

**TITLE: CLIENTS' SATISFACTION WITH SERVICES FOR CARE,  
SUPPORT AND TREATMENT OF HIV/AIDS IN ASOKORO  
GENERAL HOSPITAL, ABUJA**

**BY: EWELIKE UCHENNA EUGENES MPH/MED/1011/2010-2011**

**MARCH, 2014**

**CLIENTS' SATISFACTION WITH SERVICES FOR CARE,  
SUPPORT AND TREATMENT OF HIV/AIDS IN ASOKORO  
GENERAL HOSPITAL, ABUJA**

**BY**

**EWELIKE UCHENNA EUGENES  
MPH/MED/1011/2010-2011**

**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE  
STUDIES, AHMADU BELLO UNIVERSITY  
ZARIA – NIGERIA**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE DEGREE OF MASTER OF PUBLIC HEALTH**

**DEPARTMENT OF COMMUNITY MEDICINE  
FACULTY OF MEDICINE  
AHMADU BELLO UNIVERSITY  
ZARIA – NIGERIA**

**MARCH, 2014**

## **DECLARATION**

I Ewelike Uchenna Eugenes, declare that the work in the thesis entitled CLIENTS' SATISFACTION WITH SERVICES FOR CARE, SUPPORT AND TREATMENT OF HIV/AIDS IN ASOKORO GENERAL HOSPITAL, ABUJA is by me in the Department of Community Medicine under the supervision of Dr. M.N Sambo no part of this thesis was previously presented for another degree at any university.

---

**Ewelike Uchenna Eugenes**

---

**Date**

## CERTIFICATION

This Thesis titled Clients' Satisfaction with Services for Care, Support and Treatment of HIV/AIDS In Asokoro General Hospital, Abuja meets the regulations governing the award of degree of Master of Public Health of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

---

**Dr. M.N. Sambo**

MBBS, MIAD. FWAP

Supervisor

---

**Date**

---

**Dr. M.N. Sambo**

MBBS, MIAD. FWAP

Head of Department

---

**Date**

---

**Prof. A.A Joshua**

Dean, School of Postgraduate Studies

---

**Date**

## **DEDICATION**

I dedicate this work to the Almighty God and to people living with HIV/AIDS in Nigeria.

## **ACKNOWLEDGEMENT**

I wish to express my profound gratitude to the Almighty God for his divine protection and guidance. I also wish to thank my project supervisor Dr. M.N. Sambo of the Department of Community Medicine, ABU, Zaria, for his scholarly guidance in the course of the research. My thanks also go to my MPH class mates and the entire staff and students of the Department of Community Medicine ABU, Zaria.

My appreciation also goes to my beloved wife Nneka who supported me throughout period I was in school studying. Also to my children Chiny and Uche (Jr), my mother Mrs Theresa Ewelike and my late father Philip Chukwuemeka Ewelike for their great support throughout the entire programme. I will also not forget the encouragement I got from my Brothers Uzo, Ifeanyi, Iyke, Chima, Abuchi, Chukwunyere and my Sisters Kaycee and Chidimma. I also wish to thank my God father Chief Richard Egbule, my friends Drs. Bashir, Okara, Ogbolalafor and Agugua whose support were immeasurable.

My special thanks also go to the coordinators of ART programme in Asokoro General Hospital Dr. Henry Onyegbutulem, Matron Helen and the entire staff and management of Asokoro General Hospital for their warm reception during the study.

The painstaking effort of my typists Ibrahim Korau and Miss Uzoma Obasi are also appreciated. Each and every one of you that contributed to the success of this programme both in the class and community postings will ever be remembered in my life.

## ABSTRACT

**Background:** The HIV/AIDS pandemic is a major public health problem with an estimated 33.8 million people living with the virus globally. Nigeria is one of the countries with the highest global burden of AIDS. Currently Nigeria offers free antiretroviral services to clients. Clients' satisfaction is one of the commonly used outcome measures of patient care. The objective of this study was to assess the satisfaction of people living with HIV/AIDS with services provided at antiretroviral clinic of Asokoro General Hospital, Abuja.

**Methodology:** A health facility based cross-sectional study was undertaken on 270 people living with HIV/AIDS who are on antiretroviral treatment at Asokoro General Hospital. Data was collected by the principal investigator and trained research assistants, using English version of structured questionnaires, entered in to computer and analysed using SPSS for windows version 17.

**Result:** The respondents were predominantly young population less than 41 years (63.2%). Sixty one percent started accessing care in the clinic in the last 3 years. The overall satisfaction with services for different components of the clinic varied as it was 85%, 80.5%, 87%, 85.5% and 87% for clinicians, pharmacy, counselling, laboratory and records respectively. About 52.2% spent between 3 – 4 hours on average in every clinic day. Also 14% of the respondents were dissatisfied with privacy in seeing a clinician

**Conclusion:** The services in most section of the clinic was rated "SATISFIED", except for some like privacy, attitude and waiting time which some clients were not satisfied with. The clients were also attended to in line with the National guideline on ART services.

## TABLE OF CONTENTS

Cover page	-	-	-	-	-	-	-	-	-	i
Title page	-	-	-	-	-	-	-	-	-	ii
Declaration	-	-	-	-	-	-	-	-	-	iii
Certification	-	-	-	-	-	-	-	-	-	iv
Dedication	-	-	-	-	-	-	-	-	-	v
Acknowledgement	-	-	-	-	-	-	-	-	-	vi
Abstract	-	-	-	-	-	-	-	-	-	vii
Table of Contents	-	-	-	-	-	-	-	-	-	viii
List of Tables	-	-	-	-	-	-	-	-	-	xi
List of Figures	-	-	-	-	-	-	-	-	-	xiii
Acronyms	-	-	-	-	-	-	-	-	-	xiv
<b>Chapter One</b>										
Introduction	-	-	-	-	-	-	-	-	-	1
Problem Statement	-	-	-	-	-	-	-	-	-	1
Justification	-	-	-	-	-	-	-	-	-	6
Aims and Objectives	-	-	-	-	-	-	-	-	-	8
Specific Objectives	-	-	-	-	-	-	-	-	-	8
Research Questions	-	-	-	-	-	-	-	-	-	9
<b>Chapter Two</b>										
Literature Review	-	-	-	-	-	-	-	-	-	10
Overview of HIV/AIDS	-	-	-	-	-	-	-	-	-	10
HIV/AIDS Care, Support and Treatment	-	-	-	-	-	-	-	-	-	13



International Guideline for HIV/AIDS Care	-	-	-	-	-	-	-	-	15
Nigerian National Guideline for HIV/AIDS Care, Support and									
Treatment	-	-	-	-	-	-	-	-	16
Nigeria's Response to HIV/AIDS	-	-	-	-	-	-	-	-	17
Client Satisfaction	-	-	-	-	-	-	-	-	21
The Concept of Quality	-	-	-	-	-	-	-	-	24
Quality of Care	-	-	-	-	-	-	-	-	25
Definition of Terms	-	-	-	-	-	-	-	-	27
<b>Chapter Three</b>									
Methodology	-	-	-	-	-	-	-	-	29
Background of the Study Area	-	-	-	-	-	-	-	-	29
Study Population	-	-	-	-	-	-	-	-	30
Inclusion Criteria	-	-	-	-	-	-	-	-	30
Exclusion Criteria	-	-	-	-	-	-	-	-	30
Study Design	-	-	-	-	-	-	-	-	30
Sample Size Determination	-	-	-	-	-	-	-	-	31
Sampling Technique	-	-	-	-	-	-	-	-	32
Instrument of Data Collection-	-	-	-	-	-	-	-	-	32
Collection of Data	-	-	-	-	-	-	-	-	33
Data Analysis	-	-	-	-	-	-	-	-	34
Ethical Considerations	-	-	-	-	-	-	-	-	34
Limitations of the Study	-	-	-	-	-	-	-	-	35

**Chapter Four**

Results-	-	-	-	-	-	-	-	-	-	36
----------	---	---	---	---	---	---	---	---	---	----

**Chapter Five**

Discussion	-	-	-	-	-	-	-	-	-	54
------------	---	---	---	---	---	---	---	---	---	----

Conclusions	-	-	-	-	-	-	-	-	-	63
-------------	---	---	---	---	---	---	---	---	---	----

Recommendations	-	-	-	-	-	-	-	-	-	63
-----------------	---	---	---	---	---	---	---	---	---	----

References	-	-	-	-	-	-	-	-	-	65
------------	---	---	---	---	---	---	---	---	---	----

Appendices	-	-	-	-	-	-	-	-	-	69
------------	---	---	---	---	---	---	---	---	---	----

## LIST OF TABLES

Table 4.1:	Socio-demographic distribution of respondents	-	-	37
Table 4.2:	Duration since HIV status was confirmed and since clients started seeking care in the clinic.	-	-	39
Table 4.3:	Adherence to appointment, awareness and membership of the support group in the clinic	-	-	40
Table 4.4:	Time of arrival on clinic days	-	-	41
Table 4.5:	Assessment of the size, cleanliness and organization of the clinic	-	-	42
Table 4.6:	Average duration of time spent on each clinic visit	-	-	43
Table 4.7:	General feelings Health wise since accessing care in the clinic	-	-	44
Table 4.8:	Average duration of time before seeing a clinician: Hours/minutes	-	-	45
Table 4.9:	Satisfaction with services rendered by the clinician	-	-	46
Table 4.10:	Relationship between the Clinician's services and socio demographic information	-	-	47
Table 4.11:	Average time spent in pharmacy section	-	-	48
Table 4.12:	Number of drugs prescribed to client on each visit and getting all the drugs prescribed	-	-	49
Table 4.13:	The of number drugs the client got, non availability of drugs and action taken when drugs were not available	-	-	50
Table 4.14:	Satisfaction with the services rendered at the pharmacy Section-	-	-	51
Table 4.15:	Relationship between satisfaction with Pharmacy services and Biodata	-	-	52
Table 4.16:	Average time spent before attended to by the phlebotomist. Hours/minutes	-	-	53

Table 4.17:	Satisfaction with services rendered at the laboratory								
	Section-	-	-	-	-	-	-	-	54
Table 4.18:	Relationship between satisfaction with Laboratory								
	Services and Biodata	-	-	-	-	-	-	-	55
Table 4.19:	Satisfaction with services rendered at the counseling								
	Section-	-	-	-	-	-	-	-	56
Table 4.20:	Relationship between satisfaction with counseling								
	Service and Biodata	-	-	-	-	-	-	-	57
Table 4.21:	Average time spent before clients are attended to by								
	the record staff – Hours/minutes	-	-	-	-	-	-	-	58
Table 4.22:	Satisfaction with services rendered at the records/data								
	Section-	-	-	-	-	-	-	-	59
Table 4.23:	Relationship between Records/Data Services and								
	Biodata	-	-	-	-	-	-	-	60
Table 4.24:	Cross tabulation of overall satisfaction with different								
	Services	-	-	-	-	-	-	-	61

## LIST OF FIGURES

2.1	HIV Prevalence by State (HSS 2010)-	-	-	-	-	12
2.2	National HIV Prevalence Trend from 1991 – 2010 (HSS 2010)	-				20

## ACRONYMS

ABU	Ahmadu Bello University
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral
CDC	Centre for Disease Control
FCT	Federal Capital Territory
HAART	Highly Active Antiretroviral Therapy
HCT	HIV Counselling and Testing
HDR	Human Development Report
HIV	Human Immune Deficiency Virus
HRSA	Health Resources and Services Administration
ICASA	International Conference on AIDS and STIs in Africa.
IDU	Intravenous Drug Users
IEC	Information Education and Communications
IHVN	Institute of Human Virology Nigeria
LACA	Local Government Action Committee on AIDS
MDG	Millennium Development Goal
MMWR	Mortality and Morbidity Weekly Report
MPH	Master of Public Health
MSM	Men having sex with Men
NACA	National Agency for the control of AIDS
NAFDAC	National Agency for Food, Drug Administration and Control
NASCP	National AIDS and STI Control Programme

NAUTH	Nnamdi Azikiwe University Teaching Hospital
NEACA	National Expert Advisory Committee on AIDS
NGOs	Non Governmental Organisations
NPC	National Population Commission
NYSDOH	New York State Department of Health
OVC	Orphan and Vulnerable Children
PAC	Presidential AIDS Council
PEP	Post Exposure Prophylaxis
PLWHA	People living with AIDS
PLWHIV	People Living with HIV
PMTCT	Prevention of Mother To Child Transmission
QA	Quality Assurance
QI	Quality Improvement
SAA	Society for AIDS in Africa
SACA	State Action Committee on AIDS
SON	Standard Organisation of Nigeria
SPSS	Statistical Package for Social Science
STI	Sexually Transmitted Infection
UNAIDS	United Nations Programme on AIDS
UNDP	United Nation Development Programme
UNFPA	United Nation Population Agency
USA	United States of America

# CHAPTER ONE

## INTRODUCTION

### **Problem Statement**

Client's satisfaction which is an objective assessment of quality of care has become an important performance measure and outcome of health care. This is important because HIV being a chronic disease and has no cure yet, requires the client to constantly seek the services of the health care providers and the satisfaction of the client should be the focal point of all HIV/AIDS programmes. The relationship between the client and the health provider is vital to the successful implementation of the scale up programmes and universal access to care, support and treatment of the United Nations Joint programme on AIDS.<sup>4</sup>

Since June 1981 that the first case of Acquired Immune Deficiency Syndrome (AIDS) was reported in the United States, the world has witnessed an epidemic of substantial impact on the economy of many nations. In June 5<sup>th</sup>, 2011 the world marked the 3<sup>rd</sup> decade of the existence of a retrovirus that has defied all medical attempts for a cure called the Human Immunodeficiency Virus (HIV).<sup>1</sup>

The origin of this disease has remained a quagmire as no Nation is willing to accept the social stigma associated with its origin, but some great epidemiologists have traced the disease to the homosexuals in Los Angeles a county in the United States of America. The editorial note that accompanied the first published report in *Mortality and Morbidity Weekly Report (MMWR)* in early May 1981 suggested a cellular immune dysfunction related to a common exposure" and a "disease acquired through sexual



contact.”<sup>2</sup> This report brought the early awareness of the virus in the United States and thus a need for further research on the disease and national surveillance.

However, in recognition of the need to respond to the complex social, health and developmental challenges inherent in HIV/AIDS, the United Nations General Assembly Special Session in (UNGASS) 2000 declared HIV/AIDS an issue of international security and was made it an integral part of the Millennium Development Goal (Goal 6). Which is to halt and reverse the spread of HIV by 2015, and in 2006 the United Nation made a declaration towards universal access to HIV prevention, treatment, care and support.<sup>3,4</sup>

In spite of all these, the clock is still ticking, nations are still being ravaged, lives are still being lost especially in the poorer nations, thus making non-sense of the technological advancements of the 20<sup>th</sup> century. In the words of Joanna Megeary in an article titled death stalks a continent, society’s fittest, not frailest, are the one who die, adults are spirited away, leaving the children behind. You cannot define risk groups; everyone who is sexually active is at risk. Babies too (are) uninvitingly infected by mothers. Barely a single family remains untouched. Most do not know how or when they have it, many who do know don’t tell anyone as they lie dying”.

The 30 years of the existence of HIV has witnessed global reduction in life expectancy, per-capita income, aggressive weakening of the health care delivery system, thus making the African dream impossible or difficult to achieve.

Statistically, the Joint United Nations Programme on AIDS (UNAIDS) report of 2010 which refers to the end of 2009 puts the global estimate of people living with HIV/AIDS as 33.3 million, which is in variance with the 8 million estimate of 1990. The report also puts the AIDS death in 2009 as 1.8 million people, making about 30 million

people that have died from AIDS related cases since the beginning of the epidemics.<sup>1</sup> Though there is a decline of 18% of AIDS related deaths from 2004 to 2009 which may not be unconnected with expansion of Anti-Retroviral Therapy (ART) globally. In 2009 alone, about 16.6 million children between the ages of 0-17 years were orphaned due to AIDS; this in turn has created more pressure on the already tensed economy of the world and a devastating effect of socioeconomic deprivation to these children.

Interestingly, there is marketed regional and national variation on prevalence of HIV/AIDS which supports the view that more developed nations have better capacity to contain the spread of the disease than the underdeveloped and developing nations. The western and central Europe has a prevalence of about 820,000, north America about 1.5 million people, Eastern and central Asia about 1.4 million, south and central America about 1.4 million and south and south east Asia about 4.1 million people.<sup>1</sup> The sub Saharan Africa which is just about 10% of the world population has about 22.5 million people living with HIV/AIDS which accounts for about 68% of the world prevalence and the greatest burden of the epidemic.<sup>1</sup> The prevalence also varies considerably across sub Saharan Africa, from 0.2% in Madagascar to almost 26% in Swaziland. The region in 2009 had about 1.3 million deaths from AIDS related disease and it is the home of about 90% of the 16.6 million children orphaned by AIDS world wide.<sup>1</sup>

The continent having realized the danger ahead and the greatest burden in the region has decided to respond to this epidemic through regional collaboration and partnership with a wake-up call to countries in the continent to begin a multi-sectoral approach to reduce the burden of the disease. To this end, the society for AIDS in Africa (SAA) the organizers of the International Conference on AIDS and Sexually Transmitted

Infections in Africa (ICASA) was formed, which now organizes a biannual conference to respond to this continental challenge. The 2011's theme Addis Ababa 2011 is own, scale up and sustain".

Nigeria is not left out in this global public health problem as she has her share of the devastating effect of AIDS in a nation. The first case of AIDS in Nigeria was diagnosed in a 13 year old girl in 1986, but there was no concerted effort to curb the spread of the epidemic as it was not perceived as a threat to the nation.<sup>5</sup> Today, the 2010 National HIV Sero-prevalence report from the Federal Ministry of Health puts Nigeria at 4.1%, which is about 3.1 million people living with HIV/AIDS and about 1.5 million of this population requires antiretroviral drugs.<sup>6</sup> Truly a declining trend of HIV prevalence is noticed, from the lowest of 1.8% in 1991 to all time highest of 5.8% in 2001 and a steady decline of 4.4% in 2005 and 4.1% in 2010.<sup>6</sup>

This National prevalence may be lower than that of many African countries but with a large population of about 140,003,542 people, the prevalence of 4.1% is a major public health concern as Nigeria has the 2<sup>nd</sup> largest prevalence in the world after South Africa and about 9% of the world burden of AIDS. There is also zonal and state variation of the spread of the disease in Nigeria which ranged from 1.0% in Kebbi State to 12.7% in Benne State and 2.3% in North West zone to 7.5% in North Central Zone<sup>6</sup>. FCT has a prevalence of 8.6%, though more than the national average with disparities between the rural and more urban areas. It ranges from 6.3% in Gwagwalada to 12.3% in Wuse/Garki.<sup>6</sup> Nigeria has a commutative death from AIDS to be estimated at about 2.1 million, annual death from AIDS to be about 215, 130 people and about 2,229,883 children orphaned by AIDS.<sup>7</sup> More than 80% of HIV transmission in Nigeria is through

hetero sexual sex, among key population at higher risk are the sex workers with 24% prevalence, among MSM with 17% and intravenous drug users (IDU) about 4%.<sup>5</sup> The real propellant of the epidemic in Nigeria includes high illiteracy level, poverty, low condom use, vulnerable groups, high rates of sexually transmitted infections (STIs) and low awareness in the rural communities where more than 70% of the country's population resides.

The Nigeria's national response to HIV/AIDs has been very poor and was health sector driven between 1986-1999, when the federal ministry of health facilitated the first HIV/AIDs policy which was written and adopted in 1997.<sup>8</sup> Then the focus was only on prevention, but the persistent rise in the prevalence the subsequent years led to the renewed emphasis on multispectral approach to tackle the disease.

In 2000, the presidential action committee on AIDS (PAC) was established under the presidency to coordinate the multispectral approach to the control of AIDS. In May 2007, the committee was transformed to an agency called National Agency for the control of AIDS (NACA). Nigeria introduced the antiretroviral programme in 2002, and then patients were paying about ₦1000 to access drugs every month.<sup>9</sup> The free antiretroviral policy began in 2006 which led to increased access to treatment in many parts of the country, today she has about 359,181 people on ARVS, though most of the HIV control programmes in Nigeria are donor driven.<sup>7</sup>

The introduction of ARV in the treatment of HIV via the public health system has shown that AIDs can be transformed from a fest, insidious killer into a more manageable, though still incurable Chronis illness. In developing and poor countries of the world where shortage of manpower has become a threat to the health system with ever growing

population of people requiring care, support and treatment, the need for client's satisfaction can no longer be overemphasized.

In Nigeria, the glaring need for client's satisfaction with services for care, support and treatment of HIV/AIDS patients has attracted great attention considering the fact that in sub Saharan Africa HIV/AIDS is associated with so much stigma and discrimination. The Nigeria's national policy on HIV/AIDS attached much importance to client's satisfaction through improvement in quality of care to HIV/AIDS patients. To this end, the national guideline on care, support and treatment was developed to close the noticed gaps in the services rendered to HIV/AIDS patient in the country. Also most donor programmes in Nigeria have developed technical committees at both strategies and operational level a quality assurance (QA) and quality improvement (QI) in their programmes as integral components. These committees meet regularly to assess the quality of services given to HIV/AIDS patient and the impact on their quality of life which however becomes a veritable tool for informed decision making.

### **Justification**

Globally, there has been a growing concern on the need to improve the quality of services to HIV/AIDS clients to enhance optimal satisfaction of the clients. This has become necessary since good quality care helps to reduce the spread of the disease.

Recently, there has been much emphasis on prevention of "positives" which entails the use of ART to reduce the spread of the disease as reduction of viral loads also reduces the transmissibility of the virus, but this cannot be achieved without the client being satisfied with the services he or she receives.

Nigeria has the 2<sup>nd</sup> largest number of people living with HIV/AIDS after South Africa, with a population of about 3.1 million people living with HIV/AIDS and about 359, 181 already on antiretroviral therapy (ART), the need for an assessment of client's satisfaction in the care, support and treatment of HIV/AIDS cannot be overemphasized. This is because the country will have a big challenge in financing the treatment of more clients, and the adverse effect of resistance if those on treatment stop accessing care. In addition, FCT has a current HIV prevalence of 8.6% which is higher than national average and will require large number of people for care, support and treatment.<sup>6,10</sup>

The Asokoro General Hospital ART program, though donor driven is sited in a secondary health facility which is perceived to be a high level of healthcare in the country, the centre offers free care, support and treatment for HIV/AIDS patient. The centre which is believed to be the largest treatment centre in Abuja, North Central Nigeria with approximately 9000 clients enrolled to care and of about 70 clients per month in take. The centre has become a beehive of activities on every work day ranging from regular adult visits, prevention of mother to child transmission clinic, pediatric AIDS clinic, HIV counseling and testing (HCT), vocational training, orphan and vulnerable children (OVC) services and technical support to peripheral linkages etc. Nevertheless, the author is not aware of any research work done on client's satisfaction since the inception of the programme.

Also the site being a donor driven programme requires to meet up to the targets given by the funders, which includes maximum enrollment and retention of the clients which will guarantee further funding of the programme. This great task cannot be achieved without emphasis on satisfaction and subsequent retention of the clients. Also

the author has noticed a high enrollment rate to the programme and a significant number of lost to follow up, (which are clients who have not visited the clinic in the last 6 months without permission) ranging from 100 – 150 clients yearly. There is also a need to unravel why clients come to the clinic as early as before 7am on every work day. Abuja is a centre for governance, National unity, Education, and Commerce and has multicultural and ethnic variation with at risk groups such as, commercial sex workers, long distance drivers, the military personal and students. A good assessment of client's satisfaction in this city will assist in estimating satisfaction in other cities and peripheral centres.

## **Aims and Objectives**

### **General Objective**

To assess the satisfaction of people living with HIV/AIDs with the services for care, support and treatment at Asokoro General Hospital Abuja – Nigeria.

### **Specific Objectives**

1. To assess the level of satisfaction of the clients by the services rendered by the clinicians.
2. To assess the level of satisfaction of clients by the services given by the nurses and counselors.
3. To assess the level of satisfaction of the clients by the services offered by the laboratory and pharmacy staffs.
4. To assess the level of satisfaction of the clients by the services rendered by the data/record staffs.

## **Research Questions**

1. Are HIV/AIDS clients in Asokoro General Hospital ART clinic satisfied with the different component of the services rendered to them?
2. Are there factors that affect satisfaction with ART services?
3. Are the clients in Asokoro General Hospital ART clinic attended to in line with the National guideline on ART services?



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **Overview of HIV/AIDS**

Over the last 30 years, the world has experienced a global pandemic from HIV/AIDS, which has become a major public health problem globally. Many people have said it is as result of man's carelessness, others attribute the disease to punishment from God as it is widely perceived in Africa. Irrespective of all these beliefs, the disease has persistently been taking its toll in the inhabitants of the earth. A human immunodeficiency virus, which means it affects human only and has predilection for the immune system, renders it useless and the affected person becomes susceptible to all kinds of infection. The natural history of the disease spans from the time of infection to about 10years to death without intervention. The major routes of transmission include heterosexuality, homosexuality, infected blood products, sharps, and mother to child transmission.

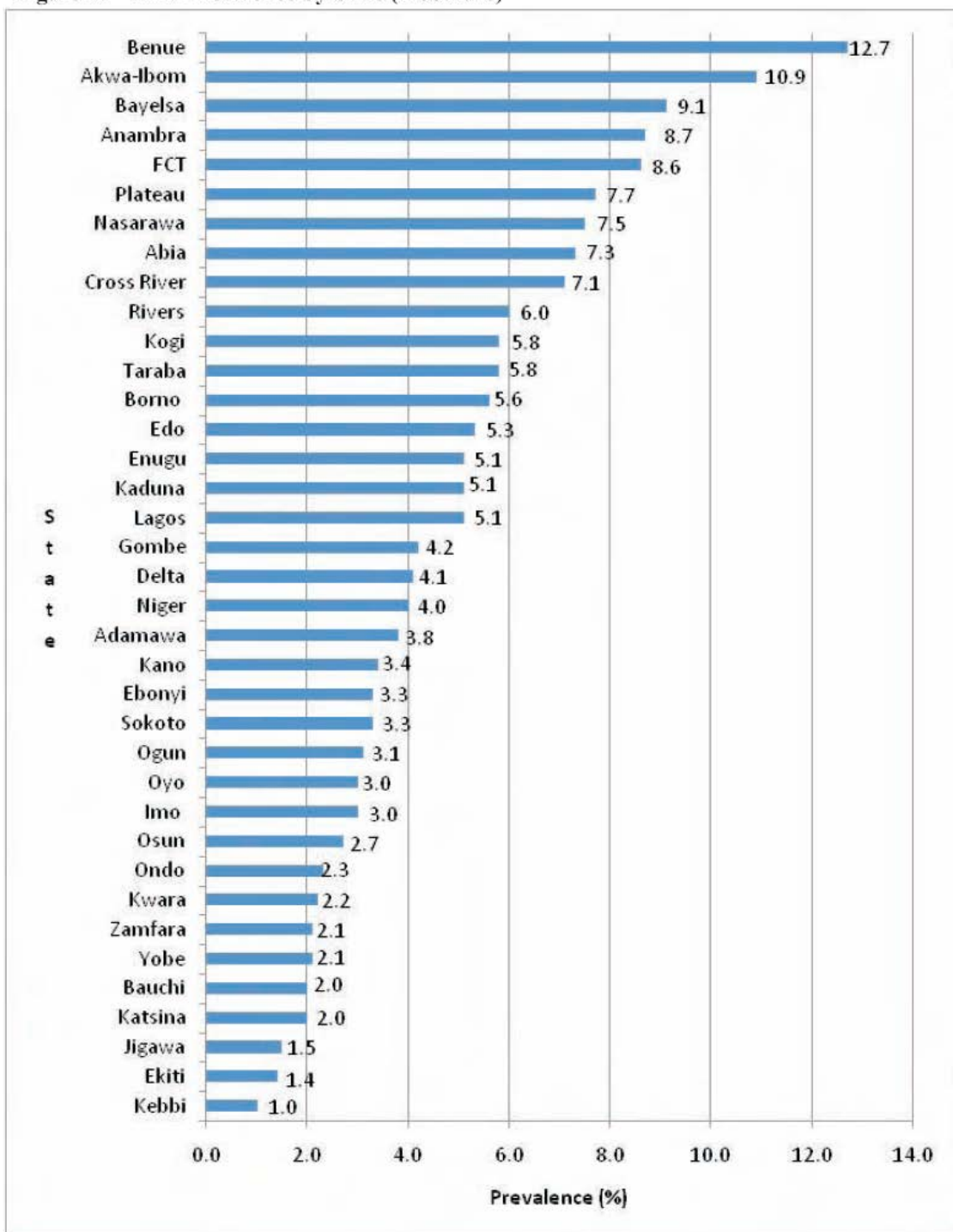
According to the global summary at the end of 2009, an estimated 33.33 million people were living with HIV/AIDS (PLWHA) of whom 2.5 million were children less than 15 years and estimated number of new infection were 2.5million.<sup>1</sup> There has been startling increase in the number of people living with HIV/AIDS, which rose from about 8 million in 1990 to the current figure. Since the beginning of the epidemic, nearly 30 million people have died from AIDS related causes. In 2009, there were about 1.8 million deaths from AIDS related causes, and about 16.6 million AIDS orphans. During 2009, about 2.6 million people become infected with HIV, including an estimated 370,000

children.<sup>1</sup> Most of the children are babies born to women with HIV, who acquired the virus during pregnancy, labour or delivery or through breast milk.

The poor countries of the world are the worst hit in this epidemic as the overwhelming majority of people with HIV live in middle and low income countries. The south and south East Asia has the second highest number of people living with HIV in world. The sub-Sahara Africa is by far the most affected by the AIDS epidemic, though the region has about 10% of the world's population, but it has about 68% of all people living with HIV. An estimated 1.8 million adults and children became infected with HIV during 2009, contributing to a total of about 22.5 million people living with HIV in the region.<sup>10</sup> The worrisome statistic from the region may not be unconnected with the recurrent wars, poverty, low level of education and pervasive corruption by leaders of the region.

Nigeria currently a democratic Federal Republic consisting of 36 states and the Federal Capital Territory with 774 Local Government Areas is not left out of this global epidemic. Nigeria is the most populous country in Africa with a population of about 167 million of which approximately two-thirds of the population live in rural areas and a median age of 17 years.<sup>11,12</sup> Life expectancy at birth increased from 45 years in 1963 to 52 years in 1991 and this was mainly due to improved living condition and better health services. This dropped to 46.5 year by and currently, it is 48.5 years.<sup>13</sup> The reduction in life expectancy may be partly due to the effect of the HIV/AIDS epidemic on the population. Today the report of the 2010 Sero-prevalence survey revealed a national prevalence of 4.1%.<sup>6</sup> The prevalence ranged from 1% in Kebbi State to 12.7% in Benue State as illustrated in figure 2.1.<sup>6</sup>

**Figure 2.1: HIV Prevalence by State (HSS 2010)**



The State prevalence ranged from 1.0% in Kebbi State to 12.7% in Benue State <sup>5</sup>.

A total of 16 states and FCT had prevalence above 5%, more in the urban than rural areas except in eight states. Though a declining trend of HIV prevalence was noticed, from as low as 1.8% in 1991, to an all-time highest of 5.8% in 2001 to a steady trend of 5% in 2003 to 4.4% in 2005.<sup>6</sup> Based on the overall national prevalence of 4.1% obtained in this survey, it is estimated that 3.1 million people in Nigeria are living with HIV/AIDS in 2010, of these people; about 1.5 million require ARV drugs.<sup>7</sup>

### **HIV/AIDS Care Support and Treatment**

In the absent of any intervention, the disease runs a natural course from the time of infection to death which could be up to 10 years. However, the rate of progression of this disease depends on the host immunity, life style, nutrition, and co-morbidity as some people are slow while others are fast progressors. The disease starts from a non-specific symptom at sero conversion to full blown AIDS defining symptoms which includes chronic weight loss, spurious diarrheal disease, chronic cough and dermatological changes. There is hardly any organ of the body that is not affected by HIV. <sup>14,15</sup> For example up to 50% of people with HIV/AIDS develop tuberculosis, in some; regions of Africa, up to 77% of tuberculosis patient also have HIV. Also some review reported wasting syndrome in 18% of cases; or pharyngeal candidiasis in 16%, Kaposi sarcoma in 7%; chronic diarrhea is 15%; systemic cytomegalovirus infection in 8%.<sup>14,15</sup>

HIV/AIDS care, support and treatment refer to services provided to people living with the disease and their family these services include;<sup>46</sup>

- **Clinical Care:** HIV counseling and testing (HCT), prevention of mother to child transmission (PMTCT), managing opportunistic infection, palliative care, nutritional support and anti-retroviral therapy (ART).
- **Psychosocial support:** Counseling, orphan and vulnerable children's care (OVC), community support services and spiritual care.
- **Socio-economic support:** Material support, economic security and food security.
- **Human rights and legal support:** Reduction of stigma and discrimination, succession planning and participation of PLWHAs.

In a study conducted in Uganda on service provision assessment survey data was collected from 491 representatives' health facilities of all levels in the country (health centre up to hospitals).<sup>16</sup> These included both public and private providers, who are expected to have similar HIV/AIDS package, according to the survey;

- HIV/AIDS care and support services involve curative care for HIV/AIDS related illnesses and provision of counseling to help PLWHAs.
- Clinical care and support services include providing ART, follow-up services for people on ART, treating opportunistic infections, palliative care like pain management and nutritional rehabilitation.

The survey reported that 61% of the facilities offered HIV/AIDS care and support while 57% offered clinical care and support. It also revealed that 98% of the hospital and 99% of health centres offered 60% services. The figures were lower for health centres 71% had HIV/AIDS care and 68% had clinical care, private facilities were more likely to offer either services than government ones. The study made sure that the study sites were offered both HIV/AIDS care and clinical care and support services.<sup>16</sup> The availability of

these services reflected good quality care at the health facility and ensured that clients were interviewed about the care that they were actually supposed to receive.

In recognition of the need for care, support and treatment, the United Nation in 2006 encourage government to make a political declaration on HIV/AIDS, countries committed to provide universal access to HIV prevention, treatment, care and support services to all those in need by 2010.<sup>4</sup> This declaration was aimed towards achieving Millennium Development Goals (MDGs), particularly goal 6 which seeks to halt and reverse the spread of HIV by 2015. Throughout 2010 and in early 2011, UNAIDS supported counties to review progress towards universal access. A total of 117 country reviews were planned to access global response to the epidemic.<sup>4</sup>

### **International Guideline for HIV/AIDS Care**

In line with international best practices that guarantees best quality of services, the WHO developed set of standards to help member states develop National quality evaluation and accreditation programs for health care facilities providing HIV/AIDS care and to improve the quality.<sup>17</sup> These standards were in different categories which include functions related to health care delivery; functions related to links with the communities and functions related to service delivery.

Functions related to health care delivery include caregivers routinely assessing clients for the process of opportunistic infections and tuberculosis and treating or referring them; use of a transparent process to identify people who will receive ART; following standard management protocols based on national or WHO guidelines for PLWHAs; following guidelines for PMTCT and giving additional counseling to mothers

with HIV/AIDS on other aspects like infant feeding and appropriate assessment and management of pain of PLWHAs.

Functions related to service delivery include stocking and appropriate and high quality selection of medicine, reagents and supplies, ensuring their availability; providing adequate information to people getting drugs about their uses, doses and adverse reactions; availability of laboratory test and well maintained laboratory equipment. These standards can be used for both accreditation and inspecting service quality.

Quality was identified as a major problem with the guide established to help countries monitor and evaluate their HIV/AIDS care and support programs.<sup>11</sup> It was observed that indicators measure the availability of staff but not the quality of training, there was no feedback on the indicators like client interview with PLWHAs. The guide strongly recommends that questions related to the quality of care and supports are complemented with indicators, these include clients exit interviews and focus group discussion. These international guidelines are constantly reviewed in line with recent discoveries and products of researches, for example in 2009 the WHO gave a rapid advice, which brought a change in the international guideline on need for early commencement of ART on HIV positive infants to avoid rapid immunosuppressant and disease progression.<sup>18</sup>

### **Nigerian National Guideline for HIV/AIDS Care, Support and Treatment**

As part of response of the Federal Government of Nigeria, the Ministry of Health through collaboration with its partners developed national task teams on HIV/AIDS. The term include; those for adult ARV, PMTCT, pediatric ARVs, HCT, orphan and venerable children. These teams develop national guidelines and standard operational procedures

for care, support and treatment of HIV/AIDS depending on their mandate. These guidelines are extracts from the international one but with modifications to meet the local needs of the country. There is the guideline for reduction of mother to child transmission (MTCT), various breastfeeding options, family planning options for HIV/AIDS clients, and use of ART prophylaxis. The national guideline for adult and children emphasizes when to commence ART, recommended regimen, when to switch for salvage regimen, post exposure prophylaxis, (PEP), adverse drug reactions and its management. The guideline on HCT, deals with counseling skills, quality interpersonal relationship and training of staff involved in counseling. The last national guidelines were updated in 2010 and it is used currently nationwide.<sup>18,19</sup> It is worthy of note that much success will not be made even with the best of these National ART guidelines without constant training and retraining of the care givers.

### **Nigeria's Response to HIV/AIDS**

On discovery of the first AIDS case in a 13 year old girl in 1986, the government constituted a national expert advisory committee on AIDS (NEACA), who did not really understand the disease very well and thus much success was not made in reducing the spread at that early stage.<sup>9</sup> In 1988, the committee was replaced by the national AIDS and STD control programme of the Federal Ministry of Health. There was much effort to successfully produce the first national policy in HIV/AIDS in 1997.<sup>9</sup> However the policy was poorly implemented as the response was mainly health sector driven and only focused on prevention.



The taugth provoking increase in the prevalence of HIV/AIDS in the subsequent years led to the establishment of the presidential committee on AIDS (PCA) in 2000 which was headed by president Olushegun Obasanjo and some key ministers and its operation was domicile in the presidency. The National Action Committee on AIDS (NACA) was also established which has its role to facilitate a Multi-Sectoral approach to the control of the disease. The HIV/AIDS Emergency Action Plan (HEAP) was one of the earlier programmes of NACA to create the enabling environment to control the spread, provide care and support and mitigate the impact of HIV/AIDS in Nigeria.<sup>8</sup>

In May 2007, the committee was transformed into an agency through an act of parliament, thus the National Agency for the Control of AIDS (NACA) was established. States and local governments were encouraged to establish state and local agencies for the control of AIDS respectively. NACA's mandates include;

- Formulate policies and guideline on HIV/AIDS
- Mobilize resources (local and foreign) for HIV/AIDS activities
- Support HIV/AIDS research in the country
- Advocate for mainstreaming of HIV/AIDS intervention into all sectors of the society
- Plan and coordinate activities of the various sectors in the strategic framework of the national response
- Monitor and evaluate and HIV/AIDS activities in the country.
- Provide and coordinate linkages with the global community on HIV/AIDS.

Currently, HIV counseling and testing (HCT) and anti-retroviral therapy (ART) care are rapidly expanding intervention programmes. The multi-sectoral response has

resulted in an improved resource mobilization and coordination of all the stakeholders (public, private, civil societies and development partners) through the application of the principle of “three ones” i.e one national structure, one strategic plan and one monitoring and evaluation framework.

In 2001 the federal government of Nigeria started the ART program which became operational in 2002, but the service was made free in 2006 to increase access to care and support.<sup>9</sup> Today there are about 359,181 people on ART while PMTCT services has improved from 5.3% in 2007 to 11% in 2010 with about 684 PMTCT sites.<sup>7</sup> The HCT services also got a boost as there are about 1064 health facilities providing HCT services. Also access to treatment for HIV/AIDS rapidly doubled from 16.7% in 2007 to 34.4% in 2008.<sup>7</sup> These coordinated actions may have contributed to a decline in the prevalence trend as illustrated in figure 2.2.

**Figure 2.2: National HIV Prevalence Trend from 1991-2010 (HSS 2010)**

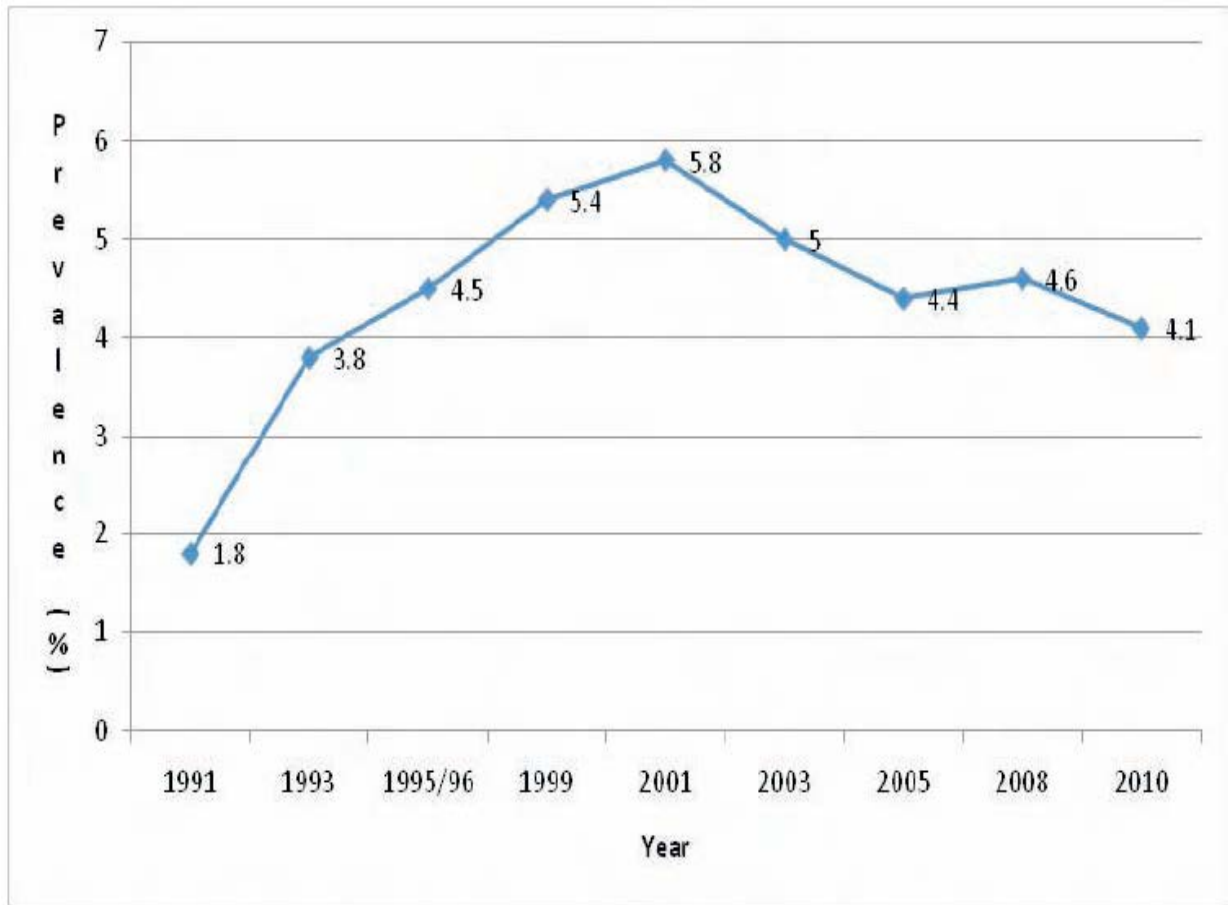


Figure 2.2 shows the trend of HIV prevalence among pregnant women attending antenatal clinics in Nigeria from 1991 to 2010. The HIV prevalence increased steadily from 1.8% in 1991 through 4.5% in 1995 and peaked at 5.8% in 2001. Thereafter, it declined to 4.4% in 2005 and stabilized between 4.4% (2005) and 4.1% in 2010.<sup>6</sup>

Though statistics shows that at least 80% of all Nigeria will have comprehensive knowledge on HIV/AIDS by the year 2015 alots needs to be done on behavior change communication (BCC) and reduction of stigma and discrimination.<sup>7</sup> However, a lot needs to be done as there are about 1.5 million PLWHAs that require ART in the country and only one third of this number has access to ART.

### **Clients' Satisfaction**

The concept of client's satisfaction has recently become a crucial component of health care delivery services as it has become an important measure of the quality of health care delivery. The study of client satisfaction began in late 1970s and early 1980s due to commercialization of medicine and increasing interest in individual experience among social scientist. Studies have shown that client's with higher level of satisfaction often make important behavioral changes such as keeping to appointment, adhering to medical advice and treatment, maintaining more stable relationship with health care providers and creates opportunity for improved health outcomes.

Programmatically, measuring client's satisfaction with services for HIV/AIDS care, support and treatment has helped many programs to focus on quality improvement efforts, assess the strength and weaknesses of the HIV program, strengthen communications and build relationship with the patient and create baseline data against which to measure changes in patient satisfaction.

There are many definitions from different authors as regards to client satisfaction. It has been defined as the degree to which desired goals have been achieved. It can also be said to be what happens when clients perception of the quality of care and services that

they receive in the health care setting has been, positive, satisfying and meets the expectation.<sup>20</sup> It was also defined by Rapkin as an important indicator of quality of service that shows the relationship between services and treatment outcome.<sup>21</sup> Some said it a valuable competitive tool; helps to improve patients quality of life and help service providers determine customer's specific problem that require attention. Though a subjective assessment, client satisfaction is a veritable tool that focuses more at the patient who truly should be the centre of any discussion in HIV/AIDS care.

Different studies have been carried out for the assessment of client satisfaction in services for HIV/AIDS care, for example a study conducted in London to assess consumer's view on needs and services for HIV/AIDS clients, over 95% of respondents reported appreciating the friendliness and relaxed manner of staff and over two-third valued "being given positive encouragement or reassurance" about their condition. The authors conclude that HIV/AIDS patients were generally satisfied with the services dedicated to their health needs.<sup>22</sup> Also in another study conducted in Canada to evaluate patient satisfaction in a specialized HIV/AIDS care unit of a major hospital, quality of care were assessed based on respect, friendliness, responsiveness, courtesy, perceived competence of clinical care, extent of involvement in care decision and support of patient by professional staff. The author observed client satisfaction ratings ranged from 88 to 92%; and that findings may be used to improve client's satisfaction.<sup>23</sup>

The doctor patient relationship has been observed to be a very important factor in determining the level of client's satisfaction. In a study conducted in HIV/AIDS care centre in Boston, Massachusetts on the doctor patient relationship and HIV infected

patient's satisfaction with primary care physician, the author observed that the doctor patient relationship factors explained 56% of the patient satisfaction.<sup>24</sup>

Though HIV/AIDS services are free in most countries in sub Saharan Africa including Nigeria, cost of payment to access care has been observed as a challenge to client's satisfaction. In a study conducted in the USA to assess factors associated with patient satisfaction among symptomatic HIV infected persons. The study assessed it by measuring access to care, interpersonal relationship and overall or global satisfaction. The author observed less satisfaction with interpersonal care among drug users and less satisfaction with access to care among those with public or no insurance.<sup>25</sup>

Local studies done in sub-Sahara Africa suggest high level of client satisfaction in HIV/AIDS care, for example a study done in south Africa about client's perspective on HIV/AIDS care and treatment, the author reported that at that particular health facility, respondents were very satisfied with services received. For women it was because they were given enough time to talk and were taken seriously by providers but there were staff shortage and long waiting time. However, the study was a qualitative study with a small sample size and was done at only one public health facility.<sup>10</sup> Also the study on client satisfaction done in Nnamdi Azikwe University Teaching Hospital (NAUTH), Nnewi, the author noted least level of satisfaction with access to care while they expressed greatest satisfaction with good patient care and quality of service by staff.<sup>27</sup> However, the limitation of this study is that the study was carried out when patients pay for services rendered which is no longer obtainable in most ART centres in Nigeria.

The study done in state house clinic in Abuja the federal capital territory of Nigeria, to assess the quality of HIV care, the author observed an overall client's

satisfaction with services to be 98%. The satisfaction with doctors, pharmacists, laboratory staffs were 94.5%, 95.2% and 94.4% respectively, and the average waiting time appears to be longer than expected.<sup>28</sup> Though this study signified high level of client's satisfaction, but the main limitation of this study is the study was done in a centre that is expected to give the highest quality care in the country considering that the President, the Vice President and other top government officials attend the clinic for health care needs. The predictors of this levels of clients satisfaction was found to be high level staff motivation, state of the arts medical equipments, privacy, confidentiality and good attitude of staff.

### **The Concept of Quality**

In all facet of life today, people have realized that for a product to provide the required satisfaction, it must have some degree of qualify. This means a standard has to be met by the service provider. Quality has been defined by several scholars and considered as an entity with different meaning by different people. The Wester dictionary defines quality as the degree of excellence or superiority of kind, while the chambers dictionary defined it as degree of worth. Some defined it as doing the right thing the right way or the totality and feature of product or services to satisfy slated or implied needs.<sup>29</sup> In Nigeria today, there are several government agencies such as NAFDAC, SON, SERVICOM and consumer protection council whose responsibilities are to make sure consumers derive the maximum satisfaction of goods and services through approved, quality of products.

In the medical field, the concept of quality is as old as the medical profession as the Hippocratic Oath prescribes, do no harm and preserve life.

The early medical professionals such as Florence Nightingale, Anest Cordman, Edward Martins etc, played great role in the evolution of quality.<sup>29</sup> Today virtually all over the world, the medical profession is strictly regulated by medical councils whose duty is to improve and maintain good quality care to the people.

Based on the enormous importance of quality, it is recommended that it should be regularly assessed in health care delivery service to improve quality of life.

### **Quality of Care**

In 1990, the Institute of Medicine defined quality of care as the degree to which health services for individuals and populations increases the likelihood of desired health outcome and are consistent with current professional knowledge. The World Health Organization (WHO) defined quality care as consisting of the proper performance (according to standard) of interventions that are known to be safe, that are affordable to the society in question, and that have an ability to produce an impact on mortality, morbidity, disability and malnutrition.<sup>17</sup> According to the American Medical Association Council Service 1986, high quality care is that which consistently contribute to improvement or maintenance of the quality and or duration of life. This means that quality care produces optimal improvement in psychological, physical, emotional and intellectual performance.

There are two broad categories of quality in health care, i.e technical quality and functional quality. The technical quality is referred to as the technical accuracy of the



diagnosis and procedures. The functional quality is the manner in which health care services are delivered to the patient.<sup>30</sup> There are various dimensions of quality; however the most popular of all these is the Avedis Donabedian model. According to the institute of medicine (IOM), the Donabedian model categorizes dimensions of quality into structure, process and outcome indicators.<sup>31</sup>

**Structure indicators:** for example whether staffs are qualified and facilities well equipped.

**Process indicators:** whether ART is given according to established protocols.

**Outcome indicators:** like rate of adherence to ART or patient satisfaction.

Evaluation an improving quality of care is a critical activity for providers and public health agencies to ensure that effective HIV care and treatment is being delivered to people with HIV.

The importance of this task has been highlighted by several organizations including the New York state Department of Health (NYSDOH), AIDS institute, the Health Resources and services administration (HRSA) and the World Health Organization (WHO). A number of indicators have been proposed to measure the quality of HIV care, including use of highly active antiretroviral therapy (HAART) for eligible patients, rate of opportunistic infection prophylaxis and performance of screening test for infections and other disease. The use of viral load suppression has also been very useful in the assessment of quality of care in HIV patients.

## **Definition of Terms**

### **1. Quality assurance: (QA)**

This is a program that sets quality standards and assess performance of professional institutions with respect to those standards and attempt corrective actions when the divergence of the action exceeds acceptable limit.

QA = quality assessment + quality improvement and control.<sup>29,17</sup>

### **2. Quality Improvement (QI)**

This is defined as the visible action that is associated with quality care it is the action component of quality improvement.<sup>29</sup>

### **3. Quality Control**

This is a mechanism or control knob that regulates deviation from acceptable quality of service.<sup>29</sup>

### **4. Total Quality Management**

This is defined as cost effective system for integrating, continuous improved effort of people at all levels in an organisation to deliver product and services which ensures customer satisfaction. This represents a paradigm shift from management base of error detection and correction to error prevention.<sup>29</sup>

### **5. Quality Assessment**

This is the measurement that is used in the assessment of quality of care.<sup>29,17</sup>

### **6. Adherence.**

A client's behavior coinciding with the prescribed health care regimen as agreed upon through a shared decision making process between client and health care provider.<sup>17</sup>

**7. Services**

All services provided for the clients in the hospital including examination, treatment, admission, referral, information, education and counseling test.<sup>17</sup>

**8. Client**

Those people who are living with HIV/AIDS and on follow up at Asokoro General Hospital ART clinic.

**9. Satisfaction.**

Client's view and perception towards the services rendered.

## CHAPTER THREE

### METHODOLOGY

#### Background of the Study Area

Abuja the Federal capital Territory of Nigeria is located in coordinates  $9^{\circ} 41' 0''$  N,  $7^{\circ} 29' 0''$  E. It has a total land area of  $713 \text{ km}^2$  (275.3 sqmi) and a population of 776, 298. The city was created in 1976 while it was built through the 1980s. It officially became Nigeria's capital on December 12, 1991 replacing the role of previous capital Lagos. Abuja is the official seat of Power for all Executive, Legislative and Judicial functions.<sup>32</sup>

The Territory is north of the confluence of the Niger and Benue Rivers. Bordering the FCT are the States of Kaduna to the northwest, Plateau to the east and the south, Kogi to the southwest and Niger to the west and northwest. The Federal Capital Territory falls within the Savannah Zone of the West African sub-region. The FCT has six Local Governments Area Councils for administrative purposes. The activities of FCT are overseen by a Minister appointed by the President.<sup>32</sup>

The FCT has people from all parts of the Country and densely populated by public servants and business men. The Asokoro General Hospital ART Clinic is located in Asokoro district of Abuja. The ART programme is being implemented by the Institute of Human Virology Nigeria (IHVN), which is a donor assisted programme in HIV/AIDS control. The Centre is known for high standard of care within the FCT and its environs. The health care providers are regularly trained in line with national guidelines on the management of HIV/AIDS in the country.

## **Study Population**

The study population is made up of people living with HIV/AIDS (PLWAHAS) that are attending the Asokoro General Hospital ART clinic for care, support and treatment.

## **Inclusion Criteria**

1. Patient must have been confirmed to be HIV positive
2. Client must be above fifteen (15) years of age
3. Must have a Hospital identification number
4. The client must have at least attended the clinic once
5. Willingly accepted to be part of the study.

## **Exclusion Criteria**

1. Client who refused to participate in the study
2. Clients who are very sick and cannot understand the study
3. Mentally impaired clients
4. Client who are attending the clinic for the first time.

## **Study Design**

A cross sectional descriptive study, conducted on adult clients living with HIV and AIDS who are on follow up at the Asokoro General Hospital ART clinic.

## Sample Size Determination

The sample size was calculated using a formula for estimating single population proportion for cross-sectional studies that is corrected for finite population. Taking the assumptions, using very recent local and international studies done on client satisfaction with ART services, proportion of great satisfaction of 80% at 95% confidence level and with a margin of error of 5%. The sample size was then calculated as follows:

$$\text{Sample Size desired, } n = \frac{Z^2 pq}{d^2} .^{39}$$

z = Standard normal deviation at 95% confidence level = 1.96.

P = Proportion of study population who were satisfied with quality of care = 80% = 0.8<sup>33</sup>.

q = 1-p, proportion of study population who were not satisfied with the quality of care = 20% = 0.2

d = degree of accuracy (precision) that was desired = 0.05

Therefore

$$\begin{aligned} n &= \frac{1.96^2 \times 0.80 \times (1 - 0.8)}{0.05^2} \\ &= \frac{3.84 \times 0.8 \times 0.2}{0.025} \\ &= 245.7 \end{aligned}$$

However, since the sample population is less than 10,000.

$$nf = \frac{n}{1 + \frac{(n)}{N}}$$

Where nf = The desired sample size when population is less than 10,000.

n = The desired sample size when the population is more than 10,000.

N = The estimate of the population size.

$$\text{Therefore, } nf = \frac{250}{1 + \frac{(250)}{9000}}$$

$$nf = \frac{(250)}{1.02}$$

$$nf = 245$$

However, 10% of the minimum sample size was added to make it 270.

### **Sampling Technique**

As at the time of sample collection, the total number of adult people who are receiving care, support and treatment in the program's record was estimated to be about nine thousand (9000). However, daily clinic attendance was estimated as 750 from the clinic register, as the clinic runs 3 times weekly. This however formed the sampling frame. Since the inception of the program, every client receiving care in the clinic is registered with a unique identification number. Using a sample ratio of  $\cong 3$  (i.e 750/270), a simple random sampling was done from the first to third client and the second client was chosen as the first respondent, subsequently 3 was added to chose the next respondent and the sampling continued. This method excluded bias and captured clients evenly irrespective of duration of treatment.

However, if the 3<sup>rd</sup> client did not consent to the study, the next person (4<sup>th</sup>) is chosen and sampling continues.

### **Instrument of Data Collection**

The data was collected using an open ended questionnaire design to capture the objectives of the study. The SERVQUAL tool was adapted and modified to suit the study

environment. The SERVQUAL tool is a multiple item scale that measures expectations and perception of consumers about service quality. It assesses five dimensions of service quality. These were assessed in the different components of the service i.e clinician, pharmacy, counselling, laboratory and data sections. The dimension includes:

1. **Tangibles:** Physical facilities, equipment and appearance of personnel
2. **Reliability:** Ability to perform the promised service dependably and accurately.
3. **Responsiveness:** Willingness to help consumers and provide prompt service.
4. **Assurance:** Knowledge and courtesy of employees and their ability to inspire trust and confidence
5. **Empathy:** Caring, individualized attention the facility provides to its customers.

For this study SERVQUAL was adapted to a five point likert scale, which ranged from highly satisfied (1) to highly dissatisfied (5). The neutral point was 3, below which a person was satisfied and above which the clients was not satisfied. Section A contained socio-demographic data of the respondents, section B had the general assessment of the clinic and its environment, section C, D, E, F and G contained the assessment of satisfaction with services rendered by Clinicians, pharmacists, laboratory, counseling and records respectively.

### **Collection of Data**

Pretesting of the questionnaire was done at Maitama District Hospital which is another ART site within the Federal Capital Territory. The questionnaires were pre tested in twenty (20) clients; some identified gaps were corrected in the final design of the questionnaires. The data obtained was not part of the actual study results.



Data was collected through self-administered questionnaire, structured in an open ended manner administered by the researcher and trained research assistants. The clients that were administered the questionnaires at the record section were asked to return them at the nursing section after seeing their clinician, there they were cross-checked for completeness. The data was collected over a period of one month.

### **Data Analysis**

Data was entered, cleaned and analysed using electronic Software, Statistical Package for Social Science (SPSS) version 17.0 and Microsoft Excel after a careful coding of the variables. Findings in socio-demographic data and different service points were presented in frequencies, tables and diagrams. Relationships between socio-demographic data and different service points were tested using chi-square.

### **Ethical Considerations**

The ethical approval of the Health Research Ethics Committee (FHREC) of the Federal Capital Territory Abuja was sought and obtained with approval number FHREC (2012/09/26/07-09-12). Each of the questionnaires had a consent form with the ethical approval number inscribed on it as requested by the ethics committee. Being a descriptive study, the study involved minimal risk and privacy was ensured by carrying out interviews quietly. Names were not used rather identification numbers thus limiting access to the data. Respondent were informed that they can withdraw at any point of the study after assuring them of their confidentiality.

### **Limitations of the Study**

Asokoro General Hospital ART clinic has a significant number of senior Governments and private officials, thus most of them rejected the questionnaire based on personal reasons and it frequently altered the sampling ratio despite assuring them of their confidentiality.

## **CHAPTER FOUR**

### **RESULTS**

This chapter explained the results of a cross-sectional descriptive study that focused on clients' satisfaction with services in health facility. The results are presented in table and spread across different sections of the study, appropriate statistical tests were used in different sections of the research to test for associations. A general comparism of the overall satisfaction in different components of the programme was also done. However, the tables were briefly explained underneath.

## Section A: Socio Demographic Information

Table 4.1a: Socio-demographic distribution of respondents

<b>Socio demographic variable</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b>Age (years)</b>		
15-20	3	1.1
21-25	36	13.4
26-30	40	15.0
31-35	39	15.0
36-40	53	20.0
41-45	34	13.0
46-50	23	8.0
51-55	24	9.2
56-60	8	3.0
61-65	6	2.3
Total	270	100
<b>Sex</b>		
Male	122	45.3
Female	148	54.7
Total	270	100
<b>Marital status</b>		
Single	66	24.9
Married	160	58.8
Separated	9	3.3
Divorced	9	3.3
Widow/er	26	9.7
Total	270	100
<b>Educational Status</b>		
No formal education	28	10.6
Primary	49	18.1
Secondary	62	22.9
Tertiary	122	45.1
Others(specify)	9	3.3
Total	270	100

Most of the respondents were young people between 15 – 40 years age and people between 15-20 constituted the least of about 1.1% of the respondents. There were more females than males, and the respondent who were married, constituted about 58.8% of the people. Majority were literates and good educational background as only about 10.6% did not have formal education.

Table 4.1b: Socio-demographic distribution of respondents

<b>Socio demographic variable</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b>Tribe</b>		
Hausa/Fulani	57	21.5
Yoruba	38	14.3
Igbo	60	20.7
Idoma/Tiv	21	7.9
Others (Berom, Iyala, Cross River)	94	35.6
Total	270	100
<b>Religion</b>		
Islam	78	26.6
Christianity	192	73.4
Total	270	100
<b>Occupation</b>		
Civil servant	96	35.5
Trader	67	24.8
Farmer	16	5.9
Student	20	7.4
Unemployed	30	11.4
Artisan	11	4.0
Housewife	15	5.5
Others(specify)	15	5.5
Total	270	100
<b>Marriage Type</b>		
Monogamy	191	85.8
Polygamy	79	14.2
Total	270	100

Two major tribes in Benue State consisted 7.9% of the respondents. They were more Christians than Muslims. And majority appeared to be civil servants about 35.5% of the respondent though monogamy appeared the dominant type of marriage, with about 85.8% of the respondents.

## SECTION B: GENERAL ASSESSMENT

Table 4.2: Duration since HIV status was confirmed and since clients started seeking care in the clinic.

<b>Duration (Years)</b>	<b>Frequency</b>	<b>Percent (%)</b>
Since HIV Status was confirmed		
0-2	115	43.2
3-4	102	38.2
5-6	33	11.8
7-8	11	3.4
9-10	9	3.4
Total	270	100
Since clients started seeking care		
0-2	164	61.5
3-4	96	36.2
5-6	10	3
Total	270	100

About 43.2% knew their status between 0-2 years, most started accessing care in the last 2 years, which is about 61.5% of the respondents, and only 3% started seeking care in the last 5-6 years.

Table 4.3: Adherence to appointment, awareness and membership of the support group in the clinic

	<b>Frequency</b>	<b>Percent (%)</b>
<b>Visit days</b>		
On appointment	254	95.1
When you are sick	10	3.4
Any day you like	2	0.4
Others (specify)	4	1.1
Total	270	100
<b>Awareness</b>		
Yes	133	49.3
No	137	50.7
Total	270	100
<b>Membership</b>		
Yes	88	32.0
No	126	61.7
Not interested	56	6.3
Total	270	100

Majority visited on appointment which is about 95.1% of the clients. Many are not aware of the support group in the programme which constituted 50.7% of the clients. And membership of the support group is poor which is about 32% of the respondents.

Table 4.4: Time of arrival on clinic days

<b>Time (am-noon)</b>	<b>Frequency</b>	<b>Percentage (%)</b>
4-6	68	25.1
7-9	179	67.3
10-12	23	7.6
Total	270	100

Up to 67.3% arrived at the clinic between 7-9am and only about 7.6% of the respondent arrived after 9am, 4-6am constituted 25.1% of the respondents.



Table 4.5: Assessment of the size, cleanliness and organization of the clinic

	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Size</b>		
Excellent okay	124	46.2
Very okay	83	30.9
Okay	30	11.2
Small	10	3.5
Very small	23	8.2
Total	270	100
<b>Cleanliness</b>		
Excellent okay	79	29.0
Very okay	144	54.0
Okay	47	17.0
Total	270	100
<b>Organization</b>		
Highly organised	52	19.0
Very organised	156	58.2
Organised	46	17.2
Not organised	16	5.6
Total	270	100

Most were happy with the size of the clinic, the clinic was said to be clean by 100% of the respondents and many agreed the clinic is organised, as only about 5.6% of the respondent said the client was not organised.

Table 4.6: Average duration of time spent on each clinic visit.

<b>Time (hours)</b>	<b>Frequency</b>	<b>Percent (%)</b>
0-2	69	25.8
3-4	136	52.2
5-6	47	17.2
7-8	11	3.2
9-10	7	1.6
Total	270	100

About half of the clients spent between 3 – 4 hours on average in every clinic day which is 52.2% of the clients. Only about 1.6% of the clients spend between 9-10hours.

Table 4.7: General feelings Health wise since accessing care in the clinic

<b>Feelings</b>	<b>Frequency</b>	<b>Percent (%)</b>
Very good	103	39.2
Good	121	46.4
Better	32	10.8
No changes	14	3.6
Total	270	100

The percentage that felt better since they started accessing care in the clinic constituted 92.4% of the respondents as 3.6% did not have any change health wise, since they started accessing care in the clinic.

## SECTION C: CLINICIANS

Table 4.8: Average duration of time before seeing a clinician: Hours/minutes

	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Hours</b>		
<1hour	51	18.8
1hour	63	23.3
2hours	87	32.2
3hours	30	11.1
4hours	4	1.4
5hours	29	10.7
Total	270	100

About 55.5% waited for between 1-2hours before they were able to see a clinician. This waiting time appears to be too long, as only about 18.8% of the respondent spent less than 1hour.

Table 4.9: Satisfaction with services rendered by the clinician

<b>Satisfaction</b>	<b>Highly satisfied</b>	<b>Satisfied</b>	<b>Fairly satisfied</b>	<b>Dissatisfied</b>	<b>Highly dissatisfied</b>	<b>Total</b>
Time spent before seeing a clinician	41(15.5%)	138(52.0%)	12(4.6%)	51(19.2)	23(8.7)	265(100%)
Language of communication	51(19.2%)	184(69.2%)	20(7.5%)	11(4.1%)	-	266(100%)
Explanation to clients on Rx response	52(19.3%)	191(72.0%)	14(5.3%)	9(3.4%)	-	266(100%)
Listening to clients	63(23.9)	179(68.0)	20(8.0)	3(1.1)	-	265(100%)
Explanation on Rx regimen	88(33.0%)	154(58.0%)	17(6.0%)	7(3.0%)	-	266(100%)
Privacy in seeing a clinician	90(34.0%)	138(52.0%)	29(11.0%)	9(3.0%)	-	266(100%)
Knowledge, skills and competence	81(31.2)	157(60.4%)	14(5.4%)	8(3.0%)	-	260(100%)
Overall satisfaction	79(29.1%)	150(56.0%)	31(12.0%)	6(2.2%)	2(0.7)	268(100%)

Up to 27.9% were not happy with the waiting time, minimal language barrier was noted. Majority were satisfied with explanation on treatment response and regimen. Clients were also satisfied with clinician listening to them. A good number were not satisfied with their privacy in seeing a clinician. Overall satisfaction with clinician’s services was rated high.

Table 4.10: Relationship between satisfaction with Clinician's services and socio demographic information

<b>Biodata</b>	<b>P.value</b>	<b>Degree of freedom</b>	<b>Significance</b>
Sex	0.523	10	Nil
Age	0.456	50	Nil
Occupation	0.0001	35	Significant
Educational status	0.004	20	Significant

A chi-square test of relationship showed that occupation and educational status with satisfaction in services rendered by the clinicians was significant, this is because the p.value in both occupation and education were less than 0.05.

## SECTION D: PHARMACY

Table 4.11: Average time spent in pharmacy section

<b>Time</b>	<b>Frequency</b>	<b>Percent (%)</b>
0-59minutes	92	33.8
1-2hours	168	64
3-4	10	2.2
Total	270	100

Up to  $\frac{2}{3}$  (64%) spent between 1-2 hours to get their drugs in the pharmacy section, this waiting time is very high, as 2.2% of the people spent up to 3-4 hours to access their drugs.

Table 4.12: Number of drugs prescribed to client on each visit and getting all the drugs prescribed

	<b>Frequency</b>	<b>Percent (%)</b>
<b>Number</b>		
One	30	10.1
Two	133	50.9
Three	65	24.0
Four	42	15.0
Total	270	100
<b>Getting the drugs</b>		
Yes	232	88.5
No	38	11.5
Total	270	100

Most clients were given 1 – 3 drugs. Most got all the drugs prescribed as about 88.5% acknowledged they got the drugs, only 11.5% of the respondent did not get the prescribed drugs.



Table 4.13: The of number drugs the client got, non availability of drugs and action taken when drugs were not available

	<b>Frequency</b>	<b>Percent (%)</b>
<b>Number</b>		
0-2	111	59.7
3-4	69	37.3
5-6	5	3
<b>Non availability</b>		
Yes	52	14.8
No	218	85.2
Total	270	100
<b>Action taken</b>		
Nothing	15	51.7
Buy	5	17.2
Come back before the next appointment	9	31.1
Total	29	100

About 59.7% got between 1 – 2 drugs, most clients agreed to regular availability of drugs and majority preferred to come back before next appointment and only about 17.2% bought from other sources.

Table 4.14: Satisfaction with the services rendered at the pharmacy section

<b>Satisfaction</b>	<b>Highly satisfied</b>	<b>Satisfied</b>	<b>Fairly satisfied</b>	<b>Dissatisfied</b>	<b>Highly dissatisfied</b>	<b>Total</b>
Regular stock of drugs	107(41.0%)	136(52.2%)	9(3.4%)	9(3.4%)	-	261(100%)
Attitude of the pharmacist	46(18.0%)	166(64.0%)	42(16.0%)	7(2.0%)	-	261(100%)
Explanations given to client on drugs use and side effect	40(16.0)	186(72.0%)	20(8.0%)	10(4.0%)	-	256(100%)
Quality of drugs	52(20.0%)	186(72.0%)	18(7.0%)	2(1.0%)	-	258(100%)
Knowledge of the pharmacist on medication	54(21.0%)	174(68.0%)	23(9.0%)	5(2.0%)	-	256(100%)
Competence of the pharmacist	70(28.0%)	150(58.6%)	24(10.0%)	7(3.0%)	1(0.4%)	252(100%)
Overall satisfaction with pharmacist section	60(24.0%)	140(56.5%)	35(14.1%)	12(5.0%)	1(0.4%)	248(100%)

Good satisfaction with availability of drugs, most respondents were satisfied with the attitude of the pharmacist and were satisfied with the pharmacist explanations on use of drugs. They were satisfied with quality of drugs, as clients were satisfied with the pharmacist knowledge on medications. They also agreed that the pharmacists were competent. However respondents were satisfied with the overall services at the pharmacy section although up to 5.4% were not satisfied.

Table 4.15: Relationship between satisfaction with Pharmacy services and Biodata

<b>Biodata</b>	<b>P.value</b>	<b>Degree of freedom</b>	<b>Significance</b>
Sex	0.687	10	Nil
Age	0.808	50	Nil
Occupation	0.0001	35	Significant
Educational status	0.19	20	Nil

A chi-square showed that there is a relationship between occupation and satisfaction with services rendered at the pharmacy section. The P. value in occupation appeared to be less than 0.05, suggesting a relationship exists.

## SECTION E: LABORATORY

Table 4.16: Average time spent before attended to by the phlebotomist. Hours/minutes

	Frequency	Percent (%)
<b>Hours</b>		
<1hour	58	21.4
1hour	114	42.2
2hours	78	29.0
3hours	8	3.0
4hours	4	1.4
5hours	8	3.0
Total	270	100

About 71.2% spent between 1 – 2 hours before being attended to by phlebotomist, this waiting time appeared to be long, and up to 4.4% spend between 4-5 hours in the laboratory.

Table 4.17: Satisfaction with services rendered at the laboratory section

<b>Satisfaction</b>	<b>Highly satisfied</b>	<b>Satisfied</b>	<b>Fairly satisfied</b>	<b>Dissatisfied</b>	<b>Highly dissatisfied</b>	<b>Total</b>
Use of sterile needles	101(39.0%)	129(50.0%)	18(6.0%)	12(5.0%)	-	260(100%)
Use of sterile gloves	102(40.0%)	138(53.0%)	11(4.3%)	7(2.7%)	-	258(100%)
Explanations given by the phlebotomist	100(39.0%)	120(47.0%)	22(9.0%)	14(5.0%)	-	256(100%)
Duration result takes to get to the clinician	88(34.4%)	130(50.5%)	20(8.0%)	14(5.5%)	4(1.6%)	256(100%)
Skills of the phlebotomist	90(35.0%)	146(57.0%)	13(5.0%)	7(2.0%)	2(1.0%)	258(100%)
Competence of phlebotomist	85(33.0%)	141(55.0%)	17(7.0%)	11(4.0%)	4(1.0%)	258(100%)
Overall satisfaction with laboratory section	82(31.4%)	142(54.4%)	22(8.4%)	14(5.4)	1(0.4)	261(100%)

Some respondents were dissatisfied with sterile procedures. Some respondent were dissatisfied with use of sterile gloves. Up to 5% were not satisfied with the explanation given before skin pricking. Up to 7.1% were not satisfied with delay in blood sample results. Most clients were satisfied. Most clients were satisfied. Most clients are satisfied with the laboratory services, though up to 5.8% were not satisfied.

Table 4.18: Relationship between satisfaction with Laboratory Services and Biodata

<b>Biodata</b>	<b>P.value</b>	<b>Degree of freedom</b>	<b>Significance</b>
Sex	0.575	10	Nil
Age	0.448	50	Nil
Occupation	0.0001	35	Significant
Educational status	0.023	20	Significant

Chi-square done indicated that there is an association between occupation and educational status with satisfaction in laboratory services. Considering that the P.value of both occupation and educational status were less than 0.05, there is an association with satisfaction with laboratory services.

## SECTION F: COUNSELLING

Table 4.19: Satisfaction with services rendered at the counseling section

<b>Satisfaction</b>	<b>Highly satisfied</b>	<b>Satisfied</b>	<b>Fairly satisfied</b>	<b>Dissatisfied</b>	<b>Highly dissatisfied</b>	<b>Total</b>
Privacy/confidentiality	74(28.3%)	158(61.0%)	17(6.5%)	12(4.2%)	-	261(100%)
Information about HIV/AIDS	80(31.0%)	147(57.0%)	13(5.0%)	12(4.7%)	6(2.3%)	258(100%)
Group counseling	92(35.4%)	130(50.0%)	21(8.0%)	8(3.1%)	9(3.5%)	260(100%)
Vital statistics e.g BP, weight etc	98(38.0%)	143(55.0%)	17(6.0%)	3(1.0%)	-	261(100%)
Language of communication	116(45.0%)	132(51.4%)	4(2.0%)	1(0.4%)	3(1.2%)	258(100%)
None stigmatization practice	121(46.4%)	117(45.0%)	18(7.0%)	1(0.4%)	3(1.2%)	260(100%)
Safer sex practices	124(47.4%)	110(42.1%)	15(6.0%)	9(3.4%)	3(1.1%)	261(100%)
Attitude of the counselors	86(33.3%)	133(52.0%)	24(9.3%)	15(5.4%)	-	258(100%)
Overall satisfaction with services	141(57.0%)	75(30.2%)	19(7.6)	3(1.2%)	10(4.0%)	248(100%)

Most respondents were satisfied with confidentiality during counseling. Up to 6% were dissatisfied with the information they got about HIV/AIDS and about 6.6% were dissatisfied with group counseling in the clinic. Many respondents were satisfied with parameters done in the clinic and the language used during counseling. Clients were not stigmatized by the counselors as majorities were satisfied with services provided on safer sex. About 5.4% were dissatisfied with the attitude of the nurses while attending to the clients. In all about 5.2% were not satisfied with the counseling services.

Table 4.20: Relationship between satisfaction with counseling Service and Biodata

<b>Biodata</b>	<b>P.value</b>	<b>Degree of freedom</b>	<b>Significance</b>
Sex	0.401	10	Nil
Age	0.350	50	Nil
Occupation	0.0001	35	Significant
Educational status	0.0001	20	Significant

Chi-square test showed that there is a relationship between occupation and educational status with services rendered at the counselling section. Also a relationship existed between satisfaction with services in the counselling section with occupation and educational status.



## SECTION G: RECORDS/DATA

Table 4.21: Average time spent before clients are attended to by the record staff –  
Hours/minutes

<b>Minutes</b>	<b>Frequency</b>	<b>Percent (%)</b>
<1hour	94	35.6
1hour	88	34.0
2hours	75	28.0
3hours	8	2.0
4hours	5	0.4
Total	270	100

About 62% spent between 1-2 hours before they were attended to in the record section, as only about 35.6% spent less than one hour before being attended to in the records/data section.

Table 4.22: Satisfaction with services rendered at the records/data section

<b>Satisfaction</b>	<b>Highly satisfied</b>	<b>Satisfied</b>	<b>Fairly satisfied</b>	<b>Dissatisfied</b>	<b>Highly dissatisfied</b>	<b>Total</b>
Confidentiality of records	120(46.2%)	123(48.0%)	6(2.3%)	9(3.5%)	-	258(100%)
Appointment schedules	110(42.1%)	133(52.0%)	11(4.3%)	4(1.6%)	-	258(100%)
Attitude of records/data staff	96(37.2%)	114(44.2%)	26(10.0%)	22(8.6%)	-	258(100%)
Overall services satisfaction	88(34.0%)	138(53.2%)	16(6.2%)	17(6.6%)	-	259(100%)

Up to 94.2% were satisfied with the confidentiality of their records in the clinic as only about 3.5% were not satisfied. Also most clients were satisfied with the appointment schedules. About 8.6% were dissatisfied with the attitude of the record staff, in all up to 6.6% were dissatisfied with the record/data section

Table 4.23: Relationship between Records/Data Services and Biodata

<b>Biodata</b>	<b>P.value</b>	<b>Degree of freedom</b>	<b>Significance</b>
Sex	0.031	8	Significant
Age	0.273	40	Nil
Occupation	0.0001	28	Significant
Educational status	0.001	16	Significant

A test of chi-square showed that there is a relationship between sex, occupation and educational status with satisfaction with services rendered at the record/data section. The P.value in sex, occupation and education status were less than 0.05, thus a relationship exists.

Table 4.24: Cross tabulation of overall satisfaction with different services

	<b>Highly satisfied</b>	<b>Satisfied</b>	<b>Fairly satisfied</b>	<b>Dissatisfied</b>	<b>Highly dissatisfied</b>	<b>Total</b>
Clinician	79(29.4%)	150(55.9%)	31(11.5%)	6(2.5%)	2(0.7%)	268(100%)
Pharmacy	60(24.1%)	140(56.4%)	35(14.3%)	12(4.8%)	1(0.4%)	248(100%)
Counselling/ Nurses	141(56.8%)	75(30.2%)	19(7.6%)	3(1.4%)	10(4%)	248(100%)
Laboratory	82(31.9%)	142(53.6%)	22(8.4%)	14(5.8%)	1(0.3%)	261(100%)
Data/Records	88(33.9%)	138(53.2%)	16(6.4%)	17(6.5%)	-	259(100%)

Clients were most satisfied with the services of clinicians 85.3% and least satisfied with the services at the record section as up to 6.5% were not happy with the overall services at records section. Pharmacy and counselling section had the least dissatisfaction with 13%.

## CHAPTER FIVE

### DISCUSSION

The results in this work was a carefully articulated attempt to assess the level of satisfaction with clients in respect to the services they received. Although clients' view is a subjective view, but it showed clearly what is also obtainable in clear terms and in reality with the current health system in Nigeria. Generally, satisfaction is assumed to result from the fulfillment of expectations. This however is the desire of every person living with HIV considering the fact that he/she needs to visit the health facility regularly.

The age distribution of the study showed a high percentage of young population. People less than 41 years of age constituted the majority. This goes a long way to substantiate the fact that Nigeria is made up of a young population. Also the 2010 HIV Sero-prevalence survey also showed a large population of young people living with HIV/AIDS in Nigeria.<sup>6</sup>

It is generally agreed that females are more at risk to HIV than males. The study showed a higher prevalence among women, this could be explained with the biological and social aspect of life which exposes the female to being infected with HIV than the males. Also the 2006 National census in Nigeria substantiated the fact that there are more females than males in Nigeria.<sup>28</sup> Abuja being a centre with beehive of activities attracts high risk people including commercial sex workers.

The study showed high number of married people contrary to the suspicions of the researcher. Married people constituted the majority of the respondents followed by single people. This means the efforts of all the relevant government and non government organisations responsible for the control of AIDS, should shift to married people with

aggressive campaign on prevention. The distribution of the respondents according to marital status also supports the view that Abuja being a public service environment, most of the people may not be living with their spouse in Abuja.

There are more educated people than people without good education. People with both secondary and Tertiary education made up a large population of the clients. This to a large extent creates a doubt that educated people will have more information on HIV prevention than the illiterates, but the truth is the study environment is densely populated with educated people being the Nations seat of power and centre of unity.

The study result showed a good distribution among the major ethnic groups in Nigeria. However, Idoma/Tiv which are just two major tribes in Benue State was up to a good number of the clients. This is in total agreement with the 2010 Sero-prevalence survey that puts Benue as the state with the highest prevalence of HIV at 12.7%.<sup>6</sup>

A very high percentage of Christians than Muslims was noted. The researcher does not have a good explanation to that but the suspicion is that Abuja is located in the North Central part of the country which is predominantly Christians.

The occupation of the clients is also in agreement to the fact that Abuja being a Federal Capital Territory will have many public servants. The study revealed that a good percentage of the clients were civil servants. The traders/Business people made up also a reasonable number of the clients. This characteristic is explained with the fact that Abuja is also a robust business environment.

Monogamy appeared to be a dominant marriage type of the clients. This however may be associated with the fact that the study result showed more Christians, who practice monogamy predominantly.

The duration since client's status was confirmed ranged from less than one year to ten years. However, majority of the clients knew their status in the last 4 years. This however has created a "poser", is it that there are more new infections or the awareness on HIV counseling and testing (HCT) has increased? The facts from the 2010 sentinel survey supports the later since the national prevalence dropped from 4.4% in 2008 to 4.1% in 2010.<sup>6</sup> The majority of the respondents also started accessing care in the clinic in the last three years.

There is a close relationship between adherence and improvement in health status of a client. However, the study showed that a large population of the clients adhered to the appointment schedules. This good quality may be related with the fact that most of the clients are given three monthly appointments which enables them to prepare for the next clinic visit. The researcher was informed of a vibrant support group in the programme, however, some of the client are not aware of a support group in the programme. And only few of the respondents were members of the support group. This however does not appear good because support groups are where clients learn, how to live positively, good nutrition, elimination of stigma and discrimination which will not be thought in a busy ART clinic like the Asokoro general hospital ART clinic.

The result also showed that most of the clients arrived the clinic on appointment days before nine (9) am. This may not be unconnected with the point that since most of the clients are busy people (civil servants and traders) they may want to see their clinicians and proceed for the days business. Majority of the respondents were happy with the size of the clinic. This may be because the ART clinic has just moved to a bigger site in the hospital. The majority of the clients also agreed positively with the size,

cleanliness and general organisation of the clinic. The average duration of time spent on each clinic day appeared to be long, as most of the clients spends up to 4hours. However a large population of the clients agreed they have felt better health rise since they started accessing care in the clinic.

The study revealed a long, waiting time before a client sees a clinician. Only 51 respondents waited for less than one hour to see a clinician, a good number of the clients waited between three to five hours to see a clinician. This is contrary to a study done by Musa D.M in State House Clinic Abuja where more than half of the respondents were able to see the clinician in less than one hour. Table 4.9 showed that a good number of the clients were dissatisfied with the waiting time to see a clinician.<sup>28</sup>

There was also minimal dissatisfaction with the language of communication between the clinicians and the clients as about few of the clients were not satisfied. This however may be from the clinicians who come from different language background. The explanations given to the clients and the way and Manner the clinician addressed the clients problem was good. The good quality is in agreement with a study done by Brown, J et al in USA, where communication with the client adequately reduces frustration with visits.<sup>34</sup> A good satisfaction with explanations by the clinicians on treatment response. This is very important because a client needs to know his/her current CD4 count, viral load and other hematological parameters.

Many of the clients were satisfied with the privacy in seeing a clinician, though some were fairly satisfied and few dissatisfied. This however may be from the fact that each consulting room houses up to four clinicians and there was no demarcation which does not guarantee maximal privacy. The clinicians are regularly trained by the



implementing partners and this explains why most of the clients were satisfied with the knowledge, skills and competence of the clinicians. Generally, the overall satisfaction with the clinicians was very high. This study is also in agreement with a study done by Bhagat et al in Hamidia hospital Bhopal where 83.98% of the clients accessing ART services were at ease with the Doctors.<sup>35</sup>

A test of the relationships between sex, Age, occupation and educational status with satisfaction with the services offered by the clinicians showed that the P. values of occupation and Educational status were less than 0.005, this implies a relationship exist.

The study showed that only few of the clients spent less than 25 minutes to get their drugs, and 46% spent about one hour for their drugs. This result is in total variance with a study done by Helena et al in Jimma (Ethopia) which showed that 100% of the clients received their drugs in less than 15 minutes in the pharmacy section.<sup>13</sup> This unacceptable long waiting time in the pharmacy may be a contributor to the overall long hours clients spend in the clinic on every visit. Availability of drugs is a major contributor to the success of any ART programme, the high level of satisfaction of clients as regards the regular stock of drugs was encouraging. On average clients were prescribed two – three drugs and most of the clients got the prescribed drugs in the clinic pharmacy. The attitudes of the pharmacists were also an encouragement as few were highly satisfied and most satisfied. Though a little of the respondents were not satisfied.

Out of stock syndrome is a regular occurrence with most public health facilities in Nigeria, however most said non availability of drugs was not regular in the clinic. The result showed that a large population either do nothing or come back for the drugs before the next appointment. The explanation to this is most clients are given appointment

before their drugs get exhausted, so the time lag may be to enable them come back to collect their drugs.

The study also showed that few of the clients were not satisfied with the explanation given to them on the side effects of the drugs. This however will affect adherence to medication which is central to a good viral suppression and better treatment response. Table 4.14 showed a good level of satisfaction with the quality of drugs the clients received. This good quality may not be unconnected with the supply of drugs by donors themselves which will enhance quality and availability. The pharmacist are regularly trained by the donors on ethical principle and professional guidelines on the dispensing of ARVs, this however may have contributed to why most of the clients were satisfied with the knowledge of the pharmacist on medications. Also the clients agreed that the pharmacist were competent in terms of discharging their function.

The overall service rendered by the pharmacists was averagely good though few of the clients were dissatisfied. This result was a far cry from the study done in Jimma where the overall services rendered at the pharmacy was 52.8% excellent and 46.9% very good.<sup>13</sup> The test of relationship between satisfaction with the services rendered at the pharmacy section and sex, age, occupation and educational status was significant for occupation. This means there is a relationship between occupation and services by the pharmacists. Thus the researcher suggests further inquiry to unravel this relationship.

Average time spent in the laboratory section in this study has been noted to be long. The study showed that only 57% of the respondent were attended to in less than one hour. Majority of the clients were attended to between one – two hours. This result is different from the study done in state house clinic Abuja where most of the clients spent

less than 30 minutes at the laboratory.<sup>23</sup> However, this long waiting time may be connected in the ever increasing number of new clients enrolled into the programme. The study revealed that 5% of the clients were dissatisfied with the use of sterile needles on each procedure in the laboratory. This result does not support the National guideline that emphasizes on injection safety and sterile procedure as part of the precautionary measure to stem the spread of the virus. Also the use of sterile disposable gloves for each client should be enhanced to gain the patients confidence. The study also showed that few of the clients were dissatisfied with the explanation given by the phlebotomist before pricking their skin. Generally needle pricks are painful but some level of empathy and explanation of the procedure will enhance the satisfaction of the clients.

The research result also showed that many of the clients were not satisfied with the delay in the blood sample result. The researcher also noticed complaints verbally by the clients that their last laboratory results were not ready on the days visit. Since blood sample results are essential to monitor viral load, CD4 count, Hb etc, its delay will definitely affect the judgment of the clinician. The skills of the phlebotomist was said to be good as most of the clients were satisfied with it. Also the competence exhibited by the phlebotomist was good as majority of the clients were satisfied.

However the overall satisfaction with the services of the phlebotomist was said to be fair as only few of the respondents were dissatisfied. This result however may be from the delay in laboratory results and the long waiting time. Table 4.18 also showed that a significant relationship exist between the satisfaction with the services of the phlebotomist and occupation and educational status.

Mainly because of the ever growing number of clients, most ART programmes in Nigeria do private counselling only during pre and post test counselling. In clinic days, clients are given group counselling. However the study showed that majority of the clients were satisfied with the confidentiality and privacy during counselling section. This is a very important quality because that is the time the clients ask the counselors very sensitive questions that surrounds their status. The study also showed that up to few of the clients were dissatisfied with the information they got about HIV. Counselling involves sharing of information between the counselor and the counsellee and should also include giving the clients IEC material to enable them read what time could not allow them to discuss. Some of the clients were dissatisfied with the group counselling in the clinic, this result however may be connected with the belief that some clients may not be comfortable to ask their personal sensitive questions in public.

The study showed that majority of the clients were satisfied with the basic clinic parameters such as weight, Height and Body mass index that is used to monitor their treatment responses. The language of communication also recorded a good level of satisfaction. Abuja being a capital territory, English is generally spoken, this however explains why most respondents were not having problem with the language of communication. The no stigmatization policy of government as regards HIV status was also appreciably represented in this study as most were satisfied as they were not stigmatized by the counselors. There is also a need to emphasize on providing materials and information to the clients on safer sex practices as few were not satisfied with it.

The attitude of the counselors nurses was fair in the study, though up to a fair number of the respondents were dissatisfied with their attitude. The result is also close to

the study done in state house clinic Abuja where 2% of the respondents said the nurses attitude were poor.<sup>23</sup> Generally, the clients assessment of the overall services rendered by the nurses/counselors was good though few were not satisfied. Table, 4.20 also showed that there is a relationship between occupation and educational status with the overall services rendered at the nursing section.

The average waiting time (2hours) at the records section of clinic was noted to be long. The study showed that 35.6% of the clients were attended to in less than one hour, average number of the respondent said they spent between 1 – 2 hours in the record section. This long waiting hour is far from the study done in Jimma where 86.7% spent less than 15minutes and 13.3% spent between 16 – 30 minutes.<sup>13</sup> However the cause may also be related to more new clients in the clinic who spend more time to provide basic information required by the records staff. There is strict compliance to the rules of confidentiality in the clinic, that explained why majority of the clients were satisfied with the handling of the personal information in the records section. Also majority of the clients expressed their satisfaction with the appointment schedules. This great quality may not be unconnected with the three monthly appointments they get if they are clinically stable. The striking dissatisfaction with the attitude of the record staff in table 4.19, may also have contributed significantly to the overall dissatisfaction with the services at the record section. This is far worse than only 2% that was regarded as fair or poor in a study done in Ethiopia.<sup>13</sup> There is also an association between satisfaction with services rendered by the record staff and sex, occupation and educational status as shown in table 4.23.

The cross tabulation of the level of satisfaction clients had at different service points showed in table 4.24 that clients were least dissatisfied with the overall services by the clinicians and more dissatisfied with the services they received at the records section.

## **Conclusions**

Based on the available statistical evidence shown by this study, considering the fact that outpatient follow up through ART clinics is the major treatment modality of giving healthcare to PLWHA. Client satisfaction in ART clinic is essential in enabling patients to cope with the condition and its therapy. The following conclusions can be made, there are more young and married people accessing care in the clinic; the organisation, cleanliness and size of the clinic is commendable; the waiting time in all service points were very long; overall satisfaction with services at various points in the clinic was good; the attitude of the record staffs appeared to be the worst in the clinic; there is a significant relationship between occupation and educational status and satisfaction with ART services; those clients were treated with respect to the National guidelines on care, support and treatment; there is regular supply of high quality antiretroviral drugs in the clinic.

## **Recommendations**

1. The management of the Hospital should as a matter of urgency employ and train more health workers in all sections of the programme to reduce the long waiting time in the clinic.

2. The various consulting rooms in the clinic should be demarcated to enhance privacy and confidentiality amongst the clients as they see their clinicians.
3. The laboratory staff should be trained and retrained on universal precaution and handling of sharps.
4. The management of the clinic should make sure that clients are properly counseled and audience segmented for those that will not require group counselling.
5. The coordinator of the programme should look into the attitudinal disposition of the records staff toward clients.
6. The Management of the hospital should encourage clients to join support group considering its immense contribution in coping with the disease.
7. The coordinator of the programme should make sure that more clinicians are posted to the clinic on Thursdays and Friday that appears to be the busiest days.
8. The programme leadership should be intensity effort targeted on public servants on HIV prevention, since they constituted a large number of the clients.
9. The management of the hospital should consider relocating the ART laboratory and pharmacy to the same building to enhance comprehensive care and supportive supervision. Thus reducing the long waiting time noted in the study which does not guarantee clients satisfaction.
10. Though not part of the study, the coordinator should also make sure that touts are not allowed to come and sale all forms of medicine and herbs to the vulnerable clients as was observed by the researcher in the course of the study.

## References

1. UNAIDS; Joint United Nations Program on HIV/AIDS; AIDS epidemic update, 2009, p 138.
2. CDC morbidity and mortality weekly report (MMWR). First report of AIDS, June 1,2001/vol.50/No.21.
3. MDG; Nigeria +10 showcase No1 report. Millennium Development Goal 2010, available at [www.mdg.org.ng](http://www.mdg.org.ng) accessed on 28<sup>th</sup> October, 2011.
4. UNAIDS; Universal access to HIV prevention, treatment, care and support; From countries to regions to the high level meeting on AIDS and beyond, UNAIDS 2011, available at [www.unaids.org](http://www.unaids.org) accessed on 28 October 2011 at 6:00pm.
5. NACA; Epidemiology of HIV in Nigeria, National Agency for the Control of AIDS. Available at <http://naca.gov.ng>, accessed 18 October, 2011 at 4.05pm.
6. Federal Ministry of Health: National HIV Sero- prevalence survey. Federal Ministry of Health, 2010.
7. NACA; Factsheet 2011; update on the HIV/AIDS epidemic response in Nigeria, available at <http://naca.gov.ng>, accessed on 17 August 2011.
8. National Action Committee on AIDS; Capacity review of SACAs and LACAs- Nigeria; baseline assessment report. Federal Ministry of Health, 2003.
9. Jerome OM, Oluwole AF; HIV/AIDS in Nigeria, Situation, Response, and Prospect, University of Ibadan Press, Oct 2003, p. 11.
10. UNAIDS; Sub-Saharan African; AIDS epidemic update, Regional summary, UNAIDS 2009 available at [www.unaids.org](http://www.unaids.org) accessed 28 October 2011 at 5:07pm.
11. UNFPA; estimated Nigerian population by 31<sup>st</sup> October 2011. World Population Day Reports, UNFPA 2011, p. 49.
12. NPC. Census figure. National Population Commission 2006.
13. UNDP. Human Development Technical Report 2010.
14. The Global fund to fight AIDS, Tuberculosis and Malaria. Annual report, Geneva, 2003



15. De Cock KM, Chaisson RE: Will DOTS do it? A reappraisal of Tuberculosis Control in countries with high rates of HIV infection. *International journal of tuberculosis and lung Disease* 1999; 1(3): 457 – 465.
16. MOH, Uganda service provision assessment survey 2007, Kampala, Uganda. Ministry of Health, 2007, p. 107-108.
17. WHO. Standard for quality HIV care: A tool for quality assessment, improvement, and accreditation 2004b.
18. FMOH; National guidelines on Paediatric HIV and AIDS Treatment and Care, Federal Ministry of Health Nigeria.2010, p.56.
19. FMOH; National guidelines on Adult HIV and AIDS treatment and Care, Federal Ministry of Health Nigeria, 2010, p. 26.
20. Lochoro P, Measuring patients satisfaction in UCMB health institutions: *Health Policy and development* 2004; 2: 243-248.
21. Rapkin B et al: Beyond Satisfaction: Using the dynamics of care assessment to better understand patients experiences in care: *Health and Quality life outcomes* 6. *SERVQUAL* 2008; Pp. 2-3.
22. Beedham H., HIV and AIDS cares; Consumer's view on needs and services. *Journal of Advanced Nursing*; 1996: 22; (2) 677-686.
23. Tsasis P, Tsoukas C, Deutsch G; evaluation of patient satisfaction in a specialized HIV/AIDS care unit of a major Hospital. *AIDs patient care* 2000; 14(7): 347-349.
24. Sullivan L, Stein M, Savetsky J, Samet J; The Doctor-Patient relationship and HIV infected patients' satisfaction with primary care Physicians. *Journal of General Internal Medicine* 2000;15(7): 462-469.
25. Stein M, Fleishman J, Mor V, and Dresser, M. Factors Associated with Patient Satisfaction Among Symptomatic HIV – infected persons. *Medical Care*, 1993; 31: 182 – 188.
26. Edwin W. Christo H; Patient satisfaction with antiretroviral services at primary health care facilities in the free state, South Africa. *BMC health Services Research* 2008; 8: 210.
27. Nwabueze SA, Adogo PO, Asuzu MC, Adinma ED; Perception of quality of care in HIV/AIDS programmes among patients in tertiary health facility in Anambra state. PMID.21970277 (Pubmed in progress).

28. Musa DM; Quality of HIV care in the state house clinic; the clients' perspective. A research project presented to the school of postgraduate studies Ahmadu Bello University Zaria in partial fulfillment of the requirement for the award of Master of Public Health 2008; p. 54.
29. Sambo MN; MPH lecture notes in health services management, ABU, Zaria. 2011.
30. Babakus E and Mangold W. Adapting the SERVQUAL scale to hospital services: An empirical investigation. Health services Research. 1992. 26, 767 – 786.
31. 10M 1999. Measuring the quality of health care. National Academy Press. Available at <http://www.nap.edu/cathlog/6418.htm/>. Accessed on 15 June 2012 by 1:04pm.
32. National Gallery of Arts; Abuja A-Z. A guide to tourist FCTA, Nigeria 2004.
33. Helena G et al; Clients' satisfaction with antiretroviral therapy services at Jimma university Specialized Hospital, Ethiop J Health Sci,2008.vol 18,No 2, p. 16.
34. Brown J. Boles M, Mullooly M, and Levison. Effects of Clinician Communication Skills Training and Patient Satisfaction: A randomized, Controlled Trial. Annals of internal Medicine 1999; 131(II): 822 – 829.
35. Bhagat Vimal, Pal DK, Lodha Rama S; Clients' Satisfaction with Antiretroviral Therapy services at Hamidia Hospital Phapal. National Journal of Community Medicine. 2011; Vol. 2 issue 2 July – Sept. p. 244.
36. Federal Ministry of Health; National HIV/AIDS and Reproductive Health survey. Federal Ministry of Health, 2003, p. 126.
37. Bhagut VK, Pal DK, Lodha RS; Clients' satisfaction with antiretroviral therapy services at hamida hospital, National Journal of Community Medicine, 2011; vol. 2 issue 2. 2 July-Sept. page 241.
38. Doris. K; Comparative analysis of client satisfaction among people receiving HIV/AIDS care from Public and Private Health facilities in Kabale district. Makerere University kampala press, December 2010, p.66.
39. Margaret OA; Research methodology with statistics for health and social science. Nathadex Publisher, 2004, p. 118.
40. Vischev C, Bhardwaj AK., Raina SK., Pardeep. B, Angnihtri RK; Scoring the medical outcome among HIV/AIDS patients attending antiretroviral therapy centre at zonal Hospital Hamipur, using patient satisfaction questionnaire

41. (PSQ-18). Physicians Journal of General Internal Medicine 2011; vol. 6, p. 18.
42. Locker D, Dunt D; The theoretical and methodological issues in sociological studies of consumer satisfaction with Medical care. *Social science and Medicine* 1978;12: 283-292.
43. Lyatuu MB, Msamanga GI, Kalinga AK; Clients' satisfaction with services for prevention of mother- to- child transmission of HIV in Dodoma Rural district. *East African journal of Public Health*, 2008; Volume 5 Number 3, December, p. 50-51.
44. Lisa H, Alexis B, Duncan D, Bruce A; The role of viral load as a measure of quality of care for people with HIV; The expert meeting report. Sept 9, 2005; p. 401.
45. Mallory O Johnson et al. Positive provider interactions, adherence, self-efficiency and adherence to antiretroviral medications among HIV infected adults; A mediation model. *PMC* 2008, June 20, p. 28.
46. Parasuraman A; Zeithaml, V and Berry, L. SERVQUAL: A multiple-item scale for measuring consumer perception of service quality. *Journal of retailing*. 1988; 64, (2) 12-40.
47. WHO. National AIDS programmes. A guide to monitoring and evaluating HIV/AIDS care and support 2004a, p. 401.

## CONSENT FORM FHREC (2012/09/26/07-09-12)

### Research description;

This research focuses on people receiving HIV/AIDS care, support and treatment including treatment for opportunistic infections, counseling and other services. It aims to ascertain the level of satisfaction among those accessing these services in Asokoro General Hospital. This will help to improve quality of services. Clients will be interviewed for one month here to collect information using pretested questionnaires.

### Risk;

The study involves the use of questionnaires and therefore there is no foreseeable risk to you.

### Benefits;

There will be no material benefit to you. However the management of this facility will get the final copy of the work and will be able to improve on those gaps you identified.

### Confidentiality;

Privacy during interviewing and confidentiality of information are guaranteed. You will be interviewed separately from other clients. In case you know any of the researchers you can withdraw or be interviewed by someone else. Your name is not required so information cannot be traced to you. The information collected will only be accessible to the research team.

### Compensation;

There will be no compensation for your time and inconveniences but we are very grateful to you for taking part in the study.

### Contacts;

If you have any question pertaining to your participation in the study, please feel free to contact the principal investigator, Dr. Uche Ewelike with this phone

number(08037113038) or the department of Community Medicine Ahmadu Bello University ,Zaria.

Voluntary Participation;

Your participation in this study is voluntary, you have the right to refuse to take part or withdraw at any point without penalty.

Participant;

I understand all the conditions above and have agreed to take part in this study of my own free will. Signature or thump print.....

Researcher/Research

assistant.Signature.....

**AHMADU BELLO UNIVERSITY**  
**FACULTY OF MEDICINE**  
**DEPARTMENT OF COMMUNITY MEDICINE**  
**MPH THESIS**  
**QUESTIONNAIRE**

Dear Client,

I am conducting a study to assess your level of satisfaction with services rendered in this clinic. Your honest answer to the questions below will help to improve the quality of services and enhance quality life amongst our clients. The information you are providing will be treated with confidentiality and you will not be penalized for not participating or any answer. Thank you for your wonderful cooperation in our desire to serve you better.

**Dr. U.E Ewelike**

**Section A**

**Social demographic data**

1. Serial no .....
2. Age(as at last birthday) .....
3. Sex:1. Male [ ] 2. Female [ ]
4. Marital status: 1. single [ ] 2. married [ ] 3. separated [ ] 4. divorced [ ] 5. widow/er [ ]
5. Educational status: 1. No formal education [ ] 2. primary [ ] 3. secondary [ ] 4. tertiary [ ] 5. others (specify) .....
6. Tribe: Hausa/Fulani [ ] Yoruba [ ] Igbo [ ] other tribes (specify) .....
7. Religion: 1. Islam [ ] 2. Christianity [ ] 3. traditionalist [ ] 4. others (specify) .....
8. Occupation: 1. Civil servant [ ] 2. trader [ ] 3. farmer [ ] 4. student [ ] 5. unemployed [ ] 6. artisan [ ] 7. Housewife [ ] 8. Other (specify) .....
9. Marriage type: 1. monogamy [ ] 2. polygamy [ ]

## Section B

### General Assessment

10. When were you confirmed to be HIV positive  
1. .... (months ago) 2. .... (years ago)
11. How long have you been accessing care in this clinic  
1. .... (months) 2. .... (years)
12. When do you usually come to the clinic to see your care providers  
(1) on appointment [ ] (2) when you are sick [ ] (3) any day you like [ ] (4) other (specify) .....
13. Are you aware of the support group (1) Yes [ ] (2) No
14. If yes, are you a member  
(1) Yes [ ] (2) No [ ] (3) not interested [ ] (4) other (specify) .....
15. What time do you usually arrived to the clinic on visit days  
.....
16. How can you describe the size of our clinic considering the number of our clients.  
(1) Excellently okay [ ] (2) very okay [ ] (3) okay [ ] (4) small [ ] (5) very small [ ]
17. What is your assessment of the general cleanliness of the clinic  
(1) Excellently clean [ ] (2) very clean [ ] (3) clean [ ] (4) dirty [ ] (5) very dirty [ ]
18. What do you think about the general organisation of the clinic  
(1) Highly organised [ ] (2) very organised [ ] (3) organised [ ] (4) not organised [ ]  
(5) very disorganized [ ]
19. What it is the average duration of time spent during each clinic visit  
(1) ..... (minutes) (2) ..... (hours)
20. In general how do you feel health wise since you started attending this clinic  
(1) very good [ ] (2) good [ ] (3) better [ ] (4) no changes [ ] (5) worse [ ]

## Section C

### Clinicians

21. On average how long do you spend before you see a clinician  
(1) ..... (minutes) (2) ..... (hours)

22. Are you satisfied with the time spent before you see a clinician  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
23. Are you satisfied with the language of communication between you and your clinician  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
24. Do you feel satisfied with the explanation given to you by your clinician in your treatment responses?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
25. Do you feel satisfied with the way and manner your clinician listens to your complaints and provide solutions to them.  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
26. Do you feel satisfied with the explanation given to you by the clinician on your drug regimen and side effects.  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
27. Are you satisfied with the privacy in seeing your clinician in the clinic  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
28. Are you satisfied with the knowledge, skills and competence exhibited by your clinician  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
29. What is your overall satisfaction with the services rendered by the clinicians.  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]



## Section D

### Pharmacy

30. On average how long do you spend before you get your drugs in the pharmacy?  
(1) ..... (minutes) (2) ..... (hours)
31. Are you satisfied with the regular stock of drugs in the pharmacy  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]
32. Are you satisfied with the attitude of the pharmacist while attending to you  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]
33. How many drugs were prescribe to you on each visit .....?  
Did you get them all Yes [ ] No [ ]  
How many did you get .....
34. Are there times when you come and drugs were not available Yes [ ] No [ ]  
What do you normally do when drugs are not available .....
35. Do you feel satisfied with the explanations given to you by the pharmacist on how to  
use the drugs and the side effects  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]
36. Are you satisfied with the quality of drugs given to you at the pharmacy  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]
37. Do you feel satisfied with the knowledge of the pharmacist on medication.  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]
38. Do you feel satisfied competence of the pharmacist  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]
39. What is your overall satisfaction with the services rendered at the pharmacy section?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]

## Section E

### Laboratory

40. On average how long do you spend before you are attended to by a phlebotomist?

(1) ..... (minutes) (2) ..... (hours)

41. Are you satisfied with the use of sterile needle on each procedure in the laboratory?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]

42. Are you satisfied with the use of sterile gloves during phlebotomy procedures in the laboratory?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]

43. Are you satisfied with the explanations given to you by the phlebotomist before pricking your skin?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]

44. Are you satisfied with the duration your blood sample result takes before it gets to your clinician.

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]

45. Are you satisfied with the skill of the phlebotomist while collecting blood samples?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]

46. Are you satisfied with competence exhibited by the phlebotomist?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]

47. What is your overall satisfaction with the services in the laboratory section?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5)  
highly dissatisfied [ ]

## Section F

### Counseling

48. Are you satisfied with the privacy/confidentiality during counseling session?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
49. Are you satisfied with the information about HIV given to you during the pre- and post-test counseling?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
50. Are you satisfied with the group counseling session on your clinic days?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
51. Are you satisfied with vital statistics e.g weight, BP etc. done by the nurses on your clinic days?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
52. Are you satisfied with the language of communication during counseling session?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
53. Are you satisfied with the no stigmatization practice exhibited by the counselors?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
54. Are you satisfied with the services provided to you on safer sex?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
55. Are you satisfied with the attitude of the nurses in rendering services to you?  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]
56. What is your overall satisfaction with counseling services in the clinic.  
(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]

**Section G**

**Records/Data**

57. On average how long do you spend before you are attended to by the record staff?

(1)..... (minutes) (2)..... (hours)

58. Are you satisfied with the confidentiality of your records in the clinic?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]

59. Are you satisfied with the appointment schedules given by the record staff?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]

60. Are you satisfied with the attitude of the record/data staff?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]

61. What is your overall satisfaction with the services rendered at the record/data section?

(1) highly satisfied [ ] (2) satisfied [ ] (3) fairly satisfied [ ] (4) dissatisfied [ ] (5) highly dissatisfied [ ]