

**HEALTHCARE SEEKING BEHAVIOR AMONG URBAN AND RURAL
HOUSEHOLDS IN ESERA WEREDA, DAWRO ZONE SOUTH WEST ETHIOPIA:
COMPARATIVE CROSS SECTIONAL STUDY**



BY: - BAYU BEGASHAW (BSc)

**A RESEARCH THESIS TO BE SUBMITTED TO DEPARTMENT OF EPIDEMIOLOGY
OF COLLEGE OF HEALTH SCIENCES, JIMMA UNIVERSITY IN PARTIAL
FULFILLMENT FOR THE REQUIREMENT FOR MASTERS OF PUBLIC HEALTH IN
EPIDEMIOLOGY (MPHE)**

MAY, 2015

JIMMA, ETHIOPIA

**HEALTHCARE SEEKING BEHAVIOR AMONG URBAN AND RURAL
HOUSEHOLDS IN ESERA WEREDA, DAWRO ZONE SOUTH WEST ETHIOPIA:
COMPARATIVE CROSS SECTIONAL STUDY**

BY: BAYU BEGASHAW (BSc.)

ADVISORS:

- 1. FASIL TESSEMA (MSc, Associate Professor)*
- 2. HAILAY ABRHA (MPHE, PhD Researcher)*

MAY, 2015

JIMMA,

ETHIOPIA

Acknowledgement

First of all thanks to Lord Jesus Christ who supported and protected me throughout my life. Then, I am sincerely thankful to my advisors Fasil Tessema and Hailay Abrha for their unreserved all rounded, support and providing constructive comments and advice throughout the study period. My thank goes to the department of Epidemiology for giving this chance. I would also like to acknowledge my friends here in Jimma University and elsewhere for sharing their ideas, knowledge and other resources through my study period.

My thanks go to Mr. Haile Balangao, Bekele T, Tegegn Z, Tamirat G, Ephirem A, Mengistu M, Bikilay B, Atinafu A. and Sintayehu A from Esera woreda for providing necessary supports, continuous motivationand encouragement making this study possible.

Special thanks to my father Begashaw Bekele, my mother W\ro Asamenech Mekonen and my wife Seblewengel Getachew and her families, my son Hiyawkal Bayu, and my brother and sisters for their continuous encouragement, moral and material support throughout my academic life. Lastly my thanks got to data collectors, supervisor and all research participants who took part in the study.

Abbreviations

AOR-Adjusted Odds Ratio

COR- Crude Odds Ratio

CHD-Community Health Day

CSA- Central Statistical Authority

ETB-Ethiopian Birr

EWAO-Esera Woreda Administrative Office

FDRE-Federal Democratic Republic of Ethiopia

HEP-Health Extension Package

HEWs-Health Extension Workers

HHs- Households

HSB-Health Seeking Behaviour

HSDP-Health Sector Development Plan

JU-Jimma University

Km-kilometer

MOH-Ministry of Health

MPH –Masters of Public Health

SD-Standard Deviation

SED-Socio-economic and demographic

TBAs-Traditional Birth Attendants

WHO-World Health Organization

Abstract

Background: Health care seeking behaviour is influenced by the individuals, diseases, and the simple use and access of health services. Healthcare seeking behaviour states that treatment is pursued from a number of different sources and identifies price, access, service quality and belief as critical factors in decision-making. Dependent on these factors health care seeking behaviour is a composite outcome of many factors functioning at several levels like socioeconomic and cultural factors that influence their seeming needs and demand. In Ethiopia there is a marked difference in seeking of health care between urban and rural areas that among those who reported illness in the rural (60%), urban (30%) did not seek any kind of health service.

Objective: To compare health care seeking behavior at household levels between urban and rural Esera Woreda Dawro Zone, Southwest Ethiopia.

Methods: A community based comparative cross-sectional study was conducted among urban and rural households in Esera Woreda Dawro Zone, Southwest Ethiopia from February to May 2015. Total of 394 households (132-urban, 262-rural), selected via simple random sampling technique, were proportionately distributed based on population size of the kebeles at each stratum from sampling frame. Data were checked for completeness, entered into EpiData 3.1 software and exported into SPSS version 20 software for analysis. Tables, charts and frequencies for descriptive analysis where odds ratio, 95% CI test to determine statistical difference factors associated with Health Seeking Behaviour between urban and rural, bivariate and multivariable logistic regression analysis were used to identify associated factors with household's health seeking behaviour.

Result: A total of 377 (119 urban and 258 rural) households were interviewed about 377 (95.7%) response rate was get. Health care seeking behavior was higher among urban households (80.7%) than rural households (48.1%). Urban households sought four times more than rural households. At urban households being married (AOR=11.3, 95% CI =1.162, 110.204) and perceived severity (AOR =6.6, 95% CI=1.051, 10.951) had positively significant association with health care seeking behavior. Whereas monthly income, perceived severity, disease duration and distance from health center were significantly associated with HSB of rural households

(AOR=5.6, 95% CI=2.044, 15.409), (AOR=2.5, 95% CI=1.10, 5.85), (AOR=8.9, 95% CI=2.40, 33.26) and (AOR=3, 95% CI=1.187, 8.354) respectively.

Conclusion: The finding of the study shown that healthcare seeking behaviour was higher among urbans than rural households. Monthly income, perceived severity, disease duration and distance from health center were significantly associated with rural households while perceived severity and being married were significantly associated with urban households. Work on strengthen accessibility of health care services and deliver pertinent health information and education regarding health and illness to prevent disease and promote health for households regardless of perceived seriousness and duration of diseases.

Keywords: health care, health care seeking behavior, household, urban, rural, Esera Woreda, Dawro zone, South West Ethiopia

Table of Contents

Acknowledgement	I
Abbreviations	II
Abstract	III
Table of Contents	V
List of figures	VII
List of Tables	VII
INTRODUCTION	1
1.1 Background	1
1.2 Statement of the problem	3
2. LITERATURE REVIEW	5
Overview	5
2.1 Conceptual Framework of on Healthcare seeking behaviour	10
2.2 Significance of the study	11
3. OBJECTIVES	12
3.1 General objective.....	12
3.2 Specific objectives.....	12
4. METHODS AND MATERIALS.....	13
4.1. Study area and period.....	13
4.2 Study Design	13
4.3 Population.....	13
4.3.1 Source population	13
4.3.2 Study population.....	13
4.3.3 Study unit.....	13
4.4 Inclusion and exclusion criteria.....	13
4.4.1 Inclusion criteria	13
4.4.2 Exclusion criteria	14
4.5 Sample size determination	14

4.6 Sampling technique and procedure	14
Study variables	16
4.7 Data collection process	16
4.8 Data quality assurance.....	16
4.9 Data analysis	16
4.10 Ethical considerations	17
4.11 Dissemination plan of the study finding	17
4.12 Operational Definitions	17
5. RESULTS	19
6. DISCUSSION.....	37
7. Strength and Limitation of the Study.....	39
8. CONCLUSION.....	40
9. Recommendation	40
REFERENCES	42
ANNEX QUESTIONNAIRES	45
Annex I. English Version Questionnaires.....	45
Annex II. Dawurogna Version.....	51
Dawurothuwa Birshethaa	51

List of figures

Figure 1 Conceptual framework of healthcare seeking behaviour adapted from literature review	10
Figure 2 Diagrammatic presentation of sampling technique and procedure.....	15
Figure 3 Healthcare Seeking Behavior Between Urban And Rural Households In Esera Woreda, Dawro Zone, South West Ethiopia, April 2015	23
Figure 4 Types of Health facilities utilization of households, Esera Woreda, Dawuro zone, south west Ethiopia, 2015.....	24
Figure 5 Reasons for self-treatment among households in Esera woreda, Dawuro Zone, South west Ethiopia, 2015.....	30

List of Tables

Table 1 Socioeconomic and demographic factors versus healthcare seeking behaviour among urban and rural households, in Esera Woreda, Dawuro zone, April 2015.....	20
Table 2 Individual related factors affecting healthcare seeking behaviour households, Esera Woreda, Dawuro zone, South west Ethiopia, 2015	25
Table 3 Comparison of Institutional and health Belief Factors with Healthcare Seeking Behaviour among urban and rural households in Esera woreda, April 2015	27
Table 4 bivariate analysis on independent variables with outcome (Healthcare Seeking behaviour) variable between urban and rural residents of Esera woreda, south Ethiopia, 2015 ..	32
Table 5 Results of logistic regression for comparison of SED, individual, institutional and behavioral variables with outcome (Healthcare Seeking behaviour) variable between urban and rural residents of Esera woreda, south Ethiopia, 2015.....	35

INTRODUCTION

1.1 Background

Health care seeking behaviour has been defined as any action undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy(1).

The issue of healthcare-seeking (medical-care) behaviour is fundamental to all society. All nations depend on its human assets in the formation and quest of growth and improvement. The human assets are able to realize those desired objectives defined by the society only on the essential ground that the people are in good health. Health is more than the absence of diseases and it includes social, psychological and economic comfort. Surrounded in good health is not the least disease, as this is more in keeping with poor health. On the other hand, poor health states to the people's perception of a little quality of life or life satisfaction(2).

Healthcare seeking behaviour states that treatment is pursued from a number of different sources and identifies price, access, service quality and belief as critical factors in decision-making(3). Concerning about the certainty of disease among household members commonly create a mandate for treatment and start treatment-seeking actions(4).

In addition, consumption of health services is a multiple behavioral phenomenon. Representative studies of preventive and curative service have often establish that the use of health services is related to availability, quality and price of services as well as to social group, health views, residences and personal features of the users (5).

Developing countries face multiple health challenges. Besides the diseases common to all countries, such as diabetes and cancer, they face an additional disease burden related to their geography and poverty, including tropical diseases, such as malaria, dengue fever, and schistosomiasis; waterborne diseases, due to unclean drinking water; respiratory diseases, due to indoor air pollution from cooking and heating with solid fuels(6)

Consumption of healthcare services is an important public health and guiding principle issue in developing countries. However, the level of healthcare services is not adequate in many

countries of the world(7). As the minor socioeconomic groups have a higher problem of disease such need more health service, fairness is at the heart of the whole healthcare matter. In Brazil, a universal, distributed and free of charge healthcare system was created and further improvements have occurred since then, but there is confirmation that, in spite of universal coverage and free access to outpatient and inpatient procedures, distribution of health services consumption among social groups remains unequal(8).

In Ethiopia, the healthcare system is distributed and free health service for those who cannot afford is being provided. Though health service coverage is 86.7%, the availability of free service for the poor, remains very low about 32% and disproportionately distributed between urban and rural(9).

When possible, people base their choices about when and anywhere to seek care on many socioeconomic and cultural factors that influence their perceived needs and demand. Before their perceived needs result in request for and utilization of health services, they must act together with the reality of the health system. If health services are to be utilized they must be available, accessible and affordable. Individual decisions related to care seeking occur in the context of the availability of a range of services, at various levels of economic affordability and of varying quality (real or perceived). In turn, the availability of services is influenced, by the political, demographic and economic reality of the locality or nation in which the services are planned, designed, funded and provided status(10). In addition peoples' choice of health care differs in sociodemographic, socio-economic and cultural compositions which have an effect on their health care seeking behavior (11).

1.2 Statement of the problem

Health care seeking behaviour has been defined as any action undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy(1).

Urbans are generally believed to be open to new ideas and willing to try certain things on a trial and error basis while rural are seen as prone to tradition, unchanging and unwelcoming to change and willing to hang onto traditional values and practices even on seeking of modern medicine instead they incline on traditional medicine, street pharmacy and religious faith(12).

Results from different developing countries Europe, Asia and sub Saharan shows that percentage of healthcare seeking behaviour for perceived morbidity in rural setup are still low like Mongolia, Republic Congo and Ethiopia were 44.1%, 54.6%, 38.7% respectively(4,8,10). In India rural people chose government and trust hospitals (51.1%) more as compared to urban (44.1%). The main reason for this practice is its affordability; it consist of only the price of the drugs that are procured; the patient is thus exempt from other prices associated to transportation, consultation of health personnel, and various medical examinations(13).

Although most urban and rural participants consider their access to health care as sufficient, they still experienced difficulties in receiving the requested care. The difference in employment rate between urban and rural communities indicated that participants of urban communities were more likely to be employed. Consequently, participants from rural communities had a significantly lower available weekly budget, not only for health care itself, but also for transport to the health care facility. Urban participants were more than 5 times more likely to prefer a medical doctor in private practice (14).

Health service utilization in Ethiopia looks generally low. An earlier study which summarized the health profile of 52 districts reported that the per capita annual number of visits was 0.23 visits overall, with the mean for urban double that of the rural districts(15). The survey done in Amhara region indicates that urban residence has better healthcare seeking behaviour than rural due to better accessibility of the services to urban households(16).

In Ethiopia the most recent vital health indicators (2007/08) show a life expectancy of 54 years, an infant mortality rate of 77/1000 and an under-five mortality rate of 88/1000. Cultural customs, residence, distance to functioning health centers, and financial barriers were found to be the major causes for not seeking health services in health facilities. In addition, health service delivery was inefficient and unfair, and quality of healthcare was usually poor between urban and rural(9).

A mid-term review of HSDP-III shows a near 100% in health coverage as pointed out by the availability of primary health services (health posts, health extension workers and kith for essential health services) but outpatient utilization rate per person per year is only 0.32, far short of the target of 0.66 with only about a year gone to 2010 (17).

As the study in Amhara region indicates modern healthcare utilization shows over the two weeks period preceding the survey on perceived morbidity, 5.6% people claimed that they were sick and 38.7% of them visited modern health institutions while others visited traditional due to different factors(16)

There is a marked difference in utilization of health care between urban and rural areas that among those who reported illness in the rural Ethiopia, almost 60% and 30% of urban did not seek any kind of modern health service. Different studies shown uneven and their lower quality, wide practices of traditional healthcare services, access and affordability, poor road and transport at rural and quality of health care provider affects health seeking behaviour(18). The last year annual outpatient department cover of the woreda was 47.6%(19).

Different literatures indicated healthcare seeking behaviour of individuals at residence isaffected by socio-demographic, economic, institutional and behavioral factors. Consequently this study will have a significant importance in addressing factors affecting healthcare seeking behavior and utilization of healthcare services, at household level using primary data and to create piece of information on healthcare seeking behaviour between urban and rural households as well as to inform stakeholders that work on barriers of modern healthcare utilization.

2. LITERATURE REVIEW

Overview

People with perceived illness features are more likely to use health services even though the characteristics are not directly accountable for health service use. Such characteristics include demographic, social structural and health-belief variables. This review will focus on assessing the prevalence of morbidity between rural and urban households and examine the factors associated with healthcare seeking behaviour of the households at urban and rural. Majority of the reviewed studies include socio-demographic and economic, family and personal and institutional factors which are determinants of health seeking behaviour at their residence. And the major strengths of the reviewed studies include those incorporated determinants from global to national level where as lack of literatures with similar study design and subjects were the major weaknesses.

Socio-demographic and economic factors

Different studies done before at different setups have shown health care seeking behavior affected by socio-demographic factors. Among the socio-demographic and economic factors, age, educational status, occupation, marital status and structure, family size, and residence are the factors affecting health care seeking behaviour differently at urban and rural setups(2,13,14).

As several studies had shown that age and education were found to be significantly associated with health seeking behaviour in urban and rural households(2,5,11,13,19,20). At older ages, the percentage of visits to the clinic decreased. Also head of the household with primary education or above visits health facilities for perceived illness was more than twice compared to households where the head of the household was illiterate(16). Increased income and perceived seriousness of the illness were all positively associated factors increasing the probability of health care seeking at both setups (21). A qualitative study that was done in Bangladesh shows persons with no assets and single source of income have low level of healthcare seeking(22). More urban people (57.4%) were using cash savings for treatment than rural people while borrowing and selling assets for treatment(13).

The study done in Jimma zone at both setups on healthcare seeking behaviour at household level shows sex significantly affects in which males were 0.46 times likely to use the services

compared to females(23). Better-educated people are significantly more likely to use healthcare services at both residence(2,3,4,17,21). Increased educational level and having learned about disease associated with higher disease prevention and transmission (26).Housewives utilize healthcare services and have high healthcare seeking behaviour more than other types of occupation(23).

Survey done in Moldova factors associated with being low healthcare seeking behaviour include being self-employed (particularly in agriculture), unemployed, of younger age and having a low income were 27 times more likely not utilized health care than those who were employed (10).In Jamaica Health-care seeking behaviour can be explained by marital status; those married seeks healthcare utilization more than divorced, separated or widowed(2) and similarly in urban Mongolia shows that unmarried people were less likely to use health services(27).

Study in Jamaica indicates that healthcare seeking behaviour of Jamaicans can be explained by area of residence in which urban households are five times more likely to use health services than rural households(2). Due to better accessibility of the services to urban households residence was significantly associated with health institutions utilization (11,13).

The study done in India on healthcare-seeking behaviour among mothers' shows that type of family structure has significant association with the healthcare-seeking behavior among mothers where those with joint family are more to use healthcare services (25,28). In rural Nigeria utilization of health facilities decreases with household size in which about half of the households with 0 – 4 members utilize government hospitals while 75% of households with more than 4 members do not utilize health care facilities(29).

Personal Factors

Among the personal factors, like perceived severity of disease and condition of the disease affects health care seeking behaviour at urban and rural differently.

A qualitative study has done in rural Bangladesh shows persons with no assets and single source of income have low level of healthcare seeking experience(22). As survey in Georgia states

members of the poorest households are less likely to seek care than people from more affluent households, and devote a higher share of household monthly expenditure to health care(21).

As several studies show both in urban and rural a good health status is correlated with less health care seeking behaviour(2,12,27). Inhabitants of urban communities rated their health significantly better than rural participants(14).

Survey in Zambia indicates the perceived severity and cause of the illness will shape the judgment to seek care(30). Also, patients who perceived their illness to be very serious had higher odd to seek medical care at both setups(21). In South Africa there was difference between urban and rural participants in which rural communities were more likely to seek care immediately when ill or do not feel well. Significantly more rural participants than urban participants expressed the opinion that people need medical help when they experience pain (14)

In study findings in India show that for acute illnesses 23.1% urban and 47.2% rural communities prefer modern health care institutions. For chronic illnesses both urban and rural communities prefer private clinics(28).For the rural people 59.6% as compared to that of urban 51.4% seek treatment from private clinics due to less utilization of government facility and non-availability of transport at rural (13). Study done in Congo republic showed that patients used formal health care as one of the options for diseases reported as chronic 2.44 times more often than for diseases reported as acute(4).

Institutional Factors

Regarding institutional factors prices of services and distance of health service, approach of health professionals and satisfaction with health services provided were factors those affect health care differently at rural and urban. In Pakistan factors like socio-economic and institutional factors differently affect use of modern medicine in urban and rural households where price were more likely to be a problem among rural, illiterate and poor while dissatisfaction with quality of care was associated with urban area(31).

The survey done in Jimma zone reported that out of the respondents who had been ill in the previous 2 months, 46.3% did not visit a modern health institution in the last episode because illness was not severe 47%,Shortage of money 27.2%,Long Service time 17% and Providers are not welcoming 11.1% as 76.7% of the cases actual distance to the nearby health center or

hospital was found to be 10 kilometers or greater(23). In India compared to rural, in urban areas the whole range of facilities such as hospitals, dispensaries, and community health centers; both of government and private sectors exist and are widely utilized by the urban communities. Also a significant difference was observed in place for treatment of acute illness from faith healers. More rural people (29.2%) took treatment from faith healers than urban (22.8%) but for chronic illnesses both urban as well as rural communities prefer private clinics(13).

As survey done in South Africa showed 45.6% of the urban and 55% of the rural participants experienced difficulties with accessing health care in which difficulties with regard to transport/distances to facilities, financial constraints, and/or the service provided by the health care facilities, not to the same extent(14).

Lack of trust in the health worker qualifications particularly in the local private clinics and hence the efficacy of the treatment given related with healthcare seeking behaviour(3). Urban participants were more than 5 times more likely to prefer a private medical doctor over a health clinic as preferred choice of health care provider than rural participants. The right treatment was an expectation among 86.3% of the urban participants and 61.9% of the rural participants(14). In India unavailability of transport and unsympathetic behaviour of doctors in government hospitals were the main problems faced by rural people in utilizing government health care facilities, while lack of trust in government health care facility was main problem faced by urban people(13).

Health Belief Factors

Values concerning health and illness, attitudes toward health services, knowledge about disease, health information and use of traditional medicine affect health seeking behavior between urban and rural differently. Individuals' choice of health care is likely to be influenced by belief in and trust of the various systems and practitioners actions, socioeconomic considerations and quality of the service provided(3).

Health care seeking may be influenced by the cultural backgrounds, beliefs, norms and values of specific ethnic groups (32). Values influence the behavior of the healthcare seeking of the individual living in the community care(33).

As systematic review study shows stigma and discriminations are attitudinal factors influencing health seeking behaviour among patients with Schistosomiasis (34).

Factors such as knowledge of diseases play a role during the decision-making process of healthcare seeking behavior (30).

Healthcare seeking behaviour is significantly correlated with use of mass media such as internet, television and radio(27). In South Africa 20% of the urban participants and 36.5% of the rural participants expected to receive help or to be healed (14). As study conducted in Bure indicates mother's accessibility of information about the importance of seeking of healthcare for childhood illness have impact on health seeking behaviour and urban has more exposure to information and sought more than rural mothers(35). In rural Ghana knowledge about malaria respondent got information radio (7.3%), television (5.8%), friends (1.7%) and newspapers (0.8%) (36). In some communities with relatively adequate facilities, there is lack of information, this itself a function of social status being occupied by the individuals, is a determinant factor in the utilization of healthcare facilities particularly in rural areas (37).

In India more rural people 29.2% took treatment from faith and traditional healers than urban 22.8%. Regarding use of traditional medicine in South Africa large number of respondents, both urban (67.2%) and rural (69.1%), indicated that they never visit a traditional healer(14). In Pakistan self-medication was reported in 7.1% of cases at urban areas as compared to rural is 2.6%(20). In South Africa most urban respondents7.2% visited a traditional healer compared to 12.3% of the rural whereas from those 92.2% urban treat themselves successfully whereas rural inhabitants were less likely to do so 75%(14). In addition to this, study done in Benin; found that the most common form of treatment for illness was self-treatment (67%)(38).

2.1 Conceptual Framework of on Healthcare seeking behaviour

Conceptual frame work shows how socio demographic and economic, family/personal, institutional as well as health belief factors affect healthcare seeking behaviour.

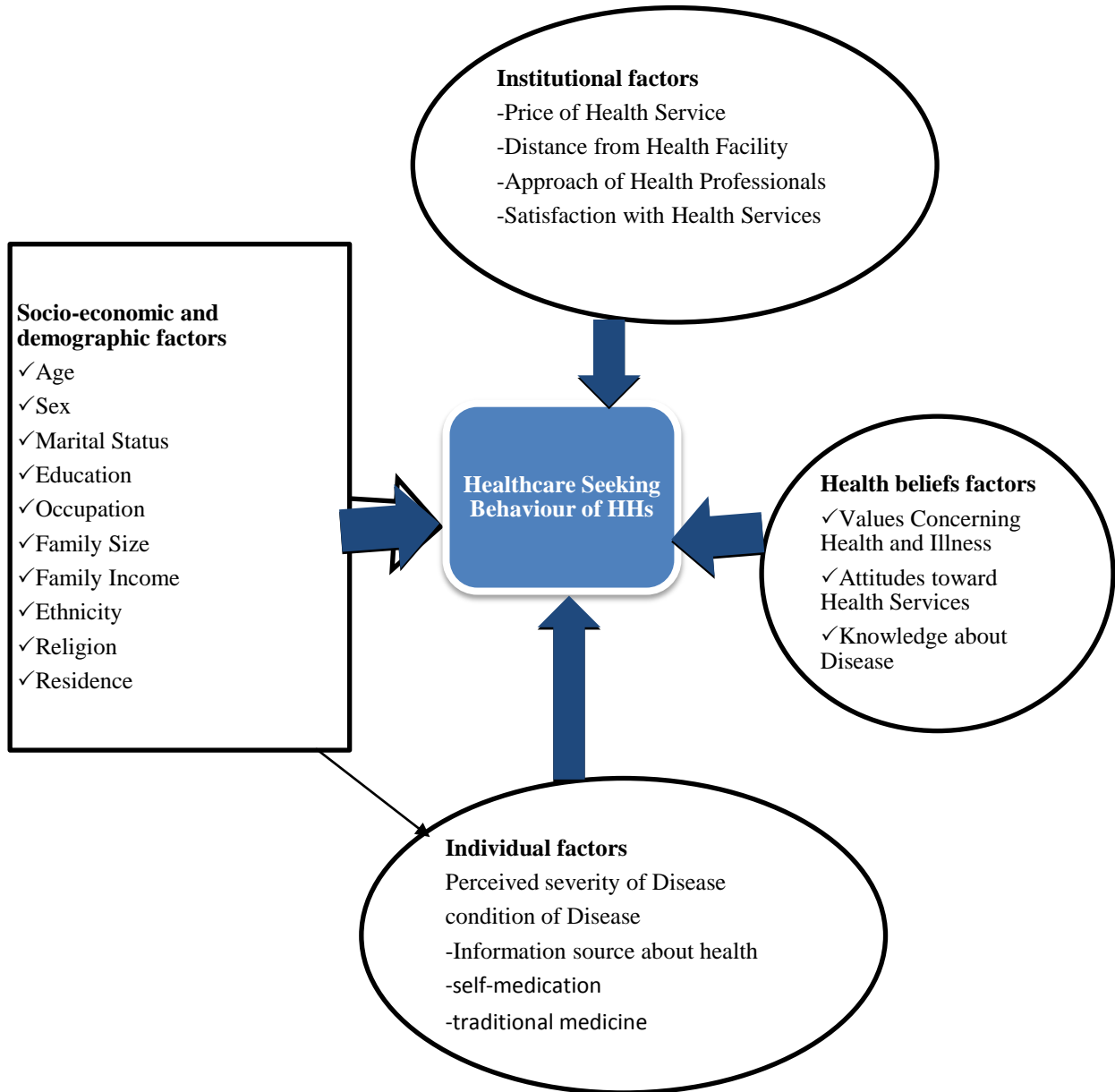


Figure 1 Conceptual framework of healthcare seeking behaviour adapted from literature review

2.2 Significance of the study

With increasing socio-economic and demographic heterogeneity, healthcare seeking behavior is likely ever-changing. Consequently, addressing the needs and values of these individuals at their residence require an understanding of their socially linked healthcare utilization determinant. This knowledge can also help executives to identify new customers, spot concerns of consumers who are rejecting health services and in the long run increase customer satisfaction.

Focusing on interventions on the factors affecting their health care seeking behavior will have the greatest effect on increasing the healthcare utilization and to reduce the diagnoses and treatment involvement that are effective in preventing the population from illness and increase their consumption pattern.

A multi-sectorial and multi-level coordination is essential for better health profile of the people. Features of the health care facilities and confidence in health care workers also play a major role in decision making about the choice of the health facility among individuals at different setups.

Therefore, assessing health care seeking behaviour will be used to provide recommendations for officials who will assist with the implementation of health care policies and programs at study area.

This study will also be used as a baseline data for other studies in the future.

3. OBJECTIVES

3.1 General objective

To determine the prevalence and identify associated factors of healthcare seeking behavior of urban and rural households in Esera woreda, Dawro zone, South West Ethiopia 2015.

3.2 Specific objectives

1. To determine the prevalence of healthcare seeking behavior of urban and rural households.
2. To compare socio economic and demographic factors associated with healthcare seeking behaviour among households.
3. To determine the effect of residence on healthcare seeking behaviour of households.
4. To compare institutional related factors associated with healthcare seeking behaviour among urban and rural households.
5. To identify factors associated with healthcare seeking behaviour of urban and rural households.

4. METHODS AND MATERIALS

4.1. Study area and period

The study was conducted in Esera woreda found in Dawuro Zone. The capital of Esera is Bale. It is located 323 km and 670 km far from Hawassa and Addis Ababa which are capital cities of the Southern Peoples Region and Ethiopia, respectively. The woreda shares boundary with Mareka woreda in the east, Tocha woreda north east, Konta special woreda in the west, Loma woreda in the south and south east. According to 2007 population and housing census population of the district had an estimated population of 82,218 of which 41,762 male and 40,456 female. The local communities in the district largely depend on agriculture(19).

The district has 25 rural and 4 urban kebeles. There are 4 health centers, 1 ambulance vehicle service and 29 health posts which deliver comprehensive health services to the communities in the district. There are 117 all types of health professionals of different discipline in the district including HEWs.

Data was collected from February to March 2015.

4.2 Study Design

A community based comparative cross-sectional study design was used.

4.3 Population

4.3.1 Source population

All households in the woreda considered as source population

4.3.2 Study population

Eligible households in the randomly selected kebeles of the woreda

4.3.3 Study unit

A head of Household or Spouse with perceived morbidity two months prior to this study

4.4 Inclusion and exclusion criteria

4.4.1 Inclusion criteria

A household head

- ✓ A head of household who is greater than or equal to 18 years
- ✓ Have perceived illness for 2 months prior to this study

4.4.2 Exclusion criteria

- ✓ Households who are lived in the area for less than six months
- ✓ Households who are severely ill and cannot give relevant information

4.5 Sample size determination

The sample size was determined using a two population proportion formula;

$$n = \frac{(Z_{\alpha/2} \sqrt{\bar{p}\bar{q}(1+\frac{1}{\lambda})} + Z_{\beta} \sqrt{p_1q_1 + \frac{p_2q_2}{\lambda}})^2}{\Delta^2} \text{ where}$$

$\Delta = n_2 \div n_1$, $\bar{p} = (p_1 + \lambda p_2) / (1 + \lambda)$, $q_1 = 100 - p_1$, $q_2 = 100 - p_2$, $\bar{q} = 100 - \bar{p}$ considering P₁- 52.3% percentage of urban households who seek care from different health institutions for perceived morbidity and P₂- 29.6% percentage of rural households who seek care from different health institutions for perceived morbidity (16) and to detect a minimum difference in health care seeking behaviour between urban and rural households; a 95% confidence level, power of 80%, 1:2 urban to rural ratio, design effect 2 and 10% possible non-response rate. The sample size was calculated to be 394 (132-urban and 262 rural)

4.6 Sampling technique and procedure

From the 29 kebeles (4 urban and 25 rural) in the woreda, 10 (2 urban and 8 rural) kebeles were selected to get representative sample by simple random sampling (lottery method) from two strata. For each kebele sampling frame was developed by taking households with perceived illness for 2 months prior to this study. Census was done with HEW and data collectors during CHD on randomly selected kebeles. Then based on the population, sample size was allocated for each selected kebele proportionally. Finally households with perceived illness for 2 months prior to this study within the selected kebeles were selected randomly from the frame work and interviewed at their home.

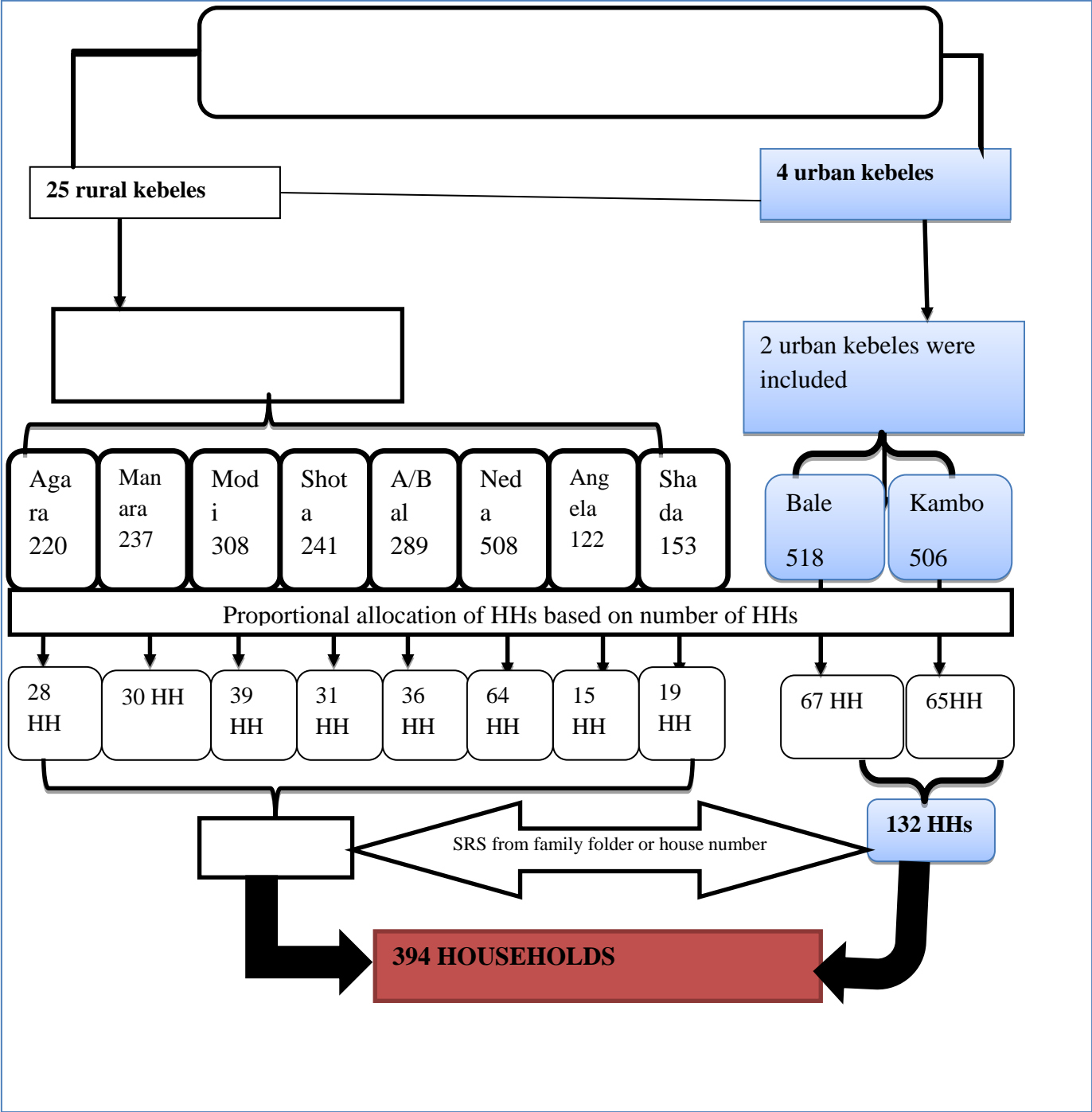


Figure 2 Diagrammatic presentation of sampling technique and procedure

Study variables

Outcome variable

Healthcare seeking behaviour

Independent variables/predictors:

- ✓ **Socioeconomic and demographic factors**(Sex, Age, Education, Occupation, Family Structure, Family income, Marital status)
- ✓ **Individual related factors** (severity of Disease, condition of Disease, Information source about health, traditional medicine)
- ✓ **Institutional factors** (Price of Health Service, Distance of Health Facility, Approach of Health Professionals, Satisfaction with Health Services)
- ✓ **Health belief factors** (Values Concerning Health and Illness, Attitude and practice Toward Health Services, Knowledge About Disease)

4.7 Data collection process

Data was collected by using face to face interview with 5 interviewers whom completed grade 12 and a Health officer supervisor using pre tested structured questionnaire prepared in English and translated to the local language (Dawroigna).

4.8 Data quality assurance

Two days training was given to data collectors and supervisor on target population of the study, how to approach and collect the required information from the respondents. Initially prepared in English and translated to the local language (Dawroigna) and translated back to English by independent language expert was used to maintain consistency of meaning. Data collectors and supervisors were also trained to implement the fundamental research ethics like respect for respondents. Clarity was made on the data collection tool (questionnaire) was conducted. Data were collected under the supervision of the principal investigator and a health officer. Pretest was conducted in Duzi and Shamayti kebeles on 5% of the study subjects to test the quality of the data collection tool. Data was cleaned and checked for completeness on a daily basis.

4.9 Data analysis

After checking data for completeness, data were entered into EpiData version 3.1 and exported into SPSS version 21 software for analysis. Appropriate descriptive measures like mean,

frequency and proportions for SED, Institutional, individual and behavioral variables were determined. Tables and charts were also displayed. Odds ratio was calculated to measure association of dependent and independent variables. All independent variables having p-value <0.25 in the bivariate logistic regression analysis were entered into multivariate logistic regression analysis in order to control confounding effect. Appropriate model diagnostics and goodness of fit test were done. Multicollinearity was checked to test correlation among predictor variables and Hosmer and Lemeshow test were conducted to see model fitness.

4.10 Ethical considerations

Ethical clearance was obtained from Research and Graduate Studies College of Health Sciences Ethical Review Board of Jimma University. Formal letter of permission was obtained from administrative bodies of the Dawro zone Health Department, Esera Woreda and selected kebeles. Letter of cooperation from kebeles administrators were also secured. Finally, verbal consent was obtained from every study participant included in the study during data collection time after explaining the objectives of the study and the right to withdraw from the study at any time. Confidentiality of respondents was also assured by not asking participant's name.

4.11 Dissemination plan of the study finding

The result of this study will be presented to Jimma University as part of MPH thesis and it is disseminated to JU College of Health Science, department of Epidemiology, summarized report to Dawro zone health Department, Esera woreda Administrative and Health office and to the targeted health facilities and Non-governmental organizations working on health sector in the study area. Effort will be made to publish it in peer reviewed scientific journals.

4.12 Operational Definitions

Healthcare Seeking Behaviour: - Outcome dichotomous variable in which households response for perceived illnesses after they recognized their illness and visiting health institutions (health center, hospital, private clinic, health post) or take home remedy or self-treatment to seek care and support, to reduce severity, complication, etc.

Perceived Severity: individual's perception towards a particular disease's magnitude of pain or feeling as well as their reaction to its effects, symptoms, etc.

Illness: - a subjective state or perception of the person who feels aware of not being well.

Values Concerning Health: an individual's concern that being healthy is to be important or worthwhile to themselves.

Self-medication is the use of prescribed drug to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms(39).

Traditional medicine: Includes diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness(40) For example spiritual, religious faith, Wegesha, Tsebel, herbalist, Kalicha/ Teunkay, TBAs, or traditional healers other than modern health facilities in the study area.

Rural: Residents' economic activities were mainly based on agriculture and domestic animals as well as do not have access of public facility like telephone, high school, health center, road, the pure water, etc.

Urban: in this study urban mean residents' economic activities were mainly based on non-agriculture and which have minimum public services and facility like telephone, high school, and health center and all seasonal road, pure water, etc.

Accessibility: households living no more than 2 hours or 10km from health facilities or availability of health facilities within two hours walk or less than 10km.

5. RESULTS

A total of 394 households were interviewed and response was obtained from 377(119 from urban and 258 from rural) households from whom data were collected making a response rate of 95.7% of the participants. Some of the non-respondents were farmers and illiterates by their educational background and are not willing to respond to questions related to their family size, income and others didn't claim any reason for their rejection otherwise they were not willing to participate.

Socio demographic characteristics

The socio-demographic characteristics of study subjects were summarized in Table-1. The mean age was found to be 32.1(SD=12.4) years. Majority of households age group fall within 18-30 years.

The Dawuro ethnic group covers the large proportion of study subjects 199(52.8%) followed by Hadya and Wolayta ethnicities accounting for 66(17.5%) and 50(13.3%) respectively. Under ethnic category majority Dawuro 58(48.7%) at urban were health care seekers but 80(31%) at rural households were non-seekers.

Majority of the households 157(41.6%) were farmers followed by housewives 71 (18.8) in occupation. Private business, student and other occupation types constitute less than 15% of both study groups. Majority 37(31.1%) of health care seekers were governmental employers at urban but at rural majority 85(32.9%) non-seekers were farmers.

Married households constituted 258(68.4%) followed by single 67(17.8%) respectively. Widowed and Divorced study subjects constituted less than 10% of households. From those married households 193(74.5%) were monogamy and the rest 66 (25.5%) were polygamy marital structure of household. Majority 258(68.4%) of health care seekers were married at urban but at rural majority 103(39.9%) non-seekers of health care. Among married with monogamy marital structure were majority 63(87.5%) at urban and 66(35.3%) at rural households were health care seekers.

The assessment of educational status of households involved in the survey showed that majority 123(32.6%) were attended primary education followed by illiterates 144(38.2%). Majority

38(31.9%) of health care seekers were graduated from college and above at urban but at rural majority 69(26.7%) non-seekers were illiterates.

Monthly income of households 191(50.7%) having greater than 1170 Birr and 186(49.3%) less than 1170 ETB per month. The source of income for health care during illness for households was about 219(58.1%) in kind followed by 149(39.5%) pay in cash. But free health service is below 5% for households. Majority 89(74.8%) of health care seekers were who pay in cash for treatment at urban but at rural majority 117(45.3%) non-seekers of health care were who sell assets or kinds for treatment.

Concerning religion of the households majority 148(39.3) were Protestant followed by 159(42.2%) Orthodox (Table 1 presents detailed socio demographic characteristics of the households).

Table 1 Socioeconomic and demographic factors versus healthcare seeking behaviour among urban and rural households, in Esera Woreda, Dawuro zone, April 2015

Characteristics	No (%) N= 377	Urban households		Rural households	
		Health care seeking behaviour Yes	No	Health care seeking behaviour Yes	No
Age in years(36 ± 12.4)					
18-30	161(42.7)	45(37.8)	16(13.4)	53(20.5)	47(18.2)
31-45	137(36.3)	42(35.3)	5(4.2)	48(18.6)	42(16.3)
46-59	57(15.1)	6(5)	1(0.8)	19(7.4)	31(12)
60+	22(5.8)	3(2.5)	1(0.8)	4(1.6)	14(5.4)
Sex					
Male	259(68.7)	71(59.7)	15(12.6)	78(30.2)	95(36.8)
Female	118(31.3)	25(21)	8(6.7)	46(17.8)	39(15.1)

Marital Status					
Single	67(17.8)	19(16)	9(7.6)	23(8.9)	16(6.2)
Married	258(68.4)	65(54.6)	7(5.9)	83(32.2)	103(39.9)
Widowed	25(6.6)	7(5.9)	1(.8)	12(4.7)	5(1.9)
Divorced	27(7.2)	5(4.2)	6(5)	6(2.3)	10(3.9)
Family structure among married					
Monogamy	193(74.5)	63(87.5)	5(6.9)	66(35.3)	59(31.6)
Polygamy	66(25.5)	2(2.8)	2(2.8)	17(9.1)	45(24.1)
Family Size					
Less than 4	154(40.8)	60(50.4)	13(10.9)	49(19)	32(12.4)
Greater than 4	223(59.2)	36(30.3)	10(8.4)	75(29.1)	102(39.5)
Occupation					
Housewife	71(18.8)	6(5)	7(5.9)	31(12)	27(10.5)
Farmer	157(41.6)	3(2.5)	0	69(26.7)	85(32.9)
Government employee	52(13.8)	37(31.1)	2(1.7)	9(3.5)	4(1.6)
Private Business	16(4.2)	14(11.8)	2(1.7)	0	0
Student	15(4)	3(2.5)	0	4(1.6)	8(3.1)
Merchant	63(16.7)	30(25.2)	12(10.1)	11(4.3)	10(3.9)
Others	3(0.8)	3(2.5)	0	0	0
Religion					
Orthodox	148(39.3)	47(39.5)	10(8.4)	39(15.1)	52(20.2)
Protestant	159(42.2)	39(32.8)	12(10.1)	53(20.5)	55(21.3)
Catholic	43(11.4)	4(3.4)	1(0.8)	24(9.3)	14(5.4)
Muslim	2(0.5)	1(0.8)	0	0	1(0.4)
Others	25(6.6)	5(4.2)	0	8(3.1)	12(4.7)
Educational Status					
Illiterate	123(32.6)	7(5.9)	3(2.5)	44(17.1)	69(26.7)
Primary education grade(1-8)	144(38.2)	18(15.1)	15(12.6)	57(22.1)	54(20.9)

Secondary education (grade 9-12)	57(15.1)	33(27.7)	3(2.5)	14(5.4)	7(2.7)
Graduated from college	53(14.1)	38(31.9)	2(1.7)	9(3.5)	4(1.6)
Ethnic Group					
Dawuro	199(52.8)	58(48.7)	10(8.4)	51(19.8)	80(31)
Hadya	66(17.5)	8(6.7)	4(3.4)	28(10.9)	26(10.1)
Wolayta	50(13.3)	3(2.5)	2(1.7)	22(8.5)	23(8.9)
Kambata	22(5.8)	0	2(0.5)	20(7.8)	2(0.8)
Amhara	31(8.2)	21(17.6)	6(5)	3(1.2)	1(0.4)
Others	9(2.4)	6(5)	1(1.6)	0	2(0.8)
Monthly Income					
Less than 1170 ETB	191(50.7)	11(9.2)	11(9.2)	69(26.7)	101(39.1)
Greater than 1170 ETB	186(49.3)	85(71.4)	13(10.9)	55(21.3)	33(12.8)
Source of money for health care during illness					
Cash	149(39.5)	89(74.8)	14(11.8)	31(12)	15(5.8)
Selling a kind	219(58.1)	6(5)	9(7.6)	87(33.7)	117(45.3)
Free health care service	9(2.4)	1(0.8)	0	6(2.3)	2(0.8)

Magnitude of Health seeking behavior between Rural and Urban households

From the total households interviewed 119(31.7%) were from urban residence and 258(68.3) were from rural households. It was indicated that the proportion of healthcare seeking behavior between residences has shown wide variation. The proportions of households whom seek care for perceived morbidity were 96(80.7%) urban and 124(48.1%) rural households. The overall health care seeking behavior of households for perceived illness was 220(58.4%) at the study area. Health care seeking behaviour of urban were four times more than rural households (OR=4.5, 95%, CI=2.691, 7.56) at p value < 0.001.

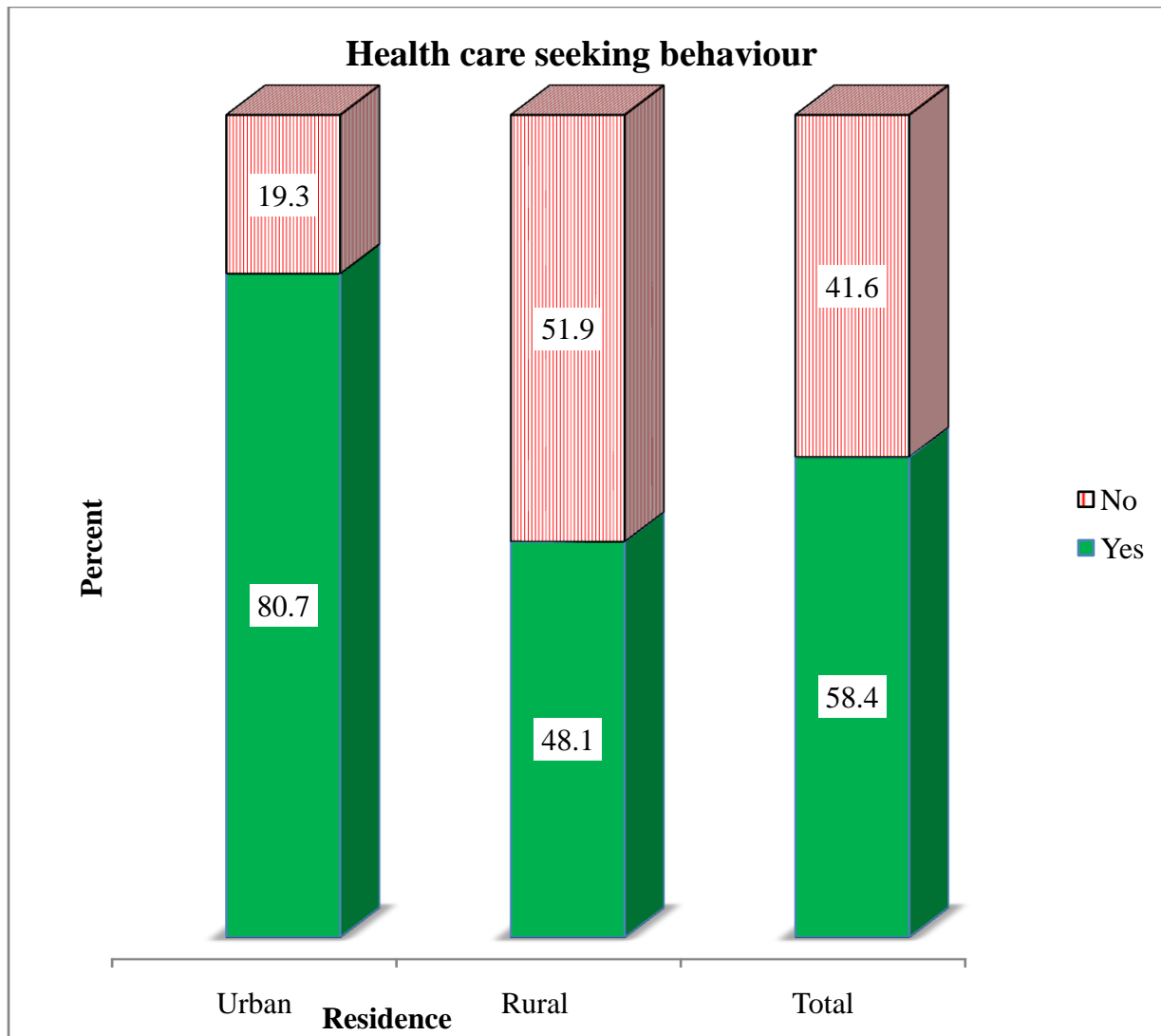


Figure 3Healthcare Seeking Behavior between Urban and Rural Households in Esera Woreda, Dawro Zone, South West Ethiopia, April 2015

Governmental health center was the most common place where households sought health care in which both about 44(45.3%) urban and 63(50.5%) rural sought care from it. Following to health center urban households sought care from hospital 25(25.6%) and private clinic 20(20.9 %). Next to health center, rural residents sought care from health post 26(20.6%) and private clinic 15(12.1%). Rural households sought care from hospital less than 10% while urban sought less than 10% from traditional medicine.

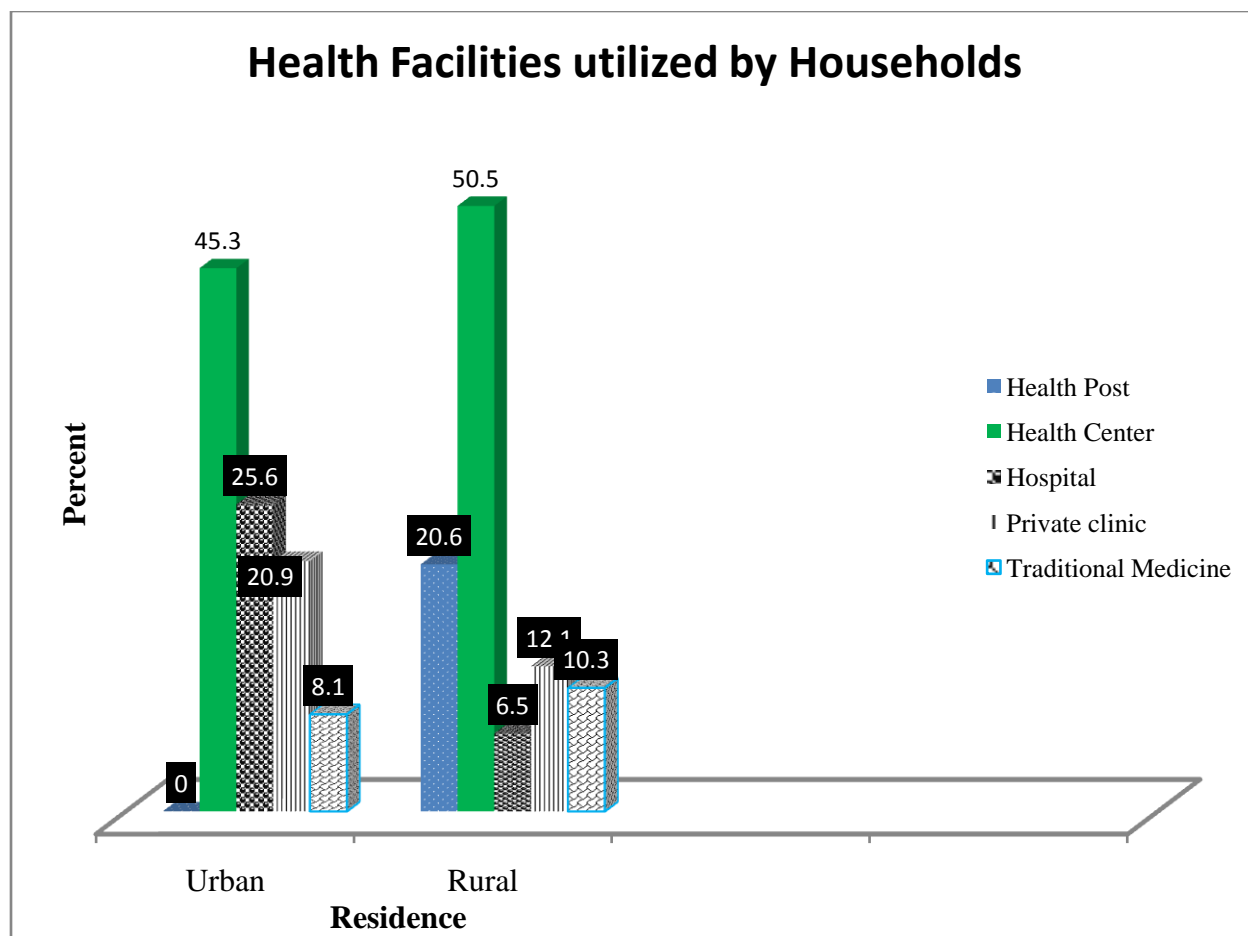


Figure 4 Types of Health facilities utilization among households, Esera Woreda, Dawuro zone, south west Ethiopia, 2015

Individual related factors and reason for not Healthcaresoughtamong Households

In this study 157(41.6%) of households did not seek health care from anywhere in the whole at the study area. About 23(19.3%) urban and 134(51.9%) of ruraldid not seek care.The main reasons reported for not seeking health care were lack of money46(29.3%), long distance 42(26.9%)and symptomswere not severe 41(26.4%).

Time of health seeking after onset of the illness were immediatly as illness started 163(74%) and 57(26%) of households sought health care when it became worse(Table 2).

Table 2 Individual related factors affecting healthcare seeking behaviour households, Esera Woreda, Dawuro zone, South west Ethiopia, 2015

Variables	Urban N (%)	Rural N (%)
Time of health seeking after onset of the illness		
Immediately as illness started	57(58.8)	55(44.1)
When it goes worse	39(41.2)	69(55.9)
Disease condition		
Acute	76(63.8)	153(59.3)
Chronic	43(36.2)	105(40.7)
Reasons for not seeking health care		
Thought sickness is incurable	3(10.5)	2(1.8)
Symptom is not severe	17(73.7)	26(18.9)
Assumed that getting well from symptom without treatment	1(5.3)	21(15.3)
Lack of time	0	2(1.8)
Lack of money	3(10.5)	42(31.5)
Long distance	0	41(30.6)

Institutional factors related with HSB among urban and rural Households

Formajority 314(83.3%)of households have noaccessibility of health facilities in their local.Even though majority have no accessibility at urban among those have no accessibility majority about 82(68.9%) and similarlyin rural 109(42.2%) were health care seekers.Majority 318(84.4%) have health post accessibility in their local.Among these at urban householdsmajority 57(47.9%)were health care seekers. But at rural though they have high health post coverage than urban households majority 133(51.5%) were not health care seekers.

Regarding health center accessibility about 293(77.7%) households have access among thesmajority 95(79.8%) urban and 91(35.3%) of rural households were health care seekers. In addition to this for majority 248(65.8%) households have no private clinic accessibility.But majority 79(66.4%)of urban and majority 117(45.3%)rural households were health care seekers.

Regarding distance from health center majority all urban and 178(69%) rural households reside within 10km. Among these about 96(80.7%) of urban and 93(36.1%)rural households were health care seekers. But from those ruralswho reside further than 10km only about 31(12%)households were health care seekers.

Concerning price of health service about 171(45.8%) households responded as their health care utilization was affected by price of health services. Among them 78(30.7%) of rural households were not health care seekers. Although price affects their HSB majority of urban 50(42%) were health care seekers.

Majority 257(69.8%) households have good approach from health care professionals for patients. Among these 62(52.1%) at urban were health care seekers but 107(43%) of rural households were non-seekers. About 201(54.5%) were satisfied with treatment given at health institutions. Consequently, majority of both residences householdshave high proportion of health care seekers.

Concerning households' belief about source of care importance majority 229(60.9%) modern and traditional 46(12.2%), while the remaining believe that both are important to seek health care during illness. Among those who believe modern health care majority 66(55.5%) and 74(28.8) of urban and rural households respectively, were health care seekers; but below 1% at urban and 10% at rural households among traditional ones were seekers.

Regarding health facility trust and preference governmental health facilities were trusted and preferred by majority 241(64.1%) of households the remaining 135(35.9%) preferred private clinic. Among those who preferred governmental facilities 97(37.7%) of rural households were non seekers of care and majority 52(43.7%) at urban who believe and trust private clinics were health seekers. About 163(50.6%) households who have illness perceived that it was serious and the rest 159 (49.4%) illnesses were not severe. At urban majority who perceived as their illness severe, 71(67.6%) were health care seekers while those who did not perceive as severe at rural majority 81(31.4%) were non-seekers. Majority 335(88.9) responded the cause of illness is lack of sanitation but the remaining proportion said that it is due to natural as well as following sins disease might cause. Majority about 344(91.2%) households have information on health and illness from different sources. Among them at urban majority 95(79.5) households were health

care seekers but at rural approximately equal proportion of households were health care seekers and non-seekers even though they have information access on health and illness. The most prominent health information sources were 156(45%) HEWs followed by health professionals and media 101(29.1%) and the remaining households get from radio, television, etc. (Table 3).

Table 3 Comparison of Institutional and health Belief Factors versus Healthcare Seeking Behaviour among urban and rural households in Esera woreda, April 2015

Variable	n=377 Number (%)	Urban		Rural	
		Health care seeking behaviour		Health care seeking behaviour	
		Yes	No	Yes	No
Accessibility of health facilities					
Yes	63(16.7)	14(11.8)	6(5)	15(5.8)	28(10.9)
No	314(83.3)	82(68.9)	17(14.3)	109(42.2)	106(41.1)
Health Post					
Yes	318(84.4)	39(32.8)	21(17.6)	124(48.1)	133(51.5)
No	59(15.6)	57(47.9)	2(1.7)	0	1(0.4)
Health Center					
Yes	293(77.7)	95(79.8)	23(19.3)	91(35.3)	84(32.6)
No	84(22.3)	1(0.8)	0(0)	33(12.8)	50(19.4)
Private clinic					
Yes	129(34.2)	79(66.4)	9(39.1)	24(9.3)	17(6.6)
No	248(65.8)	17(14.3)	14(11.8)	100(38.8)	117(45.3)
Distance from Health center					
≤10km	297(78.7)	96(80.7)	23(19.3)	93(36.1)	85(32.9)
>10km	80(21.3)	0	0	31(12)	49(19)
Price of health services affects HSB					
Yes	171(45.8)	50(42)	9(7.6)	58(22.8)	54(21.3)

No	202(54.2)	46(38.7)	14(11.8)	64(25.2)	78(30.7)
Healthcare staffs have good approach for patients					
Yes	257(69.8)	62(52.1)	14(11.8)	74(29.7)	107(43)
No	111(30.2)	34(35.4)	9(7.6)	47(18.9)	21(8.4)
Satisfied with the treatment given from public health facilities					
Yes	201(54.5)	64(53.8)	8(6.7)	74(29.7)	55(22)
No	168(45.5)	32(26.9)	15(12.6)	47(18.7)	74(29.6)
Which source of care is important for people who are sick?					
Modern	229(60.9)	66(55.5)	18(15.1)	74(28.8)	71(27.6)
Traditional	46(12.2)	1(0.8)	0	19(7.4)	26(10.1)
Both	101(26.9)	29(24.4)	5(4.2)	30(11.7)	37(14.4)
Which health facility do you trust and prefer?					
Government health facilities	241(64.1)	44(37)	12(10.1)	88(34.2)	97(37.7)
Private clinics	135(35.9)	52(43.7)	11(9.2)	35(13.6)	37(14.4)
Perceived severity of the diseases					
Yes	163(50.6)	71(67.6)	7(6.7)	79(30.6)	30(11.6)
No	159(49.4)	15(14.3)	12(11.4)	68(26.4)	81(31.4)
What do you think the result of delay to seek treatment and detection?					
Death	185(49.2)	18(15.1)	8(6.7)	72(27.9)	87(33.7)
Delay relief time	179(47.3)	74(62.2)	14(11.8)	45(17.4)	45(17.4)
Reduce treatment importance	13(3.5)	4(3.4)	1(0.8)	6(2.3)	2(.8)

What is the cause for diseases?					
Natural source	19(5)	8(6.7)	0	5(1.9)	6(2.3)
Man-made cause like lack of sanitation	335(88.9)	83(69.7)	22(18.5)	114(44.2)	116(45)
Others (due to sins)	23(6.1)	5(4.2)	1(0.8)	5(1.9)	12(4.7)
Have access to needed information for care receiving?					
Yes	344(91.2)	95(79.8)	23(19.4)	115(44.6)	111(43)
No	33(8.8)	1(0.8)	0	9(3.5)	23(8.9)
Source of health information					
HEWs	156(45)	6(5.1)	1(0.8)	68(29.7)	81(35.4)
Radio	48(13.8)	5(4.2)	1(0.8)	20(8.7)	22(9.6)
Television	40(11.5)	31(26.3)	6(5.1)	0	4(1.7)
Health professionals and media	101(29.1)	53(44.9)	15(12.7)	28(12.2)	6(2.6)

Practice of Health Seeking Behaviour

Self-treatment was widely practiced by 42(35.3%) urban and 119(46.12%) rural households for different reasons. The most prominent reasons were price effectiveness of the drugs that 13(31%) among urban and 57(47.5 %)of rural households among self-treated from different sources followed by knowing treating themselves in urban 23.8% and 24(20%) long distance of health facilities specially health centers and hospitals at rural households. The remaining reasons were long waiting time, not good reception of health professionals at health facilities in both residences. The sources of drugs for self-treatment were in urban 73.8% buy from drug stores followed by 16.7% use or share drugs from their family members or friends but in rural majority 40.8% buy from local shops followed by 38.4%from drug stores. Majority 59.5% urban and

41.2% rural households treated themselves successfully but the remaining did not.

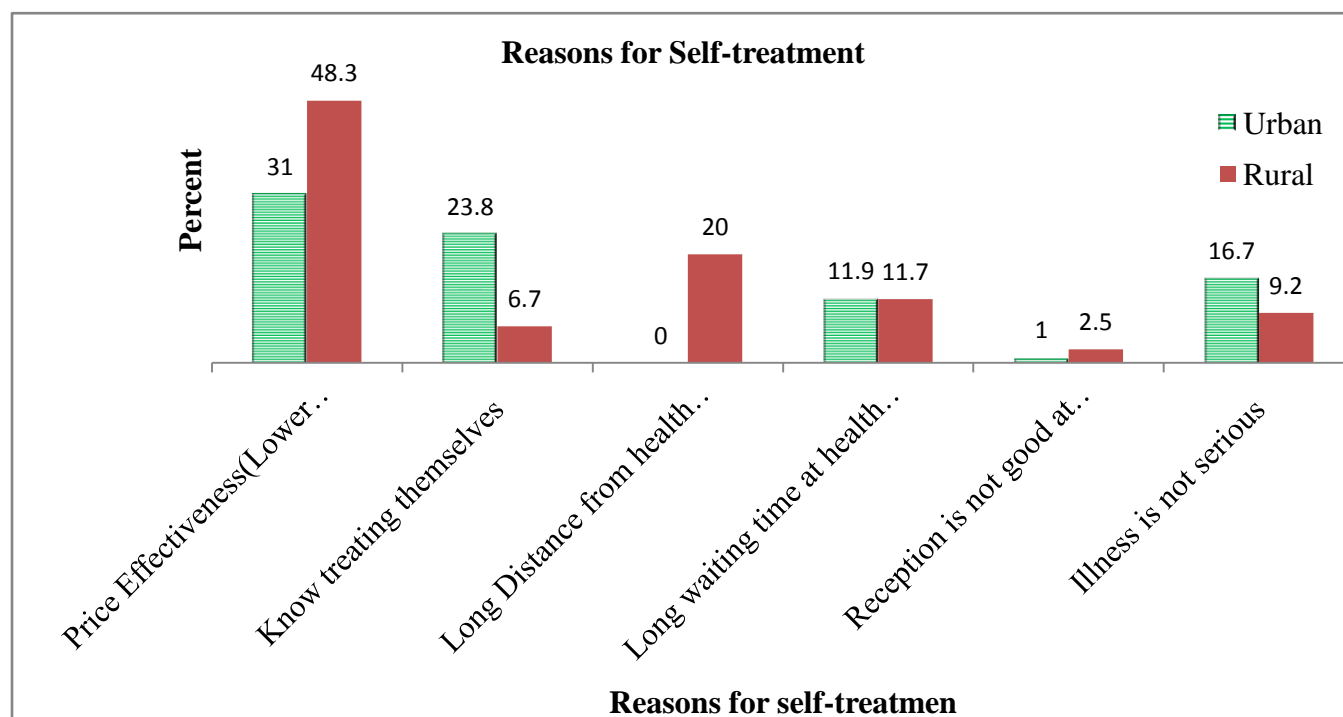


Figure 5 Reasons for self-treatment among households in Esera woreda, Dawuro Zone, South west Ethiopia, 2015

Factors associated with health care seeking behaviors between urban and rural Households

This study has a model to assess healthcare seeking behavior on similar explanatory variables for urban and rural households at the study area.

Results of bivariate logistic regression on factors associated with health seeking behavior in urban and rural residents of Esera woreda, south Ethiopia, 2015

Bivariate analysis was carried out to see the association between the independent variables with health seeking behavior between rural and urban households. Different socio-economic, individual and institutional factors affect urban household's health seeking behaviour.

Among them monthly income, condition of the disease, marital status and perceived morbidity had statistically significant association with HSB of urban households while in rural households in addition to those urban factors except marital status in addition to health information was significantly associated with HSB.

In urban households who have 1170 ETB and above were six times more likely to sought health care than those earn or get below 1170 ETB (COR =5.9, 95% CI=.108, 16.756) at p = 0.02. Similarly, it has also statistically significance association at rural household level in which households who have 1170 ETB and above were three times more likely to sought health care than those earn or get below 1170 ETB (COR =2.4, 95% CI=1.534, 4.857) at p = 0.01. From this finding monthly income is one of the predictors which positively associated with health seeking behaviour of both urban and rural households.

Having acute illness is one of factor to sought care at both residences in which those with acute condition were five times more likely to sought care than chronic counter parts at urban households (COR=5.3, 95%CI=1.945, 14.388) at p value = 0.04 while at rural households with acute diseases condition were ten times more likely to sought health care than chronic ones (COR=9.6, 95% CI=5.429, 16.913) at p value<0.001.

Also perceived severity was one of the factor in which those with serious illness were more likely to sought care than not serious ones at both residences though the odds of sought is different. At urban households those with serious illness were eight times more likely to sought care than not serious illness (COR=8.1, 95%CI=2.108, 16.756) at p<0.001. Similarly, rural households with serious illness were three times more likely to sought care than not serious illness (COR=3.2, 95%CI=1.847, 5.328) at p value<0.001.

Unlikely to rural at urban household level those who married were six times more likely to sought care than single ones but other categories of marital status were not significantly associated with HSB of urban households.

But education, distance from health center and health information access were significantly associated variables with rural households HSB.

Education level affects health care sought of households in which those who completed Primary education and Secondary education were more likely sought care than illiterates. Access to health information significantly affects health care sought of rural households where those who have health information access were three times more likely to sought care than those haven't (COR=2.8 95% CI=1.294,5.792)at p value=0.013(Table 4).

Table 4 Bivariate analysis on independent variables with outcome (Healthcare Seeking behaviour) variable between urban and rural residents of Esera woreda, south Ethiopia, 2015

Variable	Urban Households			Rural Households		
	Health seeking behavior		COR (95%CI)	Health seeking behavior		COR (95%CI)
	Yes	No		Yes	No	
Monthly income						1
Less than 1170	11	10	1	69	101	
More than 1170	85	13	5.9(2.108,16.756)*	55	33	2.4(1.437,4.141)*
Educational level						
Illiterate	7	3	1	44	69	1
Primary education	18	15	0.5(0.113,2.342)	57	54	1.8(1.022,3.213)*
Secondary education	33	3	4.7(0.782, 28.41)	14	7	6.4(1.687,23.973)*
College graduate	38	2	8.1(1.144, 57.949)*	9	4	3.7(0.905,15.202)
Condition of the disease						
Acute	69	7	5.3(1.945, 14.388)*	97	32	9.6(5.429,16.913)**
Chronic	28	15	1	31	98	1
Marital status						
Single	19	9	1	23	16	1
Married	65	7	4.4(1.446, 13.375)*	83	103	0.49(0.217,1.101)
Widowed	7	1	3.3(0.353,31.158)	12	5	2.2(0.51,9.85)
Divorced	5	6	0.4(0.095,1.645)	6	10	0.5(0.139,1.968)
Distance from health center						
≤10km	96	23	4.2**	93	85	1.7(1.01,2.96)*
>10km	0	0	1	31	49	1
Perceived severity						
Yes	71	7	8.1(2.739,24.035)**	79	30	3.2(1.847,5.328)**
No	15	12	1	68	81	1

Access to health information						
Yes	96	23	1.6E(0.00,0.00)	115	111	2.8(1.294,5.792)*
No	0	0		9	23	1

*Note: *-significant results, 1-reference category **p-value<0.001, *p-value≤0.05*

Results of multiple logistic regression on factors associated with health seeking behavior in urban and rural residents of Esera woreda, south Ethiopia, 2015

Binary logistic regression analysis was used and entered socio-demographic economic, individual, institutional and health behavioral variables against the dependent variable to control confounding effect.

In the multiple logistic regression only marital status and perceived severity were independently associated factors with health seeking behavior in urban households.

Having serious illness was determinants factor for both HSB of urban and rural HHs (AOR=6.6, 95% CI=1.051, 10.951) at p value=0.044forurban and (AOR=2.5, 95% CI=1.106, 5.853) at p<0.05 for rural households.

Being married was another significant factor for HSB of urban HHs (COR=4.4, 95% CI 1.446, 13.375) at p value=0.009.

In rural households monthly income, disease condition, distance from health center and perceived severity were the independent predictors of health seeking behavior in multiple logistic regressions

Acute disease duration was showed statistically significant association with HSB of rural households. Households with acute illness were nine times more likely to sought health care than households with chronic illness(AOR=8.9, 95% CI=2.396, 33.261) at p value =0.01.

Distance from health center is also one of the factors that determine HSB of rural households. Households who reside in less than 10km were twice more likely to sought healthcare than the further ones at rural (COR=1.7, 95% CI=1.01, 2.96) at p =0.021.

Those households having monthly income more than 1170 ETB three times more likely to sought care than lower income ones (AOR=2.7, 95% CI=1.534,4.857)

Despite, at both urban and rural household's educational level did not show significant association in the multiple logistic regression. Health information was also not a predictor for HSB of rural household though it showed a statistical significance in bivariate analysis (Table 5).

Table 5 Results of logistic regression for comparison of SED, individual, institutional and behavioral variables with outcome (Healthcare Seeking behaviour) variable between urban and rural residents of Esera woreda, south Ethiopia, 2015

Urban Households				
Variables	Healthcare seeking Behaviour		COR(95% CI)	AOR(95% CI)
	Yes	No		
Monthly income				
Less than 1170	9	9	1	1
More than 1170	87	14	6.2(2.105,18.349)*	1.6(0.197,13.824)
Educational level				
Illiterate	7	3	1	1
Primary education	18	15	0.5(0.113,2.342)	0.06(0.001,5.01)
Secondary education	33	3	4.7(0.782, 28.41)	0.78(0.013,46.209)
College graduate	38	2	8.1(1.144, 57.949)*	1.2(0.016,96.684)
Condition of the disease				
Acute	69	7	5.3(1.945, 14.388)*	1.8(0.23,14.781)
Chronic	28	15	1	1
Marital status				
Single	19	9	1	1
Married	65	7	4.4(1.446, 13.375)*	11.3(1.162,110.204)*
Widowed	7	1	3.3(0.353,31.158)	0
Divorced	5	6	0.4(0.095,1.645)	1(0.026,41.796)
Perceived severity				
Yes	79	9	7.2(2.692,19.412)**	6.6(1.051,10.951)*
No	17	14	1	1
Rural Households				
Variables	Healthcare seeking		COR(95% CI)	AOR(95% CI)

	Behaviour		Yes	No		
	Yes	No				
Monthly income						
Less than 1170	57	84	1		1	
More than 1170	50	27	2.7(1.534,4.857)*		5.6(2.044,15.409)*	
Educational level						
Illiterate	39	62	1		1	
Primary education	49	43	1.7(0.974,2.814)		1.5(0.591,3.883)	
Secondary education	11	3	3.1(1.174,8.381)*		1.4(0.186,11.062)	
College graduate	7	3	3.5(1.024,12.156)*		0.3(0.047,2.401)	
Condition of the disease						
Acute	82	27	9.2(4.991,17.087)**		8.9(2.396,33.261)*	
Chronic	26	83	1		1	
Marital status						
Single	18	11	1		1	
Married	73	89	0.49(0.217,1.101)		0.49(0.217,1.101)	
Widowed	11	3	2.2(0.51,9.85)		2.2(0.51,9.85)	
Divorced	6	7	0.5(0.139,1.968)		0.5(0.139,1.968)	
Distance from health center						
≤10km	79	72	1.7(1.01,2.96)*		3(1.187,8.354)*	
>10km	27	39	1		1	
Perceived severity						
Yes	57	23	3.2(1.753,5.921)**		2.5(1.106,5.853)*	
No	50	65	1		1	
Health information						
Yes	98	88	2.8(1.25,6.479)*		2.3(0.762,5.329)	
No	9	23	1		1	

Note: *-significant results, 1-reference category**p-value<0.001, *p-value≤0.05

6. DISCUSSION

This community based comparative cross-sectional study tried to assess factors affecting health seeking behaviour between urban and rural households in Esera woreda, Dawuro zone, south west Ethiopia.

Healthcare seeking behaviour states that treatment is pursued from a number of different sources and identifies price, access, service quality and belief as critical factors in decision-making(3).

Present study reveals health care seeking behavior of households was 58.4%. There was a wide variation of health care seeking behavior between rural (48.1%) and urban households (80.7%). There is slight increment of health care sought in both residence from study done in Amhara region indicates that urban 52.3% and 29.6% rural households sought care from different sources of for perceived morbidity(16). This might be due to improvement in accessibility of facilities and health information delivery regarding health & illness following HEP in a national wide level.

Urban households were 4.5 times more likely to seek health care than rural households (OR=4.5, 95% CI= 2.691, 7.56) at p value < 0.001. This study is similar with the findings in Jamaica and Ethiopia that indicated healthcare seeking behaviour can be explained by area of residence in which urban households are more likely to have health seeking behaviour than rural households(2,16). This might be due to better accessibility of the services either public or private, health information to urban compared rural residents.

In this study, at both residences education was not a predictor for health care seeking, but in many previous studies at different setups education is most important predictor of health care sought. Those with high education level sought care more likely than lower educational counterparts regardless of residence(2,12,13,14,16,18,23,31). This might be due to better implementation of Health Extension Package program at country level regardless of education level health information is delivering for households.

This study shows that income was found to be a determinant to affect households health care seeking behaviour at rural households; those whose income was more than 1170 ETB were six times more likely to seek health care than those whose income was less than 1170 ETB per month(AOR=5.6, 95%

CI=2.044, 15.409). The result of the present study was found to be similar with previous studies in Georgia, Congo Republic, Mongolia and India that reported increased income was positively

associated with increased the probability of health care seeking(4,13,21,27). But it was not a predictor for HSB of urban households and this might be due to availability and accessibility of health centers, drug store and private clinics as well as health information regarding disease and health relatively better than rural setups.

In this study perceived severity was significantly associated with health care seeking behaviour in which households with severe illness were more likely to utilize healthcare than not serious and those with acute disease condition seek more likely than chronic illness at both urban and rural households(AOR=6.6, 95% CI=1.051, 10.951) and (AOR=2.5, 95% CI=1.106, 5.853) respectively. It is similar with others findings from Jamaica and Ethiopia(2,15).This might be related to households/patients personal, psychological fear towards diseases conditions and its outcome.

In this study at urban households marital status has significant effect on health care seeking behaviour than rural. Married urban residents utilize eleven times more likely healthcare more than single ones(AOR=11.3, 95% CI=1.162,110.204).It is similar with findings from studies in Jamaica and Mongolia. In Jamaica married seeks healthcare utilization more than divorced, separated or widowed(2)and similarly in urban Mongolia unmarried people were less likely to use health services than married households(27).

In present study being far from health center was a significant factor to affect HSB of rural households. Those who reside in less than 10 km utilize three times more than their counter parts(AOR=3, 95% CI=1.187, 8.354).This is relatively similar with the findings in Jimma 76.7% of the cases as their distance to the nearby health center or hospital was found to be 10 kilometers or greater did not utilize health service(23). This is due to physical proximity of health facility affects the utilization of services.

About99% of urban and 87.6% of rural households have access to health information as the result health seeking behaviour of urbans is better than rural. It is similar with study in Ethiopia; a study conducted in Bure indicates mothers' accessibility of information about the importance of seeking of healthcare for childhood illness have impact on health seeking behaviour and urban has more exposure to information and they seek more than rural mothers(35).This might be related with importance of health information to household's health care.

Concerning self-medication this study found 161(42.7%) households practiced self-medication. Among them seventy four (46%) households treated themselves successfully. But it is lower than 67% reported from Benin(38). Regarding success of self-medication it is lower than 75% reported from South Africa (14). This might be due to related with less access of health institutions, widespread unlicensed drug sellers, illiteracy or others socio economic and demographic factors.

In this study the sources of drugs for self-treatment were buy from drug stores 77(47.5%) followed by buy from local shops and unlicensed drug sellers 53 (32.7%). Similarly in Benin 37% of households bought biomedical pharmaceutical products obtained from unlicensed drug sellers(38). This might be due to price effectiveness of drugs at drug stores, availability of unlicensed drug sellers at local shops and long distance from health facilities.

In this study household condition (duration) of the illness is one of the factors which influence health seeking behaviour at rural. Rural Households with acute perceived morbidity sought health care nine times more likely than chronic illness(AOR=8.9, 95% CI=2.396, 33.261). This is inconsistent with findings from study done in Congo Republic that at patients with chronic illness used 2.44 times more often than patients with diseases reported as acute(4). This might be related with currently health information/education regarding communicable diseases was delivering for households following widely practiced health extension packages in Ethiopia.

7. Strength and Limitation of the Study

7.1 Strength of the study

- ✓ Selection bias was minimized since it was community- based study with probability sampling technique and non-health workers and largely unaware of the desired answers.
- ✓ It is generalizable to study areas because included both urban and rural households
- ✓ As the study included two months retrospective cross-sectional, the possibility of recall bias misreporting of events was less likely

7.2. Limitation of the study

- ✓ Most of households respond their age by assumption and it might affect the dependent variable since it is one of predictor variable.
- ✓ Information bias was expected due to lack of hospital most respondents replied there is no accessibility and availability of health facilities though some told the truth regarding farness of health facilities from their residence.
- ✓ Social desirability bias. Especially, the modern health service utilization rate might be overemphasized, as many households might be afraid to admit that they visited traditional practitioners like *Kalichas*,
- ✓ Cross sectional design of study, which measures the exposure and outcome simultaneously

8. CONCLUSION

The study assessed important determinant variables for health care seeking behaviour in order to identify which of the mentioned predictors are responsible for the observed difference of health seeking behaviour between the two residences; urban and rural households. In addition, the prevalence of HSB was also assessed. Based on the findings, the study concludes that health seeking behaviour between urban and rural households has wide difference. Urbans sought health care more than rurals. This difference is attributed due to variation in monthly income, distance from health center, perceived severity, the condition of the disease and marital status. In addition to these other factors were assessed. For instance, Self-medication was widely practiced in the study area because of availability of unlicensed drug sellers and price effectiveness of drug outside governmental health facilities. Limited coverage and accessibility of private clinic was assessed. Health posts coverage and accessibility did not meet the national standard that is one health post per kebele especially in urban area. Prices of medical services at public health facilities affect number residences households though still they sought from there. Finally, free health care users are very limited in the woreda.

9. Recommendation

Based on the above finding and conclusions to better meet health needs and overcome the factors those influence health seeking behaviour of both residences, as well as to minimize the observed gap between two residences on HSB the study recommends;

For Dawuro Zone health Department and Woreda Health Office

- Health posts should be built in urban kebeles and through further discussion with other stakeholders as well as the request of hospital building for the study area should be considered based on prerequisites and criteria.
- Maximize economic capacity of households for sought of care via launching community health insurance that will improve the health care seek behavior of households regardless of the severity of illness and duration of illness.
- Should work cooperatively to control local shops for unlicensed drug sellers.
- Free health care services should be widely implemented for those households who can't afford completely services from facilities for both residences.

For health professionals and HEWs

At Urban Household Level

- Deliver pertinent health information and education regarding health and illness to develop knowledge, change attitude towards health and illness as well as to prevent disease and promote health for households regardless of marital status and perceived seriousness of diseases.

At Rural Household Level

- Health seeking behaviour of rurals is not satisfactory and thus, increasing accessibility of health care services especially health center.
- Deliver pertinent health information and education regarding health and illness to develop knowledge, change attitude towards health and illness as well as to prevent disease and promote health for households regardless of perceived seriousness and duration of diseases.

At Both Household Level

- Except chronic followers those were as directed by physicians to self-administer drugs others who practice self-medication by themselves the bad effects of unlicensed drug sellers drugs or sharing others drugs should be informed well. Consequently, drugs stores should not dispense without any prescription.

For researcher

Further investigation on HSB among household member rather than household heads should be done.

REFERENCES

1. Ward H, Mertens TE, Thomas C. Health seeking behaviour and the control of sexually transmitted disease. *Health Policy Plan.* 1997;12(1):19–28.
2. Bourne PA. Socio-demographic determinants of Health care-seeking behaviour , self-reported illness and Self-evaluated Health status in Jamaica. *Int J collab orative Res Intern Med Public Heal [Internet].* Kingston, Jamaica; 2009 Jun 7;1(4):101–30. Available from: 1840-4529
3. Thea Tomison. Working paper Series 2013 Health-seeking behaviour and strategic healthcare planning in Sierra Leone. 2013 p. 1–57.
4. Change MF, Vennet J Van Der, Luboya NO, Vanlerberghe V, Mapatano MA, Criel B. Health-seeking behaviour in the city of Lubumbashi , Democratic Republic of the Congo : results from a cross-sectional household survey. *BMC Heal Serv Res.* 2014;1–12.
5. Amin R, Shah NM, Becker S. Socioeconomic factors differentiating maternal and child health-seeking behavior in rural Bangladesh : A cross-sectional analysis. 2010;1–11.
6. Dupas P. Health Behavior in Developing Countries. 2011;3(Annual Review of Economics):1–39.
7. Balabanova D, Parkhurst J, Mckee M, Mcpake B. Health Systems Development Programme Access to health care : taking into account health systems complexity. *Health Policy.* :1–37.
8. Mendoza-sassi R. Factors Associated with Health Services Utilization A Population-based Study Assessing the Characteristics of People that Visit Doctors in Southern Brazil. :1–28.
9. MoFED. Health Sector Development Programme IV 2010/11-2014/15. 2010;39(October 2010):1–110.
10. Who WHO for E. Republic of Moldova Health Policy Paper Series No. 9. 2012 p. 1–135.
11. CSA. Ethiopia Demographic and Health Survey. 2011.
12. NV Pemunta TO. Toward a Reconceptualization of the “ Urban ” and “ Rural ” as Conceptual and Analytical Categories in the Toward a Reconceptualization of the “ Urban ” and “ Rural ” as Conceptual and Analytical Categories in the Social Sciences. *Arts Soc Sci Journal, [Internet].* Limbe, Republic of Cameroon; 2012 Dec 12 [cited 2011 Jan 1];2012:1–14. Available from: <http://astonjournals.com/assj>
13. Tejas Shah, Mitel Patel VS. HEALTH CARE SEEKING BEHAVIOUR OF URBAN AND RURALCOMMUNITY IN AHMEDABAD DISTRICT. *Int J Med Sci Heal.* 2013 Jun 25;2(4):4–7.

14. Hoeven M Van Der, Kruger A, Greeff M. Differences in health care seeking behaviour between rural and urban communities in South Africa. *Int J equity Heal* [Internet]. 2012;1–9. Available from: <http://www.equityhealthj.com/content/11/1/31>
15. Wamai RG. Reviewing Ethiopia ' s Health System. 2009;52(4):279–86.
16. Fantahun M, Degu G. Health Service Utilization in Amhara Region of Ethiopia. *Ethiop J Heal Dev*. 2003;17(2):1–7.
17. USAID. Health Care Financing Reform in Ethiopia : Improving Quality and Equity. 2012 p. 1–12.
18. Gurmu S, Tesfu ST. ILLNESS AND CHOICE OF TREATMENT IN URBAN AND RURAL. 2012;(703).
19. Esera woreda. Esera Woreda Administrative and Health Office. 2015 p. 1.
20. Hussain S, Malik F, Hameed A, Ahmad S RH. Exploring health seeking behavior , medicine use and self medication in urban and rural Pakistan. *South Med Rev*. 2010;3(2):32–4.
21. Gotsadze G, Bennett S, Ranson K, Gzirishvili D. Health care-seeking behaviour and out-of-pocket payments in Tbilisi , Georgia. Oxford University Press; 2005;(c). Available from: <http://beapol.oxfordjournals.org/>
22. Biswas P, Kabir ZN, Nilsson J, Zaman S. Dynamics of Health Care Seeking Behaviour of Elderly People in Rural Bangladesh. *Int J aging later life*. 2006;1(1):69–89.
23. Girma F, Jira C, Girma B. ORIGINAL ARTICLE HEALTH SERVICES UTILIZATION AND ASSOCIATED FACTORS IN JIMMA ZONE , SOUTH WEST ETHIOPIA. *Ethiop J Health Sci*. 2011;21(special):85–94.
24. Case A, Menendez A, Ardington C. Health Seeking Behavior in Northern KwaZulu-Natal. 2005 Apr;
25. Mebratie A, Poel E Van De, Debebe Z, Abebaw D, Bedi AS. Self-reported health care seeking behavior in rural Ethiopia : Evidence from clinical vignettes [Internet]. 2013 p. 1–30. Report No.: 551. Available from: 0921-0210
26. Audet CM, Sidat M, Blevins M, Moon TD, Vergara A. HIV knowledge and health-seeking behavior in Zambe ´zia Province, Mozambique. *J Soc Asp HIV/AIDS*. 2012;9(1):41–6.
27. Gan-yadam A, Shinohara R, Sugisawa Y, Tanaka E, Watanabe T, Hirano M, et al. Factors Associated With Health Service Utilization in Ulaanbaatar , Mongolia : A Population-Based Survey. *J Epidemiol Community Heal*. 2013;23(5):320–8.

28. Garg S, Singh MMC, Mehra M. PERCEIVED REPRODUCTIVE MORBIDITY AND HEALTH CARE SEEKING BEHAVIOUR AMONG WOMEN IN AN URBAN SLUM. 2001;24(4):178–88.
29. Awoyemi TT, Obayelu OA, Opaluwa HI. Effect of Distance on Utilization of Health Care Services in Rural Kogi State , Nigeria. 2011;35(1):1–9.
30. Stekelenburg J. HEALTH CARE SEEKING BEHAVIOUR AND UTILISATION OF HEALTH SERVICES IN KALABO DISTRICT , ZAMBIA. Stichting Drukkerij C. Regenboog G, Financial, editors. 2004.
31. Mushtaq MU, Gull S, Shad MA, Akram J. Socio-demographic correlates of the health-seeking behaviours in two districts of Pakistan’s Punjab province. J Pak Med Assoc. 2011;61:1205–9.
32. Tarekegn SM, Lieberman LS, Giedraitis V. Determinants of maternal health service utilization in Ethiopia : analysis of the 2011 Ethiopian Demographic and Health Survey. BMC Pregnancy Childbirth. 2014;14(1):1–13.
33. Andersen N. Andersen and Newman Framework of Health Services Utilization. 1995;
34. Thomas Cronin, James Sheppard G de W. quantitative literature. panAfrican Med J. 2013;8688:1–9.
35. Gelaw YA, Biks GA, Alene KA. Effect of residence on mothers ’ health care seeking behavior for common childhood illness in Northwest Ethiopia : a community based comparative cross – sectional study. 2014;7(1):1–8.
36. Laar AS, Laar AK, Dalinjong PA. Community perception of malaria and its influence on health - seeking behaviour in rural Ghana : a descriptive study. 2013;4(1):1–6.
37. Sina OJ, Iyabo JL, M IA. Socio-economic status and utilization of healthcare facilities in rural Ekiti , Nigeria. 2014;2(July):1–43.
38. Klein T. Selecting therapies in Benin: making choicesbetween informal , formal , private and public health. Afrika Spectr [Internet]. 2007;42(3):461–81. Available from: <http://nbn-resolving.de/urn:nbn:de:0168-ssoar-364176>
39. State K, Awad A, Eltayeb I, Matowe L. Self-medication with Antibiotics and Antimalarials in the community ofKhartoum State, Sudan. J Pharm Pharm Sci. Sudan; 2005;8(2):326–31.
40. WHO. World Health Organization. Traditional Medicine Strategy 2002-2005. Geneva; 2005;1–74.

ANNEX QUESTIONNAIRES

Annex I. English Version Questionnaires

This questionnaire is prepared for collecting information on healthcare seeking behavior for perceived morbidity at household level in Esera Woreda Dawro Zone.

Consent form

001. Questionnaire identification number _____ 002. Region: SNNPR 003. Zone: Dawro
004. Place: Esera woreda 005. House number -----

Greetings

Introduction:

My name is _____. I am employed as a data collector in a survey conducted by the collaboration of, Jimma university college of public health and Medical sciences, and Department of Epidemiology so as to assess associated factors for healthcare seeking behaviour, from where you got treatment, the type of sickness you have faced, the type of healthcare providers search for, decision making for healthcare seeking and the role about the traditional medicine, drugs from local shops for health seeking behavior at household level. Your name will not be written on this form and will by no means be used with any information you tell me. However, your frank responses to these inquiries will help us better realize anything people think and do about healthcare seeking behavior during sickness. I would really appreciate your aid in replying to this study. Would you be willing to take part?

1. Yes 2. No

Signature of interviewer confirming that informed consent will be give verbally by respondent. --

Checked by supervisor: Name _____ Signature _____ Date _____

I Socio-Demographic Information

S.No	Questions	Responses	Code
------	-----------	-----------	------

101	household code	_____	
102	Age in years	_____	
103	Sex	1. Male___ 2. Female _____	
104	Residence	1.Urban ___ 2.Rural__	
105	Occupation of respondents	1. Housewife_2.Farmer__3.Government employee___ 4. Private Business__ 5.Student__ 6. Merchant_____ 7.other(specify)	
106	Religion	1. Orthodox__ 2. Protestant__ 3. Catholic__ 4. Muslim__ 5.Others_____	
107	Marital status	1. Single_2. Married_3.Widowed__ 4.Divorced___	
108	If married for Q107 what is your Family structure?	1. Monogamy_____2.Polygamy	
109	Family size	1. ≤4___ 2.>4	
110	Ethnic group	1. Dawro__ 2.Hadya__ 3.Wolayta__ 4.Kambata__ 5. Amhara__6.Others__	
111	Monthly income	1. <1170 ETB__ 2.≥ 1170 ETB__	
112	What the source of income is during illness for sought of care?	1. Cash _____ 2. Selling kind 3. Free service	
113	Educational status	1. Illiterate__ 2.Primary education__ 3.Secondary education 4. Graduated from college	

II. Personal Factors		
201	Is there anyone who has any illness past 2 months in your household?	1. Yes 2.No
202	What is the age of person with illness	_____years
203	What is the disease condition?	1. acute 2.chronic
204	If yes to q201 have you got any treatment?	1.no 2.yes
205	If yes for Q203 from where have you got care?	1. Health Post 2 Health Centre 3 Hospital 4 Private clinics 5.Used traditional medicine
206	If yes to q204 how many days after the onset of disease symptoms did you get care from a provider?	1. Immediately as illness started 2. When it goes worse 3. When it reliefs by its own
207	If no for Q204 what is the reason?	1. Thought sickness is incurable 2. Symptom is not severe 3.Assumed that getting well from symptom without treatment 4. Do not know where it can be treated 5.No effective treatment is available 6.Lack of time 7 Lack of money 8. Long distance 9. Others_____
208	If traditional for q204 from where have you got treatment?	1. Wegesha 2. Tsebel 3.Spiritual prayer 4. Herbalist 5.Kalicha 6.TBAs
209	For Q203 who decided to seek treatment from Health facilities?	1Father 2.son 3.daughter 4.Mother 5.patient him/herself 6health

		professional or friends	
210	How do you perceive your general health status?	1.Good___ 2. Poor___	If Good skip to Q211
211	If for Q210 your health status is poor would you seek healthcare facilities for medical consultation?	1. Yes___ 2. No___	
212	If for Q203 disease is chronic do you have follow up at any health facility for consultation of medical treatment?	1. Yes___ 2. No___	
213	If yes for Q211 at where do you follow?	1. Modern health facility 2.Traditional medicine	
214	If traditional for q212 where have you following?	1.Wegesha 2.Tsebel 3.Spiritual prayer 4.Herbalist 5.Kalicha 6.self medication	
215	If modern health facility for q212 where have you following?	1.Health post 2.Health center 3.Hospital 4.Private clinic	
III. Health Institutional Variables			
301	Do you think there is modern healthcare facilities access in your area?	1. Yes___ 2. No___	
302	Is there Health post access?	1 yes 2 no	
303	Is there Health center access?	1 yes 2 no	
304	Is there Hospital access?	1 yes 2 no	

305	Is there Private clinic access?	1 yes 2 no	
306	For q303 health center how much far from your home?	1. less than 10 km 2. more than 10 km	
307	For q304 Hospital how much far from your home?	1. Less than 10 km 2. more than 10 km	
308	Does the price of care influence your choice to health care services?	1.yes 2.no	
309	Do you feel healthcare staffs have good approach for you where you have utilized healthcare services?	1. Yes___ 2. No___	
310	In your opinion and expectations which health care provider do you need at health care facilities?	1. Doctors__ 2. Health Officers 3.Nurses___ 4.Midwives___	
311	Do you feel that you are satisfied with the behavior and accountability of health service providers?	1. Yes___ 2. No___	
312	Are you satisfied with the treatment given at health facilities?	1. Yes 2. No	
313	In your opinion your dignity and respect is maintained as receiving care from health care providers?	1. Yes 2. No	
314	Have you received your needed care at the right time, when you visited to health care services?	1.Yes 2.No	

IV. Health Belief and Related Other Variables

401	Do you tell any type of illness for health care providers?	1. Yes 2. No	
402	If your answer is yes for Q204 what type of disease have you diagnosed there?	1. malaria 2.typhoid 3.gastritis 4.pneumonia 5.others (specify) 6.I don't know	
403	How much do you value your health and try to keep it?	1. Very much 2.low 3.very low	
404	Do you feel shame from expression of your disease, talking about it and getting treatment for it?	1. Yes 2. No	
405	Do you believe from which source of care is beneficial for people who are sick?	1. Modern 2. Traditional 3. Both	
406	Which health facility do you trust and prefer?	1. Government health facilities 2. Private clinics	
407	What do you think the result of delay to seek treatment and detection?	1. Death 2.Delay relief time 3.Reduce treatment importance	
408	For Q204 is the illness was serious?	1. Yes 2. no	
409	Would you prefer a self-treatment by yourself?	1. Yes 2. no	
410	If yes for Q409 what is the most important reason for preferring self-treatment for the disease?	1. I know treating myself 2. Diseases is not serious 3.It's price effective 4.Maintain confidentiality 5.In health care there is long waiting time 6. In health care reception is not good 7.Long distance from health facilities	

411	If your answer is choice 1 for Q409 how do you treat yourself?	1. Purchase drugs from shops 2. I got drugs from others 3.others(specify)	
412	If yes for Q408 do you think you treated yourself successfully?	1. Yes 2.No	
413	Do you have access to needed information for care receiving?	1.Yes 2.No	
414	If yes for Q412 from where do you often get health information?	1. HEWs 2. Radio 3. Television 4. Newspapers 5. Magazines 6. Internet 7.friends	
415	What is the cause for diseases?	1 natural source 2. Man made cause like lack of sanitation 3. Others specify_____	

Annex II. Dawurogna Version

Dawurothuwaabirshethaa

Ha ooshatuIseraWorada Dawro Zoneiyan .hinttekeetha assay pas's'atetsabollasakkugakkoodemaaduwakoshamaaras'elliyawangigeedino.

Eenotetsawarak'k'ata

001. ooshashaakkuwapayduwa _____

002. kililiya :DugehaZariyaZangaranneKoc'c'aassaDeriya

003. Zoniya: Dawro

004. boota; Isaraworada 005. Keetsapaydduwa

Sarotta

Gelluwa:

Ta sunsay _____ . Taanihachchehintteppenak'k'ashshattuwaakkanaw
 Jimma _____ Universitya,
 Pas's'atetsannehaakimekollojiyyaEpidomoloojiyatimirttiyakifiliyaappela'antsodegriryyatamma
 riyaanjeettanawpilgetsas'aafade'iyagishawhinttentumaadutawukoshshee.Hawamaaranhinttentuee
 nogiitee? 1. Ee 2. Giddikke

Enoo go gishawudariigalatetoo.

Oshaagalassa-----

Ochedawaasuntha-----kusheemalataa-----

Kaliis'eledawaasuntsaa-----kusheemalataa

Gallassa _____

Koyrobagga

P.ma ara	Ooshatuwa	Zaaratuwa	Shaakuwa
101	Gooliyashaakuwapayduwa	_____	
102	Yeletalaytsa	_____	
103	Maatuma	2. Atumawa___ 2. Mac'c'awa _____	
104	De'asayhak'kee??	1.Katama 2.Gaxariyaa	
105	Oosuwa	1. Soy mac'c'asa2. Goshancha 3. Kawuwaoosancha 4. Buzo ek'k'ota 5. tammariya 6. zal'anchcha 7. Haraa _____	
106	Amanuwa	1. Ortodokissiya 2. P'ens's'iya 3. Katholicke 4. Isilaama 5.hara_____	

107	Soyzodetsa	1. akkibena/geelabukku ____ 2. akkawa/gelawno____ 3.hayk'uwan shaakettawa____ 4. Billetawa ____	
108	Oosha 107zaaruakketegellette dawagiddooppegeloma ara	1. Ittimache_____ 2. dawutsa____	
109	Soy assapayduwaa	1. <=4 2.>4	
110	Yarayayee	1. Dawro____ 2. Hadiya _3. Wolaytsaa__ 4. Kambata ____5. Amara____ 6. Hara____	
111	Ittiagenademisha	1. <1170 Birra ETB 2. ≥ 1170 Birra	
112	Saakooddehakkappesha luyihintew?	1. So birrayde'ee ____ 2. De'ayawaazal'eeto 3. Coo akkimiyayarayde'ee	
113	Timihirtyadetsa	1. tammaribeenawa 2. Iro detsa 3. 2ntho detsa 4. Kollojiyappe anjjetawwa	
La'antsoBagga			
201	Aad'd'eedalaaa'ulaytsanhintee son saaketta assay de'ii?	1. Eee____ 2. Baawa____	
202	Sakketeedawayelettalaytsaywoysee?	_____laytsa	
203	Eegiddoppesakkuwahanotayayyee?	1. _____elledommeda 2.gam'eedda sakuwaa	
204	Oosha 201zaarueegiddooped'alliyademmedittee?	1. Demmibeykko ____ 2. Eee____	

205	Oosha 203zaaruEegiddoppehak'k'an?	1. X/kellan 2.X/xaabiyani 3. Aspidaaliyani 4. Buzo kilinikiyani5.Wogad'alleppe	
206	Oosha 204Neeniwoy ne keetsa assay sakkettoddewoysawodepas's'atetsae'kkotuwakkoappeeditte?	1. Ellekka 2. sakudaridariboode 3. Barewbashshangakkanawnaageedo	
207	Oosha 204demmimeena aye gaasu?	1. harggiyawyayibeeko 2. Dariidhaliial'aa 3. Sakuubarewbashsheeda 4.aakimettiyaasa errokko 5.maadiya d'alleebaawa 6. Wodiyaqanxatetsa 7. Shaludhayyinna 8.pas's'atetsa ek'k'uhaake9. Daariinaagisino	
208	Oosha 204wogad'alleppedemmibeykittagiddoppegidoopeeha'k'kappe?	1. me'uwaaoykkiyassaappe__ 2. xaballa__ 3.woosa keethappe__ 4. Maatadhaliya__ 5. Shareechuppe 6.yellisiya machaasaape	
209	KilliOosha 201zaaruEeegiddoppeoonibaanadan k'offiseede?	1. Aawuwa 2. Na'a 3.naato 4.aato 5.izaawa 6.laggiya/paxxatetsaeranc'c'a	
210	Ne pas's'atetsadethawootas'eelay?	1Lo'aa__ 2.Lo'a gidenna__	Lo'aa 211kko ba
211	Oosha210 zaarulo'aagidennagoopeeha'Iwodde pas's'atetsakoshabaadi??	1.Ee __ 2.babeeykki __	
212	Oosha 203saakugam'awagidooppepas's'ate tsakaaluwaootsadeay?	3. Ee ____ 2. No__	

213	Oosha211 hak'k'anikaalitte?	1.ha'I wodepax'x'atetsaek'k'ottan 2.beni dhalettuwa	
214	Oosha 211zaarubeniwodiyagiddoppehak'k; ee?	1. me'uwaoyk'k'yawanttu 2. xabala 3. woosa keetha,4 maatadhaliya 5. Shareechuwa 6. Yellisiyaasatuwa	
215	Oosha 212 zaaruha'Iwodiyagiddoppehak'k'ee?	1.X/kella 2.X/xaabiya, 3.aspidaalen, 4. Buzo eqottan	
HeezantsoBagga			
301	Hintteheerangiddiyapas's'atetsamaadu waae'kkotude'iino?	1.Ee__2.Giddena__	
302	X'eenakela	1.de'ee 2.baawa	
303	X'eenax'aabiya	1.de'ee 2.baawa	
304	Asppidaaliya	1.de'ee 2.baawa	
305	Buzo kilinikkiyaa	1.de'ee 2.baawa	
306	Ooshaw 303woysakeenahaakii X/xaabi?	1 10Km ppelaafa 2. 10 km ppedara	
307	Ooshaw 304 woysakeenahaakiiaspidaali?	1 10Km ppelaafa 2. 10 km ppedara	
308	Ee,kkotuuakkiyashaaluwagattiyahintte koshannagakketti?	1. Eee__ 2.Giddena__	
309	Pas's'atetsaosaanchchatumokiakkiyaha notayloythilo'ee?	1. Eee__ 2.Giddena__	

310	Hintteqoffan ay mala paxxatetsaosaanchakoyyitye?	1. Dokiteriyaa__ 2. Xeenamokoniniya 3.Narssiyya__ 4.yeelisiya aakimatuwa__	
311	Immettedaakkamohanotandarinashshett edite?	1. Eee__ 2.Giddena__	
312	Hinttewimmettiyada'lliyannashette editte?	1. Eee__ 2.dari nashchena__	
313	Pas's'atetsaossanc'c'attuassabonc'c'iino?		
314	Pas's'atetsaossanc'c'attuellehinttegakk owodiyannaadedinno?	1. Eee__ 2.Giddena__	
OyddanthoBagga			
401	Sak'k'uwaayyakkac'oooodiittee?	1. Eee__ 2.Giddena__	
402	Oosha 204eegidoopeesakkuayyee?	1 Unuwa 2. typhoyddiyya 3.ganjiya sakuwa 4.kuffuwa 5.hara (odda) 6.ta erikki	
403	Woysakeenabootahinttepaxxatethaw immiitee?	1. dariiloythi 2. laafa 3.darii laffa	
404	Sakuwaaoddussay, hassayussaypökkierii??	1. Eee__ 2.Giddena__	
405	Hak'k'apas's'atetsaek'k'uppemaadu waakkusaylo'agiitee?	1. ha'iiwodiyaappe__ 2.wogga d'alliyaa__ 3. La'uukkalo'aa	
406	Ha'Iwodiyapas's'atetsaek'k'uppehak'k'awaloythidossiite?	1.kawo eqottuwa 2.buzo kilinikiya	

407	Pas's'atetsamaaduwakoyyennaweayy aakkegiite??	1hayk'k'uwa 2.elle patsenna 3.d'aliya maaduwaguuthe	
408	Oosha 204 sakkudariiyashiyasakkee?	1.Ee 2. Gidenna	
409	Hintteenahintewkkahargiyadhalierrite?	1. Eee____ 2. Giddena____	
410	Oosha 409 eegiddoppegaasuayyee??	1. d'aliyaeriyagishaw 2.saku godayyenna 3gattii lo'aa 4.tana haraasaybe'enna 5.ps'atetsa ekk'udariloysinaagisse6.loythi eekk'ottumokkenna 7.Haraa_____	
411	Oosha 410zaaru 1 giddoppehakk'appedhalliyaakkiitee?	1. Suuk'k'iyaaappeshammay 2. Hara assappedhalliyaakkay 3.hara(odda)____	
412	Zaaru 409 eegiddoppehinteed'allettix'x'eeditee?	1. ee 2. dhalibeena	
413	Pas's'atsabbahasayyasissierriitee?	1.ee 2.sissi errokko	
414	Eegiddoppehakkappesissediitee?	. pas's'atetsaekistenshinnaatippe 2. iradooniya 3. telebiijiinya 4. gazeexxa 5. maxaatiya 6. Interneetiyya 7.hara	
415	Harggiayyawsakkiassa?	1 1.barew 2. Geeshatetsapaccan 3.haray do'ooppeodda	