainly go a long way in shedding light on where improvement needs to be made in the quality of outpatient care and on the implementation of the CBHI program to ensure efficiency and sustainability!!

ይህ መጠይቅ በአዲስ አበባ ጤና ቢሮ የጥናትና ምርምር ዳይሬክቶሬት ፈቃድ የተሰጠው እና የጤና መድሃኒ አባልነት በጤና ተቋማት ተመላላሽ ህክምና ተጠቃሚነት ላይ ያለውን በጎ ተፅእኖ ለማወቅ የሚደረግ ተቋማዊ ጥናት አካል ነው። ጥናቱ ሲጠናቀቅ የማህበረሰቡ የጤና መድሃኒ ተጠቃሚነት ለማጎልበት ፈር ቀዳጅ የመረጃ ምንጭ ይሆናል በሚል ታምኖበታል። በመሆኑም በመጠየቁ ላይ የሚገኝ መረጃ ሚስጥራዊነቱ የተጠበቀና ለከተማ አስተዳደሩ የጤና አገልግሎት ተደራሽነት አዎንታዊ ፋይዳ ስለሚኖረው እርሶም የበኩልዎን ድርሻ ለመወጣት ግዜዎትን ለመተባበር ፈቃደኛ በመሆኖ በቅድሚያ እናመሰግናለን።

I. ክፍል አንድ - ስነ ህዝብ መረጃ/ አጠቃላይ መረጃ:

- 1) መልስ ሰጪው እድሜ በዓመት
 1. (18 - 29) 2. (30 — 41)
 3. (42 - 53) 4. ($\geq$ 54)
- 2) የተጠያቂው ጾታ
 1. ወንድ 2. ሴት
- 3) የጋብቻ ሁኔታ
 1. ያላገባ/ች 2. ያገባ/ች 3. የፈታ/ች
 4. ባሏ የሞተባት 5. የተለያዩ
- 4) የትምህርት ደረጃ
 1. ምንም ያልተማረ 2. ማንበብና መጻፍ የሚችል/ምትችል 3. የመጀመሪያ ደረጃ (1-8)
 4. ሁለተኛ ደረጃ (ክፍል 9-12) 5. ዲፕሎማና ከዚያ በላይ
- 5) የስራ ሁኔታ
 1. የቤት እመቤት 2. የከተማ ግብርና 3. ተቀጣሪ (የመንግስት/ የግል)
 4. ነጋዴ 5. የቀን ሰራተኛ 6. ሌላ (ይገለጽ) -----
- 6) የቤተሰብ ብዛት
 1. (< 3) 2. (3-5) 3. (> 5)
- 7) ዓመታዊ አማካይ ገቢ
 1. (< 10,000) ብር 2. (10,000 - 20,000) ብር
 3. (> 20,000) ብር

II. ክፍል ሁለት፡ የተመላላሽ ታካሚዎች እውቀትና ልምድ የማጤመ አባል ላልሆኑ

- 1) የጤና መድሀኒ አባል እንዲሆኑ በጤና ባለሙያዎች ቅስቀሳ ተደርጎልዎት ያውቃል?
 1. አዎ
 2. አይደለም
- 2) የጤና መድሀኒ አባል ያልሆኑበት ምክንያት ምንድን ነው?
 1. የመዋጮ ክፍያ እጦት
 2. የጤና ተቋማት አግልግሎት አሰጣጥ ዝቅተኛ መሆን
 3. ለአባልነቱ ትኩራት ባለመስጠት
 4. ሌላ (ይገለጽ) -----
- 3) የጤና መድሀኒ አባልነት ክፍያ ተመጣጣኝ ነው ብለው ያስባሉ?
 1. አዎ
 2. አይደለም
- 4) አባል የሚሆኑበት መንገድ ቢኖር የጤና መድሀኒ አባል መሆን ይፈልጋሉ?
 1. አዎ
 2. አይደለም
- 5) ከዚህ 6 ወር ወዲህ ማናኛውም ጤና ተቋም ጎብኝተው ያውቃሉ?
 1. አዎ
 2. አይደለም
- 6) ጥያቄ ቁጥር 5 አዎን ከሆነ ምን ዓይነት ጤና ተቋም ጎብኝተዋል?
 1. የመንግስት
 2. የግል
 3. ሌላ (ይገለጽ) -----
- 7) ስንት ጊዜ ጤና ተቋም ጎብኝተው ያውቃሉ? (ከጥያቄ ቁጥር 6 በመነሳት)
 1. ጎብኝቼ አላውቅም
 2. አንድ ጊዜ
 3. ከ2-3 ጊዜ
 4. አራት ጊዜና ከዚያ በላይ
- 8) ጤና ተቋም የጎበኙበት ምክንያት ምንድን ነው?
 1. ድንገተኛ ተላላፊ የሆነ
 2. ተላላፊ ያልሆነ ስር የሰደደ
 3. ለክትትል/ ቀጠሮ
- 9) ህመም ከተሰማዎት በኋላ ጤና ተቋም ሳይሄዱ ምን ያህል ጊዜ ቆዩ?
 1. (1 to 6) ቀናቶች
 2. (7 to 15) ቀናቶች
 3. ከ15 ቀን በላይ

- 10) ከተቋሙ የተጻፈልዎትን መድሃኒት አግኝተዋል?
 1. አዎ ሙሉ በሙሉ
 2. በከፊል/ ጥቂቶችን 3. ምንም አላገኘሁም
- 11) የጤና ተቋሙ ባለሙያዎች በሚሰጡት አገልግሎት ምን ያህል ይስማማሉ?
 1. በጣም አልስማማም 2. አልስማማም 3. መካከለኛ
 4. እስማማለሁ 5. በጣም እስማማለሁ
- 12) የጤና ተቋሙ ባለሙያዎች በሚሰጡት የግልዎ የጤና መረጃ ምን ያህል ተስማምተዋል?
 1. በጣም አልስማማም 2. አልስማማም 3. መካከለኛ
 4. እስማማለሁ 5. በጣም እስማማለሁ

III. ክፍል ሶስት: የማህበረሰብ አቀፍ ጤና መድሃኒት አባል ለሆኑ የተመላላሽ ታካሚዎች እውቀትና ልምድ

1. የማህበረሰብ አቀፍ ጤና መድሃኒት አባል ከሆኑ ስንት ጊዜ ሆኖታል?
 1. ከ1-2 ዓመት 2. ከ3-4 ዓመት
2. ምን ዓይነት አባልነዎት?
 1. ከፋይ 2. የድሃደሃ/ የማይከፍሉ
3. ስለ ጤና መድሃኒት ከየት ሰሙ?
 1. ከጓደኛ/ ከጎረቤት/ ከዘመድ 3. ከፊደላዊ/ተሰቢ/ኝርን
 2. ከስብሰባ/ ከውይይት 4. ከኢንተርኔት 5. ከጋዜጣ/መጽሔት/ መጽሃፍቶች
4. የጤና መድሃኒት የአባልነት ክፍያ አዋጭ ነው ብለው ያስባሉ?
 1. አዎ 2. አይደለም
5. በቀጣይ አበልነትዎን ለማሳደስ አስበዋል?
 1. አዎ 2. አይደለም
6. ባለፉት 6 ወራት ማንኛውም ጤና ተቋም ጎብኝተው ያውቃሉ?
 1. አዎ
 2. አይደለም
7. ጥያቄ ቁጥር 5 አዎን ከሆነ ምን ዓይነት ጤና ተቋም ጎብኝተዋል?
 1. የመንግስት
 2. የግል
 3. ሌላ (ይገለጽ) -----

8. ስንት ጊዜ ጤና ተቋም ጎብኝተው ያውቃሉ? (ከጥያቄ ቁጥር 6 በመነሳት)
 1. ጎብኝቼ አላውቅም 3. ከ2-3 ጊዜ
 2. አንድ ጊዜ 4. አራት ጊዜና ከዚያ በላይ
9. ጤና ተቋም የጎበኙበት ምክንያት ምንድን ነው?
 1. ድንገተኛ ተላላፊ የሆነ
 2. ተላላፊ ያልሆነ ስር የሰደደ 3. ለክትትል/ቀጠሮ
10. ህመም ከተሰማዎት ምን ያህል ጊዜ ቆዩ ጤና ተቋም ሳይመጡ?
 1. (1 to 6) ቀናቶች 2. (7 to 15) ቀናቶች 3. ከ15 ቀን በላይ
11. ከተቋሙ የተጻፈልዎትን መድሃኒት አግኝተዋል?
 1. አዎ ሙሉ በሙሉ 2. በከፊል/ ጥቂቶችን
 3. ምንም አላገኘሁም
12. የጤና ተቋሙ ባለሙያዎች በሚሰጡት አገልግሎት ምን ያህል ይስማማሉ?
 1. በጣም አልስማማም 2. አልስማማም 3. መካከለኛ
 4. እስማማለሁ 5. በጣም እስማማለሁ
13. ለጤና ተቋሙ ባለሙያዎች በሚሰጡት የግልዎ የጤና መረጃ ምን ያህል ተስማምተዋል?
 1. በጣም አልስማማም 2. አልስማማም 3. መካከለኛ
 4. እስማማለሁ 5. በጣም እስማማለሁ

-----**ተፈፀመ**-----

ይህ ያልተዛባና ቅንነት ለተሞላበት አስተያየትዎ የጤና መድሀን አገልግሎትን ለማሻሻል፣ ውጤታማና ፍሬያማ እንዲሆን ያደረገዋል። ስለዚህ ግዜዎትን ሰጥተው ይህን ቃለ ምልልስ ስላደረጉልንና መልስ ስለሰጡን እናመሰግናለን።

መረጃውን ያስሞላው ባለሙያ

1. ስም -----
2. ፊርማ -----