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THE ENROLLMENT OF HOUSEHOLDS IN COMMUNITY-BASED HEALTH INSURANCE (CBHI) IN ETHIOPIA: THE CASE OF THE ALELTU DISTRICT

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Abstract

In developing countries, people's attitude about their health is very poor. People visit health institutions only when they are sick. This trend is especially common in rural areas. For the majority of people, health care is accessed and covered by money sourced from their existing funds or assets, which frequently results in citizens not using health care services. Poor health care financing remains a major challenge for the health system in Ethiopia. It leaves households vulnerable to impoverishment from high health expenditures and slows progress towards health improvements such as the Sustainable Development Goals, limiting access to essential health services among citizens with lower socio-economic status. Important barriers to improved health care financing include low government spending on the health sector, strong reliance on out-of-pocket expenditure, inefficient and inequitable utilization of resources, and poorly harmonized and unpredictable donor funding. Different studies illustrated that in developing countries the majority of people from poor families cover health care costs with out-of-pocket funding. As a result, many fall into debt, which aggravates the severe poverty conditions. This study revealed that all households (n=150) are aware. This awareness has positive contribution on enrollment and sustainability of the scheme by minimizing the drop out of the member. The major benefit the households experienced by enrolling in Community-Based Health Insurance (CBHI) is that it saves people from having unplanned health costs. Eighty percent of the respondents stated that their health status improved and that their families were insured. Currently, both premiums were paid and Poor members of the scheme are enrolling in the Aleltu district because they understand the advantages of being members of CBHI.

Keywords

Community-Based Health Insurance (CBHI), Enrollment, Aleltu district

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1. Introduction

One-hundred million people worldwide are driven into poverty every year due to high health expenditure. Most of these people reside in regions that have limited resources, such as countries in Sub-Saharan Africa (SSA) with weak modern health care systems and nonexistent health insurance schemes (WHO, 2003).

In less developed countries, formal and well-functioning health insurance scheme are only available for a limited number of people employed in formal sectors. For the majority, health care is accessed and funded from personal funds or assets, which lead to reduced use of health care services (WHO, 2003).

Health is increasingly being viewed not only as an "end" in itself but also as a crucial "input" into the development process. A positive link between health and economic growth is widely established, particularly for low-income countries. As these countries embrace market reforms as well as integrate themselves into the world economy, there is a concern about insulating the poor from any possible adverse consequences. While the role of the state is declining in most economic spheres, in social sectors such as healthcare, the state's role will continue to be important (Jutting et al., 2003).

According to Meghan (2010), more than half of health expenditure in poor countries is covered by out of pocket (OOP) payments incurred by households. An increase in such expenditure can have catastrophic effects and may deplete a household's ability to generate current and future income. This can result in inter-generational consequences as households may be compelled to incur debt, sell productive assets, reduction of reserve food stocks, and sacrifice children's education.

Due to their advantages over standard health insurance products, Community-Based Health Insurance (CBHI) schemes are considered better alternatives to fill the void in the healthcare financing system of many low- and middle-income countries (Jutting, 2004). The overarching goals of these programs are increasing access to healthcare services, protecting households from health-related financial risks, and ultimately improving the health status of the poor. In recent years, governments are rolling out CBHI schemes at the national level, integrating them into the existing healthcare provision and financing systems, and allocating significant resources in the form of subsidies and steering operational activities. The proliferation of CBHI schemes in many low-income countries as mainstream healthcare financing mechanisms has triggered considerable analytical and policy questions concerning their impact in providing access to healthcare services and protecting households from financial risks due to illnesses.

At different times the government of Ethiopia has been making reforms in the health sector. Currently, the government is introducing various tools to finance health sector programs, including CBHI in the informal sectors and Social Health Insurance (SHI) in agricultural sectors. SHI involves formal and employed sectors of the economy. Once policies are issued, premium collection is directly deducted from the salaries of beneficiaries. Both CBHI and SHI are insurance types existing in Ethiopia, however they are differ on the amount ad ways of premium collection.

The type of paying participants (members) involved in CBHI requires continuous and rigorous awareness creation and behavioral change activities (EHIA, 2015).

The main research questions are as follows; how is the enrollment of households in CBHI, What are the types of members of CBHI in the Aleltu districts, what are the determinants of CBHI enrollment, How did the households has been covered their medical expenses before enrolling in CBHI?.

This study is needed because of the relatively limited literature available in the study area on the enrollment of households in community-based health insurance, which has a direct impact on the sustainability of this insurance scheme. The objective of this study is to assess enrollment of households into Community- Based Health Insurance in Ethiopia and the Aleltu District.

This study used mixed method research approach where research questions are answered using descriptive statistic method (Mena, standard deviation, frequency and Percentage) and interview questions would be analyzed by narrating the statements using direct words of the respondents. SPSS Version 26 was used for data processing.

This paper is structured as follows, the first sections deals the introductory parts the second parts deals with the theoretical and empirical concepts of CBHI the next section deals with the research methodology, section four of this paper presents data presentation and analysis whereas the final sections deals with conclusions and recommendations.

2. CBHI in Developing Countries

In the absence of third party and prepayment systems such as health insurance and tax-based healthcare financing, households in many low-income countries are exposed to the financial risks of large out-of-pocket medical bills. In recent years, community-based health insurance schemes have become popular alternatives to fill this void in the healthcare financing systems (Shimeles, 2010).

Research in Asia and sub-Saharan Africa shows that community-based health insurance has been less effective in securing equity than expected. Poor people are less likely to enroll in such schemes, and a limited number of studies show that once enrolled their use of the services is not great enough to compensate for pre-existing inequities in access. Therefore, the major challenge for community-based health insurance is how to secure greater equity across socioeconomic groups, in terms of both enrolment and access to services (Ibid).

Community-Based Health Insurance Schemes (CBHIs) have flourished in the developing world. By reaching those who would otherwise have no financial protection against the cost of illness, CBHIs also significantly contribute to equity in the healthcare sector. However, many schemes do not perform well due to a number of problems related to their implementation (Habiyonizeye, 2013).

People living in developing countries have been understating the important role of the CBHI and they are starting to enroll in the insurance scheme. However, various factors are contributing to fewer enrollments in the scheme according to research

conducted by Watkins (2013), which illustrated that while affordability is an issue, the main reason for the declining enrolment rate is the poor quality of care at health centers accessible to members.

3. Research Methodology

3.1. The study area

Aleltu is one of the Aanaas (districts) in the Oromia of Ethiopia. It was part of the former Bereh Aanaa. It is part of the North Shewa Zone. Towns located in this district include Tale, Digare, Sant'e, and Galata. The closest major cities include Addis Ababa, Adama, and Bishoftu (Aleltu, 2022). Aleltu is found in the Northern Shewa zone of Oromia. It is bounded by Kimbibit and Jida district from the north, the East Shewa zone from the south, the Amhara region from the east, and the Berech woreda from the west. The total area of the district is 588 km2. It has two major towns, Miqawa and Fitch Galila. The numbers of villages in the district are 22, of which 20 are rural and two are town villages. The Aleltu Oromo is what anthropologists define as "sedentary agriculturalists". Of the total district area, about 28,048 hectare is under 8762 farm holders and about 17,502 hectare is under cultivation. Most of people earn their livelihood from agriculture and animal husbandry (AWIDS, 2007) as cited in Girum (2010).

3.2. Research Design

The design selected for research should be the one most suited to answer the proposed research question. For this particular study, the researcher collected both qualita-

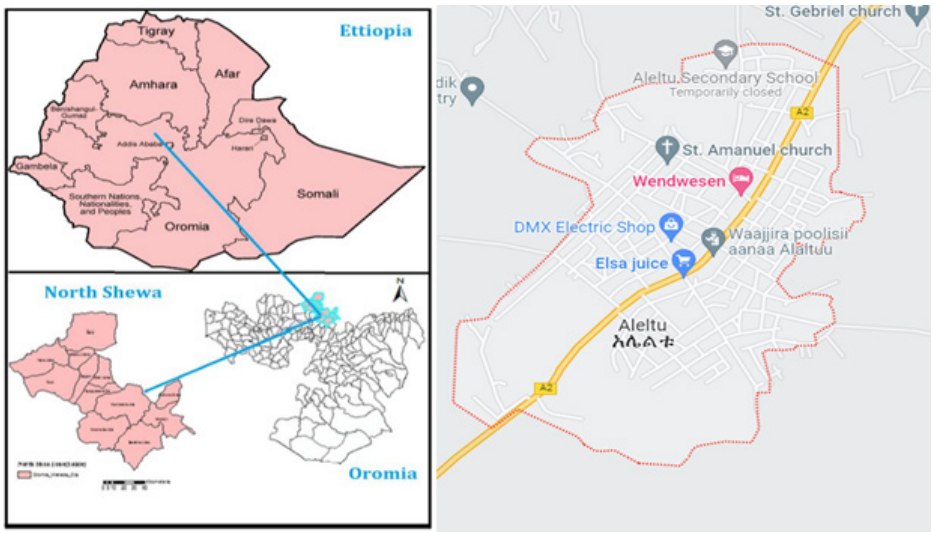

Figure 1. Political Map of North shewa zone and Aleltu district.
Source: Tafa and Worku; Map of Aleltu District Source: (Aleltu · Ethiopia, n.d.)

tive and quantitative data on the CBHI practice and challenges. This research study used the descriptive method of study. It presents facts about CBHI enrollment and existing conditions in the area of the study. The Statistical analysis of the research included descriptive statistics to reveal the current situation on CBHI practice and challenges. The main survey instrument used for this study was a questionnaire and an interview.

3.3. Sample and Sample Size Determination

The rule of thumb cited in Durrheim et al. (2006) was to use 30% of the sample size for a small population of up to 1000. Therefore, the primary data for this study were collected from 150 households and beneficiaries of community-based health insurance. According to the data of the district CBHI bureau, the total population in the selected villages was 600. Among these, there were 500 households enrolled for more than one year was 500. I intentionally excluded those households enrolled less than one year in order to collect in-depth information from those families that have good enrollment and membership renewal. Therefore, I randomly selected the following five Gandas[1]; Gora, Mikawa, Sagani-Sagda, Ejersa, and Wegini-Dara A total of, 150 respondents (30%) from the households responded to the questionnaire for the data collection process.

3.4. Types of Data

This research is based on primary (survey data collected in 2017) and secondary data collected from primary and secondary sources.

4. Data Presentation and Analysis

Background of the respondents: As indicated in *Figure 2* below, 60 (40%) of participants were female beneficiaries of community-based health insurance in the Aleltu district. The percentage of male respondents constitutes the largest part that is 90 (60%) of the total respondents, suggesting that man-headed households are enrolled more.

Regarding the age distribution of the respondents, 20% of respondents were 18-48 years old, 26.7% were 49-69 years old, and 53.3% were 70-90 years old. According to Haileselassie, (2014) age is a determinant factor for households enrolling in CBHI. Beside this study as experience of Ghana, Mali, Senegal, Tanzania and Burkina Faso indicated that increase age of household was significantly related with enrollment in CBHI (Dror et al., 2016; Jehu-Appiah et al., 2012; Gnawali et al., 2009). Hence, as people getting older require healthcare security; they become members of insurance plans in order to get health service from the health institution through their premium payments. Table 1 illustrates that majority of respondents enrolled in CBHI were older people.

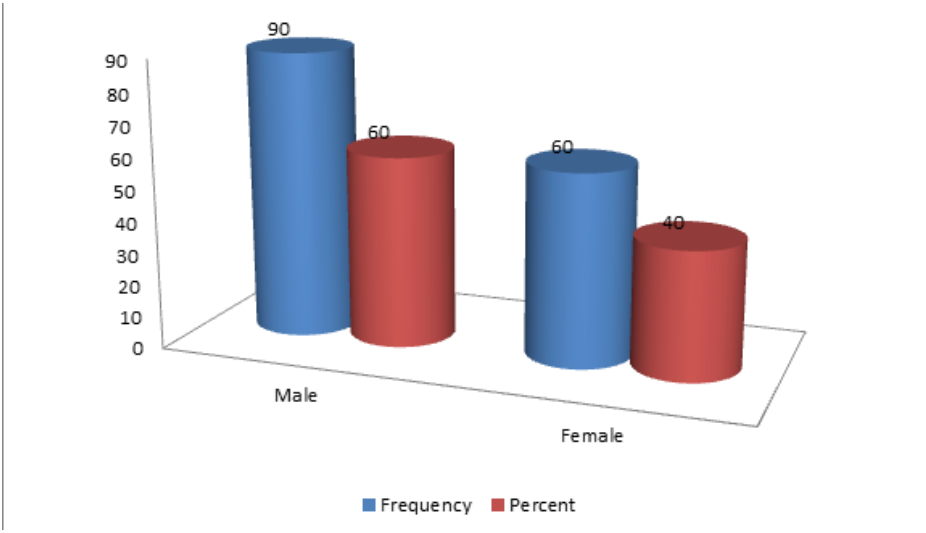

Figure 2. Gender distribution of the respondents
Note: General Information; this data is survey data conducted by the researcher
Specific information: The frequency and percentage distribution of Households is illustrated

Item	Frequency	Percentage
18-48	30	20
49-69	40	26.7
70-90	80	53.3
Total	150	100

Table 1. Age related Distribution of Beneficiaries
Note: General Information; this data is survey data conducted by the researcher
Specific information demonstrated the age range of households and the frequency and percentage

Concerning the marital status of the respondents, *Figure 3* below shows that only 3.3% were not married, 76.7 were married, 13.3% were widowed, and 6.7% were polyandrous. The majority of the respondents (96.7%) were not bachelors, and from this total amount 20% of lost their wives or husbands and were living with their children. Marital status is among factor for enrolling in and renewing CBHI membership. Studies conducted in Ethiopia and India shows that marital status and household size determine the household's enrollment in CBHI (Haileselassie (2014); Namomsa (2019); Reshmi et al. (2018).

As data in *Figure 3* illustrated that the majority of the respondents were married households that enrolled in CBHI. This suggests that households and families that

have children feel they require more security than those individuals that are not married or do not have families with children. Marital status is among the factor that determines individual to enroll and stay in insurance schemes like CBHI.

Regarding the occupation of the respondents, *Table 2* below displays that 63.3% were engaged in agricultural activity, 13.3% were housewives, 6.7% were self-employed, 6.7% were laborers, and 10% were engaged in other private work. This shows that in total, 60% were engaged in agricultural activity. The focus of community-based health insurance is rural people engaging on informal activates of the economy, and the insurance scheme focuses on farmers and non-formal active.

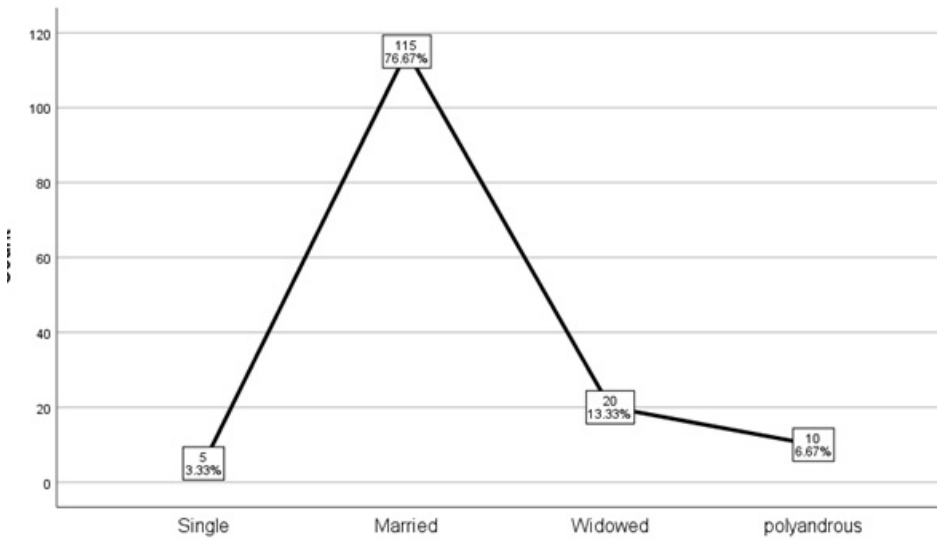

Figure 3. Marital Status of the respondents
Note: General Information; this data is survey data conducted by the researcher
Specific Information: In this figure the y-axis represents the frequency of the respondent's response on their marital status whereas the x-axis represents the marital status.

Items	Frequency	Percentage
Farmer	95	63.3
Housewife	20	13.3
Trader	10	6.7
Laborer	10	6.7
Other (Private)	15	10

Table 2. Occupational Status of Respondents
Note: General Information; this data is survey data conducted by the researcher
Specific information: the list of occupation in each households engaged starting from farming to the private business.

Regarding the family size of the respondents, *Figure 4* shows that 40% of the respondents have 1–5 children, 6.7% have 11–15 children, and 53.7% have 6–10 children. This illustrates that the majority of respondents (60%) have beyond half dozen children. According to Guy (2003) family size can be considered a factor responsible for inadequate access to health service and low patient satisfaction in less developed countries. As survey in 2009 conducted by the WHO shows that in Ethiopia the number of hospital beds per 10,000 people was only two, which is a small number compared to other sub-Saharan African countries (WHO, 2009).

Employees were asked the interview question, which was about the impact of large and small family size on getting the insurance service with membership in CBHI. One respondent stated the following:

> ''For now the impact is insignificant since the scheme is subsidized by the federal government in addition to premium payment contributed by the non-indigent member of the CBHI'' (Employees and official of CBHI).

According to CBHI, there are three types of government subsidies for the insurance schemes: targeted subsidies, general subsidies, and financing management costs (i.e., salaries, office space, and operational costs). The regional and district governments finance premiums with different arrangements. In South Nation Nationality and People (SNNP) and Oromia national regional state, districts finances all the costs of poor people district governments also finance the salaries and operational costs of all schemes. The federal government subsidizes 25% of CBHI premiums for both paying and non-paying members (Ethiopian Health Insurance Agency, 2015).

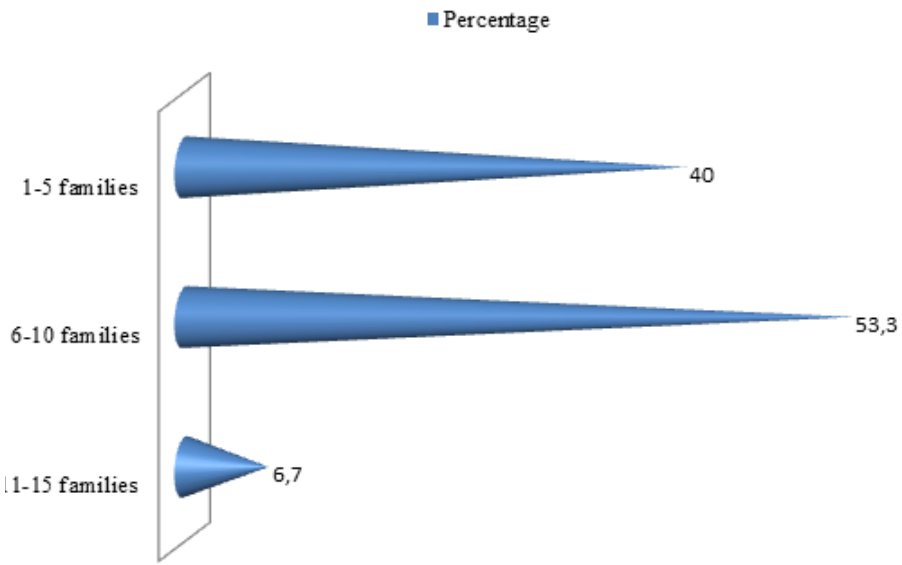

Figure 4. Family Size of the Respondents
Note: General Information; this data is survey data conducted by the researcher

	Frequency	Percent	Cumulative Percent	Mean	Standard Deviation
Less	20	13.3	13.3	2.733	0.932
Medium	30	20	33.3		
Valid Good	70	46.7	46.7		
Very Good	30	20	80		
Total	150	100	100		

Table 3. Level of Awareness (Knowledge) of CBHI
Note: General Information; this data is survey data conducted by the researcher
Specific Information: the level of households awareness on CBHI are rated using the 4 scale rating that is from less to very good.
n= 2.733 which is above the medium value 2

The finding in *table 3* indicates that the mean value is 2.73. This indicates that the respondents are aware of or have knowledge of community-based health insurance scheme; therefore, CBHI is not new idea or concept for respondents. Generally, good awareness creations activities are performed in the Aleltu district are there is not a lack of knowledge on community-based health insurance. A significant amount of research conducted on CBHI enrollment showed that among factors contributing to sufficient enrollment in CBHI, creating awareness of the households regarding the scheme contributes to the sustainability of insurance by preventing the withdrawal of members. A greater understanding of health insurance, and in particular knowledge of the CBHI scheme, is expected to support retention. Regarding the awareness creation in households about CBHI, so far the study district (Aleltu) did well because all of the households included in this sample study have good awareness regarding the CBHI (Table 3 supports this conclusion).

According to Meghan (2010), more than half of health expenditure in poor countries is covered by out-of-pocket (OOP) payments incurred by households. An increase in such expenditure can have catastrophic effects and may deplete a household's ability to generate current and future income. This can lead to intergenerational consequences as households may be compelled to incur debt, sell productive assets, decrease buffer food stocks, and sacrifice children's education.

Beneficiaries were asked questions regarding the previous history of health cost coverage in order to compare the dependency ratio of OOP and borrowing to pay for healthcare cost coverage. The following table reveals the insured households report on their previous history of health cost coverage before they were insured in community-based health insurance. The result of the report is interpreted and analyzed as follows.

Concerning the health cost coverage of households before enrolling in CBHI, 46.7% of respondents used out-of pocket payment (OOP) to cover their health expense before they enrolled in CBHI, while 26.7% of the respondents borrowed from others persons to cover their health cost. But 13.3% and 6.7% of them covered their expenses by Ekub (Ikub) and Idir and free governmental health service respectively;

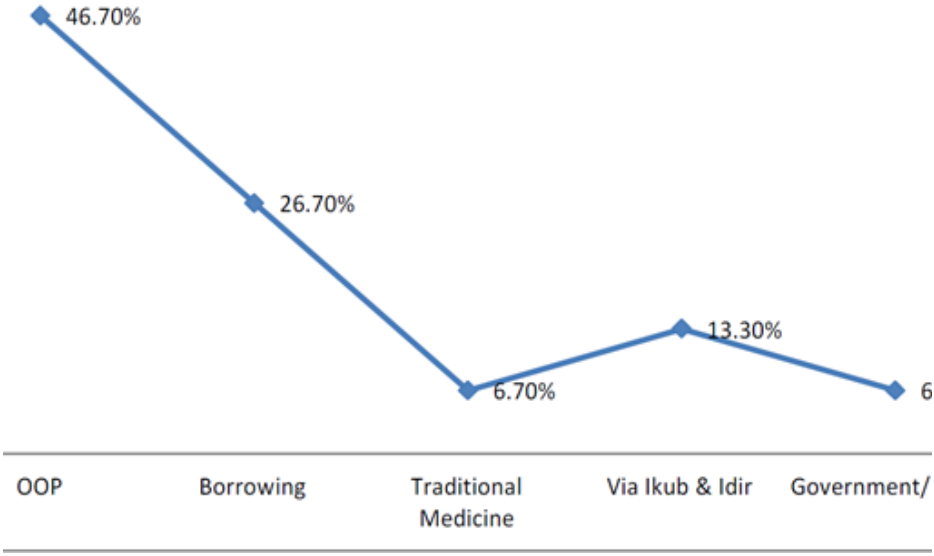

Figure 5. How did you cover your medical expenses before enrolling in CBHI?
Note: General Information; this data is survey data conducted by the researcher

Ekub (Ikub) and Idir are among the informal or traditional financial institutions found in Ethiopia, Ikub is a type of saving association in which members have to contribute fixed payments monthly or weekly and the fixed large sum money are exchanged for the group based on lottery method (Levine, 1972; Mauri, 1978; Baker 1986). Ikub have saving as core characteristics (Miracle et al., 19800) it is rotating saving and credit association (RoSCA's) (Emana, 2005) Idir is an indigenous institution formed to help members in times of difficulty (Ashenafi and Williams, 2005). From the above data one can reveal that that the majority of the households utilized OOP in order to finance their health cost coverage. As a result of the introduction of the CBHI district, many people were saved from OOP, borrowing, and other expensive ways of covering expenses. Studies conducted on financial risk protection in Low and Middle income countries show that in the majority of developing countries, health cost converges is through OOP and borrowing (Sahoo and Madheswaran, 2014; Habib et al., 2016; Pauly et al., 2006;Ather and Sherin, 2014; Nishtar, 2010; Kruk et al.,2009;Muhammad and Azam, 2012;Namomsa, 2019). This number is high in Ethiopia with more than 80% of total private health expenditure in the form of out-of-pocket payments. This suggests that the majority of people rely on out-of-pocket payment in order to cover heath expenses, which is a very traditional way of health expense coverage according to Kawabata, (2002) due to the OOP many people are pushed below poverty line.

4.1. Type of Membership

Interviews were conducted with employees on identifying the total number of indigent and non-indigent households enrolling in CBHI. Respondents reported the following: There are 1,455 poor people (non-paying) and 6,798 non-indigent members. This illustrates that since 2014 the total number of households enrolling in the Aleltu district and its 23 Gandas (local villages) was 8,253. This included both non-paying member and paying members of CBHI. Enrollment was not satisfactory when compared to the total population of 69,847 in the district in 2016. When excluding the number of public servants in the district, the number of households participating in the informal sector was 62,862. In this population only 8,253 were enrolled in CBHI.

On this regard an interview was conducted with employees of CBHI Aleltu districts in order to triangulate the result that was collected with questioner;

- What is the current total house hold number enrolling in the program? Among them how
- Many of them are identified as paying and non-paying members?

Concerning, the above interview question the answer of the employees were narrative in the following sentence:

> "*For the current year our office is planning to enroll 1,417 households from that time up to today (March, 2017). 758 households are fully enrolled in the CBHI. In order to enroll non-members households in CBHI, the office is working with different stakeholders like workers of health extension, kebele administration (managers of village), Woreda health bureau, farmer's development army, and religious leaders. Therefore, they are helping us on bringing continuous and rigorous awareness creation and behavioral change into households*" (Employees and official of CBHI).

This shows that more than 50% is achieved by the office for enrolling new households and if the Aleltu CBHI bureau continues with the current performance and activity they can achieve their goals.

The following figure shows the feedback of beneficiaries regarding their membership types, and the interpretation and analysis are provided under the *Figure 6*.

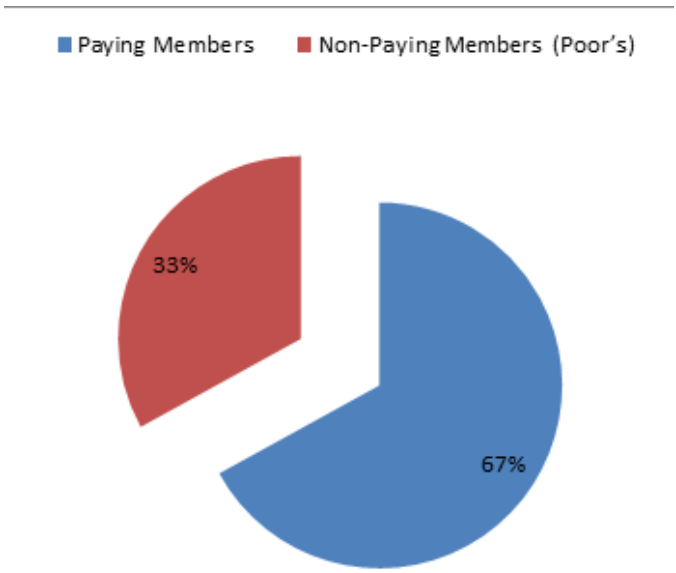

Figure 6. Membership Type
Note: General Information; this data is survey data conducted by the researcher

Among the total respondents as indicated in the above **Figure 6**. Among total respondents 50(33.3%) are non-paying members who receive free health services without needing to make payments. This is the category for households living in extreme poverty. However, 100(66.7%) are paying members of CBHI. This category of households receives health service by paying an annual premium. This shows that the scheme provides insurance service to poor households without them being required to make any payments. The sources of income for the scheme are governments, members, and donors. The number of paying groups should exceed the number of non-paying members in order to strengthen the financial viability of the scheme. Out of these three sources of funding, the sources funded by donors is situational and it is not sustainable therefore, the in order to make the scheme strong and financially efficient it is better to focus on the main source of finance that is premium payment and government subsidies. As survey data found in **figure 6** illustrated that the number of the paying member exceeds the number of non-paying group. This is good for CBHI in the early stages to make it strong enough in terms of scheme packaging. The increased and improved cash flow has had a positive effect on the availability of drugs and other supplies, which in turn has improved the quality of health services the facilities provide.

5. Limitation of the study

Lack of related conducted studies specifically in the study area made it difficult in comparing results and elaborates some of the findings as expected.

6. Conclusion and Recommendations

6.1. Conclusion

The study found that enrollment into community-based health insurance is showing its robust progress in the Aleltu district since its establishment. However, enrollment into CBH is still less compared to the total population and enrolled households. The total number of households living in the Aleltu district is 69,847. When deducting the number of public servants (10%) from the total population, there are 62,862 households engaged in the informal sectors of the economy. Out of these total households only 8,253 people were enrolled in the community-based health insurance both as indigent and non-indigent members of the society.

6.2. Recommendations

The enrollment rate of CBHI in the Aleltu district has been increasing over the years. This is satisfactory performance to scale up insurance, reduce out-of-pocket expenses, and achieve universal access to health. Additionally, the office is working on reducing the drop rate of permanent members. CBHI in the Aleltu district is on track to scale up the enrollment and minimize members leaving the scheme. Problems encountered when enrolling members into CBHI include lack of skilled man power and ability to solve problems. The agency should recruit new employees from the market and train exiting employees by providing education opportunities. Additional problems include limited computers, printers and size of offices. Absence of enough office computers, inconvenient office spaces, and improper handling of data for members of the CBHI members also contribute to improper working environments.

Note

[1] Ganda is smallest administrative structure in Ethiopia.

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