



Choice of healthcare providing facility and associated factors among government employees in Nekemte town, Western part of Ethiopia, 2015

A research submitted to Jimma University College of health Sciences, Department of Health Economics, Management and Policy, for partial fulfillment of Master Degree of public health in Health service Management

By Muluneh Getachew (BSc.)

JIMMA, ETHIOPIA

June, 2015

**Choice of healthcare providing facility and associated factors among
government employees in Nekemte town, Western part of Ethiopia, 2015**

By

Muluneh Getachew (BSc.)

Advisors:-

Dr. Mirkuzie Woldie (Associate Prof., MD, MPH)

Mr. Ayinengida Adamu(BSc, MPH)

Abstract

Background: - A growing literatures on health care demand has pointed out that individuals are not passive recipients of health services; rather they make active choices about whether or not to make use of health services provided. The choice of a healthcare facility is not as straight forward as it usually seems. The assumption is that patients want high-quality care at the cheapest rates and choose centers that best fit their needs and preferences.

Objective: - To assess level of choice for public or private healthcare providing facility and associated factors among government employees in Nekemte town, 2015.

Method: - The study was conducted in Nekemte town, which is located 334km to the west of Addis Ababa. Institution based cross-sectional study design was used. A simple random sampling technique was employed to select study participants and data were collected using a semi-structured interviewer administered questionnaire. Logistic regressions models were fit to determine presence of statistically significant association between independent variables and the outcome variable at P value < 0.05 and OR with 95% CI.

Results: - Three hundred fourty-six government employees participated in the study which yield response rate of 95.8%. Government healthcare facilities were preferred by 57.2% of the study participants while the remaining 42.8% were chosen private facilities. Reasons for choice of public facilities were cost of health services and availability qualified personnel's. While for those participants who chosen private facilities were availability qualified personnel's and short waiting time. In this study factors associated with the choice of usual healthcare providing facilities were include good patient-provider interaction (AOR=3.19, 95%CI: 1.87, 5.43), good cleanliness of facility (AOR=1.84, 95%CI: 1.12, 3.03), satisfaction (AOR=2.30, 95%CI: 1.33, 3.98) and healthcare expenditure of individuals (AOR=1.98, 95%CI: 1.14, 3.44).

Conclusion: - More than half of government employees were chose public health facility as their usual health care provider. However, there is a room for quality improvement in the public health facilities especially on patient-provider interaction, cleanliness of facility and satisfaction of consumers. Therefore, this finding has important policy implication since changes in cost of health service and perceived quality would mean changes in client satisfaction as well as their choice.

Key words: choice of healthcare providing facility, perceived quality, satisfaction

Acknowledgement

I would like to express my deepest appreciation and sincerely thanks to my advisors, Dr. Mirkuzie Woldie (Associate Prof., MD, MPH) and Mr. Ayinengida Adamu (BSc, MPH) for their constructive comments, suggestions and friendly approach since the beginning of this research.

I would like express my grateful thanks to Jimma University for sponsoring this research.

I would like to express my gratitude to department of Health Economics, Management and Policy for providing me this golden opportunity to do this research.

I would like to express my appreciation to Nekemte town government employees for their willingness and participation on this study.

I would like to thank to Nekemte town Health office for providing me necessary information on healthcare providing facility in the town and material support.

I would like to acknowledge Civil Service office for providing me necessary information on study participants.

I am also grateful to my classmates and friends

Acronyms/Abbreviations

AOR- Adjusted Odds Ratio

BPR- Business process Reengineering

CI- Confidence Interval

COR- Crude Odds Ratio

HSDP- Health Sector Development Plan

IRB - Institutional Review Board

KMO - Kaiser-Meyer-Olkin

NGOs - Non-governmental Organization

OOP- Out-Of-Pocket

OR- Odds Ratio

PCA- Principal Component Analysis

PHCU- Primary Health Care Unit

WHO - World Health Organization

Table of Contents

| | |
|--|------|
| Abstract..... | II |
| Acknowledgement | III |
| Acronyms/Abbreviations | IV |
| List of tables..... | VII |
| List of Figures | VIII |
| CHAPTER ONE..... | 1 |
| 1. Introduction | 1 |
| 1.1. Background | 1 |
| 1.2. Statement of the problem | 3 |
| 1.3. Significance of the Study | 5 |
| CHAPTER TWO | 6 |
| 2.1. Literature review | 6 |
| 2.2. Conceptual framework..... | 10 |
| CHAPTER THREE | 11 |
| 3. Objective | 11 |
| 3.1. General objective | 11 |
| 3.2. Specific objectives | 11 |
| CHAPTER FOUR..... | 12 |
| 4. Methods and Materials..... | 12 |
| 4.1. Study area and period | 12 |
| 4.2. Study design | 12 |
| 4.3. Source population..... | 12 |
| 4.4. Study population..... | 12 |
| 4.5. Sample size determination..... | 12 |
| 4.6. Sampling technique and procedure..... | 13 |
| 4.7. Study Variables..... | 13 |
| 4.7.1. Dependent variable | 13 |

| | |
|---|----|
| 4.7.2. Independent variables | 13 |
| 4.8. Development of data collection tool..... | 13 |
| 4.9. Data collection procedure..... | 15 |
| 4.10. Data analysis procedure | 15 |
| 4.11. Operational definitions..... | 16 |
| 4.12. Ethical Considerations | 17 |
| 4.13. Data quality management | 17 |
| 4.14 . Dissemination plan | 18 |
| CHAPTER FIVE | 19 |
| 5.1. Results..... | 19 |
| CHAPTER SIX..... | 31 |
| 6.1. Discussion | 31 |
| CHAPTER SEVEN | 34 |
| 7.1. Conclusion | 34 |
| 7.2. Recommendation | 35 |
| Reference | 36 |
| Annex 1: Tables of Factor analysis..... | 40 |
| Annex 2: Table show number of Government Employees per their Strata | 44 |
| Annex 3: English version questionnaire | 45 |
| Annex 4: Translated questionnaire (Afan Oromo) | 51 |

List of tables

| | |
|--|----|
| Table 1 Demographic and socio-economic characteristics of the government employees in Nekemte town administration, 2015 | 19 |
| Table 2 Reasons of government employees' for choice of their usual health care providing facility in Nekemte town administration, 2015 G.C. | 22 |
| Table 3 Frequency and percentage distribution of responses on patient-provider interaction component by government employees of Nekemte town, 2015 G.C | 23 |
| Table 4 Frequency and percentage distribution of responses on communication skill of provider component government employees of Nekemte town, 2015 G.C. | 24 |
| Table 5 Frequency and percentage distribution of responses on Cleanliness of Facility component by government employees of Nekemte town, 2015 G.C. | 25 |
| Table 6 Frequency and percentage distribution of responses on satisfaction component by government employees of Nekemte town, 2015 G.C. | 26 |
| Table 7 Socio-economic and demographic characteristics of respondents' association with their usual health care providing facility..... | 27 |
| Table 8 perceived quality of care and satisfaction level of respondents' association with their usual health care providing facility among employees of Nekemte town, 2015 G.C. | 28 |
| Table 9 Logistic regression for factors associated with choice of health care providing facility among government employees Nekemte town, 2015 G.C. | 29 |
| Table 10 Communalities of each item | 40 |
| Table 11 Total variance explained by the five extracted factors of the scale | 41 |
| Table 12 Representation of rotated factor loading of each item of perceived quality at usual healthcare providing facility, 2015 | 42 |
| Table 13 Reliability of each component by using scale if item deleted | 43 |
| Table 14 Total number of Government Employees of Nekemte town Administration, 2015 G.C | 44 |

List of Figures

| | |
|--|----|
| Figure 1: conceptual framework developed for the choice of healthcare providers among government employees of Nekemte town administration 2014 G.C. | 10 |
| Figure 2 Choice of healthcare facilities of government employees in Nekemte town administration, 2015 G.C. | 21 |

CHAPTER ONE

1. Introduction

1.1. Background

Health is central to well-being and an essential for successful development. Adequate utilization of healthcare services is important to sustain a quality life. Economic productivity of any nation depends mainly on the health of its labor forces. This fact dictates that any nation desire productivity must put in place policies to guarantee adequate access to quality healthcare (1).

A growing literatures on health care demand has pointed out that individuals are not passive recipients of health services; rather they make active choices about whether or not to use of provided health care services (2).

Choice of healthcare providing facility is defined as the process of determining what healthcare facilities are available and then choosing the most preferred one according to consistent criteria to maximize utility for achieving their objective or solving their health problem (3).

The choice of a healthcare facility is not as straight forward as it usually seems. The assumption is that patients want high-quality care at the lowest price and choose centers that best fit their needs and preferences (4,5).

Evidence suggests that demand-side barriers may be as important as supply factors in discouraging patients from obtaining treatment. However, the focus of much health policy intervention has been on reducing supply barriers. Delivery of essential service concentrates on improving the quality of staff skills, protocols of treatment, availability of supplies and environment of health facilities. Yet while these interventions are important, they do not address many of the barriers to accessing services faced by a patient in a low-income country. Whether and where to go for treatment starts well before arrival in a facility and requires a myriad of complex, and potentially confusing, choices to be made. Often, health services of a reasonable quality exist, but few use them (6).

The health care systems in many low and middle income countries have a composite of public and private health care providers(7,8). Similarly in Ethiopia the recently executed BPR of the health sector has introduced a three-tier health care delivery system that augmented by the rapid

expansion of the private for profit and NGOs sector playing significant role in boosting the health service coverage and utilization (9). The main providers of outpatient services were government health facilities (77 %), followed by private health facilities (20%), traditional and religious healers (2 %), and NGOs (1%). The most frequently used types of health facility for outpatient care were government health centers (35%) and government health posts (26%). Government health facilities (hospitals and health centers) continued to be the dominant provider of inpatient health services (61%) in 2011/12. Private health facilities provided services for about one fifth (20.8%) of all admissions. NGO hospitals and traditional healers accounted for 6% and 2% of all inpatient admissions, respectively (10).

The role of private health providers has glimmered controversial debates in low and middle income countries. For some increasing private provision could lead to gains in efficiency, responsiveness, quality and consumer choice (11,12). Indeed, the private sector has complemented or taken on health service delivery functions with positive outcomes in some contexts (13,14). Others have argued that relying on public provision for health care services is the best promise for equitable access and for better health outcomes for the whole population (15,16).

1.2. Statement of the problem

Demand-side barriers play a crucial role as the supply side factors in deterring patients from obtaining treatment. However, relatively little attention is given by policy makers and researchers to ways minimize their effect. Early policy and research initiatives focused on the need to improve physical access through an expansion of the network of facilities (6).

Over the past decade, Ethiopia has recorded remarkable progress in a number of population health outcomes. These changes have been supplemented by a rapid expansion of healthcare infrastructure at all levels (17,18). Primary health service coverage reached 92% with 122 public hospitals and 2660 health centers and 15,095 health posts and more than 4000 private for profit and not for profit clinics (19).

There has been an 18-fold increase in the number of health posts in 2011 and a 7-fold increase in the number of health centers over the same period. Despite these increases in the supply of healthcare and increases in the utilization of some specific services, overall outpatient healthcare utilization rates remain low and have increased only marginally from 0.27 visits in 2000 to 0.3 visits in 2011 (17,18,20).

In areas where health care services are readily available, the factors that determine the utilization of the services ranges from lack of awareness to low level of education, distance to health care, bureaucracy in the medical practice and mismanagement of facilities and equipment. Those who can't afford the cost of care in the hospitals, opt for traditional healers and other spiritual homes (21,22).

On top of this many factors influence the selection of a healthcare provider once the decision to seek care has been made (23). The choice of health facilities for healthcare by an individual is largely determined by his/her taste, satisfaction with service and the perceived quality of care provided (24–26).

Usually, choice of health care providing facility is influenced by quality of service provided, access to providers, out-of-pocket costs, health provider communication skills, courtesy, and administrative burden. However, patients perceptions of the quality of services provided is a key factor (along with cost effectiveness) in determining the use of the health care facility (27).

Although, utilization of health services and factors determining it has been largely studied, there is paucity of literature specifically on factors that determine preference for the type (public or private) and the levels of healthcare facilities visited first when ill especially when there are

many options. As a consequence, there is now greater emphasis on the encouragement of individual choice and the opportunity to exercise it freely, and the commitment of healthcare providers and all stakeholders in healthcare to build mechanisms for ensuring quality of care (28). Unlike in developed and few developing countries, research on choice of healthcare facilities and factors affecting patient's choice in the Ethiopia has not been well explored particularly in the study area. It is not very clear what influences the customer's choice of one or the other within a health system with many healthcare providing facilities.

This study will be carried out to find out the factors associated with preferred choice of facility for health care and to investigate how socio-demographic and economic factors, quality of care, and expenditure on health care, impact on client's/patient's choices of public or private facilities as their usual health care providing facility. It also aimed to provide a better understanding of the role, extent and contribution of both the public and the private health care facilities in Nekemte town, Western part of Ethiopia.

1.3. Significance of the Study

In today's world customers are more sensitive in selecting healthcare providing facility than before and concern more about their health as well as on the kind of services they got. They want to address their needs objectively and they react in case of unmet needs.

Hence the results of this study, which recognize determinant factors which cause a health facility to be better than others regarding prevention and treatment services from viewpoints of customers or employees that increases the chance of a health care selection.

The findings of this study will helpful for managers to increase their shares in attracting customers in competing with their rivals to improve the efficiency of their health care facility.

For policy makers and managers information on the choice of health care service providers is crucial for planning, organizing and evaluation of health services.

It will provide policy implications on the promotion of the health care utilization within the society that is a key to create healthy and productive society by alleviating hindering factors.

It will be also used to highlight what factors should be get due emphasis to satisfy health needs of employees and to create responsive health care service in the essential health care packages of newly proposed compulsory health insurance scheme for formal sector workers of Ethiopia.

In addition, the study might have significant role in giving direction for those who want to undertake further research on the subject matter.

CHAPTER TWO

2.1. Literature review

Many studies have examined the factors that influence healthcare choices both in developed and developing countries. But there was no literature in Ethiopia for policy makers and health planners to make evidence based decision in this regard. Knowing the people's perception of disease or illness, their concept of health and the basis for their choice in health care has to be considered in order to respond with appropriate services and information, education and communication programs. In this study we will focus on choice of healthcare facilities and associated factors among government employees to reduce the information gaps partly.

A number of other studies examined the effects of income, distance, education, user fees, waiting time, travel time, and quality of service on the choice of healthcare provider in Low income countries as well as in Africa. The findings from the literature are presented below with the following sub topics: socio-demographic, socio-economic, perceived quality of care and satisfaction with health services.

Socio-Demographic factors

Study done in Nigeria indicated that preferred health facility with the highest proportion for both sexes was the private hospital whereas 33.1% of males would prefer the private hospital, it was 37.1% for the female gender (29). Similarly a study from Jordan found that female sex was significantly negatively associated with choosing public facility compared to the private sector. The odds of a female selecting public facility compared to the private sector was 0.45 times (about 45%) that for a male (30).

On the Other hand, the study in Kenya found that gender has statistically significant in public health facilities suggesting that being male decreases the likelihood of visiting public facilities relative to self-treatment. In addition to this the study also the effect of the size of household on the choice of health care is positive and largely significant. Having a large family increases the probability of visiting both public and private health facilities compared to self-treatment(31).

Study from Nigeria indicated that the most common preferred facility for singles and married was the private hospital but it was primary health center for the separated/widowed/divorced (29). Similarly Study conducted in Jordan found that the odds of a married individual selecting public

facility rather than a private provider were 3.62 times greater than the odds of a never married individual. Whereas education, age and family size had no significant influence on provider choice in Jordan (30).

Study done in Nigeria also indicated that among respondents with primary or no formal education, pharmaceutical/medicine store was the preferred choice of health facility but it was private hospital for respondents with secondary and tertiary education. Respondents with higher educational status utilize the private and teaching hospital more than their counterparts with lower educational level (29). In support of this study from Eritrea found that education to have positive effect on utilization of both private and public facilities(32).

Socio-Economic Factors

Study findings from Low income countries showed that transport costs represented more than 10% of what the individuals were paying for treatment. Consultation fees in public facilities do not necessarily represent the largest component of out-of-pocket payment (OOP). Consultation fees for inpatient and outpatient visits in public facilities account for, on average, only 10% of total OOP. In most countries, the level was well below 15%. Importantly, the major part of OOP at public facilities was for the purchase of medicines (33).

Study from Vietnam indicated that cost of basic healthcare is of critical importance in the decision of when and what services to use (34).

Similarly, study conducted Eritrea identified that income to have significant positive effect on the utilization of private medical facilities for profit and no significant effect on the utilization of public or non-profit catholic healthcare facilities. This study also found that user fees and transport costs had negative effect (32).

Study done in Ghana and Kenya found that cash amount paid were found to discourage the use of orthodox healthcare among insured persons. Amount paid for treatment for example negatively affects the tendency to seek care from alternative providers as well as the tendency to self-treat (35).

Study from Jordan asserted that the poorest income group was 0.34 times as likely to choose public facilities over private facilities compared to the middle income group, while the rich

income group was 2.28 times more likely to use public facilities over private facilities compared to the middle income group. As expected, out-of-pocket expenses (proxy for cost of treatment) was a major determinant of choice of health care provider. An increase in out-of-pocket expenditure was negatively associated with choosing public facilities compared to private facilities (30).

Stud from Kenya indicated that poverty reduces the probability of visiting a modern health care provider amongst all age groups. For instance among adults, poverty increases the probability of not visiting any provider by 0.271, it increases the probability of visiting a non-modern health care provider by 0.156, but it reduces the probability of visiting a modern health care provider by 0.427 (36).

Study from in Nepal also indicated that 68% of people went to public health facilities at the first instance for their health problems not because of better health personnel conduct and practices, and health care delivery, but mainly because of financial and physical accessibility (37).

Perceived quality of care

Study done in Low income countries indicated that perceived quality play an important role in determining what kind of facility is used (33). Factors such as waiting time and proximity to facility were found to discourage the use of orthodox healthcare among insured persons in Ghana (35).

Stud from Nigeria found that respondents who described the quality with ease of getting care/short waiting times as being good were 3.9 times more likely to have private facilities as their chosen health care providing facility (38).

Study from Kenya also identified that the quality of the health care has a statistically significant impact on choice of health care facilities. However, the impact is smaller at public hospitals (31).

Study from India indicated that from dimension of perceived quality, for outpatients doctor behavior has the largest effect on general patient satisfaction followed by medicine availability, hospital infrastructure, staff behavior, and medical information (39).

Satisfaction of Client

Stud done in Nigeria found that respondents who are satisfied with their usual care providing facilities were 12.2 times more likely to have used public facilities than private facilities (38).

Study from Ghana found that higher educated mothers were found to be less satisfied with their children's health care services. Additional proximity to health facilities increases satisfaction while longer distances reduce health care satisfaction. Similarly, longer waiting times are associated with lower levels of satisfaction (40).

2.2. Conceptual framework

The following figure show as the conceptual framework developed for this thesis after reviewing different literatures.

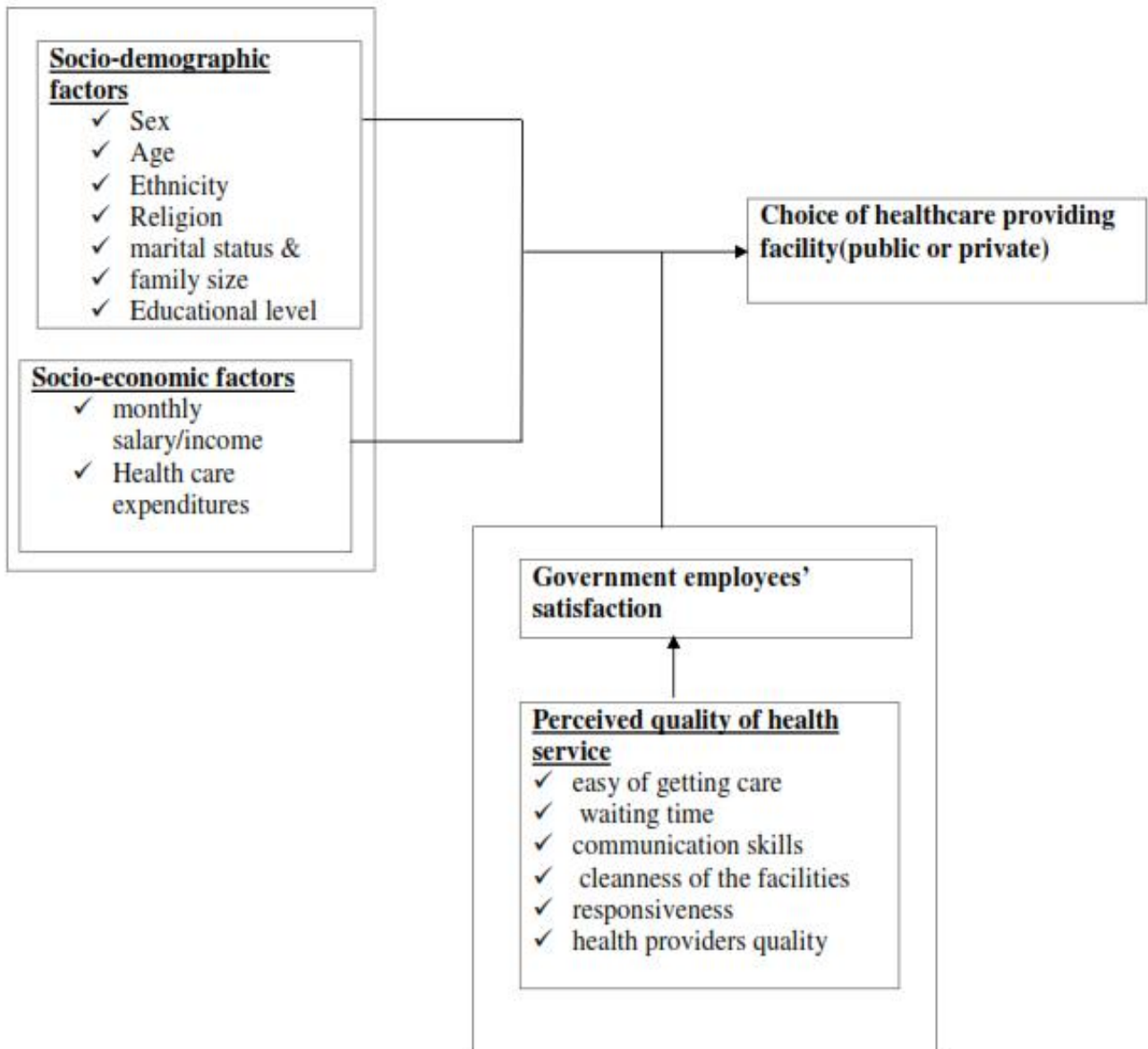


Figure 1: conceptual framework developed for the choice of healthcare facilities among government employees of Nekemte town administration 2015 G.C.

CHAPTER THREE

3. Objective

3.1. General objective

- To assess level of choice for (public or private) healthcare providing facility and associated factors among government employees in Nekemte Town, 2015.

3.2. Specific objectives

- To measure the proportion of government employees choosing to visit public/private health facilities in case of illness
- To identify determinants of choice of healthcare facilities by the government employees

CHAPTER FOUR

4. Methods and Materials

4.1. Study area and period

The study was conducted from March 09-30, 2015 G.C in Nekemte town, East Wollega zone Oromia regional state, which is located 334 km to west far from Addis Ababa. There are total of 23 governmental organizations in Nekemte town administration with 2229 employees (1369 male and 860 female) in annex 2 (table 14).

There are different public and private health institutions found in the town. According to health office report in 2014 G.C, public healthcare providing facilities are 2 public health centers and one referral hospital, whereas private healthcare providing facilities comprise private for profit (3 higher, 4 medium and 25 small clinics) and private for non-profit (4 clinics).

4.2. Study design

Retrospective, cross-sectional, descriptive study design.

4.3. Source population

The source population included all employees in governmental organizations of Nekemte town administration, East wollega zone of Oromia regional state.

4.4. Study population

The study population comprised of a sample of government employees in Nekemte town who utilized services at a health facility (public or private) during a period of 18 months preceding the survey. Whereas contract workers in the government organization were excluded from the study.

4.5. Sample size determination

The required sample size was determined using the following assumptions to estimate sample size for estimating single population proportion.

Assumption:

Since there was no prior published research in this area and to get maximum sample size Proportion of employees choosing to visit public health facilities when they got sick was taken as 50 % ($p=0.5$) Margin of error (d) = 5% and Confidence level = 95%, which means set at $\alpha = 0.05$.

$$n = \frac{(Z_{/2})^2 P (1 - P)}{d^2} = \frac{(1.96)^2(0.5*0.5)}{(0.05)^2} = 384$$

Hence, the calculated sample size was 384. Since total number of governmental employees in the town less than 10,000 by using finite population correction formula and adding 10 % for potential non-response rate, the final sample size was 361 government employees.

4.6. Sampling technique and procedure

A simple random sampling technique was employed to select study participants by using computer generated random numbers in Excel spreadsheet of 2013. Prior to actual data collection census was conducted to identify employees who used healthcare providing facilities in the town in the preceding one and half year. According to this out of 2229 employees, 975 who utilized public or private facilities were identified and final samples were drawn from these utilizers.

4.7. Study Variables

4.7.1. Dependent variable

- Choice of healthcare providing facility (public/private)

4.7.2. Independent variables

- Socio-demographic (sex, age, ethnicity, religion, level of education, marital status and family size)
- Socio-economic (monthly salary/ average income and health expenditures)
- Perceived quality of health services (patient-provider interaction, communication skills and cleanness of the facilities)
- Overall of satisfaction with the services at their usual healthcare facility

4.8. Development of data collection tool

The primary data used for this study was collected using a semi-structured interviewer administered questionnaire for the study to obtain information on socio-demographic and economic data, usual health care provider, perceived quality and satisfaction on health care.

The Data collection tool adapted from different published literatures and modified according to the local context. The patient satisfaction and quality of care questionnaire was a modified version of SEVQUAL model (41, 42) and from study done in Nigeria among government workers (38).

Perceived quality of health care was assessed using 29 items of 5 point likert scale (strongly disagree, disagree, indifferent, agree and strongly agree) set of questions in six domains.

Patients satisfaction was also measured using four items of a 5-point Likert scaled (very dissatisfied, dissatisfied, indifferent, satisfied and very satisfied) tool.

After data collection, to reduce a large number of variables into a smaller and more manageable number of factors, as well as to transform data to meet the assumptions of logistic regression (i.e. predictors are statistically unrelated) the perceived quality of healthcare services and satisfaction data was subjected to exploratory factor analysis.

Prior to presenting the result of factor analysis, the factorability of items was checked by using the Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity.

Examining correlation showed the KMO of perceived quality was 0.921 and KMO of satisfaction was 0.798, both exceed the minimum requirement of 0.5 of overall measuring of sampling adequacy and both variables Bartlett's test of sphericity was significant at less than 0.0001, indicating an appropriate correlation matrix and sufficient sample size for factor analysis.

In the initial solution of factor analysis, communality of each variable is equal to 1.0 and the total variance to be explained is 29 referring to the number of questions. Since a single variable can account for 1.0 unit of variance, a useful factor must account for more than 1.0 unit of variance, or have an eigenvalue greater than 1.0, otherwise the factor extracted explains no more variance than a single variable. The factor analysis resulted in three factors extracted that accounts for 63.96% variance for perceived quality dimension (table 11) in annex1 and one factor solution of client satisfaction dimension extracted that accounts for 70.56% variance explained. Each factor has eigenvalue greater than one.

In this study, all variables had more than 0.4 factor loading and none of items were form a unique factor. When we rotated the items by Varimax procedure, 6 items loaded on component

one, 5 items loaded on component two and other 5 items loaded on component three. Rotated factor loading of each perceived quality items presented in the annex one (table 12) and un-rotated one factor solution of satisfaction with 4 items.

Reliability analysis

Reliability of each scale was determined individually by “scale if item deleted test”. Cronbach’s alpha coefficients were calculated to assess the reliability of factors as well as the whole scale in terms of internal consistency. In annex 1 (table 13) show the values of Cronbach’s alpha coefficients as a result of reliability analysis using SPSS version 20. Component one, two, and three had, 0.873, 0.884 and 0.831 Cronbach’s alpha coefficients respectively and collectively items reliability was tested and had Cronbach's Alpha value 0.916. It is within the range of recommended alpha value, greater than 0.7. Since all variables are loaded into 3 dimensions/factors, the scales were named according to the items contained.

For satisfaction collectively items reliability was tested and had Cronbach's Alpha value of 0.855 which was above 0.7 recommended alpha value.

Therefore Quality of care was measured in three components patient-provider interaction, interpersonal communication skills and cleanliness/tangibility, as well as customer satisfaction was measured by one component (satisfaction). Before entering each item in to binary and multiple logistic regression for analysis, using the compute command of rank cases in order to dichotomize the factors to make more understandable and easy for interpretation.

4.9. Data collection procedure

Primary data used for this study were collected by using semi-structured questionnaire developed for the study through face to face interview conducted by six data collectors, who were college graduates in diploma nurse and one supervisor who have bachelor degree in health science were assigned to monitor quality of collected data.

4.10. Data analysis procedure

Data were coded and entered into Epi data version 3.1 and transported to SPSS version 20.0 statistical software for analysis. After cleaning data for inconsistencies and missing value in SPSS descriptive statistics such as median, frequency and proportion were done. For quality of

care and satisfaction five Likert scales principal component analysis (PCA) in SPSS 20 was used to reduce data burden and to fit the assumption of logistic regression. PCA reduced 29 items under six domains to 16 items of perceived quality under three components and each component was renamed according to their items. Based on the factor scores of each scale, the responses were ranked using compute command rank cases in two groups (good and poor) for perceived quality. Satisfaction component also dichotomized into satisfied and dissatisfied by the same producer. This facilitated the comparison of respondents with different characteristics.

Bivariate analysis using binary logistic regression was done and all independent variables which have association with the outcome variable at p value of 0.25 were selected for multivariate analysis. Then multivariate analysis using binary logistic regression of backward stepwise method was done to determine presence of statistically significant association between independent variables and the outcome variable at P value < 0.05 and OR with 95% CI.

4.11. Operational definitions

Choice of healthcare providing facility: - is process of determining what healthcare facilities are available and then choosing the most preferred one according to consistent criteria to meet their need.

Health care facility: - A public or private health establishment recognized by the government that provides health care services; classified as

Public health facilities were defined as those run by the government include all health centers and hospital in the town.

Private health facilities: were comprise all other non-state health facilities private for profit higher, medium, primary clinic and patent drug sellers as well as non-profit private clinics.

Usual healthcare providing facilities: - for the purpose of this study is the health facility (public or private orthodox medical facility) where the respondents go to first to access primary care for their illness.

Perceived quality of care: is ability of healthcare providing facility to satisfy needs and expectations of customers and measured by 16 items under three components.

Poor quality: those respondents which scored the smallest value of regression score in the principal component analysis under each component were considered as customer's accessed poor quality of health service.

Good quality: those respondents which scored the largest value of regression score in the principal component analysis under each component were considered as customers experienced good quality of health service.

4.12. Ethical Considerations

Ethical clearance was obtained from Institution Review Broad (IRB) of the college of health sciences of Jimma University. Permission letter was obtained from Oromia regional health bureau and Nekemte town health office. Verbal consent of the study participants were obtained from each study subject prior to interview by explaining purpose of the study. Confidentiality of their information were assured by using coding system and by removing any personal identifiers and privacy of participants were maintained. The right of respondents to refuse answer for few or all of the questions was respected.

4. 13. Data quality management

To assure the quality of data, properly designed data collection instrument was used. The questionnaire for survey was first prepared in English language, then translated into Afan Oromo and translated back into English to check for consistence. Training was given for six diploma holder data collectors and one degree holder supervisor. The questionnaire was pre-tested before the actual data collection days on 5 % total sample size of government employees in the Ambo town and modified according to feedback. Moreover, during data collection supervisor was checked in the field how the data collectors are doing their task in the field. At the end of each data collection day the principal investigator and supervisor also checked the completeness of filled questionnaires and whether recorded information makes sense to ensure the quality of collected data.

4.14. Dissemination plan

The findings will be presented to the Jimma University scientific community in a defense and the results submitted to the department of Health Economics, Management and Policy, college of health sciences. The findings will also be communicated to the local health planners and other relevant stakeholders at national, regional, and zonal levels to enable them to take and apply research recommendations during their planning process. Publications in peer-reviewed, national, or international journals will also be considered.

CHAPTER FIVE

5.1. Results

Description of study subjects

From 361 sampled government employees, 346 participated in the study which provided the response rate of 95.8%. The median age of respondents was 33, ranging from 20-60 years. Among them, 191(55.2%) were male, 218(63%) were degree holders and above in terms of educational background, 252(72.8%) were married, 321(92.8%) were Oromo in ethnicity and 238(68.8%) were protestant Christians. The median number of family members of the employees was 4, ranging from 1-9. The median monthly income of the respondents was 3000 ETB (\$150 USD), ranging between 520-10,500 ETB (\$26-525 USD) and annual health care expenditure was 200 ETB (\$10 USD), within range of 20-3600 ETB (\$1-180 USD) (table1).

Table 1 Demographic and socio-economic characteristics of the government employees in Nekemte town administration, 2015

| Characteristics (n=346) | Frequency | Percent (%) |
|--------------------------------|------------------|--------------------|
| Sex of respondent | | |
| Male | 191 | 55.2 |
| Female | 155 | 44.8 |
| Age (in year) | | |
| 20-30 | 144 | 41.6 |
| 31-40 | 93 | 26.9 |
| 41-50 | 81 | 23.4 |
| >50 | 28 | 8.1 |
| Educational status | | |
| Below diploma | 14 | 4.0 |
| Diploma | 114 | 33.0 |
| Degree and above | 218 | 63.0 |
| Marital status | | |
| Single | 86 | 24.9 |
| Married | 252 | 72.8 |
| Others* | 8 | 2.3 |
| Family Size | | |
| Four or less | 211 | 61.0 |
| Greater than four | 135 | 39.0 |

| Characteristics (n=346) | Frequency | Percent (%) |
|---|------------------|--------------------|
| Ethnicity | | |
| Oromo | 321 | 92.8 |
| Amhara | 22 | 6.4 |
| Others** | 3 | 0.9 |
| Religion | | |
| Protestant | 238 | 68.8 |
| Orthodox | 99 | 28.6 |
| Others*** | 9 | 2.6 |
| Income/salary per month (in ETB) | | |
| <3000 | 183 | 52.9 |
| 3000-4000 | 73 | 21.1 |
| 4001-5001 | 34 | 9.8 |
| >5001 | 56 | 16.2 |
| Expenditure on health per year | | |
| Low (Four hundred or less) | 256 | 74.0 |
| High (Greater than four hundred) | 90 | 26.0 |

ETB= Ethiopian Birr (20ETB= \$1 USA) * = Divorced and Widowed **= Tigre and Gurage
 ***= Muslim, Catholic and Wakefata

Choice of healthcare providing facilities

Majority, that is 162(46.82%) of the respondents, chose public hospital as their usual healthcare provider. while 70(20.23%) of the respondents usually obtain care from private for profit higher clinics. In general, more than half of the respondents (198, 57.2%) obtained health services from government owned health facilities, whereas 148(42.8%) of the respondents preferred the services from private for profit or non-profit health facilities (figure 2).

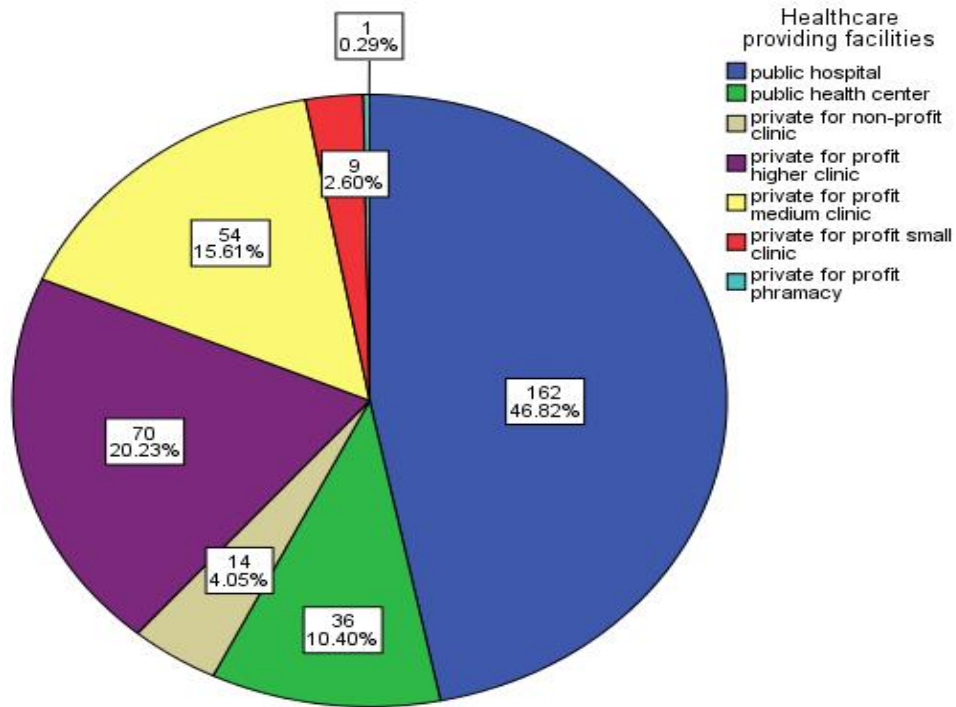


Figure 2 Choice of healthcare facilities by government employees in Nekemte town administration, 2015 G.C.

In seeking reasons for their preference and what they considered in choosing a facility for health care, cost/payment for health service was the commonest reason given by 124(62.6%) and this was followed by availability qualified personnel's vowed by 107(54%) of all respondents among who opt public facilities. While 77(52%) and 76(51.4%) of participants were choose private facilities for availability of qualified personnel's and time saving respectively. Other reasons were availability of equipment and laboratory service (40.5%), quality of service provided (33.1%) among private facility utilizers, whereas availability of equipment and laboratory service (23.7%) and effectiveness of treatment (16.2%) among public facility choosers (table 2).

Table 2 Reasons of government employees' for choice of their usual health care providing facility in Nekemte town administration, 2015 G.C.

| Reasons | Healthcare providing Facility | |
|---------------------------------------|-------------------------------|--------------------|
| | Public no. (%) | Private no. (%) |
| Availability of qualified personnel's | 107(54) | 77(52) |
| Price/payment for health service | 124(62.6) | 18(12.2) |
| Friendly staffs | 24(12.1) | 28(18.9) |
| Time saving | 21(10.6) | 76(51.4) |
| Effectiveness of treatment | 32(16.2) | 38(25.7) |
| Equipment and laboratory service | 47(23.7) | 60(40.5) |
| Drug availability | 28(14.1) | 18(12.2) |
| Proximity to home | 31(15.7) | 9(6.1) |
| Privacy | 3(1.5) | 4(2.7) |
| Reputation of health care facility | 3(1.5) | 1(0.7) |
| Quality of service provided | 28(14.1) | 49(33.1) |

Descriptive analysis of perceived quality of health service and overall satisfaction

This descriptive analysis includes all the three components of perceived quality dimensions identified by principal component analysis with their respective items under each component separately and one factor solution of satisfaction with its four items.

Perceived quality item in each component were recorded by using compute command of SPSS version 20 from strongly disagree and disagree to disagree, from agree and strongly agree to agree and kept indifferent or neutral as it is. By the same procedure satisfaction items were recoded from very dissatisfied and dissatisfied to dissatisfied, from satisfied and very satisfied to satisfied and kept indifferent or neutral as it is.

Finally each item of perceived quality dimensions and satisfaction were cross-tabulated with outcome variable to make data more understandable and clear for end users.

Component 1 patient-provider interaction

Majority of study participants were disagreed over 6 items of patient-provider interaction component in the public facilities, while private facilities were achieve agree or good quality on

these items. Majority of respondents 66(72.5%) were disagreed with immediate response given by health professionals on the services they need at public facilities, whereas 101(60.8%) who accessed health services at private facilities were agreed on this item (table 3).

Table 3 Frequency and percentage distribution of responses on patient-provider interaction component by government employees of Nekemte town, 2015 G.C

| Items | Usual health care facility | |
|---|----------------------------|--------------------|
| | Public no. (%) | Private no. (%) |
| Degree of courtesy shown by health professionals towards patients or customer | | |
| Disagree | 64(70.3) | 27(29.7) |
| Indifferent | 80(74.1) | 28(25.9) |
| Agree | 54(36.7) | 93(63.3) |
| Providers are polite and respectful | | |
| Disagree | 54(72) | 21(28) |
| Indifferent | 76(83.5) | 15(16.5) |
| Agree | 68(37.8) | 112(62.2) |
| Extent to which the health professionals make sincere effort in helping you | | |
| Disagree | 51(63.8) | 29(36.2) |
| Indifferent | 71(82.6) | 15(17.4) |
| Agree | 76(42.2) | 104(57.8) |
| Providers responded immediately when needed | | |
| Disagree | 66(72.5) | 25(27.5) |
| Indifferent | 67(75.3) | 22(24.7) |
| Agree | 65(39.2) | 101(60.8) |
| Providers are well-integrated | | |
| Disagree | 41(60.3) | 27(39.7) |
| Indifferent | 84(75.7) | 27(24.3) |
| Agree | 87(45.5) | 104(54.5) |
| Degree to which health professionals are competent and skillful in their job | | |
| Disagree | 28(54.9) | 23(45.1) |
| Indifferent | 68(73.9) | 24(26.1) |
| Agree | 102(50.2) | 101(49.8) |

Component 2 Communication skill of healthcare providers

Among respondents more than half 104(51%) were agreed on the item of health professionals gives you good advice and treatment at public facilities. But 28(50.9%) of participants were disagreed on this item at private facilities (table 4).

Table 4 Frequency and percentage distribution of responses on communication skill of provider component government employees of Nekemte town, 2015 G.C.

| Items | Usual health care facility | |
|-------------------------------------|----------------------------|--------------------|
| | Public no. (%) | Private no. (%) |
| Gives you good advice and treatment | | |
| Disagree | 27(49.10) | 28(50.9) |
| Indifferent | 67(77) | 20(23) |
| Agree | 104(51) | 100(49) |
| Explains what you want to know | | |
| Disagree | 39(66.1) | 20(33.9) |
| Indifferent | 54(71.1) | 22(28.9) |
| Agree | 105(49.8) | 106(50.2) |
| Friendly and helpful to you | | |
| Disagree | 38(55.1) | 31(44.9) |
| Indifferent | 64(80) | 16(20) |
| Agree | 96(48.7) | 101(51.3) |
| Professional's listens to you | | |
| Disagree | 23(53.5) | 20(46.5) |
| Indifferent | 57(74) | 20(26) |
| Agree | 118(52.2) | 108(47.8) |
| Takes enough time with you | | |
| Disagree | 32(50.8) | 31(49.2) |
| Indifferent | 70(79.5) | 18(20.5) |
| Agree | 96(49.2) | 99(50.8) |

Component 3 Cleanliness/tangibility of facility

Majority of respondents were experienced poor quality or disagreed over 5 items of cleanliness of facility component in the public facilities, while private facilities were achieve good quality or agree on these items. Majority of participants 66(69.5%) were disagree on the public facilities had clean and neat room of service, while 97(60.2%) utilizers of private facilities were agreed (table 5).

Table 5 Frequency and percentage distribution of responses on Cleanliness of Facility component by government employees of Nekemte town, 2015 G.C.

| Items | Usual health care facility | |
|---|--------------------------------|---------------------------------|
| | Public n ₀ . (%) | Private n ₀ . (%) |
| Have up-to-date and well maintained equipment | | |
| Disagree | 69(67.6) | 33(32.4) |
| Indifferent | 55(66.3) | 28(33.7) |
| Agree | 74(46) | 87(54) |
| Easy for finding where to go | | |
| Disagree | 46(59) | 32(41) |
| Indifferent | 63(70) | 27(30) |
| Agree | 89(50) | 89(50) |
| Waiting room is comfortable and safe | | |
| Disagree | 54(63.5) | 31(36.5) |
| Indifferent | 65(77.4) | 19(22.6) |
| Agree | 79(44.6) | 98(55.4) |
| The health facility has neat and clean room | | |
| Disagree | 66(69.5) | 29(30.5) |
| Indifferent | 68(75.6) | 22(24.4) |
| Agree | 64(39.8) | 97(60.2) |
| Extent of availability of health facility basic infrastructures | | |
| Disagree | 66(65.3) | 35(34.7) |
| Indifferent | 63(67.7) | 30(32.3) |
| Agree | 69(45.4) | 83(54.6) |

Overall satisfaction

Those who used public facilities as their usual healthcare providing facility were dissatisfied in all four items of satisfaction. In contrast to this, many respondents who opted private facilities as their usual healthcare provider were satisfied on all items of satisfaction. A higher proportion of respondents 31(73.8%) were dissatisfied with overall satisfaction healthcare procedures they received at public health facility, whereas 106(61.3%) respondents who were accessed health service at private facility were satisfied with this item (table 6).

Table 6 Frequency and percentage distribution of responses on satisfaction component by government employees of Nekemte town, 2015 G.C.

| Items | Usual health care facility | |
|--|--------------------------------|---------------------------------|
| | Public n _o . (%) | Private n _o . (%) |
| Satisfaction with overall stay in health facility | | |
| Dissatisfied | 31(73.8) | 11(26.2) |
| Indifferent | 100(76.3) | 31(23.7) |
| Satisfied | 67(38.7) | 106(61.3) |
| Satisfaction with medical care and treatment given by professionals | | |
| Dissatisfied | 28(62.2) | 17(37.8) |
| Indifferent | 82(76.6) | 25(23.4) |
| Satisfied | 88(45.4) | 106(54.6) |
| Satisfaction with care provided by supportive and administrative staffs | | |
| Dissatisfied | 55(72.4) | 21(27.6) |
| Indifferent | 90(70.3) | 38(29.7) |
| Satisfied | 52(36.9) | 89(63.1) |
| Satisfaction with the amount of hospital expenses in comparison to medical care received | | |
| Dissatisfied | 43(56.6) | 33(43.4) |
| Indifferent | 66(54.5) | 55(45.5) |
| Satisfied | 89(59.7) | 60(40.3) |

Predictors of choice of usual healthcare providing facility: demographic and socio-economic characteristics

Many of the variables from demographic and socio-economic characteristics, were not associated with the usual choice of health care facilities in the bivariate logistic regression analysis. From socio-economic characteristics, only health care expenditure of were shown association at p-value < 0.002 (table 7).

Table 7 Socio-economic and demographic characteristics of respondents' association with their usual health care providing facility

| Variables(n=346) | Usual health care facility | | COR(95%CI) | P-value |
|---|----------------------------|-----------------|------------------|---------|
| | Public no. (%) | Private no. (%) | | |
| Sex | | | | |
| Male | 109(57.1) | 82(42.9) | 1 | |
| Female | 89(57.4) | 66(42.6) | 0.99(0.64,1.51) | 0.95 |
| Age | | | | |
| 20-30 | 80(55.6) | 64(44.4) | | |
| 31-40 | 50(53.8) | 43(46.2) | 1.08(0.64,1.82) | 0.79 |
| 41-50 | 48(59.3) | 33(40.7) | 0.86(0.50,1.49) | 0.59 |
| >50 | 20(71.4) | 8(28.6) | 0.50(0.21,1.21) | 0.12 |
| Educational status | | | | |
| Below diploma | 8(57.1) | 6(42.9) | 0.89(0.30,2.64) | 0.83 |
| Diploma | 72(63.2) | 32(36.8) | 0.69(0.43,1.10) | 0.12 |
| Degree and above | 118(54.1) | 100(45.9) | 1 | |
| Marital status | | | | |
| Single | 49(57) | 37(43) | 1 | |
| Married | 143(56.7) | 109(43.3) | 1.01(0.62,1.66) | 0.97 |
| Divorced | 2(66.7) | 1(33.3) | 0.66(0.06,7.58) | 0.74 |
| Widowed | 4(80) | 1(20) | 0.33(0.04,3.09) | 0.33 |
| Family Size | | | | |
| Four or less | 119(56.4) | 92(43.6) | 1 | |
| Greater than four | 79(58.5) | 56(41.5) | 1.09(0.70,1.67) | 0.69 |
| Income/salary per month (in ETB) | | | | |
| <3000 | 105(57.4) | 78(42.6) | 1 | |
| 3000-4000 | 43(58.9) | 30(41.1) | 0.80(0.44,1.46) | 0.46 |
| 4001-5001 | 21(61.8) | 13(38.2) | 0.75(0.37,1.51) | 0.42 |
| >5001 | 29(51.8) | 27(48.2) | 0.67(0.28,1.58) | 0.36 |
| Expenditure on health per year | | | | |
| 400 ETB or less | 159(62.1) | 97(37.9) | 1 | |
| Greater than 400 ETB | 39(43.3) | 51(56.7) | 2.14(1.32, 3.49) | 0.002 |

COR: Crude Odds Ratio 95%CI: 95% Confidence Interval ETB= Ethiopian Birr

Predictors of choice of usual healthcare providing facility: perceived quality and satisfaction variables

A higher proportion of respondents (126, 74.6%) were dissatisfied with health care they received at public health facility, whereas 105(59.7%) respondents who were accessed health service at private facility were satisfied with the care they obtained(p=0.009). Majority of respondents 111(64.2%), 134(77.5%) and 116(67.1%) who received care at public facility were experienced poor quality of communication, patient-provider interaction, and cleanliness of facility respectively. However, majority of respondents 86(49.7%), 109(63.0%) and 91(52.6%) at private were accessed good quality of communication, patient-provider interaction, and cleanliness of facility respectively and many of perceived quality variables were associated with outcome variable in bivariate analysis at $p \leq 0.05$ (table 8).

Table 8 perceived quality of care and satisfaction level of respondents' association with their usual health care providing facility among employees of Nekemte town, 2015 G.C.

| Variables (n=346) | Usual health care facility | | COR(95%CI) | P-value |
|--|----------------------------|-----------------|-----------------|---------|
| | Public no. (%) | Private no. (%) | | |
| Patient-provider interaction | | | | |
| Poor quality | 134(77.5) | 39(22.5) | 1 | |
| Good quality | 64(37.0) | 109(63.0) | 5.85(3.65,9.38) | 0.001 |
| Communication skill | | | | |
| Poor quality | 111(64.2) | 62(35.8) | | |
| Good quality | 87(50.3) | 86(49.7) | 1.77(1.15,2.72) | 0.009 |
| Cleanliness/tangibility of Facility | | | | |
| Poor quality | 116(67.1) | 57(32.9) | 1 | |
| Good quality | 82(47.4) | 91(52.6) | 2.26(1.46,3.49) | 0.001 |
| Satisfaction | | | | |
| Dissatisfied | 126(74.6) | 43(25.4) | 1 | |
| Satisfied | 71(40.3) | 105(59.7) | 4.33(2.74,6.86) | 0.001 |

COR: Crude Odds Ratio 95%CI: 95% Confidence Interval

Final predictors of choice of healthcare providing facility

Multivariate analysis was done by using binary logistic regression of backward stepwise method to identify for the factors associated with usual health care providing facility of government employees as displayed in table 9 below. Final variables or predictors entered into model include health care expenditure, patient-provider interaction, communication skill of providers, cleanliness of facility and satisfaction of clients, which were show association at bivariate analysis at ($p < 0.05$).

Respondents who described the quality of patient-provider interaction as being good were 3 times more likely to choose private health facilities as their usual health care providing facility than those who stated it as poor (AOR=3.19, 95%CI: 1.87, 5.43). Participants who reported that cleanliness of facility as being good were 1.84 times more likely to use private health facility as compared to public facility (AOR=1.84, 95%CI: 1.12, 3.03). Government employees who used private facilities as their usual care providing facilities were 2.3 times more likely to be satisfied than public facilities choosers (AOR=2.30, 95%CI: 1.33, 3.98). Participants who chose private facilities as their usual health care providing facilities had 2 times more likely to have high health expenditure than public facilities utilizers (AOR=1.98, 95%CI: 1.14, 3.44).

Table 9 Logistic regression for factors associated with choice of health care providing facility among government employees Nekemte town, 2015 G.C.

| Variables (n=345) | Usual health care facility | | AOR(95% CI) | P-value |
|--|----------------------------|-----------|-------------------|---------|
| | Public | Private | | |
| | no. (%) | no. (%) | | |
| Quality of patient-provider interaction | | | | |
| Poor | 134(77.5) | 39(22.5) | 1 | 0.0001 |
| Good | 64(37.0) | 109(63.0) | 3.19 (1.87, 5.43) | |
| Quality of cleanliness of facility | | | | |
| Poor | 116(67.1) | 57(32.9) | 1 | 0.016 |
| Good | 82(47.4) | 91(52.6) | 1.84 (1.12, 3.03) | |
| Satisfaction | | | | |
| Satisfied | 126(74.6) | 43(25.4) | 1 | 0.003 |
| Dissatisfied | 71(40.3) | 105(59.7) | 2.30 (1.33, 3.98) | |
| Health care expenditure per year | | | | |
| 400 ETB or Less | 159(62.1) | 97(37.9) | 1 | 0.015 |
| Greater than 400ETB | 39(43.3) | 51(56.7) | 1.98(1.14, 3.44) | |

AOR: Adjusted Odds Ratio 95%CI: 95% Confidence Interval ETB= Ethiopian Birr

CHAPTER SIX

6.1. Discussion

This study assessed choice healthcare facilities and factors determining it among government employees. Choice of health care facilities depends on both the features of the providers and the characteristics of consumers of health care (34). Quality of care, especially perceived quality based on patients' evaluations and opinions, is an important deciding factor in choosing a health facility (42).

In this study government healthcare facilities were chosen by more than half of (57.2%) the study participants. This is comparable with finding of Ethiopia's household health service utilization & expenditure survey by Federal Ministry of Health which stated that government health facilities were used by 59% of individuals residing in urban areas (10). While it is lower than study done in Nigeria and Nepal that reported 72.3% and 68% were opt public health facilities at the first instance for their health problems respectively (37,38). The discrepancy might be due to difference in perceived quality and satisfaction of respondents at these health facilities and difference in the study area.

Public facilities were chosen by respondents not because of reputation of health facility and privacy but mainly because of financial reasons. Similarly, study from Nigeria and Kenya reported that respondents who utilized public health facilities attributing their choice to the low cost of services (38,43). Study from Nepal also revealed that people were chose public health facilities, not because of better health personnel conduct and practices and health care delivery, but mainly because of financial and physical accessibility (37).

Perceived quality of services was used in this study to determine preference and by extension choice. Accordingly, two dimensions of perceived quality of care were found to determine choice of a health care providing facility.

Good quality of patient-provider interaction was found to be strong predictor of choice of usual healthcare providing facility. Respondents who experienced quality of patient-provider interaction as being good were 3 times more likely to choose private health facilities as their usual health care providing facility. Study done in Vietnam revealed that quality of patient-

provider interaction (assurance and empathy) was affect the service quality of hospital care (34). This finding is also in line with study from other low income countries indicated that perceived quality play an important role in determining what kind of facility is used (33). The possible explanation might be participants of the study aware that providing good quality of healthcare is an ethical obligation of all health care professionals & major responsibility of health care facilities as well as receiving good quality care is a right of all clients/patients.

In this study good cleanliness of facility was also predictor of choice of usual healthcare provider. Similarly, Study done in Jordan also stated that cleanliness of facility and other variables of quality had impact on choice of healthcare provider (30). This might be due to overcrowding, poorly ventilated and unhygienic environments has discouraged study participants from the use of public facilities thereby opt for private facilities, since educated people are more aware of effect of unhygienic environments & their possible consequences.

We also found that users of private facilities were more satisfied with the health services they received. Similarly, study from Ghana found that Consumers of private health services are approximately 12 percent more likely to be satisfied than subscribers of public health care (40). This finding is in contrast to study done in Nigeria, which reported that respondents who are satisfied with their usual care providing facilities were more likely to use public facilities than private facilities (38). This might be due to difference in availability of various health resources, health-care delivery system, good patient-provider interaction and short waiting time at the those health facilities.

On the other hand, this study indicated that in-terms of health care expenditure participants prefer to use the public health facilities than private facilities. A similar study done in Nigeria reported that cost/payment for services were predictive for the choice of public facilities (38). As well as study from Jordan asserted that an increase in out-of-pocket expenditure was negatively associated with choosing public facilities compared to private facilities (30). This finding is also comparable with study done in Eretria explained that majority of patients who sought treatment in private for profit health facilities had difficult to afford the user fees than government health care facilities utilizers (32). The possible explanations might be due to health care financing system that supported by government finance at public facilities and primary health care

approaches policy followed by the countries to avail health services at affordable cost for the community.

Interpretation of the findings in this study should take note of some limitations. First, choice of facilities often depends on types of health services needed or on severity of illness which we did not take into consideration in this study. Second, level of satisfaction and quality of service questions may have been biased since respondents are more likely to remember unpleasant experiences or there may be recall bias. Finally, the information on health care expenditure for health may have been over or under estimated since it was primarily based on estimation made by the respondents.

CHAPTER SEVEN

7.1. Conclusion

In this study, more than half of the study participants were chose public health facilities as the usual source of healthcare, despite that these facilities were perceived to offer lower quality of services than private facilities.

Public health facilities were chosen mainly because of cost for health service and availability of qualified personnel's, whereas availability of qualified personnel's and time saving were main reasons to opt private facilities.

Perceived quality of care, satisfaction with services at usual healthcare providing facility and cost of health care are important determinants for choice of usual healthcare provider. Good quality of patient-provider interaction and cleanliness of facility and satisfaction were associated with choice of private facilities, whereas respondents chose public facilities to obtain services at lower cost.

Therefore this finding has important policy implication since changes in cost of health service and perceived quality would mean changes in client satisfaction as well as their choice.

7.2. Recommendation

Based on the findings presented we recommend the following:

Cost of health care at private health facilities requires reconsideration based on the ability of customers to make payments and government should design a regulatory system on the cost of health care services that include private facilities.

In contrary to this public health managers and health policy makers should give due attention on improvement of patient-provider interaction by designing proper customer handling strategies or program for their health care providers and improve cleanliness of facility in order to increase their client satisfaction and for attracting more customers.

The regular feedback from patients should be integrated in the healthcare delivery system and the quality of healthcare service can be effectively monitored through patients' voice to bring improvements in patient-provider interaction.

Healthcare providers should need to be more compassionate and caring to needs of consumers to gain patient satisfaction and to improve the perceived quality of healthcare services especially for those who serve in the public facilities.

Periodic evaluation of the quality of care provided by the health facilities should be conducted by regional health Bureau and other concerned bodies, where clients of the facility are asked to rate the quality of care.

We also recommend for further study by researchers to examine the effect of perceived quality and technical quality on preference of public/private healthcare providers.

Reference

1. Monsan V. Social Welfare and Demand for Health Care in the Urban Areas of Côte d'Ivoire. AERC Res Pap. 2008;181(July).
2. Lindelow M. CSAE WPS / 2004-12 Understanding spatial variation in the utilization of health services : does quality matter ? 2004;
3. Levin J, Milgrom P. Introduction to Choice Theory. 2004;(September):1–25.
4. Dixon A, Robertson R, Bal R. The experience of implementing choice at point of referral: a comparison of the Netherlands and England. Health Econ Policy Law [Internet]. 2010 Jul [cited 2015 Feb 3];5(3):295–317. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/20462469>
5. Fung CH, Elliott MN, Hays RD, Katherine L, Kanouse DE, Mcglynn EA, et al. Quality of Care Patients' Preferences for Technical versus Interpersonal Quality When Selecting a Primary Care Physician. 2005;957–77.
6. Ensor T, Cooper S. Overcoming Barriers to Health Service Access and Influencing the Demand Side Through Purchasing. 2004;(September).
7. Center for Global Development. Partnerships with the Private Sector in Health What the International Community can Do to strengthen Health systems in Developing countries. November, 2009.
8. Prata N, Montagu D, Jefferys E. Private sector , human resources and health franchising in Africa. 2005;013680(04):274–9.
9. Federal Democratic Republic of Ethiopia Ministry of Health. Health Sector Development Program IV October 2010 Contents. 2014;(October 2010).
10. Federal Democratic Republic of Ethiopia Ministry of Health. Household Health Services Utilization And Expenditure Survey. 2014;(April).
11. Preker AS, Harding A, Travis P. “ Make or buy ” decisions in the production of health care goods and services : new insights from institutional economics and organizational theory. 2000;78(00):779–90.

12. Bhattacharyya O, Khor S, McGahan A, Dunne D, Daar AS, Singer PA. Innovative health service delivery models in low and middle income countries - what can we learn from the private sector? 2010;(Lmic):1–11.
13. Loevinsohn B, Harding A. Buying results? Contracting for health service delivery in developing countries. *Lancet* [Internet]. Elsevier; Jan [cited 2015 Jan 4];366(9486):676–81. Available from: <http://www.thelancet.com/article/S0140673605671401/fulltext>
14. Liu X, Hotchkiss DR, Bose S. The effectiveness of contracting-out primary health care services in developing countries : a review of the evidence. 2008;(November 2007):1–13.
15. Oxfam briefing paper. Blind Optimism Challenging the myths about private health care in poor countries.
16. Rannan-eliya RP. Sri Lanka : “ Good Practice ” in Expanding Health Care Coverage.
17. Balabanova D MM and MA. “ Good health at low cost ” 25 years on.What makes a successful health system? London. London Sch Hyg Trop Med. 2011;
18. Banteyerga H. Ethiopia's Health Extension Program : Improving Health through Community Involvement. 2010;
19. Federal Democratic Republic of Ethiopia Ministry of Health.health and health related indicators 2003/2011.pdf.
20. Mariam DH. Bridging the availability-utilization gap : The issue of quality in the provision of health care.
21. Babalola S, Fatusi A. BMC Pregnancy and Childbirth beyond individual and household factors. 2009;13:1–13.
22. De Allegri M, Ridde V, Louis VR, Sarker M, Tiendrebéogo J YM et al. Determinants of utilization of maternal care services after the reduction of user fees: A case study from rural Burkina Faso. *Health Policy (New York)*. 2011;99(3):210218.
23. Asuzu MC. The necessity for a health systems reform in Nigeria. 16(1):1–3.
24. April P. Oni and Agboje , 2010 Determinants Of Choice Of Healthcare Providers Among Farming And Non-Farming Households : Evidence From Selected Rural Areas Of Ibadan , Oyo State . 2010;6(1993):33–46.

25. Jannati A, Bahrami MA. A Survey of Factors Affecting Patients ' Decision in Selecting Governmental and Private Hospitals in Tabriz , Iran. 2013;2–5.
26. Gauthier B. Bypassing of Health Providers : Competition , Price and Quality of Health Services in Chad. 2007;
27. Rein A. Consumer choice in the health insurance and provider markets: Alook at the evidence thus far. 2007;(October).
28. Sheahan M, Little R, Leggat SG. Australia and New Zealand Health Performance reporting for consumers : issues for the Australian private hospital sector. 2007;7:1–7.
29. Olugbemiga L Abodunrin, James O Bamidele AIO-B and DBP. Preferred choice of health facilities for healthcare adults in Ilorin metropolis, Kwara state, Nigeria. *Int J Heal Res.* 2010;
30. Halasa Y, Nandakumar AK. Factors determining choice of health care provider in Jordan. 2009;15(4):959–68.
31. Muriithi MK. The Determinants Of Health-Seeking Behavior In A Nairobi Slum , Kenya. 2013;9(8):151–64.
32. Habtom GK, Ruys P. The choice of a health care provider in Eritrea. *Health Policy* [Internet]. 2007 Jan [cited 2015 Feb 3];80(1):202–17. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/16647156>
33. Saksena P, Xu K, Elovainio R, Perrot J. Health services utilization and out-of-pocket expenditure at public and private facilities in low-income countries. 2010;
34. Thi N, Thuan B, Lofgren C, Lindholm L, Thi N, Chuc K. Choice of healthcare provider following reform in Vietnam. *BMC Health Serv Res.* 2008;8(162).
35. Kuunibe N, Dary SK. Choice of Healthcare Providers among Insured Persons in Ghana. 2012;2(10):88–97.
36. Awiti JO. Poverty and health care demand in Kenya. 2014;1–17.
37. Karkee R, Kadariya J. Choice of health - care facility after introduction of free essential health services in Nepal. 2013;2(ii).

38. Uchendu OC, Ilesanmi OS, Olumide AE, Centre FM, State O. Factors Influencing The Choice Of Health Care Providing Facility Among Workers In A Local Government Secretariat In. 2013;11(2):87–95.
39. Rao KD, Peters DH, Bandeen-roche K. Towards patient-centered health services in India — a scale to measure patient perceptions of quality. 2006;18(6):414–21.
40. Corresponding EN, Hiemenz U. Determinants of Consumer Satisfaction of Health Care in Ghana : Does Choice of Health Care Provider Matter ? 2006;1(2):50–61.
41. Parasuraman A, Zeithaml VA, Berry LL. Reassessment of Expectations as a Comparison Standard in Measuring Service Quaiity: implications for Furtier Research. 1994;58(January):111–24.
42. Lindholm L CNTNLC. The Perceived Quality Of Healthcare Service And Patients' Satisfaction In District Hospitals, Ulaanbaatar City, Mongolia. PHD Thesis. 2010;
43. Musyoka DLW. Factors That Influence Choice Of Healthcare Provider Options For Malaria In Mwea Irrigation Scheme. Int J Curr Res. 2011;3(11).

Annex 1: Tables of Factor analysis

Table 10 Communalities of each item

| Items | Initial variance of each item | Variance of each item after Extraction |
|---|--------------------------------------|---|
| Gives you good advice and treatment | 1.000 | 0.763 |
| Friendly and helpful to you | 1.000 | 0.669 |
| Professional's listens to you | 1.000 | 0.670 |
| Takes enough time with you | 1.000 | 0.700 |
| Explains what you want to know | 1.000 | 0.656 |
| Degree of courtesy shown by health professionals towards patients or customer | 1.000 | 0.664 |
| Providers are polite and respectful | 1.000 | 0.680 |
| Extent to which the health professionals make sincere effort in helping you | 1.000 | 0.666 |
| Providers responded immediately when needed | 1.000 | 0.657 |
| Providers are well-integrated | 1.000 | 0.637 |
| Degree to which health professionals are competent and skillful in their job | 1.000 | 0.402 |
| Have up-to-date and well maintained equipment | 1.000 | 0.668 |
| The health facility has neat and clean room | 1.000 | 0.604 |
| Easy for finding where to go | 1.000 | 0.592 |
| Waiting room is comfortable and safe | 1.000 | 0.621 |
| Extent of availability of health facility basic infrastructures is good | 1.000 | 0.587 |

Table 11 Total variance explained by the five extracted factors of the scale

| component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 7.470 | 46.685 | 46.685 | 7.470 | 46.685 | 46.685 | 3.599 | 22.494 | 22.494 |
| 2 | 1.624 | 10.150 | 56.835 | 1.624 | 10.150 | 56.835 | 3.531 | 22.068 | 44.562 |
| 3 | 1.140 | 7.127 | 63.962 | 1.140 | 7.127 | 63.962 | 3.104 | 19.400 | 63.962 |

Table 12 Representation of rotated factor loading of each item of perceived quality at usual healthcare providing facility, 2015

| Items | Component | | |
|---|-----------|-------|-------|
| | 1 | 2 | 3 |
| Degree of courtesy shown by health professionals towards patients or customer | 0.769 | | |
| Providers are polite and respectful | 0.76 | | |
| Extent to which the health professionals make sincere effort in helping you | 0.751 | | |
| Providers responded immediately when needed | 0.709 | | |
| Providers are well-integrated | 0.67 | | |
| Degree to which health professionals are competent and skillful in their job | 0.507 | | |
| Gives you good advice and treatment | | 0.826 | |
| Explains what you want to know | | 0.774 | |
| Friendly and helpful to you | | 0.76 | |
| Professional's listens to you | | 0.713 | |
| Takes enough time with you | | 0.71 | |
| Have up-to-date and well maintained equipment | | | 0.744 |
| Easy for finding where to go | | | 0.727 |
| Waiting room is comfortable and safe | | | 0.708 |
| The health facility has neat and clean room | | | 0.700 |
| Extent of availability of health facility basic infrastructures is good | | | 0.684 |

Table 13 Reliability of each component by using scale if item deleted

| Component/factor | Number of items in each component | Cronbach's Alpha of each factor by using scale if item deleted |
|--|--|---|
| Component 1 patient-provider interaction | 6 | 0.873 |
| Component 2 Communication skill of providers | 5 | 0.884 |
| Component 3 Cleanliness/tangibility of Facility | 5 | 0.831 |

Annex 2: Table show number of Government Employees per their Strata
 Table 14 Total number of Government Employees of Nekemte town Administration, 2015 G.C

| S.no | List of Sectors | Total number of Employees |
|-------------|---|----------------------------------|
| | Social service sectors | |
| 1 | Health Sector | 1676 |
| 2 | Education Sector | |
| 3 | Environmental Protection Office | |
| 4 | Culture and Tourism Office | |
| 5 | Sport and Youth Office | |
| 6 | Investment Office | |
| 7 | Technic and Vocational Sector | |
| 8 | Transportation Office | |
| 9 | Social Security Office | |
| 10 | Women and Children Office | |
| 11 | Urban Plan and Construction Office | |
| 12 | Municipality Office | |
| | Economic Sectors | |
| 13 | Internal Revenue | 205 |
| 14 | Finance and development Office | |
| 15 | Urban Agriculture and Cooperative Office | |
| 16 | Micro and Small Scale enterprise office | |
| | Administration Sectors | |
| 17 | Kentiba Office | 348 |
| 18 | Town level house of people representative | |
| 19 | Security Office | |
| 20 | Civil Service Office | |
| 21 | Communication Office | |
| 22 | Social Justice Office | |
| 23 | Polis Office | |
| | Total | 2229 |

Annex 3: English version questionnaire
JIMMA UNIVERSITY
COLLEGE OF PUBLIC HEALTH AND MEDICAL SCIENCES

Questionnaire for data collection on the Factors influencing the government employee's choice
of health care providing facility in Nekemte town, western Ethiopia, 2015 G.C

Verbal consent form:

Hello, how are you? My name is _____. I am currently a student of Jimma University, college of Public Health and medical science; going to conduct survey. I would like to interview you few questions on determinants of choice of healthcare providing facility among government employees in this town. The objectives of the study are to assess determinants of choice of healthcare providing facility among employees of government organizations, which will be important to improve health service delivery of the town and used as input for policy makers. Your cooperation and willingness for interview will be very helpful in identifying the important factors that affect health care utilization of employees. Your name will not be written in the form and I assure you all the information you give will be kept strictly confidential. Your participation is voluntary and you are not obliged to answer any questions that you do not want to answer. If you are not comfortable with the interview, please feel free to stop it any time you like.

Do I have your permission to continue?

If yes, continue to next page for the interview; if no, continue to next employee

I thank you for your cooperation!

Interviewer's Name _____ **Signature**_____

Date of interview _____ **Time started**_____ **time finished**_____

Supervisor's name_____

Part I. Identification information

101. Subject identification-number : _____

102. Name of organization _____

Part II. Socio-demographic and economic characteristics of Respondents

| S.no | Question | Response classification | Code |
|------|--|---|------|
| 201 | Sex of the respondents | 1. male 2. female | |
| 202 | How old are you in the last birthday? | Age in completed years _____ | |
| 203 | What is your marital status? | 1. Single 2. Married 3. Divorced 4. Widowed 5. Other (specify) _____ | |
| 204 | What is your ethnicity? | 1. Oromo 2. Amhara 3. Tigre 4. Gurage 5. Other (specify) _____ | |
| 205 | To which religion are you belonging? | 1. Orthodox 2. Protestant 3. Muslim 4. Catholic 5. Other (specify) _____ | |
| 206 | What is your level of education? | 1. Certificate up to grade 12 2. Level I certificate 3. Level II certificate 4. Diploma 5. Bachelor 6. Post graduate | |
| | Your professions' | _____ | |
| 207 | Family status | 1. Live alone 2. Live with family | |
| 208 | Family size | In number _____ | |
| 209 | What is your average monthly family income? | _____ Ethiopian birr | |
| 210 | What is your average expenditure on health per year? | _____ Ethiopian birr | |

Part III. Choice of healthcare providing facility

301. Where do you first seek help when you or a member of your family gets sick?
- a) Traditional healer
 - b) Modern health care facility
 - c) spiritual remedies
 - d) others (please, specify) ____

302. When you choose to visit modern health care facility, which of the following do prefer as your or for your family as **usual** health care providing facility?

- a) Public hospital
- b) Public health centers
- c) Private for non-profit clinics
- d) Private for profit (higher clinics)
- e) Private for profit (medium clinics)
- f) Private for profit (small clinics)
- g) Private for profit (pharmacy)
- h) Private for profit (drug stores)

303. What factors play a part in your decision to choose it as your usual healthcare providing facility for you or your family?

| Options | Yes | No |
|---------------------------------------|-----|----|
| Availability of qualified personnel's | | |
| Cost of health services | | |
| Friendly staffs | | |
| Time saving | | |
| Effectiveness of treatment | | |
| Equipment and Lab Service | | |
| Drug Availability | | |
| Proximity to home | | |
| Privacy | | |
| Reputation of health care facility | | |
| Quality of service provided | | |
| No other choice | | |

Part IV. Please rate each statement below regarding service quality in your usual healthcare providing facility

Instruction: Please show the extent to which you think your usual healthcare providing facility would possess the feature described by each statement. If you feel the item is absolutely essential for excellent healthcare providing facility, circle 5. If you think a feature is not at all essential for healthcare providing facility such as the one you have in mind, circle the number 1. If your feelings are less strong, circle one of the numbers in the middle.

| S.no | Dimension of quality | Possible answer based on 5-point likert scale | | | | |
|------|---|---|----------|-------------|-------|----------------|
| | | Strongly disagree | disagree | indifferent | agree | Strongly agree |
| 401 | Ease of getting care/ Waiting time | | | | | |
| 1 | The location is convenient | 1 | 2 | 3 | 4 | 5 |
| 2 | Health personnel are always available when they are needed | 1 | 2 | 3 | 4 | 5 |
| 3 | The total time spent in the facility is too long | 1 | 2 | 3 | 4 | 5 |
| 4 | The time spent waiting to be attended to is too long | 1 | 2 | 3 | 4 | 5 |
| 5 | The time spent with the doctor or attending health personnel is too short | 1 | 2 | 3 | 4 | 5 |
| 6 | Waiting time for Laboratory test and collecting result too long | 1 | 2 | 3 | 4 | 5 |
| 7 | The time spent waiting to collect drugs is too long | 1 | 2 | 3 | 4 | 5 |
| 8 | Prescribed drugs are available and affordable | | | | | |
| 402 | interpersonal and communication skills | | | | | |
| 9 | Listens to you | 1 | 2 | 3 | 4 | 5 |
| 10 | Takes enough time with you | 1 | 2 | 3 | 4 | 5 |
| 11 | Explains what you want to know/answer your questions properly | 1 | 2 | 3 | 4 | 5 |
| 12 | Gives you good advice and treatment | 1 | 2 | 3 | 4 | 5 |
| 13 | Friendly and helpful to you | 1 | 2 | 3 | 4 | 5 |
| 403 | Charges / Billing | | | | | |
| 14 | The total cost of all the service received is too expensive | 1 | 2 | 3 | 4 | 5 |
| 15 | The charges for payments are | 1 | 2 | 3 | 4 | 5 |

| S.no | Dimension of quality | Possible answer based on 5-point likert scale | | | | |
|------------|--|---|----------|-------------|-------|----------------|
| | | Strongly disagree | disagree | indifferent | agree | Strongly agree |
| | explained to me | | | | | |
| 16 | The process for money collection is too long | 1 | 2 | 3 | 4 | 5 |
| 404 | cleanliness of facility | | | | | |
| 17 | Neat and clean building | 1 | 2 | 3 | 4 | 5 |
| 18 | Ease of finding where to go | 1 | 2 | 3 | 4 | 5 |
| 19 | Comfort and Safety while waiting | 1 | 2 | 3 | 4 | 5 |
| 20 | Have up-to-date and well maintained equipment's | 1 | 2 | 3 | 4 | 5 |
| 21 | Extent of availability of amenities (continuous electricity and water supply and sanitation facilities) | 1 | 2 | 3 | 4 | 5 |
| 22 | Privacy well-maintained | 1 | 2 | 3 | 4 | 5 |
| 405 | Responsiveness | | | | | |
| 23 | Providers responded immediately when needed | 1 | 2 | 3 | 4 | 5 |
| 24 | Providers are polite and respectful | 1 | 2 | 3 | 4 | 5 |
| 25 | Providers are well-integrated | 1 | 2 | 3 | 4 | 5 |
| 406 | Health provider quality | | | | | |
| 26 | Degree of courtesy shown by hospital administrative staff towards patients/customers | 1 | 2 | 3 | 4 | 5 |
| 27 | Extent to which the health professional makes sincere effort in helping you or solving your problems and complaints | 1 | 2 | 3 | 4 | 5 |
| 28 | Degree to which health professionals are competent and skillful in their jobs | 1 | 2 | 3 | 4 | 5 |
| 29 | Extent to which the medical test and treatment procedures and results are adequately explained by the concerned professional | 1 | 2 | 3 | 4 | 5 |

Part V. Please rate your satisfaction with the health services provided in the usual place you receive health care

Instruction: Please show the extent to which you think your usual healthcare providing facility would satisfy your need. If you think the health services you receive absolutely satisfying, circle 5. If you think the health services you receive highly dissatisfying, circle the number 1. If your feelings are less strong, circle one of the numbers in the middle.

| S.no | Satisfaction of healthcare providing facility | Possible answer based on 5-point likert scale | | | | |
|------|--|---|--------------|-------------|-----------|----------------|
| | | Very dissatisfied | dissatisfied | Indifferent | satisfied | Very satisfied |
| 1 | Satisfaction with overall stay in health facility | 1 | 2 | 3 | 4 | 5 |
| 2 | Satisfaction with the medical care and treatment provided by healthcare professional | 1 | 2 | 3 | 4 | 5 |
| 3 | Satisfaction with the care provided by supportive and administrative staff | 1 | 2 | 3 | 4 | 5 |
| 4 | Satisfaction with the amount of hospital expenses in comparison with the medical care received | 1 | 2 | 3 | 4 | 5 |

Annex 4: Translated questionnaire (Afan Oromo)

Gaafannoo Afaan Oromiffaa

Gaafannoo wantoota fedhii filannoo dhaabbilee fayyaa hojjeetoota Mootummaa dangeessan irratti tasiifaamu

Waliigalte afaanin tasiifaamu:

Akkam Jirta? Ani Maqaan koo _____ Jimmaa yuunivarsititi barata digirii lammaffaa koolleejji Fayyaa fi meedikaali saayinsi keessatti hordofa kan jiru yoo ta'u; yeroo amma kanatti qorannoo wantoota fedhii filannoo fayyaa hojjeetoota Mootummaa dangeessan irraatti hojjechan jira. Kaayyoon qorannoo kana wantoota fedhii filannoo hoojjetoota mootummaa dhaabbilee fayyaa magaalaa Naqamtee keessaa jiran irraatti dangeessan addaan baasuu fi tarkaanfiilee barbaachisa ta'ee akka fudhatamuu dandeesisuudha. Kunis tajaajila fayyaa magaalaa keenya cimsuu fi akkasumas qaama poolisii fayyaa baasuuf akka ittigalatti/input kan gargaruudha. Hirmanna fi fedhiidhaan hirmachuun keessaan wantoota filannoo dhaabbilee fayyaa hoojjeta dangeessaan addaan baasuudhaaf bu'a guddaa qaba. Maqaa fi ID keessaan guutun hin barbaachisuu; akkasumas odeeffannoo isaani nuuf kennitan hundu icitiidhaan kan eegamuudha. Gaafannoo guutun keessaan fedhii waan ta'eef gaaffiin deebisuu hin barbaadeen yoo jirta fi dhisuus yoo barbaadan mirgi keessaan eegamadha.

Itti fufu dandeenyaa? a. eeyeen b. miti Yoo deebiin isaa/ishee eeyee ta'e gara gaaffiileetti fufi yookaan gara hoojjeeta itti aanuutti darbi.

Maqaa gaafataa _____ Mallattoo _____

Guyyaa _____ yeroo itti jalqabamee _____ yeroo itti xumurame _____

Maqaa suupaarvizaara _____

Kutaa 1^{ffaa} Koodii gaafannoodhaaf kennamuu

101. koodii gaafannoo _____

102. Maqaa mana hoojjichaa _____

Kutaa 2^{ffaa} Odeeffannoo wali-gala gaafatamaa

| Lakk. | Gaaffiilee | Filannoo gaffiileef | koodii |
|--------------|---|--|---------------|
| 201 | Saala | 1) dhiira 2) dhala | |
| 202 | Umrii | Umrii lakkoofsa guutudhaan (wagga) _____ | |
| 203 | Haala fudhaa fi heerumma | 1) kan hin funne/heerumnee 2) kan fudhee/heerumte 3) kan wal-hiike/hiikte 4) kan abbaan mana/haatii mana jala du'e/dutee 5) kan biro yaa ibsamu _____ | |
| 204 | Saba | 1) Oromoo 2) Amaara 3) Tiigree 4) Guuraagee 5) Kan biroo yaa ibsamu_____ | |
| 205 | Amantii | 1) Ortoodoxii 2) Proteestantii 3) Muuslima 4) katoolikii 5) kan biroo yaaa ibsamu _____ | |
| 206 | Sadarkaa barumsaa | 1) saartafikeetii hanga kutaa 12 2) Level I saartafikeetii 3) Level II saartafikeetii 4) Diplooma 5) Digirii dura(BSc.) 6) Digirii lammaffa fi isaa ol | |
| | Ogummaa hoojjeticha | _____ | |
| 207 | Baay'ina maatii qabu | 1) Kan qofa jirtu 2) Maatii kan qabu | |
| 208 | Baay'ina maatii qabu | Laakkoofsan _____ | |
| 209 | Galii gidduu-galeessaan ji'an argatu | Qarshii _____ | |
| 210 | Gidduu-galeessaan qarshii tajaajila fayyaa argachuuf waggatti baasuu/tu | Qarshii _____ | |

Kutaa 3^{ffaa} Dhaabbata fayyaa tajaajila itti argatanii fi haala filannoo Gaafatama

301. Yeroo ofii keessanii dhukkubfatan ykn maatiin keessaan keessaa namni tokko yoo dhukkubfatu tajaajila yaalaa eessaa argatu/ta?

- a. Ogeessaa yaalaa kan aadaa irraa
- b. Mana yaalaa hammayyaa irraa
- c. Kara mana amanta ykn abbootii amanta irraa
- d. Kan biroo yaa ibsamuu_____

302. yoo filannoo keessaan mana yaala hammayyaa ta'ee, kaneen armaan gadii keessaa bakki yeroo baay'ee itti yaalamtan kamii?

- a. Hoospitaala mootummaa
- b. Buufata fayyaa mootumma
- c. Kiliinikaa dhuunfaa kan miti-mootummaa ykn dhaabbilee amanta
- d. Kiliinikaa dhuunfaa kan sadarkaa olaan ta'e
- e. Kiliinikaa dhuunfaa kan sadarkaa gidduu-galeessaa
- f. Kiliinikaa dhuunfaa kan sadarkaa gadii-aanaa
- g. Mana qoricha kan dhuunfaa
- h. Duukanna qoricha kan dhuunfaa

303. Sababi dhaabbata fayyaa kana yeroo baay'ee ofii keessaaniif ykn maatii keessaniif filataniif?

| Filannoo | eeyee | Miti |
|--|-------|------|
| Ogeessoonni waan gahumsa qabaniif waan jiraniif | | |
| Gatii tajaajila isaanii gaarii waan ta'eef | | |
| Ogeessoonni aan naamusaan nama tajaajilaniif | | |
| Yeroo gababaa keessatti waan tajaajila argadhuuf | | |
| Yaalii isaanii bu'aa qabeessa waan ta'eef | | |
| Meeshaalee hammayyaa fi labooratoorii gaha waan qabaniif | | |
| Qorichi waan argamuuf | | |
| Manatti dhiyoo waan ta'eef | | |
| Iciitin waan eegamuuf | | |
| Dhaabbatich fayyaa waan maqaa gaarii qabuuf | | |
| Tajaajila qulqullinaa qabu argachuuf | | |
| Filannoo bira waan hin jireef | | |

Kutaa 4^{ffaa} Gaaffiilee haala qulqullina dhaabbataa fayyaa tajaajila itti argatanii ofii kessaami ittin madaalatan

Qajeelfama: Gaaleewwan armaan gadii wantoota dhaabbatani fayyaa yeroo baay'ee itti tajaajila argatani of-keessaa qabachuu kan irraa eegamuu kan ibsuudha. Kana irraatti hundu'udhaan wantootni tarreeffaman yoo baay'isee barbaachisa ta'e 5 irraa mara. Yoo sirritti hin barbaachisu ta'e 1 irraa mara ykn yoo ilaalcha gidduu-galeessa qabatan lakkoofsa jidduu jiran irraa mara.

| Lak. | Gaaffiilee qulqullina ittin madaalamu | Filannoo madaalii likaarti sikeelii 5 irraattin hunda'e (5-point likert scale) | | | | |
|------|---|--|---------------|-----------------|------------|-------------------------|
| | | Baay'een itti wali hin galu | Wali hin galu | Gidduu-galeessa | Walin gala | Baay'een itti wali gala |
| 401 | Haala salphaadhaan/yeroo gababa keessatti tajaajila argachuu | | | | | |
| 1 | Iddoon argama dhaabbata fayyaa tajaajilamuuf mijaa'adha | 1 | 2 | 3 | 4 | 5 |
| 2 | Ogeessoonni fayyaa yeroo barbadamanitti ni argamu | 1 | 2 | 3 | 4 | 5 |
| 3 | Yeroon wali-gala tajaajila argachuuf olu dheeraadha | 1 | 2 | 3 | 4 | 5 |
| 4 | Yeroon ogeessa bira gahuuf fudhatu dheeraadha | 1 | 2 | 3 | 4 | 5 |
| 5 | Yeroon ogeessoonni dhukkubsata wajjin turan gababadha | 1 | 2 | 3 | 4 | 5 |
| 6 | Yeroon buu'aa lab. argachuuf olu dheeraadha | 1 | 2 | 3 | 4 | 5 |
| 7 | Yeroon qoricha bituuf olu dheeraadha | 1 | 2 | 3 | 4 | 5 |
| 8 | Qoricha ajaajamee argachuu fi bituuf salphadha | | | | | |
| 403 | Haala wal-qunnamiti ogeessaa fi tajaajilama gidduu jiru | | | | | |
| 9 | Ogeessoonni sirritti isin dhageefatu | 1 | 2 | 3 | 4 | 5 |
| 10 | Yeroo tajaajilaa kennuf barbaachisuu isin wajjin dabarsu | 1 | 2 | 3 | 4 | 5 |
| 11 | Wanta isin gaafatan/barbadan addaan baasani isinitti himuu | 1 | 2 | 3 | 4 | 5 |
| 12 | Gorsa fi yaala gaarii isinif laatu | 1 | 2 | 3 | 4 | 5 |

| Lak. | Gaaffiilee qulqullina ittin madaalamu | Filannoo madaalii likaarti sikeelii 5 irraattin hunda'e (5-point likert scale) | | | | |
|------|--|--|---------------|-----------------|------------|-------------------------|
| | | Baay'een itti wali hin galu | Wali hin galu | Gidduu-galeessa | Walin gala | Baay'een itti wali gala |
| 13 | Ofitti dhiyeessuudhaan gargaarsa laatu | 1 | 2 | 3 | 4 | 5 |
| 404 | Haala kanfaalitti qarshii ilaalchisee | | | | | |
| 14 | Gatiin wali-gala tajaajilaaf gaafatamu baay'ee mi'adha | 1 | 2 | 3 | 4 | 5 |
| 15 | Waan kanfaltaniif isin ibsuu | 1 | 2 | 3 | 4 | 5 |
| 16 | Adeemsi qarshii kanfaluuf fudhatuu baay'ee dheeraadha | 1 | 2 | 3 | 4 | 5 |
| 405 | Haala qulqullina dhaabbata fayyaa | | | | | |
| 17 | Manni yaala itti kennamuu qulqulludha | 1 | 2 | 3 | 4 | 5 |
| 18 | Kaallatti argarsiiftuun seeran qixaa'ee jira | 1 | 2 | 3 | 4 | 5 |
| 19 | Iddoon argaliifi mijaa'adha | 1 | 2 | 3 | 4 | 5 |
| 20 | Meeahaalee hammayyaa fi sirritti suuphaman qaba | 1 | 2 | 3 | 4 | 5 |
| 21 | Buu'uraaleen misooma guutu qaba(continuous electricity and water supply and sanitation facilities) | 1 | 2 | 3 | 4 | 5 |
| 22 | Manni yaala itti kennamuu iciiti tajaajilamaa eeguuf gahadha | 1 | 2 | 3 | 4 | 5 |
| 406 | Yeroon deebii kennuu | | | | | |
| 23 | Ogeessoonni tajaajila barbaachisuu haatataman kennu | 1 | 2 | 3 | 4 | 5 |
| 24 | Ogeessoonni naamusa gaarii kan qaban fi kan nama kabajanidha | 1 | 2 | 3 | 4 | 5 |
| 25 | Ogeessoonni sirritti waliin qindaa'anii hoojjeetu | 1 | 2 | 3 | 4 | 5 |
| 407 | Ogeessoota fayyaa/human nama ilaalchise | | | | | |
| 26 | Hoojjeetoonni deeggarsa tajaajilamtootaaf simaana gaarii qabu | 1 | 2 | 3 | 4 | 5 |
| 27 | Ogeessoonni fayyaa rakkoo keessaan hiikuudhaaf | 1 | 2 | 3 | 4 | 5 |

| Lak. | Gaaffiilee qulqullina ittin madaalamu | Filannoo madaalii likaarti sikeelii 5 irraattin hunda'e (5-point likert scale) | | | | |
|------|--|--|---------------|-----------------|------------|-------------------------|
| | | Baay'een itti wali hin galu | Wali hin galu | Gidduu-galeessa | Walin gala | Baay'een itti wali gala |
| | ykn isin gargaaruuf dhimmamani hoojjetu | | | | | |
| 28 | Ogeessoonni fayya gahumsa fi ogummaa gaha qabu | 1 | 2 | 3 | 4 | 5 |
| 29 | Firiin qorannoo lab. Fi haalli qoricha ittin fudhatamu ogeessaa dhimmi isaa ilaaluun ibsi isinif kennama | 1 | 2 | 3 | 4 | 5 |

Kutaa 5^{ffaa} Gaaffiilee itti qufinsa dhaabbata fayyaa tajaajila yeroo baay'ee itti argatanii ittin madaalamu

Qajeelfama: Gaaffiilee armaan gadii deebisuudhaan itti qufinsa dhaabbata fayyaa tajaajila yeroo baay'ee itti argatanii madaalaa. Yoo tajaajilli fayyaa isin argatanii baay'ee isin qubse 5 irraa mara. Yoo kan bay'ee isin hin qubsinee 1 irraa mara ykn yoo ilaalcha gidduu-galeessaa qabatan lakkoofsota jidduu jira irraa mara.

| S.no | Gaaffiilee | Filannoo madaalii likaarti sikeelii 5 irraattin hunda'e (5-point likert scale) | | | | |
|------|--|--|----------------|-----------------|--------------|----------------------|
| | | Baay'ee itti hin qufne | Itti hin qufne | Gidduu-galeessa | Itti qufeera | Baay'ee itti qufeera |
| 1 | Itti qufinsa wali-gala adeemsa dhaabbata fayyaa tajaajila itti argatani (courtesy, treatment and stay) | 1 | 2 | 3 | 4 | 5 |
| 2 | Itti qufinsa wali-gala kunuunsa meedikaala fi yaalaa ogeessoota fayyaatin isin kenname | 1 | 2 | 3 | 4 | 5 |
| 3 | Itti-qufinsa wal-gala hoojjeta gargaarsa fi bulchiinsa irraatti qabdan | 1 | 2 | 3 | 4 | 5 |
| 4 | Itti qufinsa wal-gala tajaajila yaala argatani qarshii baasatan waliin yoo madaalamu | 1 | 2 | 3 | 4 | 5 |

Declaration

The undersigned agrees to accept responsibility for the scientific, ethical and technical conduct of the evaluation research project proposal and for provision of required progress report as per terms and conditions of the colleges of public health and medical sciences in effect at the time the grant is forwarded as result of this application:-

Name of student _____

Date _____ Signature _____

Approval of the advisors

Name of the first Advisor: _____

Date _____ Signature _____

Name of second Advisor: _____

Date _____ Signature _____