

**HIV/AIDS PREVENTIVE HEALTH BEHAVIOURS AMONG UNDERGRADUATES  
OF THE UNIVERSITY OF IBADAN, NIGERIA**

**BY**

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**B.Sc. Health Education (UNN)**

**A Dissertation in the Department of Health Promotion and Education  
Submitted to the Faculty of Public Health, College of Medicine,  
in partial fulfillment of the Requirements for the Degree of  
Masters of Public Health (Population and Reproductive Health Education)**

**University of Ibadan, Ibadan**

**Nigeria**

**July 2010**



## ABSTRACT

Studies have shown that HIV/AIDS remains a major public health challenge worldwide and the adoption of preventive health behaviour holds the key to its control. Little is known, however, about the typology of preventive health behaviour adopted by undergraduates of the University of Ibadan against the disease. This study, therefore determined the pattern and types of HIV preventive health behaviour among undergraduates of the University.

The study was cross-sectional in design. A two-stage sampling procedure was used to randomly select 400 students from the Faculties of Pharmacy, the Social Sciences, Arts and Dentistry out of the thirteen Faculties in the university. A validated questionnaire which assessed the students' preventive health behaviour and the antecedent factors was used for data collection. Descriptive and Chi-square statistics were used for data analysis.

The mean age of the participants was 22.5 years  $\pm$  3.6. Most (80.3%) of them were Christians. Participants' overall mean knowledge score on HIV was 18.9 out of 25 points. There was no gender difference in knowledge with males and females having the same mean score of 18.9. Respondents' knowledge score by level of study were as follows: first year-18.9, second year-18.2, third year-18.5; fourth year-19.3; fifth year-19.6; and sixth year-19.7 ( $p > 0.05$ ). The participants' mean knowledge scores by occupation of their fathers were: trading-18.5; civil service-18.9; farming-18.7; and unemployed-17.4 ( $p > 0.05$ ). The mean knowledge score by occupation of their mothers were: trading-18.4; civil service-20.7; farming-19.4; and unemployed-17.3 ( $p < 0.05$ ). Most participants (97.3%) believed that unprotected sexual intercourse was risky. A majority (96.3%) reported that blood transfusion could transmit HIV. The preventive health practices adopted by the participants were: avoiding sharing of skin-piercing instruments (93.6%), sexual abstinence (90.3%) and consistent condom use (58.6%). The prevalence of condom use by religion was as follows: Christians-76%; Muslim-23.6%; Traditionalist-0.04% ( $p > 0.05$ ). More males (51.9%) than females (48.9%) practiced consistent use of condom. The prevalence of consistent use of condom by faculty was: Social Sciences-28.6%; Arts-19.5%; Dentistry-28.6%; and Pharmacy-23.3%. More participants in the Faculty of the Social Sciences (26.4%) avoided sharing of skin-piercing instruments compared to those in the Arts (24.8%), Dentistry (23.2%) and Pharmacy (25.6%). More females (54.2%) than males (45.8%) abstained from

sex ( $p < 0.05$ ). A majority (77.7%) of those that avoided skin-piercing instruments did so "always". The mass media topped the list of the sources of motivation to adopt HIV/AIDS preventive health behaviour relating to the following: sexual abstinence (26.8%), consistent use of condom (31.3%), avoiding sharing of skin-piercing instrument (29.7%) and limiting the number of sexual partners to one uninfected person (26.6%). Health personnel constituted the main factor that influenced the use of safe injection needles (29.3%).

The adoption of each of the types of HIV preventive health behaviour among the participants was low in spite of their general high level of knowledge of the disease. Health education strategies such as peer education, social marketing and advocacy are needed to promote the adoption of preventive health behaviour among the students.

**Keywords:** HIV/AIDS, Preventive health behaviour, University of Ibadan undergraduates.

**Word Count:** 490

## Acknowledgements

Thanks to the Almighty God for His mercy, protection and guidance throughout the course of this programme. Glory to Him, for His banner over us is love.

My profound gratitude goes to my supervisor, Professor Oladimeji Oladepo, for his understanding and support throughout the period of this project supervision. His numerous corrections made me stronger in the work. I also want to extend my profound gratitude to Prof. Adeniyi (Rtd), Dr. I. Olaseha, the Acting Head of Department, Dr. A. J. Awon, an associate professor, Dr. F. Oshinamo and Dr. (Mrs.) O. S. Arulogun who are senior lecturers, all in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan for their valuable and intellectual support throughout the duration of this course of study. I wish to single out Dr. (Mrs.) Arulogun who in particular is a role model to women.

I wish to extend my appreciation to Prof. Omlude M. A., of the Department of Agriculture and Environmental Engineering, University of Ibadan, for his assistance when I gained admission to the University. May God reward you. I also wish to thank all the members of staff of Planned Parenthood Federation of American International, (PPFA-I) Mr. Francis Eremutha, Mr. Salihu Nasir, Mrs. Akerele Bimbo, and Mr. Musa Danjuma for allowing me access to information on programming during the mandatory internship in their office.

I appreciate the cooperation of all 2004/05 MPH class for their assistance and support. My research assistants Faithy, Tunde, Joy and Yinka are tremendously appreciated. I would say a big thank you to my friends, Deborah, Chioma and Ogechi for their love and support.

Special thanks to my family members Chukwuogobuo, Ogechukwu, Ifeoma, Chmwuko, Chukwuemeka, Ifechukwunacho, Ikechukwu, Nnanna and their families, for their encouragement and financial support throughout the period of this study. Your wonderful encouragement remains indelible.

Ezeajughi Ngozi

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The study was cross-sectional in design. A two-stage sampling procedure was used to randomly select 400 students from the Faculties of Pharmacy, the Social Sciences, Arts and Dentistry out of the thirteen Faculties in the university. A validated questionnaire which assessed the students' preventive health behaviour and the antecedent factors was used for data collection. Descriptive and Chi-square statistics were used for data analysis.

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## Certification

I certify that this work was carried out by EZEAJUGHI, Ngozi in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Nigeria.

  
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### Dedication

This work is dedicated to the Almighty God, my hope in ages past and in years to come. Sir and Lady S. O. Ezeajugh, my dearest parents and best of all parents for their love and encouragement. With great love, I also dedicate this work to my dear husband – Obumunæke Obunzi, I cherish you.

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## Acronyms

ACYN	Association of Concerned Youths of Nigeria
AIDS	Acquired Immune Deficiency Syndrome
AIDSCAP	AIDS Control and Prevention
ARV	Antiretroviral drug
CACA	Catholic Action Committee on AIDS
CBO	Community Based Organization
CDC	Centre for Disease Prevention and Control
FBO	Faith Based Organization
FHI	Family Health International
FMH	Federal Ministry of Health
GHAJN	Global HIV/AIDS Initiative in Nigeria
GRID	Gay Related Immune Deficiency
HBM	Health Belief Model
ITV	Human Immunodeficiency Virus
LACA	Local Agency for the Control of AIDS
MTCT	Mother to Child Transmission
NACA	National Agency for the Control of AIDS
NACP	National AIDS Control Programme
NDHS	National Demographic Health Survey
NEACA	National Expert Advisory Committee on
AIDS	
NEPWHAN	Network of People Living with HIV/AIDS in Nigeria
NGO	Non-Governmental Organizations
NYAP	National Youths AIDS Programme
PACA	Parish Action Committee on AIDS
PMTCT	Prevention of Mother-to-Child Transmission
PPFAI	Planned Parenthood Federation of American International



<b>SACA</b>	<b>State Agency for the Control of AIDS</b>
<b>STI</b>	<b>Sexually Transmitted Infections</b>
<b>UNAIDS</b>	<b>United Nations Against AIDS</b>
<b>UNFPA</b>	<b>United Nations Fund for Population</b>
<b>Activities</b>	
<b>UNICEF</b>	<b>United Nations International Emergency</b>
<b>Fund</b>	
<b>USAID</b>	<b>United States Agency for International</b>
	<b>Development</b>
<b>VCCT</b>	<b>Voluntary Counseling and Confidential Testing</b>
<b>WAA</b>	<b>War Against AIDS</b>

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## Definition of Terms

For the purpose of this study, the following words were used:

**Sexuality:** Total expression of person's value, attitude and behaviour

**Youth:** Young person's between the ages of 18-30

**Stigma:** A negative branding or labelling which leads to a feeling of unworthiness.

**Preventive health behaviour:** This refers to any activity undertaken by an individual who is believed to be healthy, for the purpose of preventing or detecting illness.

**Risk behaviour:** Risk behaviour is negative behavioural activities that are capable of aiding disease infection.

**Sexual abstinence:** is the practice of refraining from some or all aspects of sexual activity for medical, psychological, legal, social or religious reasons.

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

The prevalence of death globally due to HIV/AIDS has resulted to increased pain afflicted by this disease that has no cure. The first case of the disease was reported in the United States of America in 1980 as well as Nigeria in 1985 (Thompson 2004, UNAID 2009). Since then, the spread of Human Immunodeficiency Virus (HIV) that leaves the infected person exposed to an array of diseases collectively known as Acquired Immune Deficiency Syndrome (AIDS) has become a global health crisis. The virus, which causes the deadly disease, is transmitted when there is exchange of body fluids from the infected person either through blood, semen, pre-ejaculatory fluid, vaginal secretions, and nursing mother's breast milk (Guiella and Madise 2007). AIDS is characterized by persistent fever, persistent diarrhoea, constant cough, severe weight loss, severe fatigue, skin irritation (rashes and flaky skin), mouth infection, swollen glands, night sweats, frequent yeast infection (oral or vaginal), pelvic inflammatory disease that does not respond to treatment in women and short term memory loss (Olaide, 2005).

Since HIV was reported, its transmission and prevalence has been on the increase worldwide. In 2002, some 5 million people became infected with the Human Immunodeficiency Virus (HIV); the year also saw 3.1 million deaths (USAID, 2002). This brought the total to 21.8 million deaths since the beginning of the epidemic despite antiretroviral therapy which reduced AIDS and AIDS related deaths in developed countries (USAID 2002). Worldwide, estimates from the Joint United Nations programme on HIV/AIDS (UNAIDS, 2003) and the World Health Organization (WHO, 2003), recorded that 38.6 million adults and 3.2 million children were living with HIV at the end of 2002. This is more than 50% higher than the figures projected by WHO (1991) with men having a higher number of 19.4 than women 19.2. In 2007 about 2 million people died of AIDS and 33 million were living with HIV while 2.5 million were newly infected with the virus (UNAIDS, 2007). According to estimates

from UNAIDS 2009, around 31.3 million adults and 2.1 million children were living with HIV at the end of 2008. In the same year, some 2.7 million people became infected while 2 million deaths occurred. In sub-Saharan Africa, 22,000,000 were living with HIV/AIDS in 2007, 18,000,000 were children and 12,000,000 were women. The same year recorded about 11,600,000 orphans and 1500,000 deaths as a result of HIV/AIDS (UNAIDS, 2010).

Nigeria, the most populous African nation, with a population of about 120 million people, has an estimated 3.47 million infected with HIV with the sero prevalence rate of 5.8 percent in 2001 (Folayan and Afolabi, 2003). The rate, which has been on the increase from 1.8 percent in 1992 to 3.8 percent in 1993 and from 4.5 in 1998 to 5.8 percent in 2001, has reduced to 4.4 percent in 2005 (National Agency for the Control of AIDS, 2006). Estimated HIV infection in Nigeria by states and zones shows a variation in the trend between 1999 and 2008. While there were fourteen states with prevalence rate above 5.4 in 1999, there were fifteen states with prevalence rate above 5.8 in 2001. In 2006, less than ten states have a prevalence rate above 5.0%. (NACA, 2006). National HIV prevalence of 4.6% was recorded in 2008 and it ranged from 1.0% in Ekiti State to 10.6% in Benue State whereas seventeen states and Federal Capital Territory had prevalence of 5.0% and above (ANC Sentinel Survey, 2008).

The prevalence of HIV among youths in Nigeria is known to be higher than any other age bracket. Findings from National Demography Health Survey (NDHS, 2003) reported 6% sero-prevalence on the average for young persons: 6.1% for 15-19 years; 6.0% for 20-24 years; and 6.5% for 25-29 years. Similar finding from (UNAIDS 2003) reflected a slight downward trend among young persons. In 2008, young person's had prevalence rate as follows: 15-19 years had 4.1%, 20-24 had 5.6% and 25-29 had 5.4%. The downward trend continued with 4.3% in 2005 to 4.2% in 2008 (National Sentinel Survey, 2008). Nigeria's STD/HIV control estimated that over 60% of new HIV infections are within the age range of 15-25 years. The findings were not significantly different from the prevalence of HIV among University students (Ohiri and Aniche 2004). Ohiri *et al* (2004) reported that the prevalence rate among ages 15-24 years is 6.5% in 2003 and a good percentage of the students population fall in this age bracket. These young persons who constitute the population of Nigerian University students are

the productive and educational asset of the nation, yet issues of sexuality cannot be liberally discussed among young persons. The National HIV/AIDS and Reproductive Health Survey (2003) report shows that 84% of young persons aged 20-24 years and 96.9% of persons aged 25-29 years have been documented to be sexually active. The risk behaviour of young persons most often than not, revolve around sexuality and factors that encouraged sexual activity.

Studies show that even though students are knowledgeable and concerned about contracting HIV/AIDS from their partners, it has not prevented them from engaging in unprotected sexual intercourse (Hlanling, Bird and Brown, 2001). The experimentation characteristics of young persons drive them to behave in such a way as to engage in risky behaviour. United Nations Fund for Population Activities (UNFPA, 2001) reported that most young persons experiment in high risk behaviour such as unprotected sexual intercourse, use of drugs, cigarette and tobacco use, rape, multiple sex partners and cultism, which make them vulnerable to HIV/AIDS and other sexually transmitted infections. Folayan and Asolabi (2003) and UNAIDS (2006), reported that young persons within the age bracket of 15-19 and 20-24 years constitute the most affected groups in terms of exposure to risky behaviour in the areas of having multiple sexual partners and engaging in commercial sex work. UNFPA (2005) highlighted that increased HIV prevalence among young persons particularly the female gender is as a result of high degree of misinformation and low level of knowledge. The majority lack access to effective prevention programmes while many do not have access to condoms. Mac, Bellis, Macintosh, Syed, and Mutton, (2000) reported that in the Universities in West England, (Liverpool and Manchester), there were significant levels of HIV risk behaviour: paid for sex (5.7%); being paid-for-sex (3.7%); injecting drugs (3.0%); greater than 5 sexual partners (23.7%); sex with an individual from a high risk country (1.3%); homosexual sex (7.0%) and sex with a bisexual man (1.3%). Similar studies show that risky behaviour is high among Nigeria students. Onah, Mbah, Chukwuka and Ikeme (2004) in a study on HIV/AIDS awareness and sexual practices among undergraduates in Enugu Nigeria, reported that of the 505 respondents, 348 (68.9%) had high knowledge of HIV/AIDS but such high knowledge has no correlation with subsequent sexual behaviour among students.

## 1.2 Statement of the Problem

In Nigeria, young persons and probably the most virile and productive age group of 15-49 years had HIV prevalence rate of 5.8% in 2001, 5.0% in 2005 and 4.6% in 2008 (NACA, 2006; FMOH, 2005; Sentinel Survey, 2008). The age group of 20-24 account for the highest HIV prevalence rate of 6.5% as at 2005 (UNAIDS, 2006 UNAID, 2004). Harding, Bird and Brown, (2001), indicated that half of all people who are infected with HIV/AIDS get infected between ages 15-30.

Several researches (Ejemi, 2004; Omotoso, 2005 and Ebi, Ehikioya and Anwa, 2006) show that the knowledge of HIV transmission among undergraduates in Nigerian Universities is high but the practice of preventive behaviour is low. There are reports of inconsistent or non-use of condom (Okonkwo, Fatusi, and Ilika, 2005), multiple sexual partners (Ebi et al 2006), alcohol abuse, consumption of illicit drugs (Oshodin, 1982, Nevadansky, 1985), behaviors associated with drug abuse, such as sharing drug injection equipment and engaging in risky sexual behavior National Institute for Drug Abuse (NIDA, 2010), increased use of unsterilized needles and sharp objects (Schmid, David and Lancer, 2003; Gisselquist, 2005). The resultant effect is increase in STIs including HIV/AIDS.

Recent studies have shown that there are evidences that HIV risk practices occur on campuses (Ike and Aniebue, 2007). University undergraduates are adventurous in areas of multiple sex partners, unprotected sex, cultism, rape, and substance abuse despite the high level of knowledge in HIV risk behaviour (Ejemi and Omotoso, 2004; Erulkar, 2004; Ike et al 2007). Ejemi (2004) reported that 54.7% of Ahmadu Bello University students were involved in multiple sexual relationships while only 30% used condom. UNAIDS (2004), highlighted that between the ages of 15-25, young persons are eager to explore and experiment on risk practices without adequate information on preventive health behavior. These risks account for the high prevalence of the disease over and above other age brackets (Lewis, Miguez, Maria and Malow, 2009).

The social climate (dancing clubs, eateries and hotels) and freedom that

characterizes higher institutions in Nigeria permits opportunities for high level of sexual networking and other permissive lifestyle among undergraduates (Katjavivi & Otaala, 2003). Sexual lifestyles in higher educational institutions in Nigeria have been documented as featuring a high level of risky sexual behaviour such as transactional sex, engagement with multiple sexual partners, unprotected casual sex, and gender-based violence (Okonkwo et al, 2005; Kelly, 2001 and Katjavivi & Otaala, 2003). Sexual behaviour is openly displayed on cable networks and print media within the university community while the internet has also increased the rate of pornographic materials available to young persons in Nigeria (Abiona, 2004; Okoye 2009).

### 1.3 Justification of the Study.

HIV epidemic has been a challenge to human life and dignity for over a period of 20 years. The ages that are mostly affected are young person's within the age bracket of 15-25 years (USAID 2001). UNFPA (2005) reported that up to 6,000 young people worldwide are infected everyday. According to Nigerian Federal Ministry of Health (FMOH, 2004 and National Sentinel Survey, 2008) report, HIV/AIDS prevalence rate in the country is 5% and 4.6% respectively. Studies have shown that young people engage in premarital sexual activities and a good number of them have unprotected sex (UNFPA, 2005; UNAID, 2004). The University environment seems to encourage unlimited freedom which young persons explore to engage in risky behaviour. Minimal or lack of parental care, monitoring, negative peer influence and exploration which exists in the university, encourage indulgence in HIV risk behaviour which invariably leads to increase in HIV prevalence on campuses (Okonkwo et al, 2005).

Researches (Ejembi, 2004; Reid, 2009, Simons and Cultrona, 2008) have been conducted to explore types of risky behaviour prevalent in Universities, but there are still gaps in the area of determining the level of increase in preventive health behavioural practices by young persons within the University campuses. It appears that information on Preventive health behaviour practices is still not enough. Evidence from (Carabin, Henderson and Hounton, 2005) showed that young person's still use withdrawal method as preventive health behaviour towards HIV prevention. There is also poor perception in the buying and use of condom (Osho and Olayinka, 1999)

The only option to reduce HIV prevalence in Nigeria is to have insight in pattern and frequency of practice of preventive health behaviour among the high risk group; this will help to increase awareness on positive health habits, which remains the most viable health seeking strategy for individuals living in Nigeria. As risky behaviors are identified by researchers, the study is determined to identify recurrent preventive health behaviour practiced among undergraduates of the University of Ibadan.

This study therefore will provide data on preventive health behaviour practices and factors that influence it among undergraduates of the university. The result of this study will help the policy makers of the university in designing/redesigning educational programmes that will improve HIV preventive health behavior.

#### 1.4 Objectives of the study

The broad objective is to determine HIV/AIDS preventive health behaviour among undergraduate students in the University of Ibadan.

The specific objectives include to:

1. Assess knowledge of undergraduates on HIV/AIDS preventive health behaviour.
2. Identify preventive health behaviour adopted by students of the University of Ibadan.
3. Investigate the pattern and frequency of practice of HIV/AIDS preventive health behaviour among students of University of Ibadan.
4. Determine factors that influence HIV/AIDS preventive health behaviour among undergraduates of University of Ibadan.

#### 1.5 Research Questions

The study set out to answer the following questions:

1. What is the relationship between demographic variables and the knowledge of undergraduates on HIV/AIDS preventive health behaviour?
2. What are the types of HIV/AIDS preventive health behaviour practiced by undergraduates of the University of Ibadan?
3. What are the pattern and frequency of practice of HIV/AIDS preventive health behaviour among undergraduates of the University of Ibadan.?
4. What are the factors responsible for the practice of HIV/AIDS preventive health



behaviour?

### **1.6 Study Hypotheses**

Association between independent variables (faculty, gender and level of education) and dependent variable (knowledge and practice of preventive health behaviour) to be tested are:

1. There is no significant association between faculty of study and knowledge of HIV/AIDS preventive health behaviour.
2. There is no significant association between gender and knowledge of HIV/AIDS preventive health behaviour.
3. There is no significant association between occupation of respondent's parents and knowledge of HIV/AIDS preventive health behaviour.
4. There is no significant association between religion and practice of HIV/AIDS preventive health behaviour practices.
5. There is no significant association between faculty of study and practice of HIV/AIDS preventive health behaviour.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Global Overview of HIV/AIDS Epidemic

Globally, the number of people living with HIV rose from around 8 million in 1990 to 38.6 million in 2005. Around four million children became infected with HIV in 2005 (UNAIDS, 2006). In the same year, about three million deaths from AIDS-related causes were recorded despite recent improvements in access to antiretroviral treatment. At the end of 2001, an estimated 11.8 million young people aged 15-24 were living with the virus and only a small percentage of these young people knew their status. Peter Piot, UNFPA Director General in State of World Population (UNFPA, 2005) disclosed that every day 6,000 young people, 15 to 24 years of age and 2,000 children under 15 years are infected with HIV world wide. AIDS have orphaned over 1.2 million children while 1,600 die of AIDS daily. In 2007 about 2 million people died of AIDS and 33 million were living with HIV while 2.5 million were newly infected with the virus (UNAIDS, 2007). According to estimates from UNAIDS, (2009), around 31.3 million adults and 2.1 million children were living with HIV at the end of 2008. In the same year, some 2.7 million people became infected while 2 million deaths occurred.

Among the total number of people living with HIV, 90% of them live in the developing world (WHO, 2007). In Africa, women account for higher number of people infected with HIV/AIDS unlike most other regions in the world, more than one young woman in every fifty is living with HIV in Sub Sahara Africa (UNAIDS, 2001). African women are considerably more likely - at least 1.4 times - to be infected with HIV than women in other regions of the world as a result of cultural and social problems (UNAIDS, 2001).

## 2.2 Overview of HIV/AIDS in Africa

Sub-Saharan Africa is the most affected region in the world. In this sub region, HIV is mostly spread through heterosexual activities (USAIDS, 2008). An estimated 22 million people were living with HIV at the end of 2007 (UNAIDS, 2008). In 2008 around 1.4 million people died from AIDS in Sub-Saharan Africa and 1.9 million people became infected. More than 1.2 million children have been orphaned by AIDS in 2007 while about 1.5 million people lost their lives in the region (UNICEF, 2008). Infection rates in young women are far higher than in young men hence women account for 55% of adults infected with HIV. In 2007 there were around 12 million women living with HIV and AIDS compared to about 8.3 million men (UNAIDS 2008). HIV prevalence rate differs from one African country to another. In Somalia and Senegal, HIV prevalence among the adult population is under 1% while in Namibia, South Africa, Zambia and Zimbabwe; around 15-20% of adults are infected with HIV (UNAIDS, 2008). Southern Africa has a higher prevalence of the AIDS epidemics: the region which constitutes about 10% of the world's population has over 60% of people living with HIV. Prevalence rate in Botswana, Lesotho and Swaziland exceeds 20% (UNAIDS, 2008). In some East and West African countries like Cameroon, Gabon, Uganda, Kenya, Tanzania and Nigeria, HIV prevalence is estimated to exceed 5% (UNAIDS, 2008). High rate of HIV/AIDS in Africa could be as a result of misconception especially among young people who believe that AIDS is not a serious problem (Oladepo and Brieger, 1994; Nzokio 2001). In Lagos, Nigeria, Durojaiye, (2008) reported that the overall mean score to ten-HIV/AIDS-knowledge questions was 8.3 of 10 points and that 73.5% did not perceive themselves at risk of infection while 70.3% have multiple lifetime sexual partners. The main sources of information of the participants on HIV/AIDS were television (94.7%) and newspapers/magazine 85.4%. Parents and teachers account for 58.9% and 61.6% respectively. Other mentioned sources of information are the internet, religious institutions and information leaflets (Durojaiye 2008).

### 2.3 Overview of HIV/AIDS in Nigeria

The first case of AIDS in Nigeria was reported in 1986 (UNAIDS, 2009). Since the discovery, the epidemic has proved to be the most formidable challenge to human life and dignity and had constituted a national emergency (Thompson 2004). Nigeria with a population of over 140 million people has had to contend with the challenges of the epidemic since 1988. HIV prevalence rose from 1.8% in 1988 to 5.8% in 2001 before marginally declining to 5% in 2003 as well as 4.4% and 4.6% in 2005 and 2008 respectively (NACA, 2006; Sentinel Survey, 2008). In 2003, Nigeria had an estimated 3.3 million adult living with the disease and about two million are estimated to have died from the disease since its detection (Federal Ministry of Health, 2005). In 2001, HIV infections in Nigeria were about 3.6 million while a little over 0.3 millions death and 1.8 millions orphans were recorded. From 2.9 million people who have been estimated to live with HIV/AIDS, 3.9% were persons between ages 15-49 while 1.6 million were women and children (UNAIDS, 2005). Approximately 2.6 million people were living with the virus in 2007, 1.4 million were women while two hundred and twenty two thousand were children (UNAID, 2009 and WHO 2009). In 2008, it is estimated that 2.95 million people in Nigeria are living with HIV/AIDS (Sentinel Survey, 2008) while 192,000 died of AIDS in 2009 (UNAIDS, 2010). Young adults in Nigeria are particularly vulnerable. Indication showed HIV prevalence rate of 6.0% in 2001 and 4.2% in 2008 for individuals aged 15 to 24, 5.6% in 2001 and 4.6% in 2008 for those aged 20 to 24, and 4 percent for those aged 15 to 19 compared to 4.2% in 2008. The recent prevalence by states showed that seventeen states and FCT had prevalence of 5.0%, the situation was even more worrisome in four states of the four geo-political zones. Prevalence rate by six geo-political zones and states in Nigeria is represented in the table below.

**Table 2.1 Prevalence rate of HIV/AIDS by six geo-political zones in Nigeria**

<b>Zones</b>	<b>South- West</b>	<b>North- West</b>	<b>South- East</b>	<b>North- East</b>	<b>North- Central</b>	<b>South- South</b>
<b>Prevalence rate in %</b>	<b>2.0%</b>	<b>2.4%</b>	<b>3.7%</b>	<b>4.0%</b>	<b>5.4%</b>	<b>7.0%</b>

(Source-National Sentinel Survey, 2008).

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Table 2.2 HIV Prevalence Trends by state 1999 to 2008.

State	Prev. in % 1999	Prev. in % 2001	Prev. in % 2003	Prev. in % 2005	Prev. in % 2008
Adamawa	5.0	4.5	7.6	4.2	6.8
Anambra	6.0	6.5	3.8	4.2	5.6
Benue	16.8	13.5	9.3	10.0	10.6
Borno	4.5	4.5	3.2	3.6	2.0
Cross River	5.8	8.0	12.0	6.1	8.0
Delta	4.2	5.8	5.0	3.7	3.7
Edo	5.9	5.7	4.3	4.6	5.2
Enugu	4.7	5.2	4.9	6.5	5.8
Kaduna	11.6	5.6	6.0	5.6	7.0
Kano	4.3	3.8	4.1	3.4	2.2
Kwara	3.2	4.3	2.7	2.8	1.8
Lagos	6.7	3.5	4.7	3.3	5.1
Osun	3.7	4.3	1.2	2.0	1.2
Oyo	3.5	4.2	3.9	1.8	2.2
Plateau	6.1	8.5	6.3	4.9	2.6
Sokoto	2.7	2.8	4.5	3.2	6.0
Abia	3.0	3.3	3.7	4.0	5.0
Akwa Ibom	12.5	10.7	7.2	8.0	9.7
Bauchi	3.0	6.8	4.8	3.4	3.1
Bayelsa	4.3	7.2	4.0	3.8	7.2
Ebonyi	9.3	6.2	4.5	4.5	2.8
Ekiti	2.2	3.2	2.0	1.6	1.0
Gombe	4.7	8.2	6.8	4.9	4.0
Imo	7.8	4.3	3.1	3.9	4.6
Jigawa	1.7	1.8	2.0	1.8	1.6
Katsina	2.3	3.5	2.8	2.7	2.6
Kebbi	3.7	4.0	2.5	4.0	2.9
Kogi	5.2	5.7	5.7	5.5	5.1
Nasarawa	10.8	8.1	6.5	6.7	10.0
Niger	6.7	4.5	7.0	5.3	6.2
Ogun	2.5	3.5	1.5	3.6	1.7
Ondo	2.9	6.7	2.3	3.2	2.4
Rivers	3.3	7.7	6.6	5.4	7.3
Taraba	5.5	6.2	6.0	6.1	5.2
Yobe	1.9	3.5	3.8	3.7	2.7
Zamfara	2.7	3.5	3.3	3.0	2.1
FCT	7.2	10.2	8.4	6.3	9.9

(Source: National Sentinel Survey, 2008).

## **2.4 HIV/AIDS Policy of the University of Ibadan**

The HIV policy of the University of Ibadan was first published in 2008 to take care of the HIV issues concerning staff and students of the university. This is important as the prevalence of HIV infection in Nigeria is currently put at 4.4 per cent and young adults and youths who form the most productive population group of the society are more disproportionately affected. The University, as a multidisciplinary facility, has primary, secondary and tertiary students on its premises, as well as academic and non-academic staff, auxiliary and ancillary workers. The large work force and student population are not immune to HIV infection; this makes it imperative that the University of Ibadan positions itself in forefront in the fight against this deadly enemy that has the potential to claim the lives of members of its community. The formulation, implementation, evaluation and widespread distribution and acceptance of HIV and AIDS policy by the University of Ibadan is definitely a bold step in the right direction. The policy document will guide the development of a strategic institutional response to HIV and AIDS by our University.

### ***Objective of the policy***

The objective of this policy is to provide a set of guidelines for addressing issues related to HIV and AIDS at the University of Ibadan. The guidelines cover the following key areas of action:

- a. Prevention of HIV and AIDS among staff and students
- b. Management and mitigation of its impact on the staff and students
- c. Care and support of staff and students infected and affected by HIV and AIDS
- d. Prevention of stigma and discrimination
- e. Research on HIV and AIDS

### ***Use of the policy***

This policy will be used to:

- a. Develop specific institutional responses
- b. Promote processes of dialogue, consultations, negotiations and all forms of cooperation among the Federal Ministry of Education, staff of the University and their associations, the University Health Services personnel, other health personnel, specialists on HIV and AIDS issues, and all relevant stakeholders (in the control of

HIV and AIDS) which may include government, community-based and non-government organizations, SACA, NACA, international agencies and development partners.

### ***Scope of the policy***

The University of Ibadan HIV and AIDS policy applies to:

- a. Staff of the University
- b. Students of the University
- c. All support staff of the University, including cleaners, and contract staff
- d. Other groups of persons in the University community, including staff dependants and students of primary and secondary schools within the campus.

### **Strategic Objectives**

The University of Ibadan HIV and AIDS policy identifies with the following strategic objectives which guide the operation and decisions at all levels of the institution and are consistent with the university's vision and mission:

- a. To make the University of Ibadan more responsive to the needs of the country, other universities and their graduates.
- b. To significantly improve the conditions for learning and research within the institution.
- c. To update and modify its curricula with relevance to both national needs and global demands.
- d. To overhaul the recruitment process by ensuring that only the best available hands are employed and, not to allow extraneous factors to affect the appointment of the best candidate in any given situation.

### **Norms and Values**

The norms and values for this policy are informed by the Act establishing the University of Ibadan and the principles and values of the University. They aim at creating a conducive environment which supports and responds to the needs of employees, their dependants and students on issues relating to HIV and AIDS through health promotion and educational activities, care and support for people living with HIV and AIDS (PLWHA) and people affected by AIDS (PABA), thus avoiding all forms of discrimination against them.



The norms and values for this policy are predicated on the fact that HIV and AIDS will be regarded in the same way as other illnesses and therefore include the following:

***Basic rights***

- a. People living with or affected by HIV and AIDS shall be entitled to the same employment and admission opportunities as well as benefits, and where possible, they shall be helped to fit into appropriate possible positions.
- b. Employees and students infected with HIV should have access to the same amenities (accommodation, sporting, recreational and other facilities) except in rare circumstances, where there is demonstrable risk of infecting others.
- c. Students, employees and dependants will not be discriminated against as it would be a clear violation of their fundamental human and constitutional rights.
- iv. Students, employees and dependants are not under compulsion to have HIV test done before employment or admission.

***Confidentiality***

- a. Students and employees infected with HIV shall have access to information on their status and care.
- b. Students, employees and dependants are assured of confidential voluntary counselling and testing, with pre and post-test counselling.
- c. Students and employees are not obliged to inform the University management of their HIV status unless in exceptional circumstances where employee and student might expose co-workers or co-students to an increased risk of infection.

***Working and learning environment***

- a. *Safety*: Employees and students shall be provided with a safe learning and working environment free from discrimination, molestation or deprivation.
- b. *Care and support*: Employees and students shall be linked up with appropriate treatment, care and support services when required.

***Personal protective equipment***

Appropriate personal protective equipment such as masks, gloves, overalls, aprons, boots, goggles, pipettes etc shall be provided to ensure universal protection in the workplace.

## MAIN POLICY ISSUES

### Legal Issues

HIV and AIDS are not only a serious health concern; they also give rise to issues which touch on the fundamental human rights of individuals in every sphere of life and sector, including the university.

The Federal Government of Nigeria recognizes the importance of a national multi-sectoral and multidisciplinary response to the pandemic, and this includes an institutional response. Hence, the University of Ibadan shall be committed to the following:

- a. Increasing awareness, sensitizing and fostering behavioural change among the general populace within the institution on matters regarding HIV/AIDS.
- b. Protecting the rights of those infected and affected by HIV and AIDS, as guaranteed under the constitution and other laws of the Federal Republic of Nigeria.
- c. Developing guidelines and institutionalizing best practices to mitigate the impact of HIV and AIDS in the University community.
- d. Stimulating research on and developing welfare programmes for vulnerable groups.
- e. Providing cost-effective care and support for those infected, within the context of the University health care services.
- f. Improving understanding and acceptance of the principle that all persons must accept responsibility for prevention of HIV transmission.

Presently, there is no national legislation on HIV and AIDS and this might have a negative impact on the prevention and control activities. The lack of legislation affects persons living with HIV and AIDS by limiting their rights socially and economically.

Furthermore, there is no institutional protection for PLWHA, therefore, their rights shall be guaranteed as follows in the University of Ibadan:

- a. Freedom from all forms of discrimination on the basis of health status with respect to education, training, employment, housing and access to health care, etc.
- b. HIV testing shall be obtained by informed consent of the person involved; it shall be voluntary and confidential.
- c. The right to privacy and confidentiality regarding all medical information on the HIV status of individuals.

- d. There shall be no denial of appropriate care and support for people living with HIV and AIDS.
- e. Employment and admission opportunities, insurance and other benefits that may be approved from time to time shall not be denied staff and students living with or being affected by HIV and AIDS.
- f. Access to current information on HIV and AIDS as well as related issues for the University Community shall be provided.
- g. Protection of the rights and dignity of staff, students and other members of the University Community living with HIV or AIDS or persons affected by the virus or the disease.

### **Rights and Responsibilities of Staff and Students**

#### ***Rights of staff***

The rights of workers form a very important and integral component of any workplace policy on HIV and AIDS. These rights shall include the following:

#### ***i. Right to work***

a. The University of Ibadan shall neither include compulsory HIV testing in the conditions of service for its employees or as a precondition for applicants seeking employment in the University. No employee or prospective applicant shall be required to undergo a compulsory HIV test.

b. Employees or applicants shall not be required to disclose their HIV status as a precondition for renewal or confirmation of appointment or new employment. The University shall not, on account of HIV status, deny any person infected with HIV an employment opportunity.

c. No employee shall be dismissed, retired or in any way be disengaged from his/her job or have his/her employment terminated based on his/her HIV infection status alone.

d. No infected or affected employee shall be discriminated against on the basis of his or her status with respect to education, training, housing, travel, staff development programmes, and other benefits.

#### ***ii. Right to confidentiality and fair treatment***

a. A worker's HIV status shall be kept confidential by the University of Ibadan authorities and shall not be disclosed to any other person or the general public without

the informed consent of the employee concerned. The right of a person to privacy and confidentiality regarding all medical information, including HIV status, shall be maintained.

b. PLWHAs are obliged to inform their sexual partners and others at risk of their HIV status.

c. The HIV status of a staff shall not be reflected in his or her personal files except medical files.

d. The University shall not in any way discriminate against its employees in terms of promotions, training and development based on their HIV status.

e. HIV-related illnesses will not be treated differently from other chronic or life-threatening health conditions. If an employee, in the opinion of the Medical Board, is unable to continue his/her job because of ill-health, the usual conditions pertaining to retirement on the grounds of ill-health shall apply.

*iii. Right to relevant information on HIV and AIDS*

a. Employees living with HIV and AIDS shall have the right to information on medical treatment.

b. The University, where necessary, shall endeavour to negotiate with any outside body on behalf of its staff for fair, equitable and non-discriminatory benefits, irrespective of their HIV-status.

*iv. Right to safe working environment*

a. The University shall provide a safe and healthy working environment in which occupational hazards and the risk of exposure to HIV infection are minimized.

b. The University shall be responsible for the training and retraining of staff involved in the management of persons living with HIV and AIDS.

c. All staff has a right to know of possible risks of occupational exposure to HIV in their working environments and have a right to be informed about the necessary precautions.

d. The University shall facilitate the training of students and staff on safety procedures.

**v. Emerging rights**

a. All staff, irrespective of their HIV status, shall continue to enjoy all rights as provided for in the various statutory books of the University and the nation and such other rights as may, from time to time, evolve through collective bargaining with the University management and/or government.

**Rights of students**

i. No prospective student of the University will be required to undergo HIV test as a condition for admission into the University, neither will such a prospective student be required to disclose his or her HIV status prior to admission.

ii. No student of the University shall be required to undergo an HIV test, or disclose his or her HIV status as a condition for continuing their academic programme

iii. The University shall not use the HIV status as a requirement in the admission of students into halls of residence, classrooms, laboratories, libraries, sporting or other facilities.

iv. Students have the right to receive current, comprehensive and balanced information about the spread of HIV and how to protect themselves from infection.

v. The University shall not rusticate or expel a student on account of his or her HIV status.

vi. Students have a right to a supportive and safe learning environment in which persons living with HIV and AIDS are not stigmatized.

vii. Right of privacy or confidentiality of HIV status except as otherwise consented to by the individual.

viii. Right to personal dignity and respect of HIV-infected and affected individuals.

vix. Right to attend school and receive all academic and non-academic services and privileges like any other student.

x. Right to be subjected to the same rules and policies as other students, with reference to medically certified disability.

xi. HIV status shall not be implied or reflected in records of students, except in their medical records.

xii. Right and access to appropriate health care should be guaranteed.

xiii. Right to a supportive and safe environment for students living with HIV and AIDS.

xiv. Right to seek redress from the University authorities against acts of discrimination.

xv. Right of access to voluntary, confidential counselling and HIV testing on the campus.

xvi. Right to benefit from external bodies irrespective of a student's HIV status.

xvii. Right to appropriate, accurate and timely information on HIV and AIDS.

xviii. Right to be informed about universal precautions.

xix. Right to seek sanction from the University against deliberate acts that put others at risk of infection.

#### *Responsibilities of staff and students*

All members of the University community have important roles to play in the effective implementation of the institution's HIV and AIDS policy. Consequently, the responsibilities itemized below are hinged on the understanding that all members of the University of Ibadan shall be informed of their responsibilities in achieving the desired goals of the policy. The responsibilities are:

i. To protect themselves against HIV infection and its transmission. Both staff and students have a moral responsibility to seek relevant information regarding the various means of transmitting the virus.

ii. Infected individuals shall have a responsibility to take precautionary measures not to transmit the virus to others. They shall be encouraged to disclose their status to their physicians and significant others.

iii. Unless medically justified, no infected or affected staff or student may use HIV and AIDS as a reason for failing to perform his/her duties, assignments, attend lectures, practicals or field trips, write examinations etc.

iv. All members of the University community must uphold the respect and dignity of staff and students living with HIV and AIDS.

v. Any willful undermining of the privacy and dignity of a member of staff, or a student living with HIV shall constitute an infringement of the constitutional rights of the individual.

- vi. Every member of the University community has the responsibility to make a personal decision about undergoing periodic HIV testing to know his/her status.
- vii. Failure to comply with this responsibility shall be regarded as an act of misconduct.

#### *Intervention for students*

- i. The University shall facilitate the integration of subjects in HIV and AIDS where possible into the various teaching curricula.
- ii. The University shall encourage government and nongovernment organizations to implement extracurricular programmes for students on HIV and AIDS prevention.
- iii. The University shall integrate HIV counselling and testing (HCT) into the existing health services and provide linkages to appropriate treatment programmes.
- iv. The University shall integrate reproductive health issues, including HIV education, into the General Education Studies (GES) courses.

#### **Integration of HIV and AIDS Curriculum Into Teaching and Service Activities**

##### *Teaching activities*

To integrate in HIV and AIDS issues into the teaching curriculum, efforts shall be made to train staff regularly and to provide funds for such training. The University library shall also be equipped with the relevant materials and up-to-date resources on HIV and AIDS. The course content shall be comprehensive and take into cognizance the various specialties, such as developmental, social, medical and so on. It must not only deal with the clinical aspects, but fully include all factors involved in the spread of HIV and effective ways of halting the spread, with emphasis on the importance of counseling. The course content shall include, but not be limited to, the following:

##### *a. Human sexuality and HIV and AIDS*

1. Human sexuality
2. Sexually transmitted diseases
3. Epidemiology of HIV and AIDS
4. Prevention and control of HIV infection
5. HIV and AIDS and the youth
6. Students' rights

##### *b. HIV and AIDS and counselling*

1. Counseling in HIV and AIDS context

2. Treatment and care for those infected and PLWHA
3. Treatment and care for those affected by HIV and AIDS
4. Institutional care and counseling

*c. Mode of instruction*

1. Lectures
2. Reading materials
3. Field research
4. Library search
5. The Internet
6. Videotapes and other audiovisual aids
7. In-class group discussions

***Community Services***

The University community is made up of staff (teaching and nonteaching), students (including secondary and primary school pupils) and staff dependants of various ages. The University shall successfully collaborate with the community in training and research on HIV and AIDS by:

- a. Mobilizing its members in and around the University to participate fully in the HIV and AIDS programmes in order to allow for the effective flow of support between the University and various communities and community structures.
- b. The University intervention will include information outreach to employees and their dependants on HIV and AIDS issues.
- c. The University will share its experience of best practices and, where applicable, its skills and resources with other government agencies, NGOs and CBOs.

***Research***

The University of Ibadan, in its quest to expand the frontiers of knowledge, shall support research on HIV and AIDS and promote collaboration with national and international agencies. The vision is that the University of Ibadan will become the foremost research institution on HIV and AIDS in Nigeria

***Other Policy Issues***

***Resource mobilization, Management and Sustainability***



The University will develop new strategies for resource mobilization for HIV and AIDS prevention, care and support activities. The funding of HIV and AIDS activities shall be integrated into the University's budget cycles.

Institutional commitment shall be required to mobilize the following resources:

1. Human

2. Financial, logistics and technical

3. Material

i. The University of Ibadan shall establish a committee on HIV and AIDS which shall be responsible for coordinating the timely and effective development, implementation, monitoring and revision of the HIV Policy. This committee shall advise appropriately on matters relating to the implementation of the policy.

ii. Each relevant faculty/institute/department/unit shall have a standing coordinating committee which will plan and implement the University's HIV and AIDS programmes.

iii. The University management, as well as the provosts/ deans/ heads of departments shall adequately fund activities of the respective colleges/faculties/departments/units/unions and, where necessary, source for assistance from international partners to complement local resources.

iv. The faculties/departments/units/unions shall delineate a budgetary line item for HIV and AIDS prevention and control.

v. Faculties/departments/units/unions shall mobilize resources and participate fully in the prevention and control of the epidemic within the framework of the National Strategic Plan on HIV and AIDS and the University HIV and AIDS Policy.

vi. Faculties/ departments/ units/ unions engaged in the implementation of HIV and AIDS activities shall ensure that effective monitoring and evaluation mechanisms are built into the projects/ programmes.

vii. All faculties/departments/units/unions engaged in the implementation of HIV and AIDS activities shall commit a minimum of 5-10% of the project budget to facilitate the monitoring and evaluation (M & E) of their activities.

viii. The University of Ibadan HIV and AIDS Committee shall monitor and report annually on the progress achieved in responding to the objectives of this policy.

ix. The HIV and AIDS Committee shall share responsibilities with implementing agencies in the interest of ensuring transparent and accurate reporting on the utilization of financial and material resources.

x. Non-government agencies, the private sector and parastatals in collaboration with the HIV and AIDS Committee and faculties/departments/ units/ unions, shall mobilize resources and participate fully in the prevention and control of the pandemic, within the framework of this policy.

xi. Funds that are attracted in respect of the University of Ibadan's response to the HIV pandemic shall be decentralized. A strategy will be developed to ensure that funds meant for the HIV and AIDS response are available at all levels.

xii. A fast-track approach will be instituted to ensure the quick disbursement of funds for programmes and activities on HIV/AIDS, without compromising transparency and accurate reporting on the utilization of financial and material resources.

### ***Gender***

The University will support advocacy matters to the empowerment of women and girls to recognize their particular vulnerability to HIV infection, through the provision of information on HIV and AIDS. Programmes that can change people's irrational thoughts and especially the beliefs of youth and gender stereotypes will be promoted and encouraged at all levels within the university. The university shall have zero-tolerance for sexual harassment.

### ***Health Care Provision***

The University shall work with agencies of the Federal and State Governments, as well as international organizations to mobilize funds to strengthen the university's capacity to handle HIV infection and related matters. Universal precautions shall be adopted in the course of health care service delivery to ensure the safety of health care providers. However, in the event of accidental exposure to HIV, the university shall provide access to post-exposure prophylaxis for staff and students. Students and staff shall be provided access to HIV counseling and testing services in various sites on campus, including the University Health Centre and the Youth Friendly Centre. The University College Hospital (UCH) shall offer routine HIV testing (with an opt-out option) to provide access to treatment and care for those who are infected. Other aspects of HIV

counseling, such as nutritional counseling, safe sex and prevention of mother-to-child transmission, will be provided in a user-friendly atmosphere. The university shall periodically organize educational and training workshops for health workers within the University Health Services (UHS) on HIV-related issues, such as universal precautions, postexposure prophylaxis, HIV counselling, stigma and discrimination and other relevant matters on prevention, care and treatment for persons living with HIV and AIDS.

#### **Linkage with Other Health Programmes**

AIDS is a chronic condition which has a number of other health problems associated with it. These are referred to as *opportunistic infections* (OI), which manifest as a result of immune deficiency. Examples of the common OIs are tuberculosis (TB) (which is the most common killer of persons living with HIV and AIDS), STIs and skin diseases. However, these diseases can be cured if treated promptly.

Employees, students and all other members of the university community shall be educated on the symptoms of OIs and be encouraged to go to clinic for examination and prompt management. HIV increases the risk of developing TB, not all HIV-infected people get TB, and not all people with TB are HIV infected. Appropriate linkages shall be established with national and NGO programmes on nutrition and health education, sexual health, and direct observed therapy (DOT) for the treatment of TB, in order to control the spread of HIV and AIDS.

#### **Collective Bargaining and Trade Unions**

There are a number of unions within the university community, such as: the Academic Staff Union of Nigerian Universities (ASUU), Association of University Technologists of Nigeria (ASUTON), Senior Staff Association of Nigerian Universities (SSANU), Non-Academic Staff Union (NASU) and the Students Union Government (SUG). The University shall liaise with these unions to ensure that a process of consultation throughout the workplace takes place and also to encourage that the unions involve their members in HIV and AIDS prevention programmes.

## STRATEGIES AND INTERVENTIONS

### Prevention of HIV

The most common mode of transmission of HIV is sexual intercourse, heterosexual intercourse being the most common in Nigeria. The modes of transmission (as mentioned earlier in this document) and their relative importance are known and appreciated in the spread of HIV. There are disease situations in which prevention is better than cure; there are others where prevention is all there is – HIV falls into the latter category. Accordingly, the University of Ibadan HIV and AIDS policy shall promote and support activities that ensure that members of the community do not become infected with HIV. It shall also make conscious efforts at reducing the risk of transmission through:

- a. Promotion of behavioural change through acquisition of abstinence skills.
- b. Promotion of holistic enjoyment of the personal faculty of pleasure at physical, mental, social, moral and spiritual levels of existence.
- c. Promotion through education, of a holistic approach to human sexuality and sexual intercourse, with its physical, mental, social, moral and spiritual aspects, meanings and implications.
- d. Promotion of safe sexual behaviour based on 'safer-sex' education, with emphasis on women empowerment, promotion of abstinence and fidelity.
- e. Prevention of HIV transmission through blood and blood products by enacting and enforcing strict blood banking and blood transfusion laws, and through the adoption and enforcement of strict, thorough and rigorous blood transfusion practices and, finally, through education of all concerned, with emphasis on those likely to have the repeated need for blood or blood products.
- f. Prevention of mother-to-child transmission; this is a priority area and shall be vigorously pursued.
- g. Attention to staff family members, with respect to proper education on HIV and AIDS through formal and informal media.
- h. Promotion of HIV counselling and testing in the university community.

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## Care and Support Services

### *Management of opportunistic infections*

Opportunistic infections are caused by common microorganisms that usually should not cause problems in healthy individuals. However, they may cause serious and possibly life-threatening illnesses in an individual whose immune system has been compromised. These infections are usually late complications of HIV infection, for the most part occurring in patients with less than 200 CD4+T cells per micro litre of blood. The opportunistic pathogens are known to affect virtually all organs and systems of the human body, with the most common presentations occurring in the pulmonary and gastrointestinal systems and the skin. Opportunistic infections are the leading cause of morbidity and mortality in patients with HIV infection. Approximately 80 per cent of AIDS patients die as a direct result of infections other than HIV, with bacterial infections being the most common.

Many antimicrobial agents are currently available for the treatment of most opportunistic infections. With the early introduction of antiretroviral (ARV) therapy, the incidence and severity of such infections can be reduced. However, drug interactions and resistance to therapy remain major concerns in the treatment of opportunistic infections. Thus, medical personnel with good knowledge of individual drugs, adequate dosing and compliance to therapy shall be consulted by the University in the management of opportunistic infections.

### *Antiretroviral treatment*

The Federal Government of Nigeria has published guidelines for the use of antiretroviral drugs in the country. These drugs are expensive and the treatment is lifelong. The Federal Government has provided access to these drugs at specific centres across the country. Some non-government organizations have also provided access to antiretroviral therapy. These drugs are available free of charge. Due to the fact that these drugs have serious side effects and require careful monitoring by specially-trained health care providers using very expensive laboratory techniques, therapy can only be accessed at designated centres, which have been staffed and equipped for this purpose. The university shall, therefore, link up with such programmes and provide referral services for students, staff and families of staff in need of antiretroviral drugs. As an

entry point for the acquisition of antiretroviral therapy. the university shall provide facilities for routine ICT (with an opt-out option) to students, staff and their dependants. PLWHA shall be encouraged to join care and support groups.

#### *Home-based care*

The University shall encourage the formation of support groups interested in the care of PLWHAS.

#### **POLICY IMPLEMENTATION AND REVIEW**

For the effective implementation of this policy, the University Committee on HIV and AIDS shall be constituted and this shall function in the following ways:

- i. Integrating HIV and AIDS issues into the academic programmes through lectures, publications and campaigns.
- ii. Integrating HIV and AIDS issues into orientation programmes for both staff and students.
- iii. Encouraging research in all aspects of HIV and AIDS, to provide information for planning.
- iv. Training and retraining of staff and students to ensure sustainability and continuity of the HIV and AIDS programmes of the University.
- v. Integrating care, support and provision of ARV into the University health services.
- vi. Promoting interactive seminars, workshops and conferences on HIV and AIDS, to increase awareness and showcase research outputs.

Finally, there shall be monitoring and evaluation to determine the impact of the policy on the university community, as well as a periodic review of the document.



## 2.5 HIV Preventive Behaviours

HIV preventive behaviour is attitude geared toward protecting against HIV infection. Anyone who engages in behaviour that protects oneself from exposure to HIV is at no or less risk of contracting the infection (Lington, 2004). It must be emphasized that the high rate of HIV prevalence among young person's can be related to the behaviour characteristics exhibited by peers. Young persons' actions are driven by many behavioural antecedents which fall short of healthy preventive behavioural practices. When an individual fails to adopt preventive health behavior, many of the risky practices highlighted above are undertaken. Preventive health behaviour is therefore a panacea to the risky behaviour exhibited by young persons. Ajuwon (2006) reported that any activity undertaken by an individual who is believed to be healthy, for the purpose of preventing or detecting illness in an asymptomatic state is termed preventive health behaviour. Preventive health-related behaviour is specifically made to improve or enhance health, reduce, but not eliminate, the chances of acquiring a disease. Ajuwon (2006) emphasized that such behaviour could include both primary and early detection preventions. Primary prevention behaviour aims to prevent the incidence of disease while early detection prevention behaviour aims to prevent early forms of disease from progressing. Preventive health behaviour in the transmission of HIV therefore encompasses all forms of healthy practices, which will prevent an individual from contracting Sexually Transmitted Infections including HIV/AIDS and if contracted should be prevented from degenerating to complicated stages.

Several researches have shown that youths are highly knowledgeable about HIV/AIDS but putting it in practice remains a problem (Ona *et al*, 2004; Arowojolu, Ilesanmi, Robert and Okunola, 2002). HIV prevalence in Nigeria is increasing rapidly and it's only increase in condom use that is the most viable solution to slow down the trend, hence a good HIV preventive behavior. In the same vein, Rossem, Meekers and Akinyemi, (2001) reported that more than 60% of respondents that participated in a study use condom consistently with occasional partners and commercial sex workers. The increase in condom use was affected by awareness that condoms are effective at preventing HIV and unwanted pregnancy. Okojie, Nwulia and Ogheide, (1995) also reported that (6.2%) of the three hundred and forty respondents in a study still keep

multiple sexual partners while 142(41.8%) willingly use condom for the reason of safer sex.

The risk and extent of HIV transmission cannot be ascertained unless proper blood screening is embraced, hence a good way of reduces HIV transmission. In a study by Koate, Buseri and Jeremiah, (2005), to ascertain the level of HIV transmission in an unscreened blood, an overall prevalence of 2.9% was observed while the highest prevalence of 8.1% was found among adults who are commercial blood donors. In a bid to support that proper blood screening is a good HIV preventive health behavior, Adejuyigbe, Durosinmi, Onyia and Adeodu, (2003) reported that eighteen out of the two hundred and sixty three children screened has a history of blood transfusion while (66.7%) were HIV-positive. According to Saheb, Ofor and Okojie, (2004) avoiding sharing needles and syringes is good preventive health behaviour. Outcome of their report had it that out of 79.5% of those who screened blood before transfusing only 4.5% and 19.5% reused needles and syringes respectively. Abstinence, being faithful and condom use components are other good preventive health behaviour towards HIV/AIDS. Abstinence means refraining from some or all aspects of sexual activity for medical, psychological, legal, social or religious reasons. It is viewed as an act of self-control over the natural desire to have sex (AIDS Care, 2010). Being faithful as an approach encourages individual to eliminate casual sex partners and to practice fidelity within their marriages and other sexual relationships while the use of condom approach entails correct and consistent condom use (AIDS Care, 2010).

## 2.6 HIV Risk Behaviour among Adolescents and Youths

HIV risk behaviour is negative behavioural activities that are capable of aiding HIV transmission (Zill, Nord, Loomis, 1995). Risky behaviour in this context is based on what one does and as a result of the characteristic features of experimentation and adventure common among adolescents, they have been known to consistently indulge in risky behaviour which promotes HIV transmission (Lingten, 2004). They experiment with a wide range of behaviour as part of the natural process of separating from parents. Lingten, (2004) and Arulogun, (2006) stated that lack of assertiveness, communication, negotiation and refusal skills makes one feel insecure and non-confident about oneself, otherwise promoting sexual exploitations (rape, unwanted touching, incest and assault);

which are associated with HIV transmission. Family Health International (FHI, 2007) reported that information gap has made young persons to indulge in risky practices including unprotected sexual intercourse, sharing of sharp objects (needles and syringes for injection with an infected person) and none use or inconsistent use of condom. WHO (2004) emphasized that 80% of HIV transmission is through unprotected sexual contact, a behaviour mostly practiced by young people.

A study on sexual practices conducive to HIV transmission in Ekiti, Ibadan and Lagos among young persons showed that despite the fact that the disease is known to have no cure; there was reluctance by men to use condoms except among those with a high self-perceived HIV positive risk (Osho and Olayinka, 1999). Report by Kirby, (2008) among HIV positive thirteen to nineteen year-old female Americans who had not developed AIDS recorded that 49% of the cases were associated with exposure through sexual contact, 7% through injection drug use, 1% through blood exposure and 43% through a risk not reported or identified. Among males in the same age group, 50% were associated with male to male sex, 5% with injection drug use, 5% with both male to male sex and injection drug use and 1% with blood exposure. College students in Nigeria underestimated the risk of contracting HIV/AIDS infection (Ijadunola, Abiona and Odu, 2003). Their study aimed at assessing the perception of personal risk of acquiring HIV infection and the outcome was that 15% out of the 105 respondents perceived themselves at moderate risk compared to 85% that perceived themselves to be at no risk. The investigators' assessments of risk status revealed that 77% of the participants were actually at high risk. Screening of HIV/AIDS also poses risk among adolescents. According to NDHS, (2003) attitude towards screening among young persons revealed that 3% of females and 6% of males have tested and received their result during the twelve months preceding its survey. Use of unsterilized equipment contributed to HIV transmission in recent times. Ibrahim, Ojara and Tamimono (2007) reported that sharing of blades, scissors and clippers without proper sterilization remains a common practice among young and old in barbing saloons. According to Ibrahim *et al* (2007) only 1.4% of the 137 saloons used for the study, had sterilizers and only 7.3% and 6.6% actually carried out a mold disinfection of barbing equipment before and after barbing a client. United States President's Emergency Plan for Aids

Relief (2006) reported that 5-10% of HIV infections in Africa were transmitted by unsafe blood transfusion. However, actual data collected from Nigeria focusing in blood safety programmes showed that a lower average percentage of HIV infection among blood donors was 3.19% (WHO, 2002).

## 2.7 HIV Risk Behaviour In Tertiary Institutions

HIV and other sexually transmitted infections (STIs) pose a major threat to the health and well-being of university students. Evidence of this threat is in the findings of various research projects which show that many students have multiple sexual partners while only few of them use condoms, thus increasing their risk of acquiring HIV infection and transmission (Bamiro, 2008). Another source of concern is the growing anecdotal evidence that some students are involved in part-time sexual work and the participation of some female students in the 'Aristo phenomenon', a practice in which female students have relationships with older men who provide money or other material favours in exchange for sexual intercourse. 'October rush' is also widespread on the campus. October rush is the practice whereby senior male students (*stolites*) take advantage of the naivety of newly admitted female students (*Jambites*) to lure them into risky sexual activities (Bamiro, 2008). According to Ladipo, Omoregie and Fokolade, (2004) hostels of tertiary institutions in Nigeria have been labelled as glorified brothels. Apparent freedom from parental control and undue pressure from peers make university students engage in risky sexual behaviour.

There is reported risky sexual behaviour among university students due to unprotected sexual relationships in China. Condom was reported never or rarely used by 35% of sexually active students in both genders (Ma, Ono-kihara, Cong, Xu, Zwanan and Kihara, 2006). According to Yuria, Dennis, Tiunov, Jeffrey and Kelly, (2001), 40% of sexually experienced university students reported unprotected vaginal intercourse as their preferred sexual practice. Higher proportion of males (52%) than females (33%) preferred unprotected sexual intercourse. Forty-five percent of males reported that unprotected sexual intercourse was a frequent practice, compared with 33% of females while equal proportion (29%) of sexually experienced students always use and never used condoms respectively. Analysis of some South African Universities

students on the intention to use condoms showed that, perceived barriers predicted the intention to use condoms among males while attitudes, subjective norms and perceived self-efficacy were associated with female students towards the use of condoms (Moshogoane, Maolusi, Peltzer and Ngoepe, 2004). A similar study to ascertain sexually risky behavior among University students in Kenya revealed that sexual activity on campus was high, consistent condom use and rate of Voluntary Counseling and testing was low (Adam and Mutungi, 2007). Furthermore, 71% of males and 67.6% of females reported had had sex. Seventy six percent reported using condom and only (18%) of males and (14%) of females used condom consistently in the last month preceding the survey. Among university students, issue of HIV testing remains controversial as a result of societal stigma, however according to Adam et al, (2007) 98% of the respondents reported thinking of being at risk of HIV infection but only 28% had been tested for HIV. In Ethiopia, Knowledge of HIV/AIDS was high among the respondents but use of condom was low (Yerdaw, Nedi and Enquoselassie, 2002).

In Nigeria, the situation is not different among Enugu State University students in South Eastern Nigeria Ona, Mba, Chukwuka and Ikeme, (2001) reported that 68.9% of the respondents who had ever had sexual intercourse maintained multiple sexual partners, however, there was a significant tendency towards a more consistent condom use after respondents became aware of HIV/AIDS. Among university students in Ilorin, 44% and 27% of females and males prefer withdrawal and rhythm method during sexual intercourse instead of condom (Omotoso, Deola, 2005). Multiple sexual relationships were high among female students of University of Ibadan. Out of 55% of respondents who had sex, number of sexual partners ranged from 10-23 (Iwuagwu, Ajuwon and Oloscho, 2000). Outcomes of HIV/AIDS knowledge survey among students of Niger Delta Universities indicated that students have a highly favorable knowledge about AIDS, but putting this sexual behaviour knowledge into practice is known to be lacking (Aluede, Imhonde, Maliki and Alutu, 2005). More sexually active men than women had two or more sexual partners (84.7% and 61.4%) respectively (Aluede, Imhonde, Maliki and Alutu, 2005). Activities preceding circumstances where poverty and lack of negotiating powers for sex in women abounds contributes to HIV transmission. Onia (2002) reported that young person's especially from poor and

unstable environment were more likely to take part in experiencing early sex than those from better family environment. The rich capitalize on poverty and lure young people into unsafe sex by paying their school fees and other material gifts. A study to determine if "sugar daddy" phenomenon has the potential to increase the risk of HIV/AIDS amongst University students in Enugu Nigeria, recorded that with clothing and feeding allowances from sugar daddies, little attention is given to involvement in sexual risks (Dike, 2004).

Apart from non-use of condom and multiple sexual partners among university students, stigmatization of People Living with HIV/AIDS also fuels transmission of HIV and has contributed to non-disclosure of HIV status (FHI, 2010). The report further stated that stigma may deter individuals from seeking voluntary counseling and testing/proper medical care and can cause people to perceive individuals with or at risk for HIV as "the other," reinforcing the feeling that HIV infection could not infect them. Pelzer, Mposu and Bolanle, (2002) in line with FHI reported that fear about confidentiality of HIV test result made some African university student not to go for HIV screening and testing. Seventeen percent out of seven hundred and sixty respondents from African universities indicated that they had tested for HIV and of those that have tested (16.2%) did not get the result of their test; this is as a result of fear of stigmatization. Concerns about HIV have increased as recent trends suggest a resurgence of the epidemic among men who have sex with men (UNAIDS, 2007). In Colombia, HIV prevalence among men who have sex with men ranges from 10% to 25%. Ukraine estimated that 15% out of 177,000, 430, 00 are living with HIV while the prevalence in Africa is 25.3% (UNAIDS 2008). A cross section of two states survey in Nigeria showed that out of 498 same-sex attracted respondents, 48% had actually had anal sex with a man while 25% had had anal sex with a woman and one per cent less than the proportion had vaginal sex with a woman. Half of the respondents are bisexual and 55% of those who are exclusively Men who have Sex with Men had multiple sexual partners (Nnaji and Cairns 2010). Perception and practice of same sex relationship among University of Ibadan students showed that 91% expressed aversion for homosexuality compared to (30%) who held positive attitude towards the practice

(Okosun, 2008). The report further stated that a total of 2.3% respondents practiced homosexuality with males and females having 1.1% and 1.6% respectively.

Other risky behaviour in HIV transmission includes negative attitude towards screening, sterilization of equipment and disclosure of HIV status. In assessing routine HIV screening among University of Benin students, Omoigberale, Abiodun and Famodu (2006) reported that 42% of the respondents would agree to routine HIV screening while 58% would not agree to disclose their status. In a related study on perception towards HIV status disclosure, Salhar (2009) reported that majority of respondents (58.3%) were of the view that people with HIV should not keep their status secret. Improved attendance to HIV testing was recorded among university students in Namibia, 39.8% out of 82,635 tested in 2009 were male compared to 24% in 2008 (Smith, 2010). Proximity to counseling and testing centers as well as receiving test result on the same day encouraged 98.8% of 1099 participants who took part in same day mobile HIV counseling and testing in Zimbabwe (Morin, Khumalo, Charlebois, Routh, Fritz, Lane, Vakil, Fiamma and Coates, 2006). The study to know if ones HIV status may contribute to changes in preventive practices among female American university students recorded that women (55%) who were HIV positive and were aware of their serostatus were significantly more likely to use condoms than those who were not aware of their serostatus (37.7%). Chang (2008) was of the same view in a study concerning disclosure of HIV status. He reported that over 80% of the network members knew that participants were HIV positive and got 70% of the information directly from participants. Various methods of cross infection control adopted by medical and dental practitioners in Benin City revealed that 98.1% out of 113 practitioners surveyed sterilized their equipments, those who screened blood before transfusing were 79.5% while 4.5% and 19.5% reused needles and syringes respectively. Attestation to blood screening was confirmed by Food and Drug Administration, (2001) and Saheb *et al.* (2004).

## 2.8 Factors Influencing HIV Risk Behaviour among Young People

Risky behaviour in the transmission of HIV/AIDS is rampant among young people (Cichocki, 2007). This is because this youthful stage is characterized by transformation from one stage of life to another. The transition stage from childhood to adulthood could lead to natural feeling of wanting to be touched, loved or cared for by member of the opposite sex (Asuzu, 1994). During this stage, young people are often not provided with adequate information on chastity, reproductive and sexuality issues. Failure to provide adequate and correct information on sex related issues by professional or a trustworthy person (parents) encourages adolescents to seek information from other sources such as peers, mass media and internet ( Kwabe and Palome, 2004). Such information learned from peers, watched or read from pornographic films could be misleading, distorted and incomplete and could lead to encouragement of risky sexual behaviour. A study to determine attitude of health care providers towards persons living with AIDS reported that 96.3% of the respondents had moderate to good knowledge of HIV/AIDS (Adebajo, Bangbala and Oyediran, 2003). Cooper (2005) in his own view reported that doctors rarely have the time to properly educate their patients on the complexities of combination therapy. Invasion of pornographic materials is an issue of serious consequences. According to Okoye (2009) over 10 million people a week visit pornographic websites in Nigeria. She reported that there was correlation between high usage of pornography and rate of heterosexual anal sex in 18 and 19 years olds. The trend led to increase in rape as children are being molested by those looking for sexual gratification. This in turn increases HIV and AIDS in the society. In the same vein, Ayiku, (2007) reported that showing of naked people or sexual acts in order to cause sexual excitement distort the minds of the youths, which invariably breed future homosexuals, rapist, and sex addicts in the society. In a research to assess teenage-parent communication on sexuality issues, Whitaker and Miller (2000) reported that respondents who had discussed sexual issues with their parents saw them as the most useful source of information. Sixty percent of the respondents have spoken with a



parent about sexual initiation while 78% have spoken with a parent about condom. In a related development, Keating and Meaker (2006) reported that about 59% of the respondent in a survey in Ghana had heard of at least one HIV programme from radio compared to other sources.

Lack of information may not only be on the side of young people, health care providers, teachers, and other potential sources of support for sexual information may lack adequate training to deal with sexuality questions appropriately. As a result of these barriers, misconceptions about reproductive health abound – as can be seen by the large numbers of university students who still harbor misconceptions about HIV/AIDS (UNFPA, 2006). Ayrañci (2005) reported that misconception about HIV still exist among university students, they still believed that HIV/AIDS is a punishment by God and that exercise and good food prevent HIV/AIDS. Prata, Morris, Moxive, Validnia and Stehr (2006) reported that 32% of women in Mozambique considered themselves at no or low risk of contracting HIV while 22% thought they were at moderate or high risk. The real estimates showed that 27% of women who considered themselves at no or low risk, and 23% who reported not knowing how to assess their risk, were at moderate or high risk of HIV infection. The situation for men is even more troubling, 38% said that they had no or low risk of acquiring HIV while 46% reported that they had a moderate or high risk.

Non-perception of risk in sexual behaviour influences engagement in risky behaviour as pointed by Nzokio (2001) who reported that:

*'Some adolescents will say a little bit of sexual intercourse is okay, pregnancy will not happen at first attempt, sperm cancels each other out when one has sex with two men, disease will not happen if one has sexual intercourse often but not every day, urination after sexual intercourse will get rid of any infection that might have been transmitted' -p108*

Practice of risky behaviour among youths could also be aggravated by some lifestyles such as alcoholism (Petry, 2003). According to Peiry (2003) and Windle (2001), alcohol acts directly on the brain to reduce inhibitions and diminish risk perception. People with alcohol disorders are more likely than the general population to contract

HIV; similarly, people with HIV are more likely to abuse alcohol at some time during their lives. A history of heavy alcohol use has been correlated with a lifetime tendency toward high-risk sexual behaviour; multiple sex partners, unprotected intercourse, sex with high-risk partners and the exchange of sex for money or drugs (Cory, 2006). Among urban university students in Korea, frequency of alcohol consumption was positively associated with the number of sexual partner. Eighty percent of males (85%) and 38% of females reported that alcohol consumption typically preceded casual sexual relations (Cory 2006).

Change in social norms also fuels HIV transmission as behavior of members in polygamous marriage, early marriages, wife inheritance and cultural habits still exist (Yamuah, 2000). Yamuah (2000) reported that greater chances of contracting HIV occur in men who took over the dead brother's wife vis-a-vis women and men from polygamous homes that contract sex as a result of sexual dissatisfactions. According to Ralph, Gibbons, Wingood and Diclemente, (2008), affiliation with parent and peer who encourage risky behaviour accounted for the effect in young people. Relatively, substance abuse accounted for part-time versus full-time sexual risk behaviour in young people (Simons and Cutrona, 2008)

Some factors on the other hand have negatively influenced HIV risk behaviour. According to Hook (2005) mass media entertainment reached many young people with positive health information. In Uganda, the Safer Sex or AIDS Campaign, which encouraged young people to make responsible decisions about HIV/AIDS, reached 92% of its intended audience (Hook, 2005). In Zimbabwe and Botswana similar communication campaign reached 97% and 70% of youth to improve adolescent reproductive health. In another development (Miller, Kotchick, Dorsey, Forehand and Ham, 2004) deduced that a mass media campaign communication to encourage "saying no" to sex in Zimbabwe recorded that young people reached by a communication were 2.5 times more likely than those whom the campaign did not reach to change their sexual behavior for the better. In South Africa, 38% of young people who watched the TV programme "Soul City" reported always using condoms compared with 26% of those who did not watch (Coulson, 2003). In Nigeria, media monitoring of HIV/AIDS program and use of local language in the context of HIV/AIDS reporting has greatly

improved the quality of positive health information. Keating (2006) reported that 59% of the population had heard of at least one HIV programme from radio compared to other sources. Avoiding HIV infection was reason for practicing preventive health behaviour and radio and television was responsible for the influence.

Economic depression as a factor influencing HIV risk behaviour has both negative and positive influence towards HIV/AIDS (Bengali, 2007 and Kirby, 2008). (Bengali 2007) was of the opinion that economic depression allows few men access to money otherwise few additional sexual partners while Kirby (2008) was of the opinion that economic depression increases chances of risk behaviour practices as addicts may engage in sex with multiple partners to obtain drugs or money to buy one.

## 2.9 Impact of HIV/AIDS in Nigeria

HIV/AIDS epidemics constitute a global emergency and one of the most formidable challenges to human life and dignity in Nigeria. The key area of impact includes social, economic, health, education, agricultural and transport sectors (Eremutha, 2006). According to National Policy on HIV/AIDS (2003), the epidemic has effect in achieving set developmental goals as the annual mortality is estimated at over 50,000 which concentrated in the active productive male and female population. The Federal Ministry of Health (2001), extrapolated that going by the present spread of HIV epidemics in Nigeria, 25% of the workforce would have been eliminated by AIDS by 2015. The economic burden on the household as impacted by AIDS can be described as follows: loss of income by the patient leading to poverty of the household, school dropouts and loss of jobs especially for daughters and wives who are forced to take time off to care for the sick persons (Salvator and Georg, 2003). The greatest impact of HIV/AIDS on the family is the generation of spiral level of social problems which begin as soon as a member of the family starts to suffer from HIV. Male death due to AIDS related complication is on the increase thereby causing increase in cases of female's especially young widows heading families (Eremutha, 2006). Impact of HIV on transport sector is enormous. It has been affirmed that the distance truck drivers and itinerant hawkers play a major role in the spread of HIV/AIDS (Walker, 2004). Most transport workers (truck drivers, train and airline crews among others) are

away from their home and family for a long period and this makes them to face the risk of HIV/AIDS as a result of sexual activities with casual partners and the likes. The risk is high among communities along highways or concentrated around some of the principle transport routes. Walker (2004) while reporting on the study on 'Hotspots and Risk taking across Nigeria' reported that the prevalence rates in junction towns are approximately 2% higher than median rates for the states in which they are located.

The HIV/AIDS scourge in Nigeria also affects the Health sector. HIV/AIDS epidemics have brought additional pressure to bear on the health sector. The additional care and support burden associated with the HIV/AIDS epidemics further weakens and threatens to overwhelm the already weak Nigeria Health systems (Uzoehiukwu, 2006; Pennington, 2003). As the epidemic progresses, there is increased demand for health care personnel and facilities for care for those living with the virus. IMOII (2003) asserted that the cost of HIV/AIDS treatment would consume a huge part of the health budget while depleting public expenditure and other critical sector of the economy. The HIV scourge in Nigeria has not spared the agricultural sector. Agriculture which supplies about 60% of the employed labor force and was estimated to contribute 41.1% of GDP in 2000 is grossly affected by HIV/AIDS epidemics. The disease, which was predominantly an urban problem affecting more men than women has rapidly moved into the rural areas affecting rural dwellers whose source of livelihood is through farming (Pennington, 2003).

## 2.10 Efforts and Interventions of Government and Non-Governmental Organizations in Combating HIV/AIDS in Nigeria.

Generally, adolescents and youths all over the world face reproductive health problems and these problems are mainly attributable to government's inability to include national policies concerning planning for the youths. Adolescent's and youth's reproductive health policy came to limelight during the International Conference on Population Development in 1994. More than 180 countries, including 38 sub-Saharan African countries, signed a historic agreement committing them to the Programme of Action that includes provision of sexual and reproductive health information, education, and services to adolescents.

In Nigeria, policy developments at both the national and state levels have been encouraging. In addition to National Reproductive Health Strategic Framework Plan and National Youth Policy, Federal Government launched a National Reproductive Health Policy in 2001 and in 2002 the Federal Ministry of Education, authorized the implementation of a National Sexuality Education Curriculum (Policy Project 2007). As HIV endemic increases, Policies on HIV/AIDS received a boost. The national HIV policy emphasized on the integration of domestic and international efforts to combat HIV/AIDS by focusing on coordinating domestic efforts to reduce the number of new infections as well as working to coordinate an increasingly integrated approach to the prevention, care and treatment. In recognizing the importance of an HIV/AIDS control Programme in the country, there was the constitution of a National Expert Advisory Committee on AIDS (NEACA) in 1986. By 1988, the National AIDS Control Program (NACP) was launched and later War Against AIDS (WAA). In August 1999, the government realized that issues of HIV/AIDS was no longer a health problem but a developmental problem and as such declared HIV/AIDS epidemics a 'national emergency'. Devastating impact on the nation led to setting up a multi-sectoral committee which includes NACA (National Agency for Control of AIDS), SACA (State Agency for the Control of AIDS), and LACA (Local Agency for the Control of AIDS) at Federal, State and Local Government levels in 2002 to compliment the control programme (Olufemi, 2005). As the epidemic increased, AIDS Prevention in Nigeria focused on capacity building and technical support for other Local Non-Governmental Organization. This has equally brought about an unprecedented involvement of Civil Society Organizations in national response efforts. A large number of Non-Governmental Organizations and health professional groups are implementing HIV/AIDS control programmes in Nigeria (Olaide, 2005; Ejike, 2004).

Association of Concerned Youth of Nigeria (ACYN) is a university-based organization set up to implement HIV prevention programmes in the universities. Considering students' strengths and abilities to make changes and prevention attempts from the campus, the University of Lagos chapter in 2004 designed a programme to bring to the knowledge of youths, the many ways they can help minimize the spread of HIV/AIDS (Unogu 2004).

The Nigeria Youth AIDS Programme (NYAP) funded by the United States Agency for International Development through the AIDS Control and Prevention (AIDSCAP) Project has established the Tertiary Institution Project (TIP), the first to target college-age Nigerians and their special needs using volunteer student Peer Health Educators (PHEs). (FHI 2007). The rise and fall in prevalence rate of HIV since NGOs involvement in the prevention made the Nigerian Government to pronounce a clarion call for civil societies to join in the fight against the disease. The response brought about emergence in the large number of Faith-based organizations (FBO), Community-based organization (CBOs) and Networks and coalitions of People Living with HIV/AIDS. This has contributed immensely in creating awareness and general health promotion in Nigeria (Olufermi, 2005). The Catholic Church under the umbrella of Catholic Action Committee on AIDS all over Nigeria had since 2005 been supporting its Parish Action Committee on AIDS in organizing HIV awareness and voluntary counseling and testing programmes in their various parishes (Center for Population and Development Activities, 2005). President's Emergency Plan for AIDS Relief (PEPFAR) has made impact in transforming the face of Nigeria. It has provided fund to Fight AIDS, Tuberculosis and Malaria. In 2006, the plan affected 212,300 HIV patients while 223,900 pregnant women received prevention of mother-to-child transmission (PMTCT) services (UNAIDS 2006). Assistance with antiretroviral drugs scaled up in 2008, the organization supported Nigeria with antiretroviral treatment for 3 million people and cared and supported 12 million people which includes 5 million orphans and vulnerable children (USAID, 2008).

### 2.11 Prevention of HIV/AIDS.

Comprehensive sex education is effective in assisting young people to make healthy decisions about sex and to adopt healthy sexual behaviour. Researchers have identified that effective sex education and HIV prevention programmes reduce multiple sex behaviour and achieve positive health impacts (Serovick, 2006, Brostra, 2002, Brigid, 2006). Behavioural outcomes of sex education and HIV prevention programmes have been found to delay initiation of sex as well as reducing the frequency of sex, number of new partners, incidence of unprotected sex and increased use of condoms and contraception among sexually active participants (Alford, 2003, Ghosh and Berer,

2006). Providing good-quality basic education and skills-based prevention education is fundamental to reversing the spread of HIV/AIDS (UNICEF, 2004). Based on this, (Uwakwe, 2000) reported that three months training among student Nurses of University of Ibadan on HIV prevention revealed that attitudes towards HIV/AIDS changed while patient care became considerably more liberal. Disposition to comply with HIV universal precautions was also improved (Uwakwe, 2000).

Non-stigmatization of persons living with HIV/AIDS is a good preventive strategy. Discrimination and stigmatization greatly reduce individuals living with HIV virus from practicing positive health habits that can assist in the prevention (UNAIDS 2006). According to Beattie, (2006), a study in discrimination of PLWHA recorded high awareness about AIDS and HIV transmission; however respondents were still involved in stigmatization of HIV patients despite knowing that HIV/AIDS cannot be transmitted by eating together. This attitude has prevented PLWHA from disclosing their HIV status for fear of being ostracized by their families or loved ones. Prevention of discrimination will significantly reduce stigma and will go a long way to create an environment in which individuals will be highly motivated to get tested and know their Sero-status (Beattie, 2006). Furthermore, Proper screening of blood and blood products used in medicine and medical research as well as universal preventive behaviour in handling HIV patients play a significant role in eradication of HIV/AIDS (Forbes, 2001). Mother-to-Child Transmission (MTCT) can be reduced by short antiretroviral preventive treatment. Its administration during pregnancy and at the time of delivery has proved to significantly reduce the risk of MTCT (USAID, 2005). Caesarean section has been demonstrated to have a more protective effect against MTCT than vaginal delivery while care and support is important to support mothers and help them maintain their health and that of their children (Fili, 2007).

## 2.12 Conceptual Framework.

### The Precede Model

The Precede Model refers to the diagnostic and planning framework developed by Green and Kreuter, (1980). The model consists of a series of steps that help in diagnosing the contributing factors for a given health problem. The model involves

identification of behavioural causes of a problem and analysis of such problems to find antecedent factors that influence such behaviour. It also aid in finding the most appropriate health intervention in solving the identified problem. The intervention format however serves as a guide from which a planner can effectively choose the most appropriate intervention for the identified problem.

The model comprises of six phases which include:

Phases 1-2 Epidemiological and social diagnosis

Phase 3 Behavioural diagnosis

Phase 4-5 Educational diagnosis

Phase 5 Administrative diagnosis

Epidemiological diagnosis phase relates the effect of health and non-health problems to the quality of life of individual in a given environment. Epidemiological diagnosis deals with the incidence, prevalence and distribution of a health problem while social diagnosis shows relationship of social problems with health. The epidemiological diagnosis in preventive health behaviour practices among university students are rate of unprotected sexual intercourse, multiple sexual relationships and incidence of sexually transmitted infections including HIV/AIDS among youths while social problems are inadequate facilities for reproductive health services, negative peer influence, partying and cultism in school.

The behavioural diagnosis focuses on health related behaviour that has negative impact on health. It emphasizes that a given health problem could be of both behavioural and non-behavioural causes therefore need health educational intervention to make a positive effect on the quality of life of the individual. It involves positive peer influence, obedience to constituted authority, and issues concerning sexuality. The educational diagnosis focuses on antecedent factors to preference of health behaviour. It consists of predisposing, enabling and reinforcing factors affecting effective and appropriate strategies to be used in solving the problem.

### **Predisposing Factors**

The predisposing factors are motivational forces prior to the decision to make a given health action (Green and Kreuter, 1980). They could be either positive or



negative depending on a given situation. These include students' knowledge, attitudes and values and perception towards HIV preventive health behaviour. The knowledge about where to buy condoms and attitude of individuals towards the use of condoms are predisposing factors in this study. Other issues that constitute predisposing factors involve students' perception on multiple sex partners and disclosure of HIV status among students.

### **Enabling Factors**

The enabling factors are behaviours that could be enhanced to improve performance of a given health habit, for example skills, competencies and resources required by individual (youths and care providers). In this study, access and appropriate skill in condom use, availability of money for buying personal blades and clippers and time to seek adequate health care comprise of enabling factors.

### **Reinforcing Factors**

The reinforcing factors are the most influential in adequate health behaviour development. In this study, causes of behaviour change largely depend on perception and acceptance of information on preventive health behaviour by peers. Reinforcing factors determines whether a behaviour that predisposes and enables will continue after first adoption. In this study, the reinforcing factors include age, and sex of the individuals.

The administrative diagnosis marks the end of educational diagnosis and is recorded as the most important aspect of the stage. It marks change in behaviour with availability of the necessary resources. It is where health education strategy/intervention that would influence a given health behaviour is stated.

Table 2.3 Precede Framework for Multiple Theories (Green and Kreuter 1980) Application to HIV Preventive Behaviour among undergraduates of University of Ibadan.

Administrative Planning Diagnosis	Educational Diagnosis	Behavioral Diagnosis	Epidemiological Diagnosis	Quality Of Life
<p><b>Communication strategies</b>                      use of mass media e.g. TV and Radio,                      Interpersonal such as counseling, health talk                      on positive health seeking behaviour</p>	<p><b>Predisposing Factors</b>                      * Knowledge of HIV related complications.                      * Knowledge of preventive health practices towards HIV/AIDS.                      * HIV/sexuality information.                      * Awareness of places to access RH services.                      * Attitude of health care providers.</p>			
<p><b>Social support strategies</b>                      Forming school HIV clubs, campus religious leaders and Non Governmental Organization support through free distribution of condoms.</p>	<p><b>Enabling factors</b>                      * Access to service providers.                      * Availability of money.                      * Skills on contraceptive use e.g. condom.                      * Time.                      * Availability of condoms</p>	<p>Use of appropriate protective measures to prevent HIV</p>	<p>Reduce incidence of unprotected sex, multiple sexual partners and sexually transmitted infection including HIV/AIDS.</p>	<p>Admission to school HIV programmes, pursue career and have better life opportunities</p>
<p><b>Developmental strategies</b>                      Training of peer educator, advocacy for behaviour change, training on self refusal skill and abstinence, IEC material distributions</p>	<p><b>Re-enforcing factors</b>                      * Member of peer educators.                      * Attitude of peers towards PFIH practices                      * Age and sex of the individual.                      * Religion teaching and faith of the individual.                      * Media advertisement</p>			

Adapted from Change Process, Precede Model (1980)

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## CHAPTER THREE

### METHODOLOGY

#### 3.1 Study Design and Scope

The study was cross-sectional and descriptive in design. It utilized a collection of data which gave a picture of knowledge and preventive health behaviour practiced as well as factors influencing HIV preventive health behaviour practice among undergraduates of University of Ibadan.

#### 3.2 Study Variables.

The dependent variables are knowledge on HIV/AIDS preventive health behaviour, pattern and frequency of practice of the adopted preventive health behaviour, and reasons/factors influencing preventive health behaviour practices while the independent variables are the social demographic characteristics such as age, sex, religion, level of education, and occupation of participant's parent.

#### 3.3 Description of Study Area.

University of Ibadan, formerly called University College Ibadan was founded in 1948. At first, the university occupied the old site previously used by the 5th Military General Hospital which was about eight kilometers away from the permanent site. The new site covered over 1,032 hectares of land. The university started its academic work with 144 foundation students in 1948. The populations of students have increased steadily from 1000 in 1958 to approximately 19,521 in 2008/2009 session with 38% postgraduate and 62% undergraduate students (Bamidele, 2010). The university is situated in Ibadan North Local Government Area of Oyo state and is bounded to the East by Agbowo Community, to the South/West by the Polytechnic Ibadan and to the North by the Nigerian Institute of Social and Economic Research.

The University of Ibadan operates a faculty system. Currently there are thirteen units and thirteen faculties with several departments. The thirteen faculties are Arts, Education, Law, Basic Medical Sciences, Clinical Sciences, Pharmacy, Public Health, Dentistry, Veterinary Medicine, Technology, Agricultural Sciences, Science and Social Sciences. The thirteen units are Registry, Careers Placement and Units, Foreign Students Units, Sports Council, Library, Computing Center, Press Bookshop, Botanical Garden, Zoological Garden, University Media Centre, Advancement Centre and University Health Services.

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The university provided accommodation for some staff and students; while some junior staff live at Abadina, some senior staff live at Amina way and new Phillipson road on campus. Nine undergraduate halls of residence (Mellanby, Tedder, Kuti, Sultan Bello, Queen Elizabeth II, Alexander Brown, Independence, Nnamdi Azikiwe and Queen Idia Halls) and three postgraduate halls of residence (Tafawa Balewa, New Hall and Obafemi Awolowo Hall) situated within the school premises have a total optimum capacity of nearly 5,000 students.

The university authority was mindful of the social activities while constructing physical structures in the school. Among the social structures are university cateries/butteries (U and I), swimming pool located at the Student Union Building, hotel (the Conference Centre); the zoological garden, play grounds (modern stadium and the old game centre), and dancing ground (Kegite club). Apart from those in the school premises, dancing clubs, cateries and shopping centres in front of the university promote some nocturnal activities such as partying and liquor consumption.

### 3.4 Study Population.

The study population was undergraduate students of University of Ibadan, who are on regular/full-time programmes.

### 3.5 Research Instruments

The instrument used was a questionnaire designed by the researcher with the inputs of the supervisor. It had four sections which helped to elicit information on HIV/AIDS preventive health behaviour:

Section A provided information on the demographic data of respondents. Items like age, sex, religion, faculty and year in school were explored in this section. It also had socio-economic data of respondent's parents.

Section B was on the knowledge level of respondents on HIV/AIDS preventive health behaviour. It consisted of questions like issues on (a) blood transfusions, b) mother to child, c) casual contact with infected person (d) mosquito bite (e) unprotected sexual intercourse and (f) sharing needle/unclean medical equipment.

Section C was on pattern and frequency of HIV/AIDS preventive health behaviour practices and factors that influenced HIV/AIDS preventive health behaviour practices among respondents. This section reflected sets of preventive behaviour commonly exhibited. These included issues on (a) stopping stigmatization and discrimination (b) drinking and eating with an infected person (c) use and non-use of drugs (d) patronage of local nail cutters and getting involved in scarifications (e) abstinence (f) use of condom (g) use of unsterilized equipment and (h) caring for AIDS patients. (Appendix I)

### 3.6 Sample Size and Sampling Procedure.

Iwagwu *et al* (2000) reported that a prevalence rate of 55% of female undergraduates of University of Ibadan indulge in multiple sexual practices. The prevalence rate of 55% was used to determine the sample size of undergraduates in University of Ibadan. The sample size can be calculated using the formula stated below:

$$n = \frac{z^2 pq}{d^2}$$

n = sample size.

Z = confidence interval which is 1.96.

P = proportion of students who indulge in sexual risky behaviour. (55%) (0.55)

q = proportion of students who do not indulge in sexual risky behaviour. (45%). (0.45)

d. = level of significant (0.05).

$$n = \frac{1.96^2 [0.55][1 - 0.55]}{0.05^2}$$
$$= 380$$

The 380 was increased to 400 to create room for attrition.

Stratified simple random sampling was used for the study. Four faculties and five departments each were selected using simple random sampling. The Faculties of Pharmacy and Dentistry have a department each as such the entire student populations were accommodated in the study. One hundred respondents each comprising fifty males and fifty females were selected randomly from the departments. The selection was done by writing all the faculties and departments in a piece of paper; each was folded and dropped in an envelope. Picking was done and the faculties picked were Social sciences, Arts, Dentistry and Pharmacy while departments picked from Art were Classic, English, Communication and Language Art, Religious Studies and European Studies. In the Faculty of Social Sciences, Departments of Economics, Political Science, Sociology, Psychology and Geography were selected.



**Table 3.1: Distribution of Study Participants**

Selected Faculties	Total Population	No. of Respondents	Selected Departments	Study Sample	
				Male	Female
Arts  Social sciences	1380  1363	Humanities (200)	Classics	10(2.5%)	11(2.8%)
			English	10 (2.5%)	12(3%)
			Communication and Language Arts	9 (2.25%)	9 (2.25%)
			European studies	12 (3%)	10(2.5%)
			Religious studies	9 (2.25%)	8(2%)
			Economics	10(2.5%)	9(2.5%)
			Sociology	8 (2%)	11 (2.75%)
			Geography	10(2.5%)	8(2%)
			Psychology	7(1.75%)	12 (3%)
			Political science	15 (3.75%)	10(2.5%)
Dentistry	140	Sciences (200)	Dentistry	50 (12.5%)	50 (12.5%)
Pharmacy	213		Pharmacy	50 (12.5%)	50 (12.5%)
<b>Total</b>	<b>3096</b>	<b>400</b>		<b>200 (50%)</b>	<b>200 (50%)</b>

### 3.7 Data Collection Process.

Four research assistants were trained, and used in administration of questionnaires. The four research assistants were selected from the selected faculties for easy administration of questionnaire. They were trained on interpersonal communication, how to obtain informed consent from respondents, confidentiality in research and voluntary participations. Research assistants were also taken through study objectives and each item in the questionnaire as well as importance of good administration of instruments in research. The semi-structured questionnaire was administered by the research assistants while the investigator apart from the general supervision also assisted in questionnaire administration.

### 3.8 Validity

The instrument was designed to include the common language spoken among university students. The content validity was ensured through review of pertinent literature in the area of the study. The research supervisor made pertinent corrections before the final draft of the questionnaire was pre-tested. The pre-test was administered among the Ibadan Polytechnic

students between 3<sup>rd</sup> and 10<sup>th</sup> of February, 2007 since the respondents have similar characteristics as those of the University of Ibadan. The pre-test was done to observe acceptability of the instrument to the respondents. Most respondents accepted the instrument. There was total willingness in filling of the questionnaire. Some respondents asked whether they would be subjected to HIV test after filling the questionnaire. Length of time for questionnaire administration was 20-30 minutes on the average; few respondents were called to fill correctly the unfilled questions. Some questions asked during administration of questionnaire were space for 'last born' in the spaces provided and 'difference between how you know one who is HIV positive and AIDS'. In format review, need to provide options for major reasons for preventive health behaviour practices arose.

### 3.9 Reliability

Reliability was ensured by using simple English that could be easily understood by the study population as well as recruitment and training of personnel from the concerned departments. The instrument was pre-tested among students of Ibadan Polytechnic to observe the following: acceptability of the instrument to the respondents, willingness of the respondents to answer questions, the length of time taken to administer a questionnaire, whether respondents have similar understanding of the questions and if there was need to revise format, presentation or reconstruct questions. Data collected during the pre-test was used to adjust items in the questionnaire.

The modified section and items were in the following sections; – in introduction, 'we assure you that the questionnaire will take a few minutes as you are only to tick most of the answers' were added. In Section A number 5, levels of study which were formally written in this form 1, 2, 3, 4, 5, 6 was written as 1<sup>st</sup> yr, 2<sup>nd</sup> yr, 3<sup>rd</sup> yr, 4<sup>th</sup> yr, 5<sup>th</sup> yr and 6<sup>th</sup> yr. In Section B question 13, sexual intercourse was changed to unprotected sexual intercourse. Question 15 of the same section was re-written from avoiding sex completely to sexual abstinence. In Section C, question 20- major reasons for level of practice of preventive health behaviour and who is the primary source of influence of the behaviour that you engage in which had no option were given options. The options were deduced from numerous responses from respondents. Others were also added as one of the options in who influences preventive health behaviour.

To aid better understanding of question 21 in section C, question 21 was made to have 21a and 21b. Question 21a, which was rated in descending order of magnitude and has this question- how has the following influenced your behaviour towards HIV prevention? Tick 1 as highest influence followed by the next 2, 3, and 4 in the boxes below-was reconstructed to be 'which of these have influenced your HIV preventive health behaviour'. Question 21b now

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reads from the one listed in (a) above, please state the one that has the greatest influence. In section C, question 32, what do you think that will make you practice this preventive health behaviour always which respondents scarcely responded to was also provided with options for easy responses? Lastly proper training of the research assistants and non-labeling of the questionnaire gave room for truthfulness in filling of questionnaire. Determinant of coefficient of reliability of instrument was done before administering the instrument. The coefficient of reliability using the Crobach Alpha reliability test was 0.58.

### 3.10 Data Management and Analysis

Questionnaires were carefully packed and serially numbered as research assistants returned them. Access to questionnaires was only allowed to researcher and the assistants. The researcher prepared a coding guide, which was corrected and approved by the supervisor. Data obtained from the questionnaire was then edited and manually coded and entered into computer for analysis. Analysis was carried out using SPSS version 12 statistical software and the data presented into tables and charts for easy understanding. chi-square statistics was used to determine association between variables.

### 3.11 Ethical Consideration.

Informed consent was verbally sought from the respondents. In the first day of questionnaire distribution, the research assistants with the help of the researcher addressed the class after lectures before administering questionnaires. By this, the respondents were informed that participation is voluntary and that no name is required during the filling of any questionnaires. Respondents were also informed that all information resulting from their response will be kept confidential as well as complete destruction of questionnaires after completion of the study.

i) All information received from respondents is confidential and hence names of respondents were not collected.

ii) No coercion was used during administration of questionnaires. It was made voluntary

### 3.12 Limitations

Some of the limitations encountered by the researcher during the course of study are:

1. The topic being sensitive with personal related issues made some respondents reluctant to fill all question items regarding sexual intercourse. This was corrected by calling the attention of the respondents to fill such question with assurance that such responses are for research use only.

2. In the first day of questionnaire distribution, few respondents were with their friends while filling the questionnaire. This was corrected by allowing only those given questionnaire to remain behind and fill while those that had already filled with friends were condemned and re-administered.

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## CHAPTER FOUR

### RESULTS

#### 4.1 Demographic Background of Respondents

##### 4.1.1 Age, Ethnic Group, Religion, Occupation and Level of Education of Parents

Table 4.1 shows distribution by age, ethnic group, religion, occupation and level of education of respondent's parents. Respondents' ages range from 17 to 43 years with mean age of 23. (+3.6). Majority 321 (80.3%), were Christians, 79(19.8%) were Muslims and 3(0.7%) others. Distribution by respondents' ethnicity has the following; Ibo 86 (21.5%), Yoruba 269 (67.3%) and others 45 (11.2%) respectively. The others comprise of majorly Edo followed by Delta, Akwa-Ibom, Rivers and Housa. The table shows that 184 (46%) of respondents fathers were self employed while 135 (33.8%) were civil servant. One hundred and forty three (35.8%) mothers were civil servants and 126 (31.5%) self employed. Others in father's side are clergy, retired, and late while mothers have retired and house wives. Level of education of respondent's parents showed that more fathers acquired university education 240 (60%) than mother 180 (45%). More mothers acquired secondary education and has no formal education 111 (27.8%) and 22(5.5%) compared to fathers whose attainment of secondary education and no formal education were 87 (21.8%) and 11(2.8%) respectively. Others 22 (5.6%) in level of fathers education attended Technical School, Polytechnic and Diploma Courses while a large number of mothers 34 (8.6%) attended school of Nursing, Teacher Training Colleges, Polytechnic Education and School of Catering and Fashion Designing.

**Table 4.1: Demographic Characteristics of Respondents**

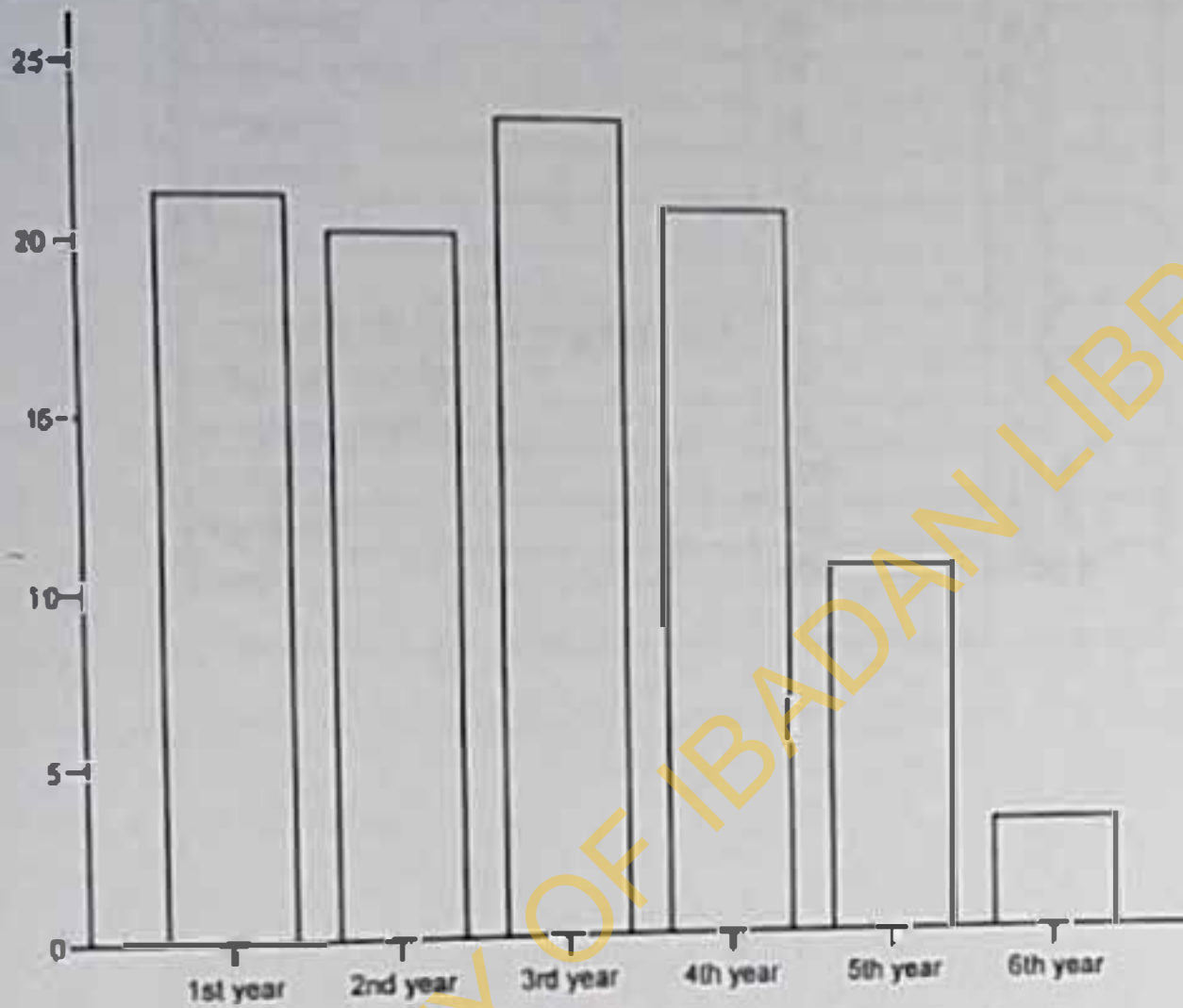
<b>Age group in years</b>	<b>Frequency</b>	<b>Percentages</b>
17-20	111	27.8
21-24	182	45.5
25-28	81	21.0
29-32	17	4.3
Above 33	9	2.3
<b>Total</b>	<b>400</b>	<b>100</b>
<b>Religion</b>		
Christianity	321	80.3
Muslim	76	19
Others	3	0.7
<b>Total</b>	<b>400</b>	<b>100</b>
<b>Ethnic group</b>		
Ibo	86	21.5
Yoruba	269	67.0
Others	45	11.2
<b>Total</b>	<b>400</b>	<b>100</b>
<b>Occupation of respondents father</b>		
Farming	17	4.3
Self employed	184	50.0
Not working	29	5.8
Trading	35	7.3
Civil servants	135	32.6
<b>Total</b>	<b>400</b>	<b>100</b>
<b>Occupation of respondents mother</b>		
Farming	13	2.3
Self employed	126	31.5
Not working	17	4.3
Trading	94	24.5
Civil servants	143	35.8
Others	7	1.6
<b>Total</b>	<b>400</b>	<b>100</b>
<b>Fathers' level of education</b>		
Primary education	40	10
Secondary education	87	21.8
University education	240	60
No formal education	11	2.8
Others	22	5.6
<b>Total</b>	<b>400</b>	<b>100</b>
<b>Mothers' level of education</b>		
Primary education	53	13.3
Secondary education	111	27.8
University education	180	45
No formal education	22	5.5
Others	34	8.6
<b>Total</b>	<b>400</b>	<b>100</b>



#### 4.2 Year/Course of Study and Birth Positions of Respondents.

Figure 4.1 shows students' year of study with the following records: year one, 85 (21.3%); year two, 81 (20.3%); year three, 94 (23.5%); year four, 84 (21%); year five, 43 (10.8%) and year six, 13 (3.3%). Table 4.2 shows that 19 respondents (4.8%) were from Sociology department, 19 (4.8%) from Psychology, 25 (6.3%), from Political Sciences, 18 (4.5%) from Geography, 19 (4.8%) from Economics, 21 (5.3%) from Classic, 22 (5.5%) from English, 17 (4.3%), from Communication and Language Arts, 18 (4.5%) from Religious Studies, 22 (5.5%) from European Studies, 100 (25%) from Dentistry and Pharmacy each. Respondents position from mothers and fathers side shows a similar trend, third child and above had the highest number of 247(61.8%) and 204(51.0%) in both parents (father former and mother later) followed by first 81(20.2%) and second child 102(26.0) in fathers side and 72(18.0%), 94(23%) for mothers side. One hundred (25%) students with equal number of males and females responded from each of the four faculties.

**Figure 4.1: Distribution of Respondents  
Level of Education**



• Year five and six was as a result of using respondents from dentistry and pharmacy departments.

**Table 4.2: Respondents Distribution by Departments**

<b>Respondents by Departments</b>	<b>Frequency</b>	<b>Percent</b>
Sociology	19	4.8
Psychology	19	4.8
Political science	25	6.3
Geography	18	4.5
Economics	19	4.8
Classic	21	5.3
English	22	5.5
Communication and language arts	17	4.3
Religious studies	18	4.5
European studies	22	5.5
Dentistry	100	25.0
Pharmacy	100	25.0
<b>Total</b>	<b>400</b>	<b>100.0</b>

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**Table 4.2: Respondents Distribution by Departments**

<b>Respondents by Departments</b>	<b>Frequency</b>	<b>Percent</b>
Sociology	19	4.8
Psychology	19	4.8
Political science	25	6.3
Geography	18	4.5
Economics	19	4.8
Classic	21	5.3
English	22	5.5
Communication and language arts	17	4.3
Religious studies	18	4.5
European studies	22	5.5
Dentistry	100	25.0
Pharmacy	100	25.0
<b>Total</b>	<b>400</b>	<b>100.0</b>

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### 4.3 Respondents' Knowledge on HIV/AIDS Transmission and Prevention

The reports as presented in table 4.3.1 show that respondents were generally knowledgeable on areas of HIV preventive health behaviour. While 389 (97.3%), were knowledgeable that unprotected sexual intercourse was a method of HIV transmission, a few did not have adequate knowledge. Other areas where respondents showed knowledge in the findings were as follows: Sharing of unsterilized needles/unclean medical equipment 384(96%), blood transfusion 385(96.3%) and mother to child transmission 361(90.3%) respectively. A little more than half, 205, (51%) had knowledge that sexual abstinence will prevent one from contracting HIV. Three hundred and thirty eight (84%) and 274(68.5%) had knowledge that avoiding intercourse with commercial sex worker and consistent use of condom will prevent HIV spread. Less males (47.8%) than females (49.5%) had knowledge that unprotected sexual intercourse is not a preventive health behaviour while more females (46.4%) than males (44.1%) pointed out that HIV could be transmitted from mother to child ( $p>0.05$ ).

Generally 335 (83.8%) and 281 (70.3%) respondents had good knowledge of HIV transmission and prevention respectively. Table 4.3(2) shows high level knowledge difference between Science and Humanities based students. One hundred and fifty three (76.5%) in Humanities and 182(91.0%) in Sciences has adequate knowledge of HIV transmission while 47(23.5%) from Humanities and 18 (9.0%) from Sciences had inadequate knowledge ( $p<0.05$ ). On the other hand 120(60.0%) from Humanities and 161((80.5%) from Sciences had good knowledge of HIV prevention while 80(40%) and 39(19.5%) had poor knowledge respectively. More females (70.0%) than males (64.5%) were of adequate knowledge of HIV preventive health behaviour. Two hundred (51.9%) science based students and 185(48.1%) of those in humanities indicated that blood transfusion transmits HIV/AIDS. Also higher numbers of respondents from science 188(52.1%) than humanities 173 (47.9%) had knowledge that mothers can transmit HIV to their unborn babies ( $p>0.05$ ).

**Table 4.3.1: Respondents' Knowledge of HIV/AIDS Transmission and Prevention**  
(N=400)

How is HIV/AIDS transmitted?*	Yes		No.	
	Frequency.	Percent.	Frequency	Percent.
Unprotected Sexual intercourse.	389	97.3	11	2.8
Sharing needles/unclean medical equipment.	384	96.0	16	4.1
Blood transfusion.	385	96.3	15	3.8
From mother to child.	361	90.5	38	9.6
Casual contact with infected person.	8	2.0	392	98.1
How is HIV/AIDS prevented?*	Yes		No	
	Frequency	Percent	Frequency	Percent
Abstinence	205	51.3	185	46.3
Avoid sharing needles.	338	84.5	52	13.0
Encourage partner to remain faithful	343	85.8	47	11.8
Avoid commercial sex.	336	84.0	54	13.5
Using condom consistently.	274	68.5	116	29.0

\*Multiple responses

**Table 4.3.2 Respondents' Knowledge of HIV/AIDS Transmission and Prevention by Faculties of Study**

Knowledge on transmission		Humanities	Sciences
Adequate	335(83.8%)	153(76.5%)	182(91.0%)
Not Adequate	65(16.3%)	47(23.5%)	18(9.0%)
Knowledge on prevention		Humanities	Sciences
Adequate	281(70.3%)	120(60.0%)	161(80.5%)
Not Adequate	119(29.8%)	80(40%)	39(19.5%)

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#### 4.4 Respondents' Knowledge of Behaviours that are HIV/AIDS Preventive

Table 4.4.1 shows percentage distribution of respondent correct and incorrect knowledge of behaviours that are preventive towards HIV transmission. Non use of drug as a preventive behaviour was correctly identified by 112 (28.0%). Other correct responses to HIV/AIDS preventive behaviour were, having one uninfected partner 302(75.5%) and consistent and proper use of condoms 294(73.5). Incorrect knowledge towards preventive health behaviour as indicated by respondents were having only handshake with an infected person 84(12%) and patronizing local nail cutters 84(21%). More males (73.5%) than females (72.5%) were not knowledgeable that patronizing local nail cutter is not a preventive behaviour ( $P>0.05$ ).

One hundred and thirty three (66.5%) and 130(65%) from sciences and humanities respectively had knowledge that sexual abstinence is a good preventive health behaviour towards HIV spread. More respondents from humanity 70(35%) and 28(14%) believed that non use of drug (cigarette/tobacco abuse) and having only hand shake with a person living with HIV/AIDS is a preventive health behaviour compared with 42(21%) and (10%) that were science based. In total 122(61%) of those in sciences had adequate knowledge of behaviour that are HIV preventive more than 105(52.5%) of respondents from humanities. Thirty nine percent of those in science had poor knowledge of behaviour that are HIV preventive compared with (47.5%) of respondents from humanities ( $P<0.05$ ).



**Table 4.4.1: Respondents' Knowledge of Behaviours that are HIV/AIDS Preventive**

Preventive Health Behaviour	Yes		No		Don't know	
	Freq.	%	Freq.	%	Freq.	%
Stopping stigmatization and discrimination of people living with HIV/AIDS.	260	65.0	96	24.0	44	11.0
Drinking and eating with an infected person.	85	21.3	276	69.0	39	9.8
Having one uninfected partner.	302	75.5	66	16.5	32	8.0
Non use of drugs (cigarette tobacco abuse).	112	28.0	203	50.8	85	21.3
Total abstinence from sex.	263	65.8	116	29.0	21	5.3
Consistent and proper use of condom.	294	73.5	71	17.8	35	8.8
Use of sterilized equipment.	365	91.3 %	17	4.3%	18	4.5%
Caring for people infected with HIV/AIDS.	238	59.5 %	119	29.8 %	43	10.8%
*Patronizing local nail cutters.	84	21.0	292	73.0	24	6.0
*Blood initiation during cultism.	135	33.8	233	58.3	32	8.0
*Having only hand shake with an infected person.	48	12.0 %	302	75.5 %	50	12.5%

\* Indicates incorrect responses.

**Table 4.4.2: Respondents' Overall Knowledge of Behaviours that are HIV/AIDS Preventive by Faculties of Study**

Preventive Health Behaviour	Humanities	Science
Adequate	105(46.3%)	122(53.7%)
Not adequate	95(54.9%)	78(45.1%)
Total	200(101.9%)	200(98.1%)

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**Table 4.4.3. Proportion of Respondents with correct answer to HIV/AIDS Preventive Health Behaviour Knowledge Questions by Gender**

Knowledge of HIV/AIDS Preventive Health Behaviour	Sex		P-value
	Males	Females	
Stopping stigmatization and discrimination of people living with HIV/AIDS	136(34.0%)	124(31.0%)	.328
Drinking and eating with an infected person	42(10.5%)	43(10.8%)	.472
Having one uninfected partner	156(39.0%)	146(36.5%)	.502
Non use of drugs(cigarette and tobacco abuse)	61(15.3%)	51(12.8%)	.519
Patronizing local nail cutters	41(10.3%)	43(10.8%)	.970
Total abstinence from sex	127(31.8%)	136(34.0%)	.028
Blood initiation during cultism	63(15.8%)	72(18%)	.537
Consistent and proper use of condom	134(38.5%)	140(35.0%)	.038
Use of sterilized equipments	181(45.3%)	184(46%)	.615
Having only hand shake with an infected person	22(5.5%)	26(6.5%)	.766
Caring for people infected with HIV/AIDS	120(30.0%)	118(29.5%)	.889

**Table 4.4.3. Proportion of Respondents with correct answer to HIV/AIDS Transmission Question by gender**

Knowledge of HIV/AIDS Transmission	Sex		P-value
	Males	Females	
Avoid unscreened blood transmission	190(47.5%)	195(48.8%)	.332
Avoid patronizing commercial sex	168(42.0%)	168(42.0%)	.023
Sexual abstinence	127(31.8%)	136(34.0%)	.028
Encourage partner to remain faithful	167(41.8%)	176(44.0%)	.036

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#### 4.5. Preventive Health Behaviour Practices.

Table 4.5.1 shows that 233(58.6%) of the respondents used condom during sexual intercourse. Out of the number that claimed to use condom, 193(82.8%) reported using condom always in all sexual intercourse and out of the 206 (51.9%) that reported knowing their HIV status, 144(70%) could always attest to their status. Among 267(73.2%) that reported having one uninfected sexual partner, 214 (80.1%) claimed to always adhere to limiting sex to one sexual partner while 53(19.9%) sometime limit sex to one uninfected partner. More males 119(29.8%) than females 114(28.5%) used condom consistently while more females 155(38.8%) than males 131(32.8%) generally practice preventive health behaviour ( $p>0.05$ ).

Overall preventive health behaviour practice in table 4.5.2 showed that respondents from Humanities practice more preventive health behaviour than those in Sciences. Out of two hundred and twenty two that practiced preventive health behaviour adequately, fifty one percent 111(50.5%) were from Humanity while 109(49.5%) were Science based. Eighty nine (49.4%) and 91(50.6%) from Humanities and Science respectively practiced less preventive health behaviour ( $p>0.05$ ). Comparing limiting practice of preventive health behaviour with year of study, respondents in 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> year had 45(20.5%), 44(20.0%), 53(24.1%), 49(22.3%), 23(10.5%) and 6(2.7%) respectively.

There was no significant difference when practice of preventive health behaviour was cross-tabulated with gender, faculty/year of study and mothers level of education ( $p\text{-value}>0.05$ ). Some practices that will make undergraduates improve on their HIV preventive health behaviour practices are self discipline 339(85%) and HIV programme 303 (75.9%). More males than females agreed that HIV programme, religious teaching and self discipline will make them improve in practice of preventive health behaviour ( $p>0.05$ ).

**Table 4.5.1. Preventive Health Behaviour Practices Adopted by Respondents**

Preventive Health Behaviour	Yes		No	
	Freq.	%	Freq.	%
Avoiding sharing of sharp instrument of any kind.	367	93.6	25	6.4
Limit sex to one uninfected partner	267	73.2	89	24.4
Avoiding unscreened blood transfusion.	347	89.2	42	10.8
Tattooing/incision with personal kit.	76	20.3	298	79.7
Use of condom in sexual intercourse	233	58.6	117	33.4
Ensure the use of safe needles/syringes for injections.	361	92.8	28	7.2
Sexual abstinence.	286	70.3	104	26.7
Knowing ones HIV status.	206	51.9	191	48.1
Not engaging in same sex relationship (a) vaginal, (b) anal (c) oral sex.	360	93.3	26	6.7
Disclosing ones HIV status.	160	42.9	213	57.1

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**Table 4.5.2a Frequency of Preventive Health Behaviour Practices**

Preventive Health Behaviour.	Frequency of Practicing Preventive Health Behaviour			
	Sometimes		Always	
	Freq.	%	Freq.	%
Avoiding sharing of sharp instrument of any kind.	82	22.3	285	77.7
Limit sex to one uninfected partner.	53	19.9	214	80.1
Avoiding unscreened blood transfusion.	38	11.0	309	89.0
Tattooing/incision with personal kit.	27	35.5	49	64.5
Use of condom in sexual intercourse.	40	17.1	193	82.8
Ensure the use of safe needles/syringes for injections.	13	3.6	348	96.4
Sexual abstinence.	72	25.2	214	74.8
Knowing ones HIV status.	62	30.1	144	70.0
Frequency of not engaging in same sex relationships-(a) vaginal. (b) anal (c) oral sex.	27	7.8	318	92.2
Frequency of disclosing ones HIV status.	37	23.1	123	76.9

**Table 4.5.3b Frequency of Preventive Health Behaviour Practices by Faculties**

Preventive Health Behaviour	Faculties	
	Humanities	Sciences
Avoiding sharing of sharp instrument of any kind		
Sometimes	38(46.3%)	44(53.7%)
Always	150(52.6%)	135(47.4%)
Limit sex to one uninfected partner		
Sometimes	25(47.2%)	28(52.8%)
Always	111(51.9%)	103(48.1%)
Avoid unscreened blood transfusion		
Sometimes	18(47.4%)	20(52.6%)
Always	154(49.8%)	155(50.2%)
Tattoo/incision with personal kit		
Sometimes	10(37.8%)	17(63.0%)
Always	25(51.0%)	24(49%)
Use of condom in all sexual intercourse		
Sometimes	22(55.6%)	18(45.0%)
Always	103(53.4%)	90(46.6%)
Ensure the use of safe needles/ syringe for injections		
Sometimes	8(61.5%)	5(38.5%)
Always	169(48.6%)	179(57.4%)
Knowing ones HIV status		
Sometimes	29(46.8%)	33(53.2%)
Always	71 (49.3%)	73(50.7%)
Not engaging in same sex relationships-vaginal, anal or oral		
Sometimes	20(57.1%)	15(42.9%)
Always	158(47.9%)	172(52.1%)
Disclosure of HIV status		
Sometimes	25(67.6%)	12(32.7%)
Always	55(47.7%)	68(55.3%)
Sexual abstinence		
Sometimes	34(47.2%)	38(52.8%)
Always	107(50%)	107(50%)



**Table 4.5.4: Distribution of Respondents on reported practice of Preventive Health Behaviour by Gender**

Practice of Preventive Health Behaviour	Sex		P-value
	Males	Females	
Avoiding sharing of sharp instrument of any kind	181(45.3%)	185(45.5%)	.283
Limit sex to one uninfected partner	137(34.3%)	130(32.5%)	.758
Avoid unscreened blood transmission	176(44.0%)	171(42.8%)	.299
Tattoo/incision with personal kits	31(7.8%)	45(11.3%)	.118
Use of condom in all sexual intercourse	119(51.9%)	114(48.9%)	.675
Ensure the use of safe needles/syringes for injection	173(43.3%)	188(47.0%)	.039
Sexual abstinence	181(45.8%)	192(54.2%)	.013
Knowing ones HIV status	99(24.8%)	107(26.8%)	.637
Not engaging in same sex relationship	175(43.8%)	183(45.8%)	.113
Disclosure of HIV status	82(20.5%)	78(19.5%)	.914

#### 4.6 Reasons and Primary Source of Influence in the Practice of Preventive Health Behaviour

Tables 4.6.1 show respondents' reasons and what influences their preventive health behaviour practices. Majority affirmed avoiding HIV infection as major reasons for practicing preventive health behaviour while Mass Media played a major role in influencing preventive health behaviour practices. Behaviour practiced to avoid HIV infection includes limiting sex to one uninfected partner 158(33.3%), avoiding unscreened blood transfusion 243(51%), consistent use of condom 142(32.9%), ensuring injecting with safe needle 225(38.8%) and sexual abstinence 155(26.1%). Thirty eight and nine percent and ninety one percent tattoos with personal kit and disclose their status because it was safe while fear of God was major reason for not engaging in same sex relationships 268(52.7%). Table 4.6.2 shows that Mass media influenced avoiding sharing of instrument of any kind 248(45%), tattooing/incision with personal kit 25(18.7%), consistent use of condom 104(31.3%) and knowing ones HIV status 80(30.0%). Limiting sex to one uninfected partner 129(31.2%) and disclosing ones HIV status 93(43.7%) had self motivation as a primary source of influence while health personnel was the primary source of influence in ensuring injecting with safe needle 149(23.3%) and avoiding unscreened blood transfusion 158(31.3%).

More males 79(41.6%) than females 62(32.6%) practiced consistent use of condom to avoid HIV infection while more females 40(32.8%) than males 33(27.0%) practice the same preventive health behaviour to avoid unplanned pregnancy. Females 16(21.3%) and 18(25.4%) had more influence from friends and parents compared to males 11(14.7%) and 5(7.0%). Christians 58(45.7%) and Moslems 22(17.3%) were influenced to use condom by health personnel while mass media and friends influenced as follows 85(55.6%), 18(11.8%) and 22(29.3%) and 4(5.3%) respectively. Christians 109(57.4%) and Moslems 31(16.3%) used condoms to avoid HIV infection followed by fear of God 21(28.0%) and 4(5.3%).

**Table 4.6.1: Respondents' Major Reason for Practicing Preventive Health Behaviour\***

Preventive Health	Reasons for Preventive Health Behaviour Practiced in the Last Three Months						Total
	Avoid HIV/AIDS infection		It is safe		Remain healthy and live long		
	Freq.	%	Freq.	%	Freq.	%	
Avoiding sharing of sharp instrument of any kind	248	45.0	180	32.7	123	22.3	551
Limit sex to one uninfected partner	158	41.9	136	36.1	83	22.0	377
Avoiding unscreened blood transfusion	238	43.9	187	33.8	124	22.4	554
Tattooing/incision with personal kit only	32	33.0	42	43.3	23	23.7	97
Consistent use of condom in all sexual intercourse	142	35.1	138	34.2	51	12.6	331
Ensure the use of safe needles/syringes for injections	225	40.7	211	38.1	117	21.2	553
Knowing ones HIV status	81	29.0	103	36.9	95	34.0	279
Not engaging in same sex relationships-(a- vaginal, (b-oral, (c- anal sex	184	36.1	36	7.1	21	4.1	241
Disclosing ones status	48	24.1	91	45.7	60	30.2	199
Abstaining from sex	155	26.1	142	23.9	85	14.3	382

Multiple responses\*

Table 4.6.2: What are the Primary Sources of Influence of Preventive Health Behaviour\*

Preventive Health Behaviour	Primary sources of influence towards HIV/AIDS preventive health behaviour										
	Friends		Parents		Self		Mass media		Health personnel		Total
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	
Avoiding sharing of sharp instrument of any kind.	39	7.3	73	13.6	153	28.6	159	29.7	111	20.7	535
Limit sex to one uninfected partner	25	7.2	39	11.2	129	37.2	91	26.2	63	18.2	347
Avoiding unscreened blood transfusion.	35	6.9	44	8.7	126	25.0	142	28.1	158	31.3	505
Tattooing/incision with personal kits only.	12	9.0	9	6.7	37	27.6	25	18.7	16	12.0	134
Consistent use of condoms in all sexual intercourse	27	8.1	23	6.0	98	29.5	104	31.3	80	24.1	332
Ensure the use of safe needles/syringes for injections.	32	6.3	52	10.2	137	26.9	139	27.3	149	29.3	509
Abstaining from sex.	35	8.2	69	16.1	158	36.8	115	26.8	52	12.1	429
Knowing ones HIV status.	16	6.0	28	10.5	76	28.5	80	30.0	67	25.1	267
Not engaging with same sex relationship (a) vaginal (b) oral (c) anal.	23	9.3	35	14.2	131	53.0	32	13.0	26	10.5	247
Disclosing ones status.	10	1.9	14	7.3	83	43.7	43	22.6	40	21.1	190

\*Multiple responses.

## Test of Hypothesis

Hypothesis One ( $H_{01}$ ) There is no significant relationship between independent variables- faculty and knowledge of preventive health behaviour

In table 7.1, 155(77.5%) out of 269 respondents with adequate HIV preventive knowledge were Science based students while 114(57.0%) were from Humanities. The findings show there is significant relationship between faculties of study and Knowledge of HIV preventive health behaviour ( $p < 0.05$ ). The null hypothesis is thereby rejected and alternate which says that there is significant difference between faculty of study and knowledge of preventive health behaviour is accepted. This means that faculty of study influence knowledge of preventive health behaviour.

**Table 4.6(3): Respondents' Independent Variables (Faculty) and Knowledge of Preventive Health Behaviour**

Knowledge of Preventive Health Behaviour	Faculty of Study		Total
	Humanities	Sciences	
Adequate	114(57.0%)	155(77.5%)	269
Inadequate	86(43.0%)	45(22.5%)	131
Total	200	200	

Chi-Square = 19.08;  $df = 1$ ;  $P\text{-value} = .000$ ; ( $p < 0.05$ )

Hypothesis 2 (H<sub>02</sub>) There is no significant difference in respondents' knowledge of preventive health behaviour and gender.

Table 7.2 shows that more females than males had adequate knowledge of HIV preventive health behaviour. One hundred and forty, (70%) of females and 129(64.5%) of males had adequate knowledge while 60(30%) of females and 71(35.5%) of males had inadequate knowledge.

The findings shows no significant relationship among sexes in the knowledge of preventive health behaviour ( $p > 0.05$ ). The null hypothesis is hereby accepted and the alternate which states that there is a significant difference between gender and knowledge of preventive health behaviour is rejected. This means that gender does not influence knowledge of preventive health behaviour.

Table 4.6(4): Respondents' Independent Variables (Gender) and Knowledge of Preventive Health Behaviour

Knowledge of Preventive Health Behaviour	Gender		Total
	Males	Females	
Adequate	129(64.5%)	140(70.0%)	269
Inadequate	71(35.5%)	60(30%)	131
Total	200	200	

Chi-Square = 1.37; df = 1; P-value = .143 ; (  $p > 0.05$  )

**Hypothesis 3 (H<sub>03</sub>)** There is no significant difference between occupation of parents and respondents knowledge of preventive health behaviour.

Table 7.3 compares knowledge of preventive health behaviour and occupation of parents. The studies show that there was no significant difference between parental status and knowledge of preventive health behaviour. Out of 269 respondents with adequate knowledge, 86(63.8%) and 131(71.2%) had mother and father who were self employed. Forty (31.7%) and 53(28.8.0%) had non adequate knowledge. One hundred and one (70.6%) and 85(63.0%) respondents whose parents were civil servants had adequate knowledge. Findings from the results shows that p-value = 0.45 for mother and 0.40 for fathers which is not statistically significant. The null hypothesis is therefore accepted and the alternate is rejected. This means that occupation of parents has no influence in preventive health behaviour knowledge.

**Table 4.6(5): Respondents' Independent Variables (Parental occupation) and Knowledge of Preventive Health Behaviour.**

Parental occupation	Knowledge of Preventive Health Behaviour		Total
	Adequate	Inadequate	
Mothers			
Self-employed	86(68.3%)	40(31.7%)	126
Civil Servant	101(70.6%)	42(29.4%)	143
Total	187(139%)	82(61%)	
Fathers			
Self-employed	131(71.2%)	53(28.8%)	184
Civil Servant	85(63.0%)	50(37.0%)	135
Total	216(134%)	103(65.8%)	

Chi-Square for mother = 5.72; for fathers = 6.21 df=2; P-value for mother = 0.455; for fathers = 0.400 (p > 0.05)

**Hypothesis 4 (H<sub>0</sub>)** There is no significant difference between faculty and practice of preventive health behaviour.

The hypothesis to be tested is whether faculties of study are significantly different in preventive health behaviour practice. Out of 220 that maintain adequate practice of preventive health behaviour, 111(55.5%) from humanities had adequate practice while 89(44.4%) had non adequate practice. In the same way 109(54.5%) from sciences had adequate knowledge while 91(45.4%) had inadequate knowledge. From the findings, the Chi-Square was .040; df = 1 and p-value was 0.460. The p-value was more than the 5% confidence interval therefore preventive health behaviour practices is not significantly different in the faculties.

**Table 4.6(6): Respondents' Independent Variables (Faculty) and Practice of Preventive Health Behaviour.**

Preventive Health Behaviour Practices	Faculties		Total
	Humanities	Sciences	
Effective Practice	101(55.5%)	109(54.5%)	210(100%)
Ineffective Practice	89(44.4%)	91(45.5%)	180(89.9%)
Total	190(99.9%)	191(99.9%)	

Chi-Square = 0.040; df = 1; P-value = .460 ; (p > 0.05)



**Hypothesis 5 (H0<sub>5</sub>)** There is no significant difference between Religion and practice of preventive health behaviour.

Table 7.5 compares religion and practice of preventive health behaviour. While 167 (75.9%) Christians practice adequate preventive health behaviour, 51 (23.2%) Moslems practice preventive health behaviour while 2(.9%) of other religion practice preventive health behaviour. One hundred and fifty four (85.6%) of Christian, 25(13.9%) of Moslems and 1(.6%) of others practice preventive health behavior ineffectively. Findings from the results shows that P-value = 0.055, therefore practice of preventive health behaviour is not statistically significant. The null hypothesis is therefore accepted and the alternate is rejected. This means that religion has no influence on preventive health behaviour practices.

**Table 4.6(7) Respondents' Independent Variables (Religion) and Practice of Preventive Health Behaviour.**

Preventive Health Behaviour Practices	Religion		Total
	Christians	Islam	
Effective Practice	167(75.9%)	51(23.2%)	220(108.1%)
Ineffective Practice	154(85.6%)	25(13.9%)	180(99.5%)
Total	321(160.5%)	76(36.1%)	

Chi-Square = 5.81; df=1; P-value = .055 ; (p > 0.05)

## CHAPTER 5

### DISCUSSION, RECOMMENDATION AND CONCLUSION

This chapter will discuss issues arising from findings on HIV/AIDS preventive health behaviour of undergraduate students of University of Ibadan. Areas to be discussed includes knowledge of HIV/AIDS preventive health behaviour, practices of preventive health behaviour, pattern and frequency of HIV/AIDS preventive health behaviour practices and factors influencing HIV/AIDS preventive health behaviour practices. The chapter ends with conclusions and recommendations.

#### 5.1 Knowledge of HIV/AIDS Transmission and Prevention.

The major findings showed that most participants had adequate knowledge of HIV preventive health behaviour. Virtually all the respondents affirmed that HIV/AIDS could be transmitted by unprotected sexual intercourse and having multiple sexual partners. This could be attributed to prevention programmes on HIV/AIDS organized by non-governmental organizations in the university. There are evidences of the presence of peer educators among students which may have contributed to good knowledge of HIV transmission and prevention among undergraduates. This study corroborates Oladepo *et al* (1994), Ona *et al* (2004), Beattie (2006), and Yuri *et al* (2001) which reported significant increase in HIV preventive health behaviour knowledge among students. The finding is consistent with Okonkwo *et al* (2004), Kelly *et al* (2004) and Kajjovivi *et al* (2003) which reported high awareness on how HIV is transmitted among university students. Knowledge was also high that sharing of needles, blood transfusion can transmit HIV as well as from mother to their unborn child. High knowledge about sharing needles agrees with Kirby (2008) who reported that less percentage of both male and female students contacted HIV through injecting drug compared to sexual activities. High proportion was aware that casual contact with infected person does not aid transmission. This is in line with Beattie (2006) who recorded that respondents were still involved in stigmatization of HIV patients despite knowing that HIV/AIDS cannot be transmitted by eating together.

Slightly more than half of the respondents indicated that abstinence is a preventive behaviour. This might be as a result of high sexual activities among

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university students (Iwuagwu et al 2004). In the same vein, Ejembi (2004) reported multiple relationship among university student while Omoloso (2005, and Ebi et al (2006,) showed that the knowledge of HIV transmission among undergraduates in Nigerian Universities is high but the practice of preventive behaviour is low.

Knowledge of HIV prevention was also high in avoiding commercial sex, using condom consistently and encouraging partner to remain faithful. Consistent use of condom agrees with Ona et al. (2004) who reported that there was significant tendency towards a more consistent condom use after respondents became aware of HIV/AIDS.

### 5.2 Knowledge on Behaviour that are HIV Preventive

Most of the respondents knew that stopping stigmatization and discrimination of PLWHA as well as caring for people infected with HIV/AIDS are preventive behaviour practices. This agrees with FII, (2004) in its report that stigmatization and discrimination fuels transmission of HIV and has contributed to non-disclosure of HIV status. Higher proportions of respondents were not aware that non use of drug (cigarette and alcohol abuse) is preventive health behaviour. The result could be as a result of non use of drugs (abuse) among the respondents. The outcome disagreed with a study conducted by Mallow (2004), Cory (2006), Petry (2003), and Windle (2001) which reported that alcohol facilitates casual sex.

### 5.3 Practice of Preventive Health Behaviour

Generally, preventive health behaviour was ineffectively practiced among respondents; this level of practice of Preventive Health Behaviour agrees with Uwakwe et al (2000) and could be as a result of multi-dimensional approach to the prevention of HIV since the disease assumed a national threat. Almost half of the respondents reported having one uninfected sexual partner. The study significantly differ from Iwuagwu et al (2005) which indicated that more sexually active young people had more than seven sexual partners. The increase in consistent use of condom could be attributed to availability and affordability of condom in Nigeria. The study agrees with (Maq et al. 2006) and (Okonkwo et al. 2005). Slightly more than half (58.3%) of sexually active young students always use condom during sexual intercourse. Most participants would disclose their HIV status always. The study agrees with Morin et al (2006) and Chang (2008). Their studies recorded that close to all the participants discuss their status to coordinators and members. In relation to knowing ones HIV status, almost half of the

respondents know their status. This result agrees with findings by Omoigberale *et al.* (2006) which indicated that 42% of university of Benin students agreed to routine HIV screening.

Most respondents avoided the use of used needle and syringes for injections. This report differs from what was obtained by Cichocki (2007) which reported increase in the use of unsafe needles and syringes among students' addicts in some universities. It agrees with Saheeb *et al.* (2004) which agrees that 4.5% and 19.5% reused needles and syringes respectively. Low perception of risk was also reported by respondents. This could be due to the fact that some university students believe AIDS to be a disease of commercial sex workers which does not affect students because they think they are knowledgeable about the disease (Fili, 2007.) This finding is consistent with studies by Ayranci (2005); Oladepo *et al.* (1994) and Durojaiye (2008). Almost all the respondents avoided engaging in some sex relationship. This development was agreed by Wolitski *et al.* (2001) and USAID (2007 & 2008) by the report that Africa has 25% of same sex relationship. It is equally different from Nnaji *et al.* (2010) who reported that Enugu and Ebonyi States had 48% of men who have sex with men. Respondents were very concerned about blood and medical equipment use. This is in line with (Saheeb *et al.* 2004 and WHO, 2002).

#### 5.4 Frequency of Practice of Preventive Health Behaviour.

Level of HIV preventive practices could be associated with gradual decrease in prevalence rate of HIV/AIDS. More respondents always practice preventive health behaviour compared to those who sometimes practice. Advertisement on mass media and formation of HIV anti-club in universities might be responsible for the change in behaviour (Olowu *et al.* 2004; Agbamkwe, 2007). Hook (2005) agreed that mass media entertainment reached many young people with positive health information. Use of condom which was always reportedly used by respondents might be associated with frequent distribution of information and Educational Communication material (IEC) and massive education on condom use. Findings USAIDS, (2009) collaborated with this study which reported increase in consistent use of condom among young persons. Relatively Ona *et al.* (2006) reported significant tendency towards a more consistent condom use after HIV awareness campaign. Sharing of sharp instrument of any kind was highly practiced by respondents. This differs with Ibrahim *et al.* (2007)

where sterilization was low among barbers but agrees with Saheed *et al* (2004) where use and reuse of needles was low.

### 5.5 Reasons and Influences of Preventive Health Behaviour Practices

Reasons for practicing preventive health behaviour were to avoid HIV transmission. The result is not contrary to Miller *et al*, (2004) that reported that avoiding HIV infection was reason for practicing preventive health behaviour. Radio and television jingles may have been responsible for such high reported influence. The result agreed that stakeholders globally fund HIV prevention programmes (WHO, 2000). On the contribution of health personnel as factors influencing preventive health behaviour practice, the study reveals a high reliance on the healthcare givers. This corroborates findings by Adebajo *et al*, (2003) which reported that health care providers have moderate to high knowledge and young persons prefer health care providers as source of information on sexuality. On the other hand, it rejects outcome by Cooper (2005) and Whitaker *et al* (2000). The former revealed that doctors hardly had time to discuss with youths on sexuality while the later reported that 60% of the respondents have spoken with a parent about sexual initiation while 78% have spoken with a parent about condom.

Majority of respondents reported mass media as a major influence for preventive health behaviour practice UNFPA (2006) supported the outcome of this study. The report ascertained that parents and trusted adult have relegated their roles as models to the background, making a large population of young people to rely on peers, entertainment and mass media for sexuality information. Similar findings by Keating *et al* (2006) and Kwambe *et al* (2005) reported that mass media had highest contribution to HIV preventive health behaviour practices. Keating *et al*, (2006) was of the view that 59% of the population had heard of at least one HIV programme from radio compared to other sources. The same thing applied to report by Hook (2005) and Okoye (2009). Hook (2005) was of the opinion that 92% of youths made responsible decision as a result of mass media outreach while Okoye (2009) found out that over 10 million people a week visited pornographic websites in Nigeria.

## 5.6 Reproductive Health Implications of the Study

1. The finding from this study has implications for reproductive health among young persons. The findings revealed that there is still low utilization of condoms among young persons and even where it is used, more males than females made more use of it. Non-use of condom could make young persons vulnerable to HIV transmission. Awareness campaign/seminars focusing on the need and importance of condom use is advocated. The awareness could be organized by peer educators and hall executives in different halls of residence with support from Non-Governmental Organizations. Distribution of related IEC materials and condoms should encourage safer sex among undergraduates.

2. The findings also revealed that young persons are careful in the use of sharp instruments and in ensuring the use of sterile syringes/needles for injections. This positive development should be encouraged among undergraduates. Strengthening the positive behaviour of use of sterile syringes through education by doctors, nurses and health personnel is advocated. The School authority should organize students in health related courses to form clubs to supplement the educational activities promoted by professional and peer educators. This will reduce HIV infection and increase productivity among young people.

3. As a result of poor attitude towards disclosure of HIV status, change in behaviour towards positive lifestyle remains low while HIV transmission continues to increase. Health education is needed to improve attitude towards disclosure of HIV status by training of student counselors. Adequate counseling on the need to disclose HIV status will reduce engagement in risky behaviour and make students who tested positive to register with care and support groups for easy access to treatment. This will generally improve attitude towards the infection and affected individuals.

4. Awareness of importance of Voluntary Counseling and Confidential Testing should be created among students, making sure that notices as a reminder are on the halls of residence notice boards, while hall wardens using Public Address Systems to often make announcements could improve VCCT activities.

5. The findings revealed that most undergraduates do not regard sexual abstinence as preventive health behaviour. They would rather not wait till marriage before sexual intercourse. This is where the religious leaders will be needed to instill religious piety in young persons. The practice of sexual abstinence should be encouraged by religious leaders and community leaders during religious services and community meetings.



## 5.7 Implication for University of Ibadan HIV Policy Document

There is great association between this study and university of Ibadan HIV/AIDS policy document.

1. The policy document revealed that students have the right to receive current, comprehensive and balanced information about the spread of HIV and how to protect themselves from infection. This has to do with high knowledge of preventive health behaviour among the undergraduates students of the university.
2. Practice of unhealthy behaviour towards HIV transmission was high in condom use as well as multiple sexual partners therefore the university policy should make provision for outlets (hostels or recreational centers) where condoms should be made available for students.
3. According to the study, peer educators had less impact to HIV transmission. University policy should therefore strengthen and fund activities of peer educators to meet its day to day need by educating their peers on HIV prevention.
4. The media had highest influence on HIV preventive health behavior practices among undergraduates. Media does not reflect in the university policy as a channel of communication to students. Effort should be made to include this in the policy as well as making provision for HIV prevention related articles in university magazines.

## 5.8 Conclusion

The study on practice of preventive health behaviour among undergraduates of University of Ibadan revealed that knowledge of preventive behaviour was high but practice was low.

Poor practice of preventive health behaviour reflected more in the use of condom, multiple sexual partners and knowing and disclosing one's HIV status. Provision of condom in school hostels will increase consistency in condom use while non stigmatization of loved ones and colleagues in places of work could help in disclosure of HIV status. The discrepancy between students' knowledge of AIDS and practice of preventive health behaviour indicates a need for more educational programmes on university campuses. Intervention programmes will play a vital role in behavioural change which is the only anti-dote for HIV prevention. It is equally important to note

that peer educators and friends had less impact in influencing preventive health practices, implying that peer educators of University of Ibadan do not really engage in small group discussions with friends in school.

### 5.9. Recommendations

In view of the findings of the study, the following recommendations are made:

- 1 There is need for training in basic skills, as this rated second among the influences in the practice of HIV preventive health behaviour. Adequate and consistent health education, counseling, social support and group dynamics are recommended for healthy individuals as well as those living with the virus to prevent further transmission.
- 2 Since the study revealed that University students' peer educators are not creating adequate awareness on HIV prevention and control, more attention should be given to activities of students' peer educators. Training of more peer educators to complement the activity of old peer educators will improve HIV/AIDS awareness.
- 3 Religious perspective should be utilized to promote reproductive health information among undergraduate students. There is also need to develop IEC materials to aid the work of peer educators
- 4 Mass media houses should be sponsored to engage in more HIV/AIDS programmes and slot more HIV awareness jingles at periods when youth programmes are on.
- 5 Programmes on HIV Counseling and Testing should be organized by the school while benefits of disclosing ones HIV status should be harnessed. Condom use as alternative to abstinence should be strongly upheld by counselors.
- 6 The study shows that parents have low influence on preventive health behaviour practice of undergraduates, therefore parents need to be equipped with requisite knowledge and skills to enable them give sexuality information. This is because evidence abound that youths still pay heed to parental advice if available, than when given from other sources.

### 5.10 Suggestion for Future Research

Based on the findings, future researches that can be explored include:

- Replication of this study among Post-Graduate Students of the University of Ibadan.
- Differences in Preventive Health Behaviour Practices between students in the university and their counterparts outside the university community.

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APPENDIX I

Questionnaire

HIV/AIDS preventive health behaviour of University of Ibadan undergraduate students.

A. Introduction.

Greetings, my names are Ezeajughi Ngozi, a student of Public Health (Health Promotion & Education), College of Medicine, University of Ibadan. I am conducting a Research on HIV/AIDS Preventive Health Behaviour of University of Ibadan Undergraduate Students' and would like you to participate by completing this questionnaire. Every information provided in this questionnaire shall be strictly confidential and for research only. You may wish not to fill this questionnaire and no penalty will be taken against you. If you agree to complete this questionnaire please sign here: \_\_\_\_\_ We assure you that the questionnaire will take a few minutes as you are only to tick most of the answers

B. Instructions:

- 1. The questionnaire consists of three sections and each section has a number of questions with alternative answers.
- 2. Please answer all the questions as completely as you can by ticking in the spaces provided besides the options you have chosen.

SECTION A: DEMOGRAPHIC DATA

- 1. Age as at last birthday .....
- 2. Sex: (1) Male. [ ] (2) Female. [ ]
- 3. Religion: (1) Christianity. [ ] (2) Islam [ ] (3) others (specify) .....
- 4. Ethnicity. (1) Ibo [ ] (2) Yoruba [ ] (3) Hausa [ ] (4) Others (specify) .....
- 5. Which year are you in school? 1<sup>st</sup> yr. 2<sup>nd</sup> yr. 3<sup>rd</sup> yr. 4<sup>th</sup> yr. 5<sup>th</sup> . 6<sup>th</sup> yr
- 6. What department are you? .....
- 7. Faculty .....

SECTION B: SOCIO-ECONOMIC DATA.

- 8. What is your position in the family?  
A. From fathers side (1) first child [ ] (2) second child [ ] (3) third and above [ ]  
B. From mothers side (1) first child [ ] (2) second child [ ] (3) third and above [ ]
- 9. What is the occupation of?  
A. Your father (1) Farmer [ ] (2) Self employed [ ] (3) Not working [ ] (4) Trading [ ] (5) Civil servant [ ] (6) Others (pls specify)..... [ ]  
B. Your mother (1) Farmer [ ] (2) Self employed [ ] (3) Not working [ ] (4) Trading [ ] (5) Civil servant [ ] (6) others (pls specify) [ ]
- 10. What is the level of your  
A Father's education (1) Primary education [ ] (2) Secondary education [ ] (3) University education [ ] (4) no formal education [ ] (5) others (specify).....  
B Mother's education (1) Primary education [ ] (2) Secondary education [ ] (3) University education [ ] (4) No Formal education [ ] (5) No Formal education [ ] (6) Others (Specify).....

## SECTION B: KNOWLEDGE ON HIV/AIDS PREVENTIVE HEALTH BEHAVIOUR

11. Have you heard of an illness called AIDS? (1) Yes [  ]. (2) No. [  ]
12. Do you believe that AIDS exists? (1) Yes. [  ] (2) No. [  ]
13. Please indicate by ticking all the ways in which you believe a person can get AIDS?  
 (1) Unprotected sexual intercourse [  ] (2) Sharing needles/unclean medical equipment [  ] (3) Blood transfusions [  ] (4) From mother to child [  ]. (5) Casual contact with infected person (sharing of food and cup). [  ] (6) Mosquito bite [  ] (7) (others Specify).....
14. Is there anything a person can do to avoid getting AIDS? (1) Yes [  ] (2) No [  ]
15. What can a person do to stop being infected?  
 (1) Abstinence. [  ] (2) Avoid sharing needles. [  ] (3) Avoid commercial sex [  ] (4) Encourage partner to remain faithful. [  ] (5) Using condom consistently [  ]. (6) Others (pls. specify).....
16. How long does it usually take somebody to get sick with AIDS after being infected?  
 with HIV (the virus that causes AIDS?)  
 (1) A few weeks [  ]. (2) A few months. [  ] (3) One or two years. [  ] (4) Several years [  ] (5) others (pls specify).....
17. Does pre-ejaculatory fluid released during foreplay have HIV virus?  
 (1) Yes. [  ] (2) No. [  ] (3) Don't know [  ]
18. Does sexually transmitted infections makes one susceptible to HIV/AIDS?  
 (1) Yes [  ] (2) No. [  ] (3) Don't know [  ]

19. Which among the under listed items are HIV preventive behaviour (Please tick appropriately)

19	ITEMS	Yes	No	Don't know
1.1	Stopping stigmatization and discrimination of people living HIV/AIDS			
1.2	Drinking and eating with an infected person			
1.3	Having one uninfected partner			
1.4	Non use of drug (cigarette and tobacco abuse)			
1.5	Patronizing local nail cutters			
1.6	Total abstinence from sex			
1.7	Blood initiation during cultism			
1.8	Consistence and proper use of condom			
1.9	Use of sterilized equipments			
1.0	Having only hand shake with an infected person			
2.1	Caring for people infected with HIV/AIDS			

**SECTION C: IDENTIFICATION AND PATTERN OF PRACTICE OF PREVENTIVE HEALTH BEHAVIOUR**

20. To what extent do you practice these preventive HIV behaviour in the last three months? Please tick(✓) in the appropriate column.

Sl No	Behaviour	PRACTICED			FREQUENCY OF PRACTICE			MAJOR REASONS FOR LEVEL OF PRACTICE					WHO IS THE PRIMARY SOURCE OF INFLUENCE OF THE BEHAVIOUR THAT YOU ENGAGE						
		Yes	No		Some Times	Always	Never	Avoid HIV Infection	It is Safe	Prevent Unplanned Pregnancy	Fear of God	Remain Healthy for long	Friend	parent	self	Mass media	Health personnel	Others specify	
1	Avoiding sharing of sharp instruments of any kind																		
2	Limit sex to one uninfected partner																		
3	Avoiding unsterilized blood transfusion																		
4	Tattooing/Incision with personal kits only.																		
5	Using condom for sexual intercourse																		
6	Ensure injecting with safe needles																		
7	Abstaining from sex																		
8	Knowing ones HIV status.																		
9	Not engaging in same sex relationship-a) vaginal b) oral c) anal sex																		
10	Disclosing ones status.																		

21a. Which of these have influenced your HIV preventive health behaviour

Religious teachings  HIV programme  Self will  T.V & Radio  Home training  Films  Influence of money  Friends  Peer educators

21b. From the one listed in (a) above, please state the one that has the greatest influence.....

22a. Do you know of an acquaintance, friend, family member or relative that you are sure of, who is HIV positive? (1) Yes [ ] (2) No [ ]

22b. If yes, how did you know (1) weight loss [ ] (2) tested positive [ ] (3) constant cough [ ] (4) sickness for years [ ] (5) others pls specify [ ]

23a. Do you know anybody who is sick with AIDS? (1) Yes [ ] (2) No [ ]

23b. What is your relationship with the person (1) Friend [ ] (2) Family member [ ] (3) room/course mate [ ] (4) others specify.....

24a. Do you know any person who has died of AIDS? (1) Yes [ ] (2) No [ ]

24b. If yes, how many.....

24c. How did you know they are sick of AIDS? (1) Diagnosed to have AIDS [ ] (2) symptoms of AIDS [ ] (3) rumors and friends [ ] (4) tested positive [ ] (5) others specify [ ]

25. Have you heard of condom? (1) Yes [ ] (2) No [ ]

26. Have you used any before (1) Yes [ ] (2) No [ ]

27. Did you use condom during your last sexual intercourse? (1) Yes [ ] (2) No [ ]

28. How easily accessible are condoms to you?

(1) Accessible [ ] (2) Sometimes accessible [ ] (3) Not accessible [ ]

29. Do you think you have done anything that may have put you at risk of getting the AIDS virus? (1) Yes [ ] (2) No [ ]

30. Which group of people have you had sex with in the last 12 months?

(1) Wife, [ ] (2) Girlfriend [ ] (3) Boyfriend, [ ] (4) husband [ ]

(5) Commercial sex worker [ ] (6) other specify.....

31. How many sexual partners have you had in the last?

12 months?.....

6 months?.....

3 months?.....

32. What do you think that will make you practice these preventive health behaviour always? Tick all that applies.

(1) Programmes on HIV awareness [ ] (2) self discipline [ ] (3) religious teachings [ ]

(4) Introduction of HIV course in school curriculum [ ] (5) others pls specify -----