UTILIZATION OF OUTPATIENT MODERN HEALTH CARE AND ASSOCIATED FACTORS IN GAMBELLA TOWN, GAMBELLA STATE, SOUTHWEST ETHIOPIA

BY; YARED TESFAYE (BSc.)

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ADVISORS:

DR. ELIAS ALI YESUF (MD, MPH) [1]

MR. TESFAMICHAEL ALARO AGAGO (MPH) [2]

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Abstract

Background: *Utilization of healthcare services by the people arise from a complex interaction of different factors as demographic, socioeconomic, morbidity profiles, and health service availability and quality. The objective of this paper assessed utilization of outpatient healthcare services conditional on illness report, and investigate factors that affect use of outpatient healthcare in Gambella town, southwest Ethiopia.*

Methodology: *A community – based cross - sectional study by employed self-report of morbidity in the three months' recall period was conducted in the five kebeles of Gambella town, southwest Ethiopia from August 07 to August 21, 2014. A total of 834 sampled households selected by simple random sampling methods were included in the study. Data were collected through face-to-face interview by employing a standardized structured pre-tested questionnaire. Data analysis was performed by SPSS Window version 21. Bivariate and multivariate logistic regression were performed to identify statistically significant factors at p-value of less than 0.05 that affect utilization of outpatient modern healthcare services.*

Result: *Half of the households participated in the study reported illness in the past three months. A 13.8% of morbidity report in study subjects in the past 3 months in the study area. Of those reported illness, 51.9% of them were utilize modern outpatient healthcare services. In the multivariate, perceived severe (AOR=6.76; 95%CI:3.14, 14.55) and moderate (AOR=4.14; 95%CI:2.22, 7.72) illness, ill person from richest20% (AOR=2.10; 95%CI:1.05, 4.16) and upper-middle (AOR=3.82; 95%CI:1.86, 7.85) quintile households, children under five years of age (AOR=5.21; 95%CI:2.30, 11.82), ill persons from households of heads attained college & above education (AOR=3.01; 95%CI:1.58, 6.04), ill persons from female-headed households (AOR=0.33, 95%CI:0.16, 0.68), and availability of health facility within walk travel time of less than 30 minutes (AOR=1.94; 95%CI: 1.10, 3.42) were significant determinants/ factors affecting utilization of outpatient modern healthcare services during sickness in Gambella town. Financial cost and physical access of health facilities were the most barriers in accessing modern medical care during sickness.*

Conclusion & recommendations: *Utilization of outpatient healthcare services after sickness among the study participants in the study area was low. To increase utilization of healthcare services interventions like community-based health care insurance scheme should be put in place to reduce the financial burden faced by poor households in using healthcare services as they were most susceptible to ill-health. In bridging the gap in physical access of the community to healthcare facilities, bringing health facilities together with quality services closer to all communities may increase utilization of healthcare services by the populations in the study area. More importantly, investing in education will increase peoples' use of healthcare services.*

Key words: *Household; Perceived illness; Healthcare facility; Outpatient healthcare utilization;*

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Acronyms

CSA	Central Statistics Agency
EDHS	Ethiopia Demographic and Health Survey
EFMOH	Ethiopia Federal Ministry of Health
GTP	Growth and Transformation Plan
HF	Health Facility
HH	Household
HSDP	Health Sector Development Programme
HSDP – III	Health Sector Development Programme phase three
PIOP	Policies, Institutions, Organizations and Processes
SNNP	Southern Nation Nationalities and Peoples
WHOs	World Health Organizations

CHAPTER ONE: INTRODUCTION

1.1 Background

Access, availability, utilization and coverage are some of extremely relevant concepts that have frequently been used to measure health services that reveals whether people are receiving the services they need. Utilization is often defined as the quantity of health care services used by the populations(1). Utilization of healthcare services is an important determinant of health, and has a particular relevance as a public health and development issue, especially in low-income countries(2). Accordingly, increased use of healthcare services for designated populations is a major target in many developing nations(3).

Three and half decades ago, the World Health Organization declared in Alma-Ata declared primary health care for all to be available, accessible, in socially acceptable and technologically feasible manner. According to this view, the health system has three fundamental objectives: to improve the health of the population (health attainment), to respond to people's expectations (responsiveness) and to provide financial protection for the poor against the cost of ill-health (fairness of financing)(4). Despite this, health systems are frequently being identified as ineffective in reaching the people who need them most, generate less benefit for the poor than the rich, and impose regressive cost burdens on poor households(4). Access to, and utilization of health care is increasingly being identified as one of the most pressing challenges to the health care system, and by extension health policy, in many developing nations(5).

Ethiopia is one of the low-income countries in sub- Saharan Africa with poor health status and rapidly growing population that severe poverty, low education, and limited access to health services are the root causes of major health problems in the country. In addition, the country's health service delivery system is deficient and in coverage poorly organized(6). The Government of Ethiopia in its Growth and Transformation Plan (GTP) recognizes improving the health of the country's population is a major component of alleviating poverty. In line to this the Government continues to become the sole provider of health care services to the general population(7). Although the state played a central role in provision of health & medical care services, the involvement of private sectors in health care provision have changed considerably over time, which can help in reducing the burden on the government of ever-increasing demand for health care, offers consumers choice and competition.

From the past three phases of Ethiopia's Health Sector Development Programme (HSDP's) taken on fifteen years, the accelerated expansion of primary health care coverage has result a dramatic increase in the number of government health facilities; and, the potential health service coverage of the country has been increased significantly from 51% in 2000 to 92% in 2012(6,8). However, the country still unable to achieve significant improvements in utilization of health care service by the population(9); as a result, use of the public sector for preventive and curative services remained poor(10).

There has long been interest in what influences people's behavior in relation to their health and what prompts people to use health care services(11,12). Many existing models seeks to explain the steps taken by people to act in the interest of their health and the determinants or factors that affect these pathways and lead to actual use of health care service(13). As clearly described in the Health Access Livelihood Frame work, utilization is determined by the interplay of a set of factors(13). They related to the process of healthcare seeking; the health care services and the broader policies, institutions, organizations, and processes (PIOP) that govern these services; and the livelihood assets people can mobilize and combine in particular vulnerability context.

The determinant or health behavior model that has been the basis of most works on utilisation is the Andersen and Newman's framework work of health service utilisation(14). The 1995's Andersen-Newman model had three components, namely predisposing, enabling, and need, for grouping a set of variables(14). Predisposing factors defined as the socio-cultural characteristics of individuals that exist prior to illness, and can relate to social structures, health beliefs, and demographics. Enabling factors defined as the resource at the individual, family, and community level which could faclitate or hinder utilization of services. Need is defined as the most immediate cause of health service use, arised from functional and health problems that generate the need for health care services. "Perceived illness will better help to understand care-seeking and adherence to a medical regimen"(15).

As the decision to engage with a particular medical channel is influenced by a variety of factors, this behavior model are based on the determinants that affect this decision-making and take into account the socio-economics, sex, age, social status of women, type of illness, access to, and perceive quality of health services(16,17). In developing countries, in view of socio-economic problems, predisposing and enabling factors serve as barriers to utilisation. To culminate, in any country improving utilization of health services by the population are crucial.

1.2 Statement of the problem

Even if Ethiopia achieved a rapid expansion of health care infrastructure at all levels, for instance primary health care coverage increased from 51% in 2000 to 92% in 2011(6), overall outpatient health care utilization rate of the country remains very low. Based on Ethiopian Demographic and Health Surveys (18), outpatient health care utilization per capita per year has increased only marginally from 0.27 visits in 2000 to 0.3 visits in 2011(6). Moreover, there exist significant differences in potential health service coverage and utilization of services between regions of the country.

According to the Federal Ministry of Health 2012 report, only taking in to account Government health facilities, the primary health care coverage of Gambella region was estimated at 243%, the highest of all other regions of the country(6). However, the outpatient health care utilization rate from public facilities per person per year was 0.23,which less than the national average (0.3) and the third lowest among regions only higher than Somalia Region (0.05) and Afar Region (0.09) visit per capita(6). This showed the significant gaps that exist in the region between actual utilization of healthcare services by the population and the reported potential primary healthcare coverage(19). As a result, use of the public sector for preventive and curative services remained poor(20).

It is unlikely that this gap was attributed to a decline in morbidity in the region; rather, this gap between the physical availability of healthcare facilities and lower utilization of its services by the population driven by the many sets of factors (21). It is well recognized that even when optimal conditions exist in terms of service distribution and proximity, reasonable quality(22), utilization may or may not occur. The reason people do not make use of healthcare services is driven by both the supply-side and demand-side factors(22).

The utilization of available healthcare services by the people arise from a complex interaction of different factors such as demographic, socioeconomic, and psychological aspects, morbidity profiles, and health service availability and quality(23). Many Studies pointed out distance from, or absence of, healthcare facility, cost of care, household socio-economic, educational status of patients', or mothers in case of children were all influenced utilization of health care(24–30). For instance, the 2011 Ethiopia Demographic and Health Surveys report indicated that 97% of women's in Gambella region have faced at least one problem related to social,

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cultural, and economic conditions in accessing healthcare services for themselves when they felt sick(18)

In Ethiopia, most public medical services are cheap, for the poorest even free. Nevertheless, it is not fully utilized. Even for the poor, the private health sector plays a dominant role in providing healthcare. Evaluation of Ethiopia HSDP revealed overall national per capita utilization has fallen from 0.36 in 2004 to 0.32 in 2007 and to 0.3 in 2011(31). The report further stated the introduction of user fees as a deterrent to poor people, poor staff attitude in the public health sector and others as a contributing factor for the reduction in outpatient utilization of public healthcare services by the populations.

Many government health units in Gambella region faced with situations of unused physical capacity, lack of trained staff, high turnover of the limited available health workforce due to security problems, and a serious shortage in the supply of medical equipment and pharmaceutical supply(32); together with the lack of health post in the town, weak regulation and the higher cost of medical care in the private-for-profit sector may worsened the low utilization of health care services of the peoples.

Under these circumstances, as long as to some little extent the supply-side factors were investigated, understanding the demand-side factors on peoples' use of formal healthcare services should deserve more attention in order for improving the health of the populations, and achieving the broader equity in health care. However, empirical evidence from household utilization studies on the areas that focus on the determinants of utilization of outpatient healthcare of the people in Gambella town are very scarce or nil. Thereof, this study aims to understand utilization of health care services by the urban populations and investigate factors that influence use of services in Gambella town.

CHAPTER TWO: LITERATURE REVIEW

2.1 Determinants of Utilization of Outpatient Healthcare Services

There has long been interest in what influences people's behavior in relation to their health and what prompts people to use health services(11,12). Some important empirical and theoretical contributions of researchers across the globe related to this study are reviews to help understand and give a clear view on the research topic.

Many existing models seeks to explain the steps taken by people to act in the interest of their health and the determinants or factors that affect these pathways and lead to actual service use(13). In the Health Access Livelihood Framework, utilization of healthcare is determined by the interplay of a set of factors(13), which are related to the process of healthcare-seeking; the healthcare services, and the broader PIOP's that govern these services; and the livelihood assets people can mobilize and combine in particular vulnerability context. The non-cognitive factors that could affect health-seeking and put this process into a contextual situation, such as the context of socio-cultural and economic fundamentals(33), often called the determinants that leads us to the *"behavioral model of utilization"*(13)*,* and the *"four A's"* model. The determinant model concentrate on factors influencing access to health care and consider access as a general concept summarizing a set of more specific dimensions(13).

The *"four A's"* model use different categories to group key factors in to availability, accessibility, affordability, and acceptability(4). This mainly emphasize distance and economic aspects as key factors for utilization to take place. The *"health behavior model"* that has been the basis of most works on utilisation is the Andersen and Newman's (1995) framework work of health service utilisation(14). According to Andersen and Newman, paying a visit to a health facility is determined by three sets of factors: predisposing factors, enabling factors, and need factors(14,15). In the successive section, variables in each set was clearly described.

2.1.1 Predisposing Factors

Socio-demographics

These set of factors includes age, gender, ethnicity, educational status, religion, and family size which can determine utilization of outpatient healthcare services.

Age*:* this demographic factors show some correlation with the use of healthcare services. Attitude differs towards a sick child and an adult in that children were giving priority in

accessing healthcare services. A study conducted in Ethiopia by Angaw M. et al' (2013) that looked into self-reported healthcare seeking behavior in rural areas found a great difference between a child and an adult related illness conditions in household that treatment seeking behavior to delay four to nine times more for adults comparing to children's(21). Another study done by Taffa et al' (2005) in Kenya that looked in child morbidity and health care utilization found that infants were got priorities in treatment seeking than sick old children(34). This may note that healthcare-seeking behavior may greatly vary by age groups and this may be due to a greater parental/ household concern for children.

Gender*: gender disparities in access to health services have studied in a number of countries and the findings were different from one another. In Ethiopia, female-headed households were more users of traditional healers for the sick household members than modern care(35). In Kenya, female-headed households found to rely significantly on private clinics(34). This difference in gender regarding use of healthcare services may arise due to the difference in socio-culture environment that shape views people holds that significantly differ across different societies.

Education*: one important predictor of utilization of health services is education. The educated are more cautious and conscious of their health, and tend to use health services more. Konde-lule JA et al' in a household survey in Uganda that looked in to the use of private and public health care found that education level were an important factors that determine health care utilization(36). They found out that education of household head influences the probability of children visiting a healthcare. In other words, the probability of not seeking care decreases with increase in education.

2.1.2 Enabling Factors

Socio-economic factors

Household wealth: the assets that households have acquired are a good indicator of their long-run economic status(37), and it is socio-economic status that is often used as an indicator of health(38). This is an important determinant, since the budget constraint impeded poor household's access to formal care. Many studies identify economic status as the most significant predictor of service use (39). Sreeramareddy CT. et al' (2012) in a household survey in India, found that the use of private health care provider for treatment of childhood illness did increase substantially with increasing household wealth index, having a clear gradient

across wealth quintiles with richer and richest have highest for seeking treatment from private providers (27). Similarly, Konde-lule JA et al' in a household survey in Uganda that looked in to the use of private and public health care found social gradient were an important determinants of health care utilization as the poor would seek care less often than the better off (36).

On the other, a study done in Jimma, Ethiopia, Fitsum G. et al (2011) found peoples from the low and medium socioeconomic strata were more users of health facilities, and peoples below poverty line were o.7 times likely to use government facilities than those above the poverty lines(38). This significant situation is clear that in every society morbidity and mortality are higher among the poor.

Employment: is also an important determinant, since it is a determinant of household wealth, hence an enabling factor.

Health Facility Accessibility Factors

These characteristics of the health care system have shown to influence individuals whether or not to seek care outside home as well as their choice of providers in many studies. These can relate to the geographical/ physical accessibility, which include distance to a healthcare facility, means of transport used, proximity of the healthcare facility, and travel time taken; temporal accessibility as working/ opening hours of the health facility(40). Financial accessibility can include the cost of the services affordable to the patients' socio-economic status and ability to pay, transportation cost, etc.(41)

Distance to a healthcare facility*:* distance is associated with transportation costs that increase total costs and lower utilization. In a household survey in Jimma conducted by Fitsum(38) distance was found as a significant factors that affect utilization of healthcare services.

Means of transport: travelling a long distance by foot poses major difficulties for those ill to walk and for parents carrying their sick children

Proximity to healthcare facility: This characteristic of the facility in many studies found that private facilities were more advantageous/ beneficial from proximity(35,36,42) as they were available very closer to the community that most patients preferred/ more liked.

Open/ work hours: appropriate working hours is also an important factor to caretakers' that influence their choice of care providers (43). He found that working hours in the private facilities were more flexible than the public facilities.

2.1.3 Need Factors

Though predisposing and enabling factors are necessary for the use of healthcare services, they are not sufficient; and need is seen as an immediate cause for use of healthcare services (44). It is the experience of illness, which cause an individual to consult others about his or her health. This includes the individual perception of severity of the sickness, and the number of days one has already been ill. Socio-demographic variables such as age, gender, marital status, and socioeconomic status affected symptom sensitivity and need(42).

2.2 Where to Seek Health Care

The decision to engage with a particular medical channel is effect by a multiple and interrelated set of factors. In time of sickness, an individual first must choose between formal and informal healthcare; then, a second decision must take to opt between public and private healthcare facilities in case of formal treatment, and between self-treatment and traditional healer in informal treatment to seek care. The use of one type of services over the other is the result of multiple factor. However, other studies also report a combination of services and treatments have sought to deal with different illness/ sickness in the developing countries.

According to Klein man (1980), (as cited in Ahmed SM, 2005), in any transitional society, there are three interrelated sectors of healthcare: the popular, folk and professional(4). The popular' sector is the "lay, non-professional, non-specialist" domain of society composed of individuals, family and social nexus where illness is first recognized and treatment is initiated. The folk sector consists of "non-professional healing specialists" like traditional birth attendants, bonesetters to purely magico-religious practitioners like faith healer, sorcerer, etc. Together, these two sectors comprise indigenous healing ('traditional medicine') that is especially large in the developing world. The professional sector is define in terms of what is consider conventional (modern) medicines in official or registered settings such as government or private hospitals, health centers, health posts, authorized clinics and dispensaries.

2.2.1 Formal (Modern) Healthcare vs. Informal (Traditional) Healthcare

People do not always utilize existing official health care services, most of them are suspicious of western medicine partly because it does not tolerate local beliefs and behavior related to health matter. It is estimate that over 80 percent of populations in Africa seek health care among traditional healers. The use of informal healthcare by the peoples are embed in low socioeconomic status; traditional belief regarding some type of illness; age; the education level of the peoples'; and perception of the cost of care, perception about the way the treatment and/or examination and the perceive quality of formal/ conventional healthcare by the potential users.

When poor households seek care from private providers, they often turn to traditional healers and drug sellers(45). In a study in the slums of Nairobi, Kenya, female-headed households of low socioeconomic positions were found to rely significantly on an informal private clinics(34). Lemma et al' ,in a study in rural Ethiopia, found perceived high quality and flexibility payment system of traditional medicine were the features that patient's prefer to use them; and further stated that patients' with a wide category of illness were visited by the traditional medicine(35). The findings revealed distance from, longer waiting times, and higher cost in the private modern healthcare did increase the demand for traditional medicines.

Conceptual Framework

In this thesis a modified framework of the determinants model i.e. Andersen-Newman behavioral model of health service utilization that combines set of factors in explaining variations in utilization of outpatient health care services in the study area was used to capture the individual and household characteristics with the health service factors that emphasize the accessibility variables from the perespective of potential users'. Such a modified framework was primarily build by Buor D. (2004), in his study on access and utilization of health services in Ghana, inorder to fit for the context of Sub-Saharan Africa countries that the accessibility and socioeconomic variables were found most important in explaining variations in utilizations of healthcare services across different population groups(46). This thesis focused on ill-health and disease as many literature showed there is little impetus to act in the developing countries unless an individual is ill for reasons including poverty, distance and perceived benefits(22,46).
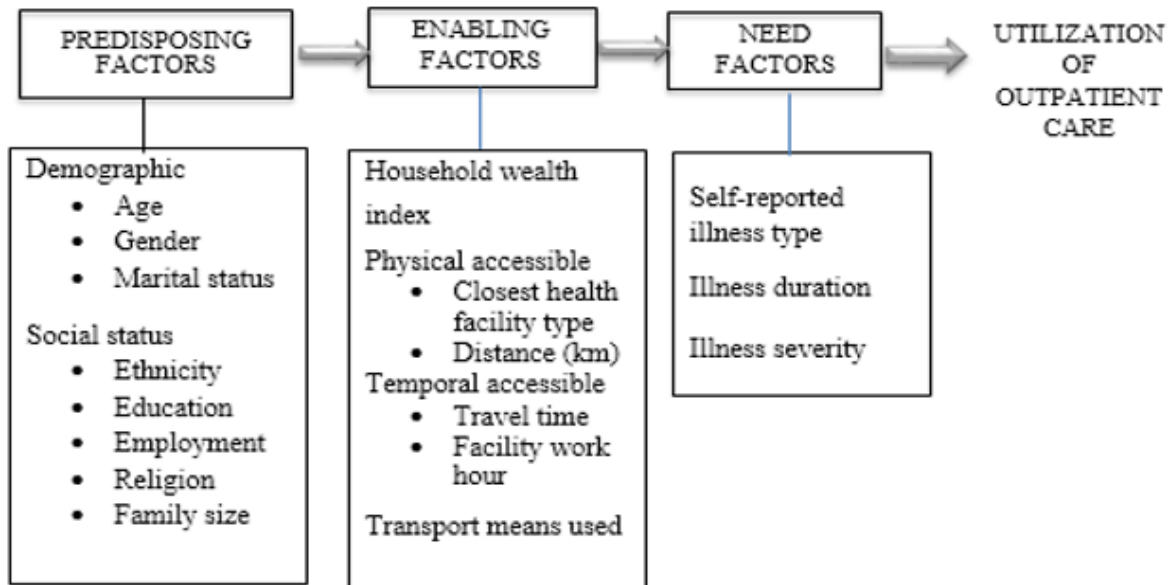
Figure 1: Adapted framework of Andersen-Newman determinant model of health service utilization to study utilization of outpatient healthcare in Gambella town, southwest Ethiopia, 2014/ 15.

2.3 Significance of the study

In a country where there is low health service coverage and a very low utilization of formal healthcare services by the population, household surveys offer the best vehicle in understanding treatment behavior of a community (Sahilu A., 2010). Under such circumstances, better understanding of the barriers in utilizing modern healthcare services and the perception of "non-users" is necessary in identifying reasons for difference in utilization.

The finding from this study shall inform the Gambella Regional Health Bureau, the Gambella Town Health Office and other stakeholders in the study area regarding healthcare-seeking behavior of the urban peoples in Gambella town. It shall enable the above health service organizations and other stake holders in the study area to address and respond effectively to the healthcare needs of the urban peoples by formulating policies and programs that encourage/ ensure health care services are more accessible, available, and equitable to, and effectively utilized by, the populations.

CHAPTER THREE: OBJECTIVE

3.1 General Objective

To assess utilization of outpatient modern healthcare services and associated factors in Gambella town, 2014/ 15.

3.2 Specific Objectives

➢ To determine the percentage of individuals who had been ill at least one in the past three months in Gambella town, southwest Ethiopia, 2014/ 15.

➢ To determine the proportion of utilization of outpatient modern healthcare services after sickness in Gambella town, southwest Ethiopia, 2014/ 15.

➢ To identify factors affecting utilization of outpatient modern healthcare services in Gambella town, southwest Ethiopia, 2014/ 15.

CHAPTER FOUR: METHODOLOGY

4.1 Study Area and Period

This study was conducted from August 7 to August 21, 2014 in Gambella town, Gambella Peoples' State, southwest Ethiopia. Gambella town, located 777 kilometer in the southwest of Addis Ababa, is a town and the capital of the Gambella Peoples' State. Located in Anuak Zone, at the confluence of the Baro River and its tributary the Jajjaba, with a land mass of 4,492 square kilometers, the town has a latitude and longitude of 8°15′N 34°35′E with an elevation of 526 meters. The towns' climate is hot and humid.

In the town a total of 49,252 population living, of whom 25,905 (52.6 %) were men. A total 10,788 households were residing in the town results an average of 4.6 persons per a household. The dominant ethnic populations in the town are the Nuer (46.7%), and the Anuak (21.2%). The lower administrative level in the town are kebeles in that the town classified in to five urban kebeles.

Regard to health care services of the town, a Regional Government Hospital with an inpatient bed capacity of 96, a Government Health Center with an inpatient bed capacity of 10, 12 private-for-profit medium clinics, 5 private-for-profit lower clinics, a privately-owned dental clinic, 13 private drug shops, and 2 private rural drug vendors are providing health and medical services to the urban populations.

4.2 Study Design

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

4.3 Populations and Sampling

4.3.1 Source Population

Illness history: People of all age groups reside in the town.

Health seeking: People who had been ill at least once in the past three months.

4.3.2 Study Population

Illness history: Household

Health seeking: Any member of the household who was ill in the past three months.

4.3.3 Sampling Unit

Household was used as a unit to draw the sample.

4.3.4 Study Participants

For morbidity report among members of the household in the past 3 months prior to the survey, head of the household was the respondent.

For outpatient healthcare utilization for the last illness, one individual member of the household who had been ill in the last three months was the study subject. For children's less than 18 years of age, and being ill, the head of the household or mothers' of the sick children was taken as the respondent on behest.

4.3.5 Eligibility Criteria

Inclusion Criteria

➢ Household who's the head lived in the area for a minimum of six months.

➢ Any member of the household had felt sick in past three months prior to the interview date.

4.3.6 Sample Size Determination

Sample size was calculated by Epi Info version 7.1.0.6 statistical software (StatCalc) based on a single population proportion formula. The sample size calculation considered the following input criteria's:

- Proportion of utilization of outpatient healthcare, P   53.7% (use of outpatient healthcare service for last illness in a study conducted in Jimma Zone, 2011)(38).

- Desired precision (%), d   5 %

- Confidence level, 100 (1-α) %   95 %

- Design effect, D   2

- Non-response rate   10 %

$$n = \frac{(Z_{\alpha/2})^2 \, (P \, (1 - P))}{d^2}$$; where, *n* is the calculated sample size

$$n = 379$$

To increase the precision of the study, initial calculated sample size was multiplied by design effect of 2; and added 10% non-response rate, a total of 834 size of sample was used.

4.3.7 Sampling Procedure

List of all house numbers for respective kebeles was obtained from each kebele office. From the list the sample allocated for each kebele based on proportional to size were drawn from the list by simple random sampling method using a random generator number in X-cell.
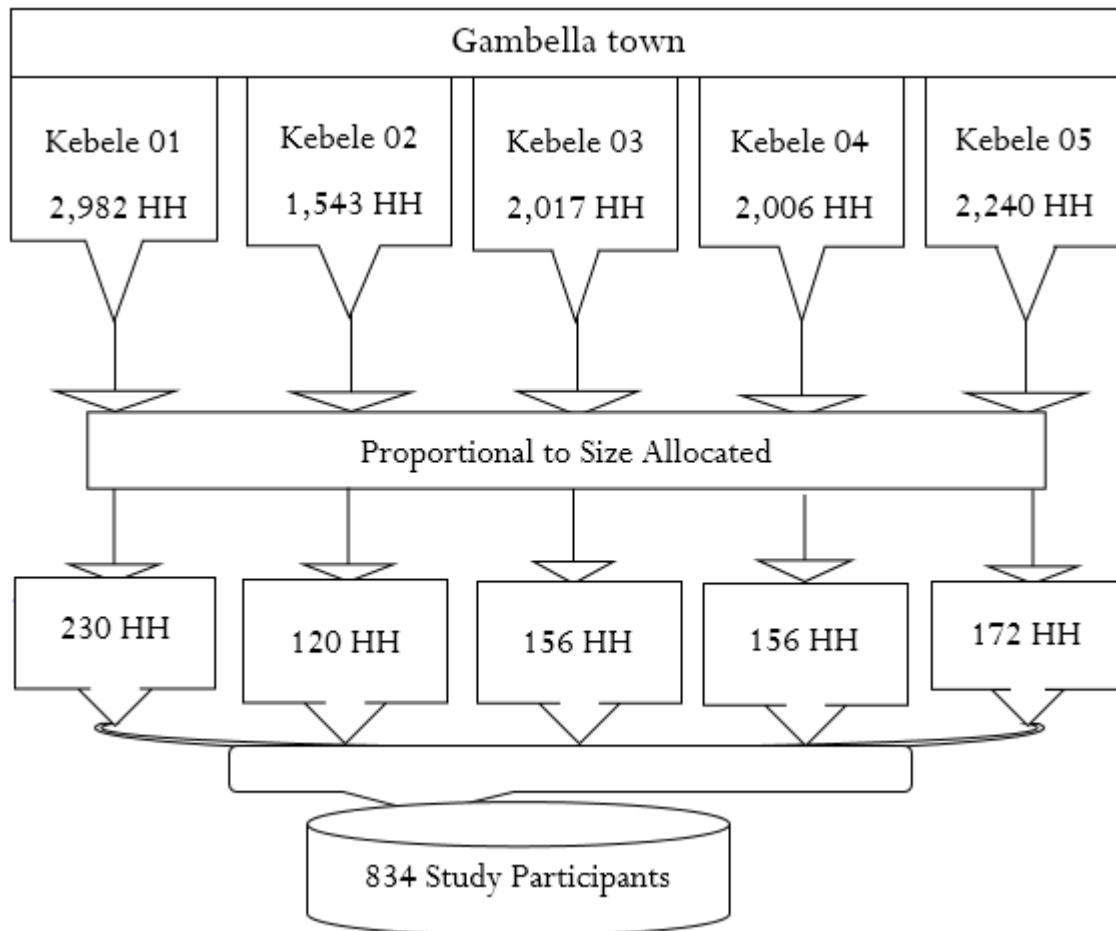
Figure 2: Schematic presentation of sampling procedures used to select study participants in Gambella town, southwest Ethiopia, 2014/ 15.

4.4 Study Variables

4.4.1 Dependent/ Outcome Variable

➢ Utilization of outpatient healthcare services for last illness_ (Yes/ No)

4.4.2 Independent Variables

♣ Socio-demographic variables

✓ Age

- ✓ Gender
- ✓ Marital status
- ✓ Ethnicity
- ✓ Educational level
- ✓ Employment status
- ✓ Religion
- ✓ Household size

- 🞣 Socio-economic variables
  - ✓ Household wealth quintiles

- 🞣 Perceived morbidity variables
  - ✓ Perceived illness type
  - ✓ Duration of illness
  - ✓ Severity level of illness

- 🞣 Healthcare accessibility variables
  - ✓ Closest health facility type
  - ✓ Distance to nearest health facility (Km)
  - ✓ Travelled time to nearest health facility (Hour)
  - ✓ Transport means used to go to nearest health facility
  - ✓ Work/ open hour convenience of nearest health facility

4.5 Data Collection Instruments and Techniques

4.5.1 Data collection instrument

Data was collected by employed a structured questionnaires designed for the purpose of the study. The questionnaire had sections on socio-demographic characteristics, socio-economic characteristics, and household illness profile. Utilization of outpatient healthcare services for last illness episode, accessibility of health care services, and reasons for not using outpatient modern healthcare service. The questionnaire was filled through face-to-face interview by trained data collectors.

4.5.2 Data collectors

The interviewers were recruited from the study area having completed secondary school. Two supervisors from Elay high school were recruited. Five guiders from each respective kebeles were also used to facilitate the identification of houses with the respective randomly selected

house numbers. Supervisors, data collectors, and guiders were trained on the data collection instruments and its techniques for two successive days. On the training, brief explanations on the study objectives, the procedures to be followed, data item's to be collected, techniques to be employed to resolve potential, and duration of days for data collection were presented to the trainees by the principal investigator.

4.5.3 Data collection procedure

Households selected by the simple random sampling methods had a unique identifier number, i.e. house numbers. The house number of selected households in each respective kebeles were provided to the respective data collectors and guiders from each kebele office, and those households were visited by the data collectors to undertaken the interview.

When the householders were not available or locked, or the eligible individual was absent during the visit, special record was documented by the data collectors regard to that household and information for arrangement of next/ re-visit was given to neighbors of the household to disseminate the information to the targeted household. On 69 households that were sampled and planned to include in the study three different re-visit were made, and 46 of them were absent in all the 3 visits paid by the data collectors. The rest 23 households were not willing to participate in the study. In this study, 765 households were provided their oral consent to participate in the study and actual data was collected from these households.

4.6 Operational Definitions

Definitions used in this study were: -

Household: a group of related people or family living together.

Household wealth quintiles: a categories of studied households in the five different wealth quintile groups, that is, Poorest 20%, Lower middle, Middle, Upper middle, and Richest 20%., in which studied household's was categorized by the socio-economic score- a score first constructed by principal component analysis from the fourteen asset indicator, and four indicators of housing characteristics collected from studied households by directly asked the head of the studied household regarding the presence or absence of them in the household.

Perceived illness: "refers to member(s) of the households experienced/ suffered from an illness with a state of being sick sign and symptom that caused a person to consult others for help in the past 3 months' prior to the survey date".

Outpatient modern healthcare facility: "defined as a modern healthcare consultation and/or treatment given for sick individuals by medical doctors, and healthcare workers with the mandate to practice examination and diagnosis of the patient in the formal outpatient healthcare providers/ facilities as in public hospitals, public healthcare centers, and privately owned clinics".

Not utilized outpatient modern healthcare services: "defined as a household member felt sick in the past 3 months; but, did not consult healthcare during the last sickness to sought treatment, rather taken self-treatment, or visit traditional healers, or no care was sought at all".

Utilized outpatient modern healthcare services: "defined as a household member felt sick in the past 3 months, and made first/ initial outside home healthcare consultation in the health facility during the last sickness".

Self-treatment: -an action whereby sick peoples treat themselves using medicines available at home or purchased from drug sellers.

4.7 Data Quality Management

Data quality was assured first in the stage of development of the data collection instrument. The data collection instrument was prepared after a thorough literature on the field of health service utilization. The standard questionnaire, prepared in English, was first translated in to Amharic language by Gambella town high school teachers. Again, it was re-translated back to English by another Gambella high school teachers not participated in the primary translation to assured the consistency in translation of the instrument.

Before commenced the actual data collection, the instrument/ questionnaire was pre-tested in one kebele of the Gambella town zuria woreda by taken five percent of the eligible. Necessary correction or adjustment was performed based on the pre-tested result. Pre-tested data was not included in the main data. During data collection, filled questionnaires were checked for completeness on a daily basis first by the data collectors, and then by the supervisors. Before data entry, collected data were cleaned and appropriate coding was made.

4.8 Data Process and Analysis

Data was entered in to Epi Data 3.1 version statistical software package. After entry was properly ended, the data was exported to SPSS Window version 21.0 for analysis. At the univariate level of analysis, frequencies and percentages for categorical variables, and descriptive statistics for continuous variables as age and family size was performed. Univariate analysis was performed on the eighteen permanent asset and housing characteristics variables collected from each households to identify those variables with very low or very high frequencies. Based on the univariate analysis result, a principal component analysis method was employed to construct the single continuous variables, which is the household socio-economic score from those housing and permanent asset indicators. The socio-economic score constructed by PCA was categorized into five different wealth quintiles of equal proportion, that is, Poorest 20%, Lower middle, Middle, Upper middle, and Richest 20%. A detailed description on PCA analysis was given in the annex PCA.

Bivariate analysis was performed to examine the association of independent variables considered in the study individually with the study outcome variable, i.e. utilization of outpatient healthcare services. Odds ratio with 95% confidence interval was used to determine the association of each independent variables with the outcome variables, individually. Those variables with a *p-value* of less than 0.25 in the bivariate analysis were taken as candidate for the multivariate logistic regression analysis. Multivariate logistic regression analysis was employed to of utilization of outpatient healthcare services in the study area. The multivariate logistic regression analysis were performed on those candidate variables all together to identify the potential explanatory variables that were significant at *p-value* of less than 0.05. Those found significant at *p-value* less than 0.05 were included in the final model.

4.9 Ethical Consideration

Ethical clearances was obtained from ethical review committee of Jimma University College of Public Health and Medical Science; and this was communicated with the Gambella Regional Health Bureau and the Gambella town health office. Written permission were obtained from the Gambella Regional Health Bureau and Gambella Town Health Office to undertake this study in the town. The communication proceeded with the town kebeles regarding the study to be conducted, and worked together with kebele office staff in preparation of the sampling frame of households, mapping of selected households in each kebele, and allocation of guiders from each respective kebeles that known the kebele very well.

Before commenced the data collection with the respondent, the interviewer were gave appropriate greetings and informed the respondents on the aim of the study, the procedures followed, ways to keep the confidentiality of the information they provided, and the expected benefit and risk from participating in the study. Consent were obtained verbally from the respondents participated in the study. The respondent's right to refuse to participate and to stop the interview at any time were guaranteed at most in the study.

4.10 Dissemination Plan

The findings of the study shall be communicated to the Gambella Regional Health Bureau and Gambella Town Health Office through paper work of the summary of the finding of this study in an appropriate, familiar, and understandable language. It also presented to the Jimma University Student Research Center and be communicated to readers through scientific study publishers.

CHAPTER FIVE: RESULT

5.1 Response Rate

Out of 834 planned sample of households to include in the study, 765 households were actually participated in the study and actual data was collected from them, making response rate 91.7%.

5.2 Descriptive of Study Participants

5.2.1 Socio-demographic characteristics of household head respondents

The socio-demographic characteristic of household head respondents was presented in table 1. Of total 765 households, 633 (82.7%) were male-headed. The mean age of household heads was 39.9 years (SD = 9.4 years). The mean age of males was 40.0 years (SD = 9.1 years), ranging from 24 to 74 years. The mean age of females was 39.4 years (SD = 10.5 years), ranging from 24 to 68 years. When grouped in to different age categories, about 349 (45.6%) being 35 to 44 years, followed by 217 (28.4%) household heads being 24 to 34 years.

Majority of household heads, 562 (76.9%), were currently married. Regard to ethnicity, Nuer and Anuak comprised about half of the study participants with 229 (29.9%) and 173 (22.6%), respectively. Regarding education, 249 (32.5%) participants reported no schooling, 192 (25.1%) reported primary education level, 140 (18.3%) attained secondary education, and 184 (24.1%) reported attending tertiary education. The percentage of household heads that follow Protestant (26.3%), Orthodox Christian (26.1%), and Catholic (25.6%) religions were similar. Majority of household heads, 540 (70.6%) had jobs to work.

Household size ranged from 1 to 12 with mean 4.8 (SD = 1.9). About 524 (68.5%) households had family size of one to five.

Table 1: Socio-demographic characteristics of household heads, Gambella town, southwest Ethiopia, 2014/15. (n=765)

Socio-demographic characteristics		Number (n=765)	Percentage
Age category			
	24 - 34 years	217	28.4
	35 - 44 years	349	45.6
	45 - 54 years	141	18.4
	55+ years	58	7.6
Gender			
	Male-head	633	82.7
	Female-head	132	17.3
Marital status			

	Unmarried	52	6.8
	Married	588	76.9
	Widowed	75	9.8
	Divorced	50	6.5
Ethnicity			
	Nuer	229	29.9
	Anuak	173	22.6
	Oromo	121	15.8
	Amhara	83	10.8
	Tigre	46	6.0
	Kefficho	43	5.6
	Others (Gurage, Kembata, & Mezhenger)	70	9.2
Religion			
	Protestant	201	26.3
	Orthodox Christian	200	26.1
	Catholic	196	25.6
	Muslim	81	10.6
	Others (traditional & none)	87	11.4
Education attained			
	No education	249	32.5
	Primary education	192	25.1
	Secondary education	140	18.3
	Tertiary education	184	24.1
Employment status			
	Unemployed	225	29.4
	Employed	540	70.6
Household size			
	1 to 5 family size	524	68.5
	6 or more family size	241	31.5
Kebele			
	01	222	29.0
	02	104	13.6
	03	131	17.1
	04	149	19.5
	05	159	20.8

5.2.2 Economic/ wealth status of sampled households

In table 2 the number and percentage of households in the five economic wealth groups by selected characteristics was presented. Gender and household wealth shown some interesting features. Nearly 58% of households headed by females were in the two low quintiles. As shown from the table, households' socio-economic status positively related with level of educational attainment of household heads. As educational level of the household head increased from no education to tertiary education, the household's wealth status also shown to up. About 64% of household headed by uneducated also belong in the two lowest quintiles. On contrast, about 75% of households headed by tertiary education attained individuals also belong in the two upper quintiles. With regard to employment status, about 62% of households headed by unemployed were also belonged in the two low quintiles.

Table 2: Sampled households wealth quintile, Gambella town, southwest Ethiopia, 2014/ 15. n=765

| | | Household Wealth Quintiles | | | | | | | | | Total (No_) |
| | | Poorest 20% | | Lower-middle | | Middle | | Upper-middle | | Richest 20% | | |
Characteristics		No_	%	No_	%	No_	%	No_	%	No_	%	
Number of HHs		153	20.0	153	20.0	151	19.7	156	20.4	152	19.9	765
Total populations		652	17.9	723	19.9	707	19.4	777	21.4	780	21.4	3639
Gender	Male-head	111	17.5	119	18.8	121	19.1	144	22.7	138	21.8	633
	Female-head	42	31.8	34	25.8	30	22.7	12	9.1	14	10.6	132
HH head education	No education	96	38.6	63	25.3	46	18.5	24	9.6	20	8.0	249
	Primary	45	23.4	48	25.0	39	20.3	34	17.7	26	13.5	192
	Secondary	11	7.9	27	19.3	36	25.7	38	27.1	28	20.0	140
	Tertiary	1	0.5	15	8.2	30	16.3	60	32.6	78	42.4	184
HH head employment	Unemployed	84	37.3	56	24.9	38	16.9	29	12.9	18	8.0	225
	Employed	69	12.8	97	18.0	113	20.9	127	23.5	134	24.8	540

5.3 Illness Report

Of the total households included in the study, 51.6% of households reported at least one illness episode over the three months recall period prior to the survey. Table 3 shows the number and percentage of households reported at least one illness episode by characteristics of household's and the head. The proportion of individuals for whom sickness were reported was 13.8%. Of those households reported illness episode, in 287 (72.7%) only one household member were being sick; whereas, in the rest 108 (27.3%), sickness were reported for two family members.

5.3.1 From which households illness of family members were reported?

Those households headed by older had a higher rate of illness reporting. Eighty six percent of households headed by peoples 45 years and above reported member of household was sick in the three month recall period. About 51.5% of male-headed households report family members was sick during the past three months, as did 52.3% of female-headed household reported family member sickness.

A higher percentage of an illness reported from indigenous ethnic households that household's headed by Nuer, Anuak, and Mezhenger. About 57%, 57%, and 50% of sampled Nuer, Mezhenger, and Anuak ethnic households reported member of the household was sick in the past three months. As shown in table 3, a higher percentage, nearly 66%, of households headed by uneducated individual's report family member(s) were sick in the past 3 months. On the

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other end of the spectrum, 52% households headed by tertiary education attained respondents reported family member's sickness.

Regard to household attributes, about 66% of households having a family size of six or more peoples reported member(s) was sick in the past three months period. And, as from the table, about 63% households in the poorest20% quintiles, and 60% households in the richest20% quintiles had reported illness of the family members in the past three months prior to the survey.

Table 3 summarize the univariate and multivariate analysis results with the crude and adjusted odds ratio for significant differences in household sickness report. Statistically significant difference in reported illness in the three months period preceding the survey between households was neither found by gender, marital status, ethnicity, religion, and employment status of the household heads, nor by family size. A statistically significant differences in illness report between households was found by age and educational status of the head. As age of the head of household increased, the probability of report an illness episode in the household increased. Heads being 35 to 44 years of age, and those above 45 years were 1.5 times *(95%CI: 1.01, 2.16; p<0.05)* to 2.1 times *(95%CI = 1.18, 3.54; p<0.05)* more likely to report an episode of illness in the households in the past three months as compared to young adults heads being 24 to 34 years. As educational level of attainment of the head of household increased, the probability of report an illness episode in the household decreased. But, this was only statistically significant for primary and secondary level of education. Heads attained primary, and secondary education were by 55% *(AOR=0.45; 95%CI: 0.3, 0.7; p<0.001)* and 41% *(AOR=0.59; 95%CI: 0.36, 0.96; p<0.05)* less to report an episode of illness in the households in the past three months as compared to households of uneducated heads, respectively.

Table 3: Number & percentage of households reported illness with regression result of crude and adjusted odds ratio by independent variables, Gambella town, southwest Ethiopia, 2014/ 15. n=765

Socio-demographic & economic factors	Household Illness				
	n=765	Report ill n=395	% (51.6)	Crude OR (95% CI)	Adjusted OR (95% CI)
HH head age category					
24 – 34 years	217	86	39.6	1.00	
35 – 44 years	349	175	50.1	1.53 * (1.09, 2.16)	1.47* (1.01, 2.16)
45 years & above	199	134	86.2	3.14**** (2.10, 4.69)	2.05* (1.18, 3.54)
Gender					
Male-headed	633	326	51.5	1.00	
Female-headed	132	69	52.3	1.03 (0.71, 1.50)	
HH head marital status					

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Married	588	313	53.2	1.00	
Others (single, widowed,& divorced)	177	82	46.3	0.76 (0.54, 1.06)	
HH head ethnicity					
Nuer	229	130	56.8	1.0	
Anuak	173	87	50.3	0.77 (0.52, 1.15)	0.83 (0.54, 1.27)
Oromo	121	57	47.1	0.68 (0.44, 1.06)	0.99 (0.61, 1.62)
Amhara	83	43	51.8	0.82 (0.49, 1.36)	1.23 (0.71, 2.14)
Tigre	46	27	58.7	1.08 (0.57, 2.06)	1.79 (0.88, 3.62)
Kefficho	43	21	48.8	0.73 (0.38, 1.39)	1.08 (0.52, 2.21)
Others (Kembata, Mezhenger, & Gurage)	70	30	42.9	0.57* (0.33, 0.98)	0.85 (0.47, 1.54)
HH head religion					
Christians [1]	597	304	50.9	1.0	
Muslim	81	34	42.0	0.70 (0.44, 1.12)	0.61 (0.36, 1.02)
Others (tradition, none)	87	57	65.5	1.83* (1.14, 2.93)	1.13 (0.64, 1.98)
HH head education					
No formal education	249	163	65.5	1.00	
Primary education	192	76	39.6	0.35**** (0.23, 0.51)	0.45**** (0.3,0.7)
Secondary education	140	60	42.9	0.40**** (0.26, 0.61)	0.59* (0.36, 0.96)
Tertiary education	184	96	52.2	0.58*** (0.39, 0.85)	0.78 (0.47, 1.28)
HH head work status					
Unemployed	224	114	50.9	1.0	
Employed	540	281	52.0	1.05 (0.77, 1.43)	
Household size					
1 to 5 size	524	235	44.8	1.0	
6 or more size	241	160	66.4	2.43**** (1.77, 3.34)	1.49 (0.97, 2.30)
HH wealth quintile					
Poorest20%	153	97	63.4	1.13 (0.71, 1.79)	1.47 (0.79, 2.72)
Lower-middle	153	71	46.4	0.57* (0.36, 0.89)	0.64 (0.37, 1.08)
Middle	151	62	41.1	0.45**** (0.29, 0.72)	0.49** (0.3, 0.82)
Upper-middle	156	73	46.8	0.57* (0.37, 0.90)	0.64 (0.40, 1.03)
Richest20%	152	92	60.5	1.00	

*(****P<0.001, ***P<0.005, **P<0.010, *P<0.05)[1]CHRISTIAN- PROTESTANT, ORTHODOX, & CATHOLIC RELIGION FOLLOWERS*

5.3.2 Socio-demographic characteristics of recently ill individuals

The participants included in this study were restricted to households reported at least one illness episode in the past three months prior to the survey. Further again, the analysis on utilization of outpatient healthcare services for this study was restricted to the recent illness episode reported in the household. This section presents descriptive of socio-demographic characteristics of recently ill individuals in the past three months prior to the survey. Of 395 recently sick individuals in households reported morbidity in the past 3 months, 83 (10.8%) were below the age of 6 years, and 16 (3.2%) of were 65 years & above. For all the sick individuals gender were reported and that almost half of them were males. For 164 sick

individuals who were 18 years of age and above marital status, religion, and educational achievement were obtained. Nearly half of were married. About 65 (40%) sick individuals had reported no schooling/ didn't attained any formal education (table 4).

Table 4: Socio-demographic characteristics of individuals who were sick in Gambella town, southwest Ethiopia, 2014/ 15.

Socio-demographic characteristics	Number	Percentage
Age category (n=395)		
Under 5 years	67	17.0
5 - 9 years	74	18.7
10 - 19 years	105	26.6
20 - 29 years	51	12.9
30 years & above	98	24.8
Gender (n=395)		
Male	206	52.2
Female	189	47.8
*Marital status *(n=164)*		
Unmarried	56	34.1
Married	81	49.4
Widowed	21	12.8
Divorced	6	3.7
*Religion *(n=164)*		
Orthodox Christian	46	28.0
Protestant	38	23.2
Catholic	34	20.7
Traditional	24	14.6
Muslim	15	9.1
Had no religion	7	4.3
*Education *(n=164)*		
No education	65	39.6
Primary education	34	20.7
Secondary education	36	22.0
College & above	29	17.7

*. **Only for sick persons 18 years of age and above, n=164.**

5.3.3 Recent illness type

Different kinds of sickness were reported by individuals who were sick recently in the past three months. Figure 3 illustrates type of illness reported in Gambella town. The most reported acute illness was malaria/fever that accounts for about 43% of the total reported sickness. Stomach problems with diarrhea (19%) represented the second most reported sickness. Coughing problems accounts for 11% of the total reported sickness. About 33%, 19% and 17% of diarrheal illness, malaria, and cough problems were reported among children under five

years, respectively. Several respondents explained malaria and diarrheal illness were the most common sickness encountered in under five children. Further sickness that were reported with some frequency were eye, tooth and ear ache (6.3%), and itching/ skin problems (5.3%).
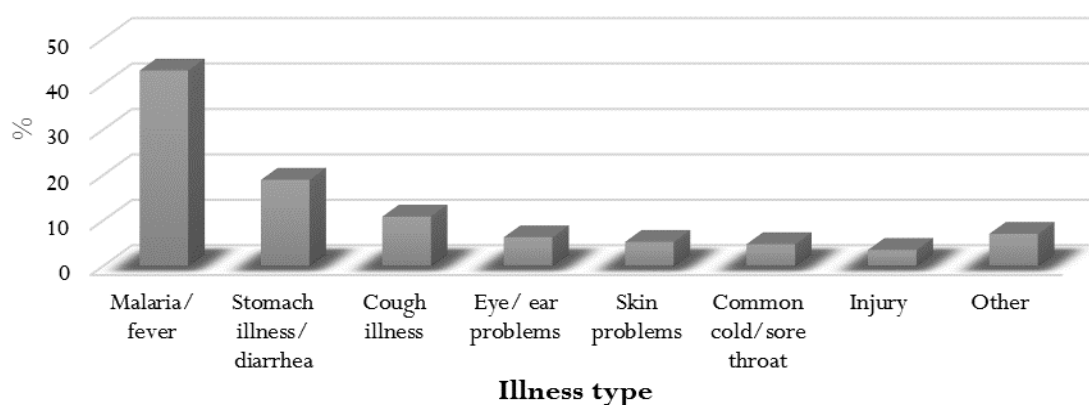
Figure 3: Bar chart showing type of illness reported in the past 3 months in Gambella town, southwest Ethiopia, 2014/ 15.

5.3.4 Recent illness duration and severity

Table 5 shows duration and severity level of morbidity reported. About 76% of the total reported morbidity had an illness duration of less than seven days. The rest 24% had duration of days between 8 and 21. About 43% and nearly 25% of morbidity reported by recently sick individuals in the past three months was perceived to be moderate and severe illness by the sick individuals/ care-takers. About 29% of the cases of cough/ lower respiratory problems, 27% of stomach illness, and 24% of malaria/ fever cases were reported to be severe (table 1).

Table 5: Duration and severity level of morbidity among recently sick individuals in the past 3 months in Gambella town, southwest Ethiopia, 2014/ 15. n=395

Types of Sickness		Morbidity					
		Duration (in days)			Severity (perceived)		
		3 or Less	4 to 7	8 or more	Mild	Moderate	Severe
Malaria/ fever	No_	70	77	23	65	64	41
	%	41.2	45.3	13.5	38.2	37.6	24.1
Stomach problem/ diarrhoea	No_	27	38	10	21	34	20
	%	36.0	50.7	13.3	28.0	45.3	26.7
Cough problem	No_	15	25	22	14	30	18
	%	24.2	40.3	35.5	22.6	48.4	29.0

Eye/ ear/ tooth ache	No_	3	9	13	7	15	3
	%	12.0	36.0	52.0	28.0	60.0	12.0
Skin/ itching problems	No_	9	8	3	13	5	2
	%	45.0	40.0	15.0	65.0	25.0	10.0
Other health problems	No_	7	11	25	7	23	13
	%	16.3	25.6	58.1	16.3	53.5	30.2
All morbidity cases	No_	131	168	96	127	171	97
	%	33.2	42.5	24.3	32.2	43.3	24.6

5.4 Health Service Accessibility

This section presents the descriptive report of respondent's accessibility to healthcare service.

5.4.1 Closest healthcare facility

Of 395 respondents, 149 (38%) claimed Government hospital as the near-by health facility, followed by 135 (34%) replied Government health center as near-by health facility (table 6).

5.4.2 Facility distance

Respondents were asked to report the actual distance in kilometer from where they live to the closest health facility. 227 (58%) respondents claimed distance to the near-by health facility was 5 kilometer or less. The rest 42% respondents claimed the actual distance to near-by health facility were farther than 5 kilometer (table 6).

5.4.3 Travel time

About 233 (59%) of respondents claimed it would take them to walk for 30 minutes or less to reach near-by health facility, followed by 136 (34%) respondents that replied a walk travel time of between 30 minutes and one hour. By facility type, of the total that claimed public hospital as the closest, about 65% of them claimed walking on-foot for 30 minutes or less. Of those identified public health center as the near-by, about 32% of them claimed walk time of 30 minutes or less to reach (table 6).

Table 6: Healthcare accessibility by facility type, Gambella town, southwest Ethiopia, 2014/ 15. n=395

	Closest health facility type (C%) [a]							
	Gov. Hospital		Gov. H/Centre		Private Clinic		Total	
Accessibility measures	No_	C%	No_	C%	No_	C%	No_	C%
Walk travel time to H/facility								
Less than 30 minutes	97	65.1	43	31.9	59	53.2	199	50.4
30 to 60 minutes	35	23.5	56	41.5	45	40.5	136	34.4
Greater than 60 minutes	17	11.4	36	26.7	7	6.3	60	15.2
Total	149	100	135	100	111	100	395	100.0

H/ facility distance (kilometer)								
5 km or less	108	72.5	42	31.1	77	69.4	227	57.5
Greater than 5 km	41	27.5	93	68.9	34	30.6	168	42.5
Total	149	100	135	100	111	100	395	100.0
Travel means used								
Walk on-foot	85	57.0	91	67.4	57	51.4	233	59.0
Public transport	64	43.0	44	32.6	54	48.6	162	41.0
Total	149	100	135	100	111	100	395	100.0

a. C%- Percentage from column total

5.4.4 Perception toward closest healthcare facility

Perceived distance

Aside from the actual distance they reported, their perception on the distance was asked. Of 395 respondents, 187 (47%) replied they perceived the distance as 'near'. The rest 140 (35%) & 68 (18%) perceived the distance as 'medium' and 'far', respectively (table 7).

Perceived convenience of the work/ open hour

Of 395 respondents, about 54% perceived the opening hour of close-by health facilities as convenient for use; the rest didn't. By nearest facility type, of 149 claimed Gov. Hospital about half of them perceived the opening hour as convenient. Of those claimed Gov. Health center only 39% perceived the open hour of H/ center as convenient for use/ to visit. Lastly, of those claimed private clinics as the near-by 77% perceived the work &/or open hour of those facilities as flexible & convenient for use/ visit (table 7).

Table 7: Perceived opinion on closest health facility distance and work/ open hour in Gambella town, southwest Ethiopia, 2014/ 15. n=395

		Closest health facility (C%) [a]							
		Gov. Hospital		Gov. H/Centre		Private Clinic		Total	
Opinion		No_	C%	No_	C%	No_	C%	No_	C%
Perceive distance	Near	75	50.3	46	34.1	66	59.5	187	47.3
	Medium	57	38.3	41	30.4	42	37.8	140	35.4
	Far	17	11.4	48	35.6	3	2.7	68	17.2
	Total	149	100	135	100	111	100	395	100.0
Work/open hour	Inconvenient	75	50.3	82	60.7	26	23.4	183	46.3
	Convenient	74	49.7	53	39.3	85	76.6	212	53.7
	Total	149	100	135	100	111	100	503	100.0

a. C%- Percentage from column total

5.5 Outpatient Healthcare Utilization

The proportion of utilization of modern outpatient healthcare services for the recent illness was 52%. Figure 5 illustrates where the 395 recently sick individuals sought treatment and made first healthcare consultation outside home for treatment. The diagram clearly depicts that most households in the study area did resort to indigenous medicine/ home treatment. About 48% of sick individuals did not sought treatment from formal healthcare facilities, rather relied on indigenous treatment (39.2%) and self-care/ visited drug shops (6%). Regard to outside home first healthcare consultation, of 205 sick individuals that consulted first in the formal outpatient healthcare provider/ facility, about 47% consulted in the Government Hospital. Private clinics accounted 27% of the total first healthcare consultation made by the sick individuals to sought treatment for the recent illness; followed by 26% initial visit in the public health center.
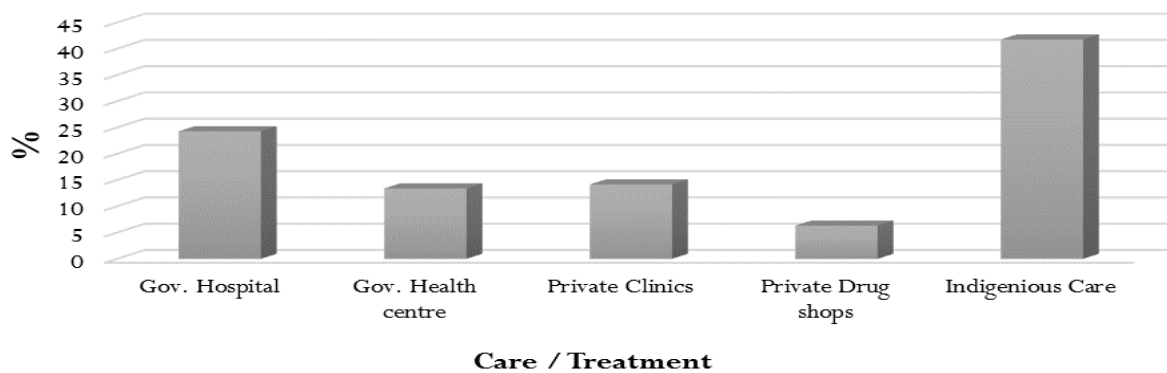
Figure 4: Care/ TX consultation for recent illness in Gambella town, southwest Ethiopia, 2014/15

5.5.1 When sought healthcare

Of 205 recently sick individuals that sought modern outpatient care for the recent illness, 172 (84%) visited health facility within two days after the illness begun (table 8).

Table 8: Time of first healthcare consultation after illness begun among 259 sick individuals in Gambella town, southwest Ethiopia, 2014/ 15. n=205

Time of treatment sought	Number	%
Same day the illness begun	65	31.7
Next day after illness begun	67	32.7
Two days after illness begun	40	19.5
Three to seven days after illness begun	22	10.7
After weeks the illness begun	11	5.4
Total	205	100.0

5.5.2 Outpatient Health Care Utilization by Independent Variables

Table 9 summarizes the number and percentage of sick persons that utilized outpatient healthcare services during recent sickness by socio-demographics, health facility accessibility, and morbidity characteristics in the past 3 months. Higher percentage, 81%, of under-five children's utilized outpatient healthcare services during recent sickness. With regard to sex of the ill person, 59% of females and 45% of males sought treatment from modern health facility during recent sickness. Unequal proportions exist in sick person's outpatient healthcare utilization by sex of the head of household. Only 26% of ill individuals from female-headed households utilized outpatient healthcare services; however, 57% of ill individuals from male-headed households utilized modern healthcare services. There was an essential difference in the percentage of utilization of outpatient healthcare based on ethnic origin (i.e. sick person origin whether indigenous i.e. belong to Nuer, Anuak, & Mezhenger, or not/ non-indigenous). Only 40% of ill individuals of indigenous ethnic origin utilized outpatient modern healthcare services during recent sickness; on the other, 67% of ill individuals of non-indigenous ethnic origins were utilized outpatient healthcare services during the recent illness.

There exist an essential percentage difference in utilization of outpatient health services based on religion. Only 28% of sick persons from traditional/none religion households utilized outpatient healthcare services for the recent illness; whereas, 57% of sick individuals from households headed by Christian's utilized modern healthcare services. Unequal proportions in use of modern healthcare by the sick persons were exist based on educational achievement of the head of the household. About 76% of ill persons from households headed by college attained individuals' had utilized outpatient healthcare services for the recent illness; however, in the other end of the education spectrum only about 36% of ill persons from households of uneducated heads had utilized outpatient healthcare services.

There exist unequal proportions in utilization of modern healthcare services by the sick individuals based on the households' wealth status where they belonged to. Only about 29% and 35% of sick individuals from households in the poorest20% and lower-middle quintiles had utilized outpatient healthcare services during recent illness, respectively. However, on the other end of the wealth spectrum, 72% and 70% of sick individuals from the richer and richest households had utilized outpatient healthcare services.

Based on actual distance of, and walk travel time, to the near-by healthcare facility, about 70% and 63% of ill persons that utilized outpatient modern healthcare for the recent illness also reported they live within five kilometer radius to any type of healthcare facility, and claimed walk travel time of thirty minutes or less to near-by health facility, respectively. Nearly 64% of sick individuals that sought modern treatment for the recent illness from health facility also perceived the work and open hour of near-by healthcare facilities as convenient for use. Of those that perceive the recent illness as serious problem, 70% were actually consulted modern healthcare facility for treatment; however, only 30% of those with mild illness were utilized outpatient modern healthcare services.

Table 9: Number and percentage of modern outpatient healthcare consultation for recent sickness by independent variables, Gambella town, southwest Ethiopia, 2014/ 15. n=395

Independent variables	n=395	Outpatient Healthcare Utilization			
		Utilized n=205 (51.9%)		Not utilized n=190 (48.1%)	
		Number	%	Number	%
Ill person age category					
Under 5 years	67	54	80.6	13	18.1
5 − 9 years	74	35	47.3	39	52.7
10 − 19 years	105	49	46.7	56	53.3
20 − 29 years	51	26	51.0	25	49.0
30 years & above	98	41	41.8	57	58.2
5 years & above	431	200	46.4	231	53.6
Ill person gender					
Male	206	93	45.1	113	54.9
Female	189	112	59.3	77	40.7
Ill person ethnic origin					
Indigenous ethnic	225	91	40.4	134	59.6
Non-indigenous ethnic	170	114	67.1	56	32.9
Household head gender					
Male-head	326	187	57.4	139	42.6
Female-head	69	18	26.1	51	73.9
Religion					
Christians	304	174	57.5	130	42.8
Muslim	34	15	44.1	19	55.9
Others (traditional & none)	57	16	28.1	41	71.9
Household head educational status					
No education	163	52	31.9	111	68.1
Primary education	76	40	52.6	36	47.4
Secondary education	60	38	63.3	22	36.7
College & above	96	75	78.1	21	21.9
Household head work status					
Unemployed	114	35	30.7	79	69.3

Employed	281	170	60.5	111	39.5
Household size					
1 to 5 size	235	135	57.4	100	42.6
6 or more size	160	70	43.8	90	56.3
Household wealth quintile					
Poorest20%	97	26	26.8	71	73.2
Lower-middle	71	23	32.4	48	67.6
Middle	62	35	56.5	27	43.5
Upper-middle	73	55	75.3	18	24.7
Richest20%	92	66	71.7	26	28.3
Closest health facility type					
Gov. Hospital	149	89	59.7	60	40.3
Gov. Health Centre	135	57	42.2	78	57.8
Private Clinics	111	59	53.2	52	46.8
Near-by H/Facility distance (Km)					
Five kilometer or less	227	144	63.4	83	36.6
Greater than 5 kilometer	168	61	36.3	107	63.7
Walk travel time to near-by H/Facility					
30 minutes or less	199	130	65.3	69	34.7
Greater than 30 minutes	196	75	38.3	121	61.7
Travel mean used to go H/Facility					
Walk on-foot	233	100	42.9	133	57.1
Public transport /vehicles	162	105	64.8	57	35.2
Perceive distance of near-by H/Facility					
Near	187	111	59.4	76	40.6
Medium	140	81	57.9	59	42.1
Far	68	13	19.1	55	80.9
Work/open hour of near-by H/Facility					
Not convenient	183	74	40.4	109	59.6
Convenient	212	131	61.8	81	38.2
Recent illness' duration					
1 to 3 days	131	61	46.6	70	53.4
4 to 7 days	168	92	54.8	76	45.2
8+ days	96	52	54.2	44	45.8
Recent illness' severity					
Mild	127	39	30.7	88	69.3
Moderate	171	98	57.3	73	42.7
Severe	97	68	70.1	29	29.9

5.5.3 Reasons for not consulting modern healthcare services

The proportion of individuals who were and not consulted formal provider of outpatient healthcare services was 48%. Among those who did not utilized outpatient healthcare services turn in to indigenous medicine that include those who preferred home/ self-treatment and traditional healers. Self-treatment accounted for majority of the cases. It accounted for almost 34%, followed by those saw traditional healers (7.3%). This have a great implication for

population health status. The most common reasons cited by respondents for not consulting/ visiting healthcare services were shortage of money. This reason for failing to consult healthcare claimed by 47% of the cases. The other reasons indicated by respondents were health facilities too far (38%) and illness was mild (36.8%). Negative attitude towards healthcare providers that they were unwelcomed to patients' to provide care identified as barriers for not visited health facility in 29% of the cases (table 10).

Table 10: Reasons for not consulted healthcare, Gambella town, southwest Ethiopia, 2014/ 15.

Reason cited for not consulting	Responses		(n=190)
	Number	%	
Lack money/ costly treatment	90	27.3	47.4
Health facility too far	72	21.8	37.9
Illness was mild	70	21.2	36.8
Healthcare providers were not welcomed	55	16.7	28.9
Long waiting time to receive treatment from H/facility	27	8.2	14.2
Perception that treatment may not cured the illness	16	4.8	8.4
Total	330	100.0	

5.6 Regression Result: Factors Affecting Utilization of Outpatient Modern Healthcare Services after Sickness in Gambella Town

5.6.1 Bivariate Analysis

The result of bivariate analysis of ill person utilization of outpatient healthcare services during sickness was presented in table 11. In univariate analysis age, sex and ethnicity of the ill person were associated with utilization of modern healthcare services. Children under 5 years of age were 5.8 times *(COR=5.78; 95%CI: 2.79, 11.9; p<0.001)* more likely to utilize outpatient modern healthcare as compared to sick adults above 30 years of age. Sex of the ill person showed association with utilization of outpatient healthcare services in that sick females were 1.8 times *(COR=1.77; 95%CI: 1.18, 2.64; p<0.05)* more likely to utilized outpatient healthcare than sick males. Ethnic origin of the ill person has showed association with utilization of healthcare services. Non-indigenous ill persons, i.e. if the ill person in origin was other than Nuer, Anuak, or Mezhenger, was 3 times *(COR=2.99; 95%CI: 1.98, 4.54; p<0.001)* more likely to utilize outpatient modern healthcare service as compared to ill persons of indigenous ethnic origin.

Gender and religion of the head of household had showed an association with utilization of outpatient healthcare services by the ill members. Ill persons from female-headed households were by 74% less *(COR=0.26; 95%CI: 0.15, 0.47; p<0.001)* to utilize outpatient modern healthcare as compared to ill persons from male-headed households. Sick individuals from households whose head were follower of traditional religion or that had no religion were by 71% less *(COR=0.29; 95%CI: 0.16, 0.54; p<0.001)* to consult modern healthcare services for illness than sick individuals from Christian headed households.

Similarly, educational achievement and employment status of the head of the households were shown to be associated with utilization of outpatient healthcare services by the sick person in the bivariate level of analysis. Sick persons from households whose heads' attained primary, secondary, and tertiary education were 2.4 times *(COR=2.37; 95%CI: 1.36, 4.14; p<0.05), 3.7* times *(COR=3.69; 95%CI: 1.98, 6.85; p<0.001)*, and 7.6 times *(COR=7.62; 95%CI: 4.25, 13.69; p<0.001)* more likely to utilize outpatient modern healthcare services during sickness as compared to sick persons from uneducated heads of household in the past three months, respectively. Sick persons from household headed by employed heads were 3.5 times *(COR=3.46; 95%CI: 2.17, 5.50; p<0.001)* more likely to use modern healthcare services as compared to sick persons from households of unemployed heads.

In bivariate, households' wealth status was found associated with use of outpatient modern healthcare services in that sick individuals from richest20% and upper-middle quintile households were seven times *(COR=6.93; 95%CI: 3.66, 13.13; p<0.001)* to eight times *(COR=8.34; 95%CI: 4.16, 16.74; p<0.001)* more likely to utilize outpatient modern healthcare services as compared to sick individual in the poorest20% households in the past three months, respectively.

Actual distance of, and walk travelled time to, the nearest health facility was associated with utilization of modern healthcare services during sickness. Those sick individuals reside/lived within five kilometers or less to any type of formal health care facility were 3 times *(COR=3.04; 95%CI: 2.01, 4.61; p<0.001)* more likely to consult modern healthcare as compared to those reside/lived in distant with more than five kilometers from any modern health facility in the past three months. In terms of walk traveled time to any modern health facility, those within a walk travel time of thirty minutes or less to near-by health facility were three times *(COR=3.04; 95%CI: 2.02, 4.58*; *p<0.001)* more likely to utilize outpatient modern healthcare services as compared to those sick individuals with walk on-foot for more than half

hour to the near-by health facility. Regard to means of travel used to go for health facility, ill person used public transport were 2.4 times *(COR=2.45; 95%CI: 1.62, 3.71; p<0.001)* more likely to utilize outpatient modern healthcare services than sick individuals walked on-foot.

Similarly, those with a perceived distance of near-by health institutions as 'near' and 'medium' were 6.2 times *(COR=6.18; 95%CI: 3.16, 12.1; p<0.001)* and 5.8 times *(COR=5.81; 95%CI: 2.91 11.6; P<0.001)* more likely to use outpatient modern healthcare as compared to those with a perceived distance of 'far', respectively. And, those respondents perceived the open hour of the closest healthcare facilities as 'convenient' were 2.4 times *(COR=2.38; 95%CI: 1.59, 3.71; p<0.001)* more likely to consult modern healthcare during sickness than those perceive the open hour of health facility as 'inconvenient' for use.

Regard to the illness factor at the bivariate analysis duration of sickness had no association with use of modern care by the ill person. But, the perceived severity of an illness by the ill person/ care takers had shown significant association with utilization of modern healthcare services in the past three months in Gambella town. Sick individuals/care takers perceived the illness/health problems as moderate and severe were three times *(COR=3.03; 95%CI: 1.87, 4.91; p<0.001)* to five times *(COR=5.29; 95%CI: 2.98, 9.41; p<0.001)* more likely to utilize outpatient modern healthcare services as compared to those perceived the illness/health problems as mild, respectively.

5.6.2 Multivariate Analysis

The multivariate logistic method helps to control for confounding factors. Those independent variables showed an association with ill persons' utilization of outpatient modern healthcare services at *p-value less than 0.2* in the bivariate were included in the multivariate logistic regression to identify statistically significant predictors of utilization of outpatient healthcare services of sick individuals at *p-value less than 0.05*. The result of multivariate logistic regression with final model by explanatory factors i.e. predisposing, enabling, and need, of ill person utilization of modern healthcare services in Gambella town was presented in table 11.

As shown in the regression results, perceived severity of an illness were found statistically significant predictors of utilization of outpatient modern healthcare services. Sick individuals'/care-takers' perceived their/Childs' health problem as very serious were 6.8 *(AOR=6.76; 95%CI: 3.14, 1455; p<0.001)* more likely to utilize outpatient health care services as compared to those perceived the health problem as mild. Similarly, sick individuals'/care-

takers' perceived their/Childs' health problem as moderately serious were four times *(AOR = 4.14; 95%CI: 2.22, 7.72; p<0.001)* more likely to use outpatient modern health care as compared to those perceived the health problem as mild.

Of the enabling factors, household wealth status was statistically significant predictors affecting utilization of outpatient modern healthcare services after sickness in Gambella town. Sick persons from richest20% and upper-middle quintiles households were 2.1 times *(AOR=2.1; 95%CI: 1.05, 4.16; p<0.01)* to 3.8 times *(AOR=3.82; 95%CI: 1.86, 7.85; p<0.001)* more likely to utilize outpatient modern health care services after sickness as compared to sick persons from households in the poorest20% quintile, respectively. Walk travel time to the nearest healthcare facility was found statistically significant predictors of utilization of outpatient healthcare services after sickness in Gambella town. Those sick individuals walk on-foot for thirty minutes or less to the near-by health facility were 1.9 times *(AOR=1.94; 95%CI: 1.10, 3.42; p<0.05)* more likely to utilize outpatient modern healthcare services after sickness as compared to those with a walk travel time of more than half hour to the near-by health facility.

From the predisposing factors age of the ill person, gender and educational achievement of the head of the household were statistically significantly associated with utilization of outpatient modern healthcare services after sickness in the past three months in Gambella town. Sick child under the age of five years was five times *(AOR=5.21; 95%CI: 2.30, 11.82; p<0.001)* more likely to utilize outpatient modern healthcare services as compared to sick adults above 30 years of age. Ill persons from households headed by females were by 67% *(AOR=0.33; 95%CI: 0.16, 0.68; p<0.005)* less to use outpatient modern healthcare service after sickness as compared to sick persons from households' headed by males during the past three months' in Gambella town. Sick person from households whose head educational attainment were college and above were three times *(AOR=3.01; 95%CI: 1.58, 6.04; p<0.001)* more likely to utilize outpatient modern healthcare services as compared to ill persons from households of uneducated heads in the past three months in Gambella town.

Overall result of univariate logistic regression with crude odds ratio (COR, 95% confidence interval) of explanatory variables, and the multivariate logistic regression with adjusted odds ratio (AOR, 95% confidence interval) of the full and final model of predictors of utilization of outpatient modern health care services during recent sickness in the past 3 months in Gambella town was presented in table 11.

Table 11: Univariate and multivariate results of predisposing, enabling and need factors affecting utilization of outpatient healthcare services in Gambella town, southwest Ethiopia, 2014/ 15. n=395

Predictors/ factors	Univariate		Multivariate Full		Final	
	Crude Odds Ratio	95% C.I.	Adjusted Odds Ratio	95% C.I.	Adjusted Odds Ratio	95% C.I.
Predisposing						
Sick individual age category						
Under 5 years	5.78****	2.79, 11.9	7.36****	2.39, 22.64	5.21****	2.30, 11.82
5 – 9 years	1.25	0.68, 2.29	1.28	0.51, 3.24		
10 – 19 years	1.22	0.69, 2.12	1.44	0.64, 3.23		
20 – 29 years	1.45	0.73, 2.85	1.56	0.62, 3.92		
30 years & above	1.00					
Sick person gender						
Male	1.00					
Female	1.77*	1.18, 2.64	1.52	0.98, 2.36		
HH head Gender						
Male-head	1.00					
Female-head	0.26****	0.15, 0.47	0.30***	0.14, 0.65	0.33***	0.16, 0.68
Ethnicity						
Indigenous[1]	1.00					
Non-indigenous	2.99****	1.98, 4.54	1.51	0.76, 2.99	2.05*	1.16, 3.63
Religion						
Christian	1.00					
Muslim	0.59	0.29, 1.20	0.56	0.22, 1.43		
Others[2]	0.29****	0.16, 0.54	0.74	0.30, 1.82		
Household head education						
No education	1.00					
Primary education	2.37*	1.36, 4.14	1.00	0.45, 2.24		
Secondary education	3.69****	1.98, 6.85	0.86	0.33, 2.25		
College & above	7.62****	4.25, 13.69	2.37	0.96, 5.85	3.01****	1.58, 6.04
HH head employment status						
Unemployed	1.00					
Employed	3.46****	2.17, 5.50	1.26	0.64, 2.49		
Household size						
1 to 5 size	1.74*	1.16, 2.60	0.92	0.47, 1.77		
6 or more size	1.00					
Enabling						
Household wealth quintile						
Poorest 20%	1.00					
Lower-middle	1.31	0.67, 2.56	1.84	0.71, 4.75		
Middle	3.54****	1.80, 6.94	2.57	0.88, 7.48		
Upper-middle	8.34****	4.16, 16.74	6.97***	2.28, 21.32	3.82****	1.86, 7.85
Richest 20%	6.93****	3.66, 13.13	3.74*	1.22, 11.48	2.10**	1.05, 4.16

Closest health facility						
Gov. Hospital	1.31	0.79, 1.07	1.95	0.95, 3.99		
Gov. Health Centre	0.64	0.39, 2.15	1.44	0.69, 3.00		
Private Clinics	1.00					
Distance to closest H/facility (in kilometer)						
5 km or less	3.04****	2.01, 4.61	0.92	0.43, 1.97		
Greater than 5 km	1.00					
Walk travel time to near H/facility						
30 minutes or less	3.04****	2.02, 4.58	1.71	0.81, 3.64	1.94*	1.10, 3.42
Greater than 30 Min.	1.00					
Perceived distance of closest H/facility						
Near	6.18****	3.16, 12.1				
Medium	5.81****	2.91, 11.6				
Far	1.00					
Travel means to go H/facility						
Walk on-foot	1.00					
Public transport	2.45****	1.62, 3.71	1.24	0.69, 2.21		
Work/open hour of near-by H/facility						
Inconvenient	1.00					
Convenient	2.38	1.59, 3.57	2.05	0.64, 4.47		
Illness						
Recent illness duration						
1 to 3 days	1.00					
4 to 7 days	1.39	0.88, 2.19				
8+ days	1.36	0.80, 2.30				
Recent illness' severe						
Mild	1.00					
Moderate	3.03****	1.87, 4.91	4.91****	2.32, 10.37	4.14****	2.22, 7.72
Severe	5.29****	2.98, 9.41	12.17****	4.19, 35.36	6.76****	3.14, 14.55

(****p<0.001, ***p<0.005, **p<0.010, *p<0.05)
[1]Indigenous- Nuer, Anuak, & Mezhenger;   [2]Other religion-traditional & none

CHAPTER SIX: DISCUSSION

About 14% household members in the studied households in Gambella town had suffered from an illness at least once within the three months period preceding the survey. Half of the studied households had reported an illness episode over the reference period prior to the survey. This finding was almost comparable to studies conducted in other areas of Ethiopia. A study conducted in rural areas of the four regions (Amhara, Oromia, SNNP, and Tigray) of Ethiopia, by Angaw M. et al' (2013) found that 13.5% of household members in the studied households had reported to be suffered from an illness in the two months period preceding the survey(21). On another study done in Jimma zone found that half of the households included in the study were reported at least one illness episode over a twelve months recall period(38). However, a 14% morbidity report of household members was low and could have underestimated as compared to a study done Kenya(34). A study conducted in the slums of Nairobi, Kenya using a household survey, Taffa et al' (2005) looked in to child morbidity and healthcare utilization and found that 38% of the study subjects were reported morbidity over the nine months observation period. This difference might be due to the difference in the characteristics of the populations under study.

The level of educational attainment of a household head had negatively associated with report of household illness in the three months period preceding the survey. But, this was only statistically significant for primary and secondary education level. Households whose head attained primary and secondary education were by 55% and 41% less to report an episode of illness than households of uneducated heads, respectively. This might note that education makes peoples to become more concerned and cautious about health and illness; thus more likely to undertake prevention mechanisms before illness occurred, especially for communicable diseases like malaria and diarrhea, as it accounted for majority of illness reported among those felt sick in the past three months.

Utilization of outpatient modern healthcare services during the most recent sickness among the studied ill subjects in Gambella town was 52%. This finding revealed use of modern curative health care services during illness in the study area was low as compared to other studies on healthcare utilization done in other areas of Ethiopia. In a study done in rural villages of Gamo-Gofa Zone, SNNP Ethiopia, by Lemma T. and Rao M. (2013) found that 80% of patients had sought modern medical treatment from health care institutions(35). In another study conducted in rural areas of the four regions (Amhara, Oromia, SNNP, and Tigray) of Ethiopia, by Angaw

M. et al' (2013) revealed 59% of household members that reported being ill in the two months period preceding the survey were actually used modern healthcare services(21). The low utilization of modern curative healthcare services might be explained by the residence of the study populations where health posts were absent in the study area. However, the current finding was almost similar to finding of a study done in Jimma zone(38). In a household survey in Jimma zone that looked into utilization of healthcare services, Fitsum et al' found that 53% of ill persons had utilized modern healthcare services to sought treatment during the last illness episode in the twelve months period preceding the survey.

Of the health need factors perceived severity level of an illness; physical accessibility i.e. availability of health facility within a walk travel time of thirty minutes or less, and financial accessibility i.e. households' wealth status from the enabling/hindering factors; and, predisposing factors as age of the ill person, sex and educational level of the head of household were found to be statistically significant predictors of utilization of outpatient modern curative healthcare services during sickness in the study area.

In this study finding the perceptions held regarding the severity of an illness tend to outweigh on whether to seek healthcare or not, and whether to visit a modern healthcare services or other care options. In a study done in Senegal by Aurelia Lépine et al' (2011) found 84% of patients who considered their illness severe had sought modern care/ treatment(47).

In this finding children's under the age of five were higher users of outpatient modern healthcare services, and they were given priority in the household. Children under the age of five were six times more likely for a household to use modern healthcare services than for adults. This finding corroborates with a study done in rural areas of four regions of Ethiopia, by Angaw M. et al' (2013) which found that in a household treatment seeking for sick adults members four to nine times to delay as compared to sick children's(21). This difference in seeking treatment that children's got priorities in a household may note healthcare seeking behavior greatly vary by age groups and this may be due to the parental/ household concern for children.

Sex of the head of household was found to bear on utilization of modern healthcare services for sick household members in the study area. Female-headed households were less likely to take/ sent sick household members to modern healthcare services to sought treatment than their male counterparts. The current finding supported by a study conducted in Gamo-Gofa Zone,

SNNP Ethiopia, by Lemma T. and Rao M. (2013) (35) that found most sick individuals that went to traditional healers to sought treatment were from households headed by females. The very low literacy rate of females accompanied by the socio-cultural populations bound to traditions in the study area may affected women's actual position in the decision-making including those for healthcare decision.

In this finding, education was found an important predictor in utilization of modern healthcare services. The level of formal education of a household head has a positive and significant effect on seeking formal/ modern outpatient care for sick household members relative to no care. Households headed by individual's attained tertiary education were two and half times more likely to visit healthcare facility to sought treatment for sick household members than households of uneducated heads. This findings supported by a study conducted in Uganda by(36) Konde-lule JA et al' (2010). In a household survey, Konde-lule found that education of household head influences the probability of children's visiting a healthcare facility, and the less educated peoples were by-half less likely to seek care for sick household members than those with secondary and tertiary education.

In the current study finding, economic/wealth status of household has showed significant association with utilization of outpatient healthcare services during sickness. In other words, the poorest and poorer households are very much less likely to utilize modern healthcare services in time of sickness. As results of this study found that households in the richest20% and upper-middle quintiles were 2.6 to 3.9 times more likely to use modern medical care/services as compared to poorest20% households for sick household members. This finding was evidenced by different studies(21,38). A study conducted in rural areas of Ethiopia using a household survey, Angaw et al' (2013)(21) looked in to healthcare seeking behavior of households for different illness and found that for malaria cases household in the richer quintiles were two to three times more likely to seek modern care as compared to those in the poorest quintiles. Another study by Konde-lule JA et al' in a household survey in Uganda that looked in to the use of private and public health care found social gradient were an important determinants of health care utilization as the poor would seek care less often than the better off(36). In sum, this finding concurred with the above studies on that socio-economic status of households was significant predictor of healthcare utilization.

The regression-based results found travelled time to the nearest health facility were associated with utilization of outpatient care. The likely of a persons seeking treatment from health facility

during sickness were high as the walk travel time to healthcare facility was less than half hour. But, in this study distance travelled shown no association with utilization of outpatient care. This might be due to that the time travelled to near-by health facility were more appropriate to rather than the actual distance travelled, as people in both urban and rural environments almost never travel straight-lines (40).

In this study finding financial and physical accessibility were identified as the major barriers for not using outpatient modern curative healthcare services during sickness in the three months period preceding the survey in the study area. The finding revealed households in the lower quintiles are more users of an alternative informal treatments as self/home-care and traditional treatment. This might be explained in that first, higher percentage of an illness were reported from households in the lower socio-economic groups. This significant situation is clear that in every society morbidity are higher among the poor(5). And due to the higher total cost associated with healthcare use, poorer households in the study area may relied on self-treatment like home care. This was Supported by different studies(34–36). Lemma et al', in a study in rural Ethiopia, found higher cost of care in the private modern healthcare facilities affected people's utilization of healthcare services and did increase their demand toward traditional medicines(35). Similarly, in a study in the slums of Nairobi, Kenya, female-headed households of low socioeconomic positions were found to rely significantly on an informal private clinics(34).

To culminate, it is better to highlight the limitation of this study. Like any household survey, the reported information on household illness collected through interview has subjectivity depending on the knowledge, attitude, and perception about an illness of the respondent. There was also problem of recall bias from which underestimation of illness and utilization might had occurred. Since, proportion of utilization of modern healthcare services was determined by taken the experience associated with the recent illness, again over or under estimation of utilization might have occurred.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATION

7.1 Conclusion

In this paper it was presented a detailed descriptive analysis of household illness report and utilization of modern healthcare services in Gambella town, limiting the analysis to outpatients for the recent sickness reported in the 3 months period preceding the survey. Moreover, it investigate determinants/factors for utilization of curative healthcare services in the study area.

Physical availability of near-by health facility with in a thirty minutes' walk time, financial accessibility i.e. households' wealth status, and higher educational attainment come out as significant determinants /barriers for utilization of modern curative healthcare services in Gambella town. Availability of near-by healthcare facility was important in determining utilization of curative healthcare services by sick persons as probability of visiting modern health facility for curative care become high as health facility becomes more reachable. Also, financial inaccessibility of medical services faced by poor households, and the less educated peoples were very much less likely to use modern healthcare services during sickness in the three months' period preceding the survey. As this study found that poor households were more inclined to home care and to the informal treatment outlets during sickness of a household member(s). Finally, finding of the current study revealed a higher percentage of indigenous treatment/self-care (48%), which definitely has an implication for population health status.

7.2 Recommendations

Based on finding of this study, the following recommendations forwarded in order to increase utilization of healthcare services by the designated population in the study area:-

➢ The Gambella Regional Health Bureau should bring health facilities like urban health post together with good services quality closer to the communities;

➢ The Gambella Regional Health Bureau should put strategies like community-based healthcare insurance in place that aimed at reducing the financial burden faced by poor households due to ill-health and associated cost of health care use.

➢ The Gambella Town Health Office must do more on health education and information to raise the publics' awareness concerning indigenous treatment/ self-care, and the benefit from using modern healthcare services.

➤ The Gambella Regional Education Office and the Gambella Town Education Office must do more on education, and should target females to increase their literacy and attainments of formal education, in turn increase use of health services.

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ANNEXES

Annex I: Principal Component Analysis in constructing Wealth Index

A wealth index were constructed on seventeen permanent asset indicators and housing and service characteristics by employed principal component analysis method. The permanent asset indicators were ownership of living home, television, refrigerator, mobile phone, wire/telephone, table, chair, radio, clock/watch, electric mittad, electric stove, car, motor cycle, bi-cycle, and bed with mattress. Availability of electric light source, source of drinking water for the households, and latrine facility used were variables regarding housing characteristics. A description of all variables used was shown in table 13.

Table 12: Principal component analysis- description of variable used in constructing socio-economic indices.

Variables	Variable Type	Description
Electric light	Binary	1 if household has access to an electricity light
Drinking water source	Binary	1 if household used water from piped source
Latrine type	Binary	1 if household used private ventilated improved pit latrine or traditional pit latrine
Home own	Binary	1 if household own currently living home
Television	Binary	1 if household own a television
Radio	Binary	1 if household own a radio
Refrigerator	Binary	1 if household own a refrigerator
Bed	Binary	1 if household own a bed with mattress
Chair	Binary	1 if household own a chair
Table	Binary	1 if household own a table
Mobile phone	Binary	1 if household own a mobile phone
Tele/wire phone	Binary	1 if household has a wire/telephone
Clock/watch	Binary	1 if household own a clock/watch
Electric mittad	Binary	1 if household used an electric mittad for baking
Electric stove	Binary	1 if household used an electric stove for cooking
Car	Binary	1 if household own a vehicle/car
Motorcycle	Binary	1 if household own a motor cycle
Bi-cycle	Binary	1 if household own a bi-cycle

The idea behind PCA to estimate the SES is based on correlated asset variables that can be reduced into one artificial variable reflecting the SES. The correlation matrices between the observed variables were provided in table 15. In addition to high correlation between variables, PCA works best when variables are unequally distributed across households. Variables with low standard deviations have low weights. Variables which are identical for all households are weighted zero and have limited usefulness. With this in mind a descriptive analysis was carried

out to decide which variables to include in the analysis. Possession of ownership of automobiles and motor bikes by households was almost nil, with a percent less than 1, thus removed from the analysis. In general, variables showing no variation were excluded from the analysis and are not part of the descriptive analysis in the next table showed below (table 14).

Table 13: Principal component analysis- descriptive results of variable used in constructing socio-economic indices.

Variables	N	Mean	Standard Deviation	Min.	Max.	Factor Score
Electric light	765	0.86	0.345	0.00	1.00	0.127
Drinking water source	765	0.43	0.495	0.00	1.00	0.153
Latrine type	765	0.68	0.468	0.00	1.00	0.150
Home own	765	0.74	0.440	0.00	1.00	0.066
Television	765	0.54	0.499	0.00	1.00	0.177
Radio	765	0.50	0.500	0.00	1.00	0.045
Refrigerator	765	0.38	0.485	0.00	1.00	0.166
Bed	765	0.64	0.480	0.00	1.00	0.156
Chair	765	0.94	0.229	0.00	1.00	0.065
Table	765	0.80	0.401	0.00	1.00	0.125
Mobile phone	765	0.65	0.478	0.00	1.00	0.137
Wire phone	765	0.22	0.415	0.00	1.00	0.092
Clock/watch	765	0.53	0.499	0.00	1.00	0.046
Electric mittad	765	0.10	0.306	0.00	1.00	0.102
Electric stove	765	0.14	0.352	0.00	1.00	0.091
Bi-cycle	765	0.19	0.392	0.00	1.00	0.102

Eigenvalue = 4.349

27.2% of variances in the original variables explained by the first principal component.

	Fridge	Television	Bed	Mobile phone	Wire phone	Bicycle	Radio	Clock	Chair	Table	Mittad	Stove	Own Home	Electric Light	Private Latrine	Pipe inside compound
Refrigerator	1															
Television	.520**	1														
Bed	.388**	.509**	1													
Mobile phone	.396**	.518**	.359**	1												
Wire phone	.228**	.221**	.194**	-.052	1											
Bicycle	.324**	.326**	.218**	.248**	.109**	1										
Radio	.113**	.054	.050	.002	.106**	.082*	1									
Clock	.147**	.080*	.002	-.018	.174**	.151**	.271**	1								
Chair	.151**	.201**	.201**	.056	.101**	.042	.125**	.151**	1							
Table	.346**	.388**	.380**	.247**	.177**	.130**	.069	.077*	.455**	1						
Mittad	.312**	.238**	.191**	.122**	.320**	.140**	.163**	.206**	.063	.149**	1					
Stove	.277**	.229**	.140**	.207**	.208**	.115**	.157**	.164**	.100**	.110**	.325**	1				
Own Home	.120**	.153**	.182**	.049	.229**	.203**	.014	.011	-.024	.062	.133**	.027	1			
Electric Light	.310**	.406**	.347**	.411**	.175**	.134**	.080*	-.023	-.046	.270**	.124**	.120**	.046	1		
Private Latrine	.393**	.418**	.412**	.362**	.194**	.224**	.074*	.027	.098**	.232**	.170**	.137**	.297**	.377**	1	
Pipe inside compound	.443**	.417**	.425**	.329**	.246**	.210**	.080*	.107**	.090*	.228**	.260**	.204**	.162**	.299**	.476**	1

**. Correlation is significant at the 0.01 level (2-tailed).   *. Correlation is significant at the 0.05 level (2-tailed).

N=765

Annex II: Consent form

Unique Questionnaire Identification Number _____

Region _____   Zone _____   Town _____

Greetings;

     Hello. My name is --. I am working as a data collector in a survey conduct by Yared Tesfaye in collaboration with Jimma University. The focus of this study is to assess the type of sickness your family members have encountered in the past four weeks before today, the type and source of health care services sought to remedies from the sickness, and the reasons for the choice of a particular care provider in seeking modern health care. The findings from this study will have the importance in addressing the health care demand of the communities and to ensure/ improve the accessibility and availability of quality health care services to the populations. To assure confidentiality of information your name never write on this form and you have the full right not to answer any part of the question and even terminate at any time if you feel uncomfortable. However, your honest answer to those questions extremely important to understand what people think and does regarding care seeking when they fell sick; and peoples' perception toward the public and private health care providers found in the town.

We shall appreciate greatly and deeply your willingness to participate in the study.

Now, do you have anything you want to ask me about the survey?

I am waiting your willingness to participate to begin the interview. Do you agree?

Respondent agree to be interview   ------------

Respondent does not agree to be interview   ------------

Interviewer: Name: _____; Signature: _____Date of interview: _____

Supervisor: Name_____; Signature_____; Date: _____

Annex III: Structured Questionnaire English Version

Questionnaire for Household Survey on Assessment of Utilization Outpatient Health Care and Associated Factors in Gambella Town, 2014/ 15 GC

General Information

Region _____; Zone _____; Kebele _____; House No._____

For how long the householder lived in the kebele? _____years

Household Information *(filled by interviewing the head of the household)*

Q/n	Characteristics	Response variable	Skip to
PART 1: Household Head Characteristics			
101	Sex of the household head	Male ……………………………… 1 Female …………………………… 2	
102	Age of the household head	_____ years	
103	Marital status of the household head	Single ………………………………1 Married …………………………2 Widowed …………………………3 Divorced …………………………4	
104	Ethnic group of the household head	Nuer ……………………………1 Anuak ……………………………2 Amhara ……………………………3 Kefficho. …………………………4 Oromo ……………………………5 Mezhenger ………………………6 Other, specify_____99	
105	What is your religion?	Protestant …………………………..1 Orthodox Christian ………………2 Muslim ……………………….....3 Catholic …………………………4 Traditional religion ……..……5 No religion ………………………6 Other, specify_____99	
106	What is your educational level?	Illiterate ……………………………1 Can read & write …………………2 Elementary (Grade 1-8) …………3 Secondary (Grade 9-12) …………4 College or university ……………..5	
107	Do you have work, currently?	Yes ………………………1 No ………………………2	
108	How many is the family members including you?	_____ persons	
PART 2: Socio-Economic Characteristics of the Household			
Q/n	Characteristics	Response Variable	Skip To
201	Does your household own the house you are currently living in?	Yes ………………………..…………1 No ………………………………2	

202	Does your household currently have …?	1. Yes	2. No	
	An electricity	1	2	
	A functional radio	1	2	
	A functional television	1	2	
	A wrist watch/ clock	1	2	
	A mobile phone	1	2	

IX

		1	2	
	A wire/telephone	1	2	
	A bed with mattress	1	2	
	A sofa	1	2	
	A chair	1	2	
	A table	1	2	
	A refrigerator	1	2	
	An electric mittad	1	2	
	A kerosene stove	1	2	
203	Does any member of your household own the following means of transport?	1. Yes	2. No	
	A bicycle	1	2	
	A motorcycle	1	2	
	A car/ truck	1	2	
204	What is your main source of drinking water?	Pipe water into dwelling …………...1 Pipe water in public tap/ standpipe…2 Well in the premise…...……………3 Spring …………………………...4 Surface water (river/lake/ponds) …..5 Other specify ………………...……99		
205	Does your family has a latrine?	Yes ………………………1 No ………………………………2 ⟶		Part 3
206	What kind of latrine the household use?	Private traditional latrine …………..1 Private ventilate improve latrine …..2 Shared latrine………………………3 Other, specify_____99		

PART 3: Household Illness Profile			
Q/n	Characteristics	Response Variable	Skip To
301	Is there any member of your family who had suffered from illness/ injury in the past 3 months?	Yes…………………………………1 No…………………………………2	
302	How many family members were sick in the past 3 months?	_____family members	

To interviewer: record a detail description of the number of times illness experienced by the individual(s) who is/ are member of the household during the past three month and associated medical care seeking for each episode of illness. (*Elicit information from the household head*)

Q/No	303	304	305	306	307
Sick person code	Age *(in years)*	Sex	Number of times the person felt sick in the past 3 months	Did sick person sought treatment from hospital, health center, or clinic for all illness episodes? 1. YES 2. NO	If *no*, to *Q305* for how many of illness episode did sick person sought modern healthcare?

Sick Individual Information (*Interview the sick person if the age is ≥ 18 years; interview head of household/ housewife/ care giver if age of the sick person is <18 years*)

PART 4: Socio-Demographic Characteristics of the Sick Person		
Q/n	Characteristics	Response Variable	Skip To
401	Sex	Male ………………………………1 Female ……………………………2	

X

402	Age	_____ years	
403	Marital status	Single …………………………………1 Married………………………………...2 Widowed ……………………………3 Divorced ……………………………4	
404	Religion	Protestant …………………………1 Orthodox Christian …………………..2 Muslim ……………………………3 Catholic ……………………………4 Traditional religion …………………5 No religion …………………………..6 Other, specify_____99	
405	Educational status	Illiterate …………………………...1 Can read & write……………………2 Elementary (Grade 1-8) ……………...3 Secondary (Grade 9-12) …………….4 College/ university & above ………...5	

PART 5: Sick Individual Illness Characteristics

Q/n	Characteristics	Response Variable	Skip To
501	What type of symptoms/ illness did you/ the sick child/ have during the recent illnesses?	Fever, headache, convulsion, hot body…..1 Malaria …………………………....…2 Stomachache with diarrhea ……...…..3 Common cold, runny nose, sore throat …4 Cough, difficulty/fast breathing…………5 Eye ache ……………………………6 Earache ……………………………7 Skin infection, itching ……………....8 Bleeding, burn, accident …………….9 Other, specify_____99	
502	For how long have you been sick/ the child sick since the start of your recent illness?	1 - 3 days ………………………………1 4 - 7 days ………………………………2 8 - 21 days ……………………………3 22 days and more ……………………4	
503	How serious was your/the child's/ recent illness?	Not serious/ mild…………………….1 Moderate ………..…………………2 Serious………………………………3	

PART 6: Sick Individual Health Service Utilization

Q/n	Characteristics	Response Variable	Skip To
601	Did you sought treatment for your illness from any source?	Yes ………………………………..1 No ………………………………2→	Part 7
602	From where did you seek advice or treatment for your illness? (more than one answer is possible)	Gov't health center ………………….1 Gov't hospital ………………………2 Private clinic ………………………3 Private pharmacy/ drug store ….…....4 Traditional healer …………………..5 Home/ self-treatment ………………..6→ Other, specify _____99	Part 7
603	Where did you first seek advice or treatment for your illness outside home?	Gov't health center…………………..1 Gov't hospital………………………..2 Private clinic …………………………3 Private pharmacy/ drug store...….……4 Traditional healer …………………...5→	Part 7

Q/n	Characteristics	Response Variable	Skip To
604	How many days after your illness began did you first seek advice or treatment?	The same day……….…..……….……1 The next day …………..……………2 Two days after illness started …….3 Between three days and 7 days ……..4 After a week ………………………5 No response/ don't know……………..97	

PART 7: Health Service Accessibility to the Sick Individual

Q/n	Characteristics	Response Variable	Skip To
701	Which type of modern health facility is the closest to your home?	Gov't health center …………..……..1 Gov't hospital ………..……………2 Private clinic ………………………3 Private pharmacy/ drug shop ……...4	
702	How long does the closest health facility far from your home?	5 Km or less …..…………………………1 Between 5 Km and 10 Km ……………...2 Greater than 10 Km ……...……………3	
703	In your opinion, the distance from your home to the nearest health facility …is	Near …………………………….….1 Medium ……………..……………2 Far ………………………………3	
704	What means of transportation did you used to get to the near-by health facility?	On foot …………………………………1 Public transport ………………………2 Other, specify _____99	
705	Walking on-foot, how long does it take to get to this health facility?	30 minutes or less …………………..1 Between 30 minutes and 1 hour ……2 Between 1 and 2 hour ……………...3 More than 2 hour …………………..4	
706	Is the work hour of the closest health facility flexible & convenient for you to use/ visit the facility?	Yes ……………………………...1 No ………………………………2	

PART 8: Reason for Not Visiting Modern Heath Care by the Sick Individual

Q/n	Characteristics	Response Variable	Skip To
801	Why you did not visit healthcare facility to get medical treatment for your illness/ the child's illness? (Multiple answer is possible)	Illness was mild ……… …...……......1 Expensive treatment …………………2 Long service time …….…..…………..3 Health facility too far …….………...4 The treatment does not cure illness ….5 Provider are not welcoming ………..6 Other, ecify_____99	

Are there any other comments that you would like to make? _____

This is all; I finish my interview. I would like to thank you for your time.

Annex IV: Structured Questionnaire Amharic Version

የዳሰሰው ጥናት፤ የተመላላሽ ህክምና አገልግሎት ተጠቃሚነት በጤና ተቋማት፣ ጋምቤላ ከተማ፣ 2006 ዓ.ም.

I. አጠቃላይ፤መረጃ

ክልል _____ ዞን _____ ቀበሌ _____ የቤት ቁጥር _____

የቤቱ ሹም ለምን ያህል ጊዜ በቀበሌው ኖረዋል _____

II. የቤተሰብ መረጃ *(ቃለ መጠይቁን ከቤተ አስተዳዳሪ/ ሹም ጋር በማድረግ የሚሞላ)*

ክፍል አንድ፤ የቤቱ ሹም ሁኔታ			
ጥ/ቁ	ጥያቄ	የመልስ ምርጫ	ወደ እለፍ
101	የቤቱ ሹም ፆታ	ወንድ..1 ሴት...2	
102	የቤቱ ሹም እድሜ	_____ አመት	
103	የቤቱ አስተዳዳሪ ጋብቻ/ ትዳር ሁኔታ	ያላገባ..1 ያገባ..2 አግብቶ/ታ በሞት የተለየችው/ያታ..................3 አግብቶ/ታ የፈታ/ች.............................4	
104	የቤቱ ሹም ብሄር	ኑዌር..1 አኝዋ..2 አማራ..3 ከፋች..4 ኦሮሞ..5 መዠንግር......................................6 ሌላ ከሆነ ግለጽ _____99	
105	የቤቱ ሹም ሃይማኖት	ፕሮቴስታንት ....1 ኦርቶዶክስ ክርስቲያን ....2 ሙስሊም ....3 ካቶሊክ ....4 ባህላዊ ዕምነት ስርዐት ተከታይ ....5 የምንም ሃይማኖት ተከታይ ያልሆነ.............6 ሌላ ከሆነ ግለጽ _____99	
106	የቤቱ ሹም የትምህርት ደረጃ	ምንም ያልተማረ..............................1 ማንበብ እና መጻፍ የሚችል......................2 አንደኛ ደረጃ (ከ1_8ኛ ክፍል)...................3 ሁለተኛ ደረጃ (ከ9_12ኛ ክፍል)..................4 ኮሌጅ/ ዩኒቨርስቲ..............................5	
107	ስራ አለህ?	አዎ ....1 አይ 2	
108	የቤተሰብዎ አባላት ብዛት እርስዎን ጨምሮ ምን ያህል ነው?	_____የቤተሰብ ብዛት	
ክፍል ሁለት፤ የቤተሰቡ ማህበረ- ኢኮኖሚያዊ ሁኔታ			
ጥ/ቁ	ጥያቄ	የመልስ ምርጫ ዝርዝር	ወደ እለፍ
201	አሁን ቤተሰብዎ የሚኖሩበት ቤት የግልዎ ንብረትዎ ነው?	አዎ...1 አይደለም.....................................2	

202	ቤተሰብዎ የሚከተሉት የግል ንብረቶች አሉት?	**1. አለ**	**2. የለም**	
	መብራት	1	2	
	የሚሰራ ሬድዮ	1	2	
	የሚሰራ ቴሌቪዠን	1	2	
	የግርግዳ/ የእጅ ሰዓት	1	2	
	ሞባይል ስልክ	1	2	
	መደበኛ/ የማይንቀሳቀስ ስልክ	1	2	
	አልጋ ፍራሽ ያለው	1	2	

	ሶፋ	1	2	
	ወንበር	1	2	
	ጠረጴዛ	1	2	
	ፍሪጅ	1	2	
	የኤሌክትሪክ ምጣድ	1	2	
	የኤሌክትሪክ ምድጃ	1	2	
203	ከቤተሰቡ አባላት መካከል የሚከተሉት የግል መጉዋገዣ ንብረቶች ያሉት አለ?	1. አለ	2. የለም	
	ሳይክል	1	2	
	ሞተር-ሳይክል	1	2	
	መኪና	1	2	

204	ቤተሰብዎ ለመጠጥ አገልግሎት የሚውል ውሀ ከየት ነው የሚያገኘው?	በግቢ ውስጥ ከሚገኝ ቧንቧ..1 ከቦኖ የቧንና ውሀ..2 በግቢ ውስጥ ከሚገኝ የጉድጓድ ውሃ.................3 ከምንጭ...4 ከወንዝ፣ ከኩሬ..5 ሌላ ከሆነ ይግለጹ_____99	
205	መፀዳጃ ቤት አለዎት?	አዎ አለ...1 አይ የለም..2 ⟶ ክፍል 3	
206	የመፀዳጃ ቤቱ አይነት (የኳይን ጉብኝት በማድረግ ይመዝገብ)	ባህላዊ መፀዳጃ ቤት..1 የሽታ ማስወገጃ ቱቦ ያለው መፀዳጃ ቤት.....................2 የጋራ መፀዳጃ ቤት...3 ሌላ ከሆነ ይገለፅ..99	

ክፍል ሶስት፥ የቤተሰብ አባላት የሶስት ወር የህመም ሁኔታ መረጃ

ጥ/ቁ	ጥያቄ	የመልስ ምርጫ	ወደ እለፍ
301	ከቤተሰብዎ አባላት በባለፈው ሶስት ወር ውስጥ የታመመ ነበር?	አለ...1 የለም...2 ⟶ ጨርስ	
302	ስንት የቤተሰብ አባላት ታመሙ?	_____ ሰው	

ጥ/ቁ	303	304	305	306	307
የህመምተኛው መለያ ኮድ	እድሜ በዓመት	ፆታ	በባለፈው ሶስት ወር ውስጥ ስንት ጊዜ ታመመ?	ህመምተኛው ለሁሉም ህመሞች ህክምና ከሆስፒታል፣ ጤና ጣቢያ፣ክሊኒክ ተከታትሎዋል? 1. አዎ 2. አይ	ለጥያቄ 306 አይ ከሆነ፣ ለስንቱ ህመሞች ህክምና ተከታትሎዋል?

III. **የህመምተኛው መረጃ** *(ቃለ-መጠይቁን ከታመመው ሰው ጋር በማድረግ የሚሞላ፤ የታመመው ሰው ከ18 ዓመት በታች ከሆነ ቃለ-መጠይቁን ከቤቱ ሹም ወይም ከልጁ እናት ጋር ይደረጋል)*

	ክፍል አራት፥ የህመምተኛው አጠቃላይ መረጃ		
ጥ/ቁ	ጥያቄ	የመልስ ምርጫ	ወደ እለፍ
401	የህመምተኛው ፆታ	ወንድ ....1 ሴት 2	
402	የህመምተኛው እድሜ	_____ዓመት	
403	የህመምተኛው ጋብቻ/ ትዳር ሁኔታ	ያላገባ ....1 ያገባ ....2 አግብቶ/ታ በሞት የተለየችው/ያታ ....3 አግብቶ/ታ የፈታ/ች 4	

ጥ/ቁ	ጥያቄ	የመልስ ምርጫ	ወደ እለፍ
404	ሃይማኖት	ፕሮቴስታንት ....1 ኦርቶዶክስ ክርስቲያን ....2 ሙስሊም ....3 ካቶሊክ ....4 ባህላዊ ዕምነት ....5 የምንም ሃይማኖት ተከታይ ያልሆነ ....6 ሌላ ከሆነ ግለጽ 99	
405	የህመምተኛው የትምህርት ደረጃ	ምንም ያልተማረ ....1 ማንበብና መጻፍ የሚችል ....2 አንደኛ ደረጃ (ከ1_8ኛ ክፍል) ....3 ሁለተኛ ደረጃ (ከ9_12ኛ ክፍል) ....4 ኮሌጅ/ ዩኒቨርስቲ 5	

ክፍል ዐምስት፥ የህመምተኛው የህመም ሁኔታ

ጥ/ቁ	ጥያቄ	የመልስ ምርጫ	ወደ እለፍ
501	በቅርብ የታመሙት የህመም ምልክት/ አይነት ምን ይሆን?	ትኩሳት ከማንቀጥቀጥ ጋር፣ ራስ ምታት...............1 ወባ ....2 የሆድ ህመም ከተቅማጥ ጋር ....3 ጉንፋን፣ የጉሮሮ መከርከር.........................4 ሳል፣ የመተንፈሻ አካል ህመም ....5 የዓይን ህመም ....6 የጆሮ ህመም ....7 የቆዳ ማሳከክ/ በሽታ ....8 እሳት መቃጠል፣ ድንገተኛ አደጋ ....9 ሌላ ከሆነ ይግለጹ 99	
502	በቅርብ የታመሙት ህመም ለምን ያህል ጊዜ ቆዩበዎት?	ከ 1 – 3 ቀን.........................1 ከ 4 – 7 ቀን.........................2 ከ 8 – 21 ቀን ....3 22 እና ከዛበላይ ቀን 4	
503	የህመሙ ደረጃ እንዴት ነበር?	ቀላል ....1 መካከለኛ ....2 በጣም አደገኛ 3	

ክፍል ስድስት፥ የህመምተኛው የህክምና አገልሎት ተጠቃሚነት ሁኔታ

ጥ/ቁ	ጥያቄ	የመልስ ምርጫ	ወደ እለፍ
601	በቅርብ ለታመሙት ህመም የህክምና እርዳታ/ ምክር ወስደዋል?	አዎ ወስጀያለሁኝ.........................1 አይ አላወሰድኩኝም.........................2 ⟶	ክፍል 7
602	በቅርብ ለታመሙት ህመም የህክምና እርዳታ/ ምክር አገልሎት ከማን ወሰዱ/ አገኙ?	ከመንግስት የጤና ጣቢያ.........................1 ከመንግስት ሆስፒታል ....2 ከግል ክሊኒክ ....3 ከግል ፋርማሲ/ መድሃኒት መሸጫ.........................4 ከባህላዊ ሃኪም ....5 የቤት ውስጥ ህክምና ....6 ⟶ ሌላ ከሆነ አባክዎን ይግለጹ 99	ክፍል 7
603	በቅርብ ለታመሙት ህመም የህክምና እርዳታ/ ምክር አገልሎት መጀመሪያ ከማን ነው የወሰዱ/ ያገኙ?	ከመንግስት የጤና ጣቢያ.........................1 ከመንግስት ሆስፒታል.........................2 ከግል ክሊኒክ.........................3 ከግል ፋርማሲ/ መድሃኒት መሸጫ ....4 ከባህላዊ ሃኪም ....5 ⟶ ሌላ ከሆነ አባክዎን ይግለጹ 99	ክፍል 7
604	በቅርብ የታመሙት ህመም ከጀመረዎት ከስንት ቀን በኁዋላ ነው የመጀመሪያ ህክምና እርዳታ/ ምክር አገልሎት የወሰዱት?	ህመሙ የጀመረኝ ቀን ....1 ህመሙ በጀመረኝ በማግስቱ ....2 ህመሙ ከጀመረኝ ከሁለት ቀን በኁዋላ.........................3 ህመሙ ከጀመረኝ ከ3 እስከ 7 ቀን ባለው ጊዜ.........4 ህመሙ ከጀመረኝ ከሳምንት በኁዋላ ....5 መረጃ የለም 97	

ክፍል ሰባት፥ ለህመምተኛው የጤና አገልግሎት ተደራሽነት ሁኔታ			
ጥ/ቁ	ጥያቄ	የመልስ ምርጫ	ወደ እለፍ
701	እርስዎ ከሚኖሩበት ቅርበት ያለው የህክምና አገልግሎት መስጫ ተቋም የትኛው ነው?	የመንግስት የጤና ጣቢያ ....1 የመንግስት ሆስፒታል..2 የግል ክሊኒክ ....3 የግል ፋርማሲ/መድሃኒት መሸጫ..........................4	
702	ለእርስዎ ቅርብ የሆነው የጤና ተቋም ከሚኖሩበት ቤት ምን ያህል ይርቃል?	ከ 5 ኪ.ሜ. በታች ....1 ከ 5 ኪ.ሜ. እስከ 10 ኪ.ሜ. ....2 ከ 10 ኪ.ሜ. በላይ 3	
703	የእዚህን የጤና ተቋም እርቀት እንዴት ያዩታል?	ቅርብ..1 አማካይ ....2 ሩቅ..3	
704	ወደ ጤና ተቋም ህክምና ለማግኘት በሚሄዱ ጊዜ ምን ዓይነት የመጓጓዣ አገልግሎት ይጠቀማሉ?	በእግር ....1 በህዝብ መጓጓዣ...2 ሌላ ከሆነ ይግለጹ _____99	
705	በእግር ቢጓዙ የጤና ተቋም ለመድረስ ምን ያህል ሰዓት ይወስድብዎታል?	ከ 30 ደቂቃ በታች ....1 ከ 30 ደቂቃ እስከ 1 ሰዓት..............................2 ከ 1 ሰዓት እስከ 2 ሰዓት ....3 ከ 2 ሰዓት በላይ...4	
706	የጤና ተቋሙ ህክምና አገልግሎት የሚሰጥበት ስራ ሰዓት ለመጠቀም ለእርስዎ ምቹ ነው?	አዎ ....1 አይደለም 2	
ክፍል ስምንት፥ ለህመም የዘመናዊ ሕክምና አገልግሎት ያልተጠቀሙበት ምክንያት			
ጥ/ቁ	ጥያቄ	የመልስ ምርጫ	ወደ እለፍ
801	በቅርብ ለታመሙት ህመም የህክምና አገልግሎት ለማግኘት ወደ ጤና ተቋም (ሆስፒታል፣ጤና ጣቢያ፣ ክሊኒክ) ያልሄዱበት ምክንያት ብለው የሚያምኑት ምን ይሆን?	የህመሙ ምልክት የማያሳስብ ስለነበር ....1 ለህክምና ወጪ የሚየስፈልግ ገንዘብ ውድነት ....2 ህክምና ለማግኘት ረጅም ሰዓት ስለሚወስድ ....3 ጤና ተቋሙ እርቀት...4 ህመሙ በህክምና የሚድን ስላላመሰለኝ........................5 በጤና ተቋም ጥሩ አቀባበል ስለማይደረግ...................6 ሌላ ከሆነ ይግለጹ _____99	

በቃለ-መጠይቁ ዙሪያ ሊያክሉ የሚፈልጉት አስተያየት ይኖራል? _____

ይህው ነው!! ቃለመጠይቁን ጨርሼያለሁኝ፡፡ ለነበረን ቆይታ ከልብ አመሰግናለሁኝ፡፡

DECLERATION

I, the undersigned, declare that this thesis report is my own original work and it has not been presented in other universities, colleges, or other institutions for similar degree or other purposes. All the tools used in this study were acknowledged. It's ethical, technical conduct and validity approved.

Investigator

Name: ___YARED TESFAYE (BSc,)___

Date: _____

Signature: _____

This thesis report has been submitted after approval of my examiners.

Approval of External Examiner

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Approval of Internal Examiner

Name: _____

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