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HOUSEHOLD SATISFACTION OF HEALTH CARE: WITH INSURED AND NON-INSURED UNDER COMMUNITY BASED HEALTH INSURANCE IN MAHAL SAYENT DISTRICT SOUTH WOLLO, ETHIOPIA

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Household Satisfaction of Health Care Service with Insured and Non-Insured Under Community Based Health Insurance in Mahal Sayent District South Wollo, Ethiopia.

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ABREVATION AND ACRONYMS

AOR	Adjusted Odds Ratio
CBHI	Community Based Health Insurance
CDC	Centers for Disease Control and Prevention
HCS	Health care service
HH	Household
CI	Confidence Interval
LICs	Low-income countries
NGOs	Non-Governmental Organizations
OOP	Out-of-Pocket
SHI	Social Health Insurance
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
UHC	Universal Health Coverage
WHO	World Health Organization
ACCORD	Action for Community Organization, Rehabilitation and Development

ABSTRACT

Background: Community-based health insurance is recognized as a promising tool for health system improvement and financial protection for low-income individuals that improves the health status of enrollees and enhances productivity and labor supply. The program is implemented in several districts, however, studies focusing on clients' satisfaction provided by the health insurance scheme are still limited. The aim of this study was, therefore, to assess individuals' satisfaction of utilizing health care service with insured and non-insured under community-based health insurance in Mahal Sayent district, South Wollo.

Methods: Community-based comparative cross-sectional study was conducted among 346 households who are both enrolled and non-insured to the community-based health insurance in south Wollo, Mahal Sayent district from December 1 to April 20, 2021. The data was collected using a structured questionnaire and checked for completeness, entered, edited, cleaned by Epi-data version 3.1 and analyzed by SPSS version 20. Descriptive statistics were used to present the variables. Multivariable logistic regression was fitted to examine the relationship between outcome variable and independent variables. Finding was reported using adjusted odds ratios with 95% confidence interval and statistical difference was declared at P-value <0.05.

Result: From the total of 346 respondents took part in this study, only 125 (36.1%) of the participants were insured under CBHI. Overall satisfaction of CBHI members 77.6% while for non-CBHI members were 42.1%. Moreover, insurance status (AOR = 4.23; 95% CI: 2.32–87.70), educational status (AOR = 3.12; 95% CI: 1.35–7.22), satisfaction with waiting time (AOR = 3.41; 95% CI: 1.27–9.18) and appropriateness of the time to diagnosis a problem (AOR = 41.61; 95% CI: 12.34–140.38) were found to be significantly associated with overall patient satisfaction.

Conclusion and Recommendation: The study showed that insured patients have a higher level of overall satisfaction score. The key determinants of overall satisfaction were educational status, insurance status, waiting time and appropriateness of the time to diagnose a problem. To improve patient satisfaction and in turn to increase the quality of health care; CBHI program should be promoted and encouraged by the government. Moreover, policy makers, health system managers, and health professionals should work to minimize the waiting time of service provision.

Keywords: CBHI, household satisfaction, health service utilization

CHAPTER 1: INTRODUCTION

1.1. Background

The World Health Organization has recommended that all United Nations members achieve universal health coverage (UHC) status by 2030 as a part of the recent Sustainable Development Goals, as half of the world's population still unable to obtain essential health services (1). According to the UHC theme, all individuals and communities who need health services should receive them without suffering financial hardship. Removing financial hardship is particularly crucial for developing countries where out-of-pocket (OOP) is the main payment strategy for healthcare, and the OOP share has been increased alarmingly from 55.9% in 1997 to 67% in 2015(2).

Low-income countries (LICs) face substantial challenges in financing healthcare (3,4). Health services are unaffordable and even unavailable to the majority of poor people in these countries. Health spending via out-of-pocket payments (OOPs) is difficult for many people, and millions of people fall into poverty due to the need to pay for healthcare (5). As a result, the poor people in LICs still suffer and die from health-related problems, particularly in settings that lack effective health insurance policies (6).

Health insurance is attracting more and more attention in low- and middle-income countries as a means for improving health care utilization and protecting households against impoverishment from out-of-pocket expenditures. The health care financing mechanism was developed to counteract the detrimental effects of user fees and poor health system.

In Ethiopia, preventable communicable diseases are still a major public health problem (7). However, health-seeking behavior and access to modern health care are low in rural areas (8,9). One of the reasons for low utilization of modern health care services is the user fee charges (10). As a means to overcome catastrophic out of pocket expenditure associated with out-of-pocket payments, the government of Ethiopia has introduced different insurance schemes since 2010 (11). The first kind is (CBHI) and the other one is social health insurance (SHI). The SHI was planned to address 10.46% of the population who are engaged in formal sectors. CBHI, on the other hand was intended to cover 83.6% of the populations who are engaged in the informal sectors.

Community-based health insurance aims to promote equitable access to quality healthcare, increase financial protection for informal sector households in rural and urban areas, and thereby, facilitate social inclusion of the majority of Ethiopian families in the health sector (12).

Patient satisfaction represents a key marker for the quality of healthcare delivery, and this internationally accepted factor needs to be studied repeatedly for smooth functioning of the healthcare system. It is therefore important to evaluate the level, scope and quality of the delivery scheme for possible policy recommendation (13).

Patient satisfaction refers to how satisfied the patients are with the service provided in terms of their requirements and expectations (14). Interest in assessing patient satisfaction with healthcare arose with the consumer movement of the 1960s (15). Patient satisfaction is concerned with how patients evaluate the quality of their care experience. It is increasingly being assessed in surveys of healthcare settings, as a marker of quality of care, along with other dimensions of quality such as access, relevance to need, effectiveness, and efficiency.

Patient satisfaction as a multidimensional concept since patients differ in their views about specific aspects of their health care, such as the doctor's behavior towards them, the information provided, the technical skills of the doctor, and the access to and quality of the health care setting (16)

Over the next 25 years, health service researchers reported that satisfied and dissatisfied patients behaved differently; satisfied patients were more likely to comply with treatment, keep follow up appointments and utilize health services(14,15,17).

1.2. Statement of the Problem

CBHI pilot scheme's primary objective is providing access and utilization of health services; improving quality of health care; reducing financial risks for members and increasing resource mobilization in the health sector; and strengthening of community participation in the management of health services.

Through focusing on the improvement of quality of care and patient satisfaction, the federal government also provides resources to health facilities contracted to provide services to CBHI members, so that the providers maintain an acceptable quality of care which will bring patient satisfaction (18).

The establishment of CBHI schemes provided health professionals a degree of freedom to prescribe the appropriate diagnostic tests and drugs without worrying about the CBHI member's ability to pay. This, according to the providers, is a great relief and key to improvement in service quality by improving the ultimate outcome of patient's health, which will significantly contribute to patient satisfaction (18).

But little is known about the effect of CBHI membership on quality of care and patients' satisfaction by assessing both the CBHI members and non-members perception in Ethiopia due to the lack of studies done in this area and perhaps some studies done on this area encompass only the CBHI members perception.

CBHI enrollees expect better quality of care. Thus, providing a better quality of care is crucial for client satisfaction and the sustainability of the CBHI scheme. A study finding in India shows that there was high level of satisfaction among insured clients than uninsured. However, from a practical point of view, CBHI enrolment status alone could not be a guarantee to get quality health care services. For instance, Robyn PJ and colleagues found that insured people objectively receive the worse quality of care than uninsured people in Burkina Faso(19).

Though the health insurance satisfaction study is ongoing, some studies show that the level of satisfaction varies from region to region (20). A study in Nigeria shows that less than half (42.1%) of enrollees were satisfied with health insurance scheme in 2011(21). However, a high level (91.38%) of household's satisfaction to CBHI was reported in Ethiopia in 2016(22).

The government of Ethiopia is working to narrow the existing wide gap between community demand for health care and financial constraints in the health sector by implementing the CBHI scheme in rural areas (23). Hence in Ethiopia, easily preventable communicable diseases are still a major public health problem(7). However, health-seeking behavior and access to modern health care are low in rural areas (8). Currently, CBHI scheme is being implemented over 161 districts and recent evaluation shows improvements in health service utilization among districts implementing CBHI scheme(11).

A study done in Sheko district southwest Ethiopia at 2018 on household satisfaction with CBHI, showed that more than half (54.7%) of the households were satisfied with the CBHI scheme and they also concluded that household's satisfaction to CBHI scheme was moderate (24).This information is only on the insured one, there is no data on comparisons among non-insured client. Therefore, there is scarce data to conclude its continuity effectiveness and equity.

The experience and opinion of the clients who utilized health services through the insurance scheme are important for improving healthcare services, shaping health policies and providing feedback on the quality, availability, and responsiveness of healthcare services. However, studies focusing on clients' satisfaction provided by the health insurance scheme are still limited globally.

Therefor to address this knowledge gap, this current study attempted to measure the degree of clients' satisfaction towards healthcare services with insured and non- insurance under CBHI scheme, based

on their experience of health care which will serve the future reference point to implement potential quality improvement initiatives of community-based health insurance program.

Even though the CBHI scheme has brought quality health care, enrollees' perception towards the scheme (measured by client satisfaction) is unknown so far in this study area. Up to the level of our knowledge, it is scarce in our country, Ethiopia. As the quality of care varies from one area to the other, the level of satisfaction and contributing factors also varies from one context to the other. To address this information gap, this study was tried to measure the degree of clients' satisfaction towards healthcare services under insured and non-insured with CBHI based on their experience of utilizing health care which will serve as the future reference point to implement potential quality improvement initiatives of community-based health insurance program in similar country context.

1.3. Significance of the Study

The findings from this study will be important to evaluate the level, scope and quality of the delivery scheme for policy recommendations. The experience and opinion of the clients who utilized health services through the insurance scheme are important for improving healthcare services, shaping health policies and providing feedback on the quality, availability, and responsiveness of healthcare services. Since studies focusing on clients' satisfaction provided by the health insurance scheme are still limited globally, this study attempted to measure the degree of clients' satisfaction towards healthcare services and insurance schemes, based on their experience of health care which will serve the future reference point to implement potential quality improvement initiatives of community-based health insurance program objectives.

In addition, this study would act as guidance for further studies and add an input for our communities, policymakers and researchers.

CHAPTER 2: LITERATURE REVIEW

2.1. Community-Based Health Insurance

Universal healthcare coverage (UHC) has been defined as a situation where the whole population of a country has access to appropriate healthcare services when they need it and at an affordable cost(25). Although UHC has gained considerable momentum in the international community and has also found inroads into the policy discussions of many low and middle-income countries (LMIC), there is no consensus on how countries should move forward (26). UHC can be financed through tax or through contributory insurance schemes, and organized through one national scheme or a number of different schemes.

Community-based health insurance is widely acknowledged as a viable method for health system improvement for low-income people that improves the health status of enrollees and that also increases productivity and labor supply. Low-income countries (LICs) face substantial challenges in financing healthcare(3). Health services are unaffordable and even unavailable to the majority of poor people in these countries. Health spending via out-of-pocket payments (OOPs) is difficult for many people, and millions of people fall into poverty due to the need to pay for healthcare (5). As a result, the poor people in LICs still suffer and die from health-related problems, particularly in settings that lack effective health insurance policies(6).

Since the mid-90s, promoted by many governments and international organizations, CBHI schemes have been growing in number in sub-Saharan Africa and other regions of the world (27). In West and Central Africa, the number of CBHI schemes grew from 76 in 1997 to more than 800 by 2004, and CBHI is now part of the national health financing strategy in Benin, Ghana, Rwanda, Senegal, Cameron and Tanzania (28–33).In Ethiopian government has introduced two types of health insurance schemes since 2010 (11). The first kind is CBHI and the other one is social health insurance (SHI). The SHI intends to cover 10.46% of the population who are engaged in formal sectors. CBHI, on the other hand, intends to cover 83.6% of the populations of Ethiopia who are engaged in the informal sectors.

In 2010, the Federal Ministry of Health piloted the CBHI in 13 woredas (districts) in Ethiopia's four agrarian regions: Amhara; Oromia; Southern Nations, Nationalities, and Peoples Region (SNNPR); and Tigray. The CBHI objectives were to promote equitable access to sustainable quality healthcare, increase financial protection, and enhance social inclusion for the majority of Ethiopian families via the health sector. In 2015, based on evaluation findings and recommendations, i the CBHI was scaled up to 161 woredas and tailored to each regional context (12).

The Scheme is established at Woreda (district) level and it is embedded in existing government structures- Woreda administration office/ Woreda Health office. They have General Assembly and Board that supervise and decide for the general matters and also the Regional and Zonal Steering Committees play leadership role, at the zonal CBHI unit it's established with two executive staff and at the woreda level it's managed by three full time CBHI Executive staff. There is a section of the schemes at each Kebele (sub district) level and the EHIA plays technical and capacity building role(18).

2.2. Client Satisfaction with Health Service Utilization in Related to CBHI

Healthcare financing, one of the major channels to access to health care in developing countries, health services are unaffordable and even unavailable to the majority of poor people in these countries. The overriding aim of this institutional intervention is to reduce financial barriers to utilization of healthcare by reducing direct payments for services at health facilities. This is intended to narrow the inequalities engendered by the previous system, which relied mainly on user fees. The current efforts world-wide is to move from systems that depend mainly on user fees to prepayment and risk pooling(34). The importance of patient satisfaction in healthcare delivery cannot be overemphasized. Patient Satisfaction is a set of attitudes and perceptions of patients towards health services (35,36). It is the degree to which an individual regards healthcare as useful, effective and beneficial(37). Thus, satisfaction is a psychological state that results when the emotion surrounding dis-confirmed expectations is coupled with consumer's prior feelings about the consumption experience(38). It is actually determined by the interplay of two factors: patient expectations and experience of the proper services. If the performance falls short of expectations, there is dissatisfaction, and if it matches the expectations, then vice versa. Patient satisfaction is therefore a match of expectations with experiences of the patient during a treatment process(39).

The Fiji study on Factors Associated with Patient Satisfaction in Outpatient Department of Suva Sub-divisional Health Canter, 2018: This is a Mixed Method Study, has revealed that factors like, age, gender, education level, waiting time, doctors' communication behaviour, and patient trust level were significantly associated with patient satisfaction independently. Those who had full trust in the doctors, were more likely to be fully satisfied with their consultation (AOR of 18; $p = 0.0001$) and those who got seen within 1 h, were more likely to be satisfied with their consultation (AOR of 3.3; $p = 0.0001$)(40). The study on Emergency department of patient satisfaction survey in Imam Reza Hospital, Tabriz, Iran showed that, the overall satisfaction rate was dependent on the mean waiting

time. The mean waiting time for a low rate of satisfaction was 47 min 11 s with a confidence interval of (19.31, 74.51), and for very good level of satisfaction it was 14 min 57 s with a (10.58, 18.57) confidence interval(41).

Additionally, the Study done on evaluation of factors influencing patient satisfaction in social security hospitals in Mazandaran province, North of Iran revealed that Patient's inhabitant, educational attainment and income level had a significant relationship with patient satisfaction level ($p<0.05$). There was no significant difference regarding patients' gender(42). The Saudi Arabian study on Predictors of patient satisfaction in an emergency care centre showed that long waiting time ($p=0.032$) and low perceived health status compared with status at admission ($p<0.001$). Overall life satisfaction was not a significant predictor of patient satisfaction(43).

Study done in India Patient satisfaction was measured in two CHI schemes, ACCORD and KKVS, were chosen. Randomly selected, insured and uninsured households were interviewed. It was found that the overall house hold satisfaction with the health care service with insured and noninsured to the ACCORD scheme was (82% and 73%) respectively and it was also found that the overall house hold satisfaction with the health care service with insured and noninsured to the KKVS scheme was (89% and 80%) respectively. At both ACCORD and KKVS, there was no significant difference in the levels of satisfaction between the insured and uninsured patients. The main reasons for satisfaction were the availability of doctors and medicines and also the main reason for satisfaction was the outcome of the treatment. Patients who were cured or healed had a higher probability of being satisfied (44).

Study done in Ghana, on patient satisfaction with primary health care, which is a comparison between the insured and non-insured under the national health insurance. It identifies the service quality factors that are important to patients' satisfaction and examines their links to their health insurance status. Randomly selected, insured and uninsured households were interviewed. The results indicate that a higher proportion of insured patients are satisfied with the overall quality of care compared to the uninsured. The key predictors of overall satisfaction are waiting time, friendliness of staff and satisfaction of the consultation process. These results highlight the importance of interpersonal care in health care facilities(45).

A study conducted in Morocco on Patient satisfaction in emergency department 2009, showed that Variables associated with greater satisfaction with ED care were: emergent (OR: 0.15; 95% CI =

0.04-0.31; P < 0.001), or urgent patients (OR: 0.35; 95% CI = 0.15-0.86; P = 0.02) compared to non-urgent patients, and waiting time less than 15 min (OR: 0.41; 95% CI = 0.23-0.75; P = 0.003). Variables associated with lesser satisfaction were: distance patient's home hospital ≤10Kilometers (OR: 2.64; 95% CI = 1.53-4.53; P < 0.001), weekday's admissions (OR: 2.66; 95% CI = 1.32 to 5.34; P < 0.006), and educational level; with secondary (OR: 5.19; 95% CI = 2.04-13.21; P < 0.001) primary (OR: 3.04; 95% CI = 1.10-8.04; P = 0.03) and illiterate patients (OR: 2.53; 95% CI = 1.02-6.30; P = 0.03) were less satisfied compared to those with high educational level (46) .

A recent study done on predictors of adult patient satisfaction with inpatient nursing care in public hospitals of eastern Amhara region, northeastern Ethiopia, 2020, identified that having primary education (AOR=8.575; 95% CI: 1.770, 14.532), being a farmer by occupation (AOR=3.702; 95% CI=1.047–13.087), and having a health insurance scheme (AOR=5.621; 95% CI=1.489–11.213) were the important predictors for patient satisfaction with inpatient nursing care (47). The other recent study on, assessment of patient satisfaction towards emergency medical care and its determinants at Ayder comprehensive specialized hospital, Mekelle, Northern Ethiopia 2019, revealed that having low educational status (able to read and write) (AOR = 0.12, 95% CI: 0.03, 0.50) and waiting time till seen by a doctor (AOR = 1.3, 95% CI: 1.003, 1.4) was found to affect patient satisfaction negatively(48).

In Ethiopia study done in Sheiko district southwest Ethiopia in 2018 on household satisfaction with CBHI, showed that more than half (54.7%) of the households were satisfied with the CBHI scheme. Satisfaction to CBHI was positively associated with adequate knowledge of CBHI benefit packages (AOR = 2.29, 95% CI = 1.55–3.38), type of health facility visit (AOR = 1.93, 95% CI = 1.09–3.39), laboratory service provision (AOR = 2.07, 95% CI = 1.15–373) and length of enrollment (AOR = 1.53, 95% CI = 1.01–2.32) (24). They also concluded that household's satisfaction with CBHI scheme was moderate. Modifiable factors, including adequate knowledge of CBHI benefit packages, type of health facility visit, laboratory service provision, and length of enrollment were independent determinants of satisfaction(24). In order to augment peoples who enrolled satisfaction to CBHI, efforts should be given to improving their knowledge of CBHI benefit packages through education and information campaigns. Furthermore, due consideration should also be given to improving the quality of health services. But this study focuses only on the insured client's satisfaction; therefore, they need to be a study on comparisons with insured and non-insured under CBHI.

2.3. Conceptual framework

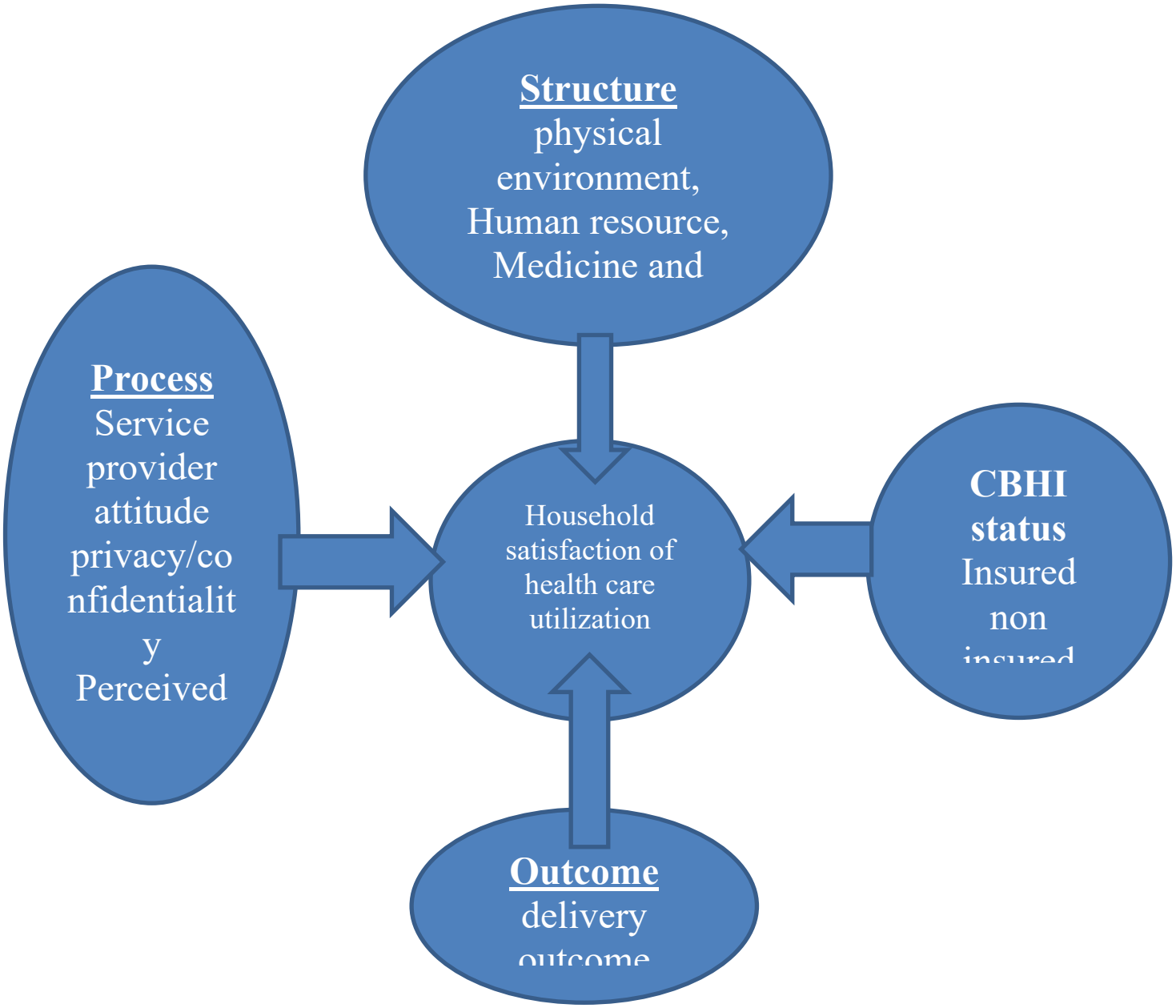

Figure 1. Conceptual framework adopted from a study done on determinants of women satisfaction with maternal health care, a review of literature from developing countries(49)

CHAPTER 3: OBJECTIVE

The general objective of this study was to assess household satisfaction of utilizing health care service with insured and non-insured under community-based health insurance and its associated factors in Mahal Sayent district, South Wollo, Ethiopia 2021.

3.1. Specific Objectives:

1. To assess household satisfaction of utilizing health care service with insured and non-insured under community-based health insurance in Mahal Sayent district south Wollo, Ethiopia 2021
2. To identify factors associated with satisfaction of utilizing health care service with insured and non-insured under community-based health insurance in Mahal Sayent district south Wollo, Ethiopia 2021

CHAPTER 4: METHODS AND MATERIALS

4.1. Study Area and Period

The study was conducted in Mahal Sayent District, South Wollo Ethiopia from December 1 to April 20, 2021. Mahal Sayent district is found 599 km far from Addis Ababa and 198 km from Dessie, which is the capital city of South Wollo. The estimated population of the woreda is 80,061 from these 51% of the population are female. The local language widely spoken in the area is Amharic language. There are 5 health centers and 17 health posts. The total numbers of Kebele's are 17.

4.2. Study Design

A community-based comparative cross-sectional study was conducted.

4.3. Population

4.3.1. Source Population

All household insured and non- insured under CBHI scheme in MahalSayent District, south Wollo Ethiopia

4.3.2. Study Population

A randomly selected households that are insured and non- insured under CBHI scheme in a randomly selected Kebeles Mahal Sayent District, south Wollo Ethiopia

4.4. Inclusion and Exclusion Criteria

4.4.1. Inclusion Criteria

For CBHI members

Households that had at least one family member who visited public health facilities at least once starting from their enrolment in CBHI scheme were included.

For non CBHI members

Households that visit public health facilities

For respondents -Only head of household or spouse can be used as respondents. The head of HH has to be a living member of the HH and determined by the HH members themselves. The head of HH can be female. (If the head of household or spouse cannot provide information, the interviewer can ask the de facto head of HH (e.g., member who earns primary income.

4.4.2. Exclusion Criteria

Participants (household) who were diagnosed with COVID-19 were excluded.

3.4.3. Sample Size Determination

The sample size calculated using the double population proportion formula

$$n = \frac{\left(\frac{Z\alpha}{2} + Z\beta\right)^2 * (\mathrm{p1}\ (1 - \mathrm{p1})\ + \mathrm{p2}\ (1 - \mathrm{p2}))}{(\mathrm{p1} - \mathrm{p2}^2}$$

Were,

Zα/2 is the critical value of the Normal distribution at α/2 (for a confidence level of 95%, α is 0.05 and the critical value is 1.96),

Zβ is the critical value of the Normal distribution at β (for a power of 80%, β is 0.2 and the critical value is 0.84)

p1 (82% the insured satisfaction) and p2 (73% the non-insured satisfaction) are the expected sample proportions of the insured and non-insured under CBHI by taking the result from a study conducted in India(44).

The following assumptions 82% of households satisfied insured with CBHI scheme and 73% of households satisfied non-insured with CBHI scheme taken from a study conducted in India it becomes 334 and the sample size for the insured and non-insured will be 112 and 223 respectively. Finally, by adding 10% non-response rates, the final sample size was 368.

4.5. Sampling procedure

There are 17 Kebeles in Mahal Sayent District then using lottery method 30 percent of the kebeles were selected, which were 6 Kebeles. The study subject (household) was drawn from each selected Kebeles using Simple random sampling technique since, each kebele in the district have an organized list of households that are insured and non-insured to the CBHI scheme which helped us to pick households that were study subject by using simple random sampling.

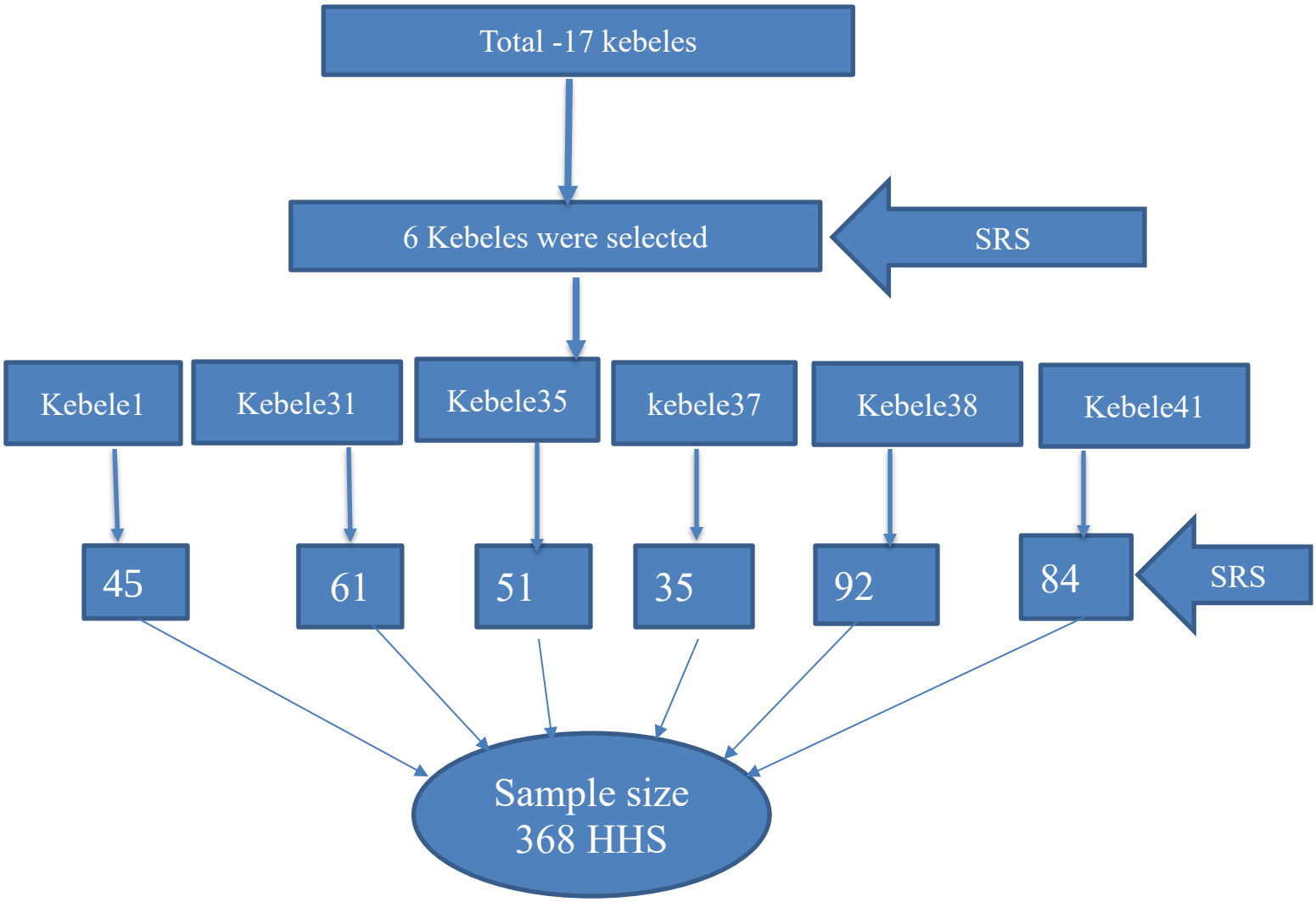

Figure 2. Sampling procedure household satisfaction of health care: with insured and non-insured under community-based health insurance in mahal sayent district south wollo, Ethiopia 2019/2020

4.6. Study Variables

4.6.1. Dependent Variables

- Satisfaction

4.6.2. Independent Variables

- Age
- Sex
- Educational status
- Marital Status
- Family size
- CBHI status
- Structure Variables: facility and environment factors.
- Process variables: provider's behavior, confidentiality, explaining technique of the provider
- Outcome Variable: effectiveness of the treatment.

4.7. Operational Definitions

Overall satisfaction; is a composite satisfaction pooled from the above 8 items that measure patient satisfaction in different segments of health service by adding individual value. The pooled value is ranges from 8 to 24, which is a sum of 1-3 value from individual item.

Satisfied; participants who got a sum score above the average from individual item they were categorized under satisfied.

Dissatisfied; patients who got below the average from the sum of individual item were categorized under dissatisfied.

Self-reported health status: a report about one's health status, whether the respondent have known chronic and infectious disease or not.

4.8. Data Collection Tools and Processes

4.8.1. Data collection instruments

Data collection was accomplished by a structured questionnaire developed from different literatures. The questionnaire was translated in Amharic language. The interviews were conducted face-to-face by health professionals who are fluent in Amharic.

4.8.2. Data collection procedures

First, training was given for data collectors regarding the study objectives, method of data collection and the tools for data collection and the procedures to be followed for data collection. A face-to-face interview was employed to fill the prepared structured questionnaires regarding socio-demographic status, and health care quality perception. Senior public health professionals were also recruited to supervise data collectors. A second visit was held for households closed during the data collection period. Households closed during the second visit were considered as non-respondents.

4.9. Data Quality Assurance

The following measure was undertaken to control the quality of the data. The data collectors were trained for one day. The structured questionnaires were checked to avoid printing errors before data collection started. The names of the data collectors were recorded to enhance the responsibility to any incomplete data. Data collectors submitted the collected data to supervisor in daily basis and the supervisors checked the completeness of the data. Code cleaning was done. Internal consistency or reliability was measured to see the consistency between different items of the same construct. Cronbach's alpha was calculated for 8 items and a coefficient alpha of 0.866 was found which indicates a very good reliability.

4.10. Data processing and analysis

Household's overall satisfaction was measured using Likert scale. Nine items related to satisfactions on a three-point Likert scale from strongly disagree to strongly agree were used. The nine items were: i) satisfied with reception of service; ii) satisfied with service providers' attitude towards explaining health problems; iii) service providers are friendly; iv) satisfied with confidentiality; v) satisfied with staff behavior; vi) satisfied with facility environment; vii) satisfied with the length of time I have to wait; viii) satisfied with the treatment that patients received were effective. The collected data were entered and cleaned by using Epi data software version 3.1 and analyzed using SPSS version 20.0. Socio-demographic and other variables were presented by frequency tables, graphs, and x^2statistics. Bivariate analysis was used to check the association between dependent and independent variables. All variables that have a significant association with p-value <0.25 in the bivariate analysis were the candidate for multivariable logistic regression. Multivariable logistic regression model was fitted to identify factors affecting the satisfaction. A P-value less than 0.05 were considered as statistically

significant. The degrees of association between dependent and independent variables were assessed using OR at 95% CI.

4.11. Ethical Clearance

The ethical issue of this study was approved by the ethical committee of the school of public health of Addis Ababa University and official permission to undertake the study. The supportive staff (i.e. woreda health office, health centers) was informed about the purpose of the study and verbal consent was obtained. Confidentiality of patient information was assured and information recorded anonymously.

4.12. Plan for Utilization and Dissemination of Result

The result of the study will be submitted to the school of public health of Addis Ababa University, also for South Wollo and Mahal Sayent district health bureau and to NGOs working in this area. A further attempt will be made to publish it on national and international scientific journals.

CHAPTER 5: RESULT

5.1. General Socio-demographic characteristics of respondents

Among 368 samples, a total of 346 respondents participated in this study, making a response rate of 94. %. Only 125(36.1%) of the participants were insured under CBHI. More than half of participants 198(57.2%) were males. In terms of age, the greater number 231(66.8%) ranged from 18 to 44. The distribution of participants by marital status showed more than half of the respondents 256(74.0%) were married. About 43.1% were illiterates. The distribution of the respondents by self-reported health condition showed half of the respondents195 (56.4%) have some problem with their health states. Greater numbers of the respondents have a visit to health post 293(84.7%).

Table 1: Socio-demographic characteristics of health care satisfaction in Mahal Sayent district, Ethiopia 2020 (n=346)

Variables	Details	CBHI membership		Total N (%)
		Yes %	No %	
Sex	Male	77(22.3 %)	121(35.0 %)	198(57.2 %)
	Female	48(13.9 %)	100(28.9 %)	148(42.8 %)
Age group	18-44	93(26.9 %)	138(39.9 %)	231(66.8 %)
	45-65	22(6.4 %)	69(19.9 %)	91(26.3 %)
	>65	10(2.9 %)	14(4.0 %)	24(6.9 %)
Marital status	Married	97(28.0 %)	159(46.0 %)	256(74.0 %)
	Unmarried	20(5.8 %)	38(11.0 %)	58(16.8 %)
	Divorced	6(1.7 %)	20(5.8 %)	26(7.5 %)
	Widowed	2(0.6 %)	4(1.2 %)	6(1.7 %)
Education	no education	70(20.2 %)	79(22.8 %)	149(43.1 %)
Background	Primary	45(13.0 %)	88(25.4 %)	133(38.4 %)
	Secondary	10(2.9 %)	54(15.6 %)	64(18.5 %)
Self-reported	no problems	66(19.1 %)	129(37.3 %)	195(56.4 %)
health states	some problems	59(17.1 %)	92(26.6 %)	151(43.6 %)
Types of facility	health center	12(3.5 %)	25(7.2 %)	37(10.7 %)
visited	health post	108(31.2 %)	185(53.5 %)	293(84.7 %)
	public hospitals	5(1.4 %)	11(3.2 %)	16(4.6 %)

Total	36.1 %	63.9 %	100.0 %

5.2. Level of Satisfaction

Patient's level of satisfaction was analyzed using 8 items with a three level Likert scale which contain very satisfied, satisfied and dissatisfied this item question Include; staff behavior, provider's attitude towards explaining health problems, facility environment, waiting time, effectiveness of the provided treatment and so on. The level of satisfaction of care received by patients with their insurance status as obtained from the data analysis showed below in Tables 2. Participants to our question reported that 45% of insured and 18% of non-insured was report very satisfied with the service provider's attitude towards explaining health problem 63.2% of insured and 11.3% of non-inured report very satisfied in reception service whereas 56.8% of insured participant and 28.1% of non-insured are very satisfied with the provided service in other hand 80% of insured and 38% of non-insured report very satisfied with confidentiality. As of 7.2% of non-insured and 3.2% of insured were report dissatisfied by the staff behavior. 4.8% of insured and 3.6% of non-inured were dissatisfied by the facility environment Similar result is seen in comprehensive service delivery and explanatory about the provided service with high satisfaction level among insured individuals. Overall, there is a significant difference in satisfaction score among insured and non-insured in all units with a significant X^2 value and a p value of 0.000.

Table 2 Level of satisfaction of health care satisfaction in Mahal Sayent district, Ethiopia 2020 (n=346)

Variables	Details	Satisfaction status			Total N (%)
		Very satisfied N (%)	Satisfied N (%)	Dissatisfied N (%)	
Satisfied with service provider's attitude towards explaining health problems	CBHI	57 (45.6)	64 (51.2)	4 (3.2)	125 (100)
	Non CBHI	40 (18.1)	160 (72.4)	21 (9.5)	221 (100)
Satisfied with reception of services	CBHI	79 (63.2)	42 (33.6)	4 (3.2)	125 (100)
	Non CBHI	69 (11.3)	127 (57.5)	25 (31.2)	221 (100)
Satisfied with the provided service	CBHI	71 (56.8)	50 (40.0)	4 (3.2)	125 (100)
	Non CBHI	62 (28.1)	139 (62.9)	20 (9.0)	221 (100)
Satisfied with service provider's explanatory about prescribed medicine	CBHI	77 (61.6)	40 (32.0)	8 (6.4)	125 (100)
	Non CBHI	61 (27.6)	134 (60.6)	26 (11.8)	221 (100)
Satisfied with the confidentiality	CBHI	101 (80.8)	24 (19.2)	0 (0.0)	125 (100)
	Non CBHI	84 (38.0)	117 (52.9)	20 (9.0)	221 (100)
Satisfied with the staff's behaviour	CBHI	69 (55.2)	52 (41.6)	4 (3.2)	125 (100)
	Non CBHI	47 (21.3)	158 (71.5)	16 (7.2)	221 (100)
Satisfied with the facility environment	CBHI	68 (54.4)	51 (40.8)	6 (4.8)	125 (100)
	Non CBHI	64 (29.0)	149 (67.4)	8 (3.6)	221 (100)
Satisfied with the comprehensive service provided by the clinic	CBHI	84 (67.2)	36 (28.8)	5 (4.0)	125 (100)
	Non CBHI	79 (35.7)	129 (58.4)	13 (5.9)	221 (100)

5.3. Overall Satisfaction

Overall satisfaction is a composite satisfaction pooled from the above 8 items that measure patient satisfaction in different segments of health service by adding individual value. The pooled value is ranges from 8 to 24 which is a sum of 1-3 value from individual item so participants who get a sum score above the average from individual item they will be categorized under satisfied and the one who got below the average from the sum of individual item is categorized under dissatisfied. From this the prevalence of overall satisfaction of CBHI members is 77.6% and Non CBHI members are 42.1%.

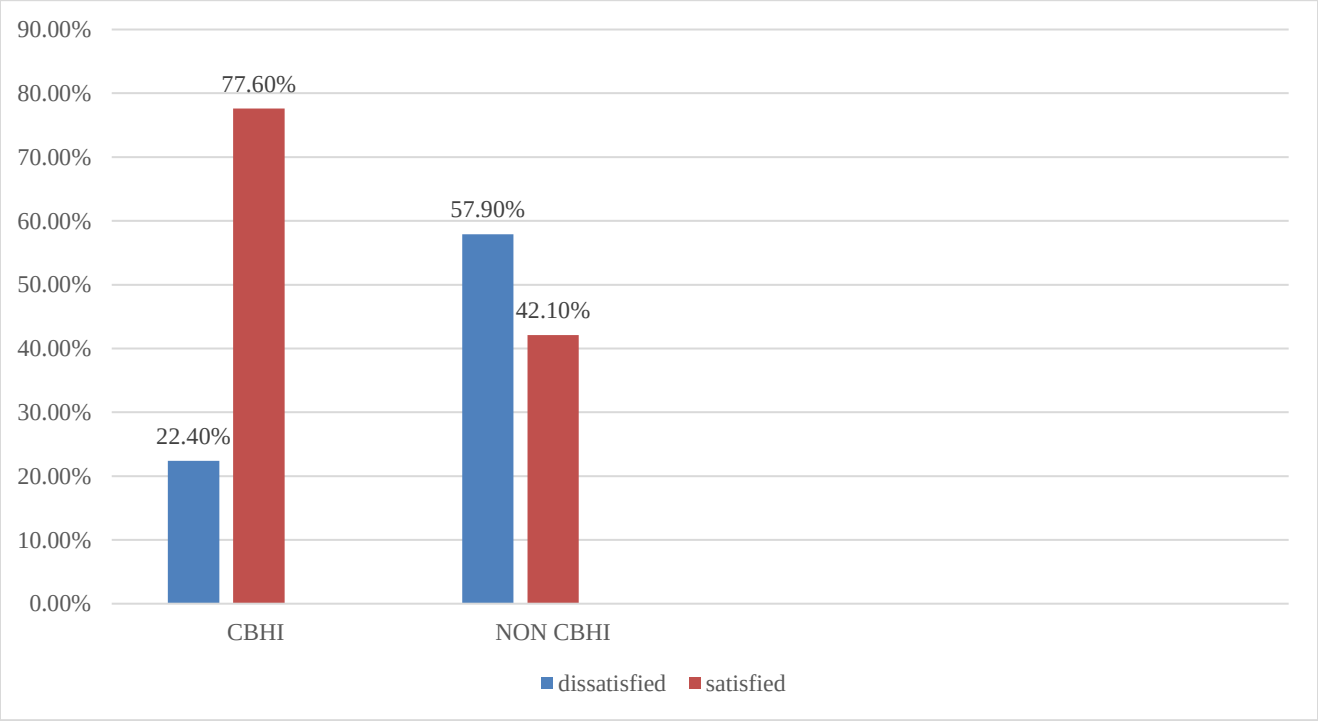

Figure 3. Overall satisfaction of health care satisfaction in Mahal Sayent district, Ethiopia 2020 (n=346)

5.4. Health care service quality

For patients who were insured 86.4% and non-insured 64.7% of them agreed for the length of time they have to wait while 35.3% among the non-insured and 13.6% of insured have disagreed. About the cleanness environment, 90.4% of insured and 73.3% of non-insured are agreed. Regard to the effectiveness of treatment received, 97.6% of the insured group are agreed with the treatment was effective. From the insured, 88.7% agreed on the appropriateness of the time to diagnosis a problem and from the non-insured.71.9% has agreed.

Table 3 Agree and disagree variables of health care satisfaction in Mahal Sayent district, Ethiopia 2020 (n=346)

Variables	Details	Agree N (%)	Disagree N (%)	Total N (%)
The length of time that patients had to wait to be seen was reasonable	CBHI	108 (86.4)	17 (13.6)	125 (36.1)
	Non CBHI	143 (64.7)	78 (35.3)	221 (63.9)
Patients were seen in a clean and safe environment	CBHI	113 (90.4)	12 (9.6)	125 (36.1)
	Non CBHI	162 (73.3)	59 (26.7)	221 (63.9)
The information that patients received about their health has helped them to understand their condition	CBHI	117 (93.6)	8 (6.4)	125 (36.1)
	Non CBHI	174 (78.7)	47 (21.3)	221 (63.9)
The treatment that patients received was effective	CBHI	122 (97.6)	3 (2.4)	125 (36.1)
	Non CBHI	188 (85.1)	33 (14.9)	221 (63.9)
The appropriateness of the time to diagnosis a problem	CBHI	111 (88.8)	14 (11.2)	125 (36.1)
	Non CBHI	159 (71.9)	62 (28.1)	221 (63.9)

5.5. Factor Associated with overall satisfaction

To determine factors associated with patient satisfaction, logistic regression was done and odds ratio was used as a measure of association. In the bivariate analysis factors with a p value less than 0.25 were exported to the multivariate analysis to control the effect of possible confounders. Most variables were significantly associated in the bivariate analysis but in multivariate analysis, only five variables were significant associated at p-value less than 0.05 (insurance status, educational status, satisfaction with waiting time, appropriateness of the time to diagnosis a problem). The goodness of fit was done by using -2 log likely hoods, and VIF was used to check multicollinearity in the independent variables. Insured participants were 4.2 times more likely to report satisfaction with overall quality of care than those who were not insured, p-value < 0. 000. Participant with no education were 3.1 times more likely to report satisfaction with overall quality of care than those having primary and above education, p-value = 0.087. Patients who were satisfied with the waiting time were 3.4 times more likely to report satisfaction with overall care than those dissatisfied (p 0.0015). A patient who believes on appropriateness of the time to diagnosis a problem were 41.61 time more likely to report satisfaction with overall quality of care than the counter group.

Table 4 Factors associated with overall satisfaction of health care satisfaction in Mahal Sayent district, Ethiopia 2020 (n=346)

Variables	Details	COR with 95% CI	P-value	AOR with 95% CI	P-value
CBHI membership	CBHI	4.77 (2.90, 7.85)	<0.001	4.23 (2.32-7.70)	<0.001
	Non CBHI	1		1	
Education status of participant	No education	3.87 (2.07, 7.23)	<0.001	3.12 (1.35-7.22)	0.087
	Primary education	2.84 (1.51,5.34)	0.001	1.97 (0.90-4.30)	0.008
	Above secondary education	1		1	
Marital status	Married	2.26 (1.39, 3.70)	<0.001	1.72 (0.93-3.20)	0.084
	Unmarried	1		1	
Self-reported Health status	No problem	0.75 (0.49,1.15)		1.52 (0.84-2.75)	0.168
	Some problem	1		1	
The appropriateness of the time to diagnosis a problem	Agree	17.58 (8.09,38.18)	<0.001	41.6 (12.34-140.38)	<0.001
	Disagree	1		1	
The length of time that the patient had to wait to be seen was reasonable	Agree	3.81 (2.30, 6.30)	<0.001	3.41 (1.27-9.18)	0.015
	Disagree	1		1	
Patents were seen in a clean and safe environment	Agree	3.23 (1.86, 5.61)	0.021	0.82 (0.39-1.71)	0.599
	Disagree	1		1	
The information that patients received about their health has helped them to understand their condition	Agree	3.28 (1.7-6.10)	<0.001	1.27 (0.51-3.15)	0.611
	Disagree	1		1	
The treatment you received was effective	Agree	2.35 (1.15-4.82)	0.019	1.15 (0.44-3.02)	0.782
	Disagree	1		1	

CHAPTER 6: DISCUSSION

In this study, the overall satisfaction is significantly different among CBHI and non-CBHI the proportion of overall satisfaction in CBHI members is 77% and 42% in NON CBHI groups. In line with this study a study conducted in India which shows there is a significant difference between insured and non-insured groups where 82% of insured and 73% of non-insured clients were satisfied with the services provided (44).

The study revealed that from socio-demographic characteristics only educational status were found to be significantly associated to overall satisfaction in the multivariate analysis. Having no education was increasing the overall satisfaction status of patients by 3.1 times than primary and above secondary education group with a 95% CI of (1.35, 7.22).In line with this study, a study from Iran revealed that patients with higher level of education are less satisfied (42). However, 2 studies from Northern part of Ethiopia, Morocco and Iran revealed that having no education negatively affect overall patient satisfaction (42,46–48).The difference for the two studies from Ethiopia may be because of different study design ,setting study population used. The difference from the other studies may be due to the fact that, Patients with higher education have higher incomes and social status. Thus, their expectations are higher so much is needed to satisfy them.

Being a CBHI member is a mean determinant for overall satisfaction in this study CBHI members have 4.2 times higher overall satisfaction score in health care service than that of the counter group non-CBHI members. In line with this study, a study conducted in Amhara region, Northwest Ethiopia claim that having a health insurance scheme (AOR=5.621; 95% CI=1.489–11.213) has significant association with patient satisfaction(47). This may be due to the fact that the health care providers are not constrained by financial issues of the patient in order to diagnose and treat the patient according to his health problem.

In the multivariate analysis patients who satisfied with the waiting time were 3.4 times having more overall satisfaction score. Similar studies conducted in Northern Ethiopia, Ghana, Morocco, Saudi Arabia, Iran and Australia revealed that less waiting time to be seen by a physician increase patient satisfaction (40,41,45,46,48,50).

Participants who believe that diagnosis of their problem was performed at the right time were 41 times higher than that of the counter group who argue with the diagnosis of their problem was not at

the right time. This may be explained by the reason that the appropriateness of time to diagnose a problem directly affects the treatment outcome which in turn increases patient satisfaction.

6.1. Limitation of the study

Since the study was conducted on households and it only explores client-side satisfaction from the households (demand side), providers such as CBHI cadres and health professional's views was not explored.

CHAPTER 7: CONCLUSION AND RECOMMENDATION

7.1. Conclusion

Generally, the study finding shows that insured patients have a higher level of overall satisfaction score as well in every single unit of services. The mean determinants of allover satisfaction in this study are educational status, being CBIH membership, waiting time and the right time to diagnosis their problem.

7.2. Recommendation

Finally, to improve patient satisfaction with the health service given, in turn to increase the quality of health care, CBHI program should be promoted and encouraged by the government. Moreover, policy makers, health system managers, and health professionals should work to minimize the waiting time to get health service.

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ANNEX-I INFORMED CONSENT

Title of the Research proposal: Household satisfaction of utilizing health care service with insured and non-insured under community-based health insurance in Mahal SayentWoreda South Wollo, Ethiopia 2019.A comparative cross –sectional study

Name of Principal Investigator: Kalkidan Gashaw

Name of the Organization: Addis Ababa University

Introduction

We are planning to conduct study on household satisfaction of utilizing health care service with insured and non-insured under community-based health insurance in Mahal Sayent Woreda south Wollo, Ethiopia. We wish to find out ways by which we can identify the determinants and develop strategic interventions so as to address the problem. We value your input to make this study a successful one.

Purpose of the Research Project

The aim of this study is to assess household satisfaction of utilizing health care service with insured and non-insured under community-based health insurance in Mahal Sayent Woreda south Wollo, Ethiopia 2019

Procedure

You are randomly selected to be one of the study participants. If you are willing to participate in this study, you were requested to sign the consent form after you clearly understand the aim of this study. Finally, you are kindly requested to give your genuine response in the interview questionnaire.

Risk and /or Discomfort

By participating in this research project, you may have some discomfort. There are no or minimal anticipated risk but you will take time about 25 minutes for interview.

Benefits of being in the study

There may not be direct benefits to you for giving us information for the study but your participation is likely to help us in household satisfaction of utilizing health care service with insured and non-insured under community-based health insurance in Mahal Sayent Woreda south Wollo, Ethiopia, ultimately this will help us to provide information for planners to implement interventions.

Confidentiality and Privacy Protections:

You do not need to tell your name to the data collector. All your responses and the results obtained were kept confidentially by using coding system whereby no one will have access to your responses.

Incentives/Payments for Participating

You will not be provided any incentives or payment to take part in this project.

Right to Refusal or Withdraw

You have the full right to refuse from participating in this research. You have also the full right to withdraw from this study at any time you wish.

Contacts and Questions:

If you have any questions about the study please ask now. If you have questions later, want additional information, or wish to withdraw call the researcher conducting the study.

1. ——————

ANNEX-II QUESTIONNAIRE

Addis Ababa University

Department Public Health

Household Satisfaction of Utilizing Health Care Service with Insured and Non-Insured Under Community Based Health Insurance in Mahal Sayent Woreda South Wollo, Ethiopia 2019 G. C Comparative Cross –Sectional Study

Date……... Study Site……. Code of the Interview……

Part 1 sociodemographic questions

01	Are you a CBHI Member?	Yes No
02	Sex	Male ☐ Female ☐
03	Age	a) 18-44 ☐ b) 45-64 ☐ c) ≥65 ☐
04	Education Background	A. No Education ☐ B. Primary ☐ C. Secondary ☐ D. preparatory ☐ E. Higher ☐
05	Marital Status	A. Unmarried ☐ B. Married ☐ C. Widowed ☐ D. Divorced ☐
06	Self-reported health states	A. No problems ☐ B. Some problems ☐ C. Chronic disease ☐
07	What type of service did you receive?	A. outpatient ☐ B. Inpatient ☐ C. Both ☐

Part 2 health care satisfaction questions

Numbers	Variable	Response

01	Satisfied with delivery of services	A. Satisfied ☐ B. Very dissatisfied ☐ C. Dissatisfied ☐
02	Satisfied with service provider's attitude towards explaining health problems	A. Satisfied ☐ B. Very dissatisfied ☐ C. Dissatisfied ☐
03	Are Service provider's friendly?	A. Agree ☐ B. Strongly Agree ☐ C. Disagree ☐
04	Are Service provider's explanatory about prescribed medicine?	A. Been fully explained ☐ B. Partly explained ☐ C. Not explained simply ☐
05	Are you satisfied with the confidentiality?	A. Agree ☐ B. Strongly Agree ☐ C. Disagree ☐
06	Are you satisfied with the staff's behavior?	A. Agree ☐ B. Strongly Agree ☐ C. Disagree ☐
07	Are you satisfied with the facility environment?	A. Agree ☐ B. Strongly Agree ☐ C. Disagree ☐
08	Are you satisfied with the comprehensive services provided by the clinic?	A. Agree ☐ B. Strongly Agree ☐ C. Disagree ☐
09	Was the diagnosis of your problem on the right time?	Yes ☐ No ☐
10	The length of time that you had to wait to be seen was reasonable?	Agree ☐ Disagree ☐
11	Were you seen in a clean and safe environment?	Agree ☐ Disagree ☐

12	The information I received about my health has helped me to understand my condition?	Agree ☐ Disagree ☐
13	The treatment that, I received was effective	Agree ☐ Disagree ☐

አንቀጽ ነየስምነትማረጋገጫ

የጥናቱእርዕስ፡-የጤናመድህንየገቡእናያልገቡቤተሰቦችእርካታበጤአናመድህንላይበመሃልሳይንትወረዳ-ደቡብወሎኢትዮጵያ.

የዋናውአጥኝስም፡-ቃልኪዳንጋሻው

የመስሪያቤቱስም፡-አዲስአበባዩኒቨርሲቲይ

መግቢያ

የጤናመድህንየገቡእናያልገቡቤተሰቦችእርካታበጤአናመድህንላይበመሃልሳይንትወረዳ-ደቡብወሎኢትዮጵያ.

በዚህላይጥናትማካሄድያስብንሲሆንእናምችግሮቹንአውቀንመፍትሄማበጀትእንፈልጋለን።

የርስዎአስተዋጽኦበዚህጥናትላይየማይናቅነው።

የጥናቱአላማ፡-

ይህሲሆንየጤናመድህንየገቡእናያልገቡቤተሰቦችእርካታበጤአናመድህንላይበመሃልሳይንትወረዳ-ደቡብወሎኢትዮጵያ.

አካሄዱበምርጫየተመረጡበመሆኑለዚህጥናትፍላጎትዎከሆነየስምምነትማረጋገጫውላይይፈርማሉየጥናቱዓላማበግልጽከተብራራል ዎትበኋላ። በመጨረሻምለቃለምልልሱምላሽዎንይሰጣሉ።

የሚገኝጥቅማጥቅምበመሳተፍዎ

ቀጥተኛየሆነየሚያገኙትጥቅምባይኖርምግንየርስዎተሳትፎየጤናመድህንየገቡእናያልገቡቤተሰቦችእርካታበጤአናመድህንላይበመሃ ልሳይንትወረዳ-ደቡብወሎኢትዮጵያበዚህጥናትላይትቅምያስገኛል።

ሚስጥርስለመጠበቅጉዳይ፡-

ለቃለመጠይቅአቅራቢውስምዎንመናገርአይጠበቅብዎትም።

የሜሰጡትመረጃወደውጤየሚቀየረውበኮድስለሆነማንምየርስዎንምላሽሊያውቅአይችልም።

ጥቅማጥቅምናከፍያ፡-

ምንምአይነትጥቅማጥቅምናከፍያአያገኙም።

የማቋረትናያለመስማማትመብት፡-

ጥናቱላይያለመሳተፍእናየማቋረጥሙሉመብትአለዎት።

አድራሻእናጥያቄ

ያለዎትንጥያቄበቃለመጠይቁጊዜወይምከዚያበኋላመጠየቅይችላሉ። የዋናውንጥናትአጥኚአድራሻወስደውመገናኘትይችላሉ።

አዲስ አበባ ዩኒቨርሲቲ

የጤና ጠባበቅ ትምህት ክፍል

የጤና መድህን የገቡና ያልገቡ ቤተሰቦች እርካታ በጤና አገልግሎት ላይ። በመሃል ሳይንት ወረዳ ደቡብ ወሎ ኢትዮጵያ

1.	የጤና መድህን አባል ኖት ወይ?			
ሀ. አው		ለ. አይደለሁም		
2.	ፆታ			
ሀ. ወንድ		ለ. ሴት		
3.	እድሜ			
ሀ. ከ18- 44	ለ. 45-60		ሐ. > 60	
4.	የትምህርት ደረጃ			
ሀ. ያልተማረ	ለ. 1ኛ ደረጃ		ሐ. ከፍተኛ ደረጃ	
5.	የጋብቻ ሁኔታ			
ሀ. ያገባ		ለ. ያላገባ	ሐ. የፊት	መ. በሞት የተለየ
6.	በአሁኑ ጊዜ የሚገኙበት የጤና ሁኔታ			
ሀ. ምንም ችግር የለብ	ለ.የተወሰነ ችግር አለብኝ		ሐ. የአዕምሮ በሽታ አለብኝ	
7.	በአሁኑ ጊዜ የሚገኙበት የጤና ሁኔታ			
ሀ. ምንም ችግር የለብ	ለ. የተወሰነ ችግር አለብኝ		ሐ.የአዕምሮ በሽታ አለብኝ	
8.	በዚህ ጉብኝትዎ የትኛው የጤና አገሎት ሰጪ ተቋሙን ነው የጎበኙት?			
ሀ. ጤና ኬላ	ለ. ጤና ጣቢያ		ሐ. የመንግሥት ሆስፒታል	
9.	ጤና አገልግሎት አሰጣጡ ላይ እረክተዋል?			
ሀ. በጣም ጥሩ ነው	ለ. ጥሩ ነው		ሐ. ጥሩ አይደለም	
10. የጤና አገሎት የሚሰጡ ባለሙያዎች የጤና ችግሮችን በበቂ ሁኔታ አስገንዝበዋል ብለው ያምናሉ።				
ሀ. በጣም በሚገባ	ለ. በሚገባ		ሐ. አላምንም	
11.	የጤና ባለሙያዎቹ ጥሩ አቀባበል አላቸው?			
ሀ. በጣም ጥሩ ነው።	ለ. ጥሩ ነው		ሐ. ጥሩ አይደለም	
12.	የጤና ባለሙያዎች በታዘዙት መድሃኒቶች ላይ በቂ ግንዛቤ ያስጨብጣሉ።			
ሀ. በሚገባ ተብራርቷል	ለ. ተብራርቷል		ሐ.በግልፅ አልተብራራም	

13.	በጤና ባለሙያዎች በሚስጢር ጠባቂነታቸው ላይ ይተማመናሉ።		
ሀ. በሚገባ		ለ. አላውቅም	ሐ. አላምንባቸውም
14.	በሠራተኞቹ ሥነ-ምግባር ደስተኛ ነዎት?		
ሀ. አው በሚገባ		ለ. ጥሩ ነው	ሐ. ጥሩ አይደለም
15.	በጤና ተቋም አካባቢ ሁኔታ ደስተኛ ነዎት?		
ሀ. ጥሩ በሚገባ		ለ. ጥሩ ነው	ሐ. ጥሩ አይደለም
16.	የጤና ተቋሙ አጠቃላይ በሚሰጠው አገሎት ረክተዋል?		
ሀ. አው በሚገባ ረክቻለሁ		ለ.በመጡእረክቻለሁ	ሐ. አረካሁም
17.	በትክክለኛው ሰዓት ያለብኝ የጤና ችግር ተገኝቶልኛል ብለው ያምናሉ?		
ሀ. አው		ለ. አይደለም	
18.	ህክምና ለማግኘት የጠበቁት ጊዜ ተገቢ ነው ብለው ያምናሉ?		
ሀ. አው ተገቢ ነው		ለ. ተገቢ አይደለም	
19.	አገልግሎት የተሠጠወት በንፅህና እስተማማኝ ቦታ ላይ ነው?		
ሀ. አው በገሚ		ለ. አይደለም	
20.	ሥለ-ጤንነቴ ያገሁት መረጃ የጤንነቴ ሁኔታ እንድገነዘብ እረድቶኛል?		
ሀ. እስማምለሁ		ለ. አልስማም	
21.	የወሰድኩት ህክምና ውጤታማ ነው?		
ሀ. እስማምለሁ		ለ. አልስማም	

ANNEX-III ASSURANCE OF PRINCIPAL INVESTIGATOR

The undersigned agrees to accept responsibility for the scientific, ethical and technical conduct of the thesis result and provision of required progress reports as per terms and conditions of the college of Public Health & Medical Sciences in effect at the time of grant is forwarded as the result of this application.

Name of the student: KALKIDAN GASHAW

Date:_____ Signature:_____

APPROVAL OF THE ADVISORS

Name of the first advisor: Mrs. BirhanTassew

Date:_____ Signature:_____