

# UTILIZATION OF HEALTH CARE FACILITIES IN BABURA LOCAL GOVERNMENT AREA, JIGAWA STATE, NIGERIA

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## ABSTRACT

Utilization of health care services is a product of many factors including demographic, socio-economic and location. This study assesses the factors in the utilization of health care services in Babura Local Government Area of Jigawa State, Nigeria. A total of 150 respondents were administered structured questionnaires. Purposive sampling method was used in which five health facilities were selected by virtue of their location and function give clear representation. These are the Babura General Hospital, Jigawa Model Primary Health Care Centre Kanya Primary Health Centre and Garu Primary Health Care Centre. Data collected were analyzed using nearest neighbor analysis, descriptive statistics and the chi-square to test the hypotheses. The result showed that health care facilities are not evenly distributed in the area, 30% of the respondents were women aged 15-24 years, and only 7% of the respondents attended both Islamic and Western education. While 30% of respondents were living on less than ₦ 35,000 per annum, about 52% of the respondents live between 0-5 km away from the nearest health facilities. The three hypotheses tested showed significant relationships between distance and health care utilization ( $X^2 = 207.692$ ), literacy level and health care utilization ( $X^2 = 120.000$ ) and Income level and health care utilization ( $X^2 = 257.143$ ). The study concluded that distance to health facilities affects their utilization. The study recommends that government should ensure more even distribution of health facilities in the study area.

**Key Words :** GIS, Health care services, Health care facilities, Babura

## INTRODUCTION

Location is the one of the factors that determines the use of health care service and also determines access to healthcare services<sup>1</sup>. Therefore, health care facility survey is important as it determines how many of a specific type of facility can simply exist in an area, find the best locations for new ones and determine how many to open<sup>2</sup>. Therefore, according to Green Hut and Mai<sup>3</sup> location should contain 3 standard analytical components: Location as access, location as externality and definition of the policy context for public facility planning.

In Okene Oba Ward of Kogi State only 6% of females utilize antenatal care services because the ward is located on a hilly area and health

care services are downhill. The location of the health care service is not easily accessible to the people of that ward which lead to poor utilization of the centre.

Income level is one of the determining factors of utilization of health care services. These factors become particularly important in fee-for-service situation. Generally, poverty, cultural traditions and laws restrict people's access to financial resources and inheritance in developing world. A study conducted by Shamaki observed that access to health facilities is centered on economic accessibility and pointed out that 25% of the population in extreme poverty lacks access to health services. This shows that there is tendency that patients living farther away from a health facility that are of higher income status and more commonly own cars or motorcycles

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utilize the services more than those who are of lower economic status. It is common in Nigeria to find the rich and elite travelling abroad to seek for care. To this set of people distance is not necessarily a barrier to seeking care. Financial constraints may lead patients to involve in self-medication as observed in North West Ethiopia<sup>4</sup>.

The occupational status is also another factor that affects the utilization of health care services. The type of occupation is related to the economic power which will translate to the ability to access the services if it is cost involving. Those who are employed are likely to utilize health care services. This could be attributed to their level of income since with employment; one is likely to have good financial status as compared to one who is unemployed<sup>5</sup>. Sometimes, occupation of people played a great role when it come to the utilization of health care services because those who worked in business or services are mostly like to be users of modern health care services. A study conducted in rural areas of Bangladesh by Chakraborty and Sahoo<sup>6</sup> observed that about 33.4% of women whose husbands worked in business or services went to qualified medical personnel for treatment compared with 24% among those husbands work in agriculture or as day labourers.

Literacy level is another factor that is associated with accessing and utilization of health care services. People with high level of education are more likely to utilize the health services more when compared with those who do not have. This could be attributed to the level of knowledge attained with education which enables them to make informed decision and choices. A community based cross sectional study carried out in Ethiopia cited very low institutional based deliveries (12%) and the factors found were lack of knowledge on pregnancy and delivery services<sup>5</sup>.

Erinosh<sup>7</sup> in Darna<sup>8</sup> asserts that, educated persons are more likely to patronize orthodox medicine than their non – educated counterparts. This is due to the following reasons:

- (a) Certain patients dislike queuing for cards, registration, physical examination, lab investigation and hospitalization.

- (b) The non-literate finds orthodox medicine as cumbersome strange.

A review by Thaddeus and Maine<sup>9</sup> show that access to medical services increases with increased level of education. Educated populace are more likely to assume responsibility and take immediate and appropriate action to seek for help to their illness than those with no formal education<sup>7,8</sup>.

Education enlightens, teaches and influences the lifestyle of any individual and this makes a whole world of difference in the attitude and perception of health care services. Unfortunately, people have been disadvantaged the right to education especially those in the rural areas. Thus knowledge is power and when people are not educated, they cannot be blamed for how they think and act or behaved<sup>9</sup>.

Culture plays a significant role in any society. For instance in Northern part of Nigeria a man is seen as the head of the family and as a result, all is subordinate to him. The woman has no right to make any decision on her own without the permission from her husband. Traditional expectation of how male and female should behave can have severe consequences for the health and wellbeing of men as well as women. Socialized expectations of men to be emotionally controlled and self-sufficient can lead to blocked emotions, lack of openness and inability to acknowledge weakness, vulnerability and decreased capacity to receive interpersonal feedback<sup>10</sup>. Influence of husbands in giving permission to wives before they seek medical help even during pregnancy and delivery affected the utilization of health care services<sup>1</sup>.

In countries as diverse as Nigeria, Ethiopia, Tunisia, India and Korea; studies show that women do not decide on their own to seek care<sup>9</sup>. This practice is done throughout the northern states of Nigeria that makes the facilities out of bound to these categories of the people<sup>11</sup>. Hence, where women mobility is severely restricted because of such cultural practices, effort to seek timely care may be prevented<sup>9</sup>.

Cultural belief and practices affect utilization of health care services. This could be ascribed to the fear of possible consequences if one went against such traditions. In a community,

it expected that people behave in certain manner. A literature review of many papers found out that cultural beliefs had influence on utilization of antenatal care<sup>5</sup>.

Other factors that determine the health care utilization is disease recognition and health care services behavior. A study conducted by Abubakar *et al*<sup>12</sup> on socio-cultural determinants of health seeking behaviour on Kenya coast were by 53 mothers that were interview noted that some illness were best suited to treatment by medical doctors such as malaria, typhoid and fever while others were best best suited to treatment by traditional healers particularly those with mental health symptoms such as hallucination or an anxiety appeared to be uniquely suited by traditional healing.

Health facility factors such as inadequate staffing, lack of equipment or negative staff attitude contribute to the patients not accessing health care facilities. Inadequate staffing may be accredited to unfairness in staffing which may result due to lack of infrastructure. A study on utilization of postpartum care in Philippines found out that utilization of the services was associated with place of delivery. The women who delivered at home were less likely to utilize services<sup>13</sup>. Negative staff attitude may be as a result of overworking and staff experiencing tiredness. For staff to take pleasure in their work there should be ease of access to equipment so that they can be able to provide their services efficiently. In a situation where this is a challenge, it may create a risk of lack of interest in their work and fatigue when they always have to improvise.

The road distance separating patients from the nearest health facility has been shown to be an important barrier in seeking health care. For instance in South Africa it has been shown that 96% of the patients use nearest clinic<sup>14</sup>. This shows that distance separating potential patients from the nearest health facility has been shown to be an important role in seeking health care. In Jimma zone Southwest Ethiopia it was observed that those individuals located less than or equal to 10 km from nearest health centres or hospitals

had 2.9 times higher chance of using health services as those residing 10 km away<sup>4</sup>. Thaddeus and Maine<sup>9</sup> argue that distance exerts dual influence; long distance can be an obstacle to reaching a health facility; and they can serve as disincentive to even trying to seek care. The effect of distance thus becomes stronger when combined with lack of transportation and poor roads. Accessible roads and means of transportation ease the problem of accessibility and utilization of the services. A review by<sup>9</sup> indicates that a patient with Eclampsia wait for 13 hours before transport to the hospital could be found.

Accessible roads and means of transportation relieve the problem of utilization. Good quality transportation network will serve as an incentive to motivate the community to utilize the available health care facilities<sup>11</sup>. The scarcity of transportation in developing countries is cruel realism which affects people in dispersed settlements. In addition, absence of transportation was associated with a 0.05 chances of service utilization as compared to those who perceived the transport cost expensive<sup>4</sup>.

## METHODOLOGY

### Study area

Babura Local Government Area was created in May 1989 from Dambatta Local Government Area of Kano State. The Local Government Area is located at the north central part of Jigawa State, Nigeria. It is bordered by Sule Tankarkar to the East, Garki to the South East, Danbatta (Kano State) to the South, Kazaure to the West and Baure (Katsina) to the North<sup>16</sup>. The geographical location of the Local Government Area is approximately 12° 10' to 12° 14' N Latitude and 8° 30' to 9° 5' E Longitudes. It has an area of about 1037 square kilometers with a total population of 212, 955 people<sup>15</sup> (**Fig. 1**).

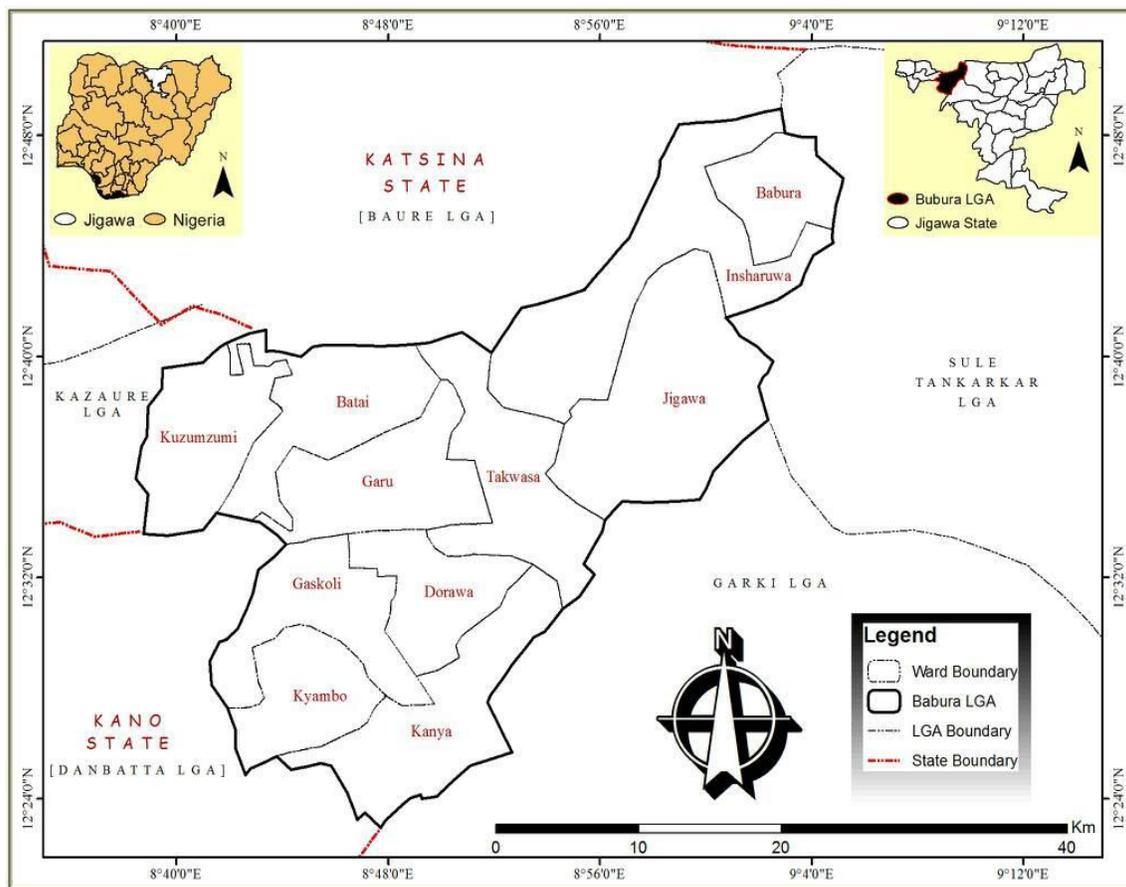
The dominant ethnic groups are Hausa and Fulani and mostly Muslims. Festivals performed are mostly religious and most important are the two (Eid-Al-Fitr and Eid-Al-Adha). Other ethnic groups that can be found within the study area are Yorubas and Igbos which latter are mostly Christians, they live harmoniously in the area and they engage in

trade such as auto mechanic repairs and pharmaceutical business<sup>16</sup>.

The primary occupation is crop farming practiced at subsistence level, although animal husbandry and some cash crops are produced for commercial purpose. The main crops grown are millet, guinea corn (sorghum), cowpea, rice, groundnuts, sesame and recently water lemon. There is large population of livestock in the area mainly cattle, goat, sheep, donkeys and horses: the last two being used mainly as beast of burden. Other informal sectors activities are mainly artisan and craftsmanship. Examples are carpentry, blacksmithing, leatherworks and masonry. The area has a number of weekly markets in the area such as Babura (Friday),

Kuzunzumi (Wednesdays) and Masko (Thursdays). Commodities are traded in these markets with neighboring states and across the border with Niger Republic<sup>16</sup>.

The Hausa and Fulani who comprised the major ethnic groups in the Study Area do not allow women to seek medical care without the prior permission of their husbands. This practice makes facilities outside the reach to these categories of people<sup>17</sup>. Most women in the Study Area only go to the hospital when they develop complications. Other women prefer to be examined by female physicians and others prefer to be assisted by experienced older women or Traditional Birth Attendants (TBAs) during child delivery<sup>17</sup>.



**Source :** Modified from Administrative Map of Jigawa State, Nigeria

**Fig. 1 :** Study area

**Research design**

Purposive sampling method was used in which five health facilities were selected by virtue of their location and function give clear

representation. These are the Babura General Hospital, Jigawa Model Primary Health Care Centre Kanya Primary Health Centre, Kuzumzumi Primary Health Care Centre and

Garu Primary Health Care Centre. Respondents were selected using accidental sampling technique. According to Babbie<sup>18</sup>, there are many situations in social science research which do not allow the use of probability sampling method because there is no list containing the names of the subjects and such a list is difficult to develop. Therefore, the use of an accidental sampling technique is often recommended. Thus, 30 respondents were selected from each of the the five health facilities visited making the total number of 150 respondents.

#### Data analysis

The data generated were presented using descriptive statistics which involved the use of tables, frequencies and percentages. In order to test the hypotheses, chi-square statistics was used to show whether or not there are significant relationships between distance,

literacy level and income level of people, and their utilization of health care services. The Data presentation and hypotheses testing were done with the aid of the statistical package for the social sciences (SPSS, version 16).

In analyzing responses to the questionnaire, frequencies and percentages were used.

## RESULTS AND DISCUSSION

### Demographic characteristics

#### Age distribution

The age distribution of respondents showed that those between age bracket of 15-24 years were greater in number with 30%, followed by those between the age bracket of 25 -34 years with 24%. The least were those of 54 years and above representing 10%. This is for the fact that majority of the respondents were women in the reproductive age group of 15-24 years of age (Table 1).

**Table 1 : Age distribution of respondents**

Characteristics	Frequency	Percentage (%)
<b>Age (Years)</b>		
<b>15-24</b>	45	30
<b>25-34</b>	36	24
<b>35-44</b>	30	20
<b>45-54</b>	24	16
<b>55 and above</b>	15	10
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

**Table 2 : Gender of respondents**

Sex	Frequency	Percentage (%)
<b>Male</b>	69	46
<b>Female</b>	81	54
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

As per gender, female constitutes 54% while male constitute 46%. This is in line with the population composition of the local government as females constitute the majority and the services most probably attracted females due to kind of services being offered as gynecology, antenatal, family planning etc. There were no specialized male services being offered. Women are more prone to illness due to peculiar reproductive health needs. Moreover, women would likely to accompany

their children to health institutions where they seek treatments for themselves too. (Table 2)

#### Socio-economic characteristics of the respondents

On the occupational status of the respondents, 115(77%) were engaged in farming 27(18%) in trading, while 8(5%) were civil servants. Therefore, the table shows that majority of the respondents were farmers and the farming is on subsistence form. This affects their utilization to the

health facilities because the type of occupation is related to economic control which will interpret the ability to access the health services. This corroborates the findings of Cheptum, *et al.*,<sup>5</sup> who observed that utilization of health facilities could be attributed to the level of income since with employment; one is likely to have good financial status as compared to one who is unemployed. (Table 3)

**Table 3 : Occupation of respondents**

Occupation	Frequency	Percentage (%)
Farming	115	77
Trading	27	18
Civil Servant	8	5
Others (Specify)	0	0
<b>Total</b>	<b>150</b>	<b>100</b>

Source: Fieldwork, 2016

**Table 4 : Educational attainment of respondents**

Literacy level of respondents	Frequency	Percentage
Islamic Education	125	83
Western Education		
i Primary	10	7
ii Secondary	6	4
iii Higher Education	2	1
iv None of the above	0	0
v All of the above	7	5
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

As far as educational attainment is concerned, the respondents fell under six categories: 125(83%) of them were literate in Islamic education, out of the 25 (17%) who were literate in western education, only 10(7%) attended primary school, only 6(4%) attended secondary schools, only 2(1%) attended tertiary institutions while 7(5%) have both Islamic and Western education (Table 4). However, it is obvious from the table majority of

the respondents had no minimum level of western education and this makes some of them not utilize health facilities present in the area. This is in line with what Erinosh<sup>7</sup> in Darna<sup>8</sup> asserts that, educated persons are more likely to patronize orthodox medicine than their non – educated counterparts. This also corroborates the findings of Girma<sup>4</sup>, Thaddeus and Maine<sup>21</sup> which stated that access to medical services increases with increase of level of education.

**Table 5 : Income (per annum) of respondents**

Income (per annum)	Frequency	Percentage (%)
Less than ₦35, 000	55	37
₦ 35, 000 - ₦108,000	43	29
₦108,001 - ₦216,00	17	11
₦216001- ₦324,001	24	16
₦324,001 and above	11	7
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Field work, 2016

On the annual approximate income, the **Table 5** shows that the income level of respondents varies. Out of the total respondents 55 (37%) earned less than ₦35, 000 per annum, 43 (29%) earned between ₦35, 000 to ₦108, 000 per annum, 17 (11%) earned between ₦108, 001 to ₦216, 00 per annum, 24 (16%) earned between ₦216, 001 to ₦324, 001 per annum and then finally 11 (7%) earned ₦324, 001 and above per

annum. Because of the poverty level of the respondents some feel shy to mention their approximate annual income simply because the amount they earned is meager. In view of the fact many people do not utilize the health facilities present in the study area. This corroborates the studies by Shamaki<sup>19</sup>, Girma<sup>4</sup> and Thaddeus and Maine<sup>21</sup> indicate that economic status affects utilization of health services.

**Table 6 : Mode of transportation of respondents**

Transportation	Frequency	Percentage (%)
<b>On foot</b>	37	25
<b>Bicycle</b>	5	3
<b>Motorcycle</b>	82	55
<b>Car/Bus</b>	24	16
<b>Others (Specify)</b>	2	1
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

Finally, the **Table 6** also shows the mode of transportation by the respondents. It reveals that 82 (55%) used motorcycles, 37 (25%) used their foot, 24 (16%) used cars/bus 5 (3%) used bicycle and only 2 (1%) fall in to category of other specify. It is clear that

majority of the respondents used motorcycles. Having examined the data on demographic characteristics and socio-economic background of the respondents we shall now consider other factors in the utilization of available health services by respondents.

**Table 7 : Persons that grant permission to health facility**

Person that grant permission	Frequency	Percentage
<b>Self decision</b>	45	30
<b>Husband decision</b>	60	40
<b>Parents</b>	41	27
<b>Other specify</b>	4	3
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

**Table 7** shows the persons that are in charge in giving permission to the health facility. It reveals that 45 (30%) self decision, 60 (40%) husband/wife decision, 41 (27%) parents and only 4 (3%) chose other specify which were not indicated in the questionnaire such as permission from guardians like brother,

sisters, uncle etc. This result shows that husband decision has the highest percentage. This is line with studies by Theddeus and Maine<sup>21</sup>, Adamu<sup>9</sup> and Dansabo<sup>11</sup> which indicated that wives do not decide to seek care on their own unless with consent of her husband's.

**Table 8 : Types of services received by respondents in the last 5 years**

Services received by respondents in last 5 years	Frequency	Percentage
<b>Antenatal</b>	99	66
<b>Routine immunization</b>	5	3
<b>Laboratory</b>	6	4

<b>Outpatient</b>	30	20
<b>Inpatient</b>	8	5
<b>Other specify</b>	2	1
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

**Table 8** presents the type of services received by respondents in the last 5 years. The result indicates that Antenatal has the highest percentage with 99 (66%) followed by Outpatient with 30 (20%), 8 (5%) Inpatient, 6 (4%) Laboratory, 5 (3%) Routine Immunization while the least services were those that not specify in the questionnaire with 2 (1%) which include family planning, gynecology etc. The result shows that the majority of respondents received antenatal services. This is for the fact that majority of respondents were women in reproductive age group of 15-24 years of age.

**Table 9 : Perception of quality of services provided**

<b>Perception about standard of services</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Satisfactory</b>	36	24
<b>Fair</b>	110	73
<b>Bad</b>	3	2
<b>Don't know</b>	1	1
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

**Table 9** shows that 110 of respondents representing 73% of the respondents said that the services rendered in the health facilities are fair; 36 (24%) accepted that the services rendered are satisfactory and fair; only 3 (2%) said the services are bad while only 1 (1%) said that they don't know. The implication of this is that majority of the respondents have confidence in the services provided by the health centers in the study area. This corroborate the finding of Collier *et al*<sup>20</sup> (2002) who demonstrated that the utilization of health care services is dependent not only on the distance to the nearest facility but also, on the quality of the health care services provided.

**Table 10: Opinions of respondents on improvement of health sector**

<b>Opinion of respondents on how to improve health sector</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Provide free drugs</b>	93	62
<b>Provide adequate equipment</b>	16	11
<b>Provide adequate staff</b>	29	19
<b>Positive staff attitude</b>	7	5
<b>Other specify</b>	5	3
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

**Table 10** shows that 93 (62%) responses indicated that providing free drugs is the best option to improve health sectors; 29 (19%) of respondents said that adequate staff; 16 (11%) of respondents said adequate equipment; 7 (5%) of respondents said positive staff attitude; while 5

(3%) of respondent chose option that were not specify in the questionnaire like adequate beds, constant power supply, cleanliness etc. The result shows that the majority of respondents indicated that providing free drugs is the best option to improve health sector because the greater part of

people are living below \$1 per day. This is line with what Shamaki<sup>19</sup> observed, that access to health facilities is centered on economic accessibility and pointed out that 25% of the population living in extreme poverty lack access to health services.

**Table 11: Distance to health facilities**

Distance (km)	Frequency	Percentage
<b>0 – 5km</b>	78	52
<b>6 – 10km</b>	42	28
<b>11 – 15km</b>	28	19
<b>16km and above</b>	2	1
<b>Total</b>	<b>150</b>	<b>100</b>

Source : Fieldwork, 2016

**Table 11** shows that the respondents varied in respect to distance to nearest health facilities. The majority of the respondents i.e. 78(52%) live within 0 – 5km to the nearest health facility. A total of 42(28%) indicated living 6 – 10km, while 28(19%) indicated living between 11 -15km and only 2 of the respondents representing (1%) indicated living beyond 16km and above to the nearest health facilities. In the same vein, as far closeness of modern health facilities to respondents’ residence; 80(53%) said the General Hospital is closer to them, while 63(42%) said primary health centre is closer to them, 3(2%) the local government dispensary is closer to them and only 4(3%) said none of the modern health facilities is closer to them. This means that there are areas where none of the modern health facilities is closer to them and this may lead to people in those areas not utilize the health facilities. This is in line with what

Girma<sup>4</sup> observed in Jimma zone, Southwest Ethiopia that those individuals located less than or equal to 10 km from nearest health centres or hospitals had 2.9 times higher chance of using health services as those residing 10 km away. This is also in line with what Le Seuer<sup>14</sup> observed in South Africa that 96% of the patients use the nearest clinic. This is also corroborate the finding of Thaddeus and Maine<sup>9</sup> that stated distance exerts dual influence; long distance can be an obstacle to reaching a health facility; and they can serve as disincentive to even trying to seek care.

**Hypotheses testing**

This section tested the hypotheses developed for the study. In testing the research hypotheses, chi-square was used. The results of the hypotheses tested are presented as follows; Ho<sub>1</sub>: There is no significant relationship between distance and health care utilization.

**Table 12 : Relationship between distance covered and health care utilization**

		Utilization of health care facilities	
		Frequency	Percentage
<b>Distance</b>	0-5km	78	52
	6-10km	42	28
	11-15km	28	19
	16 and above	2	1
	Total	150	100%
Chi-square Coefficient 207.692	Degree of freedom 6		

Source : Field Survey, 2016

**Table 12** presents a summary of the chi-square results on the relationship between distance and the health care utilization. The chi-square coefficient of 207.692 with the 6 degrees of freedom at 0.05 alpha value obtained is greater than the table chi-square value. Therefore, the null hypothesis is rejected and the alternative one accepted that there is a significant relationship

between distance and health care utilization. This test reinforces the earlier findings on the effect of distance on the utilization of health care services. The hypothesis which says “There is no significant relationship between Educational Attainment of the People and their Health Care Utilization in the L.G.A” was also tested using  $X^2$  and results presented in **Table 12**.

**Table 13 : Relationship between educational attainment of the people and their health care utilization**

		Utilization of Health care facilities	
		Frequency	Percentage
Educational Attainment	Islamic Education	125	83
	Primary	10	7
	Secondary	6	4
	Higher Education	2	1
	None of the Above	0	0
	All of the Above	7	5
	Total	150	100%
Chi-square Coefficient 120.000	Degree of freedom 8		

Source: Field Survey, 2016

The **Table 13** presents a summary of the chi-square result on the relationship between literacy level of the people and their health care utilization. The chi-square coefficient of 120.000 with 8 degrees of freedom at 0.05 significant level found was greater than the table chi-square value. Here also, the null hypothesis was rejected which shows that there is a significant relationship between literacy

level of the people and their health care utilization. The test supports our earlier findings on the effect of literacy level on utilization of health services.

The third hypothesis which says “There is no significant relationship between incomes level of People and their Utilization of Health Care Services in the L.G.A” was also tested using  $X^2$ .

**Table 14 : Relationship between Income level of the people and their health care utilization**

		Utilization of Health care facilities	
		Frequency	Percentage
Income (per annum)	Less than ₦ 35,000	55	37
	35,000-108,000	43	29
	108,001-216,00	17	11
	216,001-324,001	24	16
	324,001 and above	11	7
	Total	150	100
Chi-square Coefficient 257.143	Degree of freedom 8		

Source : Field Survey, 2016

**Table 14** presents a summary of the chi-square result on the relationship between income level of people and their health care utilization. The chi-square coefficient of 257.143 with 8 degrees

of freedom 0.05 significance level that was obtained was greater than the table chi-square value. The null hypothesis was therefore rejected which shows that there is a significant

relationship between income level of the people and their health care utilization. This is in conformity with our earlier findings on this factor.

### CONCLUSION

The findings from the three hypotheses tested showed that there are significant relationships between distance and health care utilization with a chi-square coefficient of 207.692. There is also a significant relationship between literacy level and health care utilization with a chi-square coefficient of 120.000. Finally there is a significant relationship between income and health care utilization with a chi-square coefficient of 257.143. The respondents who possessed higher level of western education, worked in the formal sector and earned higher income made the greatest use of modern health facilities. Whereas those who were not educated in the formal sector and earned little income made the greatest use of traditional medicine. This showed that there was positive relationship between literacy level and per capita utilization of health services.

### RECOMMENDATIONS

- There is the need for government to provide good transportation network and ambulances in the all health facilities so that people who are in emergency situations will make a call to the personnel in charge to take them to the health facilities. This will reduce delay and also will help people more especially those in the dispersed settlements to utilize the health care facilities.
- There is need to improve the welfare of clinical staff by providing residential homes and other incentives to rural staff to serve as motivation so as to reduce the concentration of medical personnel in the administrative capital.
- There is need to educate populace about the importance of health and appropriate services.
- Enforcing standard and protocols for service delivery, management and supervision, using them to monitor and evaluate the quality of service along with feedback from patients and health providers.

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