

**DETERMINANTS OF HEALTH SERVICE UTILIZATION AMONG
OLDER ADULTS IN BEDELE TOWN, ILLUBABOR ZONE, ORMIA,
ETHIOPIA.**

By: BIRTUKAN KEBEDE

**A THESIS SUBMITTED TO JIMMA UNIVERSITY COLLEGE OF
PUBLIC HEALTH AND MEDICAL SCIENCE SCHOOL OF
GRADUATE STUDIES DEPARTMENT OF NURSING IN PARTIAL
FULFILLMENT FOR THE REQUIREMENT OF MASTERS DEGREE
IN ADULT HEALTH NURSING.**

**2013
JIMMA, ETHIOPIA**

**DETERMINANTS OF HEALTH SERVICE UTILIZATION AMONG
OLDER ADULTS IN BEDELE TOWN, ILLUBABOR ZONE, ORMIA,
ETHIOPIA**

By: BIRTUKAN KEBEDE

ADVISORS: 1. ABEBE G/MARIAM (PROFESSOR)

2. Mr. WADU WOLANCHO (BSCN, MSCN)

**2013
JIMMA, ETHIOPIA**

ABSTRACT

BACKGROUND: In any country use of health services by elderly could vary according to the cultural, social, economic and demographic situation of the person who may need care. In certain contexts, it particularly varies with age and sex of the potential service user. Several studies have been conducted on health service utilization of elderly population in many parts of the world. However; there is paucity of information on the level and associated factors on health service utilization among elderly population in Ethiopia in general and in the study site in particular.

OBJECTIVE: To assess utilization of health services and associated factors among population of older adults in Bedele town, Illubabor zone, Oromiya Region, Ethiopia.

METHODS: A community based cross sectional study carried on 284 elderly populations residing in Bedele town from February- March 2013. A pre-tested structured questioner was administered by trained data collector through simple random sampling technique. The collected data was cleaned, coded and entered into computer and analyzed using SPSS windows version 16. Descriptive statistics (tables and graphs) were done to summarize data. Binary and multiple logistic regression was undertaken to determine the independent predictor of health service utilization. Finally based on the result of the study possible recommendation were forwarded to the concerned governmental, nongovernmental and other organization.

RESULT: About half (49.6%) of the study participants reported to have utilized health care services in the last 1 year. Proportion of study participants reporting poor, moderate and good health status were 66.9%, 25.7% and 7.4% respectively. The following factors were identified as determinants of health service utilization among the elderly in Bedele: a medical history of at least one chronic condition (OR = 1.737; [0.425-2.562]; $p < 0.000$), who had reported enough money to meet their need were 75% utilize health services when compared to participants who did not have enough money to meet their need 47.3% (OR = 1.587; 95% CI = [1.236 – 2.037], $p = 0.004$). In addition, participants who travel less than 10km utilized health service 1.4% higher when compared to participants who travel more than 10 km.

CONCLUSIONS & RECOMMENDATIONS: Age, Income, education, medical history of at least one chronic condition and poor perceived health status were the most pervasive

determinants of health service utilization. In addition, severe cognitive impairment and significant influence on health care utilization among the elderly population in Bedele town.

These factors could help health policy makers and health service providers identify and understand the situation of the elderly and consequently create conducive environment for providing appropriate health services. In addition to that, Provision of home-based health services could facilitate their accessibility for the elderly especially those with various difficulties.

KEY WORD: health service utilization, elderly.

ACKNOWLEDGMENTS

First and foremost I would like to thank the almighty God for everything. My deepest gratitude goes to Professor Abebe G/mariam and Mr. Wadu Wolancho for their continuous, unreserved and valuable advice throughout the preparation and completion of this thesis.

I would like to thank Jimma University, College of Public Health and Medical Sciences, for providing me opportunity to prepare this thesis.

My grateful thank also goes to Mr. Gugsu Nemera for his unreserved support, encouragement and offering me idea on my topic of interest. Finally I would like to thank my friends and colleagues for their constructive ideas and moral support.

LIST OF ABBREVIATIONS

ADL:	Activity of daily living.
AIDS:	Acquired Immunodeficiency Syndrome.
IADL:	Instrumental Activity of daily living.
HIV:	Human Immunodeficiency Virus.
MDG:	Millennium development goal.
UN:	United nation
UNDP:	Human Development Report.
WHO:	World health organization.

TABLE OF CONTENTS

CONTENTS	PAGE
Abstrac	i
Acknowledgments.....	iii
List of abbreviations.....	iv
Table of contents.....	v
List of figures.....	viii
List of tables.....	viii
CHAPTER 1: INTRODUCTION	1
1.1. Background	1
1.2. Statement of the problem	3
CHAPTER TWO	5
2.1. Literature review	5
2.2. Conceptual frame work	9
2.3. Significance of the study	10
CHAPTER THREE: OBJECTIVES	11
3.1. General Objectiv.....	11
3.2. Specific Objectives.....	11
CHAPTER 4: METHODS AND MATERIALS	12
4.1. Study area and period.....	12
4.2. Study design.....	12
4.3. Population.....	12
4.3.1. Source population.....	12
4.3.2. Study population.....	12
4.4. Inclusion and Exclusion	12
4.4.1. Inclusion criteria	12
4.4.2. Exclusion criteria.....	12
4.5. Sample size and Sampling technique	13
4.5.1. Sample size.....	13
4.5.2. Sampling technique	13

4.6. Variables.....	14
4.6.1. Dependent variable:.....	14
4.6.2. Independent variable.....	14
4.7. Operational definitions.....	14
4.8. Data collection tool	15
4.9. Data collection technique.....	15
4.10. Pretest.....	15
4.11. Data analysis procedure.....	16
4.12. Data quality management.....	16
4.13. Ethical consideration	16
4.14. Dissemination plan	17
CHAPTER FIVE: Result.....	18
CHAPTER SIX: Discussion.....	31
LIMITATION	32
CHAPTER SEVEN: Conclusion and recommendation.....	34
REFERANCE.....	35
Annex I.....	39
Annex II.....	41

LIST OF FIGURES

Figure 1: Conceptual frame work of health service utilization adapted and modified from Andersen Health care Utilization Model of 1968.....	9
Figure 2: Percentage distributions of health status descriptions among the elderly in Bedele town, 2013.....	20
Figure 3: Prevalence of chronic conditions among the elderly in Bedele town, 2013.....	20
Figure 4: Percentage distribution of health service utilization by chronic condition (specific), in Bedele town, 2013.....	21
Figure 5: Percentage distribution of health service utilization by chronic condition (grouped), in Bedele town, 2013.....	22
Figure 6: Percentage distributions of Subjective reasons for not utilizing health service among elderly, Bedele town, 2013.....	23

List of Tables

Table1: Demographic characteristics older adults live in Bedele town, 20013.....	18
Table.2: Distribution of the predisposing variables for health service utilization in the last 1 year among the elderly in, Bedele town, 20013.....	24
Table 3: Distribution of enabling variables for health service utilization in the last one Year among the elderly, Bedele town, 20013.....	25
Table 4: Distribution of the indicators for the need of health care services in the last 1 year among the elderly in, Bedele town, 20013.....	26
Table 5: Significant associations between health service utilization and factors associated With health service utilization in the last 1 year among the elderly in, Bedele town, 20013.	28

DocuCreate PDF Trial
www.docucreate.com

CHAPTER 1: INTRODUCTION

1.1. BACKGROUND

The world is entering largely unfamiliar territory with respect to population aging. Elderly people are defined as persons in age group of 60 and over according to UN definition (1), as well as the WHO. The elderly are one of the most vulnerable and high risk groups in terms of health status and their health care-seeking behavior is crucial in any society (2). The world is entering largely unfamiliar territory with respect to population aging. Combined with the dynamic evolution of past variations in birth and death rates, recent decline in fertility rates and increases in life expectancy are causing a significant shift in the global age structure. The number of people over the age of 60 is projected to reach 1 billion by 2020 and almost 2 billion by 2050, representing 22 percent of the world's population. The proportion of individuals aged 80 or over is projected to rise from 1 percent to 4 percent of the global population between today and 2050 (3).

As a result of the unique health characteristics of elderly people, such as a gradual reduction in physiological reserve and an increased susceptibility to the adverse impact of illness, an escalation in the numbers of older adults poses multiple challenges to the present healthcare systems. Healthcare means that maintenance of and improvement of physical and mental health. Older people usually need higher amount of health services compared with other age groups and are more likely to experience complications & adverse events as a result of declines in physical and mental function, which might result in the increase of morbidity, disability, mortality, medical utilization and burden of care (2, 4, 5).

The elderly are not only growing rapidly in absolute numbers, but have also become substantially healthier. In a phenomenon referred to by demographers and health specialists as the "compression of morbidity", the length of healthy old-age appears to be increasing. Part of this trend can be attributed to increases in the length of life, and part to shorter and later periods of illness. The net effect is an increase in number of years lived at old age without major health problems (6).

As some literatures indicate elderly population have been reported to suffer from numerous adverse health outcomes including disability, psychological deterioration, and mortality requiring assistance in at least one activity of daily living ADL(activities of daily living) or

IADL(instrumental activities of daily living) from a caregiver staying in the same household or health care provider, another study reported that increasing frequency of episodes of ill-health and associated disease morbidity with age, elderly persons tend to utilize a larger share of health resources(5,7).

In Ethiopia, Life expectancy has improved over the last two decades, increasing from 46.4 years in 1991 to 59.3 for 2011, according the UNDP Human Development Report of 2011 (8).

1.2. STATEMENT OF THE PROBLEM

Globally the number of population of older persons is growing at a rate of 2.6 percent per year, considerably faster than the population as a whole which is increasing at 1.1 percent annually, this subset of the population will increase from 7.6% in 2005 to 12.1% in 2020, 20.0% in 2035 and 27.7% in 2050 (2, 9). Eight percent of the world's older people live in Africa - 55 million adults aged 60 and over in 2010, projected to rise to 213 million in 2050 (10). In Ethiopia, due to serious shortage of data, it is difficult to provide detailed analysis about the socio-economic conditions of older persons. However, it is estimated that population over 60 and above years was 3.9 in 2020, 4.2, 6.8, and 15.1 in 2050, 2050 & 2075 respectively, but little is known about their health and welfare (11).

Currently 22 % of health status of people age 60 and above is bad or very bad and 34 % find it difficult or very difficult to access health care service when they need it (12). Healthcare expenditures for older adults can have a catastrophic effect on household finances, particularly in developing countries health services should be the cornerstone of efforts to prevent and control chronic disease and manage their long-term disabling consequences (13).

Older people experience a greater level of morbidity and are relatively frequent users of physicians' services and health services. Study done in Bangladesh, shows that morbidity rates are highest in the population aged 50 years and over, due to lack of availability and accessibility of health service related to old age population (14). In addition 26% reported of at least one medical problem, 5.7% had not sought any medical attention and 1.2% had self-treatments (15).

Physical and financial constraints impede timely utilization of available health care services. Impeded access can lead to underutilization of primary and preventive health care services which in turn may result in unnecessary hospitalizations, increased morbidity and higher costs of the health care system than necessary (16).

Patterns of health service utilization and receipt of appropriate care for existing need in the older compared to younger age population should need to establish the relative availability (where appropriate, affordability) of basic services (diagnostic tests, medicines, equipment, skilled staff) for old age-related conditions, compared to service provision for essential health needs of younger age groups, also shaping relative service utilization and care receipt among young and old within households (17).

In Ethiopia, although some recent health systems and policy research has sought to examine determinants of health service utilization, which only more focused on millennium development goal (MDG) - related service areas, specifically malaria, HIV/TB disease control and maternal and child care. Even though there are some interventions done centrally, it is not enough when compared to current need and very little studies and intervention have been done so far to recognize and emphasize the urgent need (old age related health services) to respond to the ageing population in Ethiopia and study area in particular. Therefore, similar investigations on care services for old age-related ill health are urgently needed to abide with MDG.

CHAPTER TWO

2.1. LITERATURE REVIEW

Elderly constitute important member of society and are entitled to fair share of the health and social services available. The number of population of elderly is on the rise due to advances in medicine and increased life expectancy. The aging process will have important consequences in terms of health. Aging associated with diseases, the cumulative effect of multiple exposures to psychological, physical and social conditions, that are frequently unfavorable, increase the risk of health problems in the elderly (9, 14, 16, 18).

Data from the USA, for example, indicate that 33% of health care expenditure is required by this population. In Spain, the elderly account for 40% of general practitioner activity, 25–65% of home visits and 52% of the medications prescribed at the primary care level (19). These estimates are three to five times what would be expected according to the percentage of the elderly in that community. In Ghana, 5% of the country's population constitutes the elderly and their number is drastically growing as well implying that there is and will be more people to meet their basic needs such as healthcare (20).

The health care needs and medical service utilization patterns of older individuals have steadily increased in recent years. It is important for an elderly person to have frequent doctor visits because health problem is most important problem among various problems of the elders. Besides the elders will to get sufferings from disease of physical and mental result being dependent and burdensome to their family due to their sickness psychologically affected the elderly themselves (18, 20). In addition, elderly health problem had a social impact in the pay expenses for medical fee charge and welfare. The promotions health of elders need to cooperate both government and private sectors in protection, promotion, rehabilitation, and cure health of the elders to promote elderly health in order that they will be physically, psychologically, emotionally, and socially healthy. And ability live valuably and happiness, quality of life, and pass away with dignity (21).

The Behavioral Model of Health Service Use encompasses individual and contextual dimensions. It classifies predictors of health service use into three categories: predisposing, enabling, and needs-related factors. Predisposing factors are individual characteristics that exist prior to the illness (for example, socio-demographic profile, attitudes and values, and knowledge about services) Enabling factors include availability of health personnel and facilities, income, health insurance, regular source of care, travel and waiting times, and

social relationships (19, 20,22). Needs-related factors are perception of need for health services, whether individual, social, or clinically evaluated perceptions of need & also Functional status is assessed based on the number of functional impairments in areas of activities of daily living and areas of instrumental activities of daily living: bathing, dressing, eating, getting in and out of bed/chair, walking, and using a toilet; and preparing meals, shopping for groceries, managing money, using the telephone, doing heavy housework, doing light housework, and managing medication. Functional status was calculated across all three waves and was included as a time-varying predictor (22).

Study on association on service utilization was reported by 2012 year in Dhaka, indicated that around 53% of respondents were aged 60-69 years while about 13% were aged 80 years or above. In addition, 57% of respondents were female, 85% was illiterate, and of those that were literate, 87% had primary education and 11% had secondary education and 3% had tertiary education. It has found that most of the samples are young old between 60-69 years for 60.0% While 40.0% are 70 years and over. On the other hand, of all the elderly women only 4.6% had secondary education, 15.3% had primary education and 80.1% had no formal education. None of the elderly women had tertiary level of education and proportion of the respondents 35% was widowed, around 3.4% respondents lived alone and about 38% of respondents reported that they had difficulty in at least one activity in daily living (13,17, 23).

As study done in Bangladesh indicates that, around 44% of respondents reported that they had at least one chronic disease. Furthermore, 40.6% reported that their health was good but only 3.3% said "very good." About 56% of respondents reported that their health was fair, bad, or very bad. The study found that self assessment of health is significantly associated with age, sex, place of residence, level of education, marital status, working status within the week, annual income, living arrangement, functional status, number of chronic diseases and psychosocial problems (24, 25). A significantly higher proportion of respondents aged 80 years or above 73% compared with only about half the respondents 48% aged 60-69 reported that their health was poor. 54% of population of people aged 60 or older were females. Education has a negative effect on self assessment of health. For example, 65% of the participants who were illiterate classified their health as poor compared to 32% of those who had more than secondary education, similarly on this study, 58% single, separated/divorced 58%, and widowed 63% respondents perceived their health is poor (24,26).

Study in Nepal shows that, marital status, dependence on others for activities of daily living, existence of chronic diseases, and elderly already on medication showed significant association. The trend of health service use was seen higher in respondents on regular medicine 81.1% which was similar to the studies done in Taiwan and Spain (27, 28).

Inadequate access to appropriate health services and increased distance between residents and health care provider decreases utilization of health care services remains an important determinant of, health care utilization (29). Similarly study done in Dakota indicates some respondents living in towns with health care facilities are within a few blocks of service, while others reported the need to travel 100 or more miles. The median distance reported was 5 miles for routine health checkups, 9 miles for chronic health care visits, and 5 miles for emergency care (30). Respondents travel 2 miles or less for routine or emergency care visits and 2.5 miles or less for chronic health care visits. On the other end of the spectrum, 25% travel 20 miles or more for routine checkups, 55 miles or more for chronic care, and 22 miles or more for emergency care, and 10% must travel 41 miles, 120 miles, and 43 miles or more for routine, chronic, and emergency care, respectively. The results show substantial variation in travel distances and very long travel distances for a significant number of individuals (31).

As some literature shows distance has its own effect on health service utilization. Most of the elders chose for the convenience or nearby home first are 39.3%, followed efficiency of health service resource 11.3% respectively. For major reasons in choosing for convenience or nearby home was due to the fact that most of them are in rural areas which there are some health centers nearby. To commute to the government hospitals in urban area is difficult for them as they need to pay for the transportation cost or they might lack the needed vehicles (32). 34.3% of delayed health care due to cost by the low income group demonstrates that low income elderly people are more sensitive to the cost of health care, namely financial burden. The elderly with higher income underestimate their own health problems, as shown by 32.1% for the middle income and 36.2% for the high income groups in variable condition not serious enough (33).

Study in India reported that 48.5% of the study population had positive belief in traditional healers. Among 200 elderly, 58.5% preferred visiting health institutions, 19.0% preferred visiting traditional healers, 12.0% preferred other measures first for seeking health care and 8.5% preferred home remedies. A similar study done in Thailand showed that 24.1% the

elderly visited traditional healers, 18.9% of them preferred self treatment and 49.8% preferred going to health institutions (34, 35).

Utilization of modern health facilities decreases with household size, utilization of traditional health care facilities increases with household size. About half of the households with 0 – 4 members utilize government hospitals while 75 percent of households with more than 14 members do not utilize modern health care facilities. The result further shows that private hospitals are least utilized in the rural area probably because of high cost of consultation. It can be clearly deduced that larger households may not be able to afford modern health facilities and thus turn to the utilization of self-medication and traditional health care services, which they consider relatively cheaper as a larger share of household expenditure will be spent on food (36).

Study conducted in Jimma showed that out of those who had been ill in the previous 12 months, 53.7% visited modern health institution in the last episode of illness. The most common reasons cited for not visiting public and private health institution during the illness were mild illness, shortage of money and visit to a drug vendor, in 47.0%, 27.2% and 21.7% of the cases respectively (37). Empirical evidence indicates that most nations will face population ageing to some degree over the next decades and planning for this ageing can mitigate some of the negative effects and enhance the positive consequences (38). Providing free health service for all persons age 60+ like countries like Senegal and South Africa can may help to solve the problem (39)

From the above literatures, it appears that factors that determine health care utilization among the elderly differ in accordance with various factors. For example, studies carried out in the developing countries have acknowledged poverty and inaccessibility as significant factors that affect health care utilization among the elderly, whereas more advanced age, females, greater number of visits to a doctor, greater number of medications utilized etc, are factors that are greatly associated with health care utilization among the elderly in the developed countries. In both developed and developing countries, health care utilization among the elderly were found to be associated with poor or negative self-perceived health status, nature of illness, access to the service, chronic conditions, living arrangements and limited physical activity performance in the activities of daily living.

2.2. CONCEPTUAL FRAME WORK

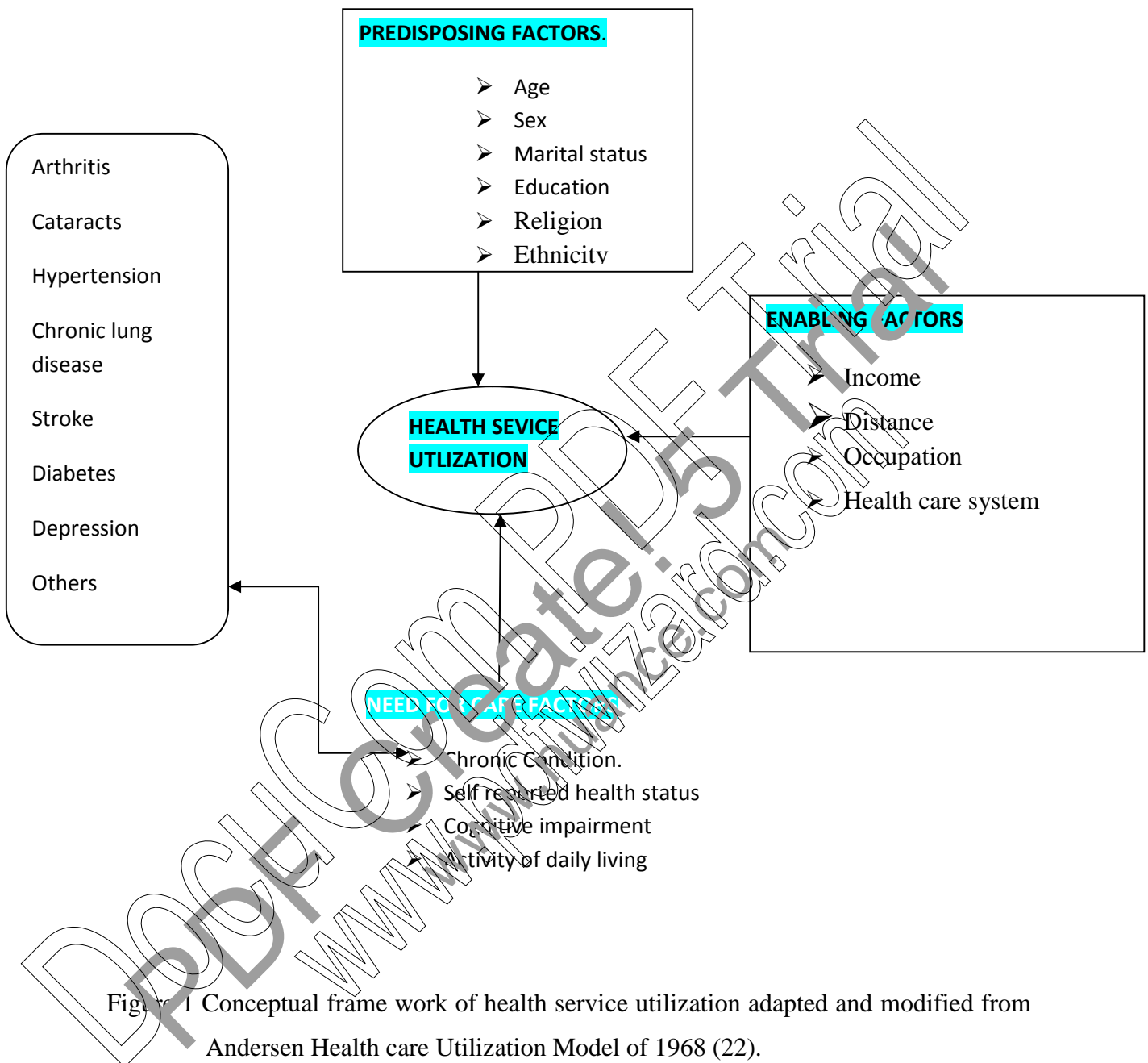


Figure 1 Conceptual frame work of health service utilization adapted and modified from Andersen Health care Utilization Model of 1968 (22).

2.3. SIGNIFICANCE OF THE STUDY

Older people make critical contributions to the welfare of younger generations in their families and communities by maintain the continuity of traditions and culture of the society, most prominently as care-takers of children especially grandchildren diseased or orphaned by HIV/AIDS and of course other causes.

In order to support good quality of life of elders giving social welfare and public health service and to reduce risk of disability and sickness is a call of the day. Therefore, the results of this study will be used as base line information to know, what factors have effect on choosing health service utilization, In addition, the result of the study could be used by both government and private sectors for planning, decision-making, determination policy and reform suitable medical service system and public health in our province.

CHAPTER THREE: OBJECTIVES

3.1. General Objectives

1. To assess health service utilization and associated factors among old adults in Bedele town, Illubabor zone.

3.2. Specific Objectives

1. To determine health service utilization of older adults residing in Bedele town.
2. To identify factors associated with health service utilization of older adults residing in Bedele town.

CHAPTER 4: METHODS AND MATERIALS

4.1. STUDY AREA AND PERIOD

The study was done from February to March 2013 in Bedele town. Bedele is located in southwest Ethiopia, 480 kilometers from Addis Ababa. The town has total area of 2878.1 square Km & 2000 to 2500 meter above sea level with annual rain fall & temperature of 1500 - 2500mm and 33.8⁰C, respectively. According to the 2007 population and housing census of Ethiopia, the projected total population of the town in 20013 is 28,782 out of which 14,400 were males and 14,382 females. From the total population 790 are aged above 60 years (355 males & 435 females). The major language in Bedele is Afaan Oromo and Amharic. The town has one governmental Hospital and Health center. In addition there are 3 nongovernmental organizations and 3 private clinics providing comprehensive health services in the town and surrounding area. The services provided include child care and support, family planning and HIV/AIDS. Among all this governmental and nongovernmental organization no one can provide health service related to old age and also older people related care and support.

4.2. Study design

Community based cross sectional study with quantitative and qualitative methods of data collection was employed.

4.3. Population

4.3.1. Source population

All elderly residing in Bedele town.

4.3.2. Study population

Sampled elderly were included in the study based on the inclusion and exclusion criteria.

4.4. Inclusion and Exclusion

4.4.1. Inclusion criteria

All adults age sixty and above years; inhabitants of the Bedele town for 6 month or more during study period.

4.4.2. Exclusion criteria

Those who were mentally ill, critically ill, and unable to communicate and answered questions were excluded from the study.

4.5. Sample size and Sampling technique

4.5.1. Sample size

Quantitative

The sample size were calculated by using the single population proportion formula by considering the proportion of health service utilization of older adult (50%), at 95 % confidence level and 0.05 margin of error using the following parameters

$$n_i = \frac{(Z_{\alpha/2})^2 p(1-p)}{d^2} \quad \text{where:- } n \text{ is the maximum possible sample size}$$

$$Z_{\alpha/2} = 1.96 \text{ (95\% confidence level for two side)}$$

$$p = 50\% \text{ (p is the proportion of assumed health service utilization for old people)}$$

$$d = \text{margin of error (5\%)}$$

$$n_i = 384$$

Since the source population is less than ten thousand, finite population correction formula was used to come up with the final sample size.

$$\text{I.e } n_f = \frac{n_i}{1 + \frac{n_i}{N}}, \quad N = \text{the total number of source population (total no of elderly)}$$

$$n_f = \frac{384}{1 + \frac{384}{790}}$$

$$n_f = 258$$

$$n_f = 258$$

Adding 10% non response rate the final sample size is 284

Qualitative: Point of information redundancy or saturation of the sample size.

4.5.2. Sampling technique

Quantitative: To reach at the study unit the following sampling technique steps were employed.

1st a total household census was conducted to identify elderly people.

2nd house hold was listed.

3rd the list was used as a sample frame.

Finally simple random sampling was employed to get the study unit and one elderly from each house hold were selected as a study participant. When there were more than one elderly in one household, only one candidate included by using lottery method.

Qualitative: Purposive sampling was employed on seven respondents from governmental (administrative office of the town, health office of the town) & nongovernmental (Edir,

organization of old people) organization as well as from family members based on their position and knowledge

4.6. Variables

4.6.1. Dependent variable:

- ❖ health care utilization

4.6.2. Independent variable

- ❖ Socio-demographic characteristics
 - Age
 - Sex
 - Educational status
 - marital status
 - Religion
 - Ethnicity.
- ❖ Enabling factors
 - Income
 - Distance
 - Occupation
 - Health care system
 - Availability of service
- ❖ Need indicator variables
 - Self-reported health status
 - Medical history of chronic conditions
 - Cognitive impairment
 - Performing ADL and self-care

4.7. Operational definitions

Health service utilization; choosing to use any health service resource i.e. government hospitals, private hospitals or clinics, health centers, and buy medicine at drug store.

Predisposing factors: individual characteristics that exist and hinders clients from using health service.

Enabling factors: features that influence care delivery and attitudes toward care

Need factors: factors include physical and mental health assessment by patients and professionals.

Old age: those people age sixty (60) and above years old.

4.8. Data collection tool

Structured data collection questionnaire were used as a tool after thorough literature search to suite local needs [1, 18] and adopted. The instrument arranged according to the particular objective it addresses as: Predisposing factors (9 items), enabling factors (13 items), need for care factors (23 items) and utilization of health service that consist a total of 55 questions. For qualitative aspect of the study, semi structured open-ended questions were used to guide an in-depth interview.

4.9. Data collection technique

Data was collected through face to face interview by trained data collectors. Four high school completed data collectors & two supervisors were recruited and took training to have common understanding on the tool. Completion as a town administrative recommendation. Respondents who were not present at home during data collection time asked by returning back again until three times and if they are not present still they were considered as non respondent. Qualitative questionnaire includes questions about factors affecting elderly utilization of health service which was not investigated with the quantitative method on 14 respondents were recorded using tap-recorder.

4.10. Pre-test

The questionnaire were pre-tested on respondents outside of the study area on 5% of respondents in Mettu town that have similar socio demographic characteristics with the elderly of the study area before the start of actual data collection. Understandability, completeness of questions and some correction were made as necessary based on the result of the test.

4.11. Data analysis procedure

Quantitative

After checking the completeness, missing value, and coding of questionnaires, data was entered in to computer, processed and analyzed using SPSS version 16.0, and then finally data was present in tables, graphs frequency and percentage. For the association of variable binary and multiple logistic regressions was used.

Qualitative

Data from an in-depth interview were transcribed by arranging the record according to forwarded questions. Then comparison was done on the responses of different respondents to identify similarities and differences and the reasons behind the gap. Finally, information were linked and analyzed to its congruence with data obtained through an interview.

4.12. Data quality management

Data quality was ensured during instrument development, collection, coding, entry and analysis. The questionnaire first translated to Afaan Oromo and retranslated to English before data collection and different translator was used to keep the consistence of the questionnaire and necessary correction taken.

Then data collectors were trained about the purpose of the study and how to administer the questioner, Role play by trainers done to strengthen their skills of administering questionnaire and how to approach with participants in the field.

Instrument was tested on 10% of the respondents and correction taken accordingly. During data collection, questionnaire checked for its completeness on daily basis by immediate supervisors. Incorrectly filled or missed questionnaire were sent back to the respective data collectors for correction, and the supervisors' was submit the filled questionnaire to the principal investigator after checking its consistency and completeness. Investigator rechecks the completed Questionnaires to maintain the quality of data.

Discussion with data collectors and supervisors were made accordingly to solve problem encountered during data collection. Data quality was also ensured during data coding, cleaning, entry to computer and during analysis.

4.13. Ethical consideration

After approval of the proposal, ethical clearance and formal letter were obtained from research ethics committee of Jimma University. The necessary permission was obtained from Bedele administrative council, and kebele administrative office. Informed consent was

obtained from the study participants (elderly) after explaining the purpose of the study. Participants were assured that their name not stated, Data will be kept confidential and anonymous and were used only for research purpose. They also informed as they have full-right to participator not to participate in the study as well as to withdraw any time during the interview.

4.14. Dissemination plan

The findings of this study will disseminate to college of public health and medical science and department of Nursing, Bedele District Administration and Health Office. The findings will disseminate to different stakeholders that have contributions to improve elderly' health services use. Finally the findings used for joint plan with the concerned bodies.

CHAPTER FIVE

RESULT

A total of 284 old adult respondents aged 60+ years, with females constituting 171 (60.2%) and Males 113 (39.8%) participated in this study. Their mean age was 68 years, with a standard deviation of 10 years. The median age (i.e. age at which half of the population is younger and half is older) was 65 years. Of all the participants, 34.5% were in the age group 60-64 years, 27.8% were in the age group 65-69 years, the rest 10.2%, 7.4%, 21.1% were in the age group 70-74years, 75-79years & 80+ years respectively (table 1.1).

In terms of ethnic background, respondents were from *Oromo* (61.6%), *Amara* (26.4%), *Tigre* (5.3%) and the rest (3.9%), (1.1%), (0.4%) & (1.4%) were from Gurage, Dawro, Kefa & Others background respectively. Above half of respondents 77.5% were Orthodox and the rest 10.6%, 10.9%, 0.4%, 0.7% participants were Muslim, Protestant, Catholic and Others religions respectively. Majority of those currently not married were widowed 30.6% and the rest were divorced 19%, & single or never married 6.3%.

Education level was assessed by inquiring whether or not a participant had been to school or not. Participants who reported that they have been to school were further asked their highest level of education attained. The study found that 52.7% of the participants were not educated and 47.5% were educated. Of those who had been educated, 95 (66%) had primary education, whereas 33 (22.9%) had at least a secondary education & 16 (11.1%).

Around 22.5% of respondents were use substance like khat, alcohol; cigarette and other substance the rest 77.5% were not use any substance.

TABLE 1.1 Demographic characteristics of the study sample, Bedele town, 20013, (N=284).

	Variables	Frequency	%
sex	Male	113	39.8
	Female	171	60.2
Age	60-64	98	34.5
	65-69	79	27.8
	70-74	29	10.2
	75-79	21	7.4
	≥ 80	57	21.1
Ethnicity	Oroma	175	61.6
	Amara	75	26.4
	Tigre	15	5.3

	Gurage	11	3.9
	Dawro	3	1.1
	Kefa	1	0.4
	Others	4	1.4
Religion	Orthodox	220	77.5
	Muslim	30	10.6
	protestant	31	10.9
	catholic	1	0.4
	other	2	0.7
Marital status	Single	18	6.3
	Married	125	44
	Divorced	54	19
	Widowed	87	30.6
Educational status	Yes	143	52.5
	No	135	47.5
Educational level	Grade 1-8	95	66
	Grade 9-12	33	22.9
	Collage/University	16	11.1
Substance use	Yes	64	22.5
	No	220	77.5

Health status description

Study participants were asked to rate their physical and mental health. Participants who reported their health status as poor were (66.9 %) while Moderate health status accounted for (25.7%) and good health status accounts for (7.4%) of the study participants (Figure 1.1). The proportion reporting poor health status was 41.2% times as large as that of good health status.

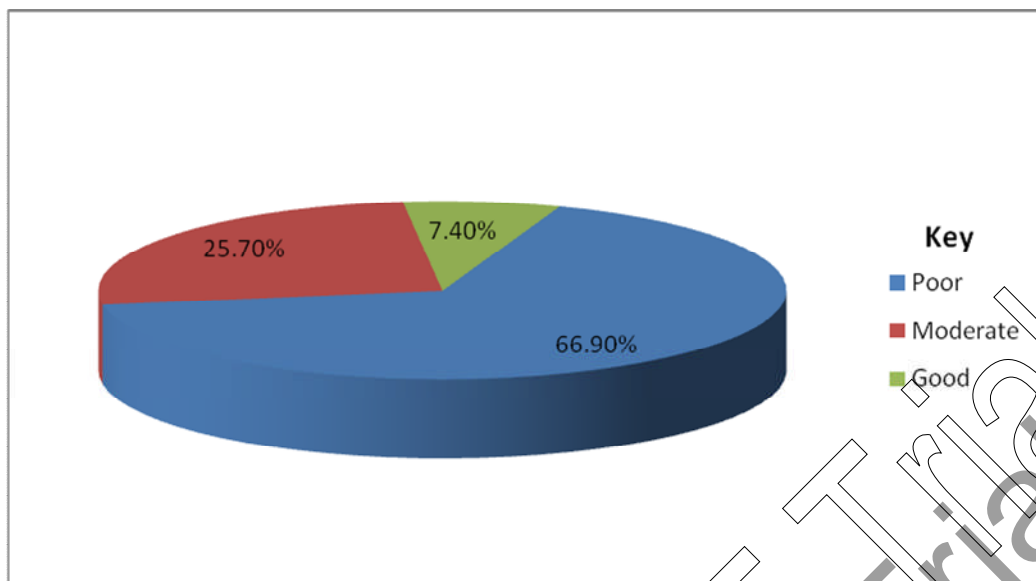


FIGURE 1.1 Percentage distributions of health status descriptions among the elderly in Bedele town, 2013. (N = 284)

Prevalence of chronic disease

Of the chronic conditions investigated, Arthritis was the most prevalent (41.2%) followed by COPD/Asthma (17.2%), Cataract (16.8%), Hypertension (14%), Diabetes (5.2%), Cancer (1.2%) and) others like dementia (4.4%). The prevalence of other chronic conditions namely, Diabetes, Cancer and others was each below 10% (Figure 1.2).

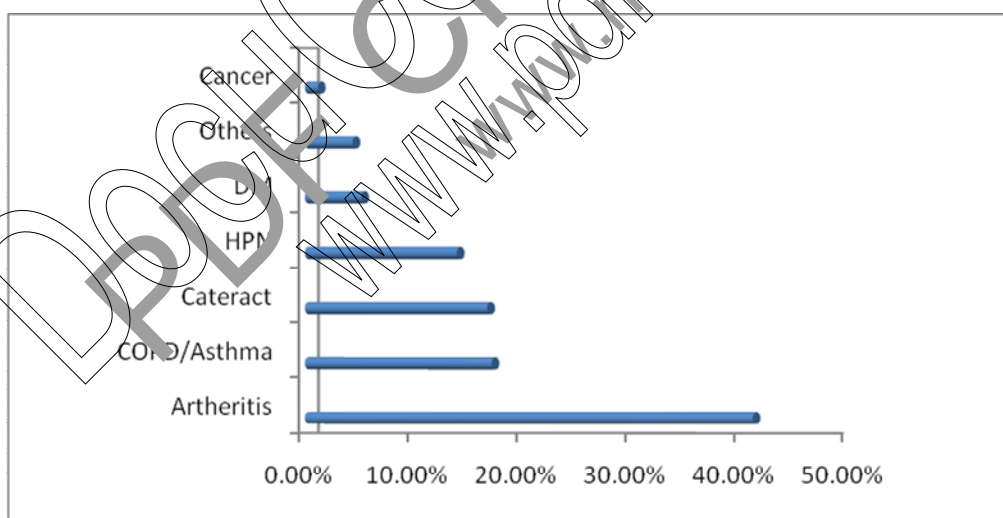


FIGURE 1.2 Prevalence of chronic conditions among the elderly in Bedele town, 2013. (N = 284)

Health service utilization

Data on health service utilization were available for 284 participants. Of these, 141 (49.6%) reported to have utilized health service whereas 143 (50.4%) reported not to have utilized health services in the last one year preceding the interview. Participants who did not utilize health service were defined as (1) those that never needed health care (those not sick), (2) those that needed health care in more than one year ago and (3) those that needed but could not obtain health care services.

From the chronic conditions point of view, majority 32.8% of the study participants with arthritis reported health care utilization in the last one year. This is the chronic condition which constituted the highest proportion of health care users of all the chronic conditions investigated. The proportion utilizing health service among individuals with chronic lung disease including asthma and Cataract was 14.8%, 11.6% respectively. The proportion of the study participants with hypertension, dementia and diabetes who utilized health services was range from 0% to 10% respectively (Figure 1.3)

Health service utilization was further assessed in three categories (none, one and more than one) in presence of the chronic conditions. The category of participants with at least one and more than one chronic condition comprised the largest proportion 30.6%, 12.7% respectively than those individuals utilized health care 6.3% none of the chronic conditions.(Figure 1.4)

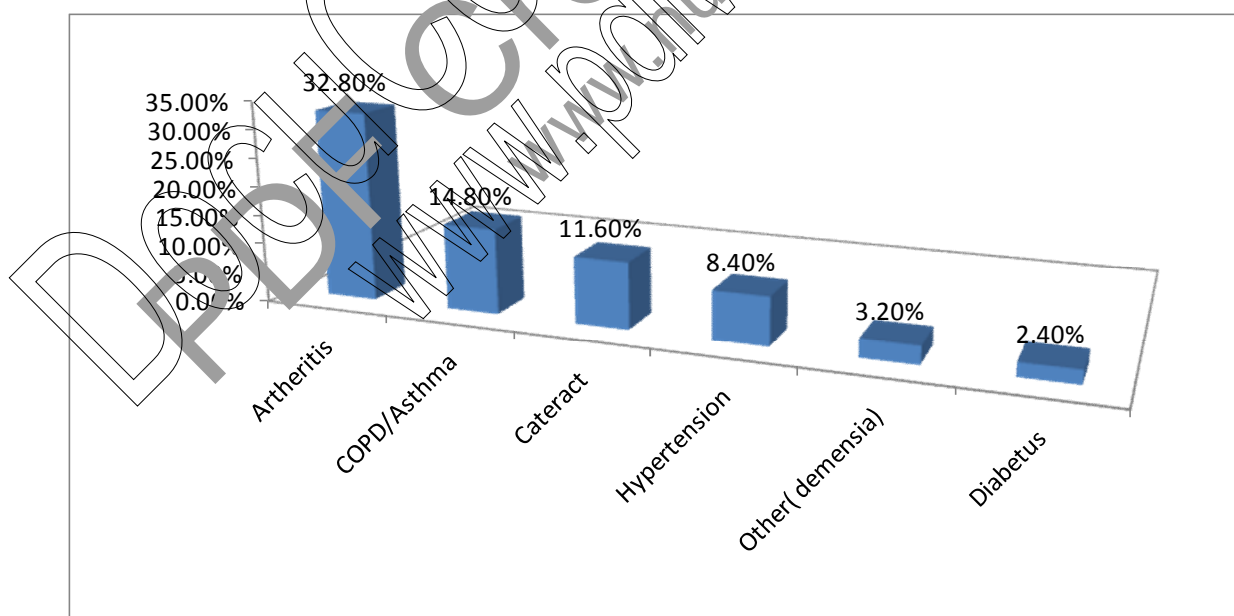


FIGURE 1.3 Percentage distribution of health service utilization by chronic condition (specific), in Bedele town, 2013, (N = 284)

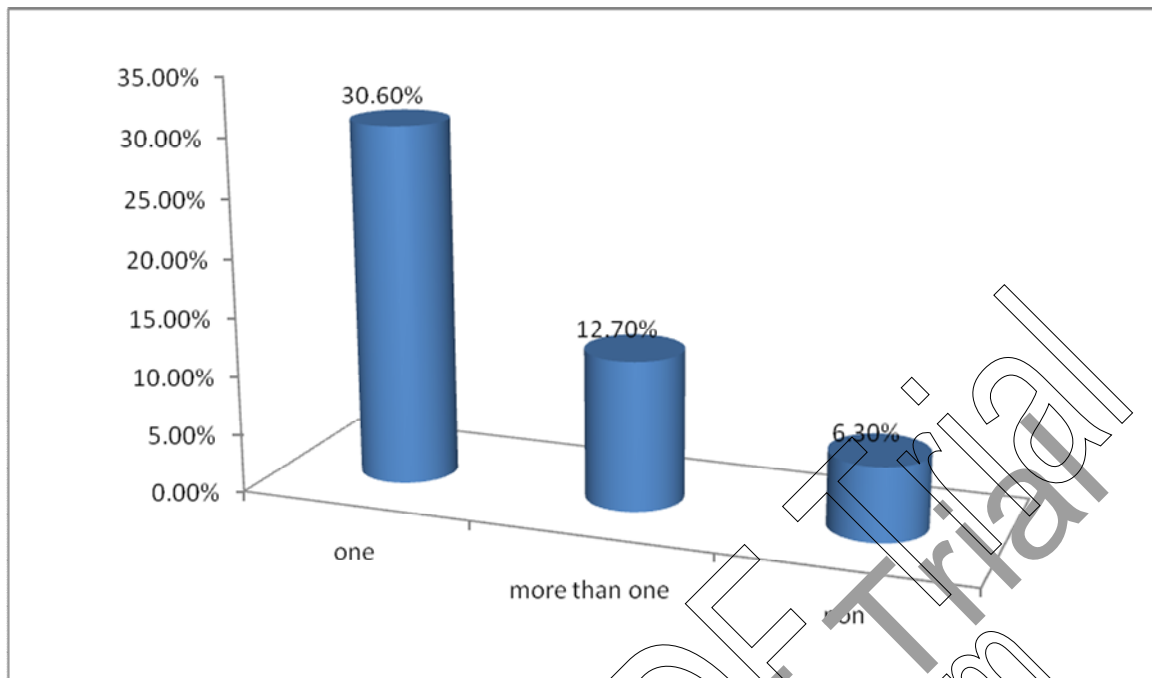


FIGURE 1.4 Percentage distribution of health service utilization by chronic condition (grouped), in Bedele town, 2013, (N = 284)

Reasons for not utilized health service

There are a lot of reason that hinder those individual who needed health care but could not obtain health care service. Among those reason lack of medical facility and equipment, financial problem, considering that ailment is not serious and other (attending spiritual and traditional medicine) were the main reason.

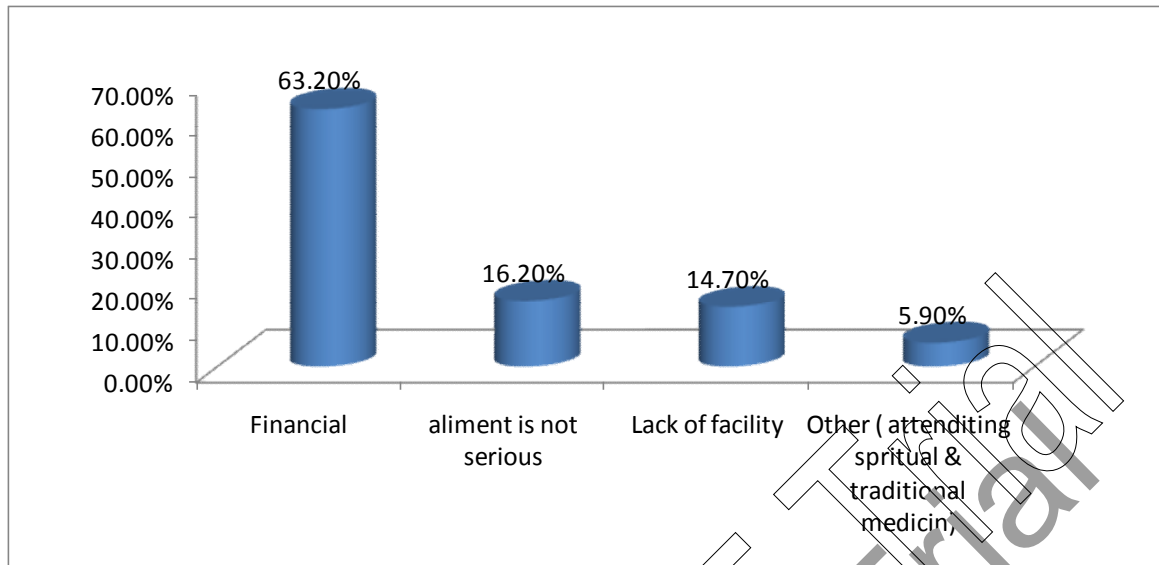


FIGURE 1.5 Percentage distributions of Subjective reasons for not utilizing health service among elderly, Bedele town, 2013.

The main reason for not utilizing health service among elderly in Bedele town was “financial problem” which is responsible for 63.2% of respondents. “Aliment is not serious” was responsible reason of 16.20% respondents, “lack of medical facility and equipments” as well as using traditional and spiritual alternative accounts for 14.7%, 5.9% respondents respectively.

In which this finding is supported by qualitative finding: As one of edir leader says that *“Health service provided in the town was not consider those with very low income group and who need higher health service. This condition may limit health service utilization of older adults and find for other alternative like go to spritual area to get relief from their aliment”*

Predisposing variables and health care utilization

The results of the predisposing factors for health service utilization are presented in table 1.2. Among these variables, health service utilization differed significantly by sex of Study participants, that means female participants utilized 52.6% while male participants utilized health service 45.1%. The study shows females’ health service utilization more than male participants.

Of the participants in the age groups 60 – 64, 65 – 69, 70-74, 75-79 & 80+ years, utilized health services 53.1%, 58.2%, 55.2%, 33.1% & 35.1% respectively. The proportion of participants in the age group 60 – 64, 70-74, 75-79, & 80+ years who utilized health care services was 5.1%, 3%, 25.1% & 23.1% respectively less than that among participants in the age group 65 – 69 years.

Education had its own impact on health service utilization, in which those individuals who had educated utilized health service 55.4% while 43.3% non educated respondents utilized health service. The proportion of health service utilization among who have had substance used but utilized health service and not substance used but utilized health service are 43.8%, 51.4% respectively.

TABLE 1.2 Distribution of the predisposing variables for health service utilization in the last 1 year among the elderly in, Bedele town, 20013, (N= 284).

Variables		Health care utilization in the last 1 year		
		Yes (n= 141)	No (n=143)	Total
Sex	Male	51(45.1)	62(54.9)	113(39.1)
	Female	90(52.6)	81(47.4)	171(60.2)
Age	60-64	52(53.1)	46(46.9)	98(44.5)
	65-69	46(58.2)	33(41.8)	79(27.8)
	70-74	16(55.2)	17(44.8)	29(10.2)
	75-79	7(33.3)	14(56.7)	21(7.4)
	≥ 80	20(35.1)	37(64.9)	57(20.1)
Ethnicity	Oroma	85(48.6)	90(51.4)	175(61.6)
	Amara	39(52)	36(48)	75(26.4)
	Tigre	8(53.3)	7(46.7)	15(5.3)
	Gurage	5(45.5)	6(54.5)	11(3.9)
	Dawro	2(66.7)	1(33.3)	3(1)
	Kefa	1(0.4)	0(0)	1(0.4%)
	Others	1(25)	3(75)	4(1.4)
	Religion	Muslim	11(36.7)	19(63.3)
Orthodox		113(51.4)	107(48.6)	220(77.5)
Protestant		17(54.8)	14(45.2)	31(10.9)
Catholic		0(0)	1(0.4)	1(0.4)
Others		1(0)	2(0.4)	2(0.7)
Marital status	Single	8(44.4)	10(55.6)	18(6.3)
	Married	63(50.4)	62(49.6)	125(44)
	Divorced	24(44.4)	30(55.6)	54(19)
	Widowed	46(52.9)	41(47.1)	87(30.6)
Education Status	Yes	82(55.4)	66(44.6)	148(52.1)
	No	59(43.4)	77(56.6)	136(47.9)
Substance use	Yes	28(43.8)	36(56.2)	64(22.5)
	No	113(51.4)	107(48.6)	220(77.5)

Table 1.3 presents information on health care utilization by enabling factors (i.e. financial capability, occupation, distance and availability of care giver). Financial capability which was assessed by asking whether a participant had enough or not enough money to meet their needs had its own effect on health service utilization. Around 75% who have had enough

money to meet their need utilized health service while 47.3% from those who do not have had enough money to meet their needs.

The proportion reporting health service utilization was 75 (26.4%) among those who had had any occupation compared to 59 (20.8%) among those who had none. About 40.6% utilized health service since health personnel (care givers) and facility are available while 14.10% had not utilized due to lack of health service providers (health personnel and facility). Among respondents who travel 10 km and above utilized health service were 12.7% while 13.1% were not utilized health service. Similarly those who travel less than 10 km 37.5% utilized health service were similar with those not utilized but travel the same distance.

TABLE 1.3 Distribution of enabling variables for health service utilization in the last one Year among the elderly, Bedele town, 20013, (N= 254)

Factors		Health care utilization in the last one years		
		Yes (n=141)	No (n=143)	Total
Money to meet needs	Enough	21(15)	7(5)	28(9.9)
	Not Enough	12(8.5)	135(95.7)	256(90.1)
Ever had an occupation (excluding housework)	Yes	5(26.4)	56(23.2)	141(49.6)
	No	59(20.8)	84(29.6)	143(50.4)
Availability of caregiver (health personnel and facility)	Yes	115(40.6)	103(36.4)	218(77.)
	No	35(8.8)	40(14.1)	65(23)
Travel distance to get health service site (Distance)	< 10 km	106(37.5)	106(37.5)	212(74.9)
	≥ 10 km	35(12.7)	37(13.1)	71(25.1)

Need variables and health care utilization

Table 1.4 presents analysis of health care utilization by need variables. Of the study participants reporting their health status as good, moderate and poor, 3.5%, 14.9% and 48.9% respectively reported health care utilization in the last one year. Those who rate their health status as poor are more likely to use health services than those who reported moderate and good health status.

Of the study participants who reported a medical history of at least one chronic condition, 63% utilized health care services compared to 1.8% of those who had no medical history of any chronic condition but utilized health care anyway.

Furthermore, of individual with sever disability was 61.1%, moderate disability 27.8% while individuals with mild disability reported 5.6%. This indicate that participant with severe disabilities utilized more health service than mild and moderate disabilities, as well as proportion of health service utilization of severely disabled individual were 55.5% times higher than those individual with mild disability.

The proportion of reported health service utilization was 29.6% among those who performed ADL independently while 19.7% and 0.4% for those who perform ADL dependent for one activity and dependent for greater than one activity respectively

From those respondents who have had cognitive impairment around 27% utilized health service only while the rest 42.2% not utilized health service. Those who do not had cognitive impairment but utilized health services are three times higher that is 73% than those have had and utilize health service.

As it is supported by qualitative study *“No special health service provided in our set up which focus on elderly people like children and mothers or youth. Even though chronic disease and anther old age related problems become prevalent, health service which provide full service that help to solve the problem is not available”* **from Health office of the town.**

TABLE 1.4 Distribution of the indicators for the need of health services in the last 1 year among the elderly in, Bedele town, 20013.

Factors		Health care utilization in the last 1 year		
		Yes_ (n= 141)	No (n=143)	Total
Self-reported health status	Good	10(3.5)	11(3.9)	21(7.4)
	Moderate	41(14.4)	32(11.3)	73(25.7)
	Poor	139(48.9)	51(18)	190(66.9)
Medical history of chronic conditions^a	Yes	179(63)	56(19.7)	235(82.7)
	No	5(1.8)	44(15.5)	49(17.3)
Disability	Mild	1(5.6)	0(0.0)	1(5.6)
	Moderate	5(27.8)	1(5.6)	6(33.3)
	Sever	11(61.1)	0(0.0)	11(61.1)
Difficulty with self-care (bathing, washing, dressing) in last 1 year	Independently	84(29.6)	75(26.4)	159(56)
	Dependent for one activity	56(19.7)	64(22.5)	120(42.2)
	Dependent for greater than one activity	1(0.4)	4(1.4)	5(1.8)
Cognitive impairment in the last one year	Yes	38(27)	61(42.7)	99(69.7)
	No	103(73)	82(57.3)	185(64.4)

Health care utilization was significantly higher among the study participants with a medical history of at least one chronic condition than participants without any of the chronic conditions (OR = 1.737; [0.425 - 2.562]; $p < 0.001$).

Older adult who currently not married were found to utilized health service more than those married currently (OR = 1.031, 95% CI: 0.793 - 1.340, $p = 0.458$), but this effect was not statistically significant.

Odds of respondents with history of education before utilized health service 26% more than those respondents no history of education (OR = 1.260, 95% CI: 1.005 - 1.579, $p = 0.028$).

Similarly odds of respondents had an occupation were found to utilize health service 28.9% more than those respondents who had no occupation [OR = 1.289, 95% CI: 1.005 - 1.654, $p = 0.029$] which is statically significant.

On the other hand, odds of study participants who had reported enough money to meet their need were 58.7% more likely utilized health services compared to participants who did not have enough money to meet their need. This effect was statistically significant (OR = 1.587; 95% CI = [1.236 - 2.037], $p = 0.004$).

The percentage of health service utilization was 69.5% higher among study participants in the above mean age group 69 years compared to the 30.5 % of health care utilization of those below mean age. This effect was statistically significant (OR = 1.127; [1.047 - 1.521]; $p < 0.009$).

Health care utilization was 1.4% higher among participants who travel less than 10km compared to participants who travel more than 10 km, but this effect was not statistically significant at the 5% significance level (OR = 1.014; 95% CI = [0.886 – 1.161], p = 0.473).

Study participants who reported their health status as moderate were 16% more likely to utilized health service compared to participants who were in good health status, but there was no statistical evidence for this effect (OR = 1.160; 95% CI = [0.673 – 2.019]; p = 0.153). However, participants who were in poor health status were significantly 57.% times more likely to utilized health care than those who were in good health status (OR = 1.574; 95% CI = [0.627 – 3.951]; p = 0.005). On the other hand, health care utilization was 41% higher among participants with poor health status compared to those in moderate health status. An inverse relationship is therefore noticed between health care utilization and health status. The lower the health status the elderly person perceives, the higher the likelihood of health care utilization.

TABLE 1.5 Significant associations between health service utilization and factors associated with health service utilization in the last 1 year among the elderly in, Bedele town, 20013.

Variables	Health service utilization %	COR (95%CI)	AOR (95%CI)
Medical history of Chronic Conditions			
No	97.1	1	1
Yes	2.7	1.657(0.025-1.852) *	1.737(0.425-2.562)*
Marital status			
Currently not married	55.3	1	1
Currently married	44.7	1.061(0.793-1.456)	1.031(0.793-1.340)
Ever been to school			
No	41.8	1	1
yes	58.2	1.160(1.105-2.879)	1.260 (1.005-1.579)*
Ever had an occupation			
No	46.8	1	1
Yes	53.2	1.389(1.115–1.754)	1.289 (1.005–1.654)*
Money to meet need			
Not enough	47.3	1.287(1.156–1.637) *	1.587(1.236_2.037) *
Enough	75		
Sensory impairment			
No	65.2	1	1
Yes	34.8	1.183(0.842 –1.663)	1.123 (0.641–1.861)
Age			
Above mean age	69.5	1	1
Below mean age	30.5	1.122(1.047-1.426)	1.127(1.047-1.521) *
Distance			
>10 km	24.8	1	1
≤10 km	75.2	1.016 (0.746–1.192)	1.014(0.886–1.161)

Availabilities of care giver			
No	17.9	1	1
Yes	82.1	1.140(1.024–1.476)	1.140(1.003–1.296)*
Self-reported health status			
Good	3.5	1	1
Moderate	14.9	1.126(0.673 –2.031)	1.160(0.673–2.019)
poor	48.9	1.524(0.727–2.951) *	1.574(0.627 –1.951) *

* Statically significant, AOR adjusted odd ration, COR crud odd ratio.

DocuCreate PDF Trial
www.pdfvizard.com

CHAPTER SIX

DISCUSSION

The social and biological characteristics of the elderly make them a unique population as manifestations of ill health are sufficiently distinct from the rest of the population. This study has highlighted the utilization of health services in this unique group is very important for further intervention endeavors.

As indicated in this study health service utilization in the last one year was found to be significantly associated with age group (in years) of the study participants, occupation, educational history, medical history of chronic conditions, self-reported health status.

In this study about over half (68.3%) of respondent's fall sick often in last one year out of which only 47.5% visit health facility when seriously sick. In Contrast the report from Edo, Nigeria, were ninety percent elders got sick and 68% got health service (15). In both studies the figures show slight differences, which could be explain by the number of patients in both places and accessibility of healthy services. Over all this could indicate that health services utilization tend to be less among elderly and reporting health problems.

Age as one of the predisposing variables influenced health service utilization in such a way that, study participants above mean age group (69 years) were 12.7% more likely to utilize health services than those below mean age group. More than half of respondents 62.3% were in 60 - 69 age group which was nearly similar with 50% of North Dakota finding. In addition to that, around 52.6% of respondents were female which similar result with 57% of study done in Mexico which is consistently supported by 54% of North Dakota (17, 23, 24). This may be due to life expectancy of female is greater than male (women's live long than male).

With respect to the indicators for enabling factors (i.e. financial problems, occupation, distance) had their own contribution on health service utilization of older adults. In this study, nearly half of 47.3% of respondents were not utilized health service due to lack of enough money which was almost similar with 53% study done in Nigeria and also supported by 34.3% of study done in kanchanaburi (33). Cost of care is a significant and persistent barrier among elderly people, this is because of most-old are highly vulnerable to poverty and dependence as they can no longer produce sufficiently by themselves to meet their needs.

Those individuals travel less than or equal to 10 kilometers from the nearest health center or hospital had a 1.4 times higher chance of using the health services as compared to those travel more than 10 kilometers away, this finding was nearly consistent with 2.9% of other studies in Ethiopia (32).

One of indicator of the need variables with a significant association with health care utilization was a medical history of chronic conditions. There are few studies carried out in Africa including Ethiopia in this field and to the best of my knowledge no one so far has investigated the impact of the chronic conditions on health service utilization in elderly in study area. In this study, individuals with a medical history of at least one chronic condition were 1.7 times more likely than those without any of the chronic conditions to utilize health care services, which is nearly similar with 2.3% of study done in Ghana (38). Health care utilization was also higher in those with at least one chronic condition 30.6% than that with none of the conditions, which is almost similar with study done in Bangladesh, indicates that 44% (31). Chronic conditions have been consistently acknowledged in many studies to adversely affect lives of the elderly people and consequently influence their healthcare use.

The poorer the health status the elderly person perceived, the higher was the likelihood of healthcare utilization. The finding of this study also shows that, study participants who rated their health status as poor were utilized health service 48.9% which is similar result with study done in Ghana 42.9% (38).

STRENGTH AND LIMITATION

Strength

- This study used qualitative method to supplement the quantitative result and also to explore factors that are not addressed by quantitative method.
- The study has high response rate (100% response)
- This study is probably the first/ among the pioneer research related to older adult health service utilization in Ethiopia. It will be helpful as baseline information for other researchers.
- The sampling method used was simple random sampling and the sampling frame has included all kebeles in the town therefore generalization of the result can be made.

Limitation

- Few literatures were available. In addition there is no similar published study conducted in our country, therefore comparing results made it difficult.
- Recall bias from respondents.
- Some responses for questions like sensory impairment can depend on respondents.
- There were no statistics available to document the previous level of health care utilization of older adults in the study area as well as in Ethiopia.

CHAPTER SEVEN

CONCLUSION AND RECOMMENDATION

CONCLUSION

In conclusion, this study demonstrated that the most important factors influencing health service utilization of older adult were age, economic problems, education, self-reported health status and need for care factors (chronic condition) in nature.

- The main reasons of older adult for not utilized health service were lack of money, support and availability of service.
- Reasons assembled through interview shows that absence of full health service which is affordable and accessible for older person like other age group.

RECOMONDATION

Based on the above conclusion:

For District Health Office and Health Facilities

- In addition to providing free health service like other countries (Senegal and South Africa), Facilitate conditions for older persons in order that they are given priority in getting medical services at speciall a ranged schedules at home, in hospitals and other health institutions.
- Older persons face many health problems associated with longevity. On top of that, they are not beneficiaries of available health services. As result of these, it is difficult for them to utilize their potential and to effectively play their social roles. Considering the fact that older persons have special health problems, it is proper to find ways of providing the required services.

For Batele District Administration office

- Give special attention through policy supported measures to enable poor and those who don't have enough money older persons receive free medical services.
- Co-ordinate concerned government and non-government organization so as to enable them contribute their share in improving utilization of health service.

For NGOs

- Should support health offices and facilities by supplying materials and training of health care providers.

For Jimma university college of public health and medical science

- Developing a curriculum aimed at increasing the number of professionals in the field of ageing (geriatrics) to deal effectively with health problems of older persons.

DocuCreate PDF Trial
www.docucreate.com

REFERANCE

1. Das, S. The role of family in health and healthcare utilization among elderly. 2012; 2(6); 9.
2. Narapureddy, B., Kh, N., & Madithati, P. Socio-demographic Profile and Health Care Seeking Behaviour of Rural Geriatric Population of Allahabad District of UP : A Cross Sectional Study. *International Journal of Med. Sci and Public Health*. 2012; 1(2): 7–12.
3. Abdulrahem.I.S., "Health Needs Assessment and Determinants of Health-Seeking Behaviour among Elderly Nigerians: A House-Hold Survey" *African Journal of African Medicine*, 2007; (6): 58-63.
4. Capezuti E., Boltz, M., Cline, D., Dickson, V. V., Rosenberg, M., Wagner, L., Shuluk, J., et al. Nurses Improving Care for Health system Elders – a model for optimizing the geriatric nursing practice environment. *Journal of Clinical Nursing*. 2012; 21: 3117–3125.
5. Tao P., Lin M., Peng L., Lee W., Lin F., Lee C., Chen C., et al. Reducing the burden of morbidity and medical utilization of older patients by outpatient geriatric services: Implications to primary health-care settings. *Geriatr Gerontol Int*. 201; 12: 612–621.
6. Bloom, D.E., Carrington, D., and Fink, G. Implications of Population Aging for Economic Growth : PGL A Working Paper. 2011: 64.
Available at <http://www.hspr.harvard.edu/pgda/working.htm>
7. Becker, D. C., Curtis, J., Cary, C., & Saag, K. G. Health Services Utilization After Fractures: evidence From medicare. *J Gerontol A Biol Sci Med Sci*. 2010 September; 65 (9):1012–1020.
8. Environmental Protection Authority, Federal Democratic Republic of Ethiopia, 2012.
9. Sanjel, S., Mudbhari, N., Risal, A., & Khanal, K. The Utilization of Health Care Services and their Determinants Among the Elderly Population of Dhulikhel Municipality. *kathmandu university medical journal*. 2012; 10(1); 2–7.
10. Care I, Uwakwe R, Ibeh Ñ. C. C., Modebe, Ñ. A. I., Bo, Ñ. E., Ezeama, Ñ. N., Njelita, Ñ. I., et al. (2009). The Epidemiology of Dependence in Older People in Nigeria: Prevalence, Determinants, Informal Care, and Health Service Utilization.

- A 10/66 Dementia Research Group Cross-Sectional Survey. 2009; 57(9); 1620-1627.
11. Secretary-, U. N., & States, M. The voices of older persons. 2002; 133–157.
 12. Emerta Asaminew. Adopting Private Pension System in Ethiopia. 2010; 10(1), 7–13.
 13. Supranee C. Elderly health service utilization: the study of Kanchanaburi demographic surveillance system. Fac. Of Grad. Studies, Mahidol Univ. M.A. (Population and Social Research) june 3 2005.(unpublished).
 14. Poor, P. N. Pattern of utilization of health services among old age groups in, Turkish Journal of Geriatrics. 2009; 12(1): 13–17.
 15. J. Agbogidi, C. Azodo: Experiences Of The Elderly Utilizing Healthcare Services In Edo State. The Internet Journal of Geriatrics and Gerontology. 2010; 5(2); 5.
 16. Aboderin I. Understanding and Advancing the Health of Older Populations in sub-Saharan Africa: Policy Perspectives and Evidence Needs. Public Health Reviews. 2010; 32(2); 357-376.
 17. González-González et al. Health care utilization in the elderly Mexican population: Expenditures and determinants. BMC Public Health. 2011; 11:192.
 18. Debra S, Marc E, Laurence Z, David H, Roy T, Caren J. The Vulnerable Elders Survey : A Tool for Identifying Vulnerable Older People in the Community. 2001; 49(12); 1691 – 1 99.
 19. Ho, S. C., Chan, A., Woo, J., Chong, P., & Sham, A. Impact of Care giving on Health and Quality of Life: A Comparative Population-Based Study of Caregivers for Elderly Persons and Non caregivers. J Gerontol A Biol Sci Med Sci. 2009; 64(8); 877–879.
 20. Exavery, A., Klipstein-grobusch, K., & Debpuur, C. (n.d.). Self-rated health and healthcare utilization among rural elderly Ghanaians in Kassena-Nankana district, 1-31.
 21. European countries, Bulletin of the World Health Organization 2004; 82:106-114.
 22. Brown, C., Ph, D., Barner, J., Ph, D., Bohman, T., Ph, D., Richards, K., et al. Original Article Andersen Health Care Utilization Model for Complementary and Alternative Medicine (CAM) Use in African Americans’ of alternative and complementary medicine. 2009; 15(8); 911–919.

23. Fleury, M., Grenier, G., Bamvita, J., Perreault, M., Kestens, Y., & Caron, J. Comprehensive determinants of health service utilization for mental health reasons in a Canadian catchment area: *International Journal for Equity in Health* .2012; 11(1); 20.
24. Mattson, J. Transportation, Distance, and Health Care Utilization for Older Adults in Rural and Small Urban Areas. 2010; 2(3): 26 - 38.
25. Sunha Choi, Longitudinal Changes in Access to Health Care by Immigrant Status among Older Adults: The Importance of Health Insurance as a Mediator: *The Gerontologist*. 2011; 51(2): 156–169.
26. Abdulraheem I S, Oladipo AR & Amodu MO. Prevalence and Correlates of Physical Disability and Functional Limitation among Elderly Rural Population in Nigeria, *Journal of Aging Research*. 2011. 369894; 13. doi:10.4061/2011/369894
27. Goodlin S., Boulton C., Bubolz T., and Chiang L. "Who Will Need Long-Term Care?: Creation and Validation of an Instrument that Identifies Older People at Risk," *Disease Management* 7 (2004).
28. Kalam I.M.S. and Khan H.T.A., "Morbidities among Older People in Bangladesh: Evidence from an Ageing Survey," *BRAC University Journal III*.2006; 75-83.
29. Yarlani Balarajan, S Selvaraj, and S V Subramanian. Health care and equity in India. *Lancet*. 2011; 377(9734): 505-515.
30. Fernández-MG, Rodríguez V, and Rojo F. "Health services accessibility among Spanish elderly; Madrid Spain," *Social Science & Medicine* 50 (2000): 17-26.
31. Kalam I.M.S) and Khan H.T.A., "Morbidities Among Older People in Bangladesh: Evidence from an Ageing Survey," *BRAC University Journal III*. 2006; 75-83.
32. Mattson, J. Transportation, Distance, and Health Care Utilization for Older Adults in Rural and Small Urban Areas. December 2010.
33. Maseen et al. **BMC: self assessed health among Thai elderly: *Geriatrics*. 2010; 10:30.**
34. Elderly health service utilization: the study of kanchanaburi demographic surveillance system: 2005.
35. Murata C., Yamada T., Chen C., Ojima T., & Hirai H. Barriers to Health Care among the Elderly in Japan. *Int. J. Environ. Res. Public Health*. 2010; 7; 1330-1341. doi:10.3390/ijerph7041330.

- 36.** T. T. Awoyemi¹, O. A. Obayelu and H. I. Opaluwa: Effect of Distance on Utilization of Health Care Services in Rural Kogi State, Nigeria: *J Hum Ecol.* 2011; 35(1): 1-9.
- 37.** Fitsum G, Challi J, Belaineh G. Health services utilization and associated factors in jimma zone, south west Ethiopia. *Ethiop J Health Sci.* 2011; 21(4); 91–100.
- 38.** Chuks J. Mba. Population Ageing in Ghana: Research Gaps and the Way Forward: *Journal of Aging Research.* 2010; (672157); 8.
- 39.** Isabella Aboderin. Advancing Health Service Provision for Older Persons and Age-related Non-communicable Disease in sub-Saharan Africa: Identifying Key Information and Training Needs: *Journal of African Research on Ageing Network.* 8-10 July 2008.

ANNEX I

Qualitative Study Result

A total of seven respondents were participated in the interview. Three from governmental and nongovernmental organization where as four respondents were from family members. The respondents 'age range was in between 18- 60 years and respondents had different responsibility in the community. The respondent opinion and experience was written as follows:

In general, health service provision for older people in our setting is not well known, organized, and satisfied manner. A lot of things can hinder to give adequate, well-organized health service which can address all health related problem for older people. The reasons I suspect are: 1- No especial health service provided in our set up which focus on elderly people like children and mothers or youth is one. 2- Even though chronic disease and another old age related problems become prevalent, human power (specialized professionals) and material that help to solve the problem is not available. 3- Lack of adequate support and attention from nongovernmental, nongovernmental organization like other age group, example children and youth. 4- Older people by themselves not want to utilize health service unless it is free or less price health service. In addition older people attitude towards health service can affect utilization of health service.

Respondents from Health office of the town

Health service utilization of older people may be affected by their characteristic. That is they had no capable to tolerate as other age group to stay and get what they want from health service providers as other age group because of their age as well as due to their disease condition. Due to their age they may not recognize health service cost today and unable to pay and get appropriate treatment, instead they go to traditional healers and spiritual are to get relief from their ailment.

Respondent from administrative of the town

Even though they have had money to get treatment they can't consider good alternative to go to health institution and take appropriate treatment for their ailment because they assumed or recognize that taking medication is not the real alternative to be free from their ailment. Most of older people have less awareness on utilizing health service and prevent adverse health outcomes related to no utilization of health service or less utilization of health service. Not

well coming of health Professionals also affect utilization of health service of older. Lack of money, and using traditional medication may hinder them.

Respondent from family member

Free health service is provided for those who have no any income and had no supporter after they get paper of witness from the Keble, this consideration couldn't applicable to those who had no any support but have had very low income group and for those who need higher health service. This condition may limit health service utilization of older adults and find for other alternative like go to spiritual area to get relief from their ailment.

Respondent from nongovernmental organization like edir

Summary of Qualitative Study Result

The data collected from interviewees was summarized thematically by identifying the core ideas they have responded. The whole information is summarized into three themes.

➤ Organizational Factors (Health care system)

Most of interviewees have described that health institution environment was not suitable for older adult to utilize health service. Health institutions were not able to afford appropriate health service needed for older as well as for other age group. For example, department give service for older adult including other age group like chronic illness, professionals take trained on old age related problem were not available. The available departments were not providing special considerations for older age health service.

Higher officials as well as other governmental and nongovernmental organization were not concentrated on the health service utilization of older adults and the benefit of service on the patients' outcome, risk of not utilizing in general health care system. They were only working for the successful accomplishment of overall health services leaving older health services apart.

➤ Characteristics of older person

Knowledge

Most of the respondents agreed that knowledge is a determinant factor that could influence health service utilization. Some respondents believed that older people have not obtained adequate amount of knowledge about the purpose of utilizing health service. Lack of

knowledge about the potential benefits and risk were had its own influence on older less likely to utilize health service.

Lack of recognition

Older people perceived that there was absence of recognition or as they neglected by others (family members and other community members). This perception had highly deviated health service utilization of older people. Community responsible body were less likely to advocate for health service utilization of older yet they were not considered as they could not contribute anymore for family and community. This made older people give more attention or preference to traditional and religious treatment than using modern health service.

DocuCreate PDF Trial
www.docucreate.com

ANNEXE II

QUESTIONNAIRES JIMMA UNIVERSITY

COLLEGE OF PUBLIC HEALTH AND MEDICAL SCIENCES DEPARTMENT OF ADULT HEALTH NURSING.

Questionnaire for adult age 60 years and above on their determinants of health service utilization and associated factors in Bedele town, Ilubabora zone, south west Ethiopia.

IDENTIFICATION

Address/Kebele ----- house number-----

Address/district of the institution----- Institution code No -----

Consent form to study Participants

Hello. How are you? My name is _____ I am here on behalf of the Jimma University post graduate research team, the objective of this study is to identify factors that affect health service utilization among older adults in Bedele town, Ilubabor zone, this is important particularly to know factors that have influence on health service utilization in older age group of the population in general. You are selected to participate in this study just by chance. Your willingness and cooperation for the interview is helpful in identifying problems related to the health service utilization and will help us to achieve the objective of the study.

I would like to interview you a few questions about your experience and opinion of health service utilization because of you are in this age category. It will take about 20-40 minutes. The information you provide us is completely confidential and will not be shared with anyone else without your consent. Your name or any identifying information will not be registered. You may refuse to answer any question and choose to stop the interview at any time. The information you provide us is extremely important and valuable, as it will help the Government, health facilities and other concerned bodies to improve services delivery.

Do I have your permission to continue?

1- Agree

2 – Disagree

If the answer is Agree, thanks! Conduct the interview.

If the answer is Disagree, Thanks! Proceed to the next eligible client.

Respondent House number _____

Date of interview _____ Time started _____ Time finished _____

Supervisors name _____ signature _____

DocuCreate PDF Trial
www.docucreate.com

PART I – QUESTIONS ON PREDISPOSING FACTORS (SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS)

Please select and write (circle) the choice of the respondent for the following questions from the listed alternatives.

S.No	Questions	Response	skip
100	Sex	1 Male 2 Female	
101	Ageyears	
102	Ethnicity	1. Oromo 2. Tigre 3. Amhara 4. Gurage Others(specify-----)	
103	Religion of the respondent	1. Orthodox 2. Muslim 3. Protestant 4. Catholic Other (specify-----)	
104	What is your marital status?	1-Single 2-Married 3- Divorced 5. 4- Widowed	
105	Are you educate ?	1 yes 2. No	
106	What is the highest level of education you have attained?	1. Elementary school(1-8 th) 2. Secondary school(9-12 th) 3. Collage/ University	
107	Have you ever used any substances? (explain for the subject: , Tobacco , Alcohol)	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	
108	If “yes” to Q12, which of the following do use	<input type="checkbox"/> .Chat <input type="checkbox"/> . Alcohol <input type="checkbox"/> .Tobacco <input type="checkbox"/> .Anther....	

PART II – QUESTIONS RELATED TO ENABLING

200	Your house is (Resident)	<input type="checkbox"/> . Private <input type="checkbox"/> . Rent <input type="checkbox"/> . Other	
201	What is your yearly household income from all sources?	1. Per month _____ 2. Per year _____	
202	Money to meet needs	<input type="checkbox"/> .Enough <input type="checkbox"/> .Not enough	
203	Home	<input type="checkbox"/> .Owen <input type="checkbox"/> .Rent <input type="checkbox"/> .Other specific	
204	Ever had Occupation	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	
205	If yes to Q204 which one?	1.Governmental employee 2. Farmer 3. Daily laborer 4.Merchant 5.house wife 6.Retired 7. Other(specify-----)	
206	Living arrangements	<input type="checkbox"/> .Living alone <input type="checkbox"/> . Live with others	
207	If answer Q no 206 is Live with others, who are they?	<input type="checkbox"/> .Family(children) <input type="checkbox"/> .Husband/ Wife <input type="checkbox"/> .Relatives <input type="checkbox"/> .Other (specify)	
208	Family support	<input type="checkbox"/> .Highly <input type="checkbox"/> .Moderate <input type="checkbox"/> .Low <input type="checkbox"/> .No	
209	Do you have a caregiver when you become ill?	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	

210	If yes to Q No. Who give you care?	<input type="checkbox"/> . Spouse <input type="checkbox"/> .Children <input type="checkbox"/> .Others	
211	Being able to afford food	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	
212	Time it takes to get to the health service site	
213	Bing able to pay for medical service	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	

PART III - QUESTIONS RELATED TO NEED FOR CARE FACTORS

Chronic illness and their health services utilization

300. In the last 5 years, have you had or have you been told by a doctor or health professionals that you have any of the following conditions or health problems?

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Heart, cardiovascular or circulatory problem
(high Bp or high cholesterol) | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Diabetes or high sugar level | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Arthritis | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Asthma (Copd) | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Cancer | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Dementia | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Other serious health problem | <input type="checkbox"/> | <input type="checkbox"/> |

301. If yes to Q NO-300, have you taken treatment for this ailment?

- .yes .no

302. If yes to Q NO-301, do you have a regular medical visit or physician that you go to?

- Yes No

303. How many times you go to health institution in the last 12 months?

_____ times

How theses visits is for general health examination or health check up?

304. If yes to Q NO-300, how long has it been?

- . Less than one month.

. One month to six month

. Six month to above.

. Don't know

305. How long you stay in hospital (health institution) to get treatment for ailment?

. 30' - 1hr.

. 2hr.- 3hr

. Above 3hr.

. Days

306. How far did you travel to reach the health facility to get the treatment for your ailment?

_____ Kms.

_____ Hours on foot

_____ transport travel.

a. Over the past year, how many trips did you miss or delay because you distance?

None

1-2

3-5

6-10

11-20

>20

Routine health checkups

Chronic health care visits

Emergency care

b. Approximately what percentage of your medical appointments is out-of-town?

.0-10%

.10-25%

.25-50%

.50-75%

.75-100%

307. How much, on average do you pay for this treatment?

.....

308. Who pays for your treatment?

. Self

.Spouse

.Son

.Daughter

.Other

309. If your answer is no to Q No 301, what is the main reason you are not receiving any treatment?

. No medical facility available facilities

.Lack of laboratory

- Facility available but lack of faith
- Economical (financial) problem
- Luck of transportation
- Long waiting time
- Ailment is not very serious
- Other

310. Would you use any other alternative other than to go to health institution to get relieve from your problem (disease)?

- Yes
- No

311. If yes to Q no 208, what are your alternatives?

Self reported health status

312. In general, would you say your health is

- Poor
- Fair
- Good
- Very Good
- Excellent

313. Do you have any disabilities? Yes No

314. If so, please indicate your disabilities: _____

315. Would you consider your disability to be?

- Mild
- Moderate
- Severe

316. How you perform ADL listed below?

greater	Independently	Dependent for One activity	Dependent for than one activity
---------	---------------	-------------------------------	------------------------------------

- | | | | |
|------------------------|--------------------------|--------------------------|--------------------------|
| a. Bathing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Eating | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Dressing (clothing) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Walking | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Combing hair | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- f. Toileting
- g. Cooking
- h. Shopping for personal item:
- i. Managing money
- j. Difficulty of picking up things
- k. Other specific

317. Would you have any difficulty of listening, remembering... etc (Cognitive impairment)?

- . Yes . No

318. If you say yes to Q no 317, do you go health institution to get treatment?

- . Yes . No

319. Where do you go to get treatment other than health institution? If your answer is no to Q no 318.

PART III- HEALTH CARE UTILISATION

No	Questions	Possible choices/Answers	Remark
400	Were you sick for any time during the last one year?	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	
401	What was your ailment each time?	Yes.....	
402	Did you go health institution to get any treatment for your illness last one year?	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	
403	If your answer is no to Q No 402, what is the main reason you are not receiving any treatment (not going to health institution)?	<input type="checkbox"/> .Lack of facilities <input type="checkbox"/> .Economical problem <input type="checkbox"/> . Ailment is not very serious <input type="checkbox"/> . Other (mention).....	
404	If yes to Q no 402, where did you go for treatment first?	1. Clinic 2. Pharmacy 3. Health center 4. Private hospital / clinic 5. Govt hospital 6. Ritualistic treatment 7. Other	
405	Why did you choose the mentioned health facilities?	1. Less waiting time 2. Availability of drugs 3. Quality of care 4. Proximity 5. low price	

		6. other(specify)	
406	How much time you wait to meet the doctor? min/hr	
407	How much time you take to reach health institution?	By foot.....min/hr By car.....min/hr Other means..... min/hr	
408	Who accompanied you during each episode?	1. None 2. Children 3. Other family member	
409	How much you eventually pay out of pocket for this visit, including prescriptions you received (Total)?	___ birr	
410	Is the available in all times in gov't health institution?	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	
411	Are the medicines (health service) are provided in free of cost in gov. health institution?	<input type="checkbox"/> .Yes <input type="checkbox"/> .No	

QUALITATIVE QUESTIONS

1. How do you see health service utilization of elderly in relation to other age group?

2. What is the main reason that hinder older person not to utilize health service?

3. What measures needed to solve those problems?
