AWARENESS, ACCEPTANCE AND UTILIZATION OF HIV/AIDS COUNSELING AND TESTING SERVICES AMONG THE PEOPLE OF GOMBE STATE

BY

ADAMU ABBA
SPS/09/PSO/00003

BEING A Ph.D THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, BAYERO UNIVERSITY, KANO IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DOCTOR OF PHILOSOPHY (PhD) IN SOCIOLOGY

FEBRUARY, 2017

DECLARATION

I hereby declare that this work is the product of my own research effort; carried out under the supervision of Professor Salisu A. Abdullahi. It has never been presented and will not be presented elsewhere for the award of a Degree or Certificate. All the sources have been duly acknowledged.

…… ……..

Adamu Abba Date

SPS/09/PSO/00003

CERTIFICATION

This is to certify that the research work of this thesis was carried out under my supervision and the subsequent preparation of this thesis by Adamu Abba (SPS/09/PSO/0003) was carried out under my supervision.

…… ….....

Supervisor Date

Prof. Salisu A. Abdullahi

APPROVAL

This thesis has been examined and approved for the award of a Doctor of Philosophy (PhD) in Sociology at the Department of Sociology, Bayero University, Kano.

…… …….

Professor Salisu A. Abdullahi Date
(Supervisor)

…… ……..

Dr. Muhammed Awaisu Haruna Date
(Internal Examiner)

……. …….

Professor Sulaiman Khalid
(External Examiner) Date

ACKNOWLEDGEMENTS

All praises are due to Allah, the Almighty, All Knower, the Beneficent and the Merciful Whose will and wish made this work possible for me. Praise also is to His noble Prophet Muhammad (SAW), the last Prophet.

Although it would be impossible to acknowledge adequately all the people who contributed in producing this thesis, I would like to state here that I am indebted to Prof. Salisu Abdullahi, who not only supervised the work, but also whose fatherly support could not be quantified. His moral, financial and ideological contributions would continue to be acknowledge forever.I also appreciate the contributions of my internal and external supervisors, Dr. Muhammed Haruna Awaisu and Prof. Sulaiman Khalid respectively, whose constructive criticisms and suggestions gave more focus to the work. Similarly, I acknowledged the contributions of Professor Ismaila Muhammed Zango, Drs. Maikano Madaki (the fomer HOD Sociology, BUK), Kabiru Bello Dunbulum, Sani Lawan Malumfashi, Nu'uman Habib, Profs. Sadiq I. Radda, Baffa Aliyu Umar, Drs. Aminu Muhammad Fagge, Aminu Dukku, Bello Ibrahim (HOD Sociology, BUK),Hamza Kankia, Ibrahim Yar, Mals. Mustapha Hashim Kurfiand Aminu Danbazau, all of Sociology Department, Bayero University, Kano. The contributions of non-academic staff of the same department, like Mal. Ali, Yahuza and Madam Janet, could not go unacknowledged.

The work could not have been complete without the moral and intellectual supports of my colleagues in Gombe State University and outside, particularly Dr. Mu'azu Usman Shehu, Mal. Adamu Ahmad, Dr. Saleh Omar (HOD Sociology, Gombe State University), Bashir Muhammad. Abubakar, Dr Ahmed Aminu Musa, Dr. Ahmed Aliyu, Sani Rabi'u, Arafat Ibrahim,Kabiru Hussaini, Ahmed Muhammad, Adamu Salisu, Nasiru Anas, Mrs. Safiya Gatama Johnson, Hajiya Atika Magaji,Simon Vasty, Babangida Kasehere, Drs. Musa H. Bwala, Musa Abdullahi, Prof. E.G Best, Drs. Hauwa E. Yusuf, Hassana Y. Bello, Mals. Yakubu Bala, Abdullahi Jikan Jatum, Drs. Rashid Abdulganiyu, Bashir Pindiga, Mals. Musa Hausawa, Malam Ahmed (NITDA), Malam Ahmad Sabo, DR. Umar Adamu (the former Project Manager of GOMSACA), Dr. Suraj (the Project Manager of GOMSACA) and Mahmud El-Nafaty of GOMSACA. I wish to express my appreciation to my brothers and sisters, Kabiru, Ahmad, Hudu, Abubakar, Maryam, Salamatu, Ruqayya, Ibrahim and Rabi. Equally, I appreciate the supports of people at home and outside for their moral, financial and spiritual contributions, especially people like Hon. Adamu Abdu Fanda, Alh. Bako Muhammad Gangare, Alh. Ahmed Gambo, Alh. Sani Kigam, Alh. Basiru Dauda, Malam Abubakar Nuhu of the Arabic Department, BUK, Alh. Auwalu Garba (Lazy), Dr. Ghali Mustapha Tijjani, Abba Sule, Mal. Bello Umar of KUST, Alh. Ibrahim Adamu, Shehu Aliyu, Sani Usman, Inusa Jafaru, Sale Sule, Dahiru Ali, Umman Sani, Hadiza Hamza, Haruna Man.A..A Rano, Mal. Ishaqand the entire students of Imam Jaafar Islamiyya Fanda andalso the staff of FANTEL Nig. Limited.

DEDICATION

I dedicated this project to my parents (Alh. Abba Ahmed and Binta Abba Ahmed), my wife (Salamatu Sa'idu Umar), my children, Umar and Abdullahi, and to all those who are HIV-positive.

TABLE OF CONTENTS

LIST OF TABLES

ACRONYMS

AIDS: Acquired Immuno-Deficiency Syndrome

ANC: Antenatal Care

CDC: United State Centre for Disease Control and Prevention

FGD: Focus Group Discussion

GHC: Global Health Council

GOMSACA: Gombe State Agency for the Control of HIV and AIDS

GSHSP: Gombe State Health strategic Plan

HBHTC: Home-Based HIV Counseling and Testing

HBM: Health Belief Model

HCT: HIV Counseling and Testing

HIV: Humane Immuno Virus

IPU: Inter-Parliamentary Union

KII: Key Informant Interview

MARP: Most at Risk Population

MTCT: Mother to Child Transmission

NACA: National Agency for the Control of AIDS

NEPWHAN: Network of People Living with HIV/AIDSin Nigeria

PICT: Provider Initiated Counseling and Testing

PLWHA: People Living with HIV/AIDS

PMTCT: Prevention of Mother to Child Transmission

SES: Socio-Economic Status

UNAIDS: Joint United Nations Programme on HIV/AIDS

VCT: Voluntary HIV Counseling and Testing

WHO: World Health Organization

ABSTRACT

No disease has ravaged human societies and attracted a lot of attention like HIV/AIDS. As part of the preventive effort, HIV Counseling and Testing (HCT) was designed to allow people know of their HIV status with a view to adopting a positive behavior that will stop the further spread of the disease. Despite efforts, evidence suggests that many people are not willing to be tested. This study, apart from the NDHS 2008 and 2013 reports, could not find any documented study on the awareness, acceptance and utilization of the HCT services in Gombe State. And even the two reports did not capture the comprehensive factors influencing the utilization of the in the state. Thus, this study sought to findout the level of the awareness and acceptance and the extent of utilization of the HCT services among the people of Gombe State and identify the factors influencing the utilization of the said services, by focussing on factors like awareness and knowledge of HCT, availability, accessibility, affordability of HCT facilities and services, stigmatization and socio-economic and demographic variables. The study employed a mixed method. Multi-stage sampling technique was used in chosing 1000 people between the ages of 15 and 50 for questionnaire administration. Judgemental sampling method was used in selecting respondents for KII and participants for FGDs. Using SPSS in analyzing the quantitative data, the results show males outnumbered females, majority are self-employed youth, unmarried and mostly having secondary leaving certificate. A significant number is living below the poverty line of 2 dollars/day bench mark. Awareness of HCT is high among the respondents, though inadequate. Facilities for HIV testing are available, accessible, and affordable. Acceptance of HCT is very high among the respondents.The findings also show low levels of the utilization of HCT services among them. The major barrier to the utilization is fear of being tested positive and stigmatization. More Christians tested for HIV than Muslims and youth between the age of 25 and 39 utilized the services more than any other age category. The result of the chi-square test revealed no relationship between utilization and sex, occupation, income and type of marriage, while a relationship exists with religious affiliation, marital status, age, employment status and geographical location. The implication of the findings is that, unlesssomething is done to deal with the stigmatization or its fear, both at personal and institutional levels, the utilization of HCT would remain very low. The study recommends that: the awareness and adequate knowledge of HIV/AIDS and HCTs services should be provided; laws on stigmatization and descrimination should be enacted; religious and opinion leaders should be fully integrated in the programme; and personal testing kits should be made free and available for confidentiality, easy access and convenience.

CHAPTER ONE

BACKGROUND TO THE STUDY

1.1 Introduction

The concern of the global community is to ensurethe quality of life/living of the existing population. This concern is due to the realization that living a life that is not qualitative is costly to families andthe society and inimical to development. Thus, good health (which is central to qualitative living) becomes indispensable to the path of development. In the popular cliché, 'a healthy nation is a wealthy nation'. An unhealthy population will not only be unproductive, but a burden that would slow the rate of development by 'consuming' resources that would otherwise be used for increasing welfare and/ or investment for further growth. Accordingly, the need for a healthy population had become one of the key concerns of all the levels of government and many Non-Governmental Organizations (NGOs).

According to the Global Health Council (GHC, 2011), no disease had ravaged human species like the Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS). As at 2012, about 35.3 million people across the globe were living with HIV/AIDS and about 1.6 million had died as result of the disease in the same year. Recent statistics on Nigeria put the prevalence of HIV/AIDS at 3.4 percent, indicating that over 3million people are infected throughout the country (National Agency for Control of AIDS {NACA}, 2012).

The impact of the disease can be felt in all the spheres of life: the political, the economic and the social. Apart from causing serious illness and death, the disease has also complicated efforts to fight poverty, improve the quality of life and promote development.

It is in realization of this that several efforts are being made at various levels (international, national and local level) to reduce the spread of the disease (HIV/AIDS). One of these efforts is HIV Counseling and Testing (HCT), a crucial part of the prevention strategy. A number of HIV Voluntary Counseling and Testing facilities are being established across Nigeria with the aim of preventing the spread of the disease by enabling those who are not infected to remain so and those infected to seek for treatment and plan for the future (to assist in preventing further spread). HIV Voluntary Counseling and Testing (VCT) is a valuable way to establish someone's HIV status. It is from here that people who areHIV-positive are usually placed under care. Conventionally, HIV Counseling and Testing involves the pre-test counseling of the potential client, where the client is counseled and informed of the choice or right to opt out before the test, followed by the HIV test for those that agree to be tested and, lastly, post-test counseling where those who are negative are advised on how to maintain their status and those who are positive to go for the treatment.

Awareness and acceptance are necessary before utilization. People have to be aware of the disease, the need to know their HIV status and, where possible, obtain HIV testing. Moreover, they have to accept or be willing to undergo the test, voluntarily, before being tested, as provided in the WHO's guidelines for conducting HIV testing. Access and utilization of HIV Counseling and Testing (HCT) services are key elements in the prevention strategy. However, despite the importance of counseling and testing and the availability of such service centers, utilization has not been significant. This position is supported by reports on the global AIDS epidemic, where a significant number of HIV-infected individuals worldwide is found to be unaware of their HIV status. Although the

WHO (2011) report on global HIV/AIDS response shows an increase in the utilization of HCT, the increase remains inadequate. The question is why only a small number of people utilize this crucial service. Number of factors ware found to be influential in determining the utilization of health care services (including HCT), but the scope of this research covers mainly the following factors: the awareness, acceptance, availability, accessibility and affordability (Cost) of HCT services, socioeconomic statuses, demographic characteristics and the fear of stigma.

1.2 Background of the Study Area (Gombe State)

Gombe State is located in the north eastern part of Nigeria, at latitude 9° 30' and 12° 30' North and longitude 8° 45' and 11° 45' East. It was created on October 1st, 1996 out of the then Bauchi State. The population of the state, as at 2006, was 2,353,879, according to the Federal Republic of Nigeria Official Gazette (2007). But the projection of the Gombe Diary puts it at 2,857,042 million in 2013 with a density of 128 persons per square kilometer, according to the GOMSACA bulletin. Females are up to 47.4% and males 52.6% of the population. The population of those within the reproductive age is 44.8%. Life expectancy at birth in the state is 44 years. Thestate has a total number of 11 local governments that constitute the three senatorial districts (North, Central and South senatorial zones)

According to the Gombe State Health and Strategic Plan 2011-2015 (GSHSP, 2011-2015), Gombe is a multi-ethnic and cultural state, comprising Fulani, Hausa, Tangale, Waja, Tera and about 15 other tribes. Islam and Christianity are the dominant religions, though traditional religion is also practiced in some parts of the State. Polygamy is the dominant type of marriage, practiced not only among the Muslims, but also by some

Christians and followers of the traditional religion. Despite the pluralism in language and religion, history has shown that majority of the ethnic groups originated from Yemen (Middle-east) through the Lake Chad region during the turbulent years of Kanem-Borno up to the period of the Fulani Jihad. By virtue of being situated at the centre of the North-East geopolitical zone, with about five Federal Trunk "A" roads connecting the state with other neighboring states, Gombe had became a nerve centre of commerce within the geo-political zone. The population and interaction of people have grown over the years, especially because of the growing security challenges in the neighboring states of Yobe, Maiduguri, Adamawa and Taraba States. Due to the relative peace in Gombe state, huge number of 'immigrants' can be seen everywhere in the Gombe metropolis, especially youth of both sexes. This has boosted commercial activities tremendously in the state. Being a promising young state with a high tempo for development and a transit point linking various states, Gombe also houses long-distance drivers. Similarly, the state is characterized by various cultural festivities, such as Sharo, Durbar, Ngorda dancing, Tangale bit-bit, Babunare, e.t.c. These situations create room for interaction among sexually active people of both sexes and further facilitate sex exchange and increase the risk of spreading the HIV disease.

Abba et al (2000) and Gombe State Health and Strategic Plan 2011-2015 (GSHSP, 2011-2015) maintain that the predominant occupation in Gombe State is farming (80% of the people are farmers, who engage in cropping and animal rearing), although commercial activities, such as trading, commercial motor-cycling, small scale industries and hawking, among others,also constitute the major occupations in the state. Physically and evidently, no state in this geo-political zone house the number of 'immigrants' (*yan-ci-rani*) who

engage in petty trading, hawking fruits, vegetables, etc like Gombe.To such an effect,people term it "*mai kamar Kano daga nesa"* (like Kano from a far distance). Girl-hawking is highly practiced in order to meet the needs of the teeming population in the metropolis. It is expected that interaction between people of reproductive age, with less social sanction (because of being far away from home), would lead to high sexual encounters, which in turn increases the risk of contacting HIV/AIDS. In particular, Gombe, being a fast developing state that attracts people from all over the country, is witnessing the growth of clubs, 'joints', hotels, brothels and viewing centres among other avenues of close interaction. Both traditional and 'modern' lodgings continue to exist alongside each other. While the modern hotels accommodate civil servants and other elites, the traditional lodgings house low-income immigrants who cannot afford to go for the 'modern' hotel. More than 30 'modern' hotels are currently operating in the Gombe metropolis. Abba et al (2000) confirmed that entertainments, leisure and evening outdoor activities had been going on in Gombe even before 1940 and continue till date. In particular, Sabon Layi and the Southern part of Herwagana quarters have maintained their old feature of housing commercial sex workers, drummers and beer sellers. Though, these locations are meant for the low and middle income earners, Clubs in GRA and the Tumfure sides are largely patronized by elites.

Statistics from Gombe State Health and Strategic Plan 2011-2015 (GSHSP, 2011-2015) shows that, in addition to the Federal Medical Center, the state has 18 General hospitals, 469 Primary Health Care Centers and 70 Private health facilities, out of which 203 facilities provide HIV Testing. The doctor-patient ratio and nurse patient ratio are 1:43,000 and 1:1521, respectively. This is far below the WHO's standard of 1:500.

1.3 Statement of the Research Problem

Statistics of HIV in Nigeria indicate that, in 2012,the HIV prevalence rate was 3.4 percent, while the number of people living with HIV/AIDS was around 3.5 million. This means Nigeria is in the second position, next to South Africa, among the African countries with a large number of people living with HIV/AIDS. In the North East geo-political zone of Nigeria, the average HIV prevalence is about 4.0 percent.In particular,Gombe state has 4.2 percent (NACA, 2012). In the Billiri LGA of Gombe State, HIV prevalence among pregnant women is up to 7.3 percent (GSHSP, 2011-2015). The major concern of this thesis is on the area of prevention, especially as cure has not been found, particularly the issue of the awareness, acceptance and utilization of HIV/VCT services. Knowing one's HIV status is the most crucial aspect of prevention because, by so doing, it would greatly reduce the spread and/ or risk of being infected with the virus in the following ways: (1) if after the test one is found to be negative, he/she would be counseled on appropriate measures that will help him/her avoid the infection; (2) if found to be HIV positive, one will be guided on the appropriate therapy and behavior (including the right diet) that can help stop the multiplication and spread of the disease.

Although reports are showing that national efforts, coupled with supports from other development partners, have contributed in preventing the spread of the disease, as well as in taking care and treatment of the 'victims', such progress is not enough. For example, despite the importance of knowing one's HIV status, the NACA (2012) report indicates that only 11.7 percent of people within the reproductive age know their HIV status in the last 12 months (thus, the greater percentage of the people in the country does not know of their HIV status). Even among the most at risk population

(MARP),particularly sex workers (both sexes), only 41.8 percent utilized the HCT services in the last 12 months. The number of HIV/AIDS orphans in Nigeria has increased over the years (from 2.1million in 2008 to 2. 2million in 2012). In 2011, the percentage of pregnant women who utilized HCT services was just 16.9 percent in the whole country. This shows that mothers are at the risk of transmitting the disease to their babies (MTCT). Data show that HCT uptake among the people in the North East geo-political zone was very low, especially among pregnant women. This suggests that most people are not willing to go for HIV Counseling and Testing, despite its significance to halting further spread of the disease. The question is: why the low patronage of the HCT/VCT services in this region? Is it due to the unavailability and lack of accessibility to HCT services in the region? Is it due to lack of awareness, cultural and religious beliefs, the fear of stigmatization or being tested positive, lack of quality services or is it because people cannot afford to pay for such services? In view of the above, the following questions were raised:

- What is the relationship between socio-economic characteristics,on the one hand, and awareness, acceptance and utilization of HCT services, on the other hand?
- Are people in Gombe State aware of HCT services? If yes, what is the relationship between awareness and the utilization of the HCT services?
- What is the extent of acceptance (the willingness to test) and rejection of HIV Counseling and Testing in Gombe State?
- What is the percentage of the utilization of HIV Counseling and Testing in Gombe State?
- How does availability of HCT services promote the utilization of HCT services?

- How does accessibility of HCT services promote the utilization of HCT services?
- How does affordability of HCT services in Gombe State influence the utilization of HCT services?
- Are People Living withHIV/AIDS(PLWHA) stigmatized in Gombe? How does fear of stigmatization influence the utilization of HCT services?

1.4 Aim and Objectives of the Research

The aim of the research is to determine the extent of the utilization of HCT and the factors responsible for the utilization or lack of it among the people of Gombe State.

The specific objectives include:

1- To identify the socio-economic characteristics of respondents and how they influence the awareness, acceptance and utilization of HCT services.
2- To determine if people are aware of HCT and how it influences their utilization of HCT services.
3- To determine the extent of the acceptance and rejection of HIV test by the members of the public in Gombe
4- To determine the extent of the utilization of HCT services among the people of Gombe State.
5- To determine how availability of HCT influences utilization.
6- To find out how access to HCT services influences utilization.
7- To determine how affordability of HCT services promotes utilization.
8- To determine the extent of stigmatization and discrimination against PLWHA and how they hinder utilization of HCT services.

1.5 Justification for the Study

This section provides a brief justification for conducting the study, particularly its contribution to policy, awareness creation and adding value to the existing body of knowledge. The following are considered to be the specific significance of the study:

1- Policies are context-specific because each society has its own peculiarity, depending on place, time and situation. In view of this, the research will assist in the process of re-designing or improving the HCT policies that are peculiar to Gombe State by identifying the barriers to HIV/AIDS Testing.

2- Data on HIV are largely gotten from the health facilities (sentinel surveys). There are limitations on relying on that source heavily, because not all people have access to or utilize hospital services and thus many may not be captured. This research will serve as a complimentary source of data on HIV/AIDS, especially in area of HCT by covering members of the public, both those who attend the hospital and those who do not.

3- Result from this research will provide understanding of some determinants of health-seeking behavior on HIV/AIDS.

4- The outcome of the survey will serve as the basis for justifying or refuting theoretical postulations and/ or identifying the strengths and weaknesses of some sociological theories that seek to explain human behavior.

5- The study will stimulate other researches and serve also as a point of reference for future surveys in areas related to the awareness, acceptance and utilization of HCT

services, especially as no similar work (based on searches on the internet) was conducted on the topic in Gombe and North-East in General.

1.6 Scope and Limitation of the Study

The study is limited only to the members of the public, PLWHA and the officials of GOMSACA in Gombe State, Nigeria. Not all the Local Governments were covered. Only 3 LGAs were selected for this study, one each from the three senatorial districts. The work is also limited to men and women who are between the ages of 15 and 50.

1.7 Operationalization of Key Concepts

Utilization of HCT/VCT Services: Utilization of HCT services refers to the use of the services by people or members of the society. In this context, it refers to the extent to which people in Gombe state are using HIV Counseling and Testing Services in various centers available. Knowing one's HIV status in the last 12 month based on professional account entails utilization. However, both HCT and VCT are taken here to mean the same thing.

Testing: This means formal procedurefor knowing HIV status(i.e. through clinical test). The status can be positive (indicating infection with HIV/AIDS) or negative (showing no infection).

Economic Status: This refers to the respondents' levels of income and education, as well as the nature/type of his/her occupation. A combination of these will provide the basis for classifying each respondent into high or low socio-economic status. Those respondents with high levels of formal education and income and/or 'prestigious' occupation are categorizedas 'high status',while those having less prestigious occupations, low income and low levels of education are classified as having low status.

Awareness: Awareness here means respondents' knowledge of the need for a HIV test at least once in every 12 months.

Availability: Here availability entails the presence of HCT facility or any facility rendering HIV Counseling and testing services in the respondents' locality, neighbouring community or local government area.

Accessibility: Refers to geographical access (proximity). HCT facilities are said to be accessible if they are found in the respondents' locality/community, neighboring community or local government headquarters. Inaccessibility here means the facilities are located elsewhere other than the above places (i.e far away from the respondents' local government area of residence).

Acceptance: Means agreeing that there is the need for knowing one's HIV status; and willingness/readiness to go for the HIV Counseling and Testing at the appropriate center/facility.

LevelofAcceptance: Refers to the extent to which people are willing to go for HIV testing at the appropriate facility the results of which are presented as: high; low; or moderate levels of acceptance.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

In this section, literature and theories are reviewed. The literature review begins with the conception of the terms HIV Counseling and Testing, approaches to HIV counseling and testing, the effects of HIV/AIDSand a review of the factors influencing the utilization of HCT services. In particular, the roles of demographic and economic characteristics, awareness, acceptance, availability, accessibility, affordability and stigmatization in enhancing and hindering the utilization of HCT services were examined. The second part of the review discussed some theories related to the study. Precisely, the Rational Choice and Exchange Theory, Parsons' Sick Role Theory, Thomas' Situational Analysis, Weber's Life Style and Life Chances, and the Labeling Theory of Becker were examined alongside the Health Belief Model.Two theories (Weber's Life Chances and Life Styles alongside Becker's Labeling Theory) were chosen to be the theoretical framework.

2.2 Literature Review

2.2.1 HIV Counseling and Testing (HCT/VCT): Meaning, Importance and Forms

HIV counseling has many names, ranging from Voluntary HIV Counseling and Testing, Voluntary Confidential HIV Testing and Counseling to just HIV Counseling and Testing. The World Health Organization (2012) stated that HCT is an important gateway to HIV prevention, care and treatment, because early knowledge of HIV positive status

provides an opportunity for victims to seek for treatment and take all the necessary measures to avoid spreading the disease further, especially to partners and mother-to-child transmission. As one HIV positive-person in Nigeria opined: 'An openly positive person is an asset rather than a danger to public health. After all, the real danger lies in the hordes of people who, unaware of their HIV status, engage in unprotected sexual relationships.' (http://www.nigeriahivinfo.com/hiv_forum.php). In fact, according to the WHO (2012), being on effective treatment reduces the rate of transmission by 96%. For those who are negative, by learning their status and receiving counseling, it is hoped that, they will adopt positive behaviors so as not to be infected. The WHO has the popular '5 Cs' as the guidelines needed to be respected during HCT service delivery.These are: consent; confidentiality; counseling; correct test results; connection to prevention, care and treatment.

Kaai et al. (2012) contends that HCT provides opportunities for reducing HIV transmission by 'regulating' people's behaviors that could lead to the transmission of the disease. Specifically, HCT has the following advantages:

1. Those who are found to be HIV positive or infected with HIV have the chance of enrolling into treatment in good time and can also take precautionary measures not to infect others.
2. Pregnant women who are positive can act, based on the knowledge of their HIV status, to reduce the rate of vertical transmission to their yet-to-be born babies
3. Those who are tested negative can also be guided to reduce or abstain from risky behaviors and learn to provide support to those who are positive.

A number of approaches to HIV testing and counseling were designed to motivate more people to accept it. Initially, VCT or Client- Initiated Counseling and Testing, where the individual decides on his/her own to go for HIV test, was the only approach. However, WHO and UNAIDS (2007) and Branson et al. (2006) stated that the United States Center for Disease Control and Prevention (CDC), WHO and UNAIDS recommended that contact with the health care system (which is usually high) should result in timely recommended, offered and delivered HIV testing to be initiated by health care providers.This recommendation led to the introduction of Provider-Initiated HIV Testing and Counseling (PITC). Dalal et al. (2011) identified the advantages of PITC over traditional VCT or Client-Initiated Counseling and testing model as follows:

a- PITC normalizes the HIV test procedure similar to those of other diseases, thus reduces stigma.

b- PITC helps in reducing the time required to obtain an HIV test by limiting the protocol of seeing a counselor and test personnel before being tested, as obtained in the traditional VCT.

c- It allows for a large proportion of people to be tested and by extension, increases the number of people who know their status and enables those who are positive to take treatment in good time and those who are negative to take precautionary measures not to be infected (i.e. prevention).

However, findings from a study by Njeru et al. (2011) indicate that Provider–Initiated Counseling and Testing, as applied in some districts, raises an ethical issue becausethe clients in most cases had limited choice to opt out of the test, especially because the Pre-test counseling/information is predominantly left out and other health care services

provision are sometimes tied up to the acceptance of HCT (thus, no longer voluntary but, compulsory), as portrayed by the following cache':

> During the second pregnancy we were not given a choice. It was a must to get tested on HIV and then (after that) on the pregnancy. We were not asked; you enter in the room for HIV testing and then you go for other tests. To tell you the truth, some got quite scared that day when we were suddenly tested. People panicked a lot. So people were not happy, but it was a must that they do it. (Female 35 years old, Urban Malindi. Cited in Njeru et al. 2011:7)

Njeru et al. (2011) concluded that client's autonomy should be protected. Moreover, the result of their findings shows that pre-test and post-test counseling is very important in that it gives the client the courage to take up the test and face the outcome of the test as appropriate. A respondent expressed his feelings thus:

> Because you may have come there for testing and if you are found (meaning: if you found to be HIV positive) you will have a lot of worry because in your heart you wonder: 'now I have been found, now what will I do?' Then you have a lot of thoughts, but if you find a person that gives you counseling or ideas on what you will do, it will cool your heart. You will be able to settle a little bit. (Male 43 years old, rural Malindi, cited in Njeru et al. 2011:6)

Njeru et al.'s (2011) findings indicate that women tend to go for the test 5 times the number of men in some of the study districts. This places more burdens on the females who have to take responsibility of breaking the news to their partners which may create more problems for them. In fact, one respondent prayed that:

> For me I would feel good if there was a way these men can also be forced to go for testing instead of waiting until their wives get pregnant. (Female Pregnant, FGD, rural Malindi. Cited in Njeru et al., 2011:9)

According to the Centre for Reproductive Rights, Federation of Women Lawyers-Kenya (2008), the lopsidedness of PICT that subjects more women to test, sometimes results in violence (both physical and emotional) against women who are positive to such an extent that a tribunal had to be set up in order to checkmate the excesses of such violence and intimidations. Clearly, both models of providing HIV testing have their own

weaknesses and strengths. That is to say, no single model fits all social realities. In particular, the PITCT model, which sought to normalize HIV testing with other diseases, with a view to encourage scaling up and discourage stigmatization, had to some extent created more opportunity for stigmatizing women, being those who most frequently go to the hospitals than men. The patriarchal nature of African societies has made it (Scaling up of HIV testing through PITCT model) difficult to succeed without taking on board both husbands and wives.

Equally, the traditional VCT has its own limitation, especially by failing to encourage a significant number of people to go for HIV testing and posing a threat to the innocent (unborn) child, whose mother might be a carrier. These shortcomings of both models of HIV testing show the need for devising an appropriate method that would suit each context. For example, the realization of the importance of knowing HIV status has made some communities start using religious institutions, especially where such institutions are regarded with high esteem, to 'encourage' people, especially potential couples, to go for HIV testing. They did so by requiring both the brides and the grooms to submit HIV test results before they are joined together as couples in churches and mosques. These institutions use provisions from holy scriptures to back-up the requirement for knowing HIV status (and pregnancy status in the case of Muslim women) of the potential couple.

2.2.2 The Impact of HIV/AIDS

According to Awake (2002), AIDS has a negative impact on economic growth and/or productivity, as workers get infected. Another devastating outcome of the disease is the large number of children becoming orphans as a result of the disease. In addition to

losing their parents and likely contacting/inheriting the disease, they also lose financial security and get stigmatized. These further make them vulnerable to prostitution and other abuses. Similarly, UNAIDS and IPU (1999) posit that, because the disease is mainly concentrated among the prime-age adults (youth) who ought to be productive at that age, often heading their families, it has a tremendous impact on life expectancy, exacerbates inequality (among the surviving orphans and partners) and increases or places burdens on health systems. The acceleration in the spread of the disease has lead to the death of adults with severe consequences on family welfare.

2.2.3 The Factors Influencing the Utilization of HCT Services

Taylor and Field (2007) believe that people's response to sickness or illness cannot be separated from the organization of the wider society. That is to say 'patterns of health and health care do not exist in a vacuum, but are influenced by the nature of the society from which they emerge'. Social forces such as occupation, culture, ethnicity, race, etc. to some extent determine variations in health, access and the utilization of health care facilities. Webb and Tossell (1991) believe that unequal opportunities inherent in our society make it impossible to have equal access to medical services and/or utilize them. The reason simply being we have different attributes or traits (race, status, etc.), though in principle attempts were made and are still being made to eliminate these inequalities.

Kaai et al. (2012), in their survey on the factors that affect HIV testing and counseling services among heterosexuals in Canada and the United Kingdom (UK), reviewed 27 documents that matched their criteria for selection. This involved both published and unpublished materials, such as peer reviewed publications, reports and gray literature from both governmental and non-governmental institutions, dissertations and

conference proceedings available to them, among others. However, only articles that focused on HIV testing or HIV antibody test and factors that affect the utilization of HCT services were reviewed. The summary of the findings were presented in a tabular form containing the names of the authors and locations, the targeted population, study objectives and the design and, lastly, the key findings in brief. Kaai et al. (2012) divided the factors associated with HCT in to 3 broad groupings, namely: Socio-demographic and Personal-related; Provider-related and System-related factors.

Under the socio-demographic factors, the review revealed that age is the most frequently reported variable associated with HCT and, in particular, the findings show that those who are within the middle ages of 31-45 years tend to accept HCT more than those who are younger and older. The second socio-demographic characteristic associated with HCT is being a recent immigrant than being a long resident or UK-born immigrant. This was because of the immigration policy that largely requires new immigrants to go for medical tests. Other socio-demographic factors, such as ethnicity, residing in cities whose population is over 1,000,000, having low income, being a female and being more educated, were also found to be the motivators for HIV testing among the heterosexuals in Canada and UK.

The personal-related factors were further subdivided into six categories, including: risk perception; illness or having HIV symptoms; fear of HIV-related stigma and other fears; level of HCT education; mandatory or partner recommended HIV test and Culture. Kaai et al maintained that, 70% of the studies reviewed show that risk perception is the most common factor leading to the utilization of HCT services, followed by having symptom or illness as found in 44% of the documents reviewed. The level of the

knowledge of HCT, including where to obtain an HIV test and various options available among others, as reported in 10/27 documents, is seen as the third personal-related most influential factor (motivational factor). The findings of the study among the Aboriginal women in Canada demonstrated the role of cultural belief in discouraging the utilization of HCT services. The norms, among this tribal group, the discourage disclosure of any problem, including sex-related problems to strangers such as health care providers. This serves as a barrier to the utilization of HCT services.

There exist two most influential provider-related factors based on this review by Kaai et al. (2012), namely: provider's recommendation to test and convenience. The two act as both motivators and sometimes as barriers. In 5 out of the 27 studies reviewed, the respondents that were encouraged by the physicians to go for HIV tests did so more than those who were not. Similarly, the respectful, compassionate nature of the service providers and the similarity of language encouraged respondents to take up the HIV test. Awareness creation and using outreaches in appropriate venues were also found to be motivators for the uptake of HCT among Canadian respondents. However, a poor provider approach and lack of competent counselor discouraged the utilization of HCT, as found in 7 studies. Lack of convenience or specifically distress among patients or clients during the HIV test discourage them and others from utilizing HCT services. On the other hand, system related factors such as integrating and 'normalizing' the HIV test with other conventional medical care services encourage people to accept the HIV test, as reported in 33% of the documents reviewed. Perceived lack of anonymity, inaccessibility and lack of convenience among others were also cited as barriers tothe utilization of HCT services in UK and Canada.

A major strength of Kaai et al.'s finding is its ability to classify factors influencing and hindering the utilization of HCT services into segments, namely: socio-demographic and personal-related; provider-related and system-related factor. However, since the study was based on research in the UK and Canada, different results might be obtained in African settings due to cultural and institutional variations/differences.As Taylor and Field (2007) argued, response to sickness is a function of societal organization. Another limitation of Kaai at al.'s analysis is that the concept of 'lack of convenience' as a barrier to utilization (among the system related factors) is vague. The phrase could mean a number of things, ranging from inappropriate timing for providing the services of HIV testing, inappropriate location to lack of confidentiality, which the analysis failed to specify.

Njeru et al. (2011) identified interpersonal trust between the counselor and client during the counseling session as an important component in encouraging behavioral change that could lead to the acceptance of an HIV test by the client, which is the most ethically accepted way of getting to know one's HIV status. In fact, perceived competency and confidentiality are among the indicators used in measuring the quality of health care services. People, especially of high socio-economic status, tend to patronize services that are seen to be qualitative, characterized by not only qualitative drugs, limited waiting time, but also where the personnel are perceived to be competent and able to earn the trust of their clients.

Nuwaha et al. (2002) and Nybede, et al. (2001) research findings in Uganda revealed that distance, cost of services, fear of outcome, lack of self confidence and stigmatization were the major factors/barriers that cause the low utilization of HCT

services across the globe. While Yoder and Matinga (2004) in Malawi; Khalid, Sarfaraz and Imran (2003) concluded that thesymptom/severity of sickness, marital requirements, the suspicion of partners, family support/influence, job requirements, etc. are the major motivators for the utilization of HCT services in Malawi and Pakistani's Rawalpindi, respectively.

Similarly, Mugisha et al. (2010) assessed the factors influencing the utilization of VCT services in the Kasenyi fishing community in Uganda. The outcome of the research revealed that more than half of the respondents (52.8%) have never been tested for HIV. There seemed to be no differences across gender for those who tested for HIV. A number of reasons were advanced by those who did the test as to why they did it. Most of those who tested said it was because they had a risky lifestyle, were experiencing symptoms associated with HIV and suspicious of their sex partners' risky lifestyle and/ or death. A few (8.3%) tested during pregnancy and 20% gave no specific reason for doing theHIV test. On the other hand, those who were never tested for HIV said they didnot do it because they were afraid of the test results and a few others lamented that lack of time for doing the test and the belief that the test wasnot necessary, among others, were the reasons for the non-utilizationof HCT services. The conclusion in this finding is that, though there existsa high level of awareness of HIV/AIDS' means of transmission and prevention, there was a low level of awareness on the need for and the importance of HCT in prevention and care.

However, the USAID report of 2000 had shown that, accessibility, confidentiality and affordability lead to increase in the rate of the utilization of HCT service in Africa. This is somehow consistent with the findings of Abdullahi (2004) where, despite the

seemingly high level of knowledge (about HIV/AIDS, location and the advantages and disadvantages of utilization of HCT services) among people of Kano Metropolis, utilization was very low. This was attributed to fear of being labeled HIV-positive if seen in the facility. Thus, had the facility been sited in an'appropriate' location, utilization could have been enhanced.

Naik et al. (2012) conducted a research in rural South Africa on Client's Characteristics and Acceptability of a home-based HCT intervention. The result of the survey shows a significant up-take of HIV testing as a result of the approach and also revealed that, more females accepted the test than males (females 73.7% and males 26.4%). However, the major factors hindering the acceptance of the HIV test are: not being ready; feeling scared and needing to think about it (34.1% of the respondents). Others (22.6%) claimed to know their status, being HIV-positive (18.5%), so there is no need to do it again, while 18.5% and 10.1% said they are not at risk of being infected that is why they rejected the test.

A critical look at the categorization of the major barriers to the utilization of the HCT services above shows a poor categorization, particularly reporting 'know their status' and 'already HIV positive' as different responses or categories. This is because being HIV positive indicates knowing HIV status and in so far as 'being scared', 'not ready' and 'need to think about it' can be subsumed under a single heading, then the same can be done for 'I know my status' and 'already HIV-positive'. Moreover, since the focus is on those who have not tested, then 'wrong' respondents were administered with a 'wrong' question, because, 22.6 percent and 18.5 percent had tested already, thus no need to inquire about why they didn't test, especially as the study did not report when they actually did the test.

The findings of Wall et al. (2013) demonstrated the role of significant others (Influential Network Agents and Leaders) in promoting HCT uptake in Lusaka, Zambia. The use of this approach had stimulated an approximate number of 100 couple per month to test for HIV in Lusaka. Among the INAs, those from health networks and CBOs/NGOs were found to be more influential in getting the couples to go for the HIV test than Faith-based INAs in Lusaka.However, if the same method would be used in Nigeria, the result may be different given the role and influential nature of FBOs and religious leaders. It was also found that, though couples reported the existence of stigmatization in the society, married INAs, unlike those who are not, were more successful in breaking this barrier and thus more successful in convincing more couples to accept and test for HIV.

Yahaya et al. (2010) in their study of the factors hindering the acceptance of HIV/AIDS voluntary Counseling and Testing among youth in Kwara State, Nigeria found that the respondents' opinion shows ignorance, poverty, inadequate VCT facilities, stigma and discrimination as the major factors hindering the utilization of VCT services. Specifically, they emphasized that, majority of the respondents cited ignorance, fear of being tested positive, the cost of VCT, the inadequacy of VCT facilities/centres and stigmatization as the major barriers to utilization, in order of significance.Uzochukwu et al. (2011) conducted a cross sectional studies from the University of Nigeria, Enugu (UNEC) campus and the Institute of Management and Technology (IMT), Enugu, with the aim of examining the level of the awareness of youth to VCT and the willingness to pay for this vital preventive health care service and exploredthe reasons for the under-utilization of the service. The study confirmed that, there is a gross underutilization of HCT services among the youth in the studied institutions because only 19% of the

respondents had known their HIV status as against 81% who had not been to any VCT centre. The major reason given by most (45.7%) of the respondents who did not utilize the HCT service was that they are not aware of where to obtain an HIV test (i.e. the HCT Centre).This indicates a huge gap in the awareness creation campaign in the state. Twenty percent of the respondents are said to be indifferent and 12.8 percent and 8 percent failed to attend the VCT service centre because of the cost of the service and stigmatization, respectively. One major problem in this finding is its inability to properly differentiate between the ever tested and the tested in the last 12 months. The study shows only 19 percentof the respondents have accessed (and in some places utilized) the HCT service without making reference to the time when they did so. Also, there was no operational definition of utilization throughout the paper.

Rebhan (2009) opined that it is difficult to identify which determinants are the most influential in the decision to utilize health care services (HCT services inclusive). However, he sees culture, economy, access, perceptions, knowledge, efficacy, age, gender and social roles to be among the extensive list of the factors influencing the choice to seek for health care. With this knowledge in mind, the following factors will be examined based on the belief that they constitute the most frequently reported ones in influencing/hindering the utilization of HCT services.

2.2.4 Age, Sex and the Utilization of HCT Services

Both Age and Sex, according to Joseph and Phillips (1984), represent the 'manifestly important variables influencing health services utilization'. Depending on the services, age accounts for the utilization of health services. In this case, the young and adults are more likely to utilize HCT services compared to the elderly or the old.

Similarly, Verbrugge (1979) and Cleary et al. (1982) posit that women more likely than men to use HCT services because of the reasons associated with childbirth and higher morbidity rate and according to Fieldman (1966), possess more knowledge about health matters.

Similarly, the men-women variation in the utilization of the health care services can probably be due to the fact that women report more illness than men, perhaps because of the popular 'masculine role' of taking disease as 'business as usual' (Cockerham 1978). Poku and Sandkjaer stressed that:

> Emerging evidence from Botswana suggests that when testing [HCT] is readily available, women are more likely to test, both because women are offered tests as part of antenatal care, but also because women in general are more likely than men to come forward for voluntary testing. In line with the gendered patterns of health-seeking behaviour, men are more likely to present for testing only when they are already presenting symptoms (Poku and Sandkjaer2007:282).

Although this argument can be true, there is the need to take into account the cultural restrictions on the 'activities' of women, including going to hospital for ante and post-natal care, etc, which characterized many African societies. Thus hypothetically, it is possible to have more men utilizing HCT services than women.

Tabana et al (2012) conducted a survey in 16 communities in Sisonke district of South African Kwazulu-Natal in 2008 to determine the knowledge of HIV status prior to community HIV counseling and testing intervention. The results of the survey revealed that, out of the total sample of 5821, only 1833 (32%) respondents were ever tested, out of which 82% were women and 17% men (note that the total did not add up to 100%, but 99%), indicating that women utilize HCT more than men, as other findings confirmed. In fact, the findings also indicate that 75% of the pregnant women interviewed reported being tested previously. Further discussion of the results shows that the low level of the

utilization of the HCT services, particularly among men, is attributed to limited access to the facilities, especially non-clinical HIV testing services. Thus, men tend not to go for testing unless when they are ill and were asked to do it at the health care centres. Another factor or explanation given by Tabana et al for this low up take of HCT by men was the issue of 'proxy' testing –a kind of belief that if the status of one's partner is known (e.g. woman during ANC) then the other's status (the husband's) will be the same.Thus, there would be no need for him to go for the test. They concluded that, for utilization to be enhanced among men and women who do not attend ANC or go for treatment in the hospital, non-clinic based HCT should be introduced to the communities.

Kabiru et al. (2011) surveyed the correlates of and motivations for HIV testing among youth in Kenyan urban slum of Korogocho and Viwandani. The results of the findings revealed that 19% of male and 35% of female respondents know their HIV status. Out of those who were tested, 74% of the males and 43% of the females did so voluntarily, while 7% and 32% of males and females respectively were required to do so. ANC is the major factor for HIV testing among females. Overall analysis of the correlates indicates that perceived risk of HIV infection is the major driving force for HIV testing among the youth. Thus, they concluded that the HIV test uptake can be enhanced by helping youth to correctly assess the risk of infections and increase the level of awareness.

2.2.5 Belief/Culture and their Influence on the Utilization of HCT Services

Rebhan (2009) argues that variation in health care utilization can result due to cultural knowledge and understanding illness. That is to say the way people perceive a particular illness/disease to be will affect their response towards that particular illness. For example, in a typical traditional Hausa/Fulani community, epilepsy is seen as a spiritual

disease that requires interventions other than modern medicines. Equally, diseases such as *kurga* (Infantile Eczema), piles and yellow fever are considered by many to be best treated with traditional herbs rather than modern medicine. This kind of belief or conception has a profound effect on the way such people respond to illness.Caldwell, Orubuloye and Caldwell (1992) reported cultural influence on the sexual behavior of people in southern Nigeria. Their findings revealed that: people conceived AIDS to be a disease for the sinners that requires only traditional and/ or divine interventions; belief in destiny and pre-ordained time of death and a stoical attitude to death. The belief in destiny or the pre-ordained time of death has made people reluctant to take responsibility when it comes to sexuality or HIV/AIDS. This stands to be a barrier not only to changing sexual behavior, but also in the utilization of HCT services.

The stoical attitude is an extension of the belief in the pre-destined time of death, which was rooted in tradition and supported by religion (Caldwell et al., 1992). Simply put, the stoical attitude stands for people's acceptance of death without fear since it is pre-ordained. Most of those who hold such a belief can hardly make any concerted effort to change their sexual behavior or even utilize HCT services for fear of death. Here, the roles of religious and traditional rulers in re-positioning such stoical belief become important.

2.2.6 The Socio-Economic Status (SES) and Utilization of HCT Services

Mueller and Parcel (1981) posit that socio-economic statusdetermines one's or family's ranking on a hierarchy in terms of access to or control over some valued societal resources, such as power, wealth and prestige. Bornstein and Bradley (2003) acknowledged that there is no single standard of measuring SES, but research has shown that a number of indicators are being used in measuring it. These include: family income

and mother's education; and a measure of family structure, including father's education and/ or occupation.

The website of the American Psychological Association quoted Joy et al. (2008) saying that SES most of the times determines access to HIV treatment, where individuals with low SES delay treatment initiation unlike the more affluent patients, reducing their chances of survival. Similarly, Pollock (2013) in Te Ara Encyclopedia of New Zealand posits that, the Socio-economic status of people is one of the key factors/variables that determine people's health condition in New Zealand, such that those who are well placed continue to enjoy better health than those who are not (poor people). This inequality, in health access, cuts across all diseases and illnesses. Technological advances have given the rich an edge over the poor. That is to say, those who are rich tend to have better access to medical care (and, by extension, the utilization of HCT services) than those who are poor. The indicators used in measuring the SES are: Income; occupation and Education.

Deaton (2003) supported the above position that people with high socio-economic status lived longer than those who are poor. Specifically, he said findings from the 1980s show that people whose annual income is up to $50,000 have a 25 percent longer life expectancy than those who are earning less than $5,000. On education, he maintained that many economists had since established a correlation between education and understanding using health information as well as benefiting from the health care system. He further quoted epidemiologists, arguing that SES is a fundamental cause of health and that income inequality is like air pollution or toxic radiation, serving as a hazard to healthy living. All these show a positive linkage between high SES and access to a healthy life style and good health care services.

Also, Makhlouf et al. (2013) examined the socio-economic determinants of HIV testing and counseling among four African countries (Burkina Faso, Kenya, Malawi and Uganda) in a cross-sectional survey of health facilities. They interviewed 3659 people on their testing status (ever testing) and mode of testing (VCT, PMTCT or PITC). Using Poisson regression and multinomial logistic analyses, they analyzed the determinants of ever testing and using a particular mode of testing. The conclusion reached at the end of the study is that higher socio-economic status is associated with the likelihood of testing at VCT rather than other facilities or not testing. There exists no much difference in terms of the socio-economic status of those who utilized HIV testing services through PITC and those not tested. In other words, almost both people of high and low socio-economic statuses tested in PITC and same failed to test. Giving the fact that majority of the people of Gombe belong to the low socio-economic status group, it can be expected that majority may not have tested for HIV/AIDS, unless if the services are provided freely.

Matovu and Makumbi (2007) and Obermeyer and Osborn (2007) identified constraints, such as shortages of staff, facilities and roads, the cost of the services, lack of awareness, fear of stigmatization etc. as the factors hindering the utilization of HCT services in Sub-Saharan Africa. Although the survey reported indexing respondents' wealth (measured via their household assets and amenities) and scores were assigned for each respondent, what score constitutes high or low socio-economic status were not stated in the report. Secondly, measuring the respondents' household assets and amenities does not take ownership or otherwise into account. For instance, a house-help who might be residing in a rich man's house may have access to the amenities and assets, but cannot be

said to 'own' them, thus making it difficult to say such a person belongs to a high socio-economic status group.

One major weakness inherent in the above arguments is the assumption that wealth leads to a healthy living or life style. This has been questioned by Barnett and Blackwell (2004) and Simmel (2004) because wealth also increases the rate of moral laxity and excessive consumptions (including sexual intercourse), which usually leads to illnesses and diseases. Of course, there is no doubt that the rich have more or better access to health information and technology, thus facilitating the utilization of health care services than the poor.

2.2.7 Education/Awareness, Knowledge and the Utilization of HCT Services

Lack of knowledge is a barrier to the adoption of a new behavior or the maintenance of existing ones. Studies in some African countries have indicated a positive correlation between the utilization of HCT services and educational level. For example, Glick and Sahn (2007) draw a conclusion based on studying 19 Demographic and Health Surveys from nine African countries that the likelihood of utilizing HCT services increases with the level of education. Similarly, Mekonnen and Asnaketch (2002) found that education continues to exert a strong and independent influence on the utilization of antenatal care services in urban Ethiopia, where, compared to women with no education, those with primary education were nearly two times more likely to use ANC services. Utilization is four times higher among women with secondary education compared to those with no education. Hutchinson and Mahlalela (2006) also opined that, the utilization of VCT services in Eastern Cape (South Africa) is positively associated with education, among other factors. The result of their findings revealed that women with secondary

education are about six times more likely to use VCT services than those without education. This is also the case among men, though the gap is not too much: 20.3% among men with secondary education and 12.4 percent among those without education.

However, the above findings that indicate a positive correlation between education and utilization are not consistent with that of Ekanem and Gbadagesin (2004) where they found that 'the association between level of education and willingness to undergo testing was not clearly defined'. The research was conducted among women attending antenatal clinics in Lagos.

Poku and Sandkjaer (2007) clearly admitted that one of the key challenges in curbing the menace of HIV/AIDS in Africa is lack of knowledge of one's HIV status. In their words:

> The vast majority of those who require services are still 'unidentifiable', because, despite the appallingly high prevalence estimates, most individuals do not know their HIV status (be it positive or negative). Because knowledge of status is the critical entry point for any type of services, lack of knowledge in turn means that, other things being equal, individuals tend not to be identified until they have to interact with the health establishment. Usually this is due to illness (which could be facilitated by a weak immune system), and thus ARV therapy becomes an emergency intervention, placing further stress on scarce resources. (Poku and Sandkjaer, 2007:283)

Just like Abdullahi (2004) established that there is the awareness of HIV/AIDS and where to obtain an HIV test among people of Kano metropolis, Ilyasu et al. (2006) further discovered the same result among adults in rural Danbare community, of the Kumbotso Local government area in Kano state. The findings show that 97% of the adult respondents have heard about HIV/AIDS and 70.9% demonstrated knowledge of the HIV/AIDS mode of transmission among others. With regards to the awareness of VCT, about 55% are aware of it, though the level of formal education had a more positive influence on the respondents' awareness. However, this awareness is limited in the sense that only 26% of

those who are aware of the VCT know where to obtain it, and above all, none of the respondents described the procedure for test appropriately. The implication of this is that either the service providers had not followed the steps required for the HIV test or that none of the respondents had truly been tested. Similarly, another implication of Ilyasu et al.'s findings is that, though awareness is an important ingredient for the utilization of HCT services, it may not necessary lead to the utilization, perhaps due to the other intervening variables like acceptance, access to the facilities, stigmatization, etc.

Suleiman and Haruna (2014) studied the perception and proactive measures against the spread of HIV/AIDS among the undergraduate students of Ahmadu Bello University, Zaria.Their findings revealed that majority of the students have awareness of HIV (58.8%) but 30% are not aware, indicating success in the school's HIV campaign programme. Despite the fact that, the finding confirmed that of Abdullahi (2004, 2005), a thorough analysis of the report indicates some flaws. The methodology used was vague, as it does not clearly indicate the steps taken in selecting the sample and how the qualitative data, claimed to have been used, was generated. Totals in the Tables did not agree with the ones stated in the methodology and incorrect computation of percentage, among others. These flaws in the methodology and analysis raised some dust on the validity of the results obtained.

Moreover, Suleiman and Haruna (2015) studied the effects of advertisement messages on the HIV/AIDS awareness campaign in the Kaduna metropolis, Nigeria among 170 respondents, selected purposively. The results show that there is a high level of awareness of HIV/AIDS among the respondents. This was made possible through the

advert carried by the media, showing its role in creating awareness and proving knowledge among people

Makhlouf et al. (2013) isolated the role of the individual indicators used in measuring the relationship between socio-economic status measured in terms of education and personal incomeand HIV testing and the mode of testing in Bukina Faso, Kenya, Malawi and Uganda. They found that level of education and motivation play a more vital role than income in making people accept HIV testing. This shows that education is a major factor in making people accept HIV testing.By extension, we should expect educated people to utilize HCT services more than those who are not.

2.2.8 Acceptance and the Utilization of HCT Services

Awareness and knowledge of the HIV/AIDS disease,of the need for periodic testing and where to get an HIV test could not alone lead to the utilization of HCT servicesunless if there is 'acceptance' by the people. Acceptance could be voluntary or forced, ascan be found in the case of marriages, employment and/ or students who got admission into institutions of higher learning. Acceptance represents willingness to go for HIV counseling and testing. Seckinelgin (2008) opined that denials from various quarters, especially at the initial stage of the discovery of the disease, when the assumption that the disease only affects homosexuals (or sinners) was widespread, has led to its spread in many countries.

In their study of the acceptance of HIV counseling and testing among Tuberculosis (TB) patients in South Africa, Heunis et al. (2011) found that lack of information (awareness) about the relationship between their illness and HIV/AIDS, the fear of HIV/AIDS death and stigma, the perceived lack of confidentiality of the HIV test results are the main

barriers to the acceptance of HIV test. Similarly, patient-level factors, such as being male, unemployed, married, etc. reduce the rate of the acceptance of HIV test. They further maintained that, internationally, other patient-level factors, such as being female (as opposed to what they found in South Africa) and the fear of being tested positive, in addition to the previous ones, were found to hinder the acceptance of HIV test by the TB patients. On the other hand, previous findings by Evans and Ndirangu (2008), Engelbrecht et al. (2008) and Okot-Chono et al. (2009) identified provider-level factors, such as lack of adequate staff, lack of space, work related stress (e.g. breaking the bad news), poor planning, inadequate provider knowledge, high costs of service, etc. as the major barriers to implementing HCT with TB patients in many African countries. All the aforementioned barriers to the acceptance of HCT, if looked closely, are not different from those factors that hinder the utilization of HCT services.

In addition to the above factors, as part of the provider-level factors, Mukherjee and Eustache's (2007) research findings in Haiti revealed that community health workers play an important role in shaping patients' behavior in making them accept the HIV test. Here the relevance of 'significant others' in guiding human behavior is evident. Similarly, Heunis et al. (2011) cited Mahendradhata et al.'s (2008) finding in Indonesia, where poor patient-provider communication serves as a barrier to the acceptance of HCT.

In a baseline survey conducted in two public community health care centers in South Africa, Dalal et al. (2011) found that the acceptance of a HIV test among their study population was largely due to the fact that those who accepted now had been tested previously and believed that the test result would be confidential. Similarly, in comparing VCT with PITC models, they found that clients in the PITC model are more likely to

accept to go for the test than in the client-initiated model. Of those who refused to accept the test, 31% declined because they were uncomfortable or afraid of it, 19% rejected it because they feel there is no need to be tested and 11% because they were tested positive in the past.

Angotti et al. (2009) criticized other studies, such as that of Abdullahi (2004) and Fylkesnes and Siziya (2004),which equated acceptance with willingness by saying that 'acceptability studies are based largely on hypothetical questions that may overpredict readiness to be tested'. This is because acceptance in such studies does not mean the utilization itself, as you find many people willing to be tested, but could not be tested due to the problems of accessibility and the like. Thus, running away from such studies, Angotti et al. equated acceptance with utilization rather than willingness to be tested in their study. However, despite this criticism, in this study acceptance is taken to mean the 'hypothetical' acceptance or what Fylkesnes and Siziya (2004), and Abdullahi (2004) called readiness for Voluntary HIV Counseling and Testing. This is because it is assumed in this research that one has to accept that HIV is real, and there is the need for one to know his HIV status and accept to be counseled, tested and collect the result before taken as utilization. Fylkesnes and Siziya (2004) just like Angotti et al. equated acceptance with utilization in their findings among members of the households in Chelston, Lusaka and Kapiri, in Zambia, but replace the 'hypothetical question' of acceptance with the readiness to accept (utilize in this sense) HCT. The importance of acceptance in HCT can be seen as a necessary part of the users' rights where, even after the pretest counseling, one has the right to reject being tested or even refuse to collect test results.

The findings of Ilyasu et al. (2006) in Danbare village, Kano State clearly show the difference between willingness (readiness) and the actual utilization of HCT services, where 72.3% of the respondents said they are willing to go for and can recommend to a friend to go for HCT, but have not been tested before. Thus, willingness does not necessarily mean utilization or leads to utilization. Moreover, the results of the finding indicates that fear of stigma and fear of the unknown are the major barriers to the utilization of HCT services in the Danbare community. However one major limitation of the study is that its scope is limited to only one rural community and only a 220 sample size, which is too small to allow for meaningful generalization given the size of the state or northern Nigeria. Similarly, some of the responses are either vague or lack details.For example, the response 'fear of the unknown' was not clearly explained in the text for better understanding. Clearly, this problem was as a result of the inability of the researchers to probe for responses given by the respondents.

Scanlon and Adlam (2008) in their analysis of attempts by health care policies, among other policies, to carry everyone along opined that it is not possible for such policies to succeed. This is because experience of working as practitioners, supervisors, educators, managers, etc. had made them understand that no matter how '*best,* and at times *worst*, efforts of systems of care "to include", there remains a group of people whose *refusal* to be included remains a problem both for themselves and for the society as a whole' or who will refuse to play the game and resist all efforts to bring them 'in from the cold'. Cooper and Lousada (2005 in Scanlon and Adlam, 2007) argued that, to even accept that all will be 'socially included', is to refuse to face up with the reality of the situations in the society. Persistent efforts to reach out to these socially excluded groups could result

in further exclusions of the already-excluded and could also lead to the demoralization of the workers providing the services. Scanlon and Adlam (2007) further maintained that these groups of the 'un-housed' represent the modern Diogenes who lived their lives within the little space available for them. Take, for example, this last argument.It can be used to justify the reason why some people may not utilize HCT services out of fear of being stigmatized if tested positive, despite that the 'society' encourages knowing one's HIV status. At the end of their argument, they raised the question are practitioners or policy makers supposed to 'force' their policy down the throats of the 'outsiders' or are they to fold their arms and watch or look the other way even at the expense of our own safety? This is like saying, should people be made to know their HIV status despite the stigmatization or should they be allowed to do as they wish (know or fail to know their HIV status) even if such can further spread the virus to those who are innocent (such as in the case of mother-to-child transmission)?

In his book, The International Politics of HIV and AIDS: Global Disease, Local Pain, Seckinelgin (2008) critically examined the role of international agencies (such as UNAIDS and other NGOs) in the 'fight' against the disease. Among other criticisms, he cited an article written in the Washington Post Newspaper, which exposed such International agencies' over-stated HIV/AIDS information. Specifically, the statistics on the disease are exaggerated. The aim is to sustain the 'business' (keeping the coalition and funds coming). This shows that data or facts from such institutions and their affiliates are to be treated with caution or shouldn't be relied upon, hence the need for engaging in 'independent' research or an academic one, where there are no 'strings' attached. Seckinelgin's analysis further confirmed that interventions are based on such 'findings',

thus the inputs of the targeted beneficiaries are not taken into account. He clearly faulted the 'scientific' approach to the interventions, as largely it is concerned with cost effectiveness rather than ensuring that the needs of the targeted beneficiaries are met based on their feelings and lived experiences or what he called ' questioning the location of the people in the discussions of the global disease'. Such a vertical approach has been described as part of the historic legacy of colonialism.

2.2.9 Availability, Accessibility and the Utilization of HCT Services

Joseph and Phillips (1984) argued that the availability of services is one of the prerequisites for accessibility and/ or utilization. It is only when the services are available that the consumers can utilize them. Similarly, accessibility of health care services, such as HCT services, is critical before people could utilize such services. Moseley (1979) classified accessibility into two: physical and socio-economic. The physical type entails the availability and means of reaching the services (geographical access), while socio-economic accessibility means the people's pocket ability of paying/purchasing the needed services. In a similar way, Donabedian (1973) recognized two main factors that affect access to health care services, viz: the Socio-organizational (cost, intake policy, the quality of the services, etc.) and geographic or location factors (physical proximity). He further maintained that access could be measured in terms of use of the facility rather than just the presence of the services/facility. In other words, availability does not guarantee use just as was the assumption that more health care will result in better health.

Geographers and other social scientists, such as Thornton (2008) and Donabedian (1973), are convinced that the location of health services centers is an important factor in utilization of such services. The concept of distance decay (known as Taro's Law) refers

to the effects that spatial distance has on consumers or the needy. Normally, the use or utilization rates vary inversely with the distance. Thornton's 2008 research in Malawi shows that living a distance of over 1.5km from the facility reduced the rate of attendance by 6%. However, other findings have shown that a number of intervening variable factors can alter the distance decay perspective e.g. the availability of income, transportation, the quality of the services, the nature of the illness, etc.

Naik et al. (2012) observed that accessibility increases the rate of the utilization of HCT services in rural South Africa. This is because, prior to the introduction of HBHTC, only 17% of males were ever tested and collected their test results. Similarly, out of the females who now tested (73.7%) fifty seven (57%) had never been tested before, indicating a significant increase in the number of people accepting HCT due to accessibility and perhaps convenience. Naik et al. have this to say about the HBHCT model:

> It was also encouraging that the intervention reached a large proportion of people who had never previously tested or who have not tested recently, suggesting that increased access does lead to increase utilization, and that the HBHCT model may have mitigated other common barriers such as fear of stigma, lack of transport, or financial constraints. (Naik et al. 2012:6)

2.2.10 Affordability and the Utilization of HCT Services

Economic barriersare also indentified as factors in the utilization of health care services, especially in free the market economic system. In such a system, an individual financial capability, to some extent, determines his/her utilization. Even within the free health care system, it is possible to find the services not free at some point and/ or long queue of users that could serve as a barrier to utilization. Low income earners or generally people of low socio- economic statuses underutilize health services (Cokerham, 1978; Jacobs, 2009), especially preventive health services (Samsom et al. 1972). Similarly,

Forsythe et al., (2002) and Fernandez et al. (2005) believed that the cost of testing and travelling to the facility may prevent people from utilizing HCT services.

As part of what limits the client's choices in seeking health care, Webb and Tossel (1991) opined that, at the bottom of many people's experience, is the feeling of powerlessness, which often results in their isolation. Further maintaining that poverty is also related to marginalization, because those who are poor do not have the same extent of choice or control over their lives as those members of the society who are not. To be marginalized is to be 'prevented' from taking a full part in the life of our society on grounds of sex, race/color and age, etc. Those who are marginalized are often said to be living 'on the edge' or 'margin' of life. Such people greatly rely on public utilities and services, which are often inferior or low in terms of quality. In fact, the cost of testing and travelling to a facility may prevent people from utilizing HCT services (Forsythe et al., 2002; and Fernandez et al., 2005).

However, on a more critical look, as HCT Services are usually given 'free' in Nigeria, one can say that the cost of the service itself should not be a problem, perhaps only that of transport to the service centers. Beside, some people prefer to travel distant places to seek for medical services than stay close to home for confidential reasons. Added to this fact is the argument put forward by some experts that sometimes the issue of cost goes beyond the client's ability to pay to include the willingness to pay for the services. This is because you may find the cost affordable, but some would prefer to channel their little resources in another way, which objectively are less important compared to seeking the health care. Use of incentives could break most if not all of the above barriers. Here the finding of Thornton (2008) becomes relevant, where he found that

incentive/motivation influences the utilization of HCT services among the Malawians, particularly money. Those who received cash incentives are twice more likely than those who did not receive to go for a HIV test and collect result.

2.2.11 Stigmatization as a Barrier to the Utilization of HCT Services

One of the key challenges to success in universal access to HIV prevention and treatment, care and support in Nigeria is the issue of stigma (Manjok et al., 2009). In fact, Hutchinson et al (2004) reported that stigmatization and discrimination against PLWHA is the greatest barrier to the utilization of HCT services. Goffman (1963) defines stigma as the gap between virtual and actual social identities.Virtual social identity refers to what a person supposes to be (e.g. HIV-free or negative) and the actual social identity refers to what a person actually is (HIV-positive). Stigma is said to exist when, for example, one needs/ought to be HIV-free (negative) but somehow somewhere along the line he became infected (positive). Identifying one with this status (HIV-positive) usually leads to a kind of isolation and/or rejection. Blame is usually apportioned to the victim rather than apathy. This is usually why some people are reluctant to seek for help (the utilization of HCT service) and prefer to keep their status secret for fear of rejection and damage to their identity (Webb and Tossell, 1991; Caldwell, Orubuloye and Caldwell, 1992, 1999).

Bell, Mthembu and Sullivan (2007) confessed that the stigmatization of People Living with HIV/AIDS (PLHIV) occurs all over the world, such that many people are afraid of utilizing HCT services out of being judged and stigmatized. Such stigmatization does not only discourage going for the HIV test, but also affects sexual and family relationships. This has been confirmed by Webb and Tossell (1991) and Caldwell et al. (1992) that such stigmatization does not only stop on the victims, but also goes to their

families. However, recent data are showing some improvement in this regard (tolerance) (NDHS Report, 2008), unlike what the findings of Abdullahi (2004, 2009) and Alubo et al. (2002) on the acceptance and stigmatization of PLWA in Nigeria show, where the level (of stigmatization) was high and tolerance low. These reactions came mainly out of fear of contracting the 'disease that has no cure' or believed to be transmittable via even physical contact.

According to Abdullahi (2004) a high level of stigmatization and a low level of acceptance of PLWA in the Kano metropolis is partly because of the moral belief among some people that HIV is a disease for sinners (those who go contrary to the instructions of God). Related to this is the result of a research conducted by Ekanem and Gbadagesin (2004) in Lagos among women attending Antenatal Care (ANC), where they found that majority of the respondents are not willing to go for the HIV test as long as it will not be strictly confidential. To be exact, only 22% of them are willing to undergo the test regardless of whether or not the result will be left confidential. It can be inferred that those who strictly wanted the test to be confidential are afraid of what might transpire if their status is disclosed. However, this need for strict confidentiality is not extended to the respondents' husbands, as most are willing to share the outcome of the test (the HIV test result) with them.

Shangula's (2006) finding among pregnant women in Namibia further confirmed the effects of the fear of stigma, discrimination and rejection from families and community members in hindering the utilization of HCT services, among other factors. Fear of confidentiality about test results or status, the attitudes of health workers or community counselors, lack of a rapid test at some clinics constituted the other barriers to

utilization. Although this finding has shed more light on the role of stigmatization and discrimination in hindering the utilization of HCT services, among other factors, the methodology has some weaknesses. Only pregnant women attending public hospitals/clinic were conveniently interviewed, while there was no representation from any private clinic. The experience may vary according the facility (private or public). Secondly, at least a few health officials, males and opinion leaders should have been interviewed in order to supplement and balance the information gotten from the pregnant women. Above all, only women who can speak English, Afrikaans and local languages other than theirs were interviewed, indicating a limitation in capturing variations in demographic characteristics.

Lagoro et al. (2012) in their study among the youth of Gulu in Uganda found that, despite the huge success recorded by Uganda in reducing the prevalence of HIV/AIDS from 18% to 6.4% in two decades, there seems to be an increase in the prevalence in Gulu from 6.1% to 6.5%. This was because of the high level of the stigmatization of PLWHA and superstition, which prevent people in the region from going for HIV testing (HCT). Similarly, Buregyeya et al. (2012) found that among 499 health care workers interviewed in the Ugandan districts of Mukono and Wakiso between 2010 and 2011, 95% were tested for HIV, but 34% were tested outside their workplace and 27% tested themselves. Moreover, 37% of them are not willing to disclose their HI-positive status to their supervisors. From the above findings, it is evident that, although the utilization of HCT among the health workers is high, the issue of the fear of disclosure is of great concern even among the professionals. The fear of disclosure is attributed to the negative consequences that may result, such as fear of gossip, decline in personality or social

standing, stigmatization, loss of jobs, etc. The following quotation from a respondent clearly expressed these fears, thus: 'That thing (HIV testing) is secretly done by the health workers; some test from here and others from somewhere else due to fear that they will be stigmatized. We don't test from here; everyone goes somewhere else.' The respondent further asserts that even those who did the tests in their workplace are usually confident that they are HIV-negative or did it under disguise or false pretense that the sample belongs to another patient or they tested themselves. All these show that there is stigmatization and the likelihood of discrimination against PLWHA in the community studied. Then, if the service providers themselves are afraid of disclosing their HIV-positive status, what less of the clients?

A respondent who is HIV positive in Uganda was asked to comment on HIV treatment.He responded thus:

> This was a very important change as I would be able to look after my daughter and try to support her while growing up. But nothing will change the social stigma … everyone knows about it [HIV] but it does not change people's attitudes. Still when I go back to the village no one wants to talk to me about my condition. But if the elders realise there is another person with potential HIV, they ask this person to come to the city and talk to me… [N]one of these pills will overcome the stigma; we need social pills. (Seckinelgin 2008:71)

This is a pointer that, despite the campaigns on awareness creation and seemingly high level of knowledge among people, it has not stopped the stigmatization of PLWHA in the society. It also shows that awareness and knowledge creation are not enough to stop stigmatization. Similarly, Seckinelgin observed that the International response to the illness is more on the treatment than context within which people experience the disease, as contained in the quote below:

> Clearly, this is not to argue that medical interventions or treatment in particular have exacerbated the stigma problems, but rather to point out that treatment has not led to change in the attitudes that occur within social contexts towards those who are infected or

> affected by HIV/AIDS. This latter process of stigmatization becomes more significant as more and more investment on treatment is prioritized without any corresponding increase in the focus on how to deal with the stigma and its associated social and economic consequences. (Seckinelgin 2008:71)

However, Angotti et al. (2009) critically examined the belief that fear is the cause of underutilization and concluded that the explanation is not sufficient.Rather, lack of convenience, lack of confidentiality and lack of credibility are the major barriers to utilization. This is because, studies have indicated that when people are met at home for testing or mobile clinics are used, moonlight testing and other convenient and accessible places HCT uptake was higher. Thus, convenience, confidentiality and credibility are said to be very important in increasing the utilization of HCT services. For example, moonlight HCT testing for men who have sex with men in Kinshasa, Democratic Republic of the Congo, argued Makwelebi et al. (2012), increased the rate of the utilization of HCT due to its convenience and credibility. As homosexuality is culturally unapproved and some people may not have sufficient time during the day to go for a test or are afraid of being stigmatized, the moonlight test, just like door-to-door HCT, provides an opportunity to escape the said barriers and be tested.

Gerbert et al. (1991) and Macintyre et al. (2001) admitted that stigma negatively affects HIV/AIDS preventive behaviour, including HIV counseling and testing among members of the public. Jacoby (1994) Malcolm et al. (1998) and Scrambler (1998) categorized stigma into Perceived or Felt and Enacted stigma. Felt stigma stands for an imagined fear of societal reaction arising from having undesirable attribute or diseases (e.g. HIV) or for being a member of an ‘out caste’ group. Brown et al. (2003) cited an example of this Felt stigma where an individual may deny being at risk of contacting the

HIV/AIDS or refuses to disclose his HIV status or even fails to go for a HIV test out of fear of a negative reaction from the family or society in which he/she is a member. Jacoby (1994) further maintained that Enacted stigma, on the other hand, refers to the actual experience of discrimination due to the individual's 'out caste' status. Such real experience may include loss of job, change in marital status, etc. Brown et al. (2003) buttressed further that the negative experience can take form of losing life, as in the case of Gugu Dlamini, from Durban Township in South Africa, who was killed by her community members for simply disclosing her HIV positive status in 1998. Here, the argument of Becker (1973) becomes relevant, that labeling people as "outcastes" goes with sanctions and in so far as one has successfully been labeled (e.g. as having HIV/AIDS, disease for the 'sinners', deadly disease that has no cure, etc.) sanctions will follow in forms of stigmatization and discrimination against those labeled. The realization that stigma is the major factor in prevention has made NACA tag this years' campaign as 'zero tolerance for stigma and discrimination' and ' close the gap-No more stigma and Discrimination'. Many states (Gombe, Jigawa, Kaduna, etc) are now trying to establish an anti-stigma bill or a law in order to curtail its effects in limiting successes in the prevention effort.

2.3 Theoretical Framework

2.3.1 Rational Choice and Exchange Theory

The Rational choice theory was promoted or popularized by Coleman in the late 80s and early 90s. It has its roots from utilitarianism and the game theory. The theory started by assuming that actors have an intention or a motive behind their actions and also preferences or value/utility. Thus, actors' actions are undertaken to achieve end(s)

consistent with their preference. However, the theory was quick to realize that there are two constraints that dictate human action, namely: Resources and Institutional constraints. Limited resources at the actor's disposal limit that individual's choice of action. Similarly, access to adequate resources is a means to achieving one's objectives.

Related to the idea of resources is the issue of opportunity cost. Coleman (1992) elaborates that actors engage in actions only after calculating the costs and reward or possibility of a desirable outcome. The institutional constraints are the social constraints embedded, throughout one's life, in form of rules and regulations or policies that characterize schools, employment organization; they serve as sanctions to encourage or discourage certain behaviors.

Another important contribution of the theory is its emphasis on the role of information in influencing actors to make rational choices. Rational choice theorists recognized the fact that actors may engage in actions that make rational sense to them, but may not necessarily be rational in an objective sense. Applying these propositions to our area of concern (the utilization of HCT services), one can say that decision to or not to utilize the said services depends on one's assessment of the costs (not only in monetary terms, but also disclosing his identity, which could lead to stigmatization), reward (e.g. being healthy and having a healthy partner or child, getting the job, etc) and the possibility of getting a positive response (quality service, etc). In a clearer term, one's decision to utilize or not utilize HCT services depends on his/her evaluation of the possible gains or lost (risk and worth calculation) he/she is likely to get out of either decision. Such evaluation is influenced/informed by a number of factors and/or variables that were broadly categorized in to 2 (resources and institutional constraints). People may decide to

utilize HCT services because they believe health is good and worthy of being pursued, sought or sustained, the society or organizational law demands that they seek for medication and perceive that it is possible to get what they require (that the services are available, accessible and qualitative enough, etc) (institutionally positive constraints) and/ or they have the ability to 'purchase' them (affordability, transportation, etc) (resources positively constraining the actor's decision).

On the other way round, one's decision not to utilize HCT services may be due to lack of such services (availability), lack of accessibility and affordability, fear of stigma, patriarchy or even having the belief that the disease does not exist or God is in control, etc. These are a combination of resources and institutional constraints acting negatively on the individual's decision not to utilize HCT services. Rejection of HIV test on the ground that AIDS is not real or God is in control, etc., although 'rational' to the actor, can be seen as not rational in an objective sense of the matter, because of the moral duty (for not only is one obliged to ensure healthy life, but also safeguard the life of his/her partner and/ or child).

Based on the results of the findings by Taylor and Field (2007), Kaai et al (2012), Joseph and Phillips (1984), Abdullahi (2004), Rebhan (2009), Caldwell et al. (1992) and Hutchinson (2004), among others, some deductions can be made from the above theory. Specifically, the Institutional Constraints in this study may include: laws, beliefs, the availability of HCT services, geographical access, the quality of the services, etc., while the Resources Constraints could be: socio-economic status and demographic factors (education, income, age, sex, etc.). These constraints may act positively or negatively. If they encourage utilization, then they are acting positively, but if they hinder it then they

are negative constraints. For example, institutional constraints that can serve positively include: availability and accessibility of HCT services, the laws/ norms/rules demanding that one should utilize the services, the belief that utilization is worth or good, the quality of the services, etc. Whereas those institutional constraints that may serve as negative constraints may include: the belief that AIDS is not real, patriarchy that may discourage utilization, lack of the facility/services or accessibility, rigid laws or requirements before utilization, stigmatization, the negative attitude of health workers, etc. Similarly, resources constraints can act both positively and negatively. Having knowledge and awareness of the disease, having the money and willingness to pay for the service (affordability), access to transportation, etc. are positive resources constraints, but lack of any or all of the above positive resources factors represents the negative resources constraints.

Closely related to the rational choice theory is the exchange theory. In particular, the exchange theory of George Homans is intertwined in the popular theory of rational choice. Homans (1958) saw human interaction as largely, if not completely, guided by rewards and punishment or cost. Exchange involves giving and receiving valued goods or services, which govern interaction. Thus, for any interaction to be sustained there must be an exchange of value. Homans' theory is sometimes referred to as Exchange Behaviorism, where action is seen as a corresponding reaction to another person's action, rewarding or punishing.

In sum, Homans (1958) maintained that the more the rewards of an action the more likely people are going to perform the activity or a similar one. Relating this to the topic of discussion, one can say that the utilization of HCT services will only be achieved if people

rationally perceive that it will be rewarding or of immense benefit to them. Similarly, if they perceive the outcome of utilizing the services to be low or punishing (e.g. stigmatization), then they may likely not do so because of the 'cost' or punishment that may result.

One major shortcoming of the rational choice and exchange theory is the assumption that actors are always free agents, capable of making rational choices at all times. This is naïve because not all actors have the freewill to make choices and sometimes, even when someone has the freewill of making a particular choice, he/she chooses based on his/her selfish interest. For example, someone may have knowledge about HIV/AIDS and the need to go for an HIV test, but may decide not to go simply because he feels 'there is no need', 'it is not necessary' or 'I trust myself', etc. Another clear example is the case of cigarette smokers who, despite the warnings that they are liable to die young, continue to smoke. There are also instances where people are 'forced' to go for HIV testing even if they do not wish to do so, as in the case of students and those who are looking for employment. Another flaw within the theory is its inability to give accounts of how people come to value things in life or who define something as valuable. In other words, the theory has takenforgranted people's belief in those things that are valuable.

2.3.2 The Sick Role Theory

Parsons (1951) introduced the sick role theory as a reaction to the then dominant bio-medical explanations that understanding health and illness just required understanding of the physiological make up of the human body only, thereby neglecting the social aspects of health and illness. Parsons (1951) viewed sickness as deviance from the social

point of view, rather than the individual and being sick does not stop at having a physiological malfunction or microbiological invasion, but goes to require/include certain roles as a temporary, medically sanctioned form of 'deviant behavior'. Therefore, having sickness means that the patient/sufferer enters a role of 'sanctioned deviance'. This is because, by virtue of being sick, one is also bound by certain customary rights and obligations based on the social norms that surround it. The theory outlined two rights and two obligations upon the sick person: as part of the rights, the sick is expected to abstain from normal duty or social roles; and secondly, he/she is not to blame for he/she is not responsible for their condition. Whereas the obligations are that, he/she should try to get well as quickly as possible and seek for a help from competent medical professional.

Although the theory is centrally concerned with those that are sick, we can still deduce that one is expected to do his best and remain healthy or try to seek for assistance from professionals if he/she is sick.By extension, this includes the utilization of HCT services. Going by the theory, utilization is necessary for all, where those who are negative will be encouraged to remain so and those who are positive will be put under care, thereby reducing the spread of the disease.

Quite a number of weaknesses were identified in the theory.For the purpose of this study, it can be argued that an individual may not comply with some of the expectations of the sick role (e.g. may not give up social obligations because it is a life threatening disease and has no cure for now), may resist dependency and may avoid a public sick role if their illness is stigmatized. Similarly, Haruna (2013) and Wolinsky (1988 in Rebhan 2009) posit that the sick role failed to account for variability in illness behavior. Some diseases are chronic (HIV/AIDS, Blindness, Paralysis, etc.) such that one cannot fully perform his

normal duties because of partial or full disability. Another major problem with this theory in the context of this study is that it focuses only on those who are sick or have a disease, in which case those who are not sick are not obliged to take the sick role. The utilization of HCT services defies that; because all people are required to be tested regardless of whether they are sick or not with a view to know their status. Utilization also requires voluntarism (in fact, initially it is known as Voluntary Counseling and Testing).This contradicts the assumption of the sick role theory that it is a duty upon one to try to get well as soon as possible, of which the 'trying' carries some compulsion. Thus, because of the aforementioned contextual limitations, the theory cannot serve as the study's framework.

2.3.3 Thomas' Situation Analysis

Thomas and Thomas (1928) opined that, 'If people define situations as real, they are real in their consequences' and further maintained that action is meaningful to those involved. Thus, an understanding of action requires an interpretation of the meanings which actors give to their activities. Meanings are not fixed entities; they depend on situation or context. They are also created, developed, modified and changed in the process of interaction. So, the action of individuals depends on the understanding, meanings and interpretation they give to them. Thomas (1923) highlighted the point that human behavior is not simply an automatic reflexive response to environmental stimuli, but 'Preliminary to any self-determined act of behavior there is always a stage of examination and deliberation which we may call *the definition of the situation*". This means definitions by actors are not usually based on preconceptions which actors bring to interaction situations, but also involve negotiations, which result into the real definition of

actions or behaviors. It can be argued that the utilization of HCT from this view point depends on the way people define the situation. If one defines his situation/condition as requiring intervention (medical/health care), then he/she may likely go for it and vice versa. Secondly, the society helps in shaping the way individuals respond to some condition. For example, if the society does not 'encourage' people to utilize HCT services by stigmatizing and misconceiving HIV/AIDS, then hardly can they feel safe to go for testing.

One major limitation of this theory is its inability to clearly outline what determines one's definition in a given situation: could it be experience, instinct, reward, punishment, norms or values? In other words, what could make people to utilize or fail to utilize HCT services? Or at what point could people utilize or not health care services and what shape either decision? Thus, this limitation made the theory weak in providing sufficient explanations on the factors influencing the utilization of HCT services.

2.3.4 Weber's Life Style and Life chances

Weber (1946 in Gerth and Mills 1978) opined that life styles are those practices embarked by individuals mainly by choice within the society, as provided by life chances (structure). Weber conceived that people's life chances are largely determined by their economic statuses. Life chances affect life choices and in turn determine life style. This means people in the same social class are likely to behave in the same way. He further defined class as a group of people, who share common specific causal component life chances represented solely by economic interests in the possession of goods and opportunities for income under the condition of labour or commodity markets. This economic fact is what creates life chances. Weber asserts:

> According to the law of marginal utility this mode of distribution excludes the non-owners from competing for highly valued goods; it favors the owners and, in fact, gives to them a monopoly to acquire such goods….'property' and 'lack of property' are, therefore, the basic categories of all the class situations. (Weber1946:181-182)

Shortell (nd) argues that Weber, just like Marx, held the belief that wealth is a determinant of different life styles, which in certain situations determines status. He further stressed that social restrictions (different life styles) are the results of the differences in wealth reflected in prestige. He laments further that a high status group tends to exhibit a distinct life style, e.g. patterns of interaction and consumption (e.g. high standard of living, the utilization of health care services, such as HCT services), whereas low status group's life style depends on salvation hopes (i.e having a different belief). In a similar way, Coser (1977) described Weber as having the view that human society has division or strata and each stratum has a distinct way of life style and/ or belief as we have different classes.

Similarly, Pampel et al. (2011) in their review of the studies on the relationship between socio-economic status (SES) and health behavior in social sciences (sociology, economics and public health) conclude that '[their] attention to the social origins of health behavior runs counter to perspectives that ignore how SES structures social life.' They maintained that unhealthy behaviors are the products of the vast differences in the social circumstances of low- and high-SES groups. To be exact, they argued: "The less well-off have fewer opportunities to undergo regular preventive medical checkups and screenings, to work at jobs with low physical danger or contact with hazardous materials, to live in well-built housing in safe neighborhoods with low pollution, and to drive safe cars". This analysis shows how socio-economic status determines people's life style and life chances.

In line with Weber's acknowledgement of the role of the economy in shaping life style, De Vogli and Birbeck (2005) debunk austerity measures that target the economically

driven sector, such as agriculture, which, they argue, increases rural poverty by altering the prices of farm produce, thereby reducing family income. In so far as austerity measures increase poverty then it follows that those who are poor cannot afford services, such as health care services (including HCT services). Although some may argue that HCT services are free, yet that does not mean there are no charges at all.Thus, some people may not be able to pay such fees no matter how little (the issue of critical minimum). There may also be the need for paying transportation fees to go to the service center and poverty can stop potential service users from attending the facility. These will hinder them from utilizing HCT services. Similarly, decrease in family income means decline in the level of family welfare, including the quality of food. Those who are HIV-positive are normally required to be on special diets in which the poor among them cannot afford. Equally, as too many HIV-positive persons are in need of the ART drugs but could not get, it means they have to buy from the market at a higher rate. Thus, only a few can afford that. This is in line with the argument of Abdullahi (2006) that the cost of drug hinders utilization even among those receiving government subsidized dugs at Aminu Kano Teaching Hospital because of the one thousand naira monthly charges (meaning not all can afford due to poverty), talk less of buying from private marketers.

Coreil (1985) provided a different interpretation of Weber's theory of life chances and life style.He argued that Weber did not see income as the only determinant of life style, but also occupation and status validation. He further quoted Weber as saying that life style is not only a function of someone's economic status, but also by the estimation of 'social honor' that may result from non-economic factors like education. This belief led

Weber to conclude that life style is founded jointly by income, occupation and status, hence the concept of SES (Socio-economic status).

A deduction can be made from the aforementioned theoretical explanations that, since socio-economic status determines different lifestyles or patterns of behavior and consumption (including access to health information), then different status will determine different levels of the utilization of HCT services in the society. Moreover, it can be hypothesized that those in high socio-economic status group are more likely to utilize HCT services compared to those in the low status group because of the dominant stoical belief and attitude held by the group. Another explanation is that the call for people to go for HIV counseling and testing may represent the interest of the dominant class or a way of advancing the ideology of the ruling class (perhaps for profit), as argued Melvin (1953) that the social evaluations of the 'desired' and 'undesired' are affected by the distribution of power in the society. The elites have the greatest influence in establishing social values that are more 'acceptable' or 'desired'. He argued that this is akin to Marx's saying'the idea of the ruling class is in every epoch the ruling idea'. Melvin (1953) exactly asserts that the "social stratification system function to provide the elite with the political power necessary to procure acceptance and dominance of an ideology which rationalizes the *status quo,* whatever it may be, as 'logical', 'natural' and 'morally right.'"

Similarly, Kawachi and Kennedy (1997) have this to say about the social effects of wide income inequality:

> The danger is that a society that becomes depleted of its stocks of social capital could enter into a vicious cycle one in which lack of trust and civic engagement reinforces a kind of democracy in which public policy is no longer the outcome of collective deliberation about the public interest, but rather the residue of campaign strategy. (Kawachi and Kennedy 1997:1040)

Melvin (1953) reiterates that inequality functions in order to encourage hostility, suspicion and lack of trust among the various stratums in the society. If this is the case, then it follows that health care policy, such as that which encourages knowing your HIV status, will be cynically viewed by those in the lower class (distrust and suspicion) and, therefore, may not be accepted by the majority. These arguments by Melvin and Kawachi and Kennedy may further suit the arguments of those who believe that HIV/AIDS was deliberately created to generate profit for the bourgeoisies' pharmaceutical companies.

Despite the above strength of the theory in explaining awareness, acceptance and the utilization of HCT services, it has some limitations. It fails to adequately recognize the role of labels such as stigma and discrimination and fear of test results, in hindering te utilization of HCT services. Class analysis may not adequately explain the definition of the situation, as even within the same class you find conflicting definitions.

2.3.5 The Labeling Theory

Becker (1973) acknowledged that what has come to be tagged the labeling theory was based on his contribution and that of people like Tannenbaum (1938), Lemert (1951), Kitsuse (1962) and Erikson (1962). However, for our purpose here, the focus would be on Becker's own version of the labeling theory. In his work, Becker argues that the aim of the labeling theory is to enlarge the area of study of the deviance beyond the deviant actors alone by focusing attention on 'the way labeling places the actor in circumstances which make it harder for him/her to continue the normal routines of everyday life and thus provoke him to "abnormal" actions'. In his words:

> … social groups create deviance by making the rules whose infraction constitutes deviance, and by applying those rules to particular people and labeling them as outsiders. From this point of view, deviance is not a quality of the act the person commits, but rather a consequence of the application by other of rules and sanctions to an 'offender.' The

> deviant is one to whom that label has successfully been applied; deviant behavior is behavior that people so label (Becker 1973:9)

Those actions labeled as 'abnormal' usually attract sanctions from the 'majority' or who make the rules. Stigmatization is one of such punishments reserved for the outsider (deviant). In relation to HIV/AIDS, those who are HIV positive are sometimes considered deviants; as such, they are mostly stigmatized by members of the community on account of being infected with a 'deadly' disease or the 'disease of the sinners', etc. It is known fact that people with HIV/AIDS are being stigmatized (sanctioned).From the labeling theory point of view, this is like taking the infected person as a deviant. Thus, a deduction can be made that fear of being tested and labeled HIV-positive (sanctioned) hinders people from utilizing HCT service. However, the major strength of the theory is its ability to explain the role of stigma in hindering utilization, which largely accounts for the low utilization of HCT services. On the other hand, stigmatization or labeling alone may not be the only barrier to the utilization of HCT services.This means the theory is limited only to the explanation on label stigma, while other factors (such as lack of awareness, patriarchy, lack of facilities or access, etc.) that hinder utilization remain out of scope. Thus, theoretical triangulation becomes the best alternative in this study in order to supplement the aforementioned shortcomings.

2.3.6 The Health Belief Model

The Health Belief Model was based on the conviction that personal beliefs influence health behavior. Glanz, Rimer and Lewis (2002) stated that this model is the most commonly used in health education and health promotion. The model was developed by Rosenstock in 1966 in an attempt to provide explanation on health behavior and health

behavior change and was later modified by Becker, Janz, Drachman, Kirscht, etc. in the '70s and '80s (en.wikipedia.org/wiki/Health_belief_model).

Janz and Becker (1984) and McCormic and Brown (1999) argue that the model discusses how the constructs of perceived seriousness, susceptibility, benefits and barriers might predict health behavior. This means health behavior is determined by personal belief and perceptions. Each of these perceived constructs individually or in combination can be used to explain health behavior. In particular, Janz and Becker (1984) found that the perceived barrier dimension of the model is more powerful in predicting preventive and curative behaviors; the construct of Perceived susceptibility had more influence on preventive health behaviors. On the other hand perceived benefit dimension has more influence on sick-role behavior, while perceived severity is found to be the least influential factor among them all. This means the constructs of perceived barriers and susceptibility may have more influence on the utilization of HCT services than the other constructs.

Perceived Seriousness: refers to the individual's belief about the seriousness or severity of the disease. Such perceptions might come not only from medical information, but also the individual person's belief about the difficulties a disease could have or create on the life of the person concerned. If a person perceived that having HIV is a serious disease with serious consequences, then there is a greater possibility for him to act towards treating the disease. However, other contrary beliefs, such as AIDS is not real, can be cured spiritually, etc can deter one from utilizing HCT services.

Perceived Susceptibility: This means an individual's assessment of his risk of being sick or contacting the disease. It was argued that the higher the perceived risk the more likely

one engages in behavior that will reduce such risks. Thus, we can deduce that, the more an individual perceives to be at the risk of contacting the HIV/AIDS, the more likely is he/she to adopt behaviors that would reduce the possibility of contacting the disease (e.g. use of condom, abstaining from heterosexual intercourse, etc) or the more he/she will utilize HCT services, as supported by the findings of Cherutich et al. (2012) in Kenya, where the perceived low risk of having HIV/AIDS restricted 39.6% and 48.9% of women and men from ever being tested of HIV/AIDS.

Perceived Benefits: This construct entails a person's judgment/opinion of the worthiness of a new behavior in reducing the risk of developing a particular disease. Thus, individuals will engage in new behaviours only when they perceive that it will reduce (benefit) their risk of getting the disease or lessening the burden it may likely cause (i.e. focus on the effectiveness of the new behaviour in halting the risk situation). In a similar way, the Centre for Disease Control and Prevention (2004) echoed that "for a new behavior to be adopted, one has to believe that the benefit of the new behavior outweighs the consequences of continuing with the old behavior".

Perceived Barriers: It stands for the individual's assessment/evaluation of the possible obstacles in the way of adopting the new behavior. As stated earlier, Janz and Becker (1984) believed that this construct is the most crucial of all the constructs in bringing behavioral change. Aboyoun (2009) argued that Perceived barriers represent the actor's evaluation of those negative impediments or obstacles to achieving a particular objective or adopting new behavior. Janz and Becker (1984) maintained that Rosenstock divided these impediments into external (e.g. interpersonal relationship, awareness, socio-economic status, etc) and internal (e.g. symptom). Making inference out of this, we can

say factors like lack of awareness, lack of acceptance, poverty, patriarchy, distance, fear of stigmatization, etc can be seen as some of the barriers that could stop people from utilizing the HCT services.

The old HB model did not take into account the role of other factors in influencing health seeking behavior. But later modification indicated the role of variables like culture, educational level, past experiences, motivation(cues to action and modifying factors), etc. in shaping one's perception and influencing or hindering him/her to adopt new behavior. Similarly, Rosenstock, Strecher and Becker (1988) in the same year (1988) added self-efficacy to the original constructs of HBM. This new construct means belief in one's own ability to change his behavior, overcome barriers or successfully execute behavior and get the desired result. Relating it to the problem of study, one can say that having a conviction or self-confidence is one of the prerequisites for utilizing HCT services, but there is a problem with this issue of self-efficacy as a factor in influencing utilization. This is because self-efficacy is also dependent upon other variables, such as past experience, motivation/incentives and other environmental factors. However, one of the major limitations of HBM is its assumption that the health care services are readily available, accessible and affordable, which is not always the case. In other words, none of the constructs acknowledge the role of availability, accessibility and affordability in influencing the utilization of HCT services. Thus, in itself the HBM may not be sufficient in explaining key variables in the utilization of HCT services in Gombe.

The Chosen Theoretical Framework and Justification

Weber's life chances and life style analysis and Becker's labeling theory are chosen to jointly serve as the theoretical framework for this study (theoretical triangulation) because, predominantly findings, as revealed by the literature, indicate that low socio-economic status and stigmatization are the major barriers to the utilization of HCT services. The Labeling Theory has shown the role of label or stigmatization in influencing human behavior, whereas Weber's life style and life chances exposed the role of socio-economic status in determining the kind of life style (e.g. risky behavior, consumption patterns, etc) people engaged in and how it serves as the basis for making choices in life. Similarly, Weber's life chances and life style shows the relevance of economic status in influencing variables like availability, accessibility, affordability, access to information, education and awareness. In other words, someone's status will determine his/her access or lack of it to services, such as health care services. Moreover, those with high status may be relatively free from societal sanctions (escape from stigmatization). Thus, the two theories combined provide better premises for making deductions about awareness, acceptance and the utilization of HCT services (including other factors influencing utilization).

CHAPTER THREE

METHODOLOGY AND THE PROBLEMS ENCOUNTERED

3.1 Introduction

This chapter deals with the methodology used to conduct this study or the detailed steps followed in generating and analyzing the data collected. The study adopted a mixed method approach. Survey research method was one of the methods used and involves using standardized tools of data collection, specifically the questionnaire. However, to augment the findings of the survey, qualitative methods were also employed specifically Focus Group Discussions (FGDs) and Key Informant Interview (KII). Similarly, the problems encountered in the course of collecting the data were reported in this chapter. The choice of this methodology (triangulation) was because of the nature of the research (Descriptive). Methodological triangulation, according to Jupp (2002:73-74) 'balances the strengths and the weaknesses of differing methods. The use of differing methods, therefore, maximizes the theoretical value of any research by revealing aspects of phenomena which the use of one method alone would miss.'

3.2 The Study Population

The targeted populations for the study are members of the public aged 15- 50 residing in Gombe State; the official of Gombe State Agency for the Control of AIDS (GOMSACA); and the officials of Network of People Living with HIV/AIDSin Nigeria (NEPWHAN), Gombe State branch.

3.3 Sample Size and Sampling Procedure

A total of 1052 respondents were selected in all for both quantitative and qualitative data collection. One thousand members of the public between the age of 15 and

50 were administered with a questionnaire. Multi-stage random sampling method was used in selecting them for the questionnaire administration. First, three local governments, one from each of the 3 senatorial districts, were selected at random, specifically using a lottery method. Akko Local Government was selected from the Gombe Central Senatorial District, Billiri Local Government from Gombe South and Gombe Local Government from the Gombe North Senatorial Districts. Secondly, two administrative wards were selected using the same lottery method in each of the selected local governments. The residency pattern here represents four rural communities and two urban communities. With the exception of Gombe Local Government, Billiri and Akko Local Governments wereconsidered rural communitiesbased on their characteristics. The sample size for the questionnaire (one thousand) was allocated to each of the selected LGAs, relatively based on the size of the senatorial district. In particular, wards in Billiri and Akko LGAs communities were allocated 150 questionnaires each, while the two wards of Gombe Local Government were allocated 200 each. This is becausethe Gombe north senatorialdistrict has highest population (1,046,370) than the central (593,161) and south (725,510) senatorial districts (2006 Census).

Streets in the urban wards (Pantami and Jekadafari) were identified and selected using lottery method. But in Kentengerang, Billiri cikin-gari, (Billiri LGA), Kumo and Tumu (Akko LGA), where the settlements are dispersed, locations were identified with their popular names and 5 locations were chosen using lottery method, from which houses were selected. The individual respondents, who are the unit of analysis, were selected systematically from households. Households were selected at intervals (pick one and skip one) and then elements are chosen until the sample size is realized in each ward.

Specifically, a starting point (house) is picked at random in each street and popular location and qualified members are interviewed and then next house is skipped, the subsequent one chosen until the right sample size is acquired. In each household, three eligible people were selected, except where the eligible people are not available or willing to respond to the questions. Heads and members of the households, who fall within the age category of 15 - 50, were interviewed and attempts were made to select at least one female member (usually the wife or daughter nominated by the husband).

The judgmental method of selection was used in choosing 4 respondents for the KII. This is because of the fact that these categories of respondents are key to the study.Thus, informationcanbest be sought on one-to-one basis. Six (6) FGD groups with 8 participants in each group (three each with males and females) were conducted. One FGD session in each ward and 2 in each LGA were conducted. The composition of the FGD groups is homogeneous (same sex and close age grades). Similarly, the judgmental method of selecting the sample was used in choosing the participants for the FGDs. Researcher's Judgment (based on the knowledge of the cultural peculiarities of each community) was used in determining the FGD sex composition in each location. That is to say, in those communities (such as Kentengerang in the Billiri and Tumu of Akko Local government Areas) where the settlement is dispersed and interaction with women is restricted by religion, especially in Tumu, the FGDs were conducted with males, while in other dense communities, where interaction with women is less restrictive, females were selected for the FGDs (e.g Billiri Cikin Gari and Kumo). Spread was also ensured across age groups in order to ensure representation.

3.4 Data Collection Methods and Instruments

Questionnaires, Key Informant Interview and Focus Group Discussions were used in collecting the data. Relying on coded/quantitative responses alone may not yield a detailed result or the motive behind people's actions and for this reason the study used both quantitative and qualitative methods of data collection. The use of qualitative methods is aimed at gaining access to the actors' feelings/perception about the topic. Thus, the qualitative data generated were used to compliment the quantitative findings with the view to have a comprehensive picture of the situation.

The questionnaire has about 56 close and open ended questions. It was designed in English, but largely administered in Hausa because of the nature of most of the respondents (most of them not fluent in English, but understand Hausa). The translation of the instrument was done during the research training, where the supervisor alongside the research assistants agreed on the appropriate Hausa translation of the questions based on the popular usage of terms in Gombe State.The research assistants did 'on-the-spot' translation while administering the questions to the respondents based on the agreed translations. The questionnaires were administered by 6 trained research assistants (4 males and 2 females) under a supervisor. The Sweep method/approach was adopted during the field work, starting with the furthest LGA (Billiri), followed by Akko LGA and lastly Gombe LGA. The data collection lasted for two weeks.

Two interview guides were developed, one each for the GOMSACA officials and official of NEPWHAN. This is because different information was needed from each of the group of respondent. The guides were written and administered in English to the four respondents, since they are all literate. With the consent of the respondents, the interviews

were recorded on a midget device. Each interview session lasted for an average of one hour thirty minutes.

Similarly, the FGD guide was written in English and translated into Hausa during the discussion, based on the appropriate Hausa translation, as discussed during the training session.The discussions were facilitated by a moderator and one note-taker.The average time for each FGD session is one hour thirty minutes. The discussions were recorded on a device with the consent of the participants.

3.5 Methods of Data Analysis

Since the data was collected in both quantitative and qualitative forms, the analysis must reflect the nature of the data. The quantitative data (that are in coded form) were presented in tabular forms and the findings reported in frequencies, percentages and cross tabulations. Similarly, chi-square was used in testing the relationship between the research variables. The coding and analysis were done using Statistical Package for the Social Sciences (SPSS) software version 16.0. The qualitative data generated from FGDs, KII and were transcribed and those collected in Hausa translated into English. Relevant discussions from the qualitative data were reported under appropriate headings and themes, sometimes as supportive quotes and narratives to complement the quantitative findings.

3.6 Field Experiences and the Problems Encountered

Seven field workers were used in collecting the data over a period of 14 days, involving six Research Assistants (RAs) and one supervisor.The author of the work supervised the data collection throughout and participated in qualitative data collection actively. At the initial stage of the data collection, the work was very slow.However, as the days passed,

so did the pace of the data collection. Respondents from urban and semi-urban areas, where the rate of HIV is higher, tended to provide information more freely than those from rural areas, who are mostly curious. Female Research Assistants succeededin securing the cooperation of the respondents more easily than male RAs. The community leaders were very cooperative in all the study locations, mostly offering to provide guides for the researchers, although the support was declined.

Given the academic qualifications and field experience among the team members, not manypractical challenges ware encountered in conducting the interviews and administering the questionnaire. One of the major challenges encountered was the expectations of souvenirs by some respondents, where they insisted that a gift should be given to them so as to 'remember' the survey, which was not budgeted for. Another incident happened in Billiri LG where one resident (an official from the local government) started protesting on why one of the researchers should sit on elevated floor in front of his house and demanding that he should see a written permission from the local government authority. The man went to the extent of querying the respondent (one of his neighbors) for allowing 'outsiders' to intrude into their privacy, especially given the security situation in the area. It took some effort to convince the man that the survey was an academic one that needed no special permission from the Local government authority like other independent researches. In fact, he was made to understand that the team had informed the community leaders about the work and respondents' consents were sought before the commencement of all interviews. At the end, he was convinced,although he insisted that the interview should not continue in front of his house.

Another problem encountered is difficulty in accessing current data or statistics on the HIV prevalence rate and the rate of the utilization of HCT in the country and Gombe State in particular. Only 2012 statistics are available, which are considered insufficient in making comparisons and generalizations. Attempts were made to get the current data from NACA and the National Population Commission, but in vain.

CHAPTER FOUR

DATA PRESENTATION, ANALYSISAND DISCUSSIONS

4.1 Introduction

In this chapter, the findings of the study are presented, analyzed and discussed. The results obtained from the questionnaires are presented in a tabular form as frequencies, percentages and cross-tabulations, while the qualitative data was reported under appropriate Tables as supportive quotes and sometimes as narratives. The presentation is done in sections, based on the objectives of the study. Ten sections were created, with most of them based on objectives. All the variables related to a particular objective are presented and analyzed under the objective. After the presentation of the facts under the various sections in forms of simple frequencies and percentages, the results of the cross-tabulations and chi-square tests were reported as further analysis. At the end of the presentations and analysis, a discussion was made on the major findings and attempts were made to relate the findings of this study and other related literature and the theories.

4.2 Section One: The Socio-Economic Characteristics of the Respondents

This section is on the socio-demographic and economic characteristics of the respondents. Their location, sex, age, educational level, income level, marital status, religious affiliation, employment status and occupations were the variables reported. The aim of the section is to provide a picture of the respondents studied.

Table 1: The Sex Distribution of the Respondents

Sex	**Frequency**	**Percentage**
Male	640	64
Female	360	36
Total	**1000**	**100**

Table 1shows that 64 percent are males and 36percent females. Apart from the fact that males constitute the highest proportion in Gombe, access to the females is difficult compared to the males due to religious restrictions. Islam hasplaced restrictions on interaction between men and women who are not related.Despite that, the proportion of women is still representativeand the sample heterogeneous and thus, suitable for generalization of the findings.

Table 2: The Age Distribution of Respondents

Age	**Frequency**	**Percentage**
15-19 years	284	28.4
20-24 years	283	28.3
25-29 years	169	16.9
30-34 years	114	11.4
35-39 years	82	8.2
40-44 years	33	3.3
45 years and above	35	3.5
Total	**1000**	**100**

The age distribution of the respondents, as depicted in Table 2, shows that over 56percent are between the ages of 15 and 24 years (the prime youth age), where sexual activities are relatively at their peak. About 28percent are within the age bracket of 25 and 34, while only 15percent are above 34 years. HIV/AIDS prevalence is known to be high

among those who are within the reproductive age groups (known as the most at risk group). These dominant age groups are expected to be aware of the means of transmitting HIV/AIDS and the ways of prevention. They are also expected to be aware of their HIV status by virtue of being within the reproductive age category, which is why they formed the core target of prevention strategy.

Table 3: Marital Status and the Type of Marriage of the Respondents

Marital Status	**Frequency**	**Percentage**
Married	395	39.5
Never married	560	56
Divorced	20	2
Separated	10	1
Widowed	15	1.5
Total	**1000**	**100**
Type of Marriage (Married only)	**Frequency**	**Percentage**
Monogamous	275	88
Polygamous	120	12
Total	**395**	**100**

The result in Table 3 indicates that 56percent (majority) never marry, only 44percent had ever marry out of which 39.5percent are currently married, 2percent divorced, 1.5percent widowed and 1percent separated. This is not surprising given the youthful (age-wise) nature of the respondents (mostly below 25 years). Out of those who are currently married, 88percent are in the monogamous type of marriage and 12percent in polygamous unions.

Table 4: The Religious Affiliation of the Respondents

Religious Affiliation	**Frequency**	**Percentage**
Christianity	280	28%
Islam	703	70.3%
Traditional	12	1.2%
No religion	5	.5%
Total	**1000**	**100**

From Table 4, it can be deduced that a significant proportion of the respondents (70.3%) are Muslims and 28percent Christians, while 1.2percent and 0.5percent are followers of traditional religions and atheists, respectively. This also reflects the proportion of Muslims and Christians in the overall population of Gombe State where Islam is the dominant religion.

Table 5: The Respondents' Level of Education

Educational level	**Frequency**	**Percentage**
Qur'anic education only	153	15.3
Non-formal	103	10.3
Primary	54	5.4
Secondary	391	39.1
Tertiary	299	29.9
Total	**1000**	**100**

Table 5 depicts that most of the respondents (39.1%) have completed their secondary schools, 29.9percentthe tertiary and 15.3percent and 10.3percent had Qur'anic and non-formal education, respectively. This means that majority of the respondents (74.4%) have formal education. This is not surprising, as most of the respondents are youth, who are within the school age.

Table 6: The Employment Status of the Respondents

Employment Status	**Frequency**	**Percentage**
Employed	260	26
Self employed	434	43.4
Unemployed	306	30.6
Total	**1000**	**100**

Table 6 shows the employment status of the respondents. It revealed that most are self-employed (43.4%), 30.6percent unemployed and 26percent employed. Having up to 30.6percent as unemployed among this productive age group requires serious attention, because it signifies not only thehigh rate of dependence and the inability to save and invest, but also low income and welfare/consumption, which could lead to the low utilization of health care services, commercial sex work to augment income, crime, etc. But the percentage of the unemployed has dropped from 38.7percent in 2010, as reported by the National Bureau of Statistics. According to the Nigeria's Poverty Report 2010, the national average stood at 23.9percent, showing a huge gap between the state and the national averages. Generally, Gombe state is one of the states with the highest rate of unemployment.

Table 7: Types of Occupation

Primary Occupation	**Frequency**	**Percentage**
Farming	122	17.6
Rearing	64	9.2
Trading	160	23.1
Civil servant	147	21.2
Tailoring	56	8.1
Artisan	18	2.6
Others	127	18.3
Total	**694***	**100%**

*Respondents who are employed and self employed

Table 7 is on the respondents' primary occupation. The question on occupation concerned only those who are either employed or self-employed. Thus, only 694were asked to state their primary occupations. From the Table,23.1percentare traders, 21.2percent civil servants, 17.6percent farmers, 9.2percent engage in rearing, 8.1percent tailoring, 2.6percentre aartisans, while other occupations constitute the remaining 18.3percent. Under the categories of the other occupations, the respondents mentioned working for private companies, rice processing, groundnut processing, weaving and commercial food-selling, etc. mostly occupations peculiar to women.From the general assessment of the nature of the occupations, it can be deduced that they are of low occupational status, thus likely to lead to low income earning. From the FGD conducted, participants reported that people have other occupations as secondary, which they normally combine with the primary ones. Majority of those who have primary occupationsother than farming also do engage in farming and poultry keeping as secondary. This means, civil servants, tailors and traders, among others, have farming as

their secondary occupation. Some able-bodied youth do engage in laboring, such as bricklaying, iron bending, farm labour, etc. especially during the dry season. Some farmers also do engage in trading farm produce during the dry season to augment their income, while women mostly keep domestic animals and poultry as secondary sources of income.

Table 8: The AnnualIncome of the Respondents

Income per annum	**Frequency**	**Percentage**
Less than N100,000	582	58.2
N100,000-N200,000	158	15.8
N200,001-N300,000	84	8.4
N300,001-N400,000	65	6.5
N400,001-N500,000	44	4.4
N500,001 and above	67	6.7
Total	**1000**	**100**

Table 8indicates that the income levels of the respondents reflect their levels of formal education (in the case of civil servants mostly within the junior staff cadre) and the nature of the occupation (predominantly farming, trading and rearing, coupled with the fact that 30.6percent are not employed, pointing to low income earning. Majority (58.2%) earn less than N100, 000 per annum, 15.8percentearn between N100, 000 to N200, 000. Only 26percent earn more than N200, 000 per annum. Going by the UN's 2 dollar per day bench-mark of the poverty line, one can confidently say a significant majority are living below the poverty line, for they are earning less than N118, 260 naira in a year. This finding issimilarto the one reported by the National Bureau of Statistics (NBS) in 2010, which indicated that 69.1percent of people in the North East are living below the poverty

line and specifically Gombe has 74.2percent. Deducting from the work of Weber on life chances and life style, it can be inferred thatmajority of the respondents will share a similar life style (e.g. low consumptions, including the utilization of HCT services) based their common chances (low status occupations and low income).

4.3 Section Two: Awareness of HIV Counseling and Testing Among the Study Population

The Section begins by focusing on the awareness of HIV/AIDS among the respondents first before reporting on their awareness on HCT. Similarly, the results of the findings on respondents' awareness of the need to do the HIV test regularly and where to obtain it and modes of HIV testing were reported. Though the entire 1000 respondents were asked questions on the awareness of HIV/AIDS, those who answered 'no' were not administered subsequent questions, hence the disparity in the total number of respondents in some tables.

Table 9: Awareness of HIV/AIDS among the Respondents

Heard of HIV/AIDS	Frequency	Percentage
Yes	961	96.1
No	39	3.9
Total	**1000**	**100.0**

From Table 9, more than 96percent said they have heard of HIV/AIDS as against 3.9percent who said they have not. Therefore, only those who answer yes to the question "Have you heard of HIV/AIDS?" were administered the subsequent questions, because if one says he had never, it means he/she may not know other things (such as awareness of HCT, the utilization of HCT services, the barriers to the utilization, etc.) related to the disease. Given the extensive and 'aggressive' nature of the campaign against HIV/AIDS,

getting an overwhelming majority to accept that they have heard about the disease is not surprising. In fact, having someone to say he has not heard about HIV/AIDS is the most surprising, as radio jingles, newspapers, international media, posters etc. have helped to pass the information about the disease. However, since only a few (3.9%) said they have not heard it, the study respects their opinion and stopped the interview at that point. On the other hand,all the discussants of FGD are aware of HIV/AIDS. They demonstrated knowledge of the modes of transmission and the means of prevention of the disease. A participant expresses a feeling that represents the stand of most of many respondents:

> 'Hah! Is there anybody who has never heard of this disease (HIV/AIDS) despite the campaigns on the awareness creation?Almost on daily basis radio jingles and TV shows are running to conscientize people. You see T-shirts carrying messages on AIDS, in churches and mosques preachers are telling people about the disease and the few that are stigmatizing PLWHA are doing so because they are aware that the disease exists. (FGD, Youth)

This finding is closer to the one obtained in the NDHS (2013) report, where 86.7percent of the respondents in Gombe said they have heard of HIV/AIDS.

Table 10: Awareness of HIV Counseling and Testing(HCT) Among the Respondents

Awareness of HCT	**Frequency**	**Percentage**
Aware	961	100
Not Aware	0	0
Total	**961***	**100**

*Respondents who are aware/heard of HIV/AIDS

The result in Table 10 shows that all the respondents who are aware of HIV/AIDS are also awareof HIV counseling and testing.This indicates high level of awareness of the existence of HCT as an important component of the prevention strategy. However, awareness within the context of this study goes beyond the mere knowledge of the existence of an HIV test, but awareness of the need to be conducting the test regularly.

Table 11: Respondents'Awareness of Where to Obtain an HIV Test

Aware	**Frequency**	**Percentage**
Yes	805	83.8
No	156	16.2
Total	**961***	**100**

*Respondents who are aware HIV Counseling and Testing

This question was answered only by those who said they are aware of HIV counseling and testing. From Table 11, 83.8percent said they are aware of where to obtain an HIV test, 16.2percent said no they are not aware. Therefore, it can be inferred that a vast majority of the respondents are aware of where to obtain an HIV/AIDS test. The percentage of those who are aware is greater than the one reported in the NDHS (2013), where only 47.9percent and 71.4percent of women and men respectively know where to obtain the test. Awareness of where to get the HIV test is one of the requirements/condition for utilizing HCT services, because, even if someone is willing to go for the test, lack of knowledge of where to obtain it can serve as a barrier. However, some respondents in the FGD were initially reluctant to admit that people in the community know where to obtain an HIV test probably because by saying 'yes people do', others may think they (the discussants) are HIV positive. This was peculiar to the female youth group. However, the moderator clarified that the essence is just to know if the community membersare aware. They open up after that toindicate that the community members have knowledge of where to obtain an HIV test.

Table 12: Awareness of Mode of the HIV TestingAmong the Respondents

Mode of Testing	Aware	Not Aware	Total
Facility based testing	846(88%)	115(12%)	961*(100%)
Community outreach	479(49.8%)	482(50.2%)	961*(100%)
Other techniques of testing	0(0%)	961(100%)	961*(100%)

*Respondents who are aware HIV Counseling and Testing

Table 12 presents the result of the finding on the awareness of the different forms of HIV test among the respondents. All the respondents were asked this question except those who had earlier claimed not to have heard about HIV/AIDS. From the result, majority (88%) are aware of facility based HIV testing as against 12percentwho said they are not aware of it. Awareness of the community outreach HIV test model is far less compared to the facility based, because only 49.8percent are aware of this method of HIV testing. None of the respondents (not even the FGD participants) seem to be aware that there are kits for personal testing, i.e. one can test for himself to know his HIV status even at home, his car or generally at his convenience. This assertion was made due to the fact that no respondents indicate yes against the response of other techniqes of the HIV test apart from the two mentioned and no FGD participant made reference to it during the interview. This shows that awareness of personal testing kits is very low or absent among the study population.

Table 13: Respondents' Awareness of the Need for Regular HIV Counseling and Testing.

Awareness	Frequency	Percentage
Aware	550	57.2
Not aware	411	42.8

Total	**961***	**100**

*Respondents who are aware of HIV Counseling and Testing

Table 13 shows that 57.2percent are aware of the need to conduct the HIV test at a regular interval of 12 months, while 42.8percent are not aware. This means a simple majority hasawareness of this requirement. The demand for a regular uptake of HCT was due to the fact that the first/previous test might have been conducted during the window period, thus only regular testing will provide a true HIV status of the client/person. Looking at the percentage of those who said they are not aware of the need for a regular uptake of HIV test (42.8%) it can be inferred that, a significant percentage of the people are not aware of the need to do HIV test regularly. This gap in awareness could be one of the reasons for the difference between ever testing and testing in the last 12 months.

Just like the respondents who were adminstered with questionnaires, participants in FGDs demonstrate awareness of HCT and the need to do the HIV test regularly, though some discussants argued that 'it is only when you know you are at risk' of being infected with disease that regular testing is required . They expressedthe 'being at risk' as 'having multiple sexual partners', 'partners that are misbehaving (having casual sex)', 'persistent illness', 'having un-safe sex', etc. Others who are not aware of the need to do the HIV test regularly are mostly Muslims and female youths. Those who did the HIV test correctly described the procedure for doing it. They cited pre-test interaction (counseling), the test and post-test advices as the normal procedure. However, a few discussants said they were not counselled before the test, as they voluntarily went to do it.Thus they refused the pre-test interaction and asked for the test only.

4.4 Section Three: The Acceptance and Rejection of HCT Services Among the Respondents

Within the context of this study, acceptance refers to the respondents' willingness or readiness to go for the HIV test. However, acceptance, although a pre-requisite for utilization, does entail the actual utilization. The acceptance is an ideal requirement for utilization, as even the first name for HIV testing carries the title voluntary counseling and testing, showing the importance of acceptance. This section focuses on the willingness or acceptance of respondents to go for the HIV testing.

Table 14: SampleWillingness to go for HIV Testing

Willingness	**Frequency**	**Percentage**
Willing	774	80.5
Not willing	187	19.5
Total	**961***	**100**

*Respondents who are aware HIV Counseling and Testing

From Table 14, 80.5percent of the respondents are willing to go for the HIV testing, while 19.5percent said they are not. Therefore, clearly the majority are willing to be tested, although most (52.7%) have not actually gone for the test as willingness, within the context of this study, entails acceptance and readiness for thetesting. Same view was expressed by the SACA official in the state, that people are willing to be tested, eventhough stigma is creating a barrier to actual utilization. Almost all the participants said most of the community members are willing to go for the HIV test, but some said only when the 'need arises'. Probes show that the people's definitions of when the need arisesrange from 'if they will marry they will do the test', 'if they are sick and doctors require that they should do the test' to 'if they go for ANC they will do the test' and 'if it is part of the requirement for employment or admission'.

4.5 Section Four: the Utilization of HIV Counseling and Testing Services Among the Respondents

This section is where the result of theutilizationof HCT services by the respondentsis reported.The section began with the presentation of findingss on the ever tested first, before showing the number of those who tested in the last 12 months. The analysis under this section is based on the 961 rspondents who said they are aware HIV Counseling and Testing only.

Table 15: Respondents' Status on Ever Tested for HIV

Ever Tested	**Frequency**	**Percentage**
Tested	455	47.3
Never tested	506	52.7
Total	**961***	**100**

*Respondents who are aware HIV Counseling and Testing

The responses from Table 15 show that, 47.3percent had tested for HIV, while a simple majority (52.7%) had never tested before. Ever testing for HIV/AIDS entails doing the HIV test and counseling and collection of the test result (or knowing status after the test) regardles of the period. The implication of the findings in Table 15 is that, despite the extensive campaign and mass awareness programme on the disease, more than 52percent have never been tested for HIV/AIDS, though they belong to the group considered to be at risk of HIV infection. Moreover, the findings contradict that of NDHS (2013) where an average of 26.5percent of the study population were said to have ever been tested and received results. If ever being tested represents 47.3percent then, it should be expected that those who are tested in the last 12 months would be less than the 47.3 percent. The dominant view among the respondents of FGD is that majority of people in

their communities have utilized HCT services, though the extent to which they do the HIV test regularly cannot be asertained by them.

Table 16: Utilization of HIV/AIDS Counseling and Testing Services Among the Sampled Respondents

Utilized HCT	**Frequency**	**Percentage**
Tested in the last 12 months	304	31.6
Not Tested in the Last 12 months	151	15.7
Never tested	506	52.7
Total	**961***	**100**

*Respondents who are aware HIV Counseling and Testing

Table 16 presents the responses on the utilization of HCT services among the respondents. Receiving HIV test in the last 12 month is taken to mean utilization of HCT services. The result shows that only 31.6percent had utilized HCT services in the study areas.More than 15percent said they have not done the HIV test in the last 12 months despite the fact that they are among those who had ever tested. The category of 'Never tested' represents 52.7percentof those who have said they never did an HIV test before. The proportion of those who utilized this crucial preventive service in Gombe is greater than the average of 12.2percent (12.9% women and 11.4% men), as reported in the NDHS (2013) report. Similarly,although more than 65percent of the participants of FGD said they did HIV test, less than 40 percent did the test in the last 12 months.

4.6 Section Five:The Availability of HCT Facilities in the Study Locations

The availability of HCT services is necessary before utilization. The section reportson whether the HIV testing facilities are available in the study area or not. Similarly, for those who said they are available, they were asked to indicate the location of the facilities.

Only thoserespondents, who said they were aware of where to obtain an HIV test, as reported in Table 12, were asked questions on the availability and location of the HCT facilities.

Table 17: The Availability of HCT Facilities in the Study Areas

Available	**Frequency**	**Percentage**
Yes	805	100
No	0	0
Total	**805***	**100**

*Respondents who are aware of where to obtain HIV test

From Table 17, all the respondents who are aware of where to obtain an HIV test said HCT facilities are available.Thus, it can be inferred that HCT facilities are available in Gombe State. Similarly, the official document of GOMSACA (GSHSP, 2011-2015) shows that 203 HCT facities are available in the state spread across the eleven local governments.

Findings from unstructred interviews supported the above results that HCT facilities are available in Gombe state and they are accessible at a very minimum cost. A respondent in an interview asserts:

> Facilities for HIV testing are available in virtually all Local Governments. HCT can be obtained in all General Hospitals, Primary Health Centres especially PMTCT. You find ARV sites in all LGAs. They are available and Highly accessible! Cost of transport to the facility is less than N500. Drugs for PMTCT and ANC are available. But, ARV for 'others' are not always adequate as partners (donor agencies) are withdrawing funding and our government is not committed to taking over the affairs. (KII with GOMSACA Official)

4.7 Section Six: Accessibility and the Utilization of HCT Services in Gombe State

Table 18: Sample Awareness of Location of the Nearest HCT Facility

Location	Frequency	Percentage
My Community	541	67.2
Neighboring Community	75	9.3
Local Government Headquarter	94	11.7
State Capital	95	11.8
Total	**805***	**100**

*Respondents who are aware of where to obtain HIV test

Table 18 shows that 67.2 percent of the respondents said they have the facility in the community, 11.7percent said the facility providing HCT services is located in the local government headquarters, another 11.8percent said in the state capital and 9.3percentmentioned a neighboring community. This finding, not only proved the availability of HCT facilities in all the study areas, but also that they are accessible. Although some of the respondents made mention of the presence of the nearest facility in the local government areas and state headquarters, a cross tabulation of their geographical location and awareness of the location of HCT facilities shows that most are residing in the local government headquarters (Billiri, and Kumo) and the state capital (Gombe), which is the same with saying that the nearest facility is located in their communities.

Table 19: Distance to the Facility as a Barrier to the Utilization of HCT Services

Distance is a barrier	Frequency	Percentage
Yes	28	4.3
No	629	95.7
Total	**657***	**100**

*Respondents who were not tested in the last 12 months

Table 19 shows the respondents' opinion on whether distance to the facility is what makes them not go for HIV counseling. The result revealed that only 4.3percent said yes it was distance that made them not go forthe HIV test in the last 12 months. An overwhelming percentage (95.7%) said no,indicating that it was not because of distance that they failed to do the test. It can be inferred that distance to the facility is not a major barrier to utilization, as further confirmed by the result in Table 18, where the majority said the facilities are located within their communities. Similarly, an opinion leader in an FGD expressed that:

> No no no, distance is not a problem at all, except if one is not willing to do the test. Facilities are everywhere within reach and trekkable distances, surely this may not be the reason for not testing. In fact some even prefer to travel distant places to test for HIV for confidential reasons in order to avoid stigmatization.(FGD, Male Opinion Leader, Gombe)

Also, in a related way another female youth participant relates that:

> I know a friend who runs to the city (Gombe) for treatment because she doesn't want people to know, so distance is sometimes a blessing to those who are shy. (FGD, Female Youth)

Therefore, from the above one can say that distance to the facilities is not a strong factor in hindering utilization. In fact, the presence of self-testing kitsholds the potential of further bridging the problems of distance and confidentiality, though pre-test and post-test counseling is missed out.

4.8 Section Seven:Respondents' Experience on the Cost, Affordability and the Utilization of HCT Services

Table 20: Respondents' Experience on whether HCT is Free

HIV Testing is free	Frequency	Percentage
Yes	398	87.5
No	57	12.5
Total	**455***	**100**

*Respondents who ever tested for HIV

Table 20 presents the responses of the respondents who have utilized HCT services on whether or not the service is free. The results show that 87.5percentof the respondents who ever did the HIV test said the services are free, while 12.5percent said they are not. This shows that majority of those who utilized the HCT services were not charged any fee. Findings from the interviews revealed that public hospitals used to provide HCT services free, whereas private clinics do charge clients, hence the 12.5percent who claimed that there are costs. A discussant clarified the reason for the above responses, thus:

> It all depends on the clinic you wanted to do the testing. Like in my case, when I wanted to marry, I don't want to join the long queue and wait for sometimes, so I decided to go to the private clinic and do it, they charge me only eight hundred naira. (FGD, Male Adult, Billiri LGA)

Despite the fact that 87.5percent of the respondents said the HIV test is free in the public hospital that does not mean user fees are not paid. Respondents during FGD sessions, particularly those who did the HIV test, revealed that, in addition to cost of transportation, a user fee of 200 naira in the Federal Teaching Hospital,Gombe and 20 naira in specialist and other primary health-care are required to open a folder and see the

doctors. However, they unanimously agreed that there were no specific charges for doingthe HIV test in the public facilities.

Table 21: Respondents' Experience on the Cost of HIV Testing

Cost	**Frequency**	**Percentage**
₦ 800 - ₦ 849	55	96.5
₦ 850 - ₦ 900	2	3.5
Total	**57***	**100**

*Respondents who said HIV test is not free

From Table 21, almost all those who said there are cost/fees involved said the charges are not more than N900. To be exact out of those who said there are fees, 96.5percent mentioned between ₦800 and ₦849 naira and the remaining 3.5percent mentioned between 850 and 900 naira as the cost of the services. This cost does not cover for transportations to the facilities, as expressed by the respondents.

Table 22: Sample's View on the Affordability of HCT Services

Affordability	**Frequency**	**Percentage**
Affordable	39	68.4
Not affordable	18	31.6
Total	**57***	**100**

*Respondents who said HIV test is not free

Similarly, Table 22 shows that 68.4percentout of the respondents who said there are charges for utilizing HCT services consider the cost affordable, while 31.6percent said it is not. Overall, it can be said that HCT services are mostly affordable in Gombe, since only 31.6percentsaid they cannot afford them. Lack of affordability by the 31.6percent is not surprising given the fact that majority have low income. Affordability involves not only

having the money, but also the willingness to pay for the service (tables 23 and 24 below took care of that).

Table 23: Respondents' Ability to Pay for HCT Services

Ability to Pay for the Services	**Frequency**	**Percentage**
Yes	39	68.4
No	18	31.6
Total	**57***	**100.0**

*Respondents who said HIV test is not free

Table 23 indicates that, among the respondents who said HCT services are not free, 68.4percent said they have the ability to pay as against 31.6percent who said they donot. It can be inferred that cost is not be a major barrier to utilization for most of the people, since only 31.6percentlacks the ability to pay for the service.

Table 24: Respondents' Willingness to Pay for HIV Testing

Willingness	**Frequency**	**Percentage**
Willing	42	73.7
Not willing	15	26.3
Total	**57**	**100**

*Respondents who said HIV test is not free

FromTable 24, majority of the respondents (73.7%) are willing to pay for HCT services as against 26.3percent who are not, even if they have the money. In essence, the implication of the finding is that cost is not a major problem to the majority of the people, since only 29.8percent and 26.3percent lack the ability and is not willing to pay for the services, respectively.

Table 25: Respondents' Opinion on the Cost of HCT Services as a Barrier to the Utilization

Cost is a barrier	Frequency	Percentage
Yes	25	3.8
No	632	96.2
Total	**657***	**100**

*Respondents who were not tested in the last 12 months

WhileTables20-24 reflect the responses of those who utilized HCT services, Table 25 presents the opinion of the respondents, who have not utilized HCT services based on the role of cost in hindering utilization. The result shows that anoverwhelming majority (96.2%) posit that, the cost of HCT services is not a barrier to utilization. Only 3.8percentsaid the cost/money involved in getting the service is the reason for non-utilization. This is not suprising, as HCT services are largely provided free of charge in the government owned hospitals, except the user fee clients pay for opening folders. However, the 3.8percentwho said the cost of the services is the major reason for not utilizing , could have said so because of their low level of income. In other words, the low income earners will definitely find it difficult to pay transport fare and/ or pay for the service (user fee inclusive).

4.9 Section Eight: Stigmatization and the Utilization of HCT Services in Gombe State

As the heading suggests, the analysis below reflects the result of the responses on the existence of stigmatization and discrimination against PLWHA in Gombe State. And also to ascertain whether or not the stigmatization or fear of the test result is a barrier to the utilization of HCT services. Most of the questions are directed at all the respondents except the 'Never Heard of HIV/AIDS' group. Only the last question in this section (Table

29) was directed specifically at those who have not utilized HCT services in the last 12 months.

Table 26: The Respondents' Opinion on the Dominant Attitude of Community Members towards PLWHA

Dominant Attitude	**Frequency**	**Percentage**
Positive	485	50.5
Negative	328	34.1
Indifferent	148	15.4
Total	961*	**100**

* Respondents who are aware/heard of HIV/AIDS

From Table 26, the majority (50.5%) said the dominant attitude of the community members is positive, 32.8percent said no, negative attitude is dominant, while 15.4percent opined that people are indifferent. Although a positive attitude seems to be dominant, a significant percentage (34.1%)still believes that community members hold a negative attitude. This presents a serious problem because of the fact that stigmatization and discrimination against PLWHA poses a threat to the effortsaimed at halting and reversing the spread of HIV/AIDS by discouraging people from going for the HIV test and by denying those who are positive the chance to adjust and live a normal life. The following quotation from one respondent, during an interview, revealed such feelings:

> I resigned from public appearance to reduce stigmatization of people, because whichever house I entered, whoever I stayed with or interact with is usually assumed to be HIV positive, and thus experienced stigmatization. In fact even colleague we are working together were sometimes avoiding me. (KII female, State official of NEPWHAN)

Table 27: The Respondents' Interaction withPLWHA

Interaction with PLWHA	Yes	No	Total
Sit with someone who is HIV positive	821(85.4%)	140(14.6%)	961*(100%)
Shake hand with someone who is positive	870(90.5%)	91(9.5%)	961*(100%)
Eat with someone who is positive	758(78.9%)	203(21.1%)	961*(100%)
Do Business with someone who is positive	881(91.7%)	80(8.3%)	961*(100%)

*Respondents who are aware/heard of HIV/AIDS

The result from Table 27 reveals that 85.4percentof the respondents said they can sit with someone who is HIV-positive, 14.6percent said they will not, 90.5percent said they will shake hands with someone who is HIV-positive; while 9.1percentsaid they will not shake hand with someone who is positive. Similarly, majority (78.9%) said they would, but 21.1percentsaid no; they would not eat. In terms of doing business with one who is HIV-positive, 91.7percentsaid yes they would. Overall assessment here shows a high level of tolerance for PLWHA among the respondents. But still the percentage of those who felt they would not interact with PLWHA is high, especially when 21.1percentsaid they would not eat with someone who is positive, 14.6percent, 9.5percent and 8.3percent said they would not sit, shake hands or conduct business with someone positive.This is an indication of lack of tolerance for PLWHA that could likely lead to stigmatization and discrimination against people who are HIV-positive. The reason for these negative reactions toward PLWHA is due to inadequate knowledge of HIV/AIDS, as argued by participants in FGDs and respondents of KIIs. They argued that some people are afraid of eating, sitting, shaking hands and doing business with people who are HIV-positive because they are not well informed. Such people (who are less tolerant of PLWHA) still think that the disease

can be contracted through those means (eating, shaking hands and doing business with PLWHA).

Table 28: The Respondents' Experience on Discrimination against People Living with HIV/AIDS

Witnessed Discrimination	Frequency	Percentage
Yes	303	31.5
No	658	68.5
Total	**961***	**100**

*Respondents who are aware/heard of HIV/AIDS

In measuring discrimination, the respondents were asked whether or not they have known someone who was denied job or involvement in any social activity due to his HIV status in the last 12 months. Table 28 revealed that discrimination against such people is not high in Gombe State, as only 31.5percent reported that they had known someone who was denied involvement in social events in the last one year simple because he/she is HIV-positive. Majority (68.5%) said they do not know of anyone who was denied involvement in social events. However, having up to 31.5percent to say they have witnessed discrimination against PLWHA indicates the failure of the fight against discrimination. High levels of discrimination against people living with HIV/AIDS would discourage others from utilizing HCT services, because they wouldnot want face the same 'treatment' if they are positive.A similar result was obtained from the FGDs conducted. Majority of the participants said discrimination is on the decline, though still existing. A respondent narrates his experience of one incidence of discrimination thus:

> A friend of mine was asked to present a medical certificate before being allowed to drive vehicle for one organization. It turns out that he is positive. They refused to give him the job on that account. (FGD, Youth Male)

Similar experiences of discrimination against PLWHA were cited by some respondents, such as denial of jobopportunities in both public and private sectors (especially banks and companies).

Table 29: The Stigmatization of People Living with HIV/AIDS

Witnessed Stigmatization	**Frequency**	**Percent**
Yes	345	35.9
No	616	64.1
Total	**961***	**100**

*Respondents who are aware/heard of HIV/AIDS

Witnessed stigmatization was measured by asking the respondents of their experiences of someone who wasverbally abused or teased in the last 12 months based on account of being HIV-positive.From the Table 29, 35.9percent said they have known someone who has been verbally abused or teased in the last one year because of his/her HIV positive status,while 64.1percent said they are not aware of any stigmatization of people living with HIV. Although majority do not report the case of stigmatization against a HIV-positive person, 35.9percent stands for a significant figure, especially given the level of the awareness of HIV/AIDS in the communities. Findings from the qualitative interviews show similar views, that stigmatization has declined due to the increase in awareness campaign, although the problem still exists. A female respondent asserts:

> Having negative attitude toward PLWHA is positively associated with having misconceptions about HIV transmission routes".The people with misconceptions are more likely to possess negative and stigmatizing attitude toward PLWHA.(FGD, Adult Females)

Table 30: Stigmatization as a Barrier to the Utilization of HCT Services

Failed to test due to fear of Stigma	**Frequency**	**Percentage**
Yes	384	58.4
No	273	41.6
Total	**657***	**100**

*Respondents who were not tested in the last 12 months

Table 30 clearly shows that the major reason for not utilizing HCT services is fear of the test result and stigamatization, as expressed by 58.4percent of the respondents, while 41.6percent said 'no', fear of test result or stigmatization is not what hinders them from utilizing HCT services.

On a general note, stigmatization of PLWHA is common in Gombe. One respondent in KII argued: stigmatization is found at all levels: at the personal; the family and societal. The respondent further identified stigmatization at the personal level as failure to admit being HIV-positive, the failure to take treatment, etc. Stigmatization at the family level manifests, according to the respondent, in forms of rejection and avoidance when it comes to eating or sharing utensils, etc. At the societal level, stigmatization takes forms of using foul language for the disease, such as '*kanjamau'*(thinner), '*kabarisalamualaikum'*(the living dead), etc. which are scary and carry negative connotations. The respondent maintained that personal or self-stigmatization is even more common among the educated. Such elite tend to hide their status and demand for special treatment when it comes to medication or counseling. A respondent narrates her personal experience of stigmatization:

> I am very popular in the state for championing the course of fighting against stigmatization of HIV Positive People. I have been running TV shows, Radio programme, house-to-house visits etc. This 'exposure' makes people stigmatize whoever or whichever house I visit, even if the visit is personal (not Related to HIV/AIDS). The most painful part is, even my colleagues use to reject me despite their level of education and awareness.

> They usually dodge me when going for the community outreach for fear of being labeled also. I had no choice, but to stop going out with them, and even retire from the programmes (TV shows, Radio programme etc). (KII, Official NEPWHAN)

Reaffirming the conviction that stigma is the major barrier to utilization, one youth participant said:

> People are afraid to know their status because of stigmatization, discrimination and rejection by the people.So if all these are reduced to the minimum, people will be encouraged to go for the test. (FGD, Youth, Male)

Even the Agency responsible for coordinating the State's response to HIV (GOMSACA) realized that stigmatization is a major obstacle to a successful prevention of the disease. An official revealed that:

> If you look at this year's slogan: 'Zero Tolerance on Stigma and Discrimination' it is geared towards ensuring a stigma-free society. We are making effort to ensure that the state pass the Anti-stigma bill in to law, and also intensify our effort to bring more and more religious and community leaders in the project, with a view to reduce or stop stigmatization of HIV positive people. (KII, GOMSACA Official)

From the above, it is clear that, in an effort to stop stigmatization in the state, there exists a structural problem that can only be addressed afterpassing the Anti-stigma bill into law. This structural problem means the failure of the state government to provide the legal framework within which the problem of stigmatization can be addressed. The struggle to get the bill passed by the Gombe State government had taken over two years, but yet it has not been passed. This mean those who stigmatize and discriminate against HIV-positive person can go free without any penalty. Secondly, even the state Agency had acknowledged that the problem of stigmatization is a major barrier to prevention effort, including HCT services, in the state.

4.10 Section Nine: Other Reasons for the Non-Utilization of HCT Services among the Respondents

Table 31: Other Reasons for not Utilizing HCT Services by the Respondents

Other Reasons for not Testing	Frequency	Percentage
Lack of reliability of test results	17	2.6
Proxy testing	37	5.6
No any other reason	603	91.8
Total	**657***	**100**

*Respondents who were not tested in the last 12 months

Table 31 shows that only a small percentage (8.2) of respondents who do not utilize HCT services gave other reasons (2.6% said lack of reliability of the test result and 5.6% advanced proxy testing) for not testing in at least 12 months. Proxy testing means knowing your status through your wife who go for ANC. Such respondents believe that, in so far their partners go for ANC and are tested negative, then they are also negative. The FGD participants said one of the reasons why people who are married and have not utilized the service is their belief that they are negative since their wives, who attend ANC, are also negative, as illustrated in the responses below:

> Some members of the community use to say 'I know myself, I am negative! If I am not, the doctors would have told her [the wife] in the hospital'. (FGD, Adults Male)

Another respondent lamented:

> Such people (community members) upon held the belief that, once their wife is clear [HIV negative], they are also clear and if she is not then they are not. If such is the case, they feel there is no need ofgoing for the test now. (FGD, Adults Male)

Patriarchy also plays a role in descouraging utilization of HCT services, as participants of the FGDs reported.They argue that there are some husbands who do not allow their wife/wives to go for ante-natal care because they do not 'trust' themselves. So, they are

afraid of knowing their status, they have fear of stigmatization and discrimination if they are found to be HIV positive.

4.11 Section Ten: Further Explanations

The previous sections represent the analysis of single variables (univariate analysis). Here, the analysis went a step further to look at two variables at a time, especially the utilization of HCT services in the last 12 months and theawareness and acceptanceof HCTon the one hand and Socio-demographic and economic characteristics of the respondents,on the other hand. This is done through cross tabulations and Chi-Square tests. The level of significance used in testing the chi-square is 0.05, indicating a 5percent margin of error. However, it should be noted that, although nine-hundred and sixty one (961) respondents were asked on the awareness and acceptance of HCT, the total of the cross-tabulationsin some cases is less than the 961. For example,four hundred and fifty five (455) is the total number of respondents who were asked on the utilization of HCT services in the last 12 months.Based on their admission that they have ever tested for HIV/AIDS, the total in some Tables of the cross-tabulations is not up to the 455,as expected. This is due to the fact that some of the variables were not administered on some of the respondents. The 'not applicable' responses were left blank and cross-tabulations and chi-square tests do not take such into consideration during the computation, hence the variations in the totals.

Table 32: The Respondents Awareness of the Need for Regular HIV Test and Age Distribution

Age in Years	Awareness		Total
	Aware	Not Aware	
15 – 19	131 (47.6%)	114 (52.4%)	275 (100%)
20 – 24	146 (54.3%)	123 (45.7%)	269 (100%)
25 – 29	118 (72%)	46 (28%)	164 (100%)
30 – 34	56 (50.9%)	54 (49.1%)	110 (100%)
35 – 39	61 (80.3%)	15 (19.7%)	76 (100%)
40 – 44	20 (62.5%)	12 (37.5%)	32 (100%)
45 and Above	18 (51.4%)	17 (48.6%)	35 (100%)
Total	**550 (57.2%)**	**411 (42.8%)**	**961** (100%)

Chi-Square Value =44.933; df = 6; Level of significance = 0.05

FromTable32, respondents between the ages of 25 to 39 are aware of the need to go for regular HIV testing more than those who are older and younger. This has accounted for the disparity in terms of the utilization of HCT services, where the same age category utilized the services more than others. This means that the more the awareness the more likely the utilization of HCT services. This same age category may be seen to be more sexually active, more economically productive, etc. As such, they have more access to resources, including information, which is vital in promoting awareness. Statistically, there is a relationship between the respondents' age grades and awareness, since the computed chi-square value of 44.933 is greater than the table value of 12.592.

Table 33: Awareness of the Need for Regular HIV Test across Sex

Awareness	Sex		Total
	Male	Female	
Aware	347 (57.1%)	203 (57.5%)	550 (57.2%)
Not aware	261 (42.9%)	150 (42.5%)	411 (42.8%)
Total	**608 (100%)**	**353 (100%)**	**961 (100%)**

Chi-Square Value =**0**.017; df = 1; Level of significance = 0.05

From Table 33, the awareness of the need for regular HIV testing is the same across the male and female respondents, with each having about 52%. This shows that awareness has nothing to do with sex. Similarly, the chi-square value obtained is far less than the table value of 3.841, indicating no association between awareness and sex of the respondents.

Table 34: Awareness of the Need for Regular HIV Test and the Religious Affiliation of the Respondents

Awareness	Religious Affiliation				
	Christianity	Islam	Traditional	No Religion	**Total**
Aware	191 (70.2%)	353 (52.5%)	5 (45.5%)	1 (20.0%)	550 (57.2%)
Not aware	81 (29.8%)	320 (47.5%)	6 (54.5%)	4 (80.0%)	411 (42.8%)
Total	**272 (100.0%)**	**673 (100.0%)**	**11 (100.0%)**	**5 (100.0%)**	961 (**100.0%)**

Chi-Square Value =28.485; df = 3; Level of significance = 0.05

From Table 34, the percentage of Christians that is aware of the need for regular HIV testing (70.2%) is higher than that of Muslims (52.5%). This may likely be the reason why more Christians utilized HCT services than Muslims. The chi-square values indicated the existence of an association between awareness of the need to be tested regularly and respondents' religious affiliation.

Table 35:Awareness of the Need for Regular HIV Test and the Respondents' Level of Education

Awareness	Educational Level					
	Qur'anic	Non-formal	Primary	Secondary	Tertiary	**Total**
Aware	53 (35.8%)	42 (42.9%)	28 (52.8%)	220 (58.4%)	207 (72.6%)	550(57.2%)
Not aware	95 (64.2%)	56 (57.1%)	25 (47.2%)	157 (41.6%)	78 (27.4%)	411 (42.8%)
Total	**148 (100%)**	**98 (100%)**	**53 (100%)**	**377 (100%)**	285 (**100%)**	961 (**100%)**

Chi-Square Value =64.245; df = 4; Level of significance = 0.05

The results in Table 35 reveal thatthe higher the level of formal education the higher the level of awareness of HCT among the respondents. This means that the percentage of those who are aware of the need to go for HIV test regularly is higher among the respondents with tertiary education compared to those with lower qualifications. Similarly, the percentage of those who are aware of the need for a regular HIV test among secondary school certificate holders is higher (58.4%) than those with the primary school certificate (52.8%). The table value (9.488) is less than the computed chi-square value (64.245), thus indicating an association between awareness of the need for a regular HIV test and level of education.

Table 36:Awareness of the Need for Regular HIV Test and the Respondents' Level of Income.

Annual Income Level	Awareness of the need for regular HIV	Total

	test		
	Aware	Not Aware	
Less than N 100,000	288 (51.8%)	268 (48.2%)	556 (100%)
N 100,000 – N 200,000	88 (58.3%)	63 (41.7%)	151 (100%)
N 200,001 - N 300,000	49 (59.8%)	33 (40.2%)	82 (100%)
N 300,001 - N 400,000	41 (65.1%)	22 (34.9%)	63 (100%)
N 400,001 - N 500,000	33 (78.6%)	9 (21.4%)	42 (100%)
N 500,001 and Above	51 (76.1%)	16 (23.9%)	67 (100%)
Total	**550 (57.2%)**	**411 (42.8%)**	**961 (100%)**

Chi-Square Value =26.150; df = 5; Level of significance = 0.05

From Table 36, the percentage of the awareness of HCT is higher among those with higher levels income of 300,001 naira and above than among those with lower level of income. Specifically, 65.1percent of respondents whose income is N300,001 – N400,000 are aware of the need to be tested regularly, 78.8percent and 76.1percent with income level of N400,001 – N500,000 and N500,001 and above respectively are aware of the need for regular HIV test. These percentages are higher compared to those of low income earners whose percentages of awareness stand at 59.8percent, 58.3percent and 51.8percent for those who are earning N200,001 – N300,000, N100,000 – N200,000, and less than N100,000, respectively. This is in agreement with the findings on utilization and income, where high income earners utilized more than low income earners. An inference can be made here that the utilization of HCT services is higher among people of high economic status because they have more awareness than people of low socio-economic status. There is also an association between the respondents' annual income and awareness of the need for regular HIV testing (table value is 11.070).

Table 37: Acceptance of HIV Test by the Age of the Respondents

Age in Years	Acceptance of HIV test		Total
	Accepted	Rejected	
15 – 19	222 (80.7%)	53 (19.3%)	275 (100%)
20 – 24	211 (78.4%)	58 (21.6%)	269 (100%)
25 – 29	141 (86%)	23 (14%)	164 (100%)
30 – 34	81 (73.6%)	29 (26.4%)	110 (100%)
35 – 39	69 (90.8%)	7 (9.2%)	76 (100%)
40 – 44	22 (68.8%)	10 (31.2%)	32 (100%)
45 and Above	28 (80%)	7 (20%)	(100%)
Total	**774 (80.5%)**	**187 (19.5%)**	**961 (100%)**

Chi-Square Value =15.140; df = 6; Level of significance = 0.05

On the average, the results in Table 37 above show that acceptance or willingness to go for the HIV test is higher among people between the age of 25 – 39 years compared to those who are younger and older. The average percentage of the respondents who accepted the HIV test among those between the ages of 25 – 39 is 83.5 percent compared to 79.6 percentamong those below 25 years and 74.4 percentamong those who are 40 and above years old. This means, just as awareness is higher, acceptance is also higher among those who are the most sexually active age group than others. The chi-square test result shows that, there is a relationship between the acceptance of HCT and the age of the respondents.

Table 38: **The Acceptance of HIV Test across Gender**

Acceptance	Sex		
	Male	Female	**Total**

Accepted	495 (81.4%)	279 (79.0%)	774 (80.5%)
Rejected	113 (18.6%)	74 (21.0%)	187 (19.5%)
Total	**608 (100%)**	**353 (100%)**	**961 (100%)**

Chi-Square Value =0.806; df = 1; Level of significance = 0.05

There seems to be an even distribution of the acceptance of HCT among the males and females, with males having 81.4percent willingness to go for the test and females 79percent. This means there is a very little difference across gender in terms of the acceptance of the HIV test. Moreover, the chi-square value is less than the table value (3.841), meaning there is no association between acceptance and sex of the respondents.

Table 39:The Acceptance of HIV Test by the Respondents' Religious Affiliation

Acceptance	**Religious Affiliation**				
	Christianity	Islam	Traditional	Atheist	**Total**
Accepted	238 (87.5%)	524 (77.9%)	9 (81.8%)	3 (60.0%)	774 (80.5%)
Not accepted	34 (12.5%)	149 (22.1%)	2 (18.2%)	2 (40.0%)	187 (19.5%)
Total	**272 (100%)**	**673 (100%)**	**11 (100%)**	**5 (100%)**	**961 (100%)**

Chi-Square Value =12.848; df = 3; Level of significance = 0.05

Table 39 indicates that the percentage of the acceptance of HIV testing is higher among Christians than Muslims, because 87.5percent of them expressed willingness as against 77.9percent. The number of followers of the traditional religion is too small to permit a meaningful comparison. This finding is not surprising, as more Christians are aware of the need to be tested regularly than Muslims. This is, perhaps, because the Christians have high level of the HIV infections and are less conservative than Muslims. The computed chi-square value of 12.848 is greater than the table value of 7.815.Thus, there is an association between willingness to go for HIV test and the respondents' religious

affiliation. This is not surprising because, awareness and utilization of HCT have relationship with religious affiliation and more Christians are aware of the need for regular HIV test than Muslims.

Table 40: Acceptance of the HIV Test and the Educational Level of the Respondents

Acceptance	**Educational Level**					
	Qur'anic	Non-formal	Primary	Secondary	Tertiary	**Total**
Accepted	97 (65.5%)	70 (71.4%)	49 (92.5%)	314 (83.3%)	244(85.6%)	774 (80.5%)
Rejected	51 (34.5%)	28 (28.6%)	4 (7.5%)	63 (16.7%)	41 (14.4%)	187 (19.5%)
Total	**148 (100%)**	98 (**100%)**	**53 (100%)**	**377 (100%)**	285(**100%)**	961 (**100%)**

Chi-Square Value =37.736; df = 4; Level of significance = 0.05

It is evident from Table 40 that more Primary school certificate holders (92.5%) are willing to go for the HIV test than any other certificate holders, followed by those with tertiary education (85.6%). About 83percent of secondary school certificate holders are willing to be tested, while among those with non-formal education and Qur'anic education only 71.4percent and 65.5percentare willing to be tested. The reason for having more primary school certificate holders willing is, perhaps, because they less scared of stigmatization. On the other hand, the high level of acceptance among the respondents with tertiary level of education could be because they are more aware of the need for regular HIV testing. A relationship exists between the acceptance of the HIV test and level of education, since the chi-square value (37.736) is greater than the table value (9.488).

Table 41:Acceptance of the HIV Test and the Income Level of the Respondents

Annual Income Level	**Acceptance of HCT**		**Total**
	Accepted	Rejected	

Less than N 100,000	443 (79.7%)	113 (20.3%)	556 (100%)
N 100,000 – N 200,000	121 (80.1%)	30 (19.9%)	151 (100%)
N 200,001 - N 300,000	60 (73.2%)	22 (26.8%)	82 (100%)
N 300,001 - N 400,000	52 (82.5%)	11 (17.5%)	63 (100%)
N 400,001 - N 500,000	36 (85.7 %)	6 (14.3%)	42 (100%)
N 500,001 and Above	62 (92.5%)	5 (7.5%)	67 (100%)
Total	**774 (80.5%)**	**187 (19.5%)**	**961 (100%)**

Chi-Square Value =10.154; df = 5; Level of significance = 0.05

Looking at the cross-tabulation table of willingness to go for HIV testing and the income of the respondents, those with high incomes are more willing to go for HIV testing than those who have low incomes. Specifically, 92.5percent who are earning between ₦500, 001 and above are willing to be tested, perhaps because awareness of the need for a regular HCT is higher among them, compared to the average willingness for the HIV test of 77.7percent among those who are earning less than ₦300, 001 per annum. However, despite these differences in the rate of acceptance among the various levels of income, based on the statistical inference there is no relationship between acceptance and level of income. The table value is 11.070, which is less than the computed chi-square value (10.154).

Table 42: Acceptance of the HIV TestandAwareness of the Need for a Regular HIV Test

Acceptance	**Awareness of HCT**		**Total**
	Aware	Not aware	

Accepted	495 (90%)	279 (67.9%)	774 (80.5%)
Rejected	55 (10%)	132 (32.1%)	187 (19.5%)
Total	**550 (100%)**	**411 (100%)**	**961 (100%)**

Chi–square = 73.416; df=1; Level of significance = 0.05

FromTable 42, awareness is an important factor in determining acceptance or willingness to go for the HIV test. This is because 90percent of those who are aware of the need for a regular HIV test indicate willingness to test for HIV as against 69.7percent who, though not aware of the need for regular HIV test, are willing to be tested. So, it can be inferred that willingness to go for the HIV test is higher among respondents who are aware of the need for routine HIV tests than those who are not aware. The chi-square value of 73.416 indicates a strong association between awareness of the need for a regular HIV test and acceptance of it, given the table as 3.841.

Table 43:Acceptance of the HIV Test and the Utilization of HCT Services

Acceptance	**Utilization of HCT**		**Total**
	Utilized	Not utilized	
Accepted	293 (69.4%)	129 (30.6%)	422 (100%)
Rejected	11 (33.3%)	22 (66.7%)	33 (100%)
Total	**304**	**151**	**455 (100)**

Chi-square= 17.987; df=1; Level of significance = 0.05

Table 43 reveals that willingness increases the chance of the utilization of HCT services. Majority (69.4%) of those who utilized the services demonstrate willingness to go for the HIV test. More than 66percent of those who rejected it also did not utilize the services. This finding also re-affirms the initial assertion that acceptance does not necessarily lead to utilization since 30.6percent of the study population did not utilize HCT services

despite accepting it or saying they are willing. The chi-square test result shows an association between acceptance and utilization of HCT services.

Table 44:The Utilization of HCT Services by Respondents' Location

Location	**Utilization of HCT Services**		**Total**
	Utilized	Not utilized	
Akko	85 (63.4%)	49 (36.6%)	134 (100%)
Billiri	128 (74%)	45(26%)	173 (100%)
Gombe	91 (61.5%)	57 (38.5%)	148 (100%)
Total	**304 (66.8%)**	**151 (33.2%)**	**455(100%)**

Chi-Square Value =6.601; df = 2; Level of significance = 0.05

Table 44shows that more people from Billiri (74%) utilized HCT services than those inAkko (63.4%) and Gombe (61.5%). The chi-square test result shows that there is a relationship between utilization and respondents' local government of residence, since the computed chi-square value above is greater than the value of 5.991, as obtained from the chi-square table. The reason for this difference perhaps is because the HIV prevalence rate is higher in Billiri LGA (Gombe south) than in the other two local governments/senatorial districts.

Table 45: The Utilization of HCT Servicesbythe Respondents' Age

Age in Years	**Utilization of HCT Services**		**Total**
	Utilized	Not utilized	

15 – 19	35(52.2%)	32(47.8%)	67(100.0%)
20 – 24	77(59.2%)	53(40.8%)	130(100.0%)
25 – 29	73(73.0%)	27(27.0%)	100(100.0%)
30 – 34	48(75.0%)	16(25.0%)	64(100.0%)
35 – 39	44(80.0%)	11(20.0%)	55(100.0%)
40 – 44	16(76.2%)	5(23.8%)	21(100.0%)
45 and Above	11(61.1%)	7(38.9%)	18(100.0%)
Total	**304(66.8%)**	**151(33.2%)**	**455(100.0%)**

Chi-Square Value =18.860; df = 6; Level of significance = 0.05

Table 45 shows that most of those who utilized HCT services are between the age of 25 and 39 years. Utilization is low among those younger, as an average of 44.3percent of those between the age of 15 and 24 have not tested or utilized the services in the last 12 months. The reason for this high level among respondents whose age is between 25 and 39 is perhaps because they are mostly married (as revealed by the cross tabulation of age and marital status), and the HIV test is one of the marital requirements. Similarly, awareness of HCT is higher among those aged between 25-39 years than those who are older and younger. This might also be the reason for the high utilization of HCT among the age category of 25-39.The chi-square test result allows us to infer that there is a relationship between age and utilization of HCT services because, the computed chi-square value of 18.860 is greater than the table value of 12.592.

Table 46:The Utilization of HCT Services by Sex of the Respondents

Sex	**Utilization of HCT Services**	

	Utilized	Not utilized	**Total**
Male	183(65.8%)	95(34.2%)	278(100.0%)
Female	121(68.4%)	56(31.6%)	177(100.0%)
Total	**304(66.8%)**	**151(33.2%)**	**455(100.0%)**

Chi-Square Value =.313; Degree of freedom = 1; Level of significance = 0.05

Evidently, more females tested for HIV than males, as can be seen from Table 35. The computed chi-square value is .313 as against the value obtained from chi-square table (3.841). Thus, we can infer that there is no relationship between gender and the utilization of HCT services. Despite the absence of relationship between the two variables, the Table above shows that, the percentage of females who did HIV test (68.4%) is higher than that of males (65.8%). Similarly, findings from FGD show that more females tested for HIV/AIDS than males, because they attend antenatal care clinics, as posited one respondent:

> We go for HIV test during pregnancy because we normally go for Ante-natal care and we are always tested during that time. We normally go for the test in order to know our health condition and the health condition of our unborn babies. (FGD, Adults, Females)

Table 47: HCT Utilization by Respondents' Level of Education

Educational Level	**Utilization HCT Services**		**Total**
	Utilized	Not utilized	
Qur'anic	27 (62.8%)	16 (37.2%)	43(100.0%)
Non-Formal	28 (75.7%)	9(24.3%)	37(100.0%)
Primary	16(57.1%)	12(42.9%)	28(100.0%)
Secondary	100(63.7%)	57(36.3%)	157(100.0%)
Tertiary	133(70.0%)	57(30.0%)	190(100.0%)
Total	**304 (66.8)**	**151 (33.2%)**	**455(100%)**

Chi-Square Value =4.36; df= 4; Level of significance = 0.05

Table 47 is a cross tabulation of utilization and the educational level of the respondents. From the Table, the sample size of those with Qur'anic, non-formal, and primary education is too small (less than one-third of the secondary and tertiary) to make a

meaningful comparison. But the sample of respondents each with secondary and tertiary education is high enoughto allow for comparison. Those with tertiary education utilized HCT services more than those with secondary education. This may be because awareness of the need to go for the HIV test regularly is higher among the sample with higher education (tertiary) than secondary level certificate holders, as revealed by the cross tabulation. However, the result of chi-square test under the table shows no relationship between the two variables, since the computed chi-square value of 4.364 is less than the table value of 9.488.

Table 48:The Utilization of HCT Services Based on the Religious Affiliation

Religious Affiliation	**Utilization of HCT Services**		**Total**
	Utilized	Not utilized	
Christianity	147(77.4%)	43(22.6%)	190(100.0%)
Islam	154(59.0%)	107(41.0%)	261(100.0%)
Traditional	2(66.7%)	1(33.3%)	3(100.0%)
No Religion	1(100.0%)	0(0%)	1(100.0%)
Total	**304(66.8%)**	**151(33.2%)**	**455(100.0%)**

Chi-Square Value =17.222; df= 3; Level of significance = 0.05

There seems to be a relationship between the utilization of HCT services and the religious affiliation of the respondents, as can be seen in Table 49 above. The decision that there is a relationship between utilization and religious affiliation stems from the fact that, the computed chi-square value (17.222) is greater than the value obtained from the chi-square table under 3 degree of freedom and the 0.05 level of significance (7.815).The sample size of the followers of traditional religion and those who have no religion is too small to allow for an objective comparison among them and other religions. Thus, the analysis will be between Muslims and Christians only. Christians utilized HCT services

more than Muslims. Further cross tabulation between their religion and marital status, awareness of HCT, etc. shows that the percentage of the Christians who are married is greater than the percentage of the Muslims who are married. Those who are married utilized the HCT services more than those who are not, because testing is marital requirement. Perhaps that is why more Christians tested more than the Muslims. Moreover, awareness of HCT services is higher among the Christians than Muslims. This also may have accounted for the difference in the level of utilization across the two religious groups. Another reason why the Christians utilized HCT services more than the Muslims could be due to the fact that the HIV prevalence rate is higher in the Christian-dominated area (Gombe south) than in the Muslim-dominated north and central senatorial districts.

Table 49:The Utilization of HCT Services byEmployment Status

Employment Status	**Utilization of HCT Services**		**Total**
	Utilized	Not utilized	
Employed	109(69.9%)	47(30.1%)	156(100.0%)
Self-employed	127(76.5%)	39(23.5%)	166(100.0%)
Unemployed	68(51.1%)	65(48.9%)	133(100.0%)
Total	**304(66.8%)**	**151(33.2%)**	**455(100.0%)**

Chi-Square Value =22.449; df= 2; Level of significance = 0.05

Table 49 depicts the result of a cross tabulation between utilization (HIV testing in the last 12 months) and respondents' employment status. The finding shows that the percentage of those who utilized HCT services is higher among those who are self-employed (76.5%) and employed (69.9%), while only 51.1percent of the unemployed did theHIV test recently. The chi-square test result indicates that there is a relationship between the two variables, because the computed value (22.449) is greater than the table

value (5.991). Further analysis shows that the percentage of those who are aware of HCT and have the tertiary level of education is higher among the respondents who are employed than those who are unemployed. This may have accounted for the high level of the utilization of HCT services among the employed.

Table 50: HCT Utilization by Respondents'Occupation

Occupation	**Utilization of HCT Services**		**Total**
	Utilized	Not utilized	
Farming	36(67.9%)	17(32.1%)	53(100.0%)
Rearing	17(77.3%)	5(22.7%)	22(100.0%)
Trading	54(76.1%)	17(23.9%)	71(100.0%)
Civil Service	74(74.0%)	26(26.0%)	100(100.0%)
Tailoring	22(78.6%)	6(21.4%)	28(100.0%)
Artisan	3(60.0%)	2(40.0%)	5(100.0%)
Others	30(69.8%)	13(30.2%)	43(100.0%)
Total	**236(73.3%)**	**86(26.7%)**	**322(100.0%)**

Chi-Square Value = 2.384; df = 6; Level of significance = 0.05

Table 50 represent the cross tabulation of the utilization of HCT services and the occupation of the respondents. The total of the cross-tabulation did not add up to the normal 455 because not all those with occupations are eligible to respond to the question on utilization, because they were never tested for HIV (only 322 were ever tested). The result shows a relatively even distribution of utilization across all the occupations despite the smallness of sample sizes in most occupations. No meaningful comparison can be done given the nature of the spread of the respondents across the occupations. However, based on the chi-square test conducted, there is no relationship between the utilization of HCT services and occupation.

Table 51:The Utilization of HCT Services by Marital Status

Marital Status	Utilization of HCT Services		Total
	Utilized	Not utilized	
Married	171(74.0%)	60(26.0%)	231(100.0%)
Never Married	122(58.9%)	85(41.1%)	207(100.0%)
Divorced	4(50.0%)	4(50.0%)	8(100.0%)
Separated	4(100.0%)	0(0%)	4(100.0%)
Widowed	3(60.0%)	2(40.0%)	5(100.0%)
Total	**304(66.8%)**	**151(33.2%)**	**455(100.0%)**

Chi-Square Value =14.322; df = 4; Level of significance = 0.05

It is obvious from Table 40 that 74percent of married respondents who are eligible to respond to the question on utilization have been tested, while only 58.9percent of those who never marry have utilized the HCT services. The reasons given by FGD participants for the high utilization among the respondents who are married include: The HIV test is one of the marital requirements these days; pregnant women go for ANC, where they normally get the HIV test; and awareness of HCT services is higheramong those who are married than those who never marry (as revealed by further analysis between marital status and awareness of HCT).The result of chi-square test depicts a relationship between the respondents' marital status and utilization of HIV testing services. This inference was because of the fact that the computed chi-square value of 14.322 is greater than the table value of 9.488.

Table 52: The Utilization of HCT Services by the Respondents' Type of Marriage

Type of Marriage	Utilization of HCT Services		Total
	Yes	No	

Monogamous	122(72.2%)	47(27.8%)	169(100.0%)
Polygamous	49(79.0%)	13(21.0%)	62(100.0%)
Total	**171(74.0%)**	**60(26.0%)**	**231(100.0%)**

Chi-Square Value =1.105; df= 1; Level of significance = 0.05

From Table 52, the utilization of HCT services across the 2 types of marriage(polygamous and monogamous) stand at 79percent, respectively. This shows a little difference in terms of utilization across types of marriage, with those in the polygamous marriage having a higher level of utilization compared to those in monogamous marriages. Perhaps the reason for the high utilization of HCT service among the polygamous union isthatit requires testing and re-testing whenever another partner is coming into the relationship and/ or whenever the wives go for ANC.The outcome of chi-square test under table 41 revealed no relationship between type of marriage and utilization of HCT services in Gombe State. The total of the cross-tabulation is not up to the expected 455, but 231, because only the 231 are married and respond to the question on types of marriage.

Table 53: The Utilization of HCT Servicesby Respondents'Annual Levels ofIncome

Annual Income Level	**Utilization of HCT Services**	**Total**

	Utilized	Not utilized	
Less than N 100,000	142(65.7%)	74(34.3%)	216(100.0%)
N 100,000 – N 200,000	51(64.6%)	28(35.4%)	79(100.0%)
N 200,001 - N 300,000	32(69.6%)	14(30.4%)	46(100.0%)
N 300,001 - N 400,000	29(74.4%)	10(25.6%)	39(100.0%)
N 400,001 - N 500,000	13(48.1%)	14(51.9%)	27(100.0%)
N 500,001 and Above	37(77.1%)	11(22.9%)	48(100.0%)
Total	**304(66.8%)**	**151(33.2%)**	**455(100.0%)**

Chi-Square Value =7.978; df = 5; Level of significance = 0.05

Table 54 indicates that the proportion of the utilization of HCT services is higher (77.1%) among those with the highest income (500,001 and above per annum) than others earning less. This group is followed by those who earned between 300,001 – 400,000 in a year (74.4%). The least group to utilized HCT services are those earning between 400,001-500,000 per annum, as only 48.1percent of then did the HIV test. The result of chi-square test shows that there is no relationship between income level and utilization of HCT services.

Table 54: HCT Utilization by Respondents'Access to the Nearest Facility

Location of the Nearest Facility	**Utilization of HCT Services**		**Total**
	Utilized	Not utilized	
My Community	203(64.9%)	110(35.1%)	313(100%)
Neighboring Community	27(87.1%)	4(12.9%)	31(100%)
Local Government Headquarters	40(80.0%)	10(20.0%)	50(100%)
State Capital	24(49.0%)	25(51.0%)	49(100%)
Total	**294(66.4%)**	**149(33.6%)**	**443(100%)**

Chi-Square Value =17.088; df = 3; Level of significance = 0.05

Table 54 shows that 64.9percentof those who tested are those who said the facility is located in their community, while 35.1percent did not utilize the service. Majority of those who tested said the HCT facility is located in the neighboring community (87.1%). They might have done the HIV test in the neighboring community for confidential reasons. In other words, lack of confidentiality may have been the reason for low utilization among those who said the facilities are located in their communities. On the other hand, the chi-square value of 17.088 and table value 7.815 indicating a relationship between the variables. Just like the Table on type of marriage and occupation, the total of the cross tabulation is 433 not 455. The reason being that, not all those who have knowledge of the location of the facility responded to the question on utilization.

Table 55: Awareness of the Need for Regular HIV Testand the Utilization of HCT services

Awareness	**Utilization of HCT Services**		**Total**
	Utilized	Not utilized	
Aware	246(71.5%)	98(28.5%)	344(100.0%)
Not aware	58(52.3%)	53(47.7%)	111(100.0%)
Total	**304(66.8%)**	**151(33.2%)**	**455(100.0%)**

Chi-Square Value =14.039; df = 1; Level of significance = 0.05

The result of the cross tabulation of utilization and the awareness of the need to go for HIV test after 12 months, as contained in Table 55, shows that majority of those who tested for HIV (71.5%) are those who were aware of the need to go for regular testing, whereas only 52.3percent did the test among those who are not aware of the need to go for it after every 12 months. The chi-square test result shows that there is a relationship between utilization of HCT services and awareness of the need to have an HIV test at least once in every 12 months.

4.12 Discussion of the Major Findings

This section looks at the key findings of the study in relation to the literature and theoretical framework reviewed. Just like the previous sections, the discussion is done based on the objectives of the study in forms of headings, starting with the background characteristics of the respondents, awareness of HCT services, acceptance and utilization and factors influencing the utilization.

The Socio-Economic Characteristics of the Respondents,Awareness, Acceptance and Utilization of HCT Services

Results of the study have revealed that majority of the respondents are youth, within the reproductive age of 15-35 years and mostly unmarried. This shows that the right population was interviewed, as they constituted the most at risk population (MARP), because they are sexually active. Among those who are married, monogamy is the dominant type of marriage, constituting 88percent, as contained in Table 7. Majority of the people interviewed are Muslims. More people utilized HCT services in Gombe South than any other senatorial district, perhaps because they have the highest prevalence rate in the state. Majority of the study population have formal education up to the secondary school (39.1%) and tertiary (29.9%)levels. The respondents' level of income is very low, as more than half of them are living below the two dollar/per day poverty line bench-mark, despite the fact that majority are either self-employed or employed. This confirmed the report of the National Bureau of Statistics that Gombe state is among those states with the highest rate of poverty. Thus, borrowing from Weber (1946), it can be asserted that majority of the respondents are from the low socio-economic status group, who, according to Pampel et al. (2011), 'have fewer opportunities to undergo regular preventive medical

checkups and screenings, to work at jobs with low physical danger or contact with hazardous materials, to live in well-built housing in safe neighborhoods with low pollution, and to drive safe cars'.

In the further analysis conducted, the cross-tabulation of the socio-economic characteristics of the respondents and the awareness, acceptance and utilization of HCT services revealed that there is a relationship between age, religious affiliation, educational level, income and awareness of HCT. But there is no relationship between sex and the occupation of the respondents. Specifically, awareness of HCT is higher among those who are between 25 to 39 years than those who are younger and older, perhaps because they are the most sexually active and more vulnerable to infection than others. This could also be because, they are within the age when most of are expected to marry or bear children. These expectations are normally accompanied by the need to be familiar with reproductive health education, where awareness of HCT is a component. Similarly, awareness is higher among Christians than Muslims (70.2% among Christians and 52.5% among the Muslims). This difference in awareness among the two religious groups could be due to the fact that, the HIV prevalence rate is higher in the Christian dominated communities than those of Muslims. Here the argument of the Health Belief Model, where the constructs of perceived susceptibility and severity encourage behavioral change or action (e.g. awareness of HCT) becomes relevant. Awareness of the need for regular HIV test is higher among those with tertiary and secondary education than among primary school certificate holders, those with non-formal and Qur'anic education only.This finding also strengthened one of the thrusts of the HBM model (Cues to action), where access to information or knowledge is seen to provide an impetus to prevention (trough

awareness).The proportion of those who are aware of HCT is higher among the high income earners (a sign of high status) than the low income earners. This result indicates the role of low income as a barrier to awareness, as outlined by HBM, perhaps due to limited access to information sources, and further re-affirms the validity of Weber's life chances life style analysis.

Acceptance of HCT or willingness to go for the HIV test is also associated with age, religion and education. But there is no association between the acceptance on the one hand and sex and income on the other. On the average, willingness to go for the HIV test is higher among those 25-39 years old than those who are younger or older, just like in the case of awareness.The same reason advanced for the high proportion of awareness among this age category can be applied here, that the high rate of acceptance of HCT among this age group is because they are the most sexually active group, more likely to marry or reproduce childrenand thus more vulnerable and also more likely to be asked to go for the HIV test. Willingness to do an HIV test is higher among Christians than Muslims perhaps, because: HIV prevalence is higher in the areas dominated by the Christians; and also awareness of the need for a regular HIV test is higher among the Christians than the Muslims. There exists, also, a relationship between acceptance and the educational level of the respondents. Those with formal education accepted the HIV test more than those with non-formal and Qur'anic education only. The high level of acceptance among those with formal education may not unconnected with the fact that awareness of HCT is higher among them than those without formal education. Sex and income have no relationship with the willingness to go for HIV test.

The chi-square test results between age and utilization of HCT services revealed that the proportion of youths between the ages of 25 and 44 years utilized the HCT services more than others.This further authenticates the findings of Kaai et al (2012) where they found that youth between 31 years and 45 utilized HCT services more than those who are older and younger, perhaps because they are more active sexually, more prone to be infected with HIV/AIDS and within marital age where the HIV test may be a requirement before they get married. There exists a relationship between the age and their utilization of HCT services. However, no statistical relationship was found between sex and utilization despite the fact that the result of cross-tabulation indicates that more females (68.4%) utilized the service than males (65.8%).Perhaps this is because the females,who attend ANC and visits hospitals more frequently, are more likely to utilize health services than males. The findings on sex and the utilization of HCT services correspond with that of Verbrugge (1979), Cleary et al. (1982), Poku and Sandkjaer (2007), Kabiru et al. (2011) and Tabana et al. (2012) where they argued that women tend to utilize health services more than men.

More Christians tested for HIV in the last 12 months than Muslims.The result of the chi-square test affirmed that there is a relationship between the respondents' religious affiliation and their utilization of HCT services. Incidentally, most Christian respondents are from Gombe south where the HIV prevalence rate is higher than at the other senatorial districts.This accounts for the variation in the rate of utilization across the religions. This finding also strengthenedthe construct of perceived susceptibility, as provided by HBM, as a factor in determining positive behavioral change. Statistical inference shows a relationship between the utilization of HCT services and marital status. Those who are

separated and those who are married tested more than the never married, the divorced and the widowed. Perhaps the reason for this was because most of the respondents are youth and the married are young people who got married not long ago (thus required to do the testing before the marriage) and who likely got tested during ANC. Moreover, those in the polygamous type of marriage (79%) tested more than those in monogamous systems (72.2%), though there is no statistically significant relationship between testing and type of marriage, as well as between utilization and level of education.

The respondents' employment status is related tothe utilization of HCT services. Thus, those who are self-employed tested more than those who are employed by others and who are not employed at all. Utilization has no relationship with occupation based on the chi-square test computation, though the result of cross tabulation revealed that tailors, herdsmen, traders and civil servants tested more than those in any other occupation (artisans, rice processors, etc). This shows the relevance of Weber's (1946) argument that life chances determine life styles and those who are from high socio-economic status group (such as the self employed) consume and exhibit different life style from those in the lower socio-economic status group.Thus, unemployment (a characteristic of low socio-economic status) resulted in the low utilization of HCT, while utilization is higher among those employed. Similarly, the respondents'income has no relationship with the utilization of HCT services.However, despite this lack of relationship, those with the highest income (above ₦500, 000) tested for HIV more than others who earn less. A possible reason as to why there is no relationship could be because the HCT services are largely free and accessible to all regardless of economic status and for those who patronize private clinics the 800-900 Naira testing fee is considered affordable. Equally, another possible reason

for the lack of a relationship between utilization and income, as revealed by the chi-square test, could be that a significant majority of the respondents are of low socio-economic status (earning less than 2 dollars in a day). Only a few are from the high socio-economic status group (earning N500, 0000 and above per annum). This lack of even distribution across the low and high income earners accounts for the lack of a relationship between income and utilization. However, this does not contradict the position of Weber (1946) on life chances and life style because, the result of the cross tabulation shows that the proportion of those who did the test for HIV among the high socio-economic status group is higher than that of low socio-economic status group, thereby validating the argument of Weber.

Awareness and the Utilization of HCT Services among the Respondents

Awareness of HIV/AIDS and HCT is very high among the study population, as reported in Tables 9, 10 and 11, further confirming the findings of Abdullahi (2004), Ilyasu et al. (2006) and Suleiman and Haruna (2015), among others. Similarly, majority (80%) of the respondents are aware of where to obtain an HIV test, and the location of the nearest facility just in line with findings of Abdullahi (2004), where the majority of respondents in the Kano metropolis said they are aware of HCT centers. But this finding contradicts that of Ilyasu et al. (2006) where only 26percent of those who are aware of HCT reported knowing where to obtain it. However, despite the high level of awareness, majority do not have adequate knowledge of HIV/AIDS, as expressed by an official of NEPWHAN, which accounts for the high level of stigma in Gombe state. Similarly, despite the persistent campaigns and awareness programmes on HIV/AIDS, still there are few people (3.9%) who claimed not to have heard about the disease. This shows the

relevance of the argument of Coleman (1992) and Homans (1958)'s rational choice and exchange theories that information is one of the requirements for making rational decisions and the need for intensifying the awareness and knowledge creation programmes to overcome this barrier. Majority of the people (82.6%) are aware of the most effective way of knowing their HIV status (HCT) and more than half of the respondents are aware of the need to go for HIV testing regularly in order to know their status, but still a significant percentage (42.8%) is not aware of this need, as revealed in Table 13. This is a major obstacle to successful prevention efforts, as lack of up-to-date knowledge of status constitutes a risk. Awareness of the need for regular HIV testing is almost the same among males and females, but higher among the respondents who are between the ages of 25 and 39 years than those who are younger and older. Respondents with the tertiary level of education and high incomes have a high percentage of awareness compared to those who have low level of education and income.

Awareness of the location of the HCT facility is related to utilization. Most (87.1%) of those who did HIV test said the nearest facility is in the neighboring community (see Table 54). A possible reason as to why they might have tested there could be due to the need for confidentiality. Equally, the awareness of the need to go for regular HIV testing (every 12 months) is associated with the utilization of HCT services and those who are aware of this need (71.5%) utilized HCT services more than those who are not aware of HCT (52.3%). This outcome is not unexpected because awareness is one of the major requirements for changing or adopting new behavior. In itself, access to the information on health-care and related services could be a function of one's socio-economic status, because those within the high status group may have more access to

information on health care, as argued by Mueller and Percel (1981), Pollock (2013) and Deaton (2003). This means Weber's life chances and life style analysis,which he argued 'determines people's access to information',is relevant.

The Level of Acceptance and Rejection of HIV TestingAmong the Respondents

With regards to acceptance, majority of people had accepted that there is HIV/AIDS and 80.5percentare willing to go for the test, though 19.5percentsaid they are not. This finding confirmed the argument of Scanlon and Adlam (2007) that no matter how hard one tries to get people 'in from the cold', some will refuse to play the game (such people represent the modern day Diogenes). Perhaps lack of awareness might be the reason for lack of acceptance among the 19.5percent. Similarly, this high level of acceptance of HIV testing agrees with what Abdullahi (2004) and Ilyasu et al. (2006) found among the people of the Kano metropolis and Rural Danbare respectively, where a significant number said they are ready and willing to go for HIV testing. The rational choice and exchange theory of Coleman (1992) and Homans (1958) as well as the situational analysis of Thomas (1928)are relevant in explaining the findings under the acceptance of HCT services among the study population. From the points of view of rational and exchange theory, the decisions to accept or reject the HIV test are both based on the actors' rational calculation of cost and the benefits of choosing to accept or reject. Similarly, from the point of view of situational analysis, the acceptance or rejection of HIV test is based on the actor's definition of the situation. That is to say, if the actor defines their condition as requiring acceptance or rejection, then they will do so accordingly.But, the theory failed to specify clearly the 'conditions' that will make one accept or reject the HIV test. The result of the cross-tabulations revealed that acceptance or willingness to go for it is associated with

age, religious affiliation, educational level and income. Just like in the case of awareness, the acceptance of the HIV test is higher among respondents of 25 – 39 years more than those who are younger and older. Similarly, acceptance is higher among those formally educated and higher income earners.

The Utilization of HCT Services among the Study Population

One of the key factors under study (the utilization of HCT services in the last 12 months) was reported in Table 16 and the result shows that only 31.6percent of the respondents utilized HCT services, which means about two-third (2/3) did not utilize the service in the last twelve months. Even the percentage of those who ever tested for HIV is low, as only 47.3percent did so, leaving more than half without ever knowing their HIV status. Although these figures exceed the percentages of those reported by NACA (2012), they reaffirmed the conclusion that greater percentages of people in Nigeria do not know their HIV status.

The Availability of HCT Facilities and the Utilization of HCT Services in Gombe State

From the results in Table17it is evident that facilities for HCT are available in Gombe. This has re-affirmed the record of GOMSACA official' Gazette (2011-2015) that there are 205 facilities in 11 LGAs of Gombe State. Thus, availability could not be a factor for non-utilization. On the other hand, the presence of the facilities has led to the utilization, though not up to the expectation of the government. This is an indication of the relevance of Weber's life chances and life style argument, which shows the importance of wealth or resources in stimulating consumption (including utilization of health care services) by

making the facilities available.The availability of HCT services depends on the availability of resources, among other factors, and largely provided by governments and donor agencies (life chances as provided by the structure).The finding is in line with that of Abdullahi (2005), Joseph and Philips (1984) and Donabedian (1973) wherethe availability of the facility is key to utilization, though it does not guarantee utilization.

Access to HCT Facilities and the Utilization of HCT Services among the Study Population

Apart from the fact that the facilities are available, the results in Table 18 still show that the HCT facilities are accessible given the fact that the overwhelming majority said the facility is located in their community. Therefore, accessibility is not a barrier to utilization. In fact, this result further re-affirms what Thornton (2008) found in Malawi that proximity of the HCT facilities increases utilization. Majority of those who tested for HIV in the last 12 months said the facilities are located in the neighboring and their immediate communities, as can be seen from Table 44. The chi-square test result shows a relationship between the utilization and location of the facilities. This is also in line with what Naaik et al (2012) found in their survey among rural South Africans, where lack of accessibility made only 17percent utilize HCT services and accessibility led to a dramatic increase in the uptake of HCT to 73.7percentamong females.

The Affordability of HIV Test and the Utilization of HCT Services among the Respondents

The cost of HIV testing is not a barrier to the utilization of HCT services among the respondents, as an overwhelming majority said the service is free. Similarly, the distance to the facility was not seen as a problem as the majority also said it is located in the

immediate and neighbouring communities and the Local Government headquarters. Even those who mentioned that the facilities are located in the state capital are those from the state metropolis, meaning the state headquarters is just like their immediate community. Therefore, transportation may not be a problem to those who are willing to go for the test. Above all, even those who said there are costs involved in doing the test (12.5%), all of them said it is peculiar to private clinics and most of them (68.4%) agreed that the charges are affordable, as70.2percent and 73.7percent of the respondents have the ability and are willing to pay, respectively. The provision of HCT services relatively free of charge and/or at an affordable price was due to the fact that the cost of the services is seen to be a major barrier to utilization.It then follows that the arguments of Weber (1946) and Coleman (1992) on the role of material resources in influencing the utilization of health care services are valid.Similarly, the finding on affordability confirms that of Forsythe et al. (2002) and Fernandez et al. (2005) where they argued thatthe cost of the services and the cost of transportation may prevent utilization. In other words, had the services not been made free, many people would not have afford them.

Stigmatization and the utilization of HCT services

Despite the fact that stigmatization and discrimination against people living with HIV/AIDS has reduced, a significant number of respondents (35.9% and 31.5%) reported witnessing them, respectively. This confirmed the argument of Bell et al. (2007) that stigmatization is found all over the world. Clearly, people living with HIV/AIDS are being stigmatized, as reported the participants and respondents in FGDs, KII and surveydata, respectively. In fact, the realization of the effects of stigmatization led the State Agency for the Control of HIV/AIDS to sponsor an anti-stigma bill in order to address the

problem, although the bill is yet to be assented to. Among the barriers for the utilization of HCT services, stigmatization stands out to be the most cited reason for not testing, as expressed by 58.4percentof the respondents. Fear of being tested positive and identified as having the disease scares people from utilization, for they are afraid of being seen as outcastes and treated as such. This finding has re-affirmed the relevance of the labeling theory, especially as the fear of stigmatization entails the fear of being labelled HIV-positive, which may run throughout one's life because the disease is by nature chronic and life threatening. It also buttressed the validity of the argument of the health belief model as presented by Janz and Becker (1984), that perceived barriers (such as stigmatization) arethe most influential factors in determining behavioral change. Moreover, the result is in line with that of Lagoro et al. (2012), Buregyeya et al. (2012), Manjok et al. (2009), Shangula (2006), Webb and Tossell (1991), Caldwell et al. (1999), Bell et al. (2007) and Abdullahi (2004, 2009), among others, where they reported that stigmatization is one of the major barriers to the utilization of HCT and other health-care services.

4.13 ContributiontoKnowledge

The study has supported the existence of the link between awareness, acceptance and the utilization of HCT services. Those who are aware of the need to go for regular HIV testing are more likely to accept and willing to be tested and constitute a majority of those who are willing to be tested. It has also unveiled the barriers to the utilization of HCT services in Gombe State, which will provide evidence in the design and implementation of the interventions that will improve the utilization of HCT services in the State

Labeling (stigmatization) serves as a major barrier to utilization despite higher levels of willingness to go for the HIV test among the respondents. This finding has re-affirmed the argument of the labeling theory that societal reaction plays an important role in shaping human action.Most studies on the awareness of HCT are limited to measuring it based on having information on the existence of the HIV test, location of where to obtain it and the procedure for conducting the test, but this went further to measure people's awareness ofthe need for a regular HIV test (at least once in every twelve months). Having a formal education does not guarantee regular utilization of the HCT services in Gombe. In fact, stigmatization is common even among those with formal education, including health care workers.

Moral/religious institutions are still relevant in shaping the behavior of people in adopting new changes related to the usage of HCT services.This study reveals that people with higher perceived susceptibility that face minimal barriers utilize HCT services more than those with lower level of perceived susceptibility. This finding supports the conclusions of Janz and Becker's modified version of the Health Belief Model that the constructs of perceived susceptibility and barriers are most influential in predicting preventive health behavior.

CHAPTER FIVE

SUMMARY OF THE MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the summary of the work, conclusion and recommendations are presented. The summary begins with the highlight of each chapter and, based on the objectives of the study, pointed out the key findings as contained in chapter four. Conclusion and Recommendations were drawn also based on the outcome of the study.

5.2 Summary of Key Findings

The summary of the major findings was done in form of items, each item (number) representing the summary of an objective. Below is the summary of the major findings.

1- Males outnumbered females among the respondents.Most of the respondents are self-employed youths between the ages of 15 and 35, unmarried and mostly havethe secondary leaving certificate. Significant numbers are living below the poverty line of 2 dollars/day bench mark. More Christians tested for HIV than Muslims and youth between the ages of 25 and 39 utilized the services more than any other age category. The result of the chi-square test revealed no relationship betweenthe awareness of HCT, sex and occupation. But age, marital status, religious affiliation, education and income are related to the awareness of HCT. Similarly, acceptance of HCT is related to age, sex, religious affiliation and educational level, but has no relationship with sex and income. On the other hand, utilization and sex, occupation, income and type of marriage have no relationship, while a relationship exists with religious affiliation, marital status, age, employment status and geographical location.

2- Awareness and knowledge of HIV/AIDS and HCT is high among the respondents, although inadequate, as significant numbers are still stigmatizing and discriminating against people living with HIV. Forty-one point one percent (41.1%) said they are not aware of the need for a regular test for HIV, showing a gap in this aspect of awareness. The chi-square test result shows that there is a relationship between the utilization of HCT services and knowledge of HCT. Belief in 'proxy testing' serves as another barrier to utilization and also indicates lack of adequate knowledge.

3- Facilities for HIV testing are available in all the locations, both in private and public hospitals.

4- HCT facilities are highly accessible, as the majority said they are located in their communities and neighboring ones.

5- HCT services are affordable as related by the overwhelming majority.In fact, in all the government hospitals, the HIV test is free. And even the private clinics are charging between 800 and 900 naira, which is considered to be affordable by the majority.

6- Acceptance of HCT is very high among the respondents since many (77.4%) are willing to be tested.

7- Utilization of HCT services is very low, as only 30.4% of the respondents were tested in the last 12 months and the percentage of those who ever tested was just 45.5.

8- Stigmatization is common in Gombe and, in fact, the major barrier to the utilization is fear of being tested positive and stigmatization.

5.3 Conclusion

From the discussions so far, socio-economic characteristics, such as Location, Age, Marital Status and Religious affiliation are related to utilization, while Sex, Occupation, Education and Income level have no relationship with it. Awareness of HCT is high and a significant portion of the respondents are willing to be tested, only that they are afraid of being stigmatized if they are tested positive.Utilization of HCT services in the Gombe State is limited or very low due to the fear of stigmatization and inadequate awareness among people. The study re-affirmed thatthe fear of stigmatization hindersa greater number of people of Gombe State from utilizing the most crucial preventive service (HCT). This shows the relevance of Becker's labeling theory in explaining the utilization of HCT services. HCT facilities are available in Gombe and accessible, although availability and accessibility have promoted the utilization of HCT services to some extent.To a larger extent,the greater number of people did not utilize the service due to fear of stigma. Poverty is not a major barrier to utilization in this study, as most of the facilities offer the services almost free (except the user fee).Thus, HCT services are affordable.Then something must be done to deal with the issue of stigmatization or its fear if utilization is to be enhanced. It is only when stigmatization is reduced or stopped that more people will actually do the testing. Overcoming stigmatization and discrimination requires both personal and institutional re-orientation, as suggested in the recommendations. At the personal level, people have to be equipped with adequate knowledge of HIV/AIDS and the implications of not knowing HIV status, as well as the strategies of coping with the stigma and discrimination. While at the institutional level,an anti-discrimination bill needs to be passed and made effective.Religious leaders have to be

fully involved in the fight against stigmatization and ensure that people are motivated to utilize the HCT services, among others.

5.4 Recommendations

The following recommendations are offered based on the findings in this study:

1- The results show that lack of a legal provision from the government favors people to continue stigmatizing PLWHA, which discourages most of the respondents from utilizing HCT services. The anti-stigma bill should be passed urgently by the Gombe State House of Assembly and the executive arm in order to protect the vulnerable groups. The bill will not only protect HIV-positive in the work places against all forms discriminations, but also enable taking legal actions against those who stigmatize others.This will deter to people from stigmatizing HIV-positive persons and the potential HCT service users.

2- Based on the findings, there was no adequate awareness of the disease as people continue to stigmatize PLWHA, including those who are educated. Thus, adequate information on HIV/AIDS and the importance of HCT should be provided by all the stakeholders (including religious and community leaders) to the people with a view to reducing misconceptions (such as the belief that ‘proxy testing is enough’), stigmatization and discrimination against PLWHA.

3- In line with the above,NEPWHAN should mobilize PLWHAto compel government to assent to the anti-stigma bill.

4- Since majority (69.6%) have not utilized HCT services, largely due to fear of stigma iffound to be positive, personal testing kits should be made available and free to the people for confidentiality, easy access and convenience.

5- Further study on the institutional or legal constraints and the role of religious and cultural beliefs in promoting and hindering utilization should be conducted.

REFERENCES

Abba, S. et al. (2000). Gombe State: A History of the Land and the People. Zaria, Nigeria; Ahmadu Bello University Press Limited.

Abdullahi, S. (2004). Report of Focus Group Discussions Conducted on the Assessment of Community Readiness to Utilize Voluntary Counselling and Testing in Kano State of Nigeria. Submitted to the Family Health International, Country Office Nigeria, Lagos.

Abdullahi, S.A. (2006) "HIV/AIDS: Awareness, Belief, Attitude and Health Seeking Behaviour amongst the Members of the Nigeria Police" in Suleiman, A.G. (ed.) *Readings in Applied Psychology* vol. 2

Abdullahi, S. (2009).HIV/AIDS: Knowledge and Reactions in Abdullahi et al. (2009). Studies in Cultural Sociology: Ibadan; Foludex Printers

Aboyoun, J.H. (2009). Introduction to Health Behavior Theory. USA; Jones and Bartlett Learning Company.

Alubo, O., Zwador, A., Jolayemi, T. and Omudu, E. (2002).Acceptance and Stigmatization of PLWA in Nigeria. Retrieved from: https://www.taylorandfrancis.metapress.com

American Psychological Association. HIV/AIDS and Socioeconomic Status Retrieved from: www.apa.org/pi/ses. 06/11/2012

Angotti et al. (2009). "Increasing the acceptability of HIV counseling and testing with three Cs: Convenience, Confidentiality and Credibility". *Soc Sci Med*. 2009 June; 68(12):2263- 2270. doi:10,1016/j.socscimed.2009.02.041

Awake, (2002). Will the Deadly March of AIDS be Halted? Benin City, Nigeria; Watch Tower Bible and Tract Society of Pennsylvania

Barnett, T. and Blackwell, M. (2004)Structural Adjustment and the Spread of HIV/AIDS retrieved from: http://www.uea.ac.uk/polopoly_fs/1.107586!AIDSSA Ppublication April20.pdf

Becker, H.S. (1973). Outsiders: Studies in the Sociology of Deviance. New York; The Free Press

Bornstein, M.C. and Bradley, R.H. (Eds.). (2003). Socioeconomic Status, Parenting and Child Development. Mahwah, NJ:Lawrence Erlbaum

Branson, B.M. et al. (2006). "Revised recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings". *MMWR Recomm Rep* 55(RR- 14): 1–17

Brown et al. (2003): "Interventions to Reduce HIV/AIDS Stigma: What Have we Learned?"*AIDS Education and Prevention* Vol.15 (1), pp49-69

Caldwell, J.C., Orubuloye, I.O. and Caldwell, P. (1999): Obstacles to Behavioral Change to lessen the risk of HIV infection in the African AIDS epidemic: Nigerian Research. In Resistances to Behavioural Change to Reduce HIV/AIDS Infection in Predominantly Heterosexual Epidemic in Third World Countries, Edited by Calwell, J. et al., pp 113-124, health Transition Centre, Australia National University, Canberra.

Cherutich, P. et al. (2012), "Lack of Knowledge of HIV Status a Major Barrier to HIV Prevention, Care and Treatment Efforts in Kenya: Results from a Nationally Representative Study". *Plos One* Vol.7(5), Pp 1-10

Cleary, P.D., D. Mechanic & J.R. Greenley (1982): "Sex Differences in Medical Care Utilization: An Empirical Investigation".*Journal of Health and Social Behavior,* 23, 106- 119.

Cockerham, W.C. (1978): Medical Sociology. Englewood Cliffs, New Jersey: Prentice-Hall

Coleman, J.S. and Fararo, T.J. (1992)(ed). Rational choice Theory: Advocacy and Critique. London; SAGE Publications Inc.

Coreil, J.(1985). "Life Style-An Emergent Concept in the Sociomedical Sciences". *Culture,Medicine & Psychiatry* 9: 423-437

Dalal, S. et al. (2011) "Provider-Initiated HIV Testing and Counseling: Increased Uptake in Two Public Community Health Centers in South Africa and Implications for Scale-Up".*PLoS ONE* 6(11): e27293. doi:10.1371/journal.pone.0027293

Deaton, A. (2003). "Health, Inequality, and Economic Development". *Journal of Economic Literature* Vol. 41: 113–158

De Vogli, R. and Birbeck, G.L., (2005). "Potential Impact of Adjustment Policies on Vulnerability of Women and Children to HIV/AIDS in Sub-Saharan Africa". *J Health Popul. Nutr* 2005 Jun;23(2):105-120ICDDR,B: Centre for Health and population Research

Donabedian, A. (I973): Aspects of Medical Care Administration. Cambridge, Mass: Harvard University Press

Ekanem, E.E., Gbadegesin, A. (2004).”Voluntary Counseling and Testing (VCT) for HumanImmunodeficiency Virus: A Study on Acceptability by Nigerian Women Attending Antenatal Clinics”. *African Journal of Reproductive Health / La Revue Africaine de la Santé Reproductive,* Vol. 8, No. 2 (Aug., 2004), pp. 91-100

Engelbrecht, M.C. et al. (2008): “Primary health care nurses’ views on HIV counseling and testing services for tuberculosis patients in two districts of the Free State Province of South Africa”. *AJNM* 2008, 10(2):70-83.

Evans, C. and Ndirangu, E. (2008): “The Nursing Implications of Routine Provider Initiated HIV Testing and Counseling in Sub-Saharan Africa: a CriticalReview of New Policy Guidance from WHO/UNAIDS”. *Int J Nurs Stud* 2008,46(5):723-731

Feldman, J. (1966): The Dissemination of Health Information. Chicago: Aldine

Fernandez, M. I. et al. (2005). “Predictors of HIV Testing and Intention to Test Among Hispanic Farmworkers in South Florida.” *Journal of Rural Health*, 21(1): 56

Forsythe, S. et al. (2002). “Assessing the Cost of Willingness to Pay for Voluntary HIV Counselling and Testing in Kenya”. *Health Policy and Planning*, 17, pp187-195.

Fylkesnes K, Siziya S (2004): “A Randomized trial on Acceptability of Voluntary HIV Counselling and Testing”. *Trop Med Int Health,* Vol. 9(5):566–572.

Gerbert et al. (1991) “Primary care Physicians and AIDS: Attitude and Structural Barriers to care”. *Journal of American Medicine association,* Vol. 266, pp2837-2842

Gerth, H.H. and Mills, W. (1946) (eds). From Max Weber: Essay in Sociology. New York; Oxford University Press

Glanz, K., Rimer, B.K., and Lewis, F.M. (eds) (2002) Health Behavior and Health Education (2nd edition), San Francisco; Jossy-Boss.

Glick, P. and Sahn, D. (2007). “Changes in HIV/AIDS knowledge and Testing Behavior in Africa: how much and fro whom?” Jo*urnal of Population Economics*, Vol. 20, No. 2 pp 83-422

Global Health Council (GHC) (2011): The Impact of HIV/AIDS. http://www.globalhealthcouncil/theimpactofHIV/AIDS.htm

Goffman, E. (1963) Stigma: Notes on the Management of Spoiled Identity. Englewood Cliffs, NJ: Prentice Hall

Gombe State HIV Strategic Plan (GSHSP) 2011 – 2015.

Haruna M.A. (2013). "The Limitations of Talcot Parson's Sick-role in Contemporary Era of Chronic Diseases in Society". *The Zaria Sociological Journal* Vol. 2, No.1, pp1-16

Health Reform Foundation of Nigeria (HERFON) (2007).Impact, Challenges and Long-term Implications of Antiretroviral Therapy Programme in Nigeria. Retrieved from htpp://www.herfon.org

Heunis, J.C. et al. (2011). "Patient-and Delivery-Level Factors Related to acceptance of HIV Counseling and Testing Services among Tuberculosis Patients in South Africa: A Qualitative Study with Community Health Workers and Program Managers". *ImplementSci*., 6(1): 27.

Homan, G.C. (1958). Social Behavior as Exchange. *American Journal of Sociology.* Vol. 63(6):597-606. Doi:1086/222355

Hutchingson et al. (2004). "Understanding the patient's perspective on rapid routine HIV testing in an inner-city urgent care centre". *AIDS Educ Prev,* Vol.16(2), 101-114

Hutchinson, P.L. and Mahlalela, X. (2006): Utilization of voluntary counseling and testing services in the Eastern Cape, South Africa. AIDS Care, July 2006; 18(5): 446_455

Ilyasu et al. (2006). "Knowledge of HIV/AIDS and Attitude towards Voluntary Counseling and Testing among Adults". *Journal of National Medical Association,* Vol. 98(12), 1917- 1922

Jacobs, J. K. (2009): Social Sources Of Disparities in Health and Health Care and Linkages to Social Policy, Population Concerns and Providers of Care: UK; Emerald Group Publishing Limited

Jacoby, A. (1994). "Felt versus Enacted Stigma: A concept revisited evidence from study of people with epilepsy in remission". *Social Science and Medicine* Vol. 38(2), 269-274

Janz, N.K. and Becker, M.H. (1984). "The Health Belief Model.A decade later". Health Education Quarterly, 11 (1), 1-47

Joseph, A. and Phillips, D. (1984): Accessibility and Utilization: Geographical Perspectives on Health Care Delivery

Jupp, V. (2002). Methods of Criminological Research. London and New York; Routledge, Taylor & Francis e-Library.

Kaai et al. (2012). "Factors that affect HIV testing and counseling services among heterosexuals in Canada and United Kingdom: An integrated review". *PatientEducation and Counseling* Vol.88(2012), 4-15

Kabiru, C.W et al (2011). "HIV/AIDS among youth in urban informal (slum) settlements in Kenya: What are the Correlates of and Motivations for HIV Testing?"*BMCPublic Health.* 11:685. Retrieved from: http://www.biomedcentral.com/1471-2458/11/685

Kawachi, I. and Kennedy, B. P. (1997). "Socioeconomic Determinants of Health: Health and Social Cohesion: Why Care about Income Inequality?"*British Medical Journal,* Vol. 314 (7086), pp. 1037-1040

Khalid, M.K., Sarfaraz, J, and Imran, T.M. (2003)."Factors Affecting Tuberculosis Control: Decision-Making at Household Level". *JCPSP*, 2003, Vol 13 (12) 697-700

Macintyre et al. (2001). "It's not what you know, but who you know": Examining the relationship between behavior change and AIDS mortality in Africa. *AIDS Education Prevention,* Vol. 13(2) 160-174

Makhlouf, C.M. et al. (2013). "Socio-economic Determinants of HIV Testing and Counselling: A Comparative Study in Four African Countries". *Tropical Medicine and International Health*, Vol. 18 no 9 pp 1110–1118

Makwelebi et al. (2012). Moonlight voluntary HIV counseling and testing for men who have sex with men in Kinshasa, Democratic Republic of the Congo. A paper presented at the Conference on AIDS 2012: Turning the Tide Together– Washington,D.C., USA retrieved from http://www.chemonics.com/OurWork/OurPractices/health/Documents/DRC_ProVIC_ AIDS-2012-Conference_MoonlightVCT.pdf

Malcolm et. al. (1998). "HIV-related stigmatization and discrimination: Its forms and contexts". *Critical Public Health,* Vol. 8(4), 347-370

Manjok, E.; Smesny, A.; and James, E.E. (2009). "HIV/AIDS Related Stigma and discrimination in Nigeria: Research Studies and Future Direction for Prevention Strategies." *African Journal of Reproductive Health,* Vol. 13, No. 3 (September, 2009), pp 21-36

McCormick-Brown, K. (1999) Health Belief Model. Retrieved from http//www.hsc.usf.edu/~kmbrown/Health_Belief_Model_overview.htm

Mekonnen, Y. and Asnaketch, M. (2002).Utilization of Maternal Health Care Services in Ethiopia. Calverton, Maryland, USA: ORC Macro.

Melvin, T.M. (1953). "Some Principles of Stratification: A critical Analysis."*American Sociological Review,* Vol. 18 (4), pp. 387-394

Moseley, M.J. (1979) Accessibility: The Rural Challenge. London: Methuen.

Mueller, C.W. and Percel, T.L. (1981). "Measures of Socioeconomic Status: Alternatives and Recommendations."*Child Development,* Vol. 52, No.1, pp. 13-30

Muhammad, B.B. and Haruna, M.A. (2015). "Economic Effects of HIV/AIDS among Married Couples in Kaduna State, Nigeria."*Journal of Humanities and Social Sciences,* Vol. 4 (4) 1- 35

Mugisha et al. (2010). "Factors Influencing Utilization of Voluntary Counseling and Testing Services in Kasenyi Fishing Community in Uganda."*Journal of the Association of Nurses in AIDS Care,* Vol.21(6), 503-511

Mukherjee, J.S., & Eustache, F. (2007). "Community health workers as Cornerstone for Integrating HIV and primary healthcare."*AIDS Care*, 19(1), pp73-82

National Agency for Control of AIDS (NACA) (2012). Retrieved from: http://www.nigeriahivinfo.com

National Population Commission (NPC) (2010). 2006 Population and Housing Census.Priority Table Volume IV, Population Distribution by Age & Sex (State & Local Government Area). Abuja, Nigeria.

Nigerian Demographic and Health Survey (2008): Abuja; National Population Commission

NigerianDemographic and Health Survey (2013): Abuja; National Population Commission

Naik et al. (2012): "Client Characteristics and Acceptability of a Home-Based HIV Counseling and Testing Intervention in Rural South Africa."*BMC public Health Services Research* 2012, 12:824 retrieved from http://www.biomedcentral.com/1471-2458/12/824

Njeru et al. (2011): "Practicing Provider-Initiated HIV Testing in High Prevalence Settings: Consent Concerns and Missed Opportunities."*BMC public Health Services Research* 2011, 11:87 retrieved from http://www.biomedcentral.com/1472-6963/11/87

Nuwaha F, Kabatesi D,Muganwa M, Whalen, C.C. (2002).“Factors Influencing Acceptability of Voluntary Counselling and Testing for HIV in Bushenyi district of Uganda.”*East Afr Med J*. 2002 Dec; 79(12):626-32. (PubMed)

Nyblade, L.C. et al. (2001). “Population-based HIV Testing and Counseling in Rural Uganda: Participation and Risk Characteristics.”*J Acquir Immune DeficSyndr*, 28(5):463-70

Obermeyer CM & Osborn M (2007).“The uptake of testing and Counseling for HIV: A Review of the social and behavioral evidence.”*American Journal of Public Health* 97, 1762– 1774.

Okot-Chono, R. et al. (2009). “Health system barriers affecting the implementation of collaborative TB-HIV services in Uganda.”*Int J Tuberc Lung Dis* 2009, 13(8):955-961

Pampel, F.C.et al. (2011).“Socioeconomic Disparities in Health Behaviors.” *Annu Rev Sociol*. 2010 August; 36: P 349–370.

Parsons, T. (1951). The Social System. New York; The Free Press

Poku, N.K. and Sandkjaer, B. (2007) Reviewed work(s): “Meeting the Challenges to Scaling up HIV/AIDS Treatment in Africa.”*Development in Practice*, Vol. 17, No.2 (Apr., 2007), pp. 279-290

Pollock, K. (2012). Health and Society - Socio-economic status, ethnicity and health inequality Te Ara - the Encyclopedia of New Zealand. Retrieved from http://www.TeAra.govt.nz/en/health-and-society/page-2 03/03/2015

Rebhan, D.P. (2009). Health Care Utilization: Understanding and ApplyingTheories and Models ofHealth Care Seeking Behavior. Retrieved from: http://www.cwru.edu/med/epidbio/mphp439/healthcareutil.pdf

Ritzer, G. (2003). Contemporary Sociological Theory and its Classical Roots: USA; McGraw- Hill Company

Rosenstock, I. M., et al. (1988). “Social Learning Theory and the Health Belief Model.”*HealthEducationQuarterly*, 15(2), 175-183.

Sansom, C.D., J. Wakefield & R. Yule (1972): Cervical Cytology in the Manchester Area: Changing patterns of Response. In Wakefield, J. (ed) Seek Wisely to Prevent. London: H.M.S.O.

Scanlon, C. and Adlam, J. (2008). "Refusal, Social exclusion and cycle of rejection: A cynical analysis?"*Critical Social Policy* 2008 28 (4): 529-549

Scrambler, G. (1998). Stigma and Disease: Changing paradigms. *The Lancet,* Vol. 352(9133), 1054-1055

Seckinelgin, H. (2008). International Politics of HIV/AIDS. Global Disease, Local Pain. London; Routledge

Shangula, M.N. (2006): Factors Affecting Voluntary Counseling and HIV Testing among Pregnant Women in Tsumeb District, Oshikoto Region, Namibia. A Mini thesis submitted in partial fulfillment of the requirements for the degree of Masters in Public Health in the School of Community and Health Sciences, University of the Western Cape.

Shortell, T. (nd). Weber's Theory of Social Class. Retrieved from: http://www.brooklynsoc.org/courses/43.1/weber.html

Simmel, G. (2004). The Philosophy of Money. Third edition: New York; Routledge.

Suleiman, M.S. and Haruna, M.A. (2015). "The Effect of Advertisement Messages on HIV/AIDS Awareness Campaign in Kaduna Metropolis, Nigeria."*Journal of Humanities and Social Sciences,* Vol. 4(4), 119-128

Suleiman, M.S. and Haruna, M.A. (2014). "Perception and Proactive Measures against the Spread AIDS among Undergraduate Students of Ahmadu Bello University, Zaria."*InternationalJournal of Humanities and Social sciences,* Vol. 2 No.10. 1-12

Tabana, H. et al. (2012). "Knowledge of HIV Status Prior to a Community HIV Counseling and Testing Intervention in a Rural District of South Africa: Results of a community based survey." *BMC Infectious Diseases*, 12:73. Retrieved from: http://www.biomedcentral.com/1471-2334/12/73

Taylor, S. and Field, D. (2007). Sociology of Health and Health Care. Oxford, England: Wiley-Blackwell.

Thaddeus, S. and Maine, D. (1990). Too Far to Walk: Maternal Mortality in Context. Prevention of Maternal Mortality Program, Center for Population and Family Health, ColumbiaUniversity

The Centre for Reproductive Rights, Federation of Women Lawyers-Kenya (2008): At Risk: Rights Violations of HIV-Positive Women in Kenya Health Facilities. United States; 2008

Thomas, W. and Thomas, D. (1928). The Child in America. New York: Knopf

Thornton, R. L. (2008). "The Demand For, and Impact of, Learning HIV status."*The American Economic Review,* Vol. 98, No 5 (December, 2008), pp. 1829-1863

UNAIDS (2008) Report on the global AIDS epidemic. Geneva, Switzerland: Joint United Nations Program on HIV/AIDS (UNAIDS).

UNAIDS/IPU (1999) Handbook for Legislators on HIV/AIDS, Law and Human Rights: Action to Combat HIV/AIDS in View of its Devastating Human, Economic and Social Impact. Geneva, Switzerland

United Nations General Assembly Session (UNGASS) (2010) Country Progress Report. Nigeria; National Agency for the Control of AIDS

USAID, (2000) in Kipitu, U. (2005) Quality Care of Voluntary Counseling and Testing: Clients Experience, Expectations and satisfactions in Mbeya Tanzania. A Paper presented at the Geneva conference on Training in Sexual Health Research. Retrieved from: http://www.gfmer.ch/PGC_RH_2005/pdf/VCT_R.pdf

Uzochukwu et al. (2011). "Voluntary Counseling and Testing (VCT) for HIV/AIDS: A studyof knowledge, awareness and willingness to pay for VCT among students in tertiary institutions in Enugu State Nigeria."*Health Policy,* Vol.99:277-284

Verbrugge, L.M. (1979): Female Illness Rates and Illness Behavior: Testing Hypotheses about Sex Differences in Health: Women and Health

Wall et al. (2013). "Promotion of couples' voluntary counseling and testing in Lusaka, Zambia by influence network leaders and agents."*BMJ Sciences. Culture, Medicine and Psychiatry,*Vol. 9, pp. 423-437

Webb, R., &Tossell, D. (1991). Social Issues for Carers: A Community Care Perspective. London: Arnold

Weber, M. (1978). Economy and Society. An Outline of Interpretative Sociology. In Roth, G. and Wittich, C. (eds),. LA; University of California Press

Weber, M. in Parsons, T. (1947) (ed). Max Weber: The Theory of Social and Economic Organization: Illinois; The Free Press

World Health Organization (WHO) (2011). GLOBAL HIV/AIDS RESPONSE: Epidemic update and health sector progress towards Universal Access 2011. Progress Report

World Health Organization (WHO) (2012) World AIDS Day 2012: Statement on HIV testing and counseling retrieved from: http://www.who.int/hiv/events/2012/world_aids_day/hiv_testing_counselling/en/index.html# on 10/1/2013

World Health Organization, and Joint United Nations Programme on AIDS(2007). Guidance on provider-initiated HIV testing and counseling in health facilities. Geneva: World Health Organization.

Yahaya et al. (2010). "Factors hindering acceptance of HIV/AIDS Voluntary Counseling and Testing among youths in Kwara State, Nigeria."*Journal of AIDS and HIV Research* Vol. 2(7), 138-143

Yoder P, Matinga S, Matinga P. (2004). VCT for HIV in Malawi: Public perspective and recent VCT experience. Calverton Maryland, USA: ORC Marco.

APPENDIX I

Questionnaire

I am……..conducting a survey on 'Awareness, acceptance and Utilization of HIV Counseling and Testing Services among People of Gombe State'. The information you are going to give is very useful, and will only be used for academic purpose. Whatever you say will be treated with utmost confidentiality. Therefore, your consent is needed before the interview. Please be informed that you have the right to decline to respond to any question you deemed too personal or too sensitive, and may even stop the interview at any time you wish. Thanks for the cooperation

LGA…… Location……..

Date…… Interviewer…….

Q/No	Questions	Response Option	Code	Skip
1.	Age	15 – 19 years ---------- 20 – 24 years ---------- 25 – 29 years ---------- 30 – 34years ---------- 35 – 39 years---------- 40 – 44 years---------- 45 and above ----------	1 2 3 4 5 6 7	
2.	Sex	Male ---------- Female ----------	1 2	
3.	Educational Level	Qur'anic Education ---------- None formal ---------- Primary ---------- Secondary ---------- Tertiary ----------	1 2 3 4 5	
4.	Religious Affiliation	Christianity ---------- Islam ---------- Traditional ---------- No religion ----------	1 2 3 4	
5.	Employment Status	Employed ---------- Self employed ---------- Unemployed ----------	1 2 3 →	Q7
6.	Occupation	Farming ---------- Rearing ---------- Trading ---------- Civil service ---------- Tailoring ---------- Artisan ---------- Others (specify) _____	1 2 3 4 5 6 7	
7.	Marital Status	Married ---------- Never married---------- Divorced ---------- Separated ---------- Widowed ----------	1 2→ 3 4 5	Q9

8.	Type of marriage	Monogamous ---------- Polygamous ----------	1 2	
9.	Income level per annum	N 100,000 and below ---------- N 100,001 – N 200,000 ---------- N 200,001 – N 300,000 ---------- N 300,001 – N 400,000 ---------- N 400,001 – N 500,000 ---------- N 500,001 and above ----------	1 2 3 4 5 6	
10.	Did you ever heard of HIV/AIDS?	Yes ---------- No ----------	1 2→	Q23
11.	Can someone get infected through unprotected sexual intercourse?	Yes ---------- No ----------	1 2	
12	Can someone get infected through sharing of infected sharp objects?	Yes ---------- No ----------	1 2	
13	Can someone get infected through transfusing infected fluid into body?	Yes ---------- No ----------	1 2	
14	Can someone get infected through hand shake with an infected person	Yes ---------- No ----------	1 2	
15	Can someone get infected through eating with someone who is HIV positive?	Yes ---------- No ----------	1 2	
16	Can someone get infected through sharing cloth with HIV positive person?	Yes ---------- No ----------	1 2	
17	Can a positive pregnant woman transmit to the unborn baby?	Yes ---------- No ----------	1 2	
18	Can a woman transmit the virus to her new born baby during breast feeding?	Yes ---------- No ----------	1 2	
19	Can mosquitoes transmit HIV to an uninfected person from infected one?	Yes ---------- No ----------	1 2	
20	Does limiting number of sex partners prevent HIV infection?	Yes ---------- No ----------	1 2	

21	Does using condom protect HIV infection?	Yes ---------- No ----------	1 2	
22	Does total abstinence from sex protect HIV infection?	Yes ---------- No ----------	1 2	
23a	Are you aware of HIV Counseling Testing?	Yes ---------- No ----------	1 2	
23b	Do you know where to obtain an HIV test?	Yes ---------- No ----------	1 2→	Q25
24	Where is the nearest facility located?	My community ---------- Neighboring community ---------- Local government Headquarter ------ State Capital ----------	1 2 3 4	
25	I don't want to know the result, but have you ever been tested for HIV?	Yes ---------- No ---------- Explain your answer _____ _____ _____ _____ _____ _____	1 2 →	Q27
26	Do you know your HIV status in the last12 month	Yes ---------- No ----------	1 2	
27	Are you aware of the need to go for HIV test after every 12 month?	Yes ---------- No ----------	1 2	
28	If you have not been tested before, and or in the last 12 month what were the reason(s)?	Distance ---------- Cost of the services/money involved Fear of the stigma---------- Powerlessness in deciding to go for the test---------- Others reasons ……. (Multiple choice possible)	1 2 3 4 5	

29	Do you think it is good for someone to know his HIV status	Yes ---------- No ---------- Why?_____ _____ _____	1 2	
30	Are you willing to go for HIV testing?	Yes ---------- No ---------- Explain your answer _____ _____ _____ _____	1 2	
31a	Which is the most effective way of knowing HIV status?	HIV counseling and testing ---------- Physical appearance ---------- Spiritual diagnosis---------- Others (specify)----------	1 2 3 4	
31b	Source of the information	Specify---------- ----------		
32	Are you aware of facility based HIV testing technique?	Yes ---------- No ----------	1 2	
33	Are you aware of community outreach HIV testing?	Yes ---------- No ----------	1 2	
34	Are you aware of other techniques of HIV test apart from the above?	Yes ---------- No ---------- Explain your answer …… ……..…… ……..…… ……..	1 2	
35	Which approach of testing do you prefer?	Facility based HIV testing---------- Community outreach testing---------- Others ---------- Explain your answer _____ _____	1 2 3	
36	To those that utilized HCT services, are the services free?	Yes ---------- No ----------	1→ 2	Q22

37	If no to the above question how much does it cost?	_____		
38	Is the cost affordable?	Yes ---------- No ----------	1 2	
39	Do you have the ability to pay for the service?	Yes ---------- No ----------	1 2	
40	Are willing to pay for the service?	Yes ---------- No ----------	1 2	
41	Do you allow your wife/ does your husband allow you to go for Ante Natal Care?	Yes ---------- No ---------- Explain your answer_____ _____ _____	1 2	
42	Do women need permission to go to the hospital for treatment/counseling, HIV test etc?	Yes ---------- No ---------- Explain your answer _____ _____ _____ _____ _____	1 2	
43	What is the dominant attitude of people in this community about people living with HIV/AIDS?	Positive ---------- Negative ---------- Indifferent ---------- Explain your answer _____ _____ _____ _____ _____ _____	1 2 3	
44	Will you sit with someone who is HIV positive?	Yes---------- No ---------- Explain your answer	1 2	

		_____ _____ _____ _____ _____ _____		
45	Will you shake hand with someone who is HIV positive?	Yes---------- No ---------- Explain your answer _____ _____ _____ _____ _____ _____	1 2	
46	Would you eat with someone who is HIV positive?	Yes---------- No ---------- ---------- Explain your answer _____ _____ _____ _____ _____ _____ _____	1 2	
47	Would you do business with someone who is HIV positive?	Yes---------- No ---------- Explain your answer _____ _____ _____ _____ _____ _____	1 2	
48	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have the AIDS virus	Yes ---------- No----------	1 2	

49	Do you Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she/he is suspected to have the AIDS virus?	Yes ---------- No----------	1 2	

50. What could be done to promote utilization of HCT services in this community?

…….....

.....……

……

Thank you for agreeing to be part of this survey

APPENDIX II

FGD INTERVIEW GUIDE

- **Knowledge and awareness of HIV/AIDS and HCT**
  - Have you ever heard of HIV/AIDS?
  - What is the dominant belief in this community about HIV/AIDS?
  - What are its modes of transmission?

- What are its means of prevention?
- Are you aware of HCT?

➢ **Availability and accessibility of HCT services**

- Are there HCT facilities/centers in this community/State?

  Probe: if there are HCT facilities, how accessible (distance) are they? If there is an HCT facility in the community, how appropriate or otherwise is its location?

➢ **HCT**

- What do people thinking about HCT? And what informed this thinking?
- How many of the discussants know their HIV status before the interview? Why and why not?
    - Probe for time when they went for the test and the procedures involved in getting tested
- What are the advantages and disadvantages of knowing HIV status? Why?
- Do husbands allow their wife/wives to go for Ante Natal Care? Why?
- What could be done to motivate people to go for HIV counseling and testing?

➢ **Attitude towards PLWHA (stigma and discrimination)**

- What is the dominant thinking about PLWHA in this community?
- How are people living with HIV treated in this community?
- What would you do if someone close to you is found to be HIV positive?
- Can you sit together with an infected person?
- Can you eat with a HIV positive person?
- Can you shake hand with an infected person?
- Is HIV testing a requirement for marriage in this community?

APPENDIX III

KII (Officials of NEPWAN)

➢ **Availability and accessibility of HCT services**

I would want you to share your opinion on availability and accessibility of HCT facilities in the community or state.

- Probe: if there are HCT facilities, how accessible (distance) are they? From users, ask for perceive quality of the services in terms of cost, competency of the counselor, and attitude of the staff.

➢ **Utilization of HCT**

- What do people think about HCT? And what informed this thinking?
- What could be done to motivate people to go for HIV counseling and testing?

➢ **Attitude towards PLWHA (stigma and discrimination)**

- What is the dominant thinking about PLWHA in this community?
- How are people living with HIV treated in this community?
- Are PLWHA discriminated on the basis of having the infection? Probe for types/forms of the discrimination
- Are there laws prohibiting discrimination against PLWHA in the state? If yes how effective are they?

APPENDIX IV

KII (Gomsaca Officials)

➢ **General Questions**

- What successes or otherwise were recorded in terms of fight against HIV/AIDS in the state, particularly in areas of prevention?

- How much has been achieved in terms of HIV Counseling and Testing?
- Who are accepting and who are rejecting HCT? Probe for differences in terms of locations, age, sex, status etc.

- **HCT**
  - What do people think about HCT? And what informed this thinking?
  - What are the advantages and disadvantages of knowing HIV status? Why?
  - What are the major motivating factors and barriers to utilization of HCT services in the state?
  - What could be done to motivate people to go for HIV counseling and testing?
- **Attitude towards PLWHA (stigma and discrimination)**
  - What is the dominant thinking about PLWHA in the state?
  - How are people living with HIV treated in this state?
  - Are PLWHA discriminated on the basis of having the infection? Probe for evidences, types/forms of the discrimination
  - Are there laws prohibiting discrimination against PLWHA in the state? If yes how effective are they?

APPENDIX V

MAP OF GOMBE STATE, NIGERIA


Nafada
Dukku
Funakaye
Kwami
Gombe
Yamaltu/Deba
Akko
Billiri
Kaltungo
Balanga
Shomgom