CONSEQUENCES OF DISCLOSURE AMONG ADULT PEOPLE LIVING WITH HIV REGISTERED AT GENERAL HOSPITAL IKOT EKPENE, AKWA IBOM STATE, NIGERIA

BY

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DECLARATION

I declare that the work in the thesis entitled "**CONSEQUENCES OF DISCLOSURE AMONG ADULT PEOPLE LIVING WITH HIV REGISTERED AT GENERAL HOSPITAL IKOT EKPENE, AKWA IBOM STATE, NIGERIA**" has been performed by me in the Department of Community Medicine under the supervision of Prof. M.N. Sambo. No part of this thesis has been previously presented for the award another degree or diploma at any University. All source documents and studies cited have been duly referenced.

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Nsisong Bassey Asanga Date

CERTIFICATION

I certify that this work titled "Consequences of HIV Status Disclosure among Adult People Living with HIV Registered at General Hospital Ikot Ekpene" was carried out by Dr. Nsisong Bassey Asanga of the Department of Community Medicine, Ahmadu Bello University Teaching Hospital, Zaria.

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DEDICATION

This work is dedicated to the Glory of God,

The memory of my loving father, Barrister Moffat Umana,

The bravery of my mother-in-law, Mrs Kokomma Asanga,

And the tireless efforts of all that are contributing towards a HIV free generation.

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LIST OF ACRONYMS

AID	-	Acquired Immune Disease
AIDS	-	Acquired Immune Deficiency Syndrome
ANC	-	Ante-Natal Clinics
ART	-	Anti-Retroviral Therapy
ARV	-	Anti-Retroviral
BBSW	-	Brothel Based Sew Workers
CHIVT	-	Couple HIV Testing
HCT	-	HIV Counselling and Testing
HIV	-	Human Immunodeficiency Virus
HIVST	-	HIV Self Testing
HTC	-	HIV Testing and Counselling
HTS	-	HIV Testing Services
IBBS	-	HIV Integrated Biological and Behavioural Surveillance Survey
LAB	-	Laboratory
MARPs	-	Most At Risk Populations
MSM	-	Men who have Sex with Men
NARHS	-	National HIV Reproductive Health Survey
NARHS Plus	-	National HIV Reproductive Health Survey Plus
NDHS	-	National Demographic and Health Survey
NGOs	-	Non-Governmental Organizations
NNRTI	-	Non- Nucleoside Reverse Transcriptase Inhibitors
NRTI	-	Nucleoside Reverse Transcriptase Inhibitors

OPD	-	Out Patient Department
PEP	-	Post Exposure Prophylaxis
PI	-	Protease Inhibitor
PLHIV	-	People living with HIV
PMTCT	-	Prevention of Mother to Child Transmission of HIV
PrEP	-	Pre Exposure Prophylaxis
SIV	-	Simian Immunodeficiency Virus
TB	-	Tuberculosis
UNAIDS	-	United Nations Programme on HIV/AIDS
UNGASS	-	United Nations General Assembly
VCT	-	Voluntary Counselling and Testing
VMC	-	Voluntary Medical Circumcision
VMMC	-	Voluntary Male Medical Circumcision
WHO	-	World Health Organization

SUMMARY

HIV/AIDS is a disease of public health concern with 36.7 million people living with the disease worldwide. Sub-Saharan Africa accounts for 70% of the global burden. In Nigeria 3.5 million people are living with the disease. The prevalence in Akwa Ibom state is 6.5% more than double the national average (3.17%). The World Health Organization encourages all people living with HIV to disclose their status in order to improve adherence and the use of preventive practices. Non-disclosure of one's positive HIV status is criminal under Nigerian law. People living with HIV are often reluctant to disclose their HIV status fearing stigma and discrimination. The consequences of disclosure reflect the interplay between fear and hope, risks and benefits.

This study aimed to: determine the knowledge of HIV disclosure among people living with HIV, the proportion of them that had disclosed, the patterns of HIV status disclosure, the determinants of non-disclosure, as well as the barriers and consequences of HIV disclosure.

The study was conducted in General hospital Ikot Ekpene, 300 respondents were recruited. Data were collected, entered, cleaned, coded and stored in password protected. Using EPI INFO: data were analysed to determine frequencies and proportions, bivariate and multivariate analysis was done to determine associations and binary logistic regression was done to adjust for confounders.

The proportion of PLHIV with good knowledge on the importance of HIV disclosure was 84%. The proportion of PLHIV that had disclosed their status was 70.3%.The factors associated with non-disclosure were being unmarried [adjusted odds ratio (AOR): 2.68, CI: 1.4-5.1], belonging to religions other than Christianity or Islam (AOR: 8.37,CI: 1.3-50.6), having secondary education and below (AOR: 2.86, CI:1.2 - 7.1), knowing one's status for twelve months or less (AOR: 3.1, CI:1.5-5.9), absence of TB co-infection(AOR:14.4, CI:1.7-123)and not thinking HIV status disclosure was important (AOR: 6.3, CI: 3.0-13.4).

The barriers to HIV status disclosure were fear of the unknown, fear of stigma and fear of loss of confidentiality, shame, time not being right and fear of divorce.

The consequences of HIV status disclosure were predominantly positive. Initial positive outcomes were 52% compared to the anticipated 21%. Subsequent outcomes were 95% positive. Other positive consequences of disclosure were: Disclosure of HIV status helped 94% respondents to adhere to anti-retroviral therapy and keep hospital appointments .Disclosure of HIV status reduced feelings of stress in 92% respondents. Disclosure of HIV status helped 79% of the respondents practice preventive measures.

Knowledge of importance of HIV status was high. The determinants of non-disclosure were socio-demographic, HIV-related and related to disclosure information. The greatest barrier to disclosure was fear of the unknown. The consequences of disclosure were mostly positive.

It is recommended that: health workers encourage people living with HIV to disclose their HIV status. Data on disclosure be collected by national HIV/related surveys, more research be done on stigma and discrimination of people living with HIV.

Keywords: HIV/AIDS, Disclosure, Barriers, outcomes, people living with HIV.

CHAPTER ONE

INTRODUCTION

1.1 Background

Worldwide HIV/AIDS is a disease of public health concern. Since the first case was diagnosed in 1981, the disease has caused widespread morbidity and mortality become a global epidemic. The disease has been described as 'devastating', "a public health emergency", "a global health problem", 'a major cause of death' a fatal sexually transmitted disease', 'a chronic controllable condition'.[1,2] It has also been called 'deadly', 'an incurable disease' 'a manageable, chronic illness' 'an immune deficiency' and 'a pandemic'. In 2015, the Joint United nations Programme on HIV/AIDS (UNAIDS) released a new set of guidelines to guide communication on HIV related issues.[1] In the document the use of the aforementioned terms is discouraged, and it is advised that the use of adjectives to describe AIDS should be discouraged. The document dissuades against the use of HIV/AIDS as a generic term. It argues that most people who have HIV do not go one to develop AIDS and it advocates for the use of the term HIV instead. The document also states, that HIV should not be described as pandemic, the word 'epidemic' is preferred and efforts should be made to specify the scale.[1]

In the thirty-five years after HIV was first diagnosed, the disease has infected over 70 million people and caused over 38 million deaths.[3] At the peak of the epidemic in 2005, HIV was responsible for over 2.2 million deaths globally. Multi-level, global efforts, the advent of anti-retroviral therapy and improvements in HIV prevention, care and treatment as well as the advent of Prevention of Mother to Child Transmission of HIV, have led to considerable gains in the field of HIV prevention and control. By 2015, global deaths from HIV related causes were halved but an estimated 1.1million people died from the disease.[4] In the same year, 36.9 million

people were estimated to be living with HIV worldwide, and new infections accounted for two million cases. An estimated $19 billion dollars has been spent on the global HIV response in the past four years and more is needed to effectively contain the disease.[3]

Nigeria is home to second largest population of People Living with HIV (people living with HIV) in the world with a national prevalence of 3.1%.[5] Since the first case in the country was diagnosed in 1986, the disease spread rapidly and by 2015, an estimated 3.5 million Nigerians were living with the disease. There are about 250,000 new HIV infections and 180,000 AIDS related deaths in Nigeria annually.[5] Yet despite the high number of people living with HIV in Nigeria, only 20% of them are enrolled in care and treatment programs.[5]

Akwa Ibom State is located in the south-south geo-political zone which is the zone with the highest national prevalence of HIV.[6] Figures from the 2012 National HIV/AIDS and Reproductive Health Survey NARHS) place the prevalence of HIV in the State at 6.5%, more than double the national average of 3.1%. Based on the projected population for 2015, that places the number of people living with HIV in the state at over 300,000. Ikot Ekpene is the second largest town in Akwa Ibom state and host to the busiest government secondary health facility: General Hospital Ikot Ekpene.[7] HIV testing services and treatment programs have been conducted in the hospital for more than a decade. Before the advent of decentralized HIV services, it was the sole facility for HIV care in that senatorial district.

HIV testing services (HTS) are the entry point into HIV care and treatment programs.[8,9] They include counselling and testing programs that spearhead the global efforts towards controlling the HIV epidemic. Testing for HIV began in Nigeria in 1987, with the establishment of nine HIV testing centres. The number of HIV testing centres in Nigeria have increased from nine in 1987

to 1074 in 2009 and 7075 in 2013[10]. This led to an attendant increase in utilization from less than a million people in 1987, to 1.7 million people in 2009 and 4 million people in 2013.[10]

Part of the HIV testing services is HIV counselling. HIV counselling is given in two parts: pre-test counselling and post-test counselling. During pre-test counselling, the counsellor is expected to discuss the basic facts on HIV as well as benefits and potential difficulties of the test outcome; explain the HIV rapid test process and meaning of HIV test results; explore options for reducing risk including dual protection; assess the clients' readiness for HIV testing; Explore possible support systems; and discuss HIV status disclosure mechanisms. Informed consent for HIV testing is also to be received.[11] During post-test counselling, the counsellor provides the HIV test results and highlights the window period for HIV negative clients. A risk reduction plan including condom-use skills building, discussion on positive living, ongoing support and referral for such services as family planning, TB and sexually transmitted infection screening and management, discussion of disclosure of test results, ·partner referral for HIV testing is also done.[12] HIV disclosure counselling is part of the post-test counselling process, and the first step to showing HIV positive people the importance of HIV status disclosure. The WHO encourages people who test positive to practice beneficial disclosure.[13] Beneficial disclosure is defined as HIV status disclosure that is voluntary; respects dignity, maintains confidentiality, leads to beneficial results for all affected; fosters greater openness about HIV; and meets the ethical needs of the situation.[13]

Disclosure of HIV status is crucial to the continuum of HIV care.[13] It aids in the reduction of HIV incidence, improves adherence to medication, relieves stress, promotes successful prevention of mother to child transmission and creates awareness and openness in communities around HIV control.[13–15] Knowing one's partner is HIV positive is associated with condom use

and inversely associated with multiple or casual sex partners.[16] Status disclosure is central to HIV management; for access to medical care, treatment adherence, sero-discordant couples, reduction of partner risk, and prevention of infections in the newborn.[16] Status disclosure increases opportunities for people living with HIV to get financial, social and treatment support.[13] HIV status disclosure can give relief from stressful feelings, better ability to keep hospital appointments and improved adherence.[17]

Although HIV/AIDS has no cure, there has been a great reduction in morbidity and mortality due to the introduction of antiretroviral therapy (ART). However, the efficacy of ART depends on strict adherence to the drug regimen. Failure to adhere to ART is responsible for the emergence of resistant strains of the HIV posing unique challenges in the control of the global pandemic of HIV/AIDS. While disclosing one's HIV status makes it easier for people living with HIV to adhere to ART, non-disclosure is associate with poor adherence.[14,18,19]

Despite the benefits, many people living with HIV status disclosure are reluctant to disclose their status. The prevalence of disclosure differs by: the subset of people living with HIV(men, women, both sexes, children versus adults, key populations, low income versus high income country) and ranges from as low as 16.7% in Tanzania, up to 45% in rural Kenya, 97.5% in northern Nigeria and even 100% in some developed countries (California, United States of America).[20–23]

Non-disclosure of HIV status can increase HIV infection risks to one's sexual partners, make it difficult for one to adhere to treatment and reduce opportunities for support.[14,24] Non-disclosure has been associated with age, gender, marital status, education, lack of pre and post-test counselling, early disease and not thinking disclosure was important.[17,25,26]

In 2015, the enactment of the Sexual Offences Bill made non-disclosure of one's positive HIV status a criminal act.[27] Thereafter, all HIV positive people were required to disclose their HIV status to any prospective sex partners before engaging in any sexual acts. The bill aimed to discourage criminal transmission of HIV and mandate all people with HIV to disclose to their sex partners and/or spouses. Lawmakers believed that the bill would minimise HIV status non-disclosure. Despite this, people living with HIV experience many barriers to disclosing their HIV status and often unwilling to disclose.[23,28] Barriers to HIV status disclosure include fear of stigma and discrimination, fear of rejection, fear of divorce and lack of communication skills.[19,29,30]

However, the consequences of disclosure vary significantly according to the relationship with those one discloses to, the culture, the legal and social systems of the society and the level of openness a community has towards HIV. While some studies report that a large proportion of people living with HIV experience rejection, stigma, discrimination and divorce, others report acceptance, care, kindness as well as emotional, financial and treatment support.[31–33]

Though an Anti-discrimination law has been passed to protect people living with HIV from stigma and discrimination, reports have been received by doctors in General hospital Ikot Ekpene of people living with HIV suffering stigma and discrimination at home and at work. In the early days when ARV was not widely available, there was a case of a lady being murdered by community youth because she had AIDS.

Considering new HIV-related laws and the increasing population of people living with HIV and growing threat of ARV resistance, this study was conducted to highlight the current issues

surrounding HIV status disclosure and its consequences among people living with HIV in General Hospital Ikot Ekpene in 2016.

1.2 Problem Statement

HIV/AIDS causes more than 1.1 million deaths every year, most of these deaths occur in sub-Saharan Africa.[4] In Nigeria, 180,000 AIDS-related deaths occur every year accounting for 15% of the global figure.[5] The HIV prevalence in Nigeria's South-South zone is the highest in the country.[6] Akwa Ibom state has a HIV prevalence of 6.4% which is more than double the national prevalence. An estimated 320,000 people are living with HIV in Akwa Ibom State currently.[7] Without openness towards the issue of HIV prevention and supportive attitudes towards people living with HIV, this figure is likely to increase exponentially.

The rates of HIV status disclosure among people living with HIV in sub-Saharan Africa are among the lowest in the world, sometimes lower than 17%. There are over 25 million people living with HIV in sub-Saharan Africa.[4] If most of them do not disclose, the non-disclosure of their HIV status increases the risk of new infections among sexual partners, babies of women living with HIV and sero-discordant couples. Non-disclosure of HIV status has also been linked with reduced access to healthcare among people living with HIV and poor adherence to ART regimens. This would in turn increase HIV prevalence, exacerbate anti-retroviral drug resistance and lead to a rise in AIDS-related deaths.

Studies on HIV status disclosure in Nigeria have found rates as low as 45%. With over 3.5 million Nigerians living with HIV, that could mean that up to 2 million HIV positive Nigerians have not shared their results with anyone. Studies done in North-East Nigeria and North-Central Nigeria have reported higher rates of HIV status disclosure, but the studies in South-southern

Nigeria have reported rates that are up to 30% lower than those reported in Northern Nigeria.[21,34] In Akwa Ibom State, the HIV prevalence is 6.5% and the 2015 projected population was 5,272,029.[7] That means that an estimated 360,000 people are living with HIV in the state. Studies and surveys in that region have shown that young people have low knowledge on HIV transmission, low self-risk perceptions, and low rates of condom use.[6] The rates of HIV status disclosure in Akwa Ibom state are not known. The relatively high prevalence of HIV and existence of the aforementioned socio-cultural factors suggest that these figures are sub-optimal. It is however difficult to assess as 'whatever is not documented, is not known'.

The WHO encourages all people living with HIV to disclose their status to sex partners and/or a trusted person who can provide support. Nigerian law criminalizes non-disclosure to sexual partners under the Sexual Offences Bill of 2015. Studies have found the actual disclosure rates are far less than expected. Studies done in northern Nigeria have shown encouraging figures with high disclosure rates, suggesting that a large proportion of people living with HIV in that region disclose their status. Nevertheless, studies done in the southern part of Nigeria found the prevalence in the region to be considerably lower. More disturbing, is the fact that figures from studies done in the South-South zone suggest that the rate of HIV status disclosure among people living with HIV is declining over time. For example, a comparison between two studies with a similar study area, suggest that HIV status disclosure among people living with HIV declined by over 4% in eight years. If that trend continues then it means less people will disclose their status with time leading. If this occurs, the consequences for public heath will be dire.

HIV prevalence in Nigeria is highest in the South-South geopolitical zone, a region with high population density. Lower HIV disclosure rates coupled with high HIV prevalence and high population density create the ideal environment for the escalation of an already generalized

epidemic. This is worsened by low rates of condom use, and low self-risk perception among people in this part of the country.[6] This consortium of events would increase already high prevalence rates leading to greater HIV-related morbidity and mortality. The impact of greater HIV-related morbidity and mortality on the inadequate infrastructure and low manpower levels in the health sector, at a time when the Nigerian economy is in eminent recession, would be immense.[7] The high rates of HIV status non-disclosure recorded in the southern region of Nigeria so far also imply missed opportunities for openness, and awareness in the community about HIV prevention and control. They may also portend an increase in HIV-related litigation and greater levels of stigma and discrimination towards people living with HIV.

Laws have been passed criminalizing the non-disclosure of HIV. They have aimed to prevent people living with HIV from concealing their status from sex partners. The laws were to reduce the spread of HIV, prevent new infections and punish criminal transmission. However, this is believed to be counterproductive.[35,36] The law does not mandate anyone to know their status and does not punish people of unknown HIV status who engage in unsafe sexual behaviour. It therefore discourages people from testing for HIV and encourages those who should go for retesting to keep their previous (possibly obsolete) results as evidence to be presented in the court of law.

Disclosure counselling is an important part of the counselling component of HIV Testing Services (HTS). It is meant to introduce people living with HIV to the concept of beneficial disclosure, work with them to identify likely people to disclose to, and prepare them for possible outcomes. Unfortunately, there is insufficient information about the proportion of people living with HIV that receive disclosure counselling and the proportion that know the importance of HIV status disclosure. This makes it difficult to assess the success of this intervention. However,

studies from other countries have found that it plays a role in increasing the proportions of people living with HIV that disclose their HIV status. Innovative approaches to disclosure counselling such as 'Holding Hands" strategy used in Kenya, have not been reported in Nigeria. Information on other new approaches like couple testing, testing together and facilitated disclosure are also unavailable.

In a publication on 'Setting research priorities for HIV-related research in a post-graduate training programme', HIV disclosure was identified as a high priority issue requiring further research.[37] The publication also stated that further research was needed on the role of HIV status disclosure among people living with HIV and access to anti-retroviral therapy as well as disclosure to children. Research in this area was said to be important as it would help in filling existing knowledge gaps.

There was no study found to be providing information on current HIV status disclosure rates in Akwa Ibom State. And even though the state has recorded HIV prevalence rates of up to 10.8%, there is no data on the trend of HIV status disclosure. There is no way to know if HIV status disclosure is increasing or decreasing in the state. There is also no information on the patterns of HIV status disclosure; it is not known if the preferred person to disclose to are pastors as found in a study in Bayelsa, mothers, as found in a study in Gombe or sex partners as documented in California.[21,22,38] The determinants of HIV status disclosure/non-disclosure have not been documented. The barriers to HIV status disclosure in Akwa Ibom State have also been unexplored. Concerning, the consequences, there is a single published study on the social impact of HIV/AIDS but this was done among patients in a tertiary institution, where most of the HIV positive clientele are those referred there due to advanced disease and AIDS-related complications and was done before the new laws on HIV status disclosure were enacted. Most of

the studies done on HIV disclosure were done outside Nigeria. Considering Nigeria's population, land mass, ethnic and cultural diversity as well as societal norms and practices; extrapolations from studies done elsewhere are likely to be misleading. Furthermore, many of the studies focused on women only, negating the influence of approximately half of the affected population. Many of them examined disclosure to sex partners only and did not consider disclosure in the context of non-sexual relationships or disclosure to the public. Many of the studies were done with small sample sizes and less than 100 respondents, making it difficult to ascribe their findings to the general population.[29] Concerning analysing to determine associations, most studies examined the determinants of disclosure and not the determinants of non-disclosure. Factor associated with non-disclosure (which is the problem with widespread public health, legal and socio-economic implications) were not often studied. In Africa, fortunately, factors associated with non-disclosure have been examined in a few studies and even then many of these studies were not done among both genders. The studies done in Nigeria were done before the current legislation criminalizing non-disclosure of positive HIV status and discrimination of people living with HIV was passed into law. Lastly, most of the studies examined the prevalence, patterns and reasons for disclosure but, did not examine knowledge on HIV status disclosure, barriers to HIV status disclosure and its consequences.

1.3 Justification of the Study

Despite the high prevalence of HIV in Akwa Ibom state, there is a dearth of HIV-related studies. The HIV disclosure prevalence in the state is unknown. General Hospital Ikot Ekpene has the highest annual patient turnover and provides HIV care and treatment services to about 8,700 people living with HIV. There is a need to determine the proportion of people living with HIV

that disclose their status. It is also important to document the disclosure prevalence, patterns, associated factors, barriers and outcomes.

This study will help to fill the knowledge gap on this area of HIV disclosure. It will provide information on the prevalence of HIV disclosure and non-disclosure in Akwa Ibom State. It will provide information on the patterns of HIV status disclosure in this region, help monitor trends in disclosure prevalence and the predictors of non-disclosure of HIV status. The study will also provide information on the barriers to disclosure in this region and consequences of HIV status in this region of Nigeria as well.

The findings from this study will be useful for HIV/AIDS program and policy decisions. It will provide information for the design of programs to improve HIV status disclosure. This will in turn lead to: a reduction in new infections, improved access to care and treatment programs, reduced stigma, safer sex practices and more openness in the community about HIV. This will result in the attendant gains in the reduced HIV related morbidity and mortality.

The information obtained from this study will also be helpful for advocacy to religious leaders, communities and government on stigma reduction strategies. It will provide information that will be useful in generating awareness on HIV status disclosure and encouraging families and communities to practice more openness and acceptance towards HIV positive people.

This study will also form a reference for other studies. It will help document current knowledge, attitude and practice of HIV status disclosure among people living with HIV. The study provides baseline information for this area that will be useful in studies to assess trends of HIV status disclosure consequences in future. The experience will also help to identify opportunities for further research on HIV, HIV status disclosure and its consequences.

1.4 Research Questions

- What is the knowledge of HIV status disclosure among people living with HIV registered at General Hospital Ikot Ekpene?
- What proportion of people living with HIV registered at General Hospital Ikot Ekpene have disclosed their HIV status to another person and what are the determinants of HIV status non-disclosure among them?
- What are the barriers to HIV status disclosure among people living with HIV registered at General Hospital Ikot Ekpene?
- What are the consequences of HIV disclosure among people living with HIV registered at General Hospital Ikot Ekpene?

1.5 Objectives

1.5.1 General objective

To determine the consequences of HIV status disclosure among people living with HIV registered in General Hospital Ikot Ekpene.

1.5.2 Specific objectives

1. To assess the knowledge of HIV status disclosure among people living with HIV registered at General Hospital Ikot Ekpene.
2. To determine the proportion of people living with HIV registered at General Hospital Ikot Ekpene that have disclosed their HIV status and the factors associated with HIV status non-disclosure among people living with HIV registered at General Hospital Ikot Ekpene.

3. To identify the barriers to HIV status disclosure among people living with HIV registered at General Hospital Ikot Ekpene.
4. To assess the consequences of HIV status disclosure among people living with HIV registered at General Hospital Ikot Ekpene.

CHAPTER TWO

LITERATURE REVIEW

2.1 Background on HIV/AIDS

The Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) have caused public health concern for over three decades. Over the years, HIV/AIDS has been responsible for a global epidemic infecting over 78 million people and causing over 35 million deaths.[39] In 2015 alone, HIV was responsible for over 1 million deaths.[10] Currently there are almost 40 million people living with HIV worldwide.[40] In 2015 there were over 2 million new HIV infections.[40] HIV/AIDS has a global distribution, affects and infects millions of people every year and has no cure or vaccine. Its association with sexual intercourse further complicates efforts for its control as many cultures regard discussion on sexuality to be taboo.[41] In addition to this, the infrastructure, personnel, equipment and drugs necessary for successful HIV/AIDS prevention and control is far in excess of what most low and middle income countries can afford to finance.[5] Cultural, political, ethnic, religious, social and socio-economic factors influence the success of HIV/AIDS prevention and control efforts. Stigma and discrimination are huge barriers to successful HIV/AIDS prevention and control.[13] HIV status disclosure creates an opportunity for risk reduction, prevention of infections in the new-born and greater openness in the community towards HIV/AIDS prevention and control discussions.[13] Oft times, this opportunity is not realised because the fears about the negative consequences of HIV status disclosure mitigate against HIV status disclosure. In order to properly understand the current challenges facing public health physicians and organizations, an understanding of the history, nature, epidemiology, global response and future targets is necessary.

2.1.1 History of HIV

Various infectious conditions characterized by immune deficiency had been documented by scientists as early as 1959.[42] The earliest case of confirmed HIV in a human was in an adult male in Leopold, Zaire. Efforts to identify the 'patient zero'—a term for the first person to be infected with HIV, however have proved unfruitful.[42] The origin of HIV is shrouded in mystery but scientists have been able to create a 'family-tree' ancestry of HIV transmission, tracing the genealogy of the virus, using the earliest known sample of HIV. Their studies show that the first transmission of Simian immunodeficiency Virus (SIV) to HIV in humans took place around 1920 in Kinshasa in the Democratic Republic of Congo.[43] A flourishing railway transport, booming sex trade and high prevalence of other sexually transmitted infections are believed to have created the ideal medium for the virus to spread worldwide. However, it took more than twenty years for scientists to understand the disease. In 1981, the Centres for Disease Control and Prevention (CDC) reported unusual clusters of Pneumocystis carinii pneumonia and Kaposi's sarcoma in gay men in parts of the United States of America. These were the first reported cases of the Acquired Immune Deficiency Syndrome (AIDS). The disease was known as Gay Related Immune Deficiency (GRID), and later Acquired Immune deficiency (AID). Over time, the various presentations, signs and symptoms, were characterized and in 1982, the term Acquired Immune deficiency Syndrome was officially adopted for the disease by the Centres for Disease Control (CDC).[42] The causative agent, the Human Immunodeficiency Virus, however was not isolated until two years later when scientists in France isolated what they called the Lymphadenopathy-Associated Virus (LAV). The virus was also independently isolated by two other groups of scientists who called it Human T-Lymphoteric Virus type III and AIDS-related

Virus. In 1986, the International committee on the taxonomy of viruses recommended current name: Human Immunodeficiency Virus (HIV).[42]

2.1.2 HIV Epidemiology

Over the next thirty years, HIV became a global epidemic causing an estimated 78 million infections and 35 million deaths from AIDS-related illnesses.[4] In 2015, 36.7million people were estimated to be living with HIV worldwide.[40] Although sub-Saharan Africa has about 15% of the world's population, it accounts for more than 70% of the global HIV infections.[41] Nigeria has an estimated 3.5 million Nigerians were living with HIV.[5] This means that Nigeria is home to the second largest population of People living with HIV/AIDS (people living with HIV) in the world, the largest population being in South Africa.[4] The national prevalence of HIV in Nigeria is 3.1% with the prevalence in some states being as high as 15%.[5] In 2015, there were an estimated 250,000 new HIV infections and 180,000 AIDS related deaths in Nigeria.[5] Within Nigeria there is wide range in prevalence between states: 15.2% in Rivers State to 0.2% in Ekiti State. It also varies across geopolitical zones—5.5% in the South-South zone and 1.8% in the South-East.

Certain key populations (formerly known as most at risk populations) in Nigeria are found to have higher HIV prevalence rates than the general population. The HIV prevalence among Brothel Based Sex Workers (BBSW) in Nigeria, for instance was found to be 27.4%. Non-brothel based female sex workers (NBBFSW) ranked next with an estimated prevalence of 21.7%, followed by men who have sex with men (MSM) with an estimated prevalence of 17.2%. The HIV prevalence among female sex workers (FSW) and transport workers is reducing, while the prevalence has increased among men who have sex with men: from 13.5% (2007) to 17.4% (2010).[10]

2.1.3 HIV Aetiology

The Human Immunodeficiency Virus (HIV) is part of a group or family of viruses known as the Retroviridae family. Lentiviruses are a sub-group of the Retroviridae family. The lentiviruses have been found in a wide range of non-human primates. Lentiviruses in non-human primates are called simian (monkey) viruses. The Human Immunodeficiency Virus is a descendant of the Simian Immunodeficiency Virus (SIV). HIV is a ribonucleic acid (RNA) virus. HIV is an RNA virus known as a retrovirus. HIV has a central core with identical RNA genomes and enzymes such as reverse transcriptase, protease and integrase. There is a protein capsid covered by a lipid bilayer envelope which contains glycoprotein spikes. HIV has two major strains: HIV-1 and HIV-2. Worldwide, HIV-1 causes most of the infections. HIV-1 is more easily transmitted than the other strain HIV-2. HIV-2 is most prevalent in West Africa, although there are imported cases in the United Kingdom. HIV attacks the infection-fighting CD4 cells of the immune system. It destroys them by replicating in and eventually lysing the cell. The Loss of CD4 cells makes it difficult for the body to fight infections and certain cancers. Without treatment, HIV gradually destroys the immune system leading to the manifestation of symptoms known as the AIDS. HIV has been isolated from blood, semen, vaginal and cervical secretions, bone marrow, saliva, brain tissue, cerebrospinal fluid, tears, urine, amniotic fluid and breast milk. However only blood, semen, vaginal and cervical secretions and breast milk have been known to transmit the virus.[37]

2.1.4 HIV transmission and disease progression

HIV is transmitted through three major routes: blood and blood products, vaginal, anal, (and rarely) oral sex, and from mother to child during pregnancy, childbirth or breastfeeding.

Transmission can also occur in hospital settings if universal precautions are not observed and among intravenous drug users who share needles.[37,38] once a person is infected, the disease progresses from the primary stage to the asymptomatic to AIDS. The primary stage follows soon after initial infection. It is marked by a fall in the number of CD4+ cells and rapid viral replication. Early symptoms vary and the disease might present with fever, malaise, rash, headache, lymph node enlargement and muscle pain. Due to the generalized and non-specific nature of these symptoms, most patients do not identify the initial illness and those who do don't associate the symptoms with HIV. The symptoms are often mistaken for glandular fever, influenza or malaria.[37] Usually within 10-21 days, CD4+ cells levels rise, returning to normal, and symptoms subside. This period also marks the beginning of the window period. The window period is the interval between an individual's exposure to HIV and when he or she seroconverts. In most people, sero-conversion takes 6-8 weeks. However, sometimes it can take as long as 6 months. Primary HIV disease is followed by the chronic asymptomatic disease. The phase of chronic asymptomatic disease lasts from 6 moths to more than 12 years. During this phase, sero-conversion takes place but individuals do not experience any symptoms or exhibit any signs of the disease. Chronic symptomatic disease follows, this phase is marked by: fever, night sweats, moderate unexplained weight loss, recurrent respiratory tract infections sinusitis, tonsillitis, otitis media and pharyngitis, Herpes zoster, Angular cheilitis, recurrent oral ulceration, papular pruritic eruptions, seborrhoeic dermatitis, fungal infections and a myriad of other opportunistic infections.[4] The final phase, often described as 'full-blown AIDS' is marked by a syndrome of four types of diseases: neoplasms, opportunistic disease, neurologic disease, and wasting. HIV/AIDs has no cure and without treatment, full blown AIDS leads to death. In young children

however the period between infection and developing AIDS is shorter. On the average HIV infected infants are diagnosed at 9 months and die about nine months later.[39]

2.1.5 HIV control

HIV control begins were HIV prevention fails. In general, disease control refers to efforts geared towards reducing the incidence, prevalence, morbidity and mortality from a disease in local settings. This is achieved through deliberate efforts such as vaccines, medications, contact isolation, or other public health interventions. the Hiv control effort involves strategies for managing the existing infections, efforts towards HIV Control are centered around ; identifying the number of people currently infected by encouraging HIV testing by all persons at risk for HIV, ensuring that those who test positive are linked to care, ensuring that those who test negative receive adequate and appropriate risk reduction counselling, promoting adherence to ART, ensuring clients are retained in care and losses to follow-up are reduced, providing quality assurance for the service rendered to people living with Hiv and providing support to people living with HIV to 'live positively'

2.1.6 HIV and Gender

Gender-based violence, intimate partner violence and all forms of violence are worldwide phenomena and they disproportionately affect women. Violence is a serious violation of human rights. Of the almost 50 countries that reported data on the prevalence of intimate partner violence, between 9% and 60% of women aged 15 to 49 years reported having experienced violence at the hands of an intimate partner in the last 12 months. Gender-based violence increases the risk of HIV infection. Two studies done among women of the reproductive age in Uganda (15–49 years) and South Africa (15–26 years) found that women who had experienced

intimate partner violence were 50% more likely to have acquired HIV than women who had not experienced violence.

Female drug users, female sex workers and transgender women and other women belonging to key populations are particularly prone to experiencing violence. A high prevalence of physical violence, rape, and other forms of abuse among sex workers has been detected by studies in many countries.[23,24] Women in war zones, and conflict-affected situations face increased vulnerability to sexual violence and mass rapes.[25] Transgender women, many of whom may be engaged in sex work as a survival strategy, are also often targets of violence and abuse.[26] The 'corrective' rape of lesbian women is a further source of trauma and HIV risk. The links between violence against women and increased risk for HIV are multi-faceted: social, physiological and psychological. The experience of violence during childhood is associated with increased risk-taking later in life.[27] Fear of violence undermines the capacity of women and girls to negotiate safer sex.[28] Concerns regarding the possibility of stigma and discrimination, abuse and violence further deter women from seeking HIV testing or other essential health services. Sexual violence may result in traumatic injury to women's genitalia, which in turn increases susceptibility to HIV acquisition; with physiological susceptibility being greater in cases of experience of sexual violence as a child or adolescent and repeated violence.[29] Results of violence may be especially severe for women who are sex workers, use drugs or are transgender, as a result of the compounding effects of multiple forms of stigma and mistreatment. One study in Uganda found that 29% of surveyed women living with HIV reported physical or sexual intimate-partner violence in the last 12 months, and that those on antiretroviral treatment were twice as likely to report intimate-partner violence.[30] This violence may be partly attributable to the fact that women, who have higher testing rates, are more likely to be the first within a household to learn

their HIV status and may be blamed accordingly. Despite the disturbing prevalence and severe effects of gender-based violence, services for women who have experienced violence remain wholly inadequate. A recent survey in Kenya found that only one-quarter of females and 13% of males aged 18 to 24 who experienced sexual violence prior to age 18 knew of a place to seek services.[31]

2.1.6.1 Policies for gender-transformative HIV responses

Increasingly, HIV responses are incorporating a focus on gender equality. This focus is especially common in sub-Saharan Africa but less prominent in countries where epidemics are concentrated among key populations.[32] In the Middle East and North Africa and in Eastern Europe and Central Asia, gender issues, including gender-based violence, often go unaddressed in national responses, with little sex-disaggregated data collection or participation of women's networks and groups of women living with HIV. Reports from countries that conducted mid-term reviews of implementation of the 2011 UN Political Declaration on HIV/AIDS reveal widespread recognition that addressing gender inequalities is a critical component of an effective HIV response for women. One hundred of the 109 countries reporting in 2013 indicated that elimination of gender inequalities is a national priority. However, only 52% of countries reported in 2013 that they were on track to eliminate gender inequalities. While commitments by national governments are encouraging, there is an urgent need to see them more consistently translated into robust actions.

Suggests that country policies and resource allocation are particularly lagging behind in key aspects of a comprehensive effort to overcome gender inequality: engaging men and empowering women, as well as providing services to help women fulfil their sexual and reproductive needs and rights and to access HIV prevention and other HIV services. Barely half of countries collect

data on the links between HIV and gender-based violence, and less than one-quarter of national HIV strategic plans address gender-based violence.

To achieve zero new HIV infections, zero AIDS-related deaths and zero discrimination, there should be zero tolerance for gender-based violence. Towards this end, sustained progress is needed to eliminate gender inequality. Effective HIV responses must respond to, and seek to transform, harmful gender norms that perpetuate the HIV epidemic. While much has been done, investment by countries is required in a number of strategic areas with the support of civil society and development partners. Specifically, countries should work to reduce HIV infection among girls and young women by protecting them from sexual violence and providing universal access to comprehensive sex education and social protection services. To ensure access, girls and young women may require independent access points for needed services. Policy and programmatic steps are needed to transform harmful gender norms to prevent gender based violence and provided integrated services to survivors of gender-based violence. HIV services need to be more sensitive to sexual and reproductive health and gender needs and rights of women, men and transgender persons in all their diversity, in particular those living with HIV, from key populations at higher risk or living in conflict affected settings. There is a need to invest in strengthening the evidence base in order to successfully respond to the gender dimensions of the HIV epidemic. Epidemic contexts and responses should be surveyed from the perspective of gender and inclusive and participatory assessments undertaken

The needs of women and girls must be prioritized in the post-2015 development agenda. The goals of zero discrimination, zero tolerance for gender-based violence, and zero violation of sexual and reproductive health and rights should be at the centre of development policy at national and international levels in discussions regarding post 2015 priorities.

In countries like Nicaragua, the female transgender community is estimated at 3 000 people. In the same country, the estimated HIV prevalence is 15–19%. To address the transgender community's health care needs, the Strategic Plan of Comprehensive Care for the Transgender Population. The process of developing the plan included a situation analysis, prioritization of interventions, planning and identification of resources. A review of available evidence on underlying determinants of the epidemic among transgender populations identified the most robust studies on socio-economic factors, life and work conditions, health services, biological and genetic factors, social and community networks and behaviours. The plan aims to close gaps relating to social determinants of HIV risk and vulnerability for transgender people in Nicaragua. Key action steps include advocacy for legal changes, human rights promotion, fund-raising, training workshops, health education and behaviour change communication. Although the plan is both ambitious and visionary, more than 80% of transgender participants in the planning process identified the proposed actions as feasible.

2.1.7 People living with HIV

People living with HIV have been called many things over the years. In the late 1980s there were called PHA, people that have AIDS. Later there were called PWA, people with AIDS. That gave way to People living with HIV/AIDS, PLWHA. The abbreviation for the same name was later changed to PLHIV meaning people living with HIV/AIDS. The 2015 UNAIDS however dissuade against the use of abbreviations in referring to people living with HIV. They also advise that people living with HIV be written in full as much as possible.[1] In 2015, it was estimated that there are over 35 million people living with HIV globally.[4]Since the start of the AIDS epidemic, more than 78 million people have been infected with HIV and 39 million have died (1).

Acquiring HIV no longer means certain death. A person on HIV treatment in a high-income setting now has nearly the same life expectancy as a person who does not have the virus. However, only two out of five people living with HIV have access to antiretroviral therapy. Among people who do have access, great inequities exist.

People living with HIV are being left behind because they are not benefitting from health care, employment, education or social protection. This is often due to stigma, discrimination, prohibitive laws and policies or a lack of services. people living with HIV face unique challenges which include: Opportunistic infections including TB, involuntary disclosure, criminalization, stigma and discrimination.[51]

2.1.8 HIV and the Law

In 2013, 63 countries were found to have, HIV-specific provisions that allow for the prosecution of HIV non-disclosure, exposure and/or transmission, in at least one jurisdiction. In other countries, prosecutions for HIV non-disclosure, exposure or transmission have been based on general criminal law offences such as sexual assault, criminal nuisance, bodily harm, manslaughter or attempted homicide. The laws and prosecutions for HIV non-disclosure, exposure and transmission demonstrate often do not reflect the best available HIV-related scientific evidence regarding HIV transmission. They also fail to recognise the benefit of treatment and its role in the prevention of HIV.[52] Furthermore, these laws and prosecutions often ignore generally applicable criminal law and human rights principles.[47] Prosecutions for HIV exposure/criminal transmission have been reported against people living with HIV. They are prosecuted for acts such as spitting that represent no risk of HIV transmission.[36] Even people living with HIV who use condoms during sexual relations are being prosecuted. Such prosecutions are likely to result in miscarriages of justice. Prosecution of people living with HIV

for these acts is counterproductive. It creates a climate of fear that undermines public health efforts to encourage people to voluntarily seek HIV prevention, testing and treatment services. As recommended by the Global Commission on HIV and the Law, several countries have begun reviewing such laws, restricted their application or dropped them altogether. In 2011, Fiji removed HIV-specific criminal offences for transmission or exposure from a broader HIV statute; Guyana firmly rejected a proposed HIV-specific criminal law; and at least four African countries – Congo, Guinea, Senegal and Togo – have since 2010 restricted the use of criminal laws solely to cases of intentional transmission. In order to provide support to countries in this area, UNAIDS has recently published a new guidance note: on ending overly-broad criminalisation of HIV non-disclosure, exposure and transmission. Key populations are also criminalized in most places of the world. Punitive laws focused on key populations at higher risk of HIV remain common throughout the world. In 2012, non-governmental informants in 70% of countries and national governments in 60% reported the existence of laws, regulations or policies that present obstacles to effective HIV prevention, treatment, care and support for key populations. Seventy-six of 193 countries criminalize same-sex relations as at 2013. In some countries, jurisdictions permit imposition of the death penalty for convictions under such laws.[53] Seven of the 10 countries receiving the largest amounts of funding from the Global Fund, as well as more than half of the 88 countries receiving PEPFAR support, criminalize consensual sexual relations among people of the same sex. Punitive policies pertaining to drug use –criminalization of drug dependence, criminalization of possession of small quantities for self-use, compulsory drug detention and bans on drug substitution therapy bans on needle and syringe programmes – prevent people who inject drugs from receiving the services they urgently need.[54] Compulsory drug detention regimes in some countries are so severe that they were singled out by a United

Nations Special Rapporteur on torture or other cruel, inhuman or degrading treatment or punishment for denunciation in 2013. In 2012, 12 UN system agencies jointly called for the closure of compulsory drug detention and rehabilitation centres. Most countries have laws in place that criminalize some aspects of sex work, and sex workers are often vulnerable to police harassment and mistreatment. The World Health Organization (WHO), the UN Development Programme (UNDP), UNAIDS, the UN Population Fund (UNFPA), and the Network of Sex Worker Projects have called for the decriminalization of sex work and the elimination of the unjust application of laws and regulations against key populations. In some countries there are some encouraging signs of leadership and innovation to ensure rights-based responses for key populations. For example, Malaysia is abandoning compulsory drug and rehabilitation centres, creating a network of non-incarceration 'cure and care' clinics that are associated with a 37% decline in injecting drug use and a 76% reduction in arrests.[52] The South African Commission on Gender Equity, a constitutionally mandated entity, has recommended the decriminalization of sex work on human rights grounds. In June 2013, the US Supreme Court invalidated a US policy that required recipients of federal funds to explicitly agree with the government's policy to oppose 'prostitution'.[52]

2.1.9 HIV, Hopes and Future Strategies

In a policy document titled: On the Fast-Track to end AIDS, the UNAIDS clearly spells out the targets and strategies and policies that have been adopted towards the elimination of HIV. Fast-Track is an approach adopted by UNAIDS to accelerate the implementation of essential HIV prevention and treatment and human rights approaches that will enable the response to outpace the epidemic.[1] Through a combination of civil, political, legal and healthcare reform, the UNAIDS aims to end the HIV epidemic by 2030. Leveraging on the sustainable development

goals, the plan is to achieve the goals correspond to each of the three strategic directions, and include achieving by 2020: Fewer than 500 000 people newly infected with HIV, fewer than 500 000 people dying from AIDS-related causes, elimination of HIV-related discrimination.[55]Akwa Ibom state has been marked as a priority state for HIV services scale up in the 2016-2021 Fast Track strategy.[55]

2.2 Background on HIV Testing Services

HIV Testing Services is new umbrella term for all HIV testing. It replaces the previous term HIV Testing and Counselling. Over the years other names for the service have been Voluntary Counselling and Testing (VCT) and HIV Counselling and Testing. HIV Counselling and testing is still the widely used term available on forms and documents in Nigeria. The new term, HIV testing services (HTS) reflects the changing scope and strategies involved in HIV testing. The Updated WHO Guidelines state that HTS are to include testing by lay persons and testing one's self (also client-initiated testing and counselling (CITC) and provider initiated testing and counselling (PITC)).

HIV testing is the gateway to HIV treatment and care, and it is critical in the scale-up of universal access to HIV prevention, including in the context of male circumcision, elimination of new infections among children and antiretroviral medicine based prevention approaches (including pre-exposure prophylaxis or post-exposure prophylaxis). The term HIV testing services (HTS) are used to embrace the full range of services that should be provided together with HIV testing. HIV testing should be undertaken within the framework of the 5Cs: consent, confidentiality, counselling, correct test results and connection/linkage to prevention, care and treatment. HTS also includes services such as provider-initiated testing and counselling, facility-based counselling and testing, community based counselling and testing, to home, mobile and

outreach testing;, couple HIV testing CHIVT) HIV self-testing (HIVST), standalone voluntary testing and counselling in the community, "moonlight" testing during evening hours in high-risk settings, and in schools, workplaces, religious facilities, and transport hubs. In addition "test for triage" can be used in community-based settings to further scale-up access to HIV testing services. In this approach a trained lay provider uses a single rapid diagnostic test and refers and links all people with a reactive test result to HIV prevention, care and treatment services in a timely manner term for HIV counselling and testing provides an entry point into the HIV care, treatment and support program. HIV counselling and testing has had a colourful and eventful history with frequent changes of protocol, scope, guidelines, strategies and nomenclature. Since the first tests for HIV were developed in 1985, the World Health Organization has provided guidelines for counselling and testing. Innovative and creative approaches to service delivery have been implemented in numerous countries.

Self-testing, where people are encouraged to procure test kits and test themselves and couple testing, where people are to come for testing with their current or intended sex partner and get jointly tested are some of the new strategies to be employed in HIV testing services. Recognizing the importance of disclosure to family members and sexual partners, "couples testing and counselling" where couples can learn their results together, with the assistance of a trained counsellor have been introduced in countries like the United States of America. Sharing serostatus allows couples to plan, make important life decisions, including making HIV prevention choices, and to seek care and support together. The WHO recommended testing strategy for a high or low HIV prevalence setting should be adopted for all HIV testing services. All HIV testing services should be performed using a nationally validated testing algorithm.

Five key components for HIV testing services have been identified by WHO. The "5 Cs"— as they are called must be adhered by all HTS. These components are:

- Consent
- Confidentiality
- Counselling
- Correct test results
- Connection/linkage to prevention, care and treatment.

Mandatory, compulsory or coercive HIV testing is unacceptable. HIV testing services should always be provided in a respectful, supportive, ethical manner. Consideration should be given to the professional integrity of the provider and the human rights of the person being tested must be respected at all times. Services for other groups of people with higher risks such as adolescents and people from key populations, such as services for men who have sex with men sex workers, injecting drug users, and transgender people have also been introduced. It is very important that these services are provided within a context of respect, support, protected privacy and confidentiality.

2.2.2 HIV counselling

HIV/AIDS counselling is a confidential dialogue between a client and a care provider which is aimed at enabling the client to cope with stress and take personal decisions, including those regarding prevention and care, related to HIV/AIDS. The counselling process involves an evaluation of personal risk of HIV transmission and facilitates preventative behaviour

Counselling is an interpersonal, dynamic communication process between a client and a trained counsellor (who is bound by a code of ethics and practice) that tries to resolve personal, social or

psychological problems and difficulties. In the context of an HIV diagnosis, counselling aims to encourage the client to explore important personal issues, identify ways of coping with anxiety and stress, and plan for the future (such as keeping healthy, adhering to treatment and preventing transmission). When counselling in the context of a negative HIV test result, the focus is exploring the client's motivation, options and skills to stay HIV-negative.

Pre-test HIV/AIDS counselling is a dialogue between a client and a health care provider aimed at discussing the HIV test and the possible implications for the client of knowing his/her HIV status, which leads to an informed decision to take, or not to take, the test

Post-test counselling is used to explain the result of the test. It provides additional information on risk-reduction measures—including prevention options for individuals who have tested negative—and it encourages people with high-risk practices or who may have been tested during the window period to come again for testing. The aim of post-test counselling for those who have tested HIV-positive is to help them cope psychologically with the result of the test and understand the services (including treatment and care options) that are available to them. This serves to encourage HIV-positive people to adopt prevention measures to avoid transmission of HIV to their partners and to begin a discussion about issues around disclosure and partner notification. Post-test counselling should be linked to onward referral to care and support services, including antiretroviral therapy, tuberculosis services and family planning (if applicable). Post-test HIV/AIDS counselling is a dialogue between a client and a health care provider aimed at discussing the HIV test result and providing appropriate information, support and referral, and at encouraging behaviour that reduces the risk of becoming infected, if the test is negative, or reduces the risk of transmitting HIV to others, if the test is positive.

On-going or Follow –up Counselling

In Nigeria, HIV counselling and testing centres established have increased over time from about m 170,000 in 2009 to more than 670,000 in 2012. HIV counselling and testing helps to generate data for monitoring HIV prevalence and provides a critical opportunity for clients to be linked to other reproductive health, TB treatment and PMTCT programs.[5,11]

2.3 HIV Status Disclosure

Disclosure" is a neutral term. In the context of HIVAIDS, it refers to the act of informing any individual or organization (e.g. health authority, employer, school) of the HIV status of an infected person, or it refers to the fact that such information has been transmitted, by any means, by the person him or herself, or by a third party, with or without consent.

HIV status disclosure part of HIV Counselling, HIV positive individuals are told about the importance of status disclosure and its attendant benefits. Beneficial status disclosure is advised. Current laws in Nigeria criminalize the non-disclosure of HIV status to sex partners. [27] Decisions on If to disclose HIV status, to who, when and how are often difficult for people living with HIV. This is because despites the benefits: treatment support, freedom to take drugs relief of stress and the risks of non-disclosure: imprisonment, and fines; status disclosure may also be followed by rejection, loss of relationships, stigma and discrimination.[13] Kimberly has developed a useful framework to describe the decision-making process for disclosure. The framework outlines a six-step process that includes dilemmas, barriers and decisions at each step.

By expanding our definition of disclosure from the outcome to the process we can acknowledge and appreciate the numerous factors that influence the decision to disclose, including individual psychological state, personal communication skills and communication patterns, anticipated

reactions and individual motivations for disclosure. We can also think of multiple levels of interventions to help support individuals through the process.

The first step is adjustment to the diagnosis. At this stage in the disclosure process, individuals may need help adjusting to their diagnosis and reaching a level of personal acceptance.

The second step involves an evaluation of personal disclosure skills. Individuals need to evaluate whether they possess the skills necessary for telling others.

The third step involves evaluating the appropriateness of disclosing to a potential recipient. This process involves taking inventory of one's social network and deciding on an individual basis who should be told taking into account certain criteria such as role and physical distance from that recipient.

The fourth step is evaluating the circumstances for disclosure. There may be certain circumstances that prohibit disclosure to certain individuals.

Anticipating the reactions of the potential recipients is the next step in the process. Individuals need to weigh these anticipated reactions with the anticipated benefits of disclosure to each individual.

Finally the sixth step individuals identify their motivation for disclosure to each recipient. The proportions of people living with HIV that disclose their status vary according to gender, educational level age, socioeconomic status, country and many other variables.[21,31,38] Figures reported in Africa vary from 16.7% to 92.5% with recent studies reporting values of less than 90%.[21,38,56,57] Disclosure is multi-faceted and is often considered by the type of disclosure (full/partial/non) and the person disclosed to in which case studies are centred around: disclosing

to anyone, disclosing to one's sexual partner and disclosure of one's HIV status, or a child's HIV status to a child.

2.3.1 Disclosure to others

This involves any disclosure at all. It is an umbrella term for the other types of disclosure. It is also indicative of the amounts of perceived stigma and discrimination. It may be full disclosure where one goes public with their status, or partial disclosure where one shares their status with a trusted few. Sometimes disclosure is involuntary—one's HIV status is disclosed without one's consent-- but this is a violation of human rights and is discouraged.[58]

2.3.2 Disclosure to sex partners

Disclosure to sexual partners is important because it fosters openness and creates an opportunity for couples to discuss the issue of HIV prevention issues, plan for the future, make choices on how to protect their children from the virus and to access PMTCT programs and plan for and engage in safer sex.

1. Benefits of HIV status disclosure to sexual partners

In addition to the public health benefits of disclosure that include expanded awareness of risk that may lead to decreased sexual risk-taking and ultimately decreased transmission of HIV, there are also potential benefits to the individual who chooses to share results with his/her sexual partners.

2. Risks of HIV status to disclosure to sexual partners

The individual benefits that women may receive from sharing HIV test results with their partners need to be balanced against the potential risks that an individual woman may face if she discloses. The potential risks of HIV status disclosure to sexual partners include: Loss of

economic support Blame Abandonment Physical and emotional abuse Discrimination Disruption of family relationships.

Another potential risk of disclosure is the possibility that children may face violence or abandonment as a result of their parent's disclosure of their positive status whether or not the children are also HIV-positive

Increased opportunities for instrumental and expressive social support Improved access to necessary medical treatment and care Increased opportunities to discuss and implement HIV risk reduction with partners Increased opportunities to plan for the future carefully. The high rates of non-disclosure of HIV status to casual sexual partners coupled with low levels of correct consistent condom use, dramatically increase the chances of HIV spread in unprotected sexual encounters with casual partners. In studies that compare overall disclosure to disclosure to sexual partners, the rates of disclosure to sexual partners are lower.[21,38]

However, a study done in North-Eastern Ethiopia on disclosure to sexual partners found that the 93% of the people living with HIV had disclosed to their sex partners.[30]A study done in Uganda found that 69%of people living with HIV had disclosed to sex partner.[59] Studies in Kenya, Namibia and Tanzania found that 80% of people living with HIV had disclosed their status to their partners.[57] In Nigeria the proportion of people living with HIV that disclose to their partners is lower. In South-Western Nigeria, a study conducted showed that 76% of people living with HIV had disclosed their status but disclosure to sexual partners was 51%.[60] a study on disclosure to 'steady sex partner' done in Togo found that 61% had disclosed their Hiv status to their steady sex partners and disclosure was associated with being married or considering themselves to be a couple.[61]

2.3.3 Disclosure of one's diagnosis to a child or a child's diagnosis to themselves school

One of the successes of the global HIV response is the fact that more people living with HIV are living longer. The use of antiretroviral therapy has improved longevity for HIV positive people. That implies that:

1. Many adults living with HIV have to disclosure their status to their children.

2. Caregivers of children who were perinatally infected will need to be disclose their Hiv status to them. Disclosure of HIV status to a child living with HIV or disclosure of a parent's HIV status to a child has the attendant double-edge nature of promising benefits with risks of rejection. The WHO Guidelines for age1 should be told their HIV positive status; younger children should be told their status incrementally to accommodate their cognitive skills and emotional maturity, in preparation for full disclosure. Strong recommendation, low quality of evidence.

3. Children of school age should be told the HIV status of their parents or caregivers; younger children should be told this incrementally to accommodate their cognitive skills and emotional maturity. Conditional recommendation, low quality of evidence.

4. The decision on who will disclose to the child should be guided by the intent to improve/promote the child's welfare and minimize the risk to his or her well-being and to the quality of the relationship between child and parent/caregiver. Conditional recommendation, absent evidence.

5. Initiatives should be put in place to enforce privacy protection and institute policy, laws and norms that prevent discrimination and promote tolerance and acceptance of people

living with HIV. This can help create environments where disclosure of HIV status is easier. Strong recommendation, low quality of evidenc1. Children of school age1 should be told their HIV positive status; younger children should be told their status incrementally to accommodate their cognitive skills and emotional maturity, in preparation for full disclosure. Strong recommendation, low quality of evidence.

6. Children of school age should be told the HIV status of their parents or caregivers; younger children should be told this incrementally to accommodate their cognitive skills and emotional maturity. Conditional recommendation, low quality of evidence.

7. The decision on who will disclose to the child should be guided by the intent to improve/promote the child's welfare and minimize the risk to his or her well-being and to the quality of the relationship between child and parent/caregiver. Conditional recommendation, absent evidence.

8. Initiatives should be put in place to enforce privacy protection and institute policy, laws and norms that prevent discrimination and promote tolerance and acceptance of people living with HIV. This can help create environments where disclosure of HIV status is easier. Strong recommendation, low quality of evidence.

2.4 HIV Status Disclosure Knowledge among People Living with HIV

Despite the fact that some studies have been done on disclosure few of them examined the knowledge of people living with HIV on disclosure. In 2013, one researcher noted that she was unable to find studies that appraise this. In that study done in Namibia however, she found that 68% of the people living with HIV had good knowledge on HIV status disclosure.[62] A study done in Tanzania found the proportion of people living with HIV with good knowledge on

disclosure to be 61%.[63] Knowledge of HIV status disclosure among people living with HIV informs disclosure decisions. Studies have found that most people living with HIV have been told of the importance HIV disclosure.[62,63] In Namibia found that despite this many of them still think disclosure is unimportant.[62] In Zimbabwe, a study found that 83%of the women living with HIV had good knowledge of HIV disclosure.[64]

2.5 The Role of Socio-Demography in HIV Disclosure

The proportion of people living with HIV that disclose their HIV status is found to vary according to their socio-demographic characteristics namely: age, sex, sexuality, occupation, level of education, socio-economic status, marital status, place of residence (urban or rural), religion and ethnicity. However, early studies on HIV status disclosure among People living with HIV have shown marked differences on the associations between these characteristics and the disclosure choices of people living with HIV.

The effect of age on HIV status disclosure for instance has been noted in a number of studies. While some studies find that HIV status disclosure is more likely among the older age groups, others have found that it is more likely among the younger ones. A study done in Northern Nigeria found that people living with HIV who were less than forty years old were more likely to disclose than those who were forty years old and above.[21] On the contrary, a study done in Tanzania found that among people living with HIV above thirty years of age were more likely to disclose than those thirty years old and younger.[25] A study in Uganda found that the mean age of those that disclosed was seven years more than the group who had not disclosed, meaning younger people are less likely to disclose.[65] Studies in Namibia, however, age was not found to be significantly associated with HIV status disclosure.[62]

Gender differences in HIV status disclosure among people living with HIV vary according to country and region. A study done in Southern Nigeria however found that males were more likely to disclose.[66] Another study conducted in the same region eight years later found that though males were more likely to disclose, it was not statistically significant.[66] females where more likely to disclose than males in a study done in Southern Nigeria.[38] Females were also found to be more likely to disclose in a study done in South-Western Nigeria.[67] In studies done in Tanzania, Congo, North-Eastern Nigeria, and Uganda rates of disclosure were found to similar between males and females, differences in gender was found to be insignificant.[65]

The role of occupation in HIV status disclosure has not been well studied. This might be due to the fact that so many different types of occupations exist and when they are all lumped together, the variance among groups is disguised. However studies showing that employment status is not significantly associated with disclosure include those done in Ghana, North-Eastern Nigeria. Employed people living with HIV were found to be more likely to disclose in a study done in Ghana.[56]

Marital status has been shown to be an important determinant in the disclosure choices of people living with HIV. People who are married or co-habiting have been found to have higher rates of disclosure than those who had never married, were separated, engaged, widowed or divorced. A study done in Namibia found higher rates of disclosure among the married and cohabiting.[62] A study done in Togo found that those who were married were more likely to disclose.[61] However, in some studies done in Northern Nigeria, marital status was not found to play a role in HIV status disclosure.[21] The role of marital status in disclosure points to the fact that people living with HIV are more likely to disclose to people with whom they have a stable relationship and who they perceive will be supportive to their care and treatment process. Non-disclosure is more

likely when people living with HIV find themselves in casual, transient and non-binding relationships.

Residence has been found to influence serostatus disclosure among people living with HIV. Studies have found that people who reside in urban areas are more likely to disclose their status than those in rural areas. This might be due to the fact that rural areas tend to have lower population densities and close knit communities were sigma and discrimination would have crippling effects. Urban dwellers are more likely to disclose because they are typically in a diverse and dynamic environment where awareness of HIV is higher and attitudes towards people living with HIV are more likely to be favourable.

The role of religion in HIV status disclosure is unclear. While some studies done in North-Eastern Nigeria and Tanzania found it to be insignificant.[21,63] Studies done in Britain, Tanzania and have found that there are differences in HIV status disclosure among people living with HIV in different religions. A study done Ghana found that Christians were less likely to disclose and that among Christians, male and female Pentecostal Christians were least likely to disclose. This was however found to be statistically insignificant. A study done in Tanzania found that Roman Catholics were less likely to disclose, but again, it was not statistically significant.[63]

Ethnicity has been found to influence HIV disclosure in a study done in the United Kingdom.[68] Studies in Africa however did not find any significant difference in the disclosure rates of the different tribes they studied. A study in South-Western Ethiopia considered several tribes in his study but did not find any significance.[24] Another study in South-western Nigeria studies the difference in Yoruba, Hausa, Igbo and other tribes but found no difference.[60]This was also the situation in a study done in Mekelle, Ethiopia where respondents were found to belong to either

the Tigray or Amhara ethnic group but there was no significant difference among them.[69] Studies done in Southern Nigeria and South-Eastern Nigeria also found no association between HIV status disclosure and ethnicity.[38,70]

Level of education has been shown to influence disclosure in many studies. People living with HIV who are better educated are more likely to disclose than those who aren't.[32] A study done in Southern Nigeria found that people living with HIV who had tertiary education were more likely to disclose than those with secondary or primary education.[38] A study done in Uganda among women found higher disclosure rates in those who had a minimum of secondary school education.[71] This finding agrees with a study done in Ethiopia that found that the rates of disclosure were higher among people living with HIV that had higher education were more likely to disclose.[26] A study done in found that disclosure was higher among those with secondary education.[56] However, some studies found that level of education did not play a role in HIV status disclosure.[21,25,60]

Socio-economic status is related to education as more educated people tend to earn more than people who have never been to school. A study in showed that women in the higher socio-economic group were less likely to disclose. A study on non-disclosure carried out in Ethiopia found disclosure rates to be higher in women that were in the higher socio-economic group.[28] The sole of socio-economic status in disclosure shows how important poverty is in creating an environment for HIV spread. With increase income, people are less dependent on other for support and are better empowered to face the consequences of HIV status disclosure and thus are more likely to disclose.[22] People with higher socio-economic status may however feel the need to conceal their status for fear of mockery or discrimination among their peers.

Socio-economics also plays a role in HIV status disclosure rates among countries. Countries with higher Gross Domestic Product (GDP) tend to have higher disclosure rates than those with lowers GDP.[72] Disclosure rates of up to 100% have been reported in countries like the United States of America and India.[72] Studies have found that HIV status disclosure is to be lower among females living with HIV than males, those of lower age, the unmarried and those in countries with lower income.

2.6 HIV Disclosure and HIV Related Characteristics

Relationships have also been found between the HIV-related characteristics of people living with HIV and disclosure. Studies have shown that people living with HIV who receive pre and post-test counselling are more likely to disclose than those who didn't receive counselling.[23,65] People living with HIV tested in the antenatal clinics or as part of PMTCT programs were less likely to disclose.[26,65] Those tested in voluntary counselling and testing clinics are more likely to disclose than those who are tested in antenatal clinics or PMTCT programs.[26,65] a study done in Uganda found that though having pre or post-test counselling increased the likelihood of disclosure it was not statistically significant. The same study however found that on-going counselling, on the other hand, made people three times more likely to disclose their status. The type of pre/post-test counselling has also been shown to influence HIV status disclosure. People living with HIV who were having ongoing counselling were more likely to disclose.[65] People living with HIV who had group counselling were less likely to disclose.[64] Those who had coupled counselling were more likely to disclose than those who were counselled alone. Early disease, being asymptomatic, knowing one's diagnosis for a year or less and absence of opportunistic infections have been associated with higher levels of non-disclosure.

2.7 Patterns of HIV Status Disclosure

The pattern of HIV status disclosure describes the process of HIV status disclosure and examines the information available. It refers to the choice of person(s) to disclose to, how long it takes people living with HIV to disclose after diagnosis, why they disclose, how they disclose, how they feel after disclosure. In Nigeria, the HIV status disclosure model is voluntary self-disclosure. This gives the people living with HIV freedom to decide if to disclose, when, why, to whom and how. The people living with HIV have to decide if the benefits of disclosure outweigh the risks, determine who they want to disclose to and when that will happen.

After a positive HIV test, people living with HIV are counselled on disclosure and encouraged to identify people they wish to disclose to. The emphasis is on beneficial disclosure and the wellbeing of the person living with HIV. The timing of disclosure of HIV status ranges from those that disclose on the same day to those conceal their status for as long as they live. Disclosure of one's HIV status within 24 hours is described as early disclosure. Disclosure that occurs more than 24 hours after a positive test is regarded as delayed. Disclosure is also said to be delayed if the person living with HIV has engaged in sexual acts with another person before disclosing their status. Studies show that most people living with HIV practice delayed disclosure which is disclosure after 24 hours or after engaging in sexual intercourse. A study in Ethiopia found that 84% of people living with HIV disclosed their HIV status 'immediately'.[24] Another study in Ethiopia found that 73% of those who disclosed their status did no on the same day.[32] A study conducted in North-Eastern Nigeria found that 71% of people living with HIV disclosed their status the same day.[21] A study in South-western Nigeria found that 49% of people living with HIV that disclosed their HIV status did so on the same day.[60] A study done in Tanzania found that 15% of the disclosure event recorded were not delayed but did not state the

time used for the this assessment.[25] A similar study done in Ethiopia that considered disclosure to sexual partners found that disclosure was delayed in 29% of cases, but the cut-off point for early disclosure was not stated.[26] A study in Tanzania reported a delayed disclosure rate of 15% but did not define the term.[25] Another study is South-West Ethiopia found HIV status disclosure among people living with HIV to be delayed in 14% of cases when delayed disclosure was defined as disclosure that occurs after a sexual act.

People living with HIV have different motivations for disclosing their HIV status to others, common reasons include, a close relationship with the confidant, and a desire for emotional, financial or treatment support. A study in North-Eastern Nigeria found that the main reasons for HIV status disclosure among people living with HIV was to gain support, to gain sympathy and to adopt protective sexual practices.[21] A study in Southern Nigeria found the main reasons for HIV status disclosure among people living with HIV to be expectations of spiritual ,economic ,emotional and social support.[38] A study in South-West Ethiopia found the most common reason for disclosing HIV status in people .living with HIV of both sexes to be transparency ('it is common to tell my partner everything').[28] A study in Ethiopia found the main reasons for disclosure were to get support, to be able to adhere to anti-retroviral therapy, and to protect their sexual partner from getting infected.[26] the Need for help, desire for partner to test and desire to explain ill health to relatives were the most important reasons given by people living with HIV for disclosing their status in a study done in Namibia.[62] of the people living. A study conducted in India mentioned that people living with HIV disclosed because healthcare workers asked them to.[19] Studies in Sothern Nigeria and North-Eastern Nigeria documented the desire for prayers and spiritual support as being reasons for disclosure.[21,38] because they wanted prayers and because they wanted to be excused from certain types of work.

People living with HIV are bound by law to disclose their status to their sexual partners. However, there is a wide range of choices in the persons they decide to disclose to. People living with HIV decide to disclose their status to people who they: trust, share a close relationship with, believe will maintain confidentiality and to those that can offer them financial, emotional or treatment support. The people commonly disclosed to are: one's spouse, sexual partner, parent, sibling, other relatives, friends, religious leaders, family doctor, co-worker, or boss. The preferred persons for people living with HIV to disclose to differ. Studies in Ethiopia and North-Eastern Nigeria found that the preferred person to confide in was one's spouse.[21,69] A study in Nigeria's South-South region and others in Ethiopia, Uganda and Tanzania found that people living with HIV preferred to disclose to family members.[24,25,65,66] A study in South-Western Nigeria found that people living with HIV preferred to disclose to their sexual partners.[60] People living with HIV preferred to disclose their pastors in a study done in Nigeria's Southern region.[38]

2.8 HIV Non-Disclosure Determinants

The determinant of disclosure and non-disclosure are inversely related, that is, whatever makes people in one group more likely to disclose will make those in the other group less likely to disclose. Most studies on HIV status disclosure have focused on identifying the factors associated with disclosure even though non-disclosure is the problem that needs to be solved. . Factors associated with non-disclosure however have only been examined in few studies and even then many of these studies were not done among both genders. Non-disclosure is the undesirable effect of the barriers and anticipated negative outcomes of status disclosure by people living with HIV. Non-disclosure is associated with the people living with HIV's socio-demographic characteristics, HIV related characteristics, and the quality of disclosure information they receive. Non-disclosure has been associated with lower age, female gender, and

lower levels of education, religion, socioeconomic status and country of residence. Non-disclosure has also been associated with fear of negative outcomes, poor health, and advanced stage of the disease. The amount of knowledge on disclosure, having disclosure counselling and thinking disclosure is important are also factors associated with non-disclosure.

2.9 Barriers to HIV Status Disclosure

Studies have reported various barriers to disclosure of one's HIV status. The WHO through the UN Joint Programme on HIV (UNAIDS) advises that responses to the challenge of HIV/AIDs prevention be made with attention to the peculiar epidemiological needs of that environment. An assessment of the barriers to disclosure provides important information for prevention program policies and decisions. When barriers are known, then ways to overcome them can be developed.

2.9.1 Stigma and discrimination

Stigma is derived from a Greek word meaning a mark or stain, and it refers to beliefs and/or attitudes. Stigma can be described as a dynamic process of devaluation that significantly discredits an individual in the eyes of others, such as when certain attributes are seized upon within particular cultures or settings and defined as discreditable or unworthy. When stigma is acted upon, the result is discrimination. Discrimination refers to any form of arbitrary distinction, exclusion or restriction affecting a person, usually (but not only) because of an inherent personal characteristic or perceived membership of a particular group. It is a human rights violation. In the case of HIV, this can be a person's confirmed or suspected HIV-positive status, irrespective of whether or not there is any justification for these measures. The terms stigmatization and discrimination have been accepted in everyday speech and writing, and they may be treated as plural.

Eliminate HIV-related stigma, discrimination, punitive laws and practices HIV-related stigma and discrimination persist as major obstacles to an effective HIV response in all parts of the world, with national surveys finding that discriminatory treatment of people living with HIV remains common in multiple facets of life, including access to health care. In 2012, 61% of countries reported the existence of anti-discrimination laws that protect people living with HIV.

The proportion of countries reporting the existence of HIV-related legal services increased from 45% in 2008 to 55% in 2012, but the frequent lack of accessible legal services means that many instances of HIV-related discrimination are never addressed. As of 2013, 63 countries have in at least one jurisdiction specific provisions that allow for the prosecution of HIV non-disclosure, exposure and/or transmission. Criminalisation of key populations also remains widespread, and 60% of countries report having laws, regulations or policies which present obstacles to effective HIV prevention, treatment, care and support for key populations and vulnerable groups Since 2010, eight countries, territories or areas have eliminated restrictions on entry, stay and residence for people living with HIV. However, eliminating the remaining HIV related restrictions on freedom of movement will require intensified action to remove such counterproductive and discriminatory laws that remain in force in 44 countries. Removing HIV-related restrictions to entry, stay and residence is a priority for both symbolic and practical reasons. In addition to reflecting and reinforcing the stigma and discrimination that impedes an effective AIDS response, such restrictions also impose severe hardship on many people living with HIV.

Increasingly, business leaders are encouraging countries to repeal HIV-related travel restrictions on economic grounds, arguing that in a globalized world companies require flexibility to recruit and deploy workers where they are most needed.

HIV-related stigma and discrimination persist as major obstacles to an effective HIV response in all parts of the world. The People Living with HIV Stigma Index and other research have quantified and enhanced understanding of the prevalence and impact of stigma and discrimination, with a notable share of people living with HIV reporting having encountered employment discrimination and denial of family planning, dental and other health services.

Effects of stigma and discrimination

Numerous studies have linked HIV-related stigma with delayed HIV testing, nondisclosure to partners and poor engagement with HIV services.[1-4] Stigma and discrimination persist within many health care facilities, with people living with HIV experiencing judgemental attitudes from providers and refusal of services. There have been numerous reports of involuntary sterilization of women living with HIV, including instances that resulted in legal action in several countries, such as Chile,[5] Kenya[6] and Namibia.[7] People who experience stigma and discrimination report a range of negative effects, including loss of income, isolation from communities and inability to participate as a productive member of society as a result of their HIV status. According to surveys conducted via the People Living with HIV Stigma Index, instances of stigma and discrimination exact profound psychological costs, resulting in feelings of guilt, shame and suicidal thoughts. As a result of the pernicious effects of stigma and discrimination, on both people living with HIV and the effectiveness of HIV programmes, the Global Commission on HIV and the Law urged that countries take immediate steps to repeal punitive laws and prohibit discrimination.

Programming to reduce HIV stigma

Anti-stigma programmes are most effective when they simultaneously address individual, organizational and public policy factors that enable stigma and discrimination.[21] Evidence

indicates that anti-stigma programming reduces social isolation and improves HIV treatment adherence.[22] Given the particularly serious effects of discrimination within health care settings on people living with HIV, intensified efforts are needed to reduce stigmatizing attitudes and behaviours among health care workers.

Eliminate HIV-related stigma, discrimination, punitive laws and practices

A recent systematic review found that, over the last decade, the evidence base for effective programming to reduce stigmatizing and discriminatory attitudes has expanded substantially.[23]

Notwithstanding the clear benefits of anti-stigma efforts to HIV responses, such programming remains badly under-resourced. Although the proportion of Global Fund grants that include activities addressing stigma and human rights increased from 13% in Round 8 to 62% in Round,[10] a review determined that anti-stigma activities are frequently not integrated into grant work plans, budgets or performance frameworks.2 Nearly all countries that reported results of mid-term reviews (103 of 109) identified eliminating stigma and discrimination as a national priority, with 99 having integrated this target in their national HIV strategic plans. Although national mid-term reviews reflect clear recognition of the harmful effects of stigma and discrimination on national HIV responses, 62% of countries in Eastern and Southern Africa and 50% of countries in Asia and the Pacific report that they are not on track to eliminate stigma and discrimination. In addition to a shortage of strategic information on stigma and discrimination and insufficient enforcement of anti-discrimination provisions that are in place, national mid-term reviews also cited the inadequacy of resources for programmes to address stigma and discrimination as a major impediment to achieving zero discrimination. The majority (54%) of the 133 countries reporting HIV spending did not invest at all in human rights programmes and, out of those that did invest, only eight spent more than 1% of the total budget on these

programmes. Urgent efforts are needed to review national legal and policy frameworks to assess their adherence to human rights principles, revising or repealing laws as needed to ensure a rights-based response that provides equitable access to essential HIV programmes.

Every national response needs to address stigma and discrimination and increase access to justice. Through education and awareness-raising, responses should address the causes of stigma and discrimination, including irrational fears of infection and moral judgement. As recommended by the Global Commission on HIV and the Law, particular attention needs to focus on the removal of punitive laws regarding key populations. Legal frameworks need to be complemented by robust, sustained investment in anti-stigma programming that works to forge healthier social norms of inclusion, tolerance and non-discrimination. Much greater investment in enforcement mechanisms for antidiscrimination laws is needed, including support for legal services for people living with HIV and members of key populations, as well as programmes that educate people living with or affected by HIV regarding their rights. Efforts to eliminate stigma and discrimination must reach beyond traditional health stakeholders and engage all arms of government, including legislative and judicial branches, as well as civil society and people living with HIV. Steps are also needed to inform and sensitize those who make the laws (parliamentarians) and those who enforce them (Ministers of Interior and Justice, police, prosecutors, judges, lawyers, prison officials and traditional and religious leaders) regarding human rights in the context of HIV.

2.9.2 Fear as a barrier to HIV status disclosure

The role of fear in HIV non-disclosure has been well documented. People living with HIV are often afraid to disclose their status and many times the exact nature of that fear is hard to

describe.[33,62,73] Fear has been described as a barrier to HIV status disclosure in all studies on disclosure barriers. The nature of the fear however varies with time, person and place.

A study done in Nigeria's South-South found the barriers to HIV serostatus disclosure to include fear of stigmatization, fear of loss of confidentiality, fear of accusations of infidelity, victimization, and abandonment.[38] Another study done in Ghana found that fear of divorce or separation, fear of a violence from sexual partner, fear of a partner becoming angry and worry about sexual infidelity accusations were important reasons why people living with HIV.[56]

A study done in Ethiopia sought to find gender differences in HIV status disclosure barriers. That study found that men were concerned about their partner's worry and possible exposure of their own infidelity. While women feared physical violence, as well as social and economic pressure in raising their children.[28] Another study, among female people living with HIV in Ethiopia that found the most common barriers to HIV status disclosure to be The most common barriers to disclosure mentioned by the women include, fear of abandonment, fear of stigma ,fear of rejection, fear of losing confidentiality, fear of embarrassing one's family and fear of infidelity accusations.[31]

A study in Ethiopia found that barriers to disclosing included fear of partner's reaction, not wanting to worry one's partner and not having an opportune time to disclose.[31] A study done in Ghana found fear of stigma and discrimination to be the major barrier to HIV status disclosure in both sexes.[56] In addition to the aforementioned reasons, a study done in South-western Nigeria found fear of divorce and perception of HIV infectivity o be major reasons for non-disclosure. A study in India found fear of shame in family and fear of children being out casted to be major barriers to disclosure.[19] In South-Western Nigeria, a study found that fear of domestic violence

was the main barrier to HIV status disclosure.[60] A study done in Ethiopia on disclosure to sex partners found that the main barrier to HIV status disclosure to a sexual partner was perceived lack of communication skill to disclose.[26]

2.10 HIV Disclosure Consequences

The consequences of HIV status disclosure are important for many reasons: they help monitor trends in stigma and discrimination towards people living with HIV, they influence the decisions of other people living with HIV on whether to disclose or not, they can help highlight the losses people living with HIV suffer after disclosure and the areas where people living with HIV most need support, they can cumulatively provide information on how open the community is to discourse on HIV prevention. The consequences or outcomes of HIV status disclosure among people living with HIV are studied by comparing anticipated outcomes/reactions to initial reactions/outcomes and to subsequent reactions and outcomes. Reactions refer to the ways people behave after they are made aware of the HIV status of a person living with HIV, These reactions include, sadness, shock, disbelief, fear, anger, silence, indifference, mockery, blame and anxiety. The outcomes refer to the actions taken by the people disclosed to and are classified as negative and positive outcomes. Positive outcomes include: treatment support, emotional support, acceptance, kindness, spiritual support, financial aid, care and affection. Negative outcomes include: indifference, blame, stigma, rejection, gossip, violence, separation and divorce. Indifferent reactions, silence, or denial are classified as negative outcomes because they do not satisfy the goal of beneficial disclosure.

Negative consequences of disclosure: discourage other people living with HIV from disclosing their status, hinder the people living with HIV from sharing their status with others, and infringe on their human rights. In communities were HIV status disclosure has negative outcomes, people

living with HIV will not be encouraged to avoid disclosing their status to others. This in turn will create an environment for new HIV infections and missed opportunities for prevention.

Studies have reported varying rates of positive and negative outcome so HIV status disclosure. A study done in Tanzania found that 76% the outcomes of HIV status disclosure were positive. A study in Southern Nigeria found that 90% of people living with HIV that disclosed their status received positive outcomes.[33] In South-Eastern Nigeria the positive outcomes were recorded among 81% of the respondents.[70] In Namibia, 81% of respondents report receiving positive outcomes such as acceptance, support and help.

Older studies done in India, Rwanda, South Africa and Kenya show the consequences of disclosure were extremely negative and women reported physical assault, divorce, isolation and deteriorating marriages.[22,23] A study done in northern Nigeria found that over time, positive responses towards HIV status disclosure changed and became negative.[34] This implies that the outcomes of disclosure can change over time and reflect the need for more study on the nature, pattern and trends in disclosure outcomes.

CHAPTER THREE

METHODOLOGY

3.1 Study Area

Akwa Ibom State is located in Nigeria's South-South zone, the former South-eastern axis, a region also known as the Niger Delta where most of the country's crude oil is found. It is part of the South-South Geo-political zone. It is also Nigeria's ninth most populous state. Trigonometrically, Akwa Ibom State lies between latitude 40 32' and 50 53' North; and Longitudes 70 25' and 80 25' East. It has a land mass of 8,412 sq.km, bounded to the north by Abia State, to the east by Rivers State, to the west by Cross River State, on the sandy coastal plain of the Gulf of Guinea and to the south by Atlantic Ocean. Annual rainfall is 2000mm/annum.

The state's 2015 projected population was 5,272,029 of which 4,217,623 were rural and 1,054,029 were urban. The projected under five populations for the state for 2015 was 645,812. The male to female ratio is 50.82: 49.18; out which 85% live in the rural areas. The state is made up of 31 Local Government Areas, further divided into 329 political wards. Uyo is the Capital City; other urban cities are Ikot Ekpene, Eket, Abak, Ikot Abasi and Oron. The state is made up of a number of ethnic groups; Ibibio, Annang, Oron and other minor groups. With an ocean front which spans a distance of 129 km coastline which is not only the longest in the country, but is also a very rich source of a wide variety of fishes and seafood. The State is endowed with Mineral Resources, including Crude oil, natural gas, limestone, gold, salt, coal, silver nitrate, glass sand, kaolin. As the largest producer of crude oil in Nigeria, Akwa Ibom State is one of the most important economic resource bases of the Nigerian Nation. The State is host to Mobil Producing Nigeria Unlimited, a subsidiary of Exxon Mobil Corporation, Aluminum Smelter

Company of Nigeria (ALSCON), Champion Breweries, Nigeria Newsprint Manufacturing Company (NNMC) among others.

The state has a total of 2 tertiary health facilities, 43 secondary health facilities with 348 primary health centres. The state also has 12 mission hospitals and 260 private health facilities; 40 registered pharmacies and 260 registered Patent Medicine vendors. [6]The life expectancy at birth is 49 years while the disability adjusted life expectancy at birth is 38.3years. Statistics from the National Demographic and Health Survey (NDHS) 2008 place the Under 5 mortality - 138/1000 pop; Maternal Mortality Ratio - 545/100,000; Total Fertility Rate - 4.6. The 2015 HIV Sero-Prevalence Rate is 6.4%. Ikot Ekpene town is about 121kmsq and its 2015 projected population was 180,000. The people in the town are mostly farmers, traders and motorcycle riders. The main crops planted are cassava, vegetable and cocoyam. It is also known as the Raffia city.

General hospital Ikot Ekpene is the largest secondary health facility and has the highest out-patient and in-patient patronage every year. The hospital was established in 1914 and has been a key part of the region's healthcare delivery system from colonial times. The hospital is a 200 bed facility that also serves as a training centre for house officer and a referral centre for the Primary Health Centres, Cottage hospitals and comprehensive hospitals in the state. The hospital administration is structured with a Medical Superintendent heading the facility administrative team; other members of the hospital administration include the hospital secretary, head of Nursing services, head of Laboratory Services and head of Pharmaceutical services. There are four clinical departments in the hospital. They include Medicine, Surgery, Paediatrics and Obstetrics and Gynaecology. They also have laboratory services, dental services, an accident and emergency unit, radiology unit, special care baby unit and a mortuary. In addition to other medical services, the hospital provides a comprehensive HIV services which include HIV

counselling and testing (HCT), Adherence Counselling, and a Youth-friendly centre, Prevention of Mother to Child Transmission (PMTCT), antiretroviral therapy (ART), Post Exposure Prophylaxis (PeP) program and TB referral services. HIV care and treatment services began in the hospital in 2007 and over 8,000 people living with HIV are currently registered. The Family Health Initiative 360 (FHI 360) supports the HIV counselling, testing and treatment in the hospital. Antiretroviral drugs are provided free to all HIV patients in the hospital.

3.2 Study Design

The study is a descriptive cross-sectional study.

3.3 Study Population

The study population is the people living with HIV/AIDS receiving care and treatment at General Hospital Ikot Ekpene.

3.3.1 Inclusion Criteria

People living with HIV 18 years old and above, who were receiving care and treatment at General Hospital Ikot Ekpene.

3.3.2 Exclusion Criteria

This comprised of all persons that were:

1. Too sick to be interviewed
2. Those that have known their HIV status for less than one month.

3.4 Sample Size

Sample size was determined using the Leslie and Kish formula

$n = Z^2pd/d^2$

where:

n is sample size

Z is the value of a standard normal deviate corresponding to a significance level of 95%

p is the expected proportion of the population that has disclosed their HIV status

q is 1-p

d^2 is absolute precision which is significant at 0.05

Using a prevalence of 77% which was obtained in a study among people living with HIV in Bayelsa state, the sample size is:[38]

1.96^2x.77x.23/0.05^2

= 270

Provision was made for a non-response rate of 10% using the formula

n/1-nr

= 270/1-0.1

=270/0.9

=30

Which brought the sample size to 300

3.5 Sampling Technique

Subjects were recruited using systematic random sampling. The sampling frame was drawn from the list of clients expected at the HIV counselling unit on the consultation day. Approximately 2,400 patients attend clinic every week, factoring in the sample size of 300, based on this every sixth patient was invited to participate in the study. All those that consented where then interviewed.

3.6 Data Collecting Tools and Technique

Data were collected using structured pre-tested interviewer administered questionnaires. The questionnaire was adapted from similar studies done on HIV status disclosure done in Tanzania and Nigeria.[21,63] The questionnaire was pretested among people living with HIV receiving care in the community ART program. After the pre-test, issues noted were addressed, for example, the respondents complained that the questionnaire took too long to fill and the research assistants suggested that they should be given incentives to participate. The questionnaire was structured into the following sections: socio-demographic variables, knowledge on HIV transmission, HIV-related characteristics, disclosure information and sex partner characteristics. Research assistants were drawn from a pool of expert clients working in General Hospital Ikot Ekpene as support staff. Volunteer expert clients were trained on the administration of the questionnaire. The research assistants were also trained on requesting consent, improving response rate and cross checking their work in order to improve the data quality.

3.7 Data Management

Data were collated, checked for completeness, cleaned, entered and analyzed using appropriate statistical software. Frequencies and proportions of the socio-demographic variables and other HIV-related variables were calculated. Bivariate analysis was done to determine the factors associated with HIV status non-disclosure. Statistically significant variables were then entered into a multinomial logistic regression model to adjust for confounding and identify true significance in observed associations. Data was stored in password protected systems with two levels of security. Questionnaires were stored in a secure place.

3.8 Ethical Considerations

Ethical clearance was sought and received from the Akwa Ibom State Ministry of Health. Permission was sought from the Medical Superintendent of General Hospital to conduct the study in their facility. Consent was sought and obtained from all participants. Participants who consented were appreciated for time spent. Participant's confidentiality and anonymity was maintained throughout the process. Participants were assured that refraining from the study would not in any way influence the quality of their care and treatment. No harm was done to any of the participants in the course of the study.

3.9 Limitations

Being a hospital based study, the findings may not be readily generalizable to larger populations. Also the data was self-reported and variations might occur between the reports and the practice.

CHAPTER FOUR

RESULTS

These are the results of the study conducted on the consequences of HIV status disclosure among people living with HIV registered in General hospital Ikot Ekpene in 2016. The response rate for this study was 100%. 300 people living with HIV were recruited and all agreed to participate. The aim of the study was to determine the proportion of people living with HIV that had good knowledge of disclosure, the proportion of people living with HIV that had disclosed their status, the patterns of disclosure, the barriers to disclosure and its consequences. The results were as follows:

Table 1: Socio-demographic characteristics of the people living with HIV in General Hospital Ikot Ekpene, 2016

Characteristics	Frequency (n=300)	Percent (%)
Age category (year)		
<20	9	3.0
21-30	108	36.0
31-40	102	34.0
41-50	44	14.7
51-60	27	9.0
61>	10	3.3
Gender		
Female	214	71.3
Male	86	28.7
Occupation		
Employed (n=40)		
Cleaner	1	2.5
Computer operator	1	2.5
Lab staff	1	2.5
Manager	1	2.5
Nurse	1	2.5
Pastor	1	2.5
Security	2	5.0
Assistant (PA)	3	7.5
Civil servant	13	32.5
Teacher	16	40.0
Self-employed (n=206)		
Apprentice	2	1.0
Carpenter	1	0.5
Mechanic	1	0.5
Motorcyclist	1	0.5
Painter	1	0.5
Security	1	0.5
Shoe-mender	1	0.5
Furniture	2	1.0
Welder	2	1.0
Driver	5	2.4
Electrician	5	2.4
Farmer	18	8.7
Hair dresser	23	11.1
Tailor	24	11.6
Trader	119	57.8
Unemployed (n=54)		
Students	21	38.4
Housewife	17	31.5
Jobseekers	16	30.1
Marital Status		
Married	161	53.7
Never Married	77	25.7
Widowed	38	12.7
Divorced	5	1.7
Separated	11	3.7
Co-habiting	8	2.7
Religion		
Christian	289	96.3
Muslim	3	1.0
Other	8	2.7

Most of the respondents had secondary education (52.3%) and most had incomes of less than ₦20, 000.00 a month (69%).

The mean age of respondents was 35.9 years± 11.16. The median age was 33years, while the mode was 30 years. The youngest respondent was18 years and the oldest was 75 years old.

Most of the respondents were self-employed (68.7%). The others were either employed (13.3%) or unemployed (18.0%). Out of the 206 self-employed respondents, most were traders (57.3%), followed by tailors (11.7%) and hairdressers (10.7%).

Most of employed respondents were teachers (40%) and civil servants (32.5%). The unemployed comprised of students (38.4%), house wives (31.5%) and those without jobs (30.1%).

Most of the respondents (69%) report earning less than ₦20, 000 monthly. With just one person (0.3%) reporting earnings of more than ₦100, 000 monthly.

The levels of education attained by the respondents varied. Most had secondary education (53.7%), followed by primary (26%), tertiary (17%). Respondents who had never been to school accounted for 4.3%. Most of the respondents were married (53.7%). Those who had never married formed 5.7% while those divorced were 1.7%. Although most of the respondents lived in Ikot Ekpene, the distribution of their residence extended throughout the state and some respondents came from neighbouring states namely: Cross River State, Rivers State, and Abia State. Most of the respondents identified as Christian (96.3%). Muslims accounted for 1% and those from other religions for 2.7%.

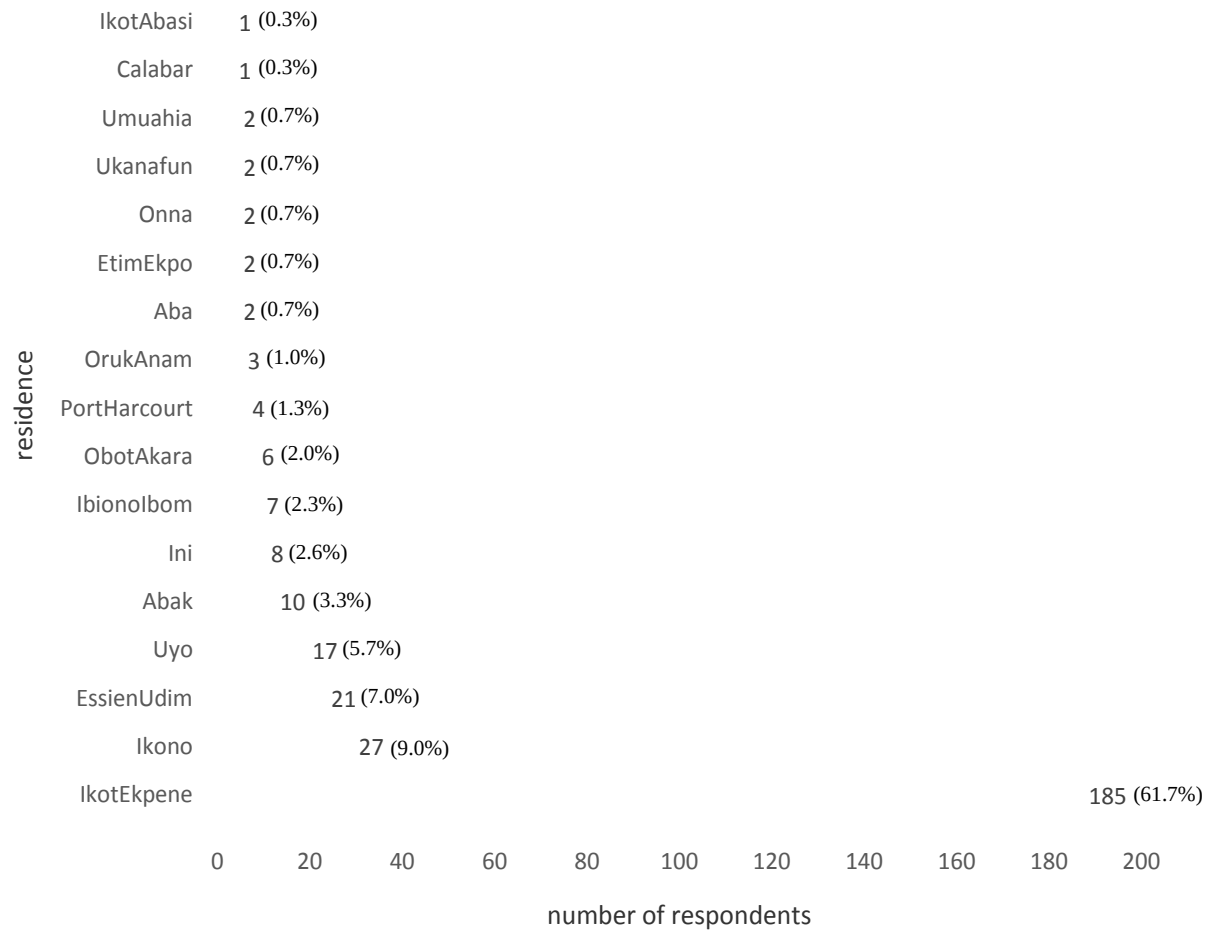


Figure 1: Place of residence among people living with HIV in General Hospital, Ikot Ekpene, 2016 (n=300)

The place of residence among people living with HIV were mostly Ikot Ekpene with 185 (61.7%), while the least were Ikot Abasi and Calabar with 1 (0.3%) and 1 (0.3%) respectively.

Table 2: HIV counselling testing and care characteristics of respondents in General Hospital, Ikot Ekpene, 2016

Variable	Frequency (n= 300)	Percent (%)
Pre-test Counselling		
Received	295	98.3
Didn't receive	5	1.7
Had Post-test Counselling		
Received	295	98.3
Didn't receive	5	1.7
Duration of knowing status		
≤ 12 months	87	29
>12 months	213	71
Last CD4 Count		
≤ 350	105	35
>350	195	65
Adherence to ARV		
Good	276	92
Poor	24	8
Knowledge of HIV transmission		
Good	281	93
Poor	19	6.3
Opportunistic Infections		
Present	28	9.3
Absent	272	90.7
TB Co-infection		
Present	23	7.7
Absent	277	92.3
Support membership		
Belongs to support group	64	21.3
Doesn't belong to support group	236	78.7

Majority of the respondents had pre and post-test counselling. Most respondents had known they were HIV positive for more than a year. Most respondents had CD4 counts greater than 350 (65%). A large proportion of respondents also had good adherence to anti-retroviral therapy (92%) and good knowledge of HIV transmission (93%).

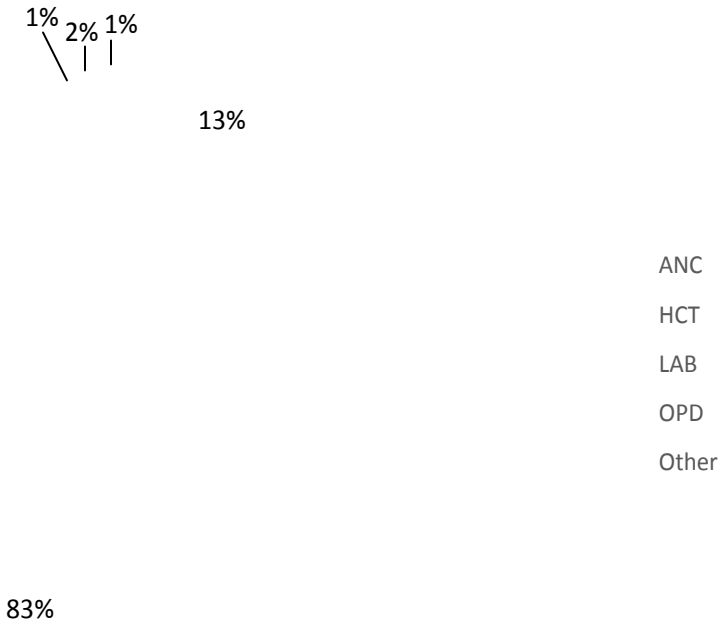


Figure 2: Place of accessing HIV testing, among people living with HIV in General Hospital, Ikot Ekpene, 2016 (n=300)

Most respondents were tested in the HIV counselling and testing unit (83%), followed by the antenatal clinic (13%). The rest of the respondents were tested in the Out Patient Department (2%) and laboratory (1.0%). Other places of testing such as the market, community, and outreaches accounted for the rest (1.0%).

Table 3: Reasons for HIV testing among people living with HIV in General Hospital, Ikot Ekpene, 2016

Reasons for HIV testing	Frequency (n=300)	Percent (%)
Feeling sick	196	65.3
Pregnant clinic tested	40	13.3
Self-initiative	21	7.0
Partner illness/death	17	5.7
TV/Radio Advert	9	3.0
Health Provider recommended	8	2.7
Child illness/death	7	2.3
Family/friend encouraged	2	0.7

Most of the respondents tested for HIV because they felt sick 196 (65.3%). Some were tested at the ante-natal clinic while pregnant 40 (13.3%). Some of the respondents were tested because they wanted to know their status 21 (7%). Another reason for testing was partner illness or death 17(5.7%). TV and radio advertisements prompted testing in some respondents 9(3%). Other reasons such as health provider recommendation, child illness or death and encouragement by family or friends were 8 (2.7%), 7 (2.3%) and 2 (0.7%) respectively.

Table 4: Adherence to anti-retroviral therapy, among people living with HIV registered in General Hospital, Ikot Ekpene, 2016

Miss medication	Frequency (n=300)	Percent (%)
Never	205	68.3
Rarely	71	23.7
Sometimes	16	5.3
Often	8	2.7

Most of the respondents never miss medication 205 (68.3%), 71 respondents (23.7%) rarely miss medication, 16 (3.3%) of the respondents sometimes miss medication, and 8 (2.7%) often miss their medication.

Table 5: Knowledge, perceptions and proportion of HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Variable	Frequency (n=300)	Percent (%)
Disclosure counselling		
Received	271	90.3
Didn't receive	29	9.7
Heard Disclosure is important		
Have heard	264	88.0
Haven't heard	36	12.0
Know that disclosure is important		
Know	252	84.0
Don't know	48	16.0
Source of information on of Importance of disclosure		
Trained Provider	252	84.0
Others	48	16.0
Agree that Disclosure is Important		
Think disclosure is important	118	39.3
Think disclosure is unimportant	182	60.7
HIV status disclosure		
Disclosed	211	70.3
Did not disclose	89	29.7
Disclosure to household member		
Disclosed	194	64.7
Did not disclose	106	35.3
Disclosure to sex partner (n=237)*		
Disclosed	156	65.8
Did not disclose	81	34.2

*The number of respondents who currently have a partner

Most of the respondents received disclosure counselling 271 (90.3%) and had heard about the importance of disclosure 264 (88%). About Half of the respondents 156 (52%) disclosed their status to their sex partner.

Table 6: The sources of information on HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Source of information on disclosure	Frequency (n=265)	Percent (%)
Healthcare providers	225	84.9
Training	27	10.2
Family members	7	2.6
Peers	3	1.1
Friends	2	0.8
Media	1	0.4

The predominant source of information on HIV status disclosure was from healthcare providers 225 (84.9%). Some of the respondents got the information during trainings 27 (10.2%) and from family members 7 (2.6%). Respondents also got information on status disclosure from peers 3 (1.1%), friends 2 (0.8%) and the media 1 (0.4%). No respondents got HIV status disclosure information from religious leaders, teachers or the internet.

Table 7: Duration between diagnosis and disclosure of HIV status among people living with HIV in General Hospital, Ikot Ekpene, 2016

Duration	Frequency (n=211)	Percent (%)
1 day	80	37.9
1 month	46	21.8
2 months	15	7.1
6 months	23	10.9
1 year	21	9.9
2 years	9	4.3
5 years	17	8.1

The time taken to disclose HIV status by the respondents varied. Many disclosed their HIV status on the same day (37.9%), but some took up to 2 years (4.3%) and others as long as 5 years (8.1%).

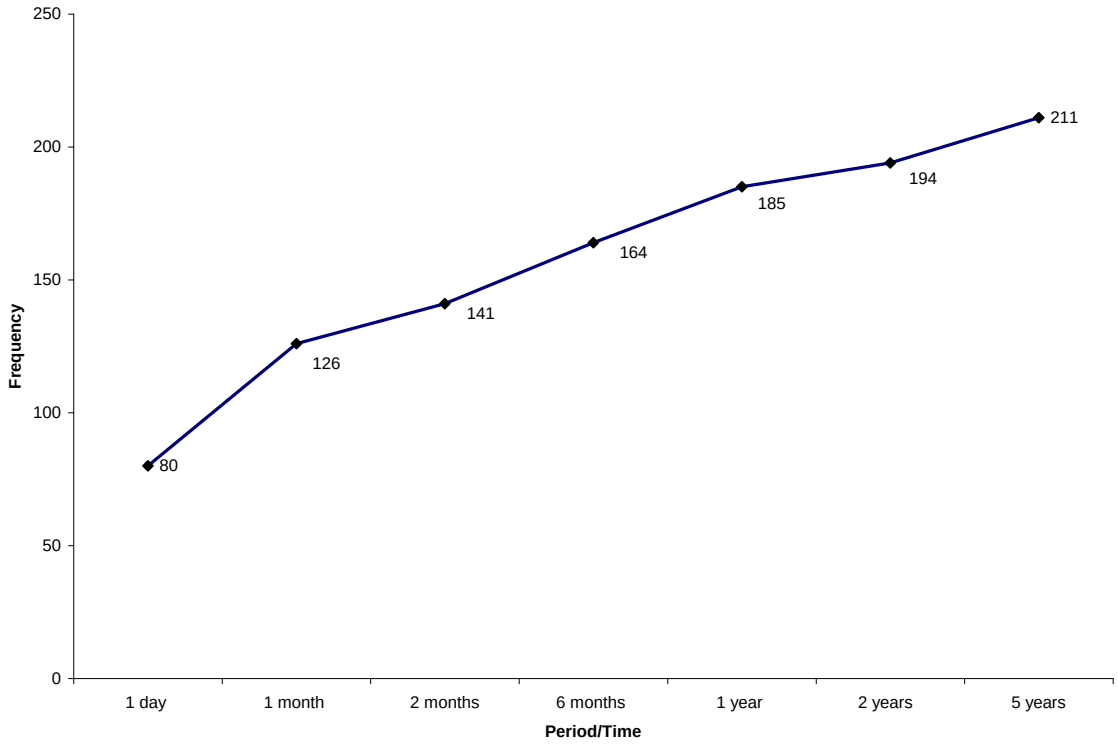


Figure 3: Trends of HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016 (n=211)

The range of disclosure status times, follows and upward trend. While 81 (38.4%) disclosed on the first day, some took as long as 5 years.

Table 8: The distribution of persons that people living with HIV in General Hospital Ikot Ekpene disclosed their HIV status to, 2016

Person disclosed to	Frequency(n=347)	Percent (%)*
Family member	298	86.0
Spouse/sex partners	149	43.0
Others	2	0.6

*Multiple responses

Many (211) respondents disclosed their status to a total of 347 people out of which 298 (63.4%) were household members and 149 (43%) were sexual partners. On the average each person disclosed to about two people.

Table 9: Distribution of persons disclosed to, among people living with HIV registered in General Hospital, Ikot Ekpene, 2016

Person disclosed to	Frequency (n=211)	Percent (%)*
Spouse	129	61.1
Mother	41	19.4
Sibling	33	15.6
Child	28	13.3
Relative	22	10.4
Sex partner	20	9.5
Friend	17	8.1
Pastor	5	2.4
Father	4	1.9
Parents	4	1.9
Family doctor	1	0.5

*Multiple responses

Overall, the preferred person to disclose their HIV status to was their spouses 129(61.1%), followed by mothers 41(19%) and the least preferred was the family doctor 1(0.5%).

Table 10: Distribution of persons first disclosed to, among people living with HIV in General Hospital, Ikot Ekpene, 2016

First person disclosed to	Frequency (n=211)	Percent (%)
Spouse	118	55.9
Mother	21	10.0
Sibling	16	7.7
Child	16	7.7
Relative	13	5.7
Sex partner	12	5.7
Friend	7	3.4
Father	4	1.9
Parents	2	1.0
Pastor	1	0.5
Family doctor	1	0.5

More than half of the respondents 118 (55.9%) chose their spouse as the first person to share their status with. Pastors and family doctors were the choice of 3 (1%) of the respondents.

Table 11: Reasons for HIV status disclosure, among people living with HIV in General Hospital, Ikot Ekpene, 2016

Reason for disclosure	Frequency (n=211)	Percent (%)
To confront my spouse about my result	3	1.4
To improve adherence to my medication	7	3.3
To prevent anyone else from being infected	9	4.3
I was afraid I was dying	14	6.6
To get financial assistance	23	10.9
To get support	65	30.8
To keep our relationship transparent	90	42.7

The main reason for disclosure by the respondents is to keep their relationships transparent 90(42.7%) followed by 65 (30.8%) to get support, and the least was to confront spouse 3(1.4%).

Table 12: Intention to disclose and persons people living with HIV intend to disclose their status to in General Hospital, Ikot Ekpene, 2016

Variables	Frequency	Percent (%)
Intention to disclose (n=89)		
Yes	11	12.3
No	78	87.6
Person they wish to disclose to (n=11)		
Sex partner	4	36.3
Spouse	3	27.3
Parent	2	18.2
Child	1	9.1
Pastor	1	9.1

Most of the respondents that have not disclosed, do not have the intention to disclose their status to anyone 78 (87.6%). Out of the few who intend to disclose, sex partner 4 (36.3%), spouse 3 (27.3%) and parent 2 (18.2%) were the people they wish to disclose to, while child and pastor were the least they wish to disclose to.

To identify the factors associated with non-disclosure, multivariate and bivariate analysis was done and the results were as follows:

Table 13: Bivariate analysis of HIV status non-disclosure and associated socio-demographic variables, among people living with HIV in General Hospital, Ikot Ekpene, 2016

Variables	Non-disclosure		Total	Odds Ratio	95% Confidence Interval	P-value
	Yes	No				
Age						
≤ 40 years	67	152	219	1.18	0.67 – 2.08	0.56
>40 years	22	59	81			
Gender						
Female	71	143	214	1.9	1.04 – 3.39	0.04
Male	18	64	86			
Employment status						
Unemployed	19	35	54	1.37	0.7 – 2.55	0.32
Employed	70	176	246			
Marital status						
Unmarried	56	83	139	2.62	1.57 – 4.36	<0.001
Married	33	129	161			
Place of residence						
In Ikot Ekpene	62	123	185	1.64	1.0 – 2.79	0.06
Outside Ikot Ekpene	27	88	115			
Religion						
Other	6	2	8	7.55	1.49 – 38.19	0.004
Christian and Muslim	83	209	292			
Level of education						
Secondary and below	80	168	248	2.23	1.06 – 4.90	0.03
Above secondary	9	43	52			
Not having children						
Yes	39	56	95	2.16	1.29 – 3.63	0.003
No	50	155	205			

There were statistically significant associations recorded in the table above. Marital status, religion, level of education and not having children were significantly associated with HIV status non-disclosure. No statistically significant association was found between age, gender, employment status, place of residence and non-disclosure of HIV status.

Table 14: Bivariate analysis of HIV status non-disclosure and HIV related parameters, among people living with HIV in General Hospital, Ikot Ekpene, 2016

Variables	Non-disclosure		Total	Odds Ratio	95% Confidence Interval	P-value
	Yes	No				
Pre/post-test counselling						
Received	86	209	295	0.27	0.45 – 1.67	0.13
Didn't receive	3	2	5			
Where tested						
HCT	73	176	249	0.91	0.47 – 1.74	0.77
Others	16	35	51			
Reason for testing						
Felt sick	56	140	196	0.86	0.51 – 1.44	0.60
Others	33	71	104			
Duration of knowing status						
≤ 12 months	37	50	87	2.29	1.3 – 3.88	0.002
>12 months	52	161	213			
Last CD4 count						
≤ 350	52	47	99	1.5	0.93 – 2.45	0.09
>350	82	116	201			
Adherence						
Good	84	192	276	1.66	0.6 – 4.6	0.32
Poor	5	19	24			
Opportunistic infection						
Present	9	19	28	1.14	0.49 – 2.62	0.70
Absent	80	192	272			
Absence TB co-infection						
Present	88	189	277	10.24	1.36 – 77.21	0.006
Absent	1	22	23			
Support group membership						
Belongs	18	46	64	0.9	0.49 – 1.68	0.76
Doesn't belong	71	211	236			

The factors found to be significantly associated with HIV status disclosure among the respondents were knowing one's status for 12 months or less and the absence TB co-infection. Other factors were not found to be significantly associated with non-disclosure of HIV status.

Table 15: Bivariate analysis of HIV status non-disclosure and disclosure related parameters, among people living with HIV in General Hospital, Ikot Ekpene, 2016

Variables	Non-disclosure		Total	Odds Ratio	95% Confidence Interval	P-value
	Yes	No				
Disclosure counselling						
Didn't receive	18	10	28	5.10	2.25 – 11.56	<0.001
Received	71	201	272			
Heard of importance of disclosure						
Haven't heard	20	16	36	3.5	1.73 – 7.20	<0.001
Have heard	69	195	264			
Source of information on importance of disclosure						
Trained provider	65	87	252	0.35	0.18 – 0.65	0.001
Other sources	24	24	48			
Thoughts on importance of disclosure						
Not important	77	105	182	6.49	3.33 – 12.60	<0.001
Important	12	106	118			
Knowledge on importance of disclosure						
Poor	29	24	53	3.77	2.04 – 6.96	<0.001
Good	60	187	247			
Knowledge of HIV prevention						
Poor	4	15	19	0.62	0.20 – 1.91	0.40
Good	85	196	281			

All the factors considered in the table above, factors found to be significantly associated with non-disclosure of one's HIV status except knowledge of HIV prevention. All the factors found to be statistically significant on bivariate analysis were entered into a binary logistic regression model to adjust for confounders and identify independently significant factors.

Table 16: Independent factors associated with HIV status non-disclosure, among people living with HIV registered in General Hospital, Ikot Ekpene, 2016

Variable	Adjusted Odds Ratio	95% confidence Interval	P-Value
Female gender	1.19	0.59-2.41	0.62
Being unmarried	2.68	1.40-5.11	0.003
Belonging to religions other than Christianity/Islam	8.37	1.3-50.58	0.021
Not having children	1.7	0.89-3.263	0.11
Secondary education and below	2.86	1.15-7.10	0.024
Knowing one's status for 12 months or less	3.05	1.5-5.88	0.001
Absence of TB Co-infection	14.4	1.68-123.04	0.015
Poor disclosure knowledge	2.58	0.56-11.88	0.22
Has not heard of importance of disclosure	1.37	0.3-5.15	0.64
Heard of importance of disclosure from trained provider	0.65	0.13-3.16	0.60
Think disclosure is unimportant	6.33	2.98-13.44	<0.001
Constant	000		

After binary logistic regression, being unmarried, belonging to religions other than Christianity or Islam, having secondary education and below, being diagnosed in the last 12 months, absence of TB co-infection and thinking disclosure is important remained independently associated with non-disclosure of HIV status.

Table 17: Barriers to HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Barriers to disclosure	Frequency (n=89)	Percent (%)
Fear of the unknown	58	65.2
Fear of stigma	11	12.4
Fear of losing confidentiality	9	10.1
Shame	4	4.5
Not right time	3	3.4
Distance	2	2.2
Fear of divorce	2	2.2

The greatest barrier to disclosure of HIV status identified was fear of the unknown 58 (65.2%).

This was followed by fear of stigma 11 (12.4%) and fear of losing confidentiality 9 (10.1%).

Table 18: Predicted outcomes of HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Anticipated outcomes of HIV status discovery	Frequency (n=89)	Percent (%)*
Gossip	48	53.9
Stigma	29	32.6
Discrimination by family	25	28.0
Discrimination by friends	19	21.3
Violence	17	19.1
Retrenchment	8	9.0
Divorce	6	6.7
Uncertain	6	6.7
Homelessness	4	4.5
Discrimination against children	4	4.5
Cause distress	3	3.4
Neglect	2	2.2

*Multiple responses

People who did not disclose their status largely anticipated negative outcomes if their HIV status became known 83 (93.3%). A few of the respondents were however uncertain about what would happen if they disclosed their HIV status 6 (6.7%).

Table 19: Anticipated Outcomes of HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Anticipated outcomes	Frequency (n=211)	Percent (%)
Positive		
Acceptance	45	21.3
Support	19	9.0
Negative		
Blame	50	23.7
Shock	47	22.3
Sadness	34	16.1
Rejection	27	12.8
Worry	26	12.3
Unsure	13	6.2
Anger	12	5.7
Disappointment	6	2.8
Indifference	5	2.4

*Multiple responses

The consequences of HIV status disclosure among people living with HIV registered in General Hospital, Ikot Ekpene, were analysed according to the anticipated outcome, initial outcome and subsequent outcome.

Most respondents anticipated negative reactions from the people they disclosed to (69%). Negative reactions ranged from indifference 5(2.4%), to disappointment 6(2.8%), anger 12(5.7%), worry 26(12.3%), sadness 34(16.1%), rejection 27(12.8%), shock 47(22.3%) and blame 50(23.7%). While, the positive reaction showed acceptance 45(21.3%) and support 19(9%) at a very low level of outcome.

Table 20: Initial outcomes of HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Initial outcomes	Frequency (n=211)	Percent (%)
Positive		
Encouragement	14	6.6
Kindness	27	12.8
Acceptance	136	64.5
Negative		
Pity	2	0.9
Fear	2	0.9
Indifference	5	2.4
Anger	8	3.8
Rejection	10	4.7
Worry	10	4.7
Shock	11	5.2
Sadness	19	9.0
Wept	20	9.5
Blame	42	19.9

*Multiple responses

In the initial outcomes, majority of the reactions were positive, with acceptance, encouragement, and kindness accounting for most of the cases. The negative reaction accounted for few of the initial outcomes which were dominated by blame, weeping and sadness and the least was pity and fear.

Table 21: Subsequent outcomes of HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Subsequent outcomes	Frequency (n=306)	Percent (%)
Acceptance	262	85.6
Kindness	28	9.2
Rejection	12	3.9
Divorced	2	0.7
Indifference	1	0.3
Stigma	1	0.3

The subsequent outcomes are dominated by acceptance which accounted for more than eighty five percent 262 (85.6%) and the least were indifference and stigma with 1 (0.3%) and 1 (0.3%) respectively. Also two cases of divorce were recorded accounting for 0.7% of the respondents.

Table 22: Outcomes of HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Outcomes of HIV status disclosure	Frequency	Percent (%)
Anticipated Outcome (n=306)		
Positive	82	26.8
Negative	211	68.9
Unsure	13	4.3
Initial Outcome (n=306)		
Positive	177	57.8
Negative	129	42.2
Subsequent Outcome (n=306)		
Positive	291	95.1
Negative	15	4.9

Overall, the pattern of outcomes showed a steady rise in positive outcomes and decline in negative outcomes. Subsequent outcomes were more positive than the initial or even the expected outcomes.

Table 23: Types of support received after HIV status disclosure among people living with HIV, General Hospital, Ikot Ekpene, 2016

Types of support	Frequency (n=176)	Percent (%)
Treatment support	64	36.4
Emotional support	138	78.4
Financial support	144	81.8

*Multiple responses

Beyond the outcomes, respondents were asked about the effect the disclosure of their HIV status had on their well-being, adherence, feelings and ability to use preventive measures. Most respondents had received help/support. The help/support received was categorized as emotional support, treatment support and financial support.

Multiple responses were allowed and there were overlaps in the types of support received. One respondent said he had been well fed since disclosure of his HIV status and this was categorized as financial support.

Table 24: Aftermath of HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Variables	Frequency (n=211)	Percent (%)
Helped after HIV status disclosure		
Helped	176	83.4
Not helped	35	16.6
Suffered after HIV status disclosure		
Suffered	17	8.1
Did not suffer	194	91.9
Disclosure helped with adherence/keeping hospital appointments		
Helped with adherence	200	94.8
Did not help with adherence	11	4.2
HIV status disclosure reduced stressful feelings		
Reduced stressful feelings	194	92.0
Did not reduce stressful feelings	17	8.0
HIV status disclosure has helped prevention		
Helped prevention	167	79.1
Has not helped prevention	44	20.9
Regret disclosing HIV status		
Regret status disclosure	20	9.5
Do not regret status disclosure	191	90.5

Disclosure of HIV status helped most respondents to adhere to anti-retroviral therapy and keep hospital appointments (94.8%). Disclosure of HIV status reduced feelings of stress in most respondents (92%). Disclosure of HIV status helped respondents practice HIV preventive measure in about eighty percent of cases (79%).

Table 25: Reasons for regretting HIV status disclosure among people living with HIV in General Hospital, Ikot Ekpene, 2016

Reasons for regretting HIV status disclosure	Frequency (n=20)	Percent (%)
Discrimination	9	45
Cessation of sexual relations	5	25
Marital discord	4	20
Loss of affection	4	20
Loss of confidentiality	2	10
Divorce	2	10

*Multiple responses

Nearly ten percent of those that disclosed regretted that decision (9.5%). Their reasons for regret included discrimination 9 (45%), cessation of sexual relations 5 (25%), marital discord 4 (20%), loss of affection 4 (20%), and divorce 2 (10%).

Table 26: Types of HIV prevention measures aided by HIV status disclosure, among people living with HIV in General Hospital, Ikot Ekpene, 2016

Types of prevention	Frequency (n=167)	Percent (%)
Condom use	110	65.8
Adherence	31	18.6
Healthy lifestyle	21	12.6
Not sharing sharps	5	3.0

About 80% of those who disclosed their status, reported that status disclosure has helped them use preventive measures. The preventive measures used are displayed in the table above. Condom use was the major form of prevention described by the respondents 110 (65.8%), adherence to anti-retroviral therapy was next 31(18.6%), healthy lifestyle 21(12.6%) followed and finally not sharing sharps 5(3%), which was the least of the mentioned types of prevention.

CHAPTER FIVE

DISCUSSION

The overall response rate in this study was 100%. This figure is similar to the response rates recorded in Gombe and South West Ethiopia.[21,31] The high response rate may be due to the advocacy made to the all clinic attendees emphasizing the need to co-operate with research if selected as findings could be used to improve their welfare and to advance progress towards a HIV-free generation.

Respondents were predominantly female (71.3%). The male to female ratio was 1: 2.4. This agrees with documented data on HIV that found that although globally 50% of people living with HIV are female, in West Africa, there are 14 females infected for every 10 males. It also agrees with results from the 2012 National Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) and Reproductive Health Survey (NARHS Plus II) which found that the prevalence of HIV in Nigeria is higher in women across age groups and geopolitical zones.[4,10] Calculations based on the official reports by the Akwa Ibom State government on HIV testing and prevalence and the male female population ratios of the state, show a male female ratio of 1:1.5 in uptake of HIV testing services and 1: 1.8 among those who test positive.[7] Judging by those figures, in Akwa Ibom State, males are less likely to test for HIV and lower numbers of males than females are living with HIV. The male female ratio of 1:2.4 obtained in this study, is even larger than the ratios reported for the region (1:1.4), country (1:1.06) and state (1:1.8) and may indicate that even though male uptake of HIV testing services is low, it might even be declining further.[6,7,39] Due to the decentralization of HIV services in the state, it is not possible to conclude until records from the community ART services and Primary Health Care HIV treatment centres, and tertiary hospitals are also examined. Based on evidence

from the state data on testing and the findings from this study, more needs to be done to get men to test for HIV. Men account for about 50% of the population and most HIV infections in Nigeria are spread through sexual transmission. Men who have sex with men are part of the key populations that also need to be targeted. Neglecting men in HIV testing and care programs could cause more preventable new infections and an increase in HIV-related morbidity and mortality over time. This would in turn increase the pressure on limited funds, infrastructure and personnel in the health care systems in the state.

Most of the respondents were below forty years of age (73%). This correlates with the findings in other studies and reflects the fact that HIV affects the younger age group more than the elderly.[21,31] Most of the respondents were employed (82%) but most reported incomes of less than ₦20, 000 a month (69%). This means that most respondents were earning less than the Nigerian minimum wage. This finding should however be interpreted cautiously because many respondents were unwilling or unable to state their exact income and discussing monthly income is deemed culturally inappropriate in Akwa Ibom State. Christians and Muslims accounted for 96.3% of the respondents. Members of other religions accounted for 3.7%. This is in consonance with the prevalent religious practice in the study area. Most of the respondents were married (53.6%), Lived in Ikot Ekpene (61.7%) and most had secondary education (52.3%).

Knowledge of HIV disclosure among the respondents was assessed by considering if the respondent had received disclosure counselling, heard of the importance of disclosure, got the information from a trained service provider, the proportion of people living with HIV with good knowledge was 84%. This agrees with a study done in Zimbabwe which found HIV disclosure knowledge to be good in up to 86% of respondents.[74] Disclosure counselling had been received by 90.3% of respondents. This agrees with findings in a study done in Tanzania where at least

91% of the respondents had received disclosure counselling.[63] Most of the respondents had heard of the importance of disclosure (88%). This agree with the findings of a study done in Zimbabwe.[64] This figure is higher than that from a study in Namibia where 68% of the people living with HIV had good knowledge on HIV status disclosure.[62]

Sources of information on disclosure varied but receiving the information from a health care provider or through a training were contrasted against other sources of information on the importance of disclosure. Most of the respondents had received the information on the importance of disclosure from trained providers through counselling and/or training (84%). However, despite most respondents receiving disclosure counselling, hearing about the importance of disclosure, and receiving that information from trained providers, most people living with HIV did not think disclosure was important (77%). This figure is different from that reported in a study in Tanzania where 40% of people living with HIV thought disclosure was not important.[63]

Overall, 211 respondents (70.3%) had disclosed their HIV status to anyone. The proportion of respondents that had disclosed to a household member was 64.7% Disclosure to a sex partner was 52%. These figures differ from those reported by studies done in North-eastern and North-central Nigeria and South West Ethiopia where up to 97.5% and 94.5% of respondents respectively, had disclosed.[21,28] It however agrees with finding from: two studies done in South-south Nigeria, Namibia, and in Ghana which found levels of 77%, 73.9%, 73% and 70.3%.[38,56,62,66] One of the studies in South-south Nigeria was done ten years ago and found a disclosure prevalence of 77% and the other, done eight years later, found a prevalence of 73.9%. The level of disclosure recorded in both studies was higher than what was found in this study. Judging from this, one can posit that the prevalence of HIV status disclosure is decreasing in this

region of Nigeria. One can also say, that disclosure of HIV status is lower in South-south Nigeria than other regions in Nigeria.

The South-south region of Nigeria also has the highest HIV prevalence. The admixture of high HIV prevalence and low rates of HIV status disclosure is very disturbing indeed. The public health implication of this is that many preventable new infections will occur, limited health infrastructure will be further strained, and the presently high rates of HIV prevalence in that region might get higher still, worsening an already generalized epidemic. This also raises concern about the social implications of HIV status disclosure for people who test positive in this region. It also raises questions about the community openness towards HIV and the levels of stigma people living with HIV are suffering. It also shows that much still needs to be done to address the barriers to HIV status disclosure, particularly, in the southern part of Nigeria. Disclosure to a spouse or sex partner was slightly more than half (52%). This figure agrees with findings from studies done in Uganda and Togo.[61,75] In Uganda, disclosure to spouses was found to be 54%, In Togo, the proportion of respondents that disclosed to sex partners was 61%. It is however lower than the figures obtained from studies in Northeast Ethiopia and where disclosure to sexual partners ranged from 76% to 91.3%.[26,30]

Belonging to religions other than Christianity or Islam was also an independent factor associated with non-disclosure. This differs from findings in a studies done in Tanzania and Ghana were Christians were less likely to disclose, however in both studies, that finding was not statistically significant.[56,63] This also disagrees with findings from a study done in studies done in northern Nigeria, Tanzania and Uganda where religion was not found to be associated with non-disclosure.[21,63,71] This finding might be due to other religions being underserved by faith-focused

messaging and interventions. It might also reveal that since they form a smaller number they have closer knit ties and would risk more by disclosure.

Level of education was found to be an independent factor associated with HIV status non-disclosure. Having secondary education and below was associated with a higher likelihood of non-disclosure of HIV status compared to those with tertiary education. This agrees with a study done in the Niger Delta which also found that those with secondary education and below were less likely to disclose, but disagrees with studies done in northern Nigeria, Uganda and Togo wherein level of education was not found to be significantly different between those that disclosed and those that did not disclose.[21,38,61,65] This finding might reflect that those with lower levels of education might find it harder to understand the risks associated with HIV and thus have greater fears about the consequences of disclosure while those with tertiary education are better equipped to weigh the risks and benefits of the disclosure process. The public health implication of this is that any messaging and information on disclosure should be phrased in the simplest terms to help people with limited education understand the benefits of disclosure and the danger of not disclosing, especially to sex partners.

Duration of diagnosis of twelve months or less was an independent factor associated with HIV status non-disclosure. This agrees with findings from studies done in Ethiopia, Togo and Congo, that found that the longer people live with HIV, the more likely they are to disclose their HIV status. but differs from the findings of the study done in North-eastern Nigeria.[21,31,61,76] This suggests that HIV non-disclosure decreases with time; as people come to term with their diagnosis they are more likely to disclose. It also implies that as their health deteriorates, people living with HIV find it harder to hide their illness. Also, disclosure may increase with duration of infection as people living with HIV may need more support over time. The public health

implication of this finding is daunting. HIV status disclosure that is delayed, might put the person's sex partners, unborn children and family members at risk. Disclosure, if and when it finally happen might occur after other people have inadvertently been infected.

Absence of TB co-infection was associated with HIV status non-disclosure. Other studies examining the role of TB co-infection and HIV status non-disclosure were not available at the time of writing. However, this finding agrees with studies in Togo and Ethiopia that found that sero-status disclosure increases as patient's illness worsens.[31,61] This finding may be related to people being less likely to disclose their status when they are at early, asymptomatic stages of the disease. Tuberculosis (TB) is one of the leading causes of death among people living with HIV. If a person with HIV gets infected with TB, their pill count would increase as well as their need for care, treatment and support. People living with HIV who are not co-infected have fewer symptoms and would find it easier to conceal ill health. The public health implication of this finding is that most people disclose their status in symptomatic stages of the disease and therefore the general public has to be sensitized on the risks that casual unprotected intercourse, sharing of sharps and unscreened/improperly screened blood products pose.

Not thinking HIV status disclosure was important was an independent factor associated with non-disclosure of HIV status. This agrees with findings from studies in Namibia where 62% thought disclosure was important, good and helpful and about the same percentage of them disclosed their status. This finding suggests that non-disclosure is more likely when disclosure is not thought to be important. It suggests that interventions targeted at making people think disclosure is important could reduce the proportion of people that have not disclosed.

The barriers to disclosure identified were fear of the unknown, fear of stigma and fear of losing confidentiality, shame, the time not being right and fear of divorce. This agrees with findings from all the studies done on barriers; the greatest barrier to disclosure is fear. Different populations of people living with HIV fear differently, but the underlying barrier is the same. They don't know what would happen if they disclose, but they don't think it will be anything good. Specifically, fear of stigma was found to be a barrier in a studies done in Tanzania, Uganda and Southern Nigeria.[38,63,65] Fear of losing confidentiality was found to be a barrier in studies done in Namibia. In that study, 79% of those who did not disclose were afraid of losing confidentiality. Shame was an important barrier in this study. This finding agrees with a study done in India that found the main barrier to be shame. Fear of divorce was another barrier to disclosure found in this study. This finding is similar to what was found in studies done in Uganda, South-Western Nigeria, and Tanzania.[25,60,65] No studies reporting fear of the unknown were seen at the time of writing but this finding is similar to the fear of adverse responses reported in a study in Ghana.[56] It also agrees with a study in Tanzania that found that 11% of people were unable to disclose because they were 'just being afraid'.[23] The time not being right is a reflection of the fact that many people living with HIV delay their disclosure. Some of the delays were due to people waiting for their children to be old enough to bear the news, but some others were in instances of disclosure to one's fiancé or spouse. This agrees with findings from studies from studies that measures how long it took for people to disclosure their status where it was found that most times the disclosure of HIV status is delayed. Disclosure that occurs more than 24 hours after a positive test is regarded as delayed. Disclosure is also said to be delayed if the person living with HIV has engaged in sexual acts with another person before disclosing their status. Studies show that most people living with HIV practice delayed disclosure which is

disclosure after 24 hours or after engaging in sexual intercourse. A study in Ethiopia found that 84% of people living with HIV disclosed their HIV status 'immediately'.[24] Another study in Ethiopia found that 73% of those who disclosed their status did so on the same day.[32] A study conducted in North-Eastern Nigeria found that 71% of the people living with HIV who disclosed their status did so on the same day.[21] A study in South-western Nigeria found that 49% of people living with HIV that disclosed their HIV status did so on the same day.[60] A study done in Tanzania found that 15% of the disclosure event recorded were not delayed but did not state the time used for the this assessment..[25] A similar study done in Ethiopia that considered disclosure to sexual partners found that disclosure was delayed in 29% of cases, but the cut-off point for early disclosure was not stated.[26] A study in Tanzania reported a delayed disclosure rate of 15% but did not define the term.[25] Another study is South-West Ethiopia found HIV status disclosure among people living with HIV to be delayed in 14% of cases when delayed disclosure was defined as disclosure that occurs after a sexual act. The public health implication of this is that when the time is thought to be right, new infections may have already occurred and in the case of disclosure to sexual partner, the person could be liable for criminal punishment. Other barriers to HIV status disclosure such as perceived lack of communication skills were not found in our study but this doesn't mean it may not exist. A person who lacks communication skills may find it difficult to express that deficiency. The barriers expressed here reflect that people living with HIV still feel threatened in the society. It suggests that people living with HIV/AIDS are still suffering stigma and other undesirable social outcomes. This implies, that many opportunities for disease prevention through safer sex, not sharing sharps, accessing and complying with PMTCT programs and opening of the discussion on HIV control in communities are being lost. Effective

innovative, long-term strategies to reduce stigma and to overcome the barriers to disclosure here listed are needed.

The consequences of HIV status disclosure were predominantly positive initially (57%) and subsequently (95%) compared to what the respondents had anticipated (21%). This finding agrees with a study in Namibia that found that consequences were largely positive, 95% of respondents received support, acceptance and help following disclosure of their HIV status. It also agrees with findings from a study in Southern Nigeria that found that positive outcomes to HIV status disclosure were recorded by 90% of respondents.[33] The finding is also similar with the findings of a study done in South-eastern Nigeria that reported positive/supportive subsequent reactions among 81% of the women who disclosed.[70] The findings this study contrasts sharply with studies done in India, Rwanda, South Africa and Kenya where the consequences of disclosure were extremely negative and women reported physical assault, divorce, isolation and deteriorating marriages.[23] The finding also differs from the study done in Northern Nigeria that showed positive reactions reducing over time and negative reactions becoming more prevalent.[34] This suggests that families and society at large are beginning to show a higher level of acceptance for people living with HIV probably due to the use of ARVs with attendant improvements in clients' health and longevity. This has positive public health implications, changing attitudes of the society towards people living with HIV can create more openness to discussions on HIV prevention and control causing further reduction in new infections and improved the wellbeing of people living with HIV. Other positive consequences among those who disclosed were: disclosure of HIV status helped 94% respondents to adhere to anti-retroviral therapy and keep hospital appointments, disclosure of HIV status reduced feelings of stress in 92% respondents, also disclosure of HIV status helped 79% of the respondents

practice preventive measures. These findings are consistent with findings in Ethiopia and France.[32,77]

About ten percent of respondents regret disclosing their status. This was largely due negative outcomes of disclosure experienced from their loved ones such as stigma, discrimination and divorce. This figure agrees with figures gotten from studies in Southern Nigeria and South-Eastern Nigeria but differs from findings in a study done in Namibia which found that only about 4% of respondents regretted disclosing their status.[33,62,70] This suggests that more still needs to be done to educate families and communities about the need to end stigma and discrimination and offer acceptance to people living with HIV.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

In this study, the proportion of people living with HIV in general hospital Ikot Ekpene with good knowledge on HIV status disclosure was high. Overall, the proportion of people living with HIV in General Hospital Ikot Ekpene that disclosed their status was 70.3%, lower than other studies in Northern Nigeria, South-Western Nigeria and South-west Ethiopia.[21,31,78] The proportion that disclosed to household member was 64.2%. The proportion that had disclosed to a sexual partners was 52%. The proportion of people living with HIV that had disclosed their status was 70.3%.The factors associated with non-disclosure were: being unmarried, belonging to religions other than Christianity or Islam, having secondary education and below, knowing one's status for twelve months or less , absence of TB co-infection and not thinking HIV status disclosure was important.

The barriers to HIV status disclosure were fear of the unknown, fear of stigma and fear of loss of confidentiality, shame, time not being right and fear of divorce. The consequences of HIV status disclosure were predominantly positive. Initial positive outcomes were 52% compared to the anticipated 21%. While subsequent outcomes were positive in 95% in cases. Other positive consequences among those who disclosed were: Disclosure of HIV status helped 94% respondents to adhere to anti-retroviral therapy and keep hospital appointments .Disclosure of HIV status reduced feelings of stress in 92% respondents. Disclosure of HIV status helped 79% of the respondents practice preventive measures.

6.2 Recommendations

Based on the findings from this study, it is therefore recommended that:

1. Provision of information on HIV status disclosure to people living with HIV should be prioritized by the healthcare providers, support groups and partner organizations working with people living with HIV.
2. HIV status disclosure should be encouraged among people living with HIV, early status disclosure should be encouraged especially to those who have sexual partners by health workers. This might be done by encouraging couple counselling.
3. HIV disclosure counselling and trainings by health workers and NGOs should pay special attention to those not currently married, those belonging to religions other than Christianity and Islam, those having secondary education and below and those who have recently been diagnosed.
4. Questions on HIV status disclosure should be included in national surveys on HIV, sexual behaviour and health to generate more data on the prevalence and trends of HIV status disclosure in Nigeria.
5. The media, the state government and NGOs working on HIV prevention should educate the adult public on the need for safe sex practice due to high levels of non-disclosure to partners among people living with HIV.
6. Non-Governmental Organizations, Local Government Area AIDS Control Agencies (LACA), community health professionals, and support groups for people living with HIV should conduct public health campaigns and advocacy for the need to stop discriminatory and stigmatizing practices towards people living with HIV.

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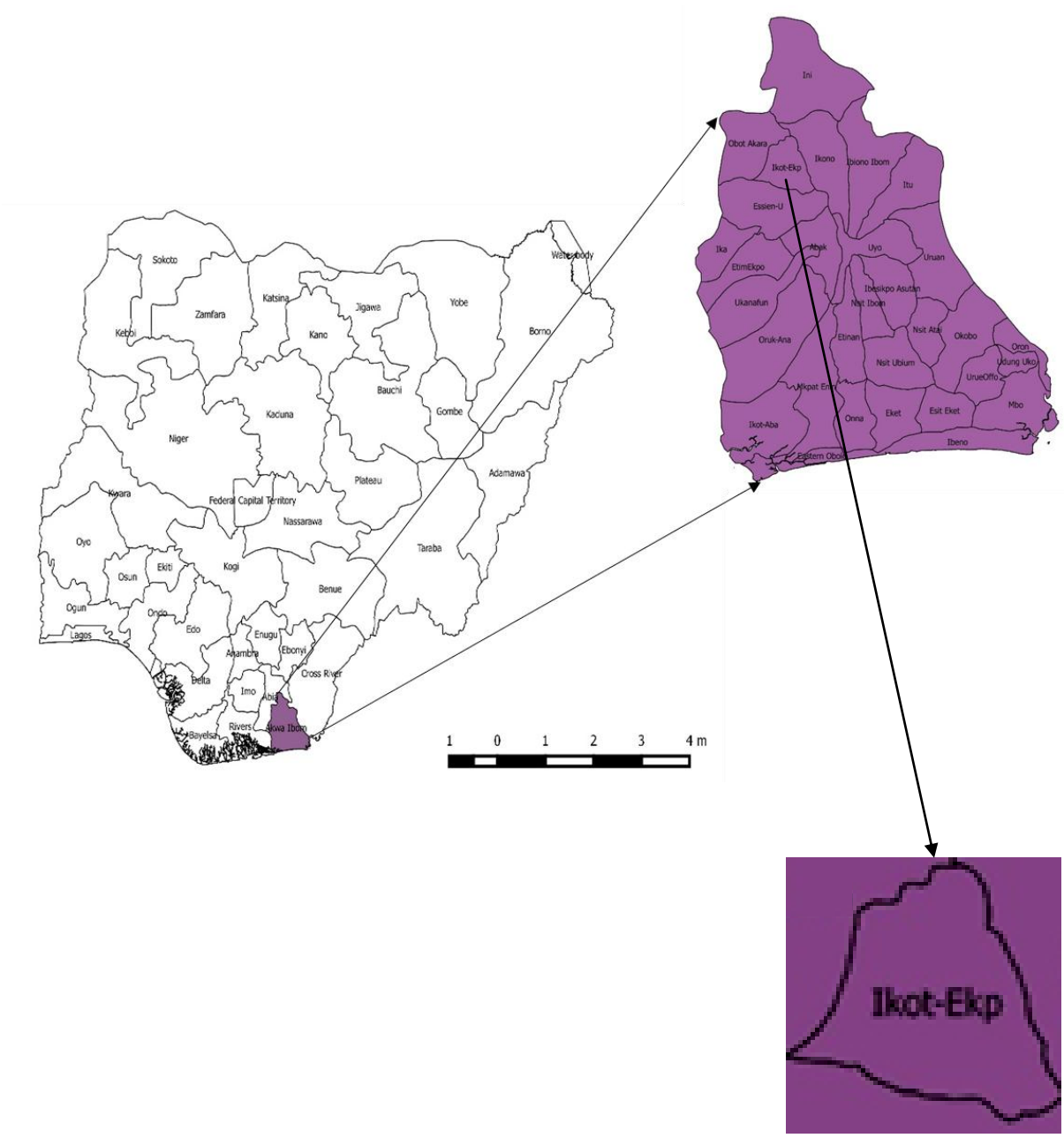
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APPENDICES

APPENDIX 1



The Map of Nigeria highlighting Akwa Ibom state – showing the study area Ikot Ekpene

APPENDIX 2

QUESTIONNAIRE

HIV SERO STATUS DISCLOSURE AND ASSOCIATED FACTORS AMONG PEOPLE LIVING WITH HIV/AIDS ATTENDING A CARE AND TREATMENT CENTRE IN GENERAL HOSPITAL IKOT EKPENE

I am a postgraduate student of the Department of Community Medicine Ahmadu Bello University, Zaria conducting a research on HIV status disclosure. I will be asking some questions some of which are personal but I implore you to be sincere with your responses to the questions. Your identity cannot be linked to the information obtained during this interview. Participation in this study is voluntary as you are free to decline participating. You also have a right to withdraw at any time you choose to during the study. I will greatly appreciate your help in responding truthfully to the survey questions. Thank you.

Consent by respondent: The study has been well explained to me and I fully understand the content of the study process, I will be willing to take part in the study.

Signature of respondent …… Date …….....

Interviewer reads: Thank you for agreeing to meet with me today and participate in this research.

Participant ID NO_____

Interviewer ID NO_____

Interview Start Time: _____

Interview End Time: _____

Date of interview_____/_____/_____

PART A: SOCIO-DEMOGRAPHIC DETAILS

1. Date of birth_____/_____/_____

2. Gender: 1. Male _____ 2. Female_____

3. Participant's age (in complete years) _____

4. Where do you live?_____

5. What is your education level?

1=None Skip to Q.7 2=Primary 3=Secondary 4=Higher education

6. What is the highest (standard/form/year) you completed at that level?

_____ standard/form/year 1=I don't know 2=Refused

7. What is your occupation?

1=Employed 2=Self employed 3=Housewife Skip to Q.10

4=Unemployed Skip to Q.10

5=Student Skip to Q.10

7=Others (specify) _____

8. If you are employed or self-employed, what do you do? _____

9. What is your monthly income?

1=less than 20,000

2= 20,000-49,999/-

3=Between 50,000/- and 99,000/-

4=Between100,000/- and 299,000/-

5= More than 299,000/-

10. What is your marital status now?

1=Married 2=Never married

3=Widowed 4=Divorced

5=Separated 6=Living together as married

7= I don't know

11. What is your religion?

1=Roman Catholic 2= Orthodox 3=Pentecostal 4=Muslim

7=No religion 8=Other religion (specify)

12. (For males only): How many wives do you have or other partners do you live with as if married? Then skip to Q.14

_____ Number of wives and live-in partners

2=Refused

13. (For females only): Including yourself, in total, how many wives or other partners does your husband/partner live with now as if married?

_____ Number of wives/partners 1=I don't know 2=Refused

14. How long have you been with your husband/wife/partner?

_____1=Number of days _____2=Number of weeks

_____3=Number of months _____4=Number of years

5= I don't know 6=Refused

15. Do you have any children?

1=Yes 2=No If No skip to Q18

16. How many children do you have?

_____Number of children

17. How old is your youngest child?

_____ 1= I don't know

PART B: HIV KNOWLEDGE

Now I will like to ask you some questions about ways of spreading and preventing HIV

18. Can HIV be spread through mosquitoes? 1. Yes 2. No
19. Can HIV be spread by sharing cooking utensils 1. Yes 2. No
20. Can HIV be transmitted from mother to child? 1. Yes 2.No
21. Can treatment reduce mother to child transmission of HIV? 1. Yes 2.No
22. Can HIV be prevented by using condoms all the time? 1. Yes 2.No

23. When did you find out that you have HIV? _____/_____(month/ year)
24. In this hospital, where did you get tested for HIV?1. ANC 2.HCT 3. Other specify)_____
25. Did you receive pre-test counselling? 1.Yes 2. No
26. Did you receive post-test counselling? 1.Yes 2.No
27. Why did you get tested for HIV?

1=I felt sick
2= Partner's illness/death
3= Child illness/death
4=I heard an advert on the radio/TV
5= Health provider recommended
6=Family or friend encouraged me to get tested
7=I was pregnant and the clinic tested me
8=Self initiative
9=Others (specify) _____

28. When was the last time your CD4 count was tested? _____/_____ (month/ year)

1= I don't know

29. What was your CD4 count last time you were tested?

_____CD4 count 1= I don't know

30. Do you take any medication for HIV?

1=Yes 2=No Skip to Q.34 3= I don't know

31. Are you taking ARVs?

1=Yes 2=No Skip to Q.34 3= I don't know

32. When did you start taking ARVs?

_____/_____(month/ year) 1= I don't know 2=Refused

33. How often do you miss your medication?

1=never 2= rarely(up to 2 times a week) 3= sometimes (2-4times a week) 4= often (more than 4 times a week)

34. Have you been diagnosed with a TB infection?

1=Yes 2=No Skip to Q. 36 3= I don't know

35. Do you take medication for a TB infection?

1=Yes 2=No 3= I don't know 4=Refused

36. Have you been diagnosed with any other HIV-related illness?

1=Yes 2=No

If Yes, (specify) _____

PART C: SEROSTATUS AND DISCLOSURE INFORMATION

37. Did you receive any counseling in connection with HIV test result disclosure?

1=Yes 2=No skip to

If yes, how many times_____

38. Have you shared your HIV positive test results with anybody?

1=Yes 2=No

Why?_____

(If No proceed to 54)

39. How long after learning your HIV status, did you first disclose your HIV status?

_____

40. How many people have you told? _____Numbers

41. How many household members have you told? _____Numbers 1=I don't know

42. Have you ever disclosed your HIV status to any of the following people?
(Circle all that apply)

1. Any parent? 1. Yes 2. No
2. Any biological child? 1. Yes 2. No
3. Any relative? 1. Yes 2. No
4. Any friend? 1. Yes 2. No
5. Any spouse? 1. Yes 2. No
6. Any sex partner? 1. Yes 2. No
7. Any pastor? 1. Yes 2. No
8. Others specify _____

43. What reaction did you anticipate and what reactions did you get?

Person disclosed to	Anticipated reaction	Initial reaction	Subsequent reaction
1.			
2.			
3.			
4.			
5.			
6.			
7,			

50. Who would you like to disclose your HIV status to that does not yet know?

_____

51. Why have you not disclosed to this person?_____

52. Who was the first person you told?_____

53. Who was the second person with whom you shared you HIV status? _____

Non-Disclosure

54.Are you worried about other people finding out your HIV status?

1=Yes 2=No 3=I don't know

55. What do you think might happen if people you have not told found out your HIV status? (Do not read responses. Tick all that apply)

1=Might be fired or lose a job/denied a job

2=Family member might treat you differently

3=Might lose friends

4=Partner might get violent

5=People might start gossiping about you

6=Might be kicked out of your home

7=In-laws might encourage spouse to leave you

8=Your children might be abused or discriminated against

9=Your Children might become upset/fearful

10=Might not get care/hospital home and/school

11=Might cause other persons health deteriorate or other person to become anxious.

12=Stigma

13=Nothing

14=Other (specify) _____

PART D: KNOWLEDGE ON THE IMPORTANCE OF HIV STATUS DISCLOSURE

56. Have you ever heard of the importance of HIV status disclosure?

1=Yes 2=No

57. How did you get that information?

1=Training 2=Family members

3= Health care providers 4= Friends

5= Peers 6= Teachers

7= Religious members 8= Internet

9= Media 9=Other (specify) _____

58. Do you think it is important to tell others about your HIV status?

1=Yes 2=No

59. Why do you think it is important to tell other people about HIV/AIDS status?

_____

PART E: CONSEQUENCES OF DISCLOSURE (If has not disclosed, skip to 67)

60. After disclosing your status did you receive more help? 1. Yes 2. No

If yes, What kind of help did you receive? _____

61. After disclosing your status did you suffer in any way? 1. Yes 2. No

If yes,how?_____

63. How do you feel about disclosing your status?

1= I feel happy to have disclosed

2= I regret disclosing my status

3= I don't feel anything

4= I don't know

64. Why do you feel this way _____

65. Has disclosing your status helped you to adhere to your medication and hospital visits?

1. Yes 2. No

66. Has disclosing your status reduced your stressful feelings? 1.Yes 2.No

Sexual Behaviour and Partner Characteristics

67. How many sexual partners have you ever had? _____Total number of lifetime partners

68. Currently, how many sexual partners do you have? _____

If the answer is 0 (I don't have any) Skip to END

69. How many of them have you disclosed to?_____

70. Do you belong to a support group?_____

71. Would you be willing to make your status public? _____

Interviewer reads: Thank you for taking the time to participate in this interview.

	Partner 1	Partner 2	Partner3
70. Is this person your spouse, fiancé, main partner or casual partner? 1=Spouse 2=Fiancé 3=Main partner 4=Casual partner 5=I don't know 6=Refused	1=Spouse 2=Fiancé 3=Main partner 4=Casual partner 5=I don't know 6=Refused	1=Spouse 2=Fiancé 3=Main partner 4=Casual partner 5=I don't know 6=Refused	1=Spouse 2=Fiancé 3=Main partner 4=Casual partner 5=I don't know 6=Refused
71. How old is your partner? _____Complete years	___Complete years	___Complete years	___Complete years
72. What is your partners' education level? 1=None 2=Primary school 3= Secondary 4=Higher education 6= I don't know 7= Refused	1=None 2=Primary school 3= Secondary 4=Higher education 6= I don't know 7= Refused	1=None 2=Primary school 3= Secondary 4=Higher education 6= I don't know 7= Refused	1=None 2=Primary school 3= Secondary 4=Higher education 6= I don't know 7= Refused
73. What is your partners' Occupation? 1=Employed 2=Self employed 3=Housewife 3-6 Skip to Q.75 4=Unemployed	1=Employed 2=Self employed 3=Housewife 3-6 Skip to Q.75 4=Unemployed	1=Employed 2=Self employed 3=Housewife 3-6 Skip to Q.75 4=Unemployed	1=Employed 2=Self employed 3=Housewife 3-6 Skip to Q.75

5=Student 7=Others (specify) _____	5=Student 7=Others (specify) _____	5=Student 7=Others (specify) _____	4=Unemployed 5=Student 7=Others (specify) _____
74. What is your partner's monthly income? 1=Less than 20,000/- 2=Between 20,000/- and 49,000/- 3=Between50,000/- and 99,000/- 4= Between100,000/- and 299,000/- 5=More than 299,000/- 6=None 7=I don't know	1=Less than 20,000/- 2=Between 20,000/- and 49,000/- 3=Between50,000/- and 99,000/- 4= Between100,000/- and 299,000/- 5=More than 299,000/- 6=None 7=I don't know	1=Less than 20,000/- 2=Between 20,000/- and 49,000/- 3=Between50,000/- and 99,000/- 4= Between100,000/- and 299,000/- 5=More than 299,000/- 6=None 7=I don't know	1=Less than 20,000/- 2=Between 20,000/- and 49,000/- 3=Between50,000/- and 99,000/- 4= Between 100,000/- and 299,000/- 5=More than 299,000/- 6=None 7=I don't know
75. Do you know your partner's HIV status? 1=Yes 2=No skip to Q. 77	1=Yes 2=No skip to Q. 77	1=Yes 2=No skip to Q. 77	1=Yes 2=No skip to Q. 77
76. What is your partner's HIV status?			

1=HIV positive 2=HIV negative 3=I don't know	1=HIV positive 2=HIV negative 3=I don't know	1=HIV positive 2=HIV negative 3=I don't know	1=HIV positive 2=HIV negative 3=I don't know
77. Have they ever hit, slapped or done anything else to hurt you physically? 1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused
78. Have you told this partner your HIV status? 1=Yes 2=No skip to Q 81	1=Yes 2=No skip to Q 80	1=Yes 2=No skip to Q 80	1=Yes 2=No skip to Q 80
79. How long has it been since you told this partner that you're HIV positive? _____1=Days ago _____2=Months ago _____3=Year ago	___1=Days ago ___2=Months ago ___3=Year ago	_____1=Days ago _____2=Months ago _____3=Year ago	_____1=Days ago _____2=Months ago _____3=Year ago
80. Did your partner hit, slap or do anything else to hurt you physically When you told this partner you are HIV positive? 1=Yes 2=No	1=Yes 2=No	1=Yes 2=No	1=Yes 2=No

81. Will you could tell your partner about your HIV status in the next month? (Skip this Qn if Q.75 &Q.78 are Yes and If Q.76 is HIV positive) 1=Very confident 2=Confident 3=Somewhat confident 4=Not at all confident 5=I don't know 6=Refused	1=Very confident 2=Confident 3=Somewhat confident 4=Not at all confident 5=I don't know 6=Refused	1=Very confident 2=Confident 3=Somewhat confident 4=Not at all confident 5=I don't know 6=Refused	1=Very confident 2=Confident 3=Somewhat confident 4=Not at all confident 5=I don't know 6=Refused
82. How worried are you about transmitting HIV to this partner? (Skip this Qn if Q.50 &Q.52 are Yes and If Q.76 is HIV positive) 1=Very worried 2=Somewhat worried 3=Not at all worried 4=I don't know 5=Refused	1=Very worried 2=Somewhat worried 3=Not at all worried 4=I don't know 5=Refused	1=Very worried 2=Somewhat worried 3=Not at all worried 4=I don't know 5=Refused	1=Very worried 2=Somewhat worried 3=Not at all worried 4=I don't know 5=Refused

83. Does your partner provide any financial support to you or any of your children? 1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused
84. Do you provide any financial support to your partner? 1=Yes 2=No 3=I don't know	1=Yes 2=No 3=I don't know	1=Yes 2=No 3=I don't know	1=Yes 2=No 3=I don't know
85. In the past 3 months, how many times did you have sexual intercourse with your partner? ____Number of times 1=I don't know 2=Refused	__Number of times 1=I don't know 2=Refused	__Number of times 1=I don't know 2=Refused	___Number of times 1=I don't know 2=Refused
86. How often did you use condom when you have sexual intercourse with your partner?			

1=Never Skip to END 2=Some of the time 3=Most of the time 4=All of the time 5=I don't know 6=Refused	1=Never Skip to END 2=Some of the time 3=Most of the time 4=All of the time 5=I don't know 6=Refused	1=Never Skip to END 2=Some of the time 3=Most of the time 4=All of the time 5=I don't know 6=Refused	1=Never Skip to END 2=Some of the time 3=Most of the time 4=All of the time 5=I don't know 6=Refused
87. Did you or your partner use a condom the last time you had sexual intercourse together? 1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused
88. Can you refuse to have sex with your partner if he/she does not want to use condoms? 1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused	1=Yes 2=No 3=I don't know 4=Refused

Interviewer reads: Thank you for taking the time to participate in this interview.

APPENDIX 3

ETHICAL CLEARANCE

GOVERNMENT OF AKWA IBOM STATE OF NIGERIA

elephone: 085-204091
elegram: HEALTH

MINISTRY OF HEALTH
IDONGESIT NKANGA SECRETARIAT
BLOCK 8, P.M.B. 1030
UYO

Our Ref: MH/PRS/99/VOL.111/562
Your Ref:

29 April 2016

Dr. Nsisong Asanga
NFELTP, 50 Haille Sellasie
Asokoro, Abuja.

RE: APPLICATION FOR ETHICAL CLEARANCE

I am directed to convey the approval of the Honourable Commissioner for Health, based on the recommendation of the Research Unit/ State Health Research Ethics Committee, to you to carry out a research Project entitled:

"DETERMINANTS OF HIV STATUS DISCLOSURE AMONG PLHIV RECEIVING CARE AT GENERAL HOSPITAL IKOT EKPENE."

This approval is conditional on you seeking and obtaining informed consent of your participants and ensuring their strict confidentiality. While conducting your research, you are not allowed to carry out any invasive procedure on your participants.

Furthermore, you are expected to adhere strictly to the approved research protocol at all times. To this end, you are not allowed to change your approved research protocol without recourse to further consideration and approval of the Honourable Commissioner for Health.

It is important to note that you are also expected to send a copy of the outcome of your research project to the Office of the Honourable Commissioner for Health on completion.

Best wishes.

Yours sincerely

Dr. Boniface E. Ukpong, MBBCh, MPH (Leeds, England)
For: Honourable Commissioner