

## CHAPTER ONE

### INTRODUCTION

Sound health is a fundamental requirement for living a socially and economically productive life and provision of health facilities is an essential service that government often tries to provide for the well-being of its citizens. The index of development of any nation of the world is basically measured by the state of health and education. Development in all its forms is only possible when there is access to healthcare service and in turn its effective utilization by individuals. Accessibility of these facilities to the residents has been a central focus. Spatial accessibility to facilities generally refers to the ease with which qualitative and quantitative facilities can be reached (Handy and Niemeier, 1997). At the 58<sup>th</sup> World Health Assembly held in Geneva, Switzerland on May 16-25, 2005, developed and developing countries attention was drawn towards ensuring universal access and coverage in health services provision.

Further recognition of the importance of universal coverage and equity in health services provision led World Health Organization (WHO) to propose at the 2010 World Health Assembly issues that will address financing of health that will ensure universal coverage (Ataguba and Akazili, 2010). However, access to healthcare services is a multidimensional process involving the quality of care, geographical accessibility, availability of the right type of care for those in need, financial accessibility, and acceptability of service (Peters et al., 2008). The state of the Nigerian health system is dysfunctional and grossly under-funded with a per capita expenditure of US\$ 9.44 (World Bank, 2010).

As a result, Nigeria still has one of the worst health indices in the world and sadly accounts for 10 percent of the world's maternal deaths. A key individual characteristic is the ability to afford

the required health care. Health, at the individual level, is mainly influenced by a variety of factors such as unobservable biological determinants, lifestyle choices (also referred to as health-related behaviors), non-medical purchased inputs, purchased medical inputs (health care), and various socio-economic factors, Japheth Osotsi Awiti (2014). The demand for health care is influenced by predisposing factors such as age, sex, marital status, education, religion, household size, education, etc; enabling factors such as the poverty status of the individual/household; illness level; and provider characteristics such as price of care and quality of care.

### **Statement of the problem**

All nations of the world are vested with the responsibilities of ensuring that the healthcare of the citizens is not taken for granted. However, the lack of adequate health care services and the inability of individuals within a given society to acquire modern health care services at affordable rates have led to the deterioration of the health status of individuals in Nigeria. It is common to see health institutions with no drugs and with dilapidated structures Gafar .T. Ijaiya (2005). The National Health Insurance Scheme (NHIS) was introduced in 2006 in Nigeria with the aim of improving access to healthcare and reducing the financial burden of out-of-pocket payments for healthcare services.

The expectation is that paying for healthcare should not be a burden to households enrolled in the NHIS. Enrolled households are expected to have financial protection.

Paradoxically financial hardship is still common in Nigeria and this has led many households into Catastrophe Health Expenditure (CHE) despite the existence of NHIS. Despite the existence of NHIS the most prevalent form of healthcare financing in Nigeria remains out-of-pocket expenditure Soyibo A. (2009).

The 622 primary healthcare centers and 57 general and specialist hospitals across the 33 local government and 35 local council development areas of the State have witnessed some of the heaviest human traffics in the country in the past six years, with hundreds of thousands of people utilizing these health establishments, in a rate that's second to only that of Lagos State in the entire federation. Ajimobi administration has run a hugely successful free health mission in the state since 2012, which so far has been accessed by over 1 million beneficiaries of medical, surgical and ophthalmology services traversing the six zones of the State. It also couples with the medical support services that have been rendered by the government to civil servants in the past few years.

These have beckoned to a more sustainable model, which the government has presently sought after despite the effort of government in the area of health facilities. Olayinka Stephen Ilesanmi (2014), cited Water HR and Anderson GF who said that families who spend 40% or more of their non-food expenditure on healthcare are likely to be impoverished. Households in the lowest wealth quintiles were at higher risk of CHE. Universal coverage of health insurance in Nigeria should be fast-tracked to give the expected financial risk protection and decreased incidence of CHE Olayinka Stephen Ilesanmi (2014).

### **Objective of the study**

The general objective of this study is to determine the demand for health care in Ibadan South West local government, Oyo state.

The specific objectives are as follows:

- To determine the level of accessibility of household to health care facility in Ibadan south west local government.
- To ascertain the demand for healthcare facilities in Ibadan South west local government.

- To show the effect of Catastrophic Health Expenditure (CHE) on Households in Ibadan South West Local government.

### **Justification of the study**

One of the key determinants of the individual's ability to secure the required health care is the individual's material possessions in the form of income and/or assets Mwabu G (2008). The effect of income on the demand for health care has been studied in the literature in various ways such as investigating the effect of income on health seeking behavior, the effect of income on health expenditures or by investigating the effect of poverty on health care demand. Families who spend 40% or more of their non-food expenditure on healthcare are likely to be impoverished. Soyibo A. (2009). However, this study is expedient to ascertain the percentage of the income of household expended on healthcare and the resultant effects on their welfare.

### **Scope of the study**

In current times, despite the effort of the government to improve the healthcare facilities in healthcare centers of the nation and with the introduction of National Health Insurance Scheme (NHIS), it is noted that many people still pay huge amount of money to access good healthcare services, especially in Oyo state. However, this study shall be conducted in Ibadan metropolis, the capital of Oyo State. The choice of this scope is informed by the relative ease in gathering data, which is believed the household will offer the researcher.

Ibadan is located between longitude 70 20" and 70 40" east of the Greenwich meridian and between latitude 30 55" and 4010" North of the equator, and it is made up of 11 local government. However, the study shall be based and carried out in Ibadan South West Local Government of Oyo State. This study shall focus on the current demand for healthcare by populace in the area of the local government.

The choice of this scope is informed by the relative ease in gathering data, which is believed household will offer the researcher and also the time frame within which the project must be concluded in relatively too short for the researcher to extend this boundary.

### **Plan of the study**

This project work is on the demand for healthcare facilities in in Ibadan south West Local Government of Oyo State. This work is divided into six chapters of which chapter one consist of the introduction to the topic statement of the problem, objective of the study, justification of the study, scope of the study and finally the plan of the study. Chapter two contains the background of the study. It shows the historical issues on healthcare services, the trend of demand for healthcare facilities, and the policies on healthcare services over time in the nation. However, chapter three consists of the literature review; the theoretical, empirical and methodological reviews shall be done. Chapter four entails the theoretical framework, empirical specification of the model, the estimation technique and the sources of data. In chapter five, the empirical analysis, presentation and discussion of result. Lastly, chapter six presents the summary, recommendation and conclusion of the study.

## **CHAPTER TWO**

### **BACKGROUND OF THE STUDY**

#### **2.1 INTRODUCTION**

The issue of health care seeking behavior is to all society. All Nations rely on its human capital in the creation and pursuit of growth and/or development. Individuals make choices about medical care. This chapter presents some simple tools for describing these choices, health status, and trend analysis of health care and the seeking behavior of individual. However the section is sub-divided into sub sections which are;/section 2.1 introduction 2.2 overview of the study, 2.3 healthcare, 2.4 different types of illness, 2.5 demand for healthcare in Nigeria, 2.6 trend of diseases in Nigeria, 2.7 government policies and intervention.

#### **2.2 OVERVIEW OF THE STUDY**

Individuals make choices about medical care and decide when to visit a doctor when they feel sick. In taken this decision making factors have to be considered among which are the ability of the household to pay up the bills, nearness to the care giver, and efficiency of the care givers among others. However, the overview of the study shall be discussed under the following sub-headings: The Nigerian Health System and History of Modem Health in Nigeria.

##### **2.2.1 The Nigerian Health System**

Nigeria operates a Federal System of Government with three levels; the federal, state, and LGAs/Councils. There are 774 LGAs within the 36 states and Federal Capital Territory (FCT) Abuja. The 774 LGAs are further sub-divided into 9,565 wards.

The states and FCT are grouped into six geo-political zones: the South-South, South-East, South-West, North-East, North-West, and the North Central. The 774 LGAs are the constitutionally-designated provider of primary health care (PHC)

However, they are the weakest arm of the health system. There are about 25,000 PHC facilities nationwide with a population to health facility ratio of about 5,600 residents to one. The Nigeria Ministry of Defense runs medical centers around the nation which provide mostly secondary and tertiary care to both military personnel and civilians. In addition to the Federal Ministry of Health, the National Primary Health Care Development Agency (NPHCDA) - another centrally-funded agency - has the mandate to support the promotion and implementation of high quality and sustainable PHC at state and lower levels. The NPHCDA, in collaboration with state governments and LGAs, is active in development of community-based systems and functional infrastructure, as well as ensuring that women deliver in safe conditions and infants are fully immunized against vaccine-preventable diseases. The NPHCDA also implements the national campaign against polio and measles in collaboration with states. The National AIDS Control Agency (NACA), the National Malaria Control Program (NMCP) and numerous other health units at federal and state level have the lead in the development and implementation of policies, strategies, and high-impact programs that directly affect the survival and health of women and children.

The private health care system provides care for a substantial proportion of the population. The private sector consists of tertiary, secondary, PHC facilities, patent medicine vendors (PMVs), drug sellers, and traditional practitioners. More than 70 percent of all secondary facilities and about 35 percent of PHC facilities are private.

Services provided by the private sector are either subsidized (e.g. faith-based health facilities) or full cost (e.g. privately owned clinics and hospitals). Payment for these services may be in

currency or in kind. About two-thirds of the population in rural areas lives within five kilometers of a public or private sector PHC clinic. There are about 36,000 PMVs nationwide, fairly evenly distributed between urban and rural areas. However, quality of care in both the public and private health sectors needs substantial improvement.

### **2.2.2 History of Modern Health in Nigeria**

According to Osborne (2002), Western medicine was introduced into West Africa in 1500s by explorers, traders, and missionaries. Western biomedicine basically assumes that physical phenomena-bacteria, viruses, and other agents cause diseases. Diagnosis and treatment is focused on the individual patient separate from family, social, cultural and spiritual community, and applies chemicals, mechanical and electronic methods of treatment designed towards a specific offending agent. The earliest goals of western medicine was to prevent and cure diseases which affected European colonial missionaries, traders and administrators, and after gaining independence western biomedicine became the official health care system of the new African national governments.

In Nigeria, Western medicine was formally introduced in 1860s with the establishment of the Sacred Heart Hospital in Abeokuta, western Nigeria by the Roman Catholic missionaries. The British Colonial government began provision of formal medical services in the 1870s, but unlike the missionary hospitals, these were mostly initially for the use of the Europeans. The mission owned hospitals were more than government hospitals up to 1960, 118 mission hospitals as against 101 government hospitals. The ten year development plan announced in 1946 led establishment several health training institutions and the Ministry of Health to coordinate health services throughout the country as provided by the government, private companies and the



missions. This led to a rapid growth in the number of health facilities so that by 1985, there were 84 federal health establishments, 3,023 state governments and 6331 local government owned health establishments, and 1436 private health establishments (including mission hospitals).

However, there was inequality in distribution of health facilities in the geographic regions, and inadequacies in rural health facilities and manpower which appear to persist till date.

Hospitals were divided into general wards providing both out-patient and in-patient care for a small fee, and amenity (private) wards that charged higher fees for better conditions. The general wards were usually overcrowded, with long waits for registration and treatment and patients hardly saw the doctors but were attended to by a nurse, or other practitioner. Many drugs were not available in the hospital pharmacy.

In the amenity wards, however, services available to wealthier or elite patients were better; drugs were more likely to be available. The highest level of Nigerian elite's, especially senior government officials frequently traveled abroad for medical care.

Statistics from the Federal office of Statistics(2000), show that by 1993 the federal government had ownership Of 185 hospitals; the state governments, 2239; the local governments 8208; and private establishments were 3061. There were 535 mission hospitals, and a few owned by the community, joint ownership, corporations, and industry. There was sharp increase in the number of health establishments during the period 1985 to 1993 with a steady growth in the share of the local governments, individuals and private organizations.

The stringent measures adopted during the SAP era, among other consequences, resulted in currency devaluation which in turn leads to increase in prices of imported goods including medical equipments and drugs. Government and public health facilities suffered severely from the rising costs and government budget cuts. The demand for medical care outstripped its

availability, and introduction of user fees (cost recovery charges) further increased the burden on the population that was already plagued by a general high increase in cost of living, high unemployment rates as well as government job cuts (rationalization exercise), and increase in cost of fuel and petroleum products with its associated bandwagon effect on cost of food, transportation and requirements for daily living (Nigerian: Health 2002).

### 2.3 Illness

In Nigeria, the presence of diseases, illnesses, injuries and disabilities are only known and studied through the cases reported at recognized health facilities across the country. Before going into details, it is important to note that there are three key indicators, which describes the health status of a population at a point in time. These are incidence rate, prevalence rate, and case rate.

The incidence rate is the number of persons contracting a disease during a given time period per 1,000 population at risk. The incidence rate differs from other morbidity rates in that almost any constant may be used to express it in a clear manner. For example, from “per100” or “percent” to “per 100,000”

The prevalence rate is the number of persons who have a particular disease at a given point in time per 1,000 population and includes all known and new developing cases that have not resulted in death, cure or remission during the specified period; The case rate is the number of reported cases of a specific disease or illness per 100,000 population during a given year.

It is a special type of incidence rate but differs slightly because it is based on the number of reported cases, which is not necessarily, the number of persons contracting the disease, that is, some people may get the disease or illness more than once. The cases of noticeable diseases reported and studied covering the periods 2010-2015 are HIV/AIDS, pneumonia, malaria, hepatitis B, tuberculosis, yellow fever, measles, diarrhea-water without blood, diarrhea-water

with blood, and meningitis. Others include cholera, other STDs, pertusis, vaginal discharge, lymphatic, male urethral discharge, NNT, filariasis, onchocerciasis, genital ulcer, polio, AFP, female non-ves genital ulcer, and plague. From 2010-2015, the total number of all cases of noticeable diseases reported in health facilities rose and fell. It rose from 1,666,854, of which 785,508 are males and 881,346 are females in 2010 to 2,161,326, of which 1,010,112 are males and 1,151,214 are females in 2011 representing 30.0 percent and further to 3,981,773, of which 1,647,865 are males and 2,333,908 are females in 2012 representing 84.0 percent and then fell to 1,438,875, of which 676,522 are males and 762,353 are females in 2015 representing 64.0 percent. Cumulatively, in the period under review, a total of 9,248,828 cases of noticeable diseases were reported. Of which, males reported 4,120,007 cases and females 5,128,821 cases.

## **2.4 The National Health Insurance**

### **Scheme (NHIS); A Brief Background**

In order to improve access to quality health care services and health status of the citizens, the National Health Insurance Scheme was established in 1995. It became operational in 2005. The NHIS is a public-private-partnership between the NHIS, the Health Maintenance Organizations (HMOs) and other health care providers (private and public). The overall objective is to secure universal health coverage and access to adequate and affordable health care, in order to improve the health status of the citizens. It had the mandate to achieve this (UHC) within a period of ten years from its inception (2005-2015). While the NHIS shapes the health insurance policy by licensing the HMOs that operates the health insurance business, it also accredits health care facilities to provide the benefit packages to registered enrollees. The HMOs are responsible for the purchase of health care services on behalf of the Scheme for registered enrollees. Currently, there are 62 HMOs contracted by the NHIS to function under the Scheme. However, of these

HMOs, only 5 have a total of 75% of the current enrollees. Under the present arrangement, an individual federal government worker is entitled to register a spouse and four children under the age of 18 years. Enrollees choose their preferred health facility to receive care. To ensure an effective coverage of the populace, the Scheme has specific programs for different segments of the society. These are the Formal Sector Health Insurance Program for the Federal Civil servants, Urban Self-employed Social Health Insurance Program, Rural Community Social Health Insurance Program, Children under Five Social Health Insurance Program (also covers pregnant women), Permanently Disabled, Social Health Insurance Program, Prison Inmates Social Health Insurance Program, Tertiary Institutions and Voluntary Participants Social Health Insurance Program and the Armed Forces, Police and other Uniformed Services Insurance Program (captured under the Formal Sector Program). However, of all these Programs, only the Formal Sector Program is Functional.

Of the 23,640 health care facilities available in the Country, only 7,300 representing 31% of the facilities were accredited by the NHIS to provide services to registered enrollees. Currently, 4.5 million people representing 3% of Nigeria's population are covered under the Scheme. This percentage is mainly in the formal sector. The remaining 75% or more, in the informal sector are largely not covered yet. Under the present arrangement, the employer contributes 10% of the basic salary of the insured while the remaining 5% is paid by the employee. Lately, this has been revised to 3.5% and 1.75% of the basic salary by employers and employees respectively. However in reality, this formula is not operational, as the Federal Government pays 750 naira per life insured, on quarterly basis, while the insured has no financial contribution into the Scheme. To date, the Act that established the Scheme makes it voluntary for individuals to enroll; thus, the existing trade unions in the Country, the Nigeria Labor Congress (NLC) and the Trade Union Congress (TUC) refused a buy in into the Scheme.

Although, the NHIS is responsible for accreditation of the HMOs and the HCPs, as well as ensuring compliance with the rules of engagement by them (HMOs and HCPs); It does not have sufficient power to enforce it. Instead, the power to prosecute a stakeholder for contravening any provision of the Act is vested in the Legal Officer in the Ministry of Justice of the State. This arrangement undermines the role of the NHIS as an effective regulator of health insurance. Thus, complaints made by clients about the HCPs or the HMOs, or made by the HCPs about the HMOs or vice versa are rarely appropriately addressed [12]. Recently, there was a reform to devolve the insurance Scheme to the sub-national governments (States) to operate, using the template of the NHIS and with technical oversight from the NHIS. This approach, it is hoped, will encourage a sense of ownership of the health insurance in the States and thus, expand the coverage. Very recently, the NHIS has devolved to the federating States to operate state-run social health insurance schemes with technical support from the NHIS implementation and expanding health insurance schemes in developing economies characterized by very large informal sector populations, poor funding and inefficient fund collection mechanisms can be very difficult. These factors among others excluded millions from having access to quality health care services in affected nations with resultant and persistent poor health indices and development [1, 2, 15]. To the best of our knowledge, studies that examine location allocation of health insurance enrollees by facility and by principal enrollee as well as the gap in funds generated are rare in this environment. An assessment of the extent of universal coverage achieved by the Scheme in the South West geopolitical zone is important to objectively assess the likely existing gaps. This could serve as a yardstick to gauge the Scheme's performance in other geo-political zones in Nigeria. It will also be of assistance in planning to improve the Scheme's performance.

## 2.5 Challenges of the Health Sector in Nigeria

The poor health status of a large percentage of people in sub-Saharan Africa is widely known for years. Over the past decade, however, Africa's health care crisis has received renewed attention because of the greater awareness of the militating factors and a greater understanding of the link between health and economic development (Lowel et al (2010)). The major factors that affect the overall contribution of the health system to economic growth and development in Nigeria include inter alia; lack of consumer awareness and participation, inadequate laboratory facilities, lack of basic infrastructure and equipment, poor human resource management, poor remuneration and motivation, lack of fair and sustainable health care financing, Unequal and unjust economic and political relations between Nigeria and advanced. on health, High out-of-pocket expenditure on health, Absence of integrated system for disease prevention, surveillance and treatment.

**(i) Lack of consumer awareness and participation:** The majority of consumers are ignorant or unaware of available services and their rights regarding health service delivery mainly because of the absence of a bill of rights for consumers (claim holders) and providers (duty bearers). The role of the family in preventing and managing illness is also underestimated or inadequately supported by government programmes. It is now well known that interventions should be implemented through the health system as well as at the household level.

**(ii) Inadequate laboratory facilities:** In many states of Nigeria, most of the laboratories in the primary and secondary health care centers require some infrastructural upgrading to provide a safe, secure and appropriate working environment. Some basic health centre laboratories are better equipped than those comprehensive health centers and some secondary level hospitals,

but equipment was often minimal. Most laboratory staff in secondary facilities was qualified as medical laboratory scientist or technicians, whereas most of those in primary health care facilities were qualified as science laboratory technicians. There is minimal quality control of laboratory test in secondary facilities and none in primary facilities because they lack appropriate professional supervision.

**(iii) Lack of basic infrastructure and equipment:** Basic life-saving commodities are in short supply in most low income health systems, as in the case of Global Fund to fight AIDS, Tuberculosis and Malaria. Building effective and accountable national procurement and drug management systems is an increasing prominent component of the health system action agenda.

The provision of health services relies on the availability of regular supplies of drugs and equipment, as well as appropriate infrastructure at the facility level. Facilities without safe water and electricity, with non functioning equipments, and inadequate deliveries of drugs, diagnostic and other supplies are all too common in many states of the country. The Nigerian health system is characterized by inadequate and poorly maintained health facilities, particularly at the PHC level. Poor state of infrastructure such as buildings, equipments, materials, and supplies and inequitable distribution of available facilities is the norm in many places

Therefore, whenever health systems cannot deliver, people turn elsewhere. This has contributed greatly to poor client satisfaction, which makes clients to turn to private sector and unqualified health workers. This poor drug supply system has also led to drug resistance, the resistance to anti-malaria drugs by the disease pathogens is clear example, (HERFON, 2006, FMOH, 2004, Travis et al,2004).

**(iv) Poor human resources and management:** There is currently inadequate and inequitable distribution of health personnel at various levels in Nigeria, especially in the rural and hard-to-reach areas and no health intervention can be successful without an effective workforce. Every country should, therefore, have a national workforce plan to build sustainable health systems to address national health needs.

To optimize health system performance, workers should be recruited from, accountable to, and supported for work in their community where feasible. The 2003 and 2004 World Health Reports proposed improving rewards to health workers to improve productivity, along with deploying community health workers and engaging community in their health care. The 2004 report advocated using such approaches as contracting local government financing, empowering community, using vouchers, etc., to subsidize key health services for the poor, incentives and compensation for health workers and structures are already worsening the brain drain syndrome and refusal of health workers to accept posting to rural areas.

**(v) Poor remuneration and motivation:** Over the years, poor remuneration of health workers have had an adverse effect on their morale such that over 21,000 Nigerian doctors are practicing abroad, while there is an acute shortage of physicians in Nigeria. Health workers are paid meager salaries (about 75% lower than that of a doctor even in Eastern Europe) and they work in insecure areas and have heavy workloads, but lack the most basic resources, and have little chance of career advancement. Doctors complain of ‘brain waste’ and seek better opportunities for professional development in countries with better medical infrastructure. Nigeria is one of the several major health-staff-exporting countries in Africa.



**(vi) Lack of fair and sustainable health care financing:** Beyond the level of spending, the key questions concern how the health system is financed and what proportion of contributions comes from users themselves, either through out-of-pocket expenditure or through insurance payments. The WHO is promoting the principle that whatever system of financing a country adopts should not deter people from seeking and using services.

In most cases, this will mean that payment at the point of service will need to be eliminated, or at least be related to ability to pay. The financing system should also, as a minimum, protect people from catastrophic expenditure when they become ill, promote treatment according to need, and encourage providers to offer an effective mix of curative and preventive services.

**(vii) Pervasive Corruption:** Corruption has often manifested in Nigeria's health sector through the supply of fake drugs, substandard equipments, willful misdiagnosis of diseases, sharing of unallocated budget funds, inflation of contracts, diversion of drugs, favoritism in treatment and appointments based on political patronage. Some examples abound: a consignment of vitamin A supplement by the Canadian government through its bilateral assistance to Nigeria was diverted in 2008 and it is now found in most itinerant chemist shops across the country (UNICEF, 2007).

**(viii) Very low governments spending on health:** According to Central Bank of Nigeria reports, federal government health spending increased from the equivalent of US\$141 million in 1998 to the equivalent of US\$228 million in 2003. Health spending as a proportion of total federal spending decline between 1998 and 2000, but increased in subsequent years, reaching 3.2% in 2003. Most federal health spending goes to teaching and specialized hospitals and

federal medical centers. State spending on health is currently around 6.3% of total spending, estimated for 2003 at about US\$420 million or US\$3.50 per capita.

**(ix) High out-of-pocket expenditure on health:** This has further exacerbated the pauperization of the adverse economic condition of the poor. The 2004 Nigeria Living Standard Survey (NLSS) collected data on household health expenditures from a representative sample of 19,159 households. The estimate from these data of average annual per capita out-of-pocket spending on health is Naira 2,999, equivalent to around US\$22.50. The survey data indicate that this out-of-pocket spending on health services accounts for 8.7% of total household expenditures. This health spending includes expenditure on outpatient care, transportation to health care facilities and medication. This is one of the largest shares of health expenditure out of total household expenditure in developing countries.

**(x) Absence of integrated system for disease prevention, surveillance and treatment:** This has manifested in the lack of targeted efforts at outreach, health promotion and disease prevention activities designed to reach the people where they are. This has resulted in low immunization coverage, pre-natal care and screening. Public health, where it exists, is in a passive mode, with little activity designed to motivate people to change their behavior or to adopt attitudes and practices that reduce their risk to disease. The result is that many children are still not immunized, pregnant mothers do not receive the pre-natal care they need, older men and women do not have the regular screening they need for blood sugar and cholesterol, for breast and cervical cancer.

## GOVERNMENT EXPENDITURES

Government expenditures on health from year 1980 to 2016

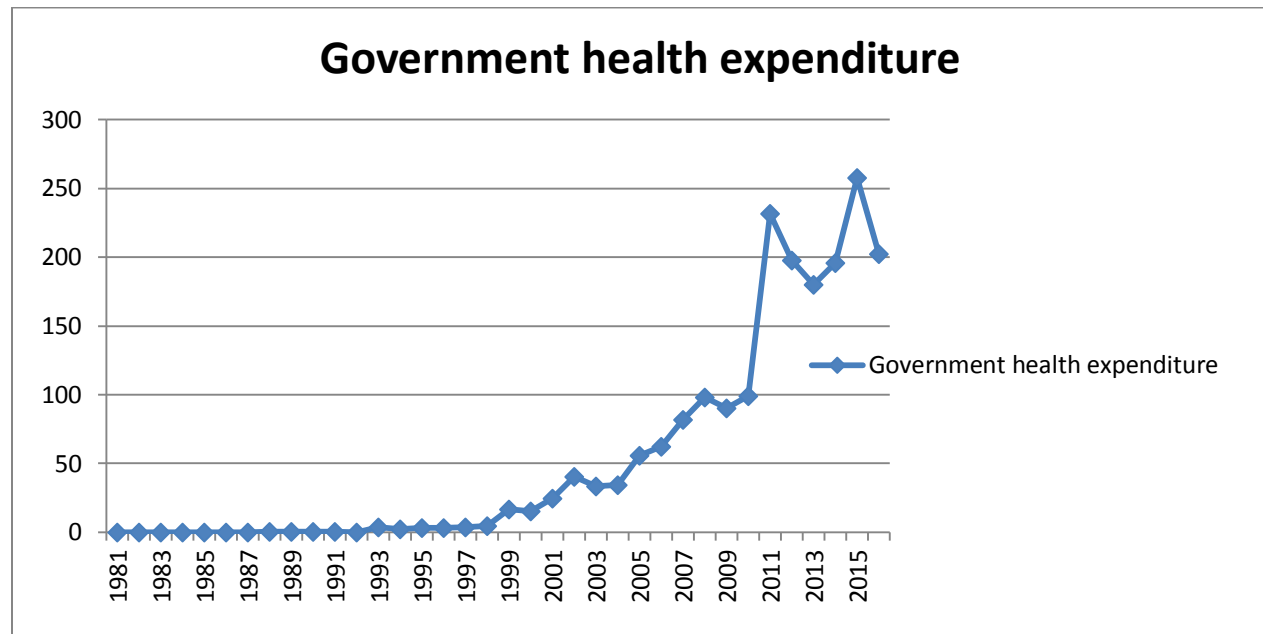


Figure 2.1 shows the trend of government expenditure on health from year 1980 to 2018

There were no significance difference from the base year to year 1997 but the contribution increased from year 1998 to its peak in 2014. The level of government expenditures in the Nigeria health sector over the years tells a story of neglect. Before the civilian government came into power in 1999, the annual government expenditures on health was \$533.6 million. Worthy of note is the fact that the major sources of finance for the health sector in Nigeria are the three tiers of government (Federal State and Local Government). The public general revenue accumulated through various forms of taxation, the health insurance institutions (private and public), the private sector (firm and households), donors and mutual health organizations.

## CHAPTER THREE

### LITERATURE REVIEW

#### 3.0 Introduction

This research work is on the demand for health care in Ibadan south west. In the previous chapter, we examined the trend analysis of health care in Nigeria and the involvement of different governmental administrations. However this chapter deals with the literature review which is further sub-divided into section 3.1 Conceptual Issues, section 3.2 Theoretical review, section 3.3 Methodological reviews, section 3.4 Empirical review and section 3.5 Problems Of Healthcare Demand.

#### 3.1 Conceptual Issues

According to the New Book of Knowledge (1980), when a person's body is well, when his mind is sound and active and he feels in good spirits he is said to be in good health, in other words, health is a state of complete physical, mental and social well-being, the Oxford English Dictionary (1989) defined it as the sound-ness of the body and the condition in which its functions are duly and efficiently discharged. By definition, health is a state of complete physical, social and mental well being and not merely an absence of a disease or infirmity (WHO 2000). Embedded in good health is not least disease, as this is more in keeping with poor health. In recent years, the definition of health has been modified to include the ability to lead a socially and economically productive life. Health care and other factors determine an individual's health status. The individual, therefore, demands health care as an input into his/her health production process.

### **3.1.2 Demand**

Rice T (2016), Define demand as an economic concept that describes consumer's desire to pay a price for goods or services.

If all other factors are constant, a rise in the price of a good or service will reduce demand and a decrease in the price of a good or service will increase demand. Healthcare demand is gradually rising. For better to understanding of the concept of demand in health care, some important concepts or factor that influence demand in healthcare have to be well defined and theses are:

- i. Prices: This is the amount of money expected in payment for something.
- ii. Consumer: narrowed down to this work, a consumer is defined as a buyer or a patient.
- iii. Income: This is money earned especially through investment or work. Income can influence demand for healthcare. If a consumer is a low-income earner, the consumer may not seek healthcare for common sickness. Likewise, a consumer who earns more may be more willing to spend on healthcare.
- iv. Governmental influence: Policies such as subsidy can increase demand for healthcare as patients are charged a lower price.
- iv. Supply: Is a fundamental concept in economics that describes the total number of a specific good or service available to consumers. Supply can be determined by price, competing goods, and demand (Rice T, 2016).

Healthcare is different from other services because it is not clearly defined. In most industries, the product or service can be standardized to improve efficiency and quality.

If a consumer is sick and requires medical care, the consumer will purchase healthcare services at almost any price. The consumers' ability to purchase healthcare is ultimately limited by the customers' income, but consumers are likely to trade off spending on many other products to purchase the medical care needed. (Halamka J 2011)

The demand for health care is influenced by predisposing factors such as age, sex, marital status, education, religion, household size, education, etc; enabling factors such as the poverty status of the individual/household; illness level; and provider characteristics such as price of care and quality of care. The poverty status is, in turn, influenced by the predisposing factors, the demand for health care (mainly due to catastrophic health care expenditures) and the illness level.

### **3.1.3 Demand for healthcare services**

Demand for health care services is therefore what people select from the array of possible choices, given their own perception of their health condition and their socio-economic circumstances. (Saunders 1996). Bitran (1993) saw the demand for a particular type of health care service as the quantity of that service that people are willing to obtain as a function of the characteristics of the individuals (for example, their perception of need, their income, location and insurance coverage) and the characteristics of all the providers (for example, price, location, quality).

Related to the above definitions are the factors that determine the demand for health care, according to Bitran (1994) the main factors that determine the demand for health care services include: illness incidence rate, out-of-pocket price, household income, population size and distribution.

Overholt (1996) also observed that the demand for health care services depends on the following factors: (i) the individual's perception of illness, which depends on other circumstances such as

urbanization and schooling, that is, whether a person is literate and what level of education that person has attained are important factors on how an individual perceives illness; (ii) prices and in-comes, indicating that as the price of a service or commodity goes up, purchase and consumption declines, and as the income of the people increases, the goods or services they are able to purchase and consume also increase; and (iii) the quality of the services provided and the influence of competitors.

With respect to quality, as it increases, the demand for health care services increases (quality having a positive effect on demand), for competitors, the extent of competition within the health sector can influence relative prices and quality options, for instance, if a competitor increases its price, two simultaneous effects take place, first fewer people seek care in the market, second, among those seeking care, a smaller proportion chooses the provider that raised its price.

The World Bank (1993b) reiterates that the individual's ability to demand for health care depends on his income and his level of schooling, beyond the individual household every society's health care services are affected by the national income and by that society's ability to acquire and apply new scientific knowledge, these depend on the level of schooling of the population.

The World Bank (1995) provides an empirical instance of where the overall demand for health care (broadly expressed in terms of self-medication and of the frequency of medical care contacts with public and private providers) is somewhat lower among the poor by citing the case of Vietnam, a number of factors are said to be the causes of decline in the demand for health care services in Vietnam, one factor is the deterioration in the quality of government health services resulting from the compression of public expenditures in the late 1980s, large proportions of health facilities have become dilapidated to the point of being unusable for want of equipment

and medical supplies, at the same time salaries of health personnel have declined in real terms, leading to low morale and productivity, another factor is the increase in the costs of access to health services as a result of the introduction of user fees.

#### **3.1.4 Health Seeking Behavior**

Health seeking behavior is a state or decision making process of an individual or a household is actively seeking ways to alter his/her/their habits or environments to move toward a higher level of health and the decisions made encompass all available options. (Addisu 2012).

Health (or good health) is assumed to be desirable; it is assumed not to be the only desirable thing in life, nor valued above all else. There are various reasons why good health might be thought to be desirable: for one, it is in itself pleasant (or, equivalently, ill-health may be viewed as being in itself unpleasant). Being in good health also permits one to engage in one's normal activities-social activities, work, and so on. At an individual level, if people valued their health above all else, they would not over-eat, smoke or drive too fast. That people do engage in such activities, and that society does spend money on sports facilities and roads when people are left to die before they need to, makes it clear that although people do value their health, they do not place an over-riding value on it.

#### **3.1.4 The Health Production Function**

The second assumption on which the present approach is based may be stated as follows. Individuals exert a relatively high degree of control over their health by virtue of the fact that they can influence their health-affecting consumption patterns, their health care utilisation, and their environment. This assumption can be expressed rather more precisely using the concept of the "health production function". In economics one speaks of firms "producing" their outputs by



combining "factor inputs", chiefly labor and machines. The relationship linking these inputs to the final output is known as the "production function".

### **3.1.5 Consumer Equilibrium**

Firstly, it is necessary to establish how the individual will behave. In particular, how much health will he "demand" and how much "health input" will he utilise? It can reasonably be assumed that he will try to do the best he can for himself, in the sense that he will organise his expenditures on health inputs and consumption so as to give himself the highest possible level of well-being. In terms of the diagrams of the previous section, this means that he will seek to attain the highest indifference curve available to him. In doing this he will be constrained by his limited income, the prices he has to pay for health inputs and consumption activities, and the opportunities open to him for transforming health inputs into health. In terms of the diagrams introduced earlier, the budget constraint and the production function act as constraints on his behavior. The former summarises the financial constraints the individual faces and the latter the technological constraints facing him. In sum, then, the individual's objective will be to attain the highest possible welfare contour, subject to the constraint that he operates on both his budget constraint and his health production function. (Adam Wagstaff 1986)

## **3.2 THEORETICAL REVIEW**

### **The theory of consumer demand (The Utility Function)**

The household production model therefore provides a framework for investigating the relationship between health outcomes and other variables. the utility demand function as referenced by (Ajakaiye and Mwabu, 2007). When individuals make decisions in relation to their health, they weigh up the potential risks or benefits of a particular behavior. They do so in a way

that is mediated by their immediate practical environment, their social rootedness and their whole outlook on life more generally.

Much of the recent progress in healthcare demand research is due to the theoretical insights of Grossman (1972). Essentially, Grossman's proposition is that the demand for healthcare is a derived demand. Health is demanded as an argument in the direct utility function of the individual as both a source of utility in itself and as a capital or investment good since it determines the amount of time available to the individual for the production of other goods and services.

Omotosho cited Egunjobi, (1983) who noted that apart from the fact that most patients would choose the institution which they considered would give best services, rather than one nearest to them, yet other socio-cultural factors such as, relative living in hospitals as well as fee paid, ease of transport, religion and connections with hospital staff will all affect the health seeking behavior.

Tipping and Segall made the health seeking behavioral theory popular in 1995. According to them, providing knowledge about causes of ill health and choices available will go a long way towards more beneficial health seeking behavior. An abundance of studies on health seeking behavior demonstrate the complexity of influences on an individual's behavior at a given time and place. A number of models exist, and variations have been developed around them. One of the most applied is the health belief model,

Sheeram and Abraham, (1996) categorized the range of behaviors that have been examined using health belief model into three broad areas: preventive health behaviors, sick role behaviors and clinic use. In this type of model, individual beliefs offer the link between socialization and behavior. Another model is linked to the general assumption that those who believe they have control over their health care more likely to engage in health promoting behaviors (Normard and

Bennett, 1996). The model is therefore, utilized to assess the relationship between and individual's actions and experience from previous outcomes.

Aregbeyen (1992) in his own view, noted that the nature illness coupled with poverty, ignorance and lack of medical facilities are some of the reasons for health seeking of people while Adeagbo (1998) noted that, non-satisfaction with the cost and quality of health services, are the major factors of health seeking behavior. Extending this idea of health as a basic commodity, Wagstaff (1986) shows that Grossman's model builds on the fundamental assumptions of neoclassical microeconomics, namely, a downwards-sloping demand curve, a set of convex indifference curves, a budget constraint and a production function that is subject to diminishing marginal returns. A downward-sloping demand curve implies that the shadow price of health expenditures is not only the price the household pays the healthcare provider but also the index of all other consumption goods that are forgone. A convex utility function implies that trade-offs have to be made between the quantity of health producing goods and the quantity of other consumption goods that are available to the household.

Since the household budget is necessarily limited, choices must be made with a view to maximizing the total utility of the household subject to budget constraints. If a household member falls ill, the utility that the household would derive from giving the individual medical treatment that produces improvement in health status has an opportunity cost in terms of the reduction of the quantity of other consumption goods available to the household.

Therefore, given its resources, the household has to make a decision whether to seek medical care or not for this member depending on which decision is consistent with its utility maximization objectives. If a decision is made to seek medical care, a further decision has to be made regarding from which of the available healthcare providers this treatment is to be obtained.

A feasible option is to treat the person at home; that is, home care. Since the household is assumed to be rational and inclined to maximizing its utility, it has to weigh the quality of health gained from a given provider against the cost of seeking care from that provider or category of providers.

However, Orubuloye (2002) opined that among other factors affecting health seeking behavior of people include: better services provided in some of the established hospitals, nearness to the home of the patients, availability of relatives in the hospital and family decision.

### **3.3 METHODOLOGICAL REVIEW**

Onwujekwe, (2010) critically examined the determinants of out-of-pocket spending and the strategies clients adopt towards coping with payments for healthcare in southeast Nigeria. The study selected six communities from two states to represent the health status of the Nigeria population.

This study is criticized for its hasty generalization and misrepresentation of facts.

While noting the lean sample size adopted for the study, the study did not also consider the size and quantity of statutory revenue allocation to the federating states in Nigeria from the federation account which is a major determinant of health care expenditure. It is expected that the measure of allocation received by state government from federation account should also determine the amount of expenditure on health, with states that receive higher allocation from the federation account performing better.

Preston (1975), Wilkinson (1992), Winegarden (1978), Kewachi and Kennedy (1997) had also suggested that the size and distribution of income within a country is a strong determinant of health status. Balfour (1996) also found a direct relationship between income inequality and

mortality rate. Smith (1998) further observed that being at the bottom of unequal income distribution can trigger social ranking disorder as well provoke negative health outcomes.

To improve accessibility to health care for the poor, most government had abolished cost sharing formulae in most public facilities. However, there has been mixed result on the effectiveness of this abolishment of cost sharing.

Dewa Adhikari determine the health status and the factors affecting health seeking behavior of the senior citizens aged 60years and above. Using descriptive and inferential statistics (chi-square test found out that Poverty emerged as a major determinant of health seeking behavior and treatment was considered waste of money (indirect effect 64%) and lack of money (35 .5%) followed by poor attitude of health worker (41%)

Empirical evidence by Deininger and Mpuga (2003) and WHO (2002) reported abolition of cost sharing to have improved the poor's access to health facilities. However, Mwesiggye (2002) reported the quality of health to have worsened in most public facilities due to abolition of cost sharing. Frederick (1998) also observed that cost sharing and user fee could have a perverse effect, if not combined with price differentiation according to income and an improvement of quality of health facilities.

Some researchers had also identified distance to health facilities as a determinant of demand for health services. Distances to the nearest health facility has mainly an effect for the treatment of rural rich Tanzanians since the rich have higher education and higher wages (Frederickx, 1998). Appleton (1995) Dercon (1996) and Lavy and Germain (1994) also found out that distance to health facilities affect the take-up of the ill and the choice of health facilities in Kenya, Ethiopia and Ghana.

Omotoso, Oluwatuyi, (2010) examined reason for the seeking of medical services and suggest ways of improving medical conditions in the rural areas of Ekiti State. The study employs data

from both primary and secondary sources and use Tipping and Senegal's (1995) model of health seekers behavioral theory as basis of its theoretical under-pinning. It was found out that the type of ailment; availability of money at the time of illness, age, religious background educational background, severity of sickness, and household position among others determining the health seeking behavior in the area.

Turner (1991) found out that in Nicaragua better access to health care facilities was the strongest determinant of health care spending by household. Household that live or trek longer distances to receive health services are bound to develop evasion strategies which include patronizing quack medical stores, traditional native medical attendants and self medication. However, Collier and Mackinnon (1997) found out that household usage of health facilities is far more sensitive to quality than distance. Do non-medical variable also affect health status? Behrman and Deolaliker (1998) claimed that education can increase the use of health facilities. Ibrahim et al (2004) reported differential effect of education on health care demand between public and private health care providers in Uganda. Their results suggest that having some form of education is associated with a higher probability of seeking health care.

### **3.3 EMPIRICL REVIEW**

Mafimisebi and Oguntade (2011) carried out a study on Health Infrastructure Inequality and Rural-Urban Utilization of Orthodox and Traditional Medicines in Farming Households of Ekiti State, Nigeria. They found access to health facility in the state was 68.9 percent but was higher in urban areas than rural areas. They also found urban farmers spent more on both traditional and orthodox medicine than rural farmers. According to the study, 91.7 percent of the household heads in the rural areas prefer traditional medicine for the treatment of ailments that are not life-threatening. They reported inadequate access to health care in the study area.

Omotosho Oluwatuyi (2010) examined reasons for the seeking of medical services and suggest ways of improving medical conditions in the rural areas of Ekiti State. It was found out that the type of ailment; availability of money at the time of illness, age, religious background educational background, severity of sickness, and household position among others determining the health seeking behavior in the area.

Eneji et al. (2013) carried out a study on health care expenditure, health care status and national productivity in Nigeria. They found health spending in Nigeria is low and as such there is inequality in health care access in Nigeria. They attributed poor health status in Nigeria to poverty and unemployment, poor living conditions, ignorance and poor health behaviors, scarce health resources and infrastructure and low government expenditure on health.

Aina Oluwatunmise Sunday (2015) Investigated the determinants of households' choice of health care provider in Nigeria, using multinomial logit model the findings revealed that both distance and money prices are significant factors in discouraging individuals from seeking modern health care services but money prices was less important as a determinant of the choice of health care provider.

Lloyd Ahamefule Amaghionyeodiwe (2007) investigated the determinants of households' choice of health care provider in Nigeria. Using a multinomial logit model, the findings revealed that both distance and money prices are significant factors in discouraging individuals from seeking modern health care services but money prices was less important as a determinant of the choice of health care provider

Fetus et al. (2014) investigated the relationship between health capital and poverty reduction in rural Cross River State, Nigeria. They used primary data for the study. They found a positive relationship between health capital variables (health care demand, accessibility and affordability of health care and proportion of household income dedicated to health care) and rural poverty

reduction. He also reported inadequate access to modern health care practitioners and financial problems as constraints to health care service delivery in rural Nigeria.

Dewa Adhikari determine the health status and the factors affecting health seeking behavior of the senior citizens aged 60years and above. Using descriptive and inferential statistics (chi-square test found out that Poverty emerged as a major determinant of health seeking behavior and treatment was considered waste of money (indirect effect 64%) and lack of money (35.5%) followed by poor attitude of health worker (41%).

Adeoti and Awoniyi (2014) analyzed demand for health care services and child health status in Nigeria using a control function approach. They found gender of child, mother's educational status, household size and sector impacts significantly on the child health status.

The importance of the measurement of poverty is to know who is poor. How many people are poor, and where the poor are located. The World Bank (1995) provides an empirical instance of where the overall demand for health care (broadly expressed in terms of self-medication and of the frequency of medical care contacts with public and private providers) is somewhat lower among the poor by citing the case of Vietnam, a number of factors are said to be the causes of decline in the demand for health care services in Vietnam, one factor is the deterioration in the quality of government health services resulting from the compression of public expenditures in the late 1980s, large proportions of health facilities have become dilapidated to the point of being unusable for want of equipment and medical supplies, at the same time salaries of health personnel have declined in real terms, leading to low morale and productivity, another factor is the increase in the costs of access to health services as a result of the introduction of user fees.



### **3.5 Problems of Healthcare Demand**

In Nigeria, the problems of underutilization and under supply of health facilities and personnel have for long undermined the quality of health care services, these problems can be traced to the following: (i) compensation problems, especially in the public sector where wages and salaries are low, consequently, morale and motivation are negatively affected; and (ii) Poor management, weak supervision and unsatisfactory training, poor management is reflected in the creation of numerous categories of health personnel whose functions overlap or are ill defined, large numbers of low-level functionaries and the absence of standard managerial procedures, dwindling income and purchasing power of most people, coupled with the high costs of drugs and treatment, have also put health services out of the reach of many people, most of them poor, the effects of these are high infant and maternal mortality rates and low life expectancy at birth.

## CHAPTER FOUR

### THEORETICAL FRAMEWORK AND METHODOLOGY

#### 4.0 Introduction

This chapter presents the methodology for studying the demand for health care in Ibadan south west. It comprises of the following sub-headings: demand for healthcare in Ibadan North local government, Research Design, Population of Study, Sample and Sample Techniques, and Research Instrument. Other sub-headings covered in the chapter are: Method of Data Collection, Method of Data Analysis and Summary of the chapter.

#### 4.1 Theoretical Framework

##### 4.1.2 Utility Function

The determinants of an individual's health usually are decisions made by the individual or the household in which he or she lives. Therefore a natural starting point is the determination of individual health at the household level. Following Strauss and Thomas (1998), the household is assumed to be the major decision making unit and the economic problem is one of maximizing a utility function subject to constraints. The household production model therefore provides a framework for investigating the relationship between health outcomes and other variables. Following the utility function by Ajakaiye and Mwabu, 2007; the utility function is expressed in the form:

$$U = U(C, T, H) \dots\dots\dots 1$$

Where C = Consumption of non-health goods that yields utility but has no direct effect on health status in the household

T = Consumption of health-related goods that yields utility and also have direct effect on health status in the household

H = Health status in the household measured by anthropometric measures in the household

$H = F(N, E, B, S, A) \dots\dots\dots 2$

Where H is the health status N is the use of health care services E is the demographic and socio-economic characteristics of the individual, B is the time of the ith individual devoted to health-related procedures, S is the household endowment A is the endowment of the community N is the purchased market inputs such as use of health care services providers (HS) that affect household health status.

Following Strauss J and Duncan Thomas(1998) and Son M and Menchavez R (2008), the health production function relates health outcomes to health inputs, time devoted to health related procedures, demographic and socio economic characteristics, household assets ,community health characteristics and prices and to factors unobserved to the analyst that affect health.

The health status as outputs include examples such as a person's height, body mass (weight measured in kilograms/height, measured in metres), disease incidence or severity, or ability to function easily at specific physical activities such as walking for 1 kilometre or mortality. Examples of health inputs include use of health facilities, medications, immunizations ,nutrient intakes such as calories, proteins, iron, vitamins and minerals; type of feeding in the case of infants (e.g., sole breastfeeding, supplemented breastfeeding and so forth). Others are water and sanitation quality as a measure of exposure to pathogens; exposure to underlying disease conditions, for which one crude proxy may be rainfall

### **4.1.3 The Indifference Map**

Health (or good health) is assumed to be desirable; it is assumed not to be the only desirable thing in life, nor valued above all else. There are various reasons why good health might be thought to be desirable: for one, it is in itself pleasant (or, equivalently, ill-health may be viewed as being in itself unpleasant). Being in good health also permits one to engage in one's normal activities-social activities, work, and so on. Every year patients in hospitals are denied life-saving treatments because the resources society has made available to the hospital sector are insufficient to "save" every life that could from a purely technological point of view be "saved". The resources are devoted instead to other things that society values, such as good roads, sports facilities, education, and defence. At an individual level, if people valued their health above all else, they would not over-eat, smoke or drive too fast. That people do engage in such activities, and that society does spend money on sports facilities and roads when people are left to die before they need to, makes it clear that although people do value their health, they do not place an over-riding value on it. This idea can be stated more precisely. Suppose health can be measured in terms of "units of health". For brevity, the "other things in life" from which pleasure is derived can be labelled "consumption". In what follows "consumption" means a bundle of consumption activities.

Fig.4.1a

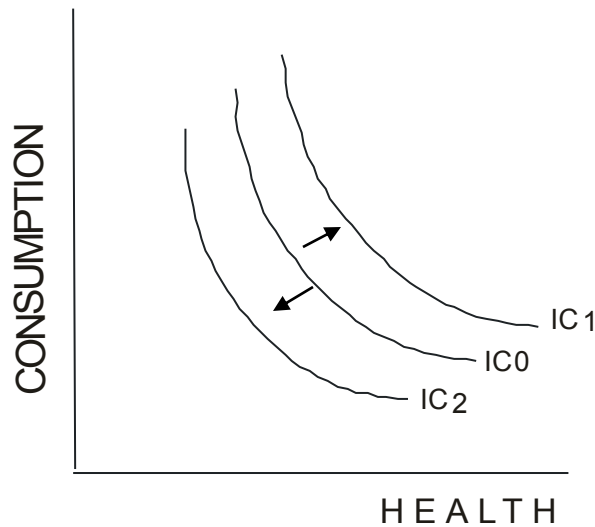
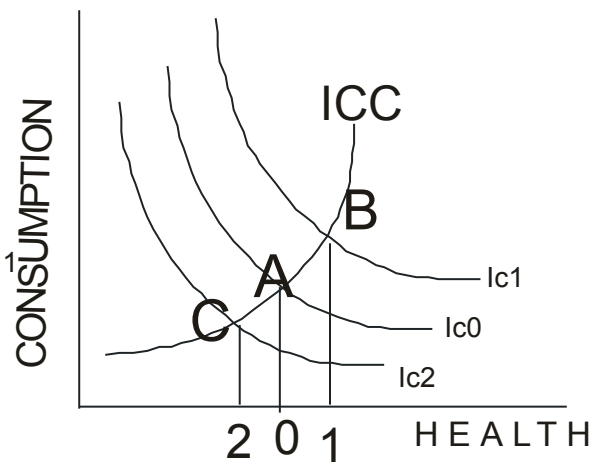


Fig.4.1b



Figures 4.1a represents the indifference map of household consumption of health, while figure.4.1b shows the units of health and units of consumption demand by a household.

Figure 4.1a shows three indifference curves (indifference map) that a typical household could face, where health is plotted along the horizontal axis and consumption plotted along the vertical axis. The indifference map shows the different categories of utility that consumer derive from consuming both goods. An increase in utility means a shift in the indifference curve outwards, from  $IC_0$  to  $IC_1$ . This however could be as a result of an increase in the income of consumer or simultaneous decrease in the price of both commodities (consumption and health), hence the consumer will enjoy an increase in unit of both commodities. If the reverse is the case, in which there is a decrease in income of consumer or a simultaneous increase in the price of both commodities, then the indifference curve will shift inwards from  $IC_0$  to  $IC_2$  as shown above, hence the consumer will consume less of both commodities..In figure 4.1b, shows the movement along the indifference map and the corresponding effects on the unit of each item that could be consumed. Any point on the graph represents a combination of health and consumption. However, figure 4.2 gave a true picture of the trade-off between the commodities.

Figure 4.2

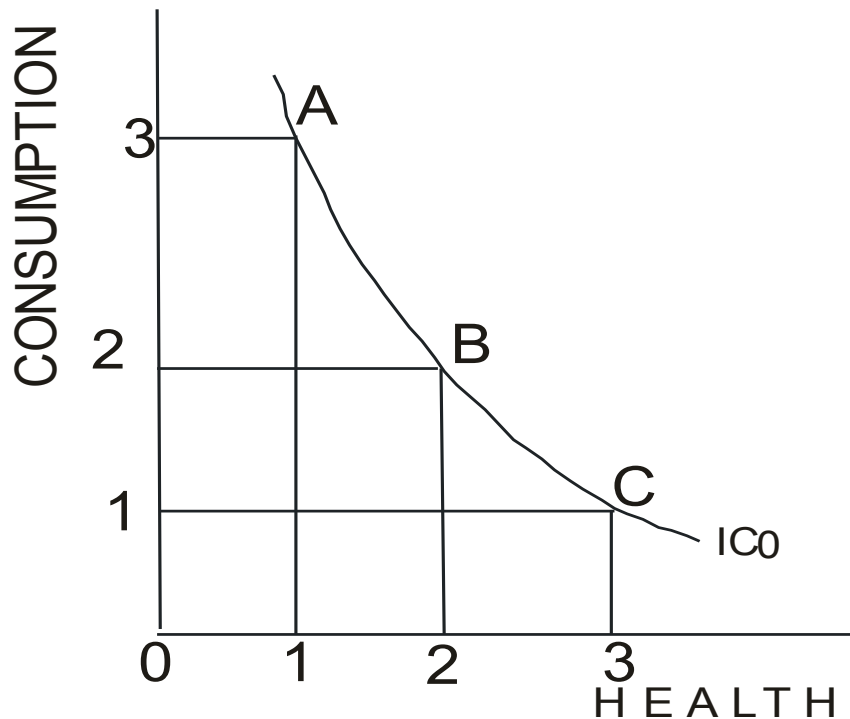


Figure 4.2 shows the indifference (demand) curve of a typical economic agent (Household).

The indifference curve slopes downwards because people value both health and consumption but do not view being in good health as so important that it takes priority over everything else. The curve shows that a consumer cannot enjoy health and consumption at the same time, there is need to trade on off for the other.

At point C, the individual would be as well off as at point B and point A. However, as one moves up the indifference curve it becomes increasingly difficult to induce the individual to accept further deteriorations in his health. To part voluntarily with 1 unit of health starting at point A, he has to be compensated with 0-3 units of consumption. Starting from point B, however, he has to be compensated with 1-3 units of consumption. This reflects the assumption that as successively more units of health are taken away from the individual, he will require successively more units of consumption in compensation. (Or, equivalently, as the individual is given successively more units of health, he will require successively fewer units of consumption in compensation),

assumption that gives the indifference curve its bowed shape. Therefore the decision of the individual as to whether to consume more of health or other good depends on the priority he gives to his health.

#### 4.1.4 The Health Production Function

The second assumption on which the present approach is based may be stated as follows. Individuals exert a relatively high degree of control over their health by virtue of the fact that they can influence their health-affecting consumption patterns, their health care utilization, and their environment. This assumption can be expressed rather more precisely using the concept of the "health production function". In economics one speaks of firms "producing" their outputs by combining "factor inputs", chiefly labor and machines. The relationship linking these inputs to the final output is known as the "production function". The "demand for health" approach utilizes these ideas and conceives of the individual "producing" his health by combining "health inputs". Medical care is an example of a health input, but, as was emphasized earlier, it is only one example of a determinant of health. As was the case with consumption activities, it is useful to talk in terms of a "bundle" of health inputs comprising food, heating, health care, and other inputs.

## 4.2 Estimation Techniques

Qualitative and quantitative techniques of data analysis will be employed to accomplish both the descriptive and inferential analysis. The quantitative and qualitative data were obtained from responses generated from the questionnaire instrument. The simple percentage and an advanced inferential statistical tool, by way of the chi-square ( $\chi^2$ ) will be employed, where the observed frequencies will be weighed against the expected frequencies. The chi-square ( $\chi^2$ ) statistical

analyses will be used to test the null hypotheses, with different critical levels, depending on the calculated chi-square ( $\chi^2$ ).

#### **4.2.1 Chi-Square.**

Chi-square  $\chi^2$  test is a statistical test used to examine differences with categorical variables. The chi-square, denoted by the Greek letter  $\chi^2$ , is frequently used in testing of hypothesis concerning the difference between a set of observed frequencies of a sample and a corresponding set of expected or theoretical frequencies. It is an important non-parametric distribution – free test.

#### **Test of Independence**

The goodness-of-fit test discussed above is appropriate for situations that involve one categorical variable. If there are two categorical variables, and our interest is to examine whether these two variables are associated with each other, the chi-square ( $\chi^2$ ) test of independence is the correct tool to use. This test is very popular in analyzing cross-tabulations in which an investigator is keen to find out whether the two attributes of interest have any relationship with each other.

The cross-tabulation is popularly called by the term “contingency table”. It contains frequency data that correspond to the categorical variables in the row and column.

The marginal totals of the rows and columns are used to calculate the expected frequencies that will be part of the computation of the  $X^2$  statistic. For calculations on expected frequencies, refer hyper stat on  $\chi^2$  test. If the columns are not contingent on the rows, then the rows and column frequencies are independent. The test of whether the columns are contingent on the rows is called the chi square test of independence. The null hypothesis is that there is no relationship between row and column frequencies. The degrees of freedom = (the number of rows-1) multiplied by (the number of columns-1) in any contingency table.

For purposes of clarity, it worth nothing that where the calculated chi-square ( $x^2$ ) is greater than the critical values, it suggests that the observed frequencies differ significantly from the



expected. Consequently, the null hypothesis,  $H_0$  is rejected and the alternative hypothesis,  $H_1$  is accepted. But where the calculated chi-square ( $x^2$ ) is less than the critical value, it means that the observed and the expected frequency agree strongly, thus,  $H_0$  is accepted and  $H_1$  is rejected. The formula for chi-square ( $x^2$ ) is:  $x^2 = \frac{(f_o - f_e)^2}{f_e}$

$$f_o$$

Where  $f_o$  = Observed Frequency

$F_e$  = Expected Frequency

The Expected Frequency is calculated thus;

$$\frac{RT \times CT}{GT}$$

$$GT$$

Where  $RT$  = Row Total

$CT$  = Column Total

$GT$  = Grand Total

Also, the Degree of Freedom (df), which will be used, is calculated as;

$$df = (R-1)(C-1)$$

Where  $R$  = Row

$C$  = Column

### 4.3 Data Requirements and Sources

The study utilized mainly primary data. The primary data used were individual and household based. Facilities were selected for interviewing on the basis of proximity to a household cluster (this is a geographic area such as a village or neighborhoods of a city). The survey collected

socio-economic information such as household consumption, demographic characteristics, time use, income and consumption, education and health status.

Other information sort includes household spending per visit, household total health spending, composition of household's spending on health services, number of times the self treatment option was chosen when an illness occurs.

Providers' quality was measured by the availability of essential drug; the number of medical staff as an indicator of the level of human resources available at the facility which may reflect the sophistication and range of health services provided; the provision of basic adult and child health services measured by the availability of a functioning laboratory, the ability to vaccinate children and the ability to provide prenatal, postnatal and child growth monitoring services (grouped together as 'mother and baby care'); the availability of essential infrastructures like electricity and running water.

For those who utilized care, these money price and/or cost data were available, but unavailable for those who did not utilize health care. Thus, for each provider, the available (money) cost information was used to estimate cost/price.

#### **4.4.0 Data Source**

##### **4.4.1 Primary and secondary sources**

Basically, the data used in this work are primary data collected from respondent through the use of questionnaires. However, few secondary data from related publications, bulletins, journals and other reliable government agencies was used. The study was conducted in Ibadan metropolis, the

capital of Oyo State. The metropolis is composed of 11 Local government areas, 6 at the outskirts and 5 at the center.

The latter are: Ibadan South East, Ibadan North East, Ibadan North West, Ibadan South West and Ibadan North Local Government Areas. Ibadan is located between longitude 70 20'' and 70 40'' East of the Greenwich meridian and between latitude 30 55'' and 40 10'' North of the equator. The city is in the equatorial rain forest belt and has a land area of between 445 and 455km<sup>2</sup> with an estimated population of 1,991,367 persons according to the 1991 population census. Ibadan metropolis is an important commercial center and it comprises of people of different cultural and socio-economic backgrounds.

Predominantly, food crops such as yam, maize, cowpea, okro, melon which reflect the dietary habits of the inhabitants are grown as is clearly seen in the type of meals taken by the people. Data used in this survey were collected through questionnaire administration. The study used simple random sampling technique in selecting the representative respondents.

## CHAPTER 5

### EMPIRICAL ANALYSIS

#### 5.0 Introduction

The study is to determine the demand for health care in Ibadan South West local government, Oyo state. This propelled and guided the researcher in her efforts in the construction of the questionnaire and in the selection of the population and sample for the study. The last chapter exposed the methodology adopted in the presentation of the data. However, this chapter is dedicated to the presentation and discussion of result of data collected from the respondents, whom the questionnaires were administered, using the simple percentage, pie chart, bar chart and chi-square Statistical methods. The hypotheses were tested at 0.05 level of significance. The respondents show a high level of cooperation in the Ibadan North Local government where the questionnaires were administered. A total of two hundred (200) questionnaires were distributed to respondent which were all filled and returned. This implies that the entire respondents' attitude towards the study is positive and commendable.

#### 5.1 Presentation and Discussion of Result

The study sampled two hundred 200 household from Ibadan South West Local government and all the questionnaires distributed were returned. However, the result of the data is presented below:

##### Socio-Demography of Respondents

Table 5.1 Gender of respondents

Gender	Frequency	Percentage
Male	67	33.5
Female	133	66.5
Total	200	100.0

Source: Field survey, 2019

Table 5.1 represents the gender of the respondents. There were 67(33.5%) males and 133(66.5%) females of the total respondent respectively.

This means that female household constituted a larger part of the total respondent. This means that female household constituted a larger part of the total respondent, shows by result in table 5.1

Table 5.2 Age distribution of respondents

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
20-29	50	25.0
30-39	108	54.0
40-49	30	15.0
50yrs and above	12	6.0
Total	200	100%

Source: Field survey, 2019.

Table 5.2 shows the age distribution of respondents. 50 (25.0%) of the respondents falls within the age range 20-29yrs, 108(54.0%) falls within 30-39yrs, 30(15.0%) for the year range of 40-49yrs, while we have just 12(6.0%) for that of ages above 50 years. This implies that the respondents' ages on average is between the age of 30-39years, which is a good age needed for the analysis.

Table 5.3 Marital status of respondents

<b>Marital Status</b>	<b>Frequency</b>	<b>Percentage</b>
Single	90	45.0
Married	108	54.0
Others	2	1
Total	200	100%

Source: Field survey, 2019

Table 5.3 present the respondents' marital status. 90(45.0%) of the household are single, 108(54.0%) are married, while the remaining 2(1%) chose others. It could be concluded that majority of the household are married and could actually respond to questions relating to the effect health of household.

Table 5.4 Educational qualification of Household

<b>Education</b>	<b>Frequency</b>	<b>Percentage</b>
No formal education	4	2.0
Adult education	9	4.5
Primary education	14	7.0
Secondary education	53	26.5
Tertiary education	120	60
Total	200	100%

Source: Field survey, 2019

Table 5.4 shows the Educational qualification of Household. From the table 4(2.0%) of household have no formal education, 9(4.5%) with adult education, 14(7.0%) have primary school education 53(26.5%) have Secondary school education and those with Tertiary education are 120(60.0%). The result implies that majority of the households 173(86.5%) are educated with a minimum of Secondary education.

To understand whom the head of the household, the respondents were asked to tick between male and female. The response from the respondents is shown in table 5.5 below:

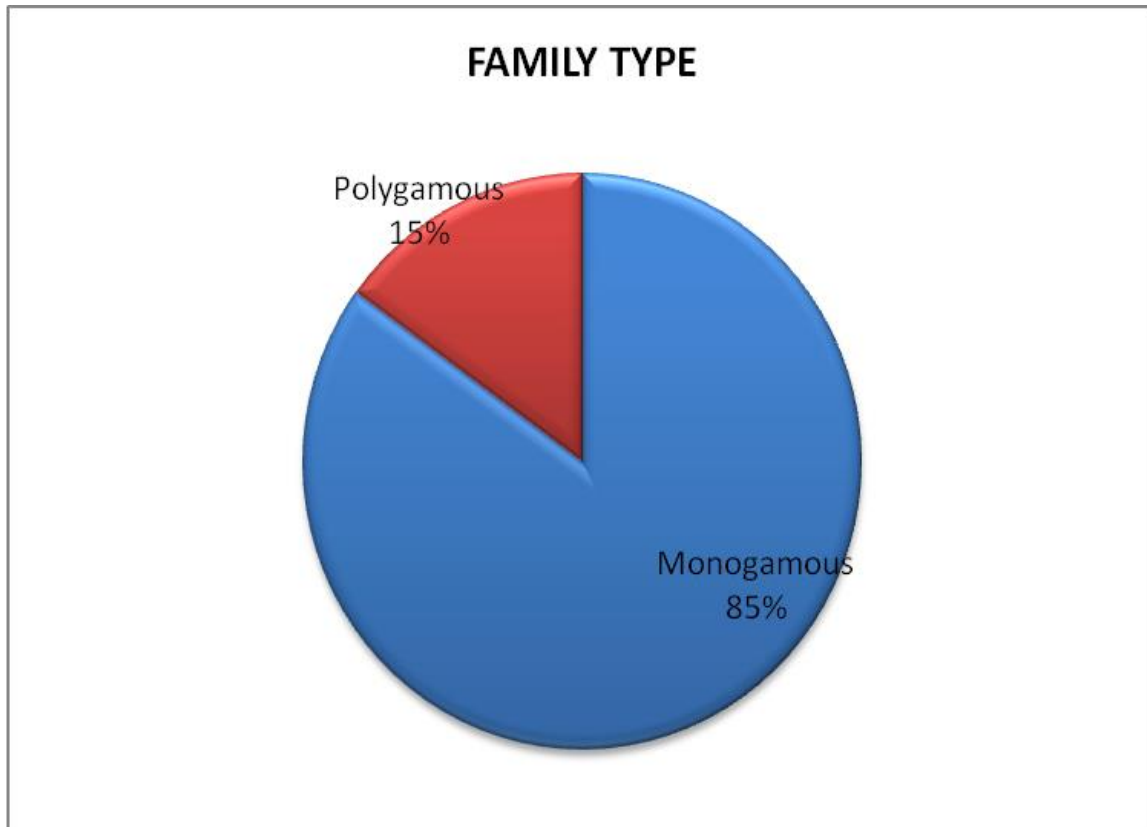
Table 5.5: Head of household

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Male	184	92.0
Female	16	8
Total	200	100%

Source: Field survey, 2019

Table 5.5 shows the household's response on the head of household shows that 184(92.0%) were male, while 16(8.0%) were female. This implies that the head of households where this study was carried out are male.

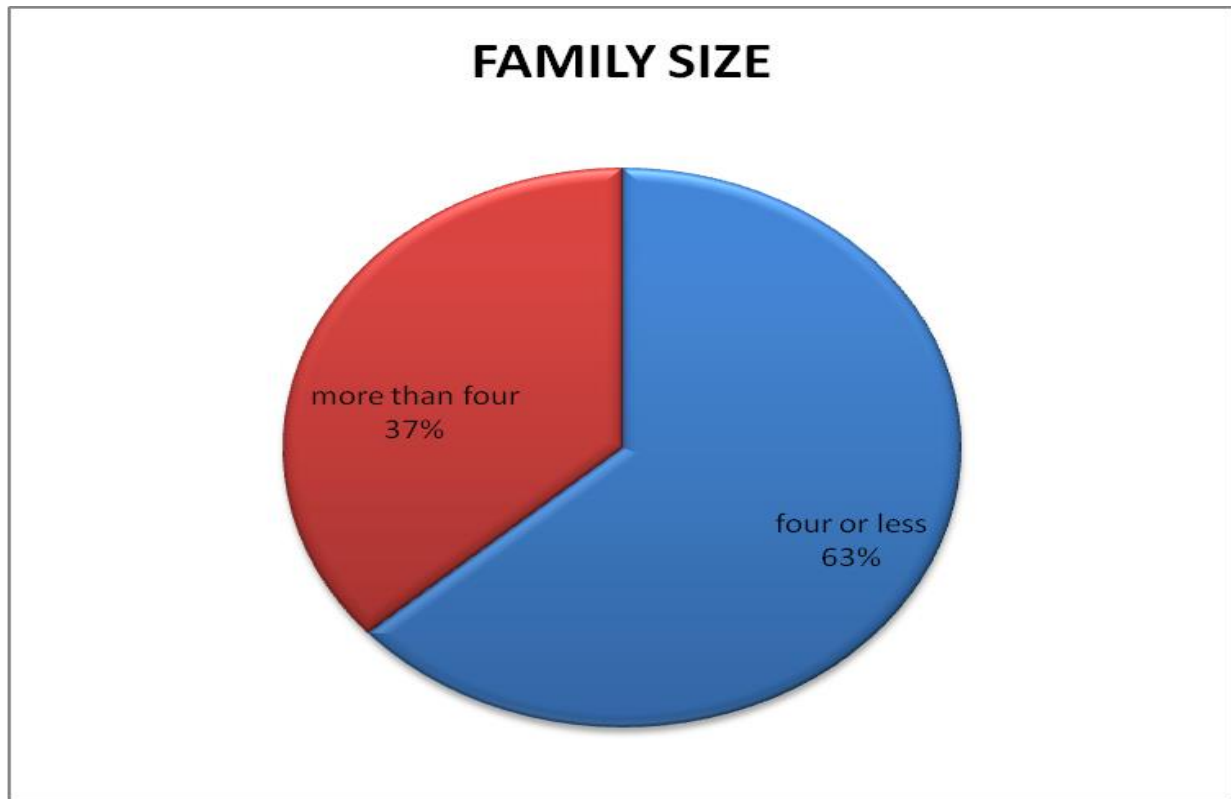
Figure 5.1 **Family Type**



Source: Field survey, 2019

Figure 5.1 shows the family type of the respondents. 30(15%) of the respondents are from polygamous home, while 170(85%) came from Monogamous home. It could be inferred from the data that the respondents are from monogamous home, which means the part of income use on medication is minimal because the amount of income that will be spend by polygamous will be increase due to increase in the number of household.

Fig 5.2 Family Size

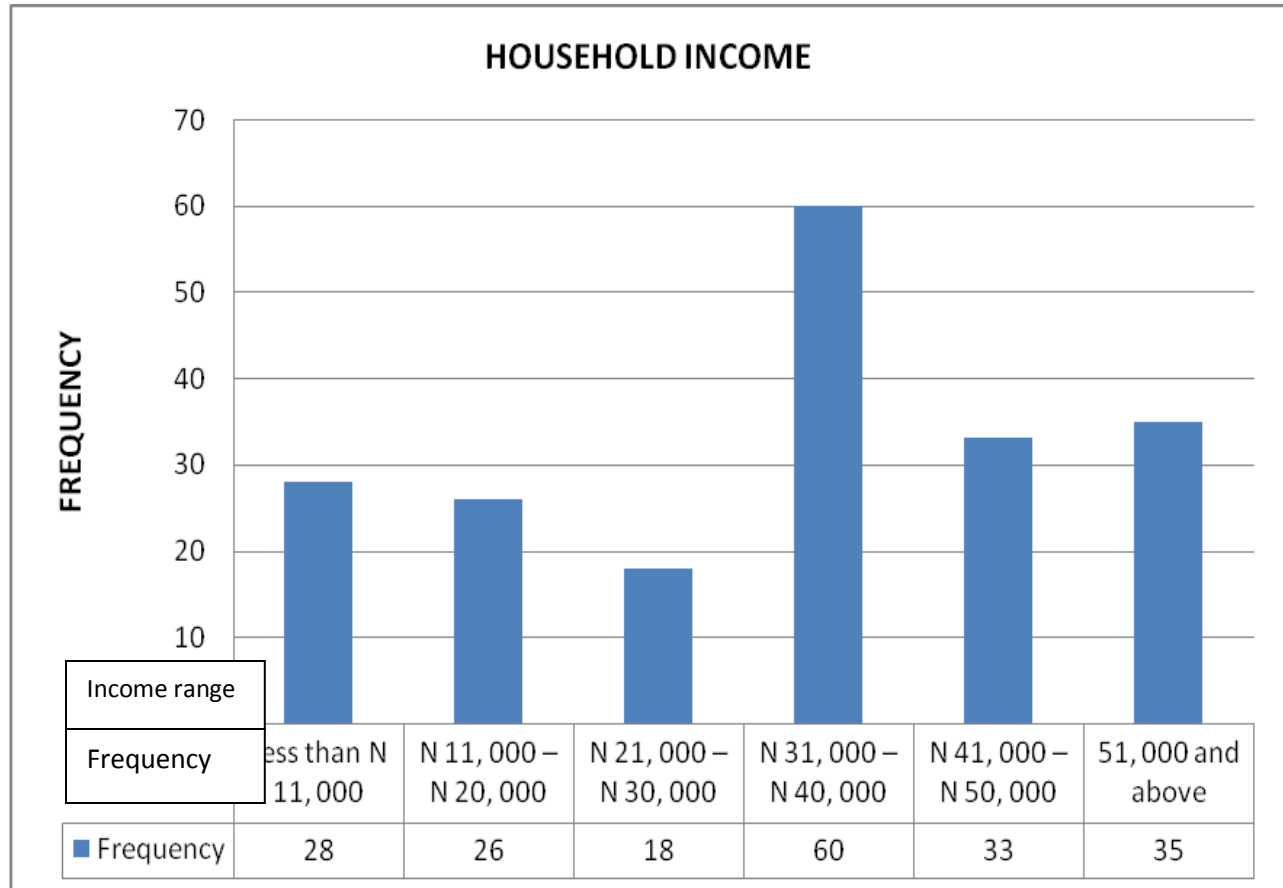


Source: Field survey, 2019

Figure 5.2 shows the family size distribution of respondents. 126(63%) have less than four people in their household, while 74(37%) have more than four people. This implies that the family size of the respondents is not more than four (father, mother and two children).



Figure 5.3 Response to household's range of monthly income



Source: Field survey, 2019

Figure 5.1 shows the household's range of monthly income. Those in the category of (less than N11,000) are 28(14%), those in (N11,000 – 20,000) is 26(13%), also the household in the range of (N21,000- 30,000) are 18(9%), those in the category of (N31,000-40,000) naira constituted 60(30%), those in the category of (N41,000-50,000) is 33(16.5%) while those that earn above 51,000 and above is 35(17.5%). This however shows clearly that majority of the household 146(73%) earn N21,000 naira and above. This also implies that most of the household are gainfully employed. The respondents were also asked on their expenditure on health, and figure 5.2 shows the response from the respondents.

Table 5.6 Expenditure on Health

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Less than N 11, 000	55	27.5
N 11, 000 – N 20, 000	28	14.0
N 21, 000 – N 30, 000	13	6.5
N 31, 000 – N 40, 000	33	16.5
N 41, 000 – N 50, 000	67	33.5
51, 000 and above	4	2
Total	200	100

Source: Field survey, 2019

Table 5.6 shows the expenditure on health. From the table, Those that spend less than N11,000 are 55(27.5%), those in the range of (N11,000 – 20,000) are 28(14%), also the household in the range of (N21,000- 30,000) are 13(6.5%), while those in the category of (N31,000-40,000) naira constituted 33(16.5%), those in the category of (N41,000-50,000) are 67(33.5%) while those that earn above 51,000 and above is 4(2%). This however shows clearly that majority of the household spend more of their income on healthcare of the family.

Table 5.7 Types of illness experienced by the households

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Mild fever/malaria	135	67.5
Diarrhea	9	4.5
Respiratory infection	4	2
Delivery	14	7.0
Measles	28	14.0
Others	10	5.0
Total	200	100

Source: Field survey, 2019

Table 5.7 shows the type of illness experienced by respondents. About 135(67.7%) of the respondents experienced mild fever/malaria most of the times. 9(4.5%) responded to have

Diarrhea, 4(2%) respiratory infection, 14(7%) Delivery, 28(14%) Measles and 10(5%) reported to have other kinds of sickness.

**Table 5.8** Which of the health care Facility do you patronize?

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Public	134	67.0
Private	66	33.0
Total	200	100.0

Source: Field survey, 2019

Table 5.8 shows the type of health care facilities that respondent patronized. 136(67%) of respondents patronized public healthcare facilities while about 66(33%) patronized private healthcare provider. Majority of respondents use public healthcare facilities, which means that Respondents patronize public health facility.

To ascertain if some people patronize alternative healthcare providers, respondents were asked which alternative healthcare provider they patronize and table 5.9 shows their responses.

**Table 5.9** Which Healthcare alternatives do your household patronized when sick

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Self-medication	26	13.0
Spiritual healing	20	10.0
Traditional healer	29	14.5
Pharmacy	87	43.5
Professional allopathic	25	12.5
Others	13	6.5
Total	200	100

Source: Field survey, 2019

Table 5.9 shows the healthcare alternative respondents patronizes. 26(13%) of the respondents agreed that they do not seek any assistance from anyone, but just take in medications without any prescription (Self-medication). 20(10%) of them said they contact spiritualist (Spiritual healing) when sick, while 29(14.5%) consented that they sought help from Traditional healer, 87(43.5%) go to the pharmacy ,25(12.5%) go to Professional allopathic and the rest 13(6.5%) chose other means that we refused to state.

Table 5.10 Reasons for the change in the choice of provider used during the last illness episode

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Better treatment	84	42.0
Cost (money price) of treatment	116	58.0
Total	200	100.0

Source: Field survey, 2019

Table 5.10 shows the reason for change in healthcare provider. About 84(42%) of the respondents changed for better treatment, while the rest 116(58%) changed because of high cost of treatment. This implies that the cost of treatment is high.

The respondents were asked the degree of the cost of the healthcare service in other to validate their response shown in table 5.10 and their response is shown below

**Table 5.11** Cost/ payment for service

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Very high	131	65.5
High	64	32.0
Moderate	2	1.0
Low	3	1.5
Total	200	100

Source: Field survey, 2019

Table 5.11 shows the degree of the cost of healthcare service. 131(65.5%) consider the cost as very high, 64(32%) agreed to the cost as high, 2(1%) of the respondents says moderate and just 3(1.5%) of respondents says the cost is low. The response implies that the cost of healthcare service is high and that the respondents pay more to get treatment and medication.

## **TESTING OF HYPOTHESIS**

The researcher makes an attempt to validate the results of some findings through the chi-square ( $\chi^2$ ) test of analysis. The hypothesis has subsequently been stated in the Null and Alternative forms in the following sub-sections, with emphasis on the decision rule that where the calculated  $\chi^2$  is greater than the critical values, it suggest that the observed frequencies differ significantly from the expected. Consequently, the null hypothesis,  $H_0$  is rejected and the alternative hypothesis,  $H_1$  is accepted. But where the calculated  $\chi^2$  is less than the critical value, it means that the observed and the expected frequency agree strongly, thus,  $H_0$  is accepted and  $H_1$  is rejected.

### **Hypothesis one**

$H_0$ : there is no easy accessibility of households to healthcare facilities in Ibadan south west local government.

$H_1$ : there is easy accessibility of households to healthcare facilities in Ibadan south west local government

To test the null hypothesis, question 1 was crosstab with question 18 and applied, which is Sex and Ease of accessing the healthcare facilities 'as considered in figures 5.3 and table 5.6 above. However the result of the cross tabulation is shown in table 5.12 and table 5.13 below:

**Table 5.12** Sex and Ease of accessing the healthcare facilities Cross tabulation

		Ease of accessing the healthcare facilities		
Sex		Easily Accessible	Not Easily Accessible	Total
	Male	56	8	64
	Female	104	32	133
	Total	160	40	197

Source: Field survey, 2019

**Table 5.13** Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
<b>Pearson Chi-Square</b>	<b>3.179<sup>a</sup></b>	<b>1</b>	<b>.075</b>
<b>Continuity Correction<sup>b</sup></b>	<b>2.535</b>	<b>1</b>	<b>.111</b>
<b>Likelihood Ratio</b>	<b>3.387</b>	<b>1</b>	<b>.066</b>

Source: Field survey, 2019

Table 5.12 present the cross tabulation of welfare improvement and income range of household, while table 5.13 present the Chi-square result. The Chi-square result from the table above shows that the computed (calculated) value is 3.179, while the table value, (critical) is 0.00393 with df of 1 and 5% level of significance.

Therefore, going by the decision rule, since the calculated value 3.179 is greater than the critical value 0.00393, (cal. Value 3.179 > critical value 0.00393), we shall reject the null hypothesis.

### **Hypothesis Two**

(H<sub>0</sub>) which states that Expenditure on healthcare has not significantly affected the income level of households in Ibadan North local government Metropolis and accept the alternate hypothesis (H<sub>1</sub>) which state that Expenditure on healthcare has significantly affected the income level of households in Ibadan North local government Metropolis

To test for the second hypothesis, which is to ascertain whether the people demand for healthcare facilities in Ibadan south west local government question 1 and question 12 were cross

tabulation: Sex and healthcare alternatives do your household patronized when sick. Table 5.14 below shows the result.

Table 5.14 Sex \* Which Healthcare alternatives do your household patronized when sick Cross tabulation

Which Healthcare alternatives do your household patronized when sick								
		Self-medication	Spiritual healing	Traditional healer	Pharmacy	Professional allopathic	others	total
Sex	Male	9	5	11	21	10	7	63
	Female	17	15	18	62	15	6	133
Total		26	20	29	83	25	13	196

Source: Field survey, 2019

Table 5.14 shows the cross tabulation of sex and healthcare alternative respondents patronized.

Cross tabulation shows that 9 male and 17 female engaged in self-medication, 5male and 15 female patronize spiritual healing, 11 male and 18 female go to traditional healers, 21 male and 62 female patronize the Pharmacy, 10 male and 15 female visit professional allopathic, while 7 male and 6 female go to other source of healthcare providers when they are sick. The data implies that the people of Ibadan north Local government demand for healthcare services when sick.

### **Hypothesis three**

H<sub>03</sub>: Expenditure on healthcare has not significantly affected the income level of households in Ibadan North local government Metropolis.

H<sub>13</sub> Expenditure on healthcare has significantly affected the income level of households in Ibadan North local government Metropolis.

To test the null hypothesis, question 9 was crosstab with question 11 and applied, which state, 'Monthly Family Income and Expenditure on Health 'as considered in figures 5.3 and table 5.6 above. However the result of the cross tabulation is shown in table 5.13 and table 5.14 below:

Table 5.15 Crosstabulation between on Monthly Family Income and Expenditure on Health

Monthly Family Income								
Cost/ payment for service		Less than N 11, 000	N 11, 000 – N 20, 000	N 21, 000 – N 30, 000	N 31, 000 – N 40, 000	N 41, 000 – N 50, 000	N51,000 and above	
	Very high	14	18	13	42	17	25	129
	High	14	6	5	18	14	7	64
	Moderate	0	2	0	0	0	0	2
	Low	0	0	0	0	4	1	5
Total		28	26	18	60	35	33	200

Source: Field survey, 2019.

Table 5.16: Chi-Square Tests Result

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.062 <sup>a</sup>	15	.016
Likelihood Ratio	23.780	15	.069
Linear-by-Linear Association	.172	1	.679
N of Valid Cases	200		

Source: Field survey, 2019

Table 5.15 shows the cross tabulation between cost/payment for service and monthly income of respondents while table 5.16 present the Chi-square result. The Chi-square result from the table above shows that the computed (calculated) value is 29.062, while the table value, (critical) is 7.26 with df of 15 and 5% level of significance.

Therefore, going by the decision rule, since the calculated value 29.062 is greater than the critical value 7.26, (cal. Value 24.01 > critical value 5.23), we shall reject the null hypothesis ( $H_{03}$ ) which states that Expenditure on healthcare has not significantly affected the income level of



households in Ibadan North local government Metropolis and accept the alternate hypothesis ( $H_{13}$ ) which state that Expenditure on healthcare has significantly affected the income level of households in Ibadan North local government Metropolis

Table 5.17: Response of household on 'Facility cleanliness

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Good quality	51	22
Poor quality	149	78
Total	200	100%

Source: Field survey, 2018

Table 5.17 shows the response of respondents to facility cleanness. 51(22%) of the respondents says that the facilities are of good quality, while majority of the respondents said that the facilities are of poor quality. This means that more than half of the household living in the area does not enjoy quality healthcare facilities.

Table 5.18 there are sufficient medical personnel attending to patients

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Agree	14	7.0
Agree	86	43.0
Disagree	93	46.5
Strongly Disagree	7	3.5
Total	200	100

Source: Field survey, 2018

Table 5.18 present the response of respondents to whether there is sufficient medical personnel or not. 14(7%) of them strongly agreed, 86(43%) agreed, but 93(46%) of the disagreed, while very few, 7(3.5%) strongly disagree. This result shows that many of the household in Ibadan South West Local Government faced high cost of living.

## **CHAPTER SIX**

### **SUMMARY CONCLUSION AND RECOMMENDATION**

#### **6.0 INTRODUCTION**

The previous chapter 5 shows the empirical analysis, where the data collected was analyzed and presented. However, the aim of this last chapter is to show how the study dealt with the research problem through summary conclusions, and recommendations.

#### **6.1 SUMMARY**

The purpose of this study was to determine the demand for health care in Ibadan South West Local Government Area of Oyo, State Nigeria. A descriptive survey research design with mixed method approach was employed in the study. A total number of 200 Households were sampled. However, questionnaires were used to elicit information from respondents as primary source of data, and textbooks, journals and the internet formed the secondary source of data. Three sub-research questions based on one main question and three hypotheses were stated to guide the study. The answer to the main research question of this study came through the answers provided to the sub-research questions made to expand the details and contents in specific terms of the main question.

The main research question of this study is to determine the demand for health care in Ibadan South West local government, Oyo state.

The household bio- data shows that the average age respondents' was between 35-15years, of which about half t married, and majority about 173(86.5%) of them are educated with a minimum of Secondary School Certificate (SSCE) .

Majorly the head of households where this study was carried out were male, of whom majority married to only one wife, with about two children on average. Majority of the household 146(73%) earn #21000 and above. The commonest ailment in the region is fever and most of the household patronized public hospital, while others patronized other kind of healthcare providers. Many of household maneuvers from one healthcare provider to another, as a result of high cost of treatment experienced.

The work of DewaAdhikari and Dagendra Prasad Risad (2014) shows that poverty emerged as a major determinant of health seeking behavior and treatment was considered waste of money, indirect effect 24%,lack of money 35%,followed by poor attitude of health worker 41%. The result further shows that respondents have easy access to healthcare facilities in Ibadan South West Local Government. The result of hypothesis revealed that expenditure on healthcare significantly affects the income level of households in Ibadan South West Local Government. This in line with AinaOluwatunmise Sunday (2015), whose finding revealed that distance and prices are significant factors that discourages individuals from seeking modern health services. It further shows that many hospitals in Ibadan South West Local Government do not have adequate number of medical personnel to promptly attend to patients and this in turn increases the waiting time of patients who came to see Doctor.

## **6.2 CONCLUSION**

This study elicits the demand pattern of household to healthcare facilities in Ibadan south west Local Government Area of Oyo, State Nigeria.. Having carried out this work through careful observation, administration of questionnaires, and the review of relevant literatures, the researcher concludes that there is demand for healthcare in Ibadan south west Local Government Area of Oyo State, Nigeria. The study found out that the number of female respondents outweighs that of male counterpart. The average age of respondents engaged for the study is

35±15years, which is in the age range of active labor force and earn N21,000 naira and above. Most of the respondents are educated, married with majority having only one wife (monogamous) with about four members in the family. Majority of the household spent more of their income on healthcare of the family. Most of respondents use public healthcare facilities, while some preferred to consult other health care service providers. The study further found out that people of Ibadan North Local Government demand for healthcare services when they fall sick and that the expenditure on healthcare services has significantly affected their income.

### **6.3 RECOMMENDATIONS**

Based on the result of the study, it is therefore recommended that:

- Low-income earners and traders should be enrolled into the National Health Insurance Scheme so as to reduce the burden of high cost of medication.
- Government should employ more medical personnel into the hospital to reduce the waiting time of patients when they demand healthcare service in the hospital.
- Further research should be conducted to determine how the cost of drugs, laboratory investigations and consultation fee can be reduced.

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**DEPARTMENT OF ECONOMICS**  
**FACULTY OF SOCIAL SCIENCE**  
**UNIVERSITY OF IBADAN**

Dear respondent,

My name is Deborah Akala, an undergraduate student of department of economics, conducting a study on the demand for healthcare services in Ibadan south west local government Area of Oyo State, Nigeria” as part of partial fulfillment of my BSc Economics. You have been selected as one of the respondents for this study. You would be asked several questions and your responses will be treated with ultimate confidentiality as your responses will only be used for aggregate statistics. In view of this, do I have the permission to proceed with this interview?

Thank you

Miss Deborah Akala.

## INSTRUCTIONS:

Please read the questions carefully

- a. Tick or mark the appropriate answers in the box at the right side
- b. Given answers where you are required to specify.

## BIO-DATA OF RESPONDENTS

### SECTION A

1. Sex (i) Male ( ) (ii) Female ( )
2. Age (in years) (i) 20 – 29 ( ) (ii) 30 – 39 ( ) (iii) 40 – 49 ( ) (iv) > 50 ( )
3. Marital Status (i) Married ( ) (ii) Not Married ( )
4. Educational status: (i) No formal education ( ) (ii) Adult education ( ) (iii) primary education ( ) (iv) secondary education ( ) (v) secondary education ( ) (vi) tertiary education ( )
5. Head of household (i) Male ( ) (ii) Female ( ) (iii) Others ( )
6. Location (settlement area) of respondents (i) Urban ( ) (ii) Rural ( )
7. Family Type (i) Monogamous ( ) (ii) Polygamous ( )
8. Family Size (i) Four or less ( ) (ii) More than four ( )
9. Monthly Family Income (i) Less than N 11, 000 ( ) (ii) N 11, 000 – N 20, 000 ( ) (iii) N 21, 000 – N 30, 000 ( ) (iv) N 31, 000 – N 40, 000 ( ) (v) N 41, 000 – N 50, 000 ( ) (vi) N 51, 000 and above

### SECTION B



10. Types of illness experienced by the households (%) (i) Mild fever/malaria ( ) (ii) Diarrhoea ( ) (iii) Respiratory infection ( ) (iv) Delivery ( ) (v) Measles ( ) (vi) Others ( )
11. Expenditure on Health (i) less than ₦11,000 ( ) (ii) ₦11,000 - ₦20,000 ( ) (iii) ₦21,000- ₦30,000 ( ) (iv) ₦31,000- ₦40,000 ( ) (v) ₦41,000- ₦50,000 ( ) (vi) ₦51,000 and above
12. Which Healthcare alternatives do your household patronized when sick?  
(i) Self-medication ( ) (ii) Spiritual healing ( ) (iii) Traditional healer ( )  
(iv) Pharmacy ( ) (v) Professional allopathic ( )
13. Reasons for the change in the choice of provider used during the last illness episode  
(i) Better treatment ( ) (ii) Cost (money price) of treatment ( )  
(iii) Accessibility/proximity (distance) ( ) (iv) Income ( ) (v) Delay in treatment (time factor) ( ) (vi) Not applicable ( )
14. Which of the health care Facility do you patronize? (i) Public ( ) (ii) Private ( )
15. What is your level of satisfaction with the healthcare facility you patronize?  
(i) Satisfactory ( ) (ii) Unsatisfactory ( )
- Association between choice of health facility and the perceived quality of service provided by the respondents' usual health care providing facility
16. Interpersonal/ communication skills of the healthcare providers (i) Good quality (ii) Poor quality
17. Cost/ payment for service (i) Good quality (ii) Poor quality
18. Facility cleanliness (i) Good quality (ii) Poor quality

		Providers' Quality	Strongly Agree	Agree	Disagree	Strongly Disagree
1	9	There are availability of essential drug				
2	0	There are sufficient medical personnel attending to patients				
2	1	There are sufficient functioning laboratory in the hospital				
2	2	the hospital has the capacity to vaccinate children and the ability to provide prenatal, postnatal and child growth monitoring services				

2	3	the availability of essential infrastructures like electricity and running water make the hospital outstand				
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