KNOWLEDGE, ATTITUDE AND PRACTICE OF HIV/AIDS PREVENTIVE MEASURES AMONG STUDENTS OF FEDERAL COLLEGE OF EDUCATION TECHNICAL, GUSAU

BY

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CERTIFICATION

This work entitled "Knowledge Attitude and Practice of HIV/AIDS Preventive Measures Among Students of Federal College of Education Technical Gusau" by Dr Sherifah A. Ibrahim meets the regulation governing the award of Master in Public Health of Ahmadu Bello University, Zaria.

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Dedication

I dedicated this work to the loving memory of my late mother in law for her love, kindness and encouragement. May Almighty Allah bless her gentle soul.

ACKNOWLEDGEMENT

All praise belongs to Allah the Beneficent, the Merciful. Peace and blessing be upon our Master, the messenger of Allah Muhammad, his family and companions till the last day.

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ABSTRACT

HIV/AIDS being a pandemic with serious consequences affecting adolescents and youths because of risky sexual behavior particularly to females, due to economic, financial dependence, biological and social reasons. There is need for research into issues concerning preventive measures since there is no cure yet and millions of persons are affected and about 55% of the affected persons are women.

This is a study conducted among the female students of Federal College of Education Technical Gusau to assess knowledge, attitude and practice of HIV/AIDS preventive measures.

Structured, close-ended questionnaires were administered to 200 students using a cross sectional descriptive study design.

All the respondents had heard about HIV/AIDS, they are all within the age range of 15 – 35 years. About 80% (160) had correct knowledge of mode of transmission, 70% (140) had correct knowledge of the preventive behaviour while, 5% (10) had common misconception on HIV/AIDS. On attitude, 95% of the respondents' believed that AIDS is in Nigeria while 4% did not believe. 50% of the respondents also believed tha t some of their colleagues might have AIDS while 40% did not. On practice, 40% of the respondents had stopped having sexual intercourse because of AIDS, 40% had not while 10% showed no response.

50% of respondents have stopped patronizing hair saloons because of AIDS, 10% had not while 35% were just afraid. There was no relationship between knowledge, age, tribe and religion of the respondents.

In the light of the findings, it is recommended that family life or sexuality education starting early, through primary, secondary and teritiary education be institutionalized. This will enable informed choices about responsible sexual life.

CHAPTER ONE

INTRODUCTION

Acquired Immune Deficiency Syndrome (AIDS) can be called our modern pandemic, affecting both industrialized and developing countries. Since the first reported case in June 1981, a lot has been done. Recognized as an emerging disease only in the early 80s, AIDS has rapidly established itself throughout the World, and is likely to endure and persist well into the 21st century. AIDS has evolved from a mysterious illness to a global pandemic, which has infected tens of millions in less than 20 years.

The HIV/AIDS pandemic has hit especially hard in developing countries particularly sub-Saharan Africa. According to recent WHO estimates, at the end of 2001, the number of adults and children living with HIV/AIDS world wide were about 4.3 million; 28 million adults especially women and children are in Africa. In 2004' alone, more than 3.4 million new infections were reported while an estimated 2.4 million Africans died of the disease. {WHO, 2004}

Over 5 million people are newly infected with HIV/AIDs each year. Human developments gains painstakingly accrued over generations have been wiped out in a matter of a few years in the worst – affected countries. In Botswana for example, due to the high HIV infection level, life expectancy plummeted from 60 years in 1990 to just 39 years in 2001. {UNICEF, 2003)

Unless global prevention efforts are significantly expanded, 45 million people in 126 low – and middle – income countries will be infected between 2002 and 2010. In the absence of a vaccine against cure of HIV/AIDS, there is need for research into issues concerning preventive measures among the risk groups. (UNAIDS/WHO, 2002}.

Globally, 15,000 new infections occur daily, 5,500 people die of AIDS daily in Africa. Of the five countries with the highest number of AIDS cases, four are found in Africa with Nigeria having the second highest number of cases on the continent (Ejembi, 2001).

In 2005, there ware close to five million new HIV infections worldwide, 3 200 000 of these are in sub Saharan Africa alone. In the same year, three million people died of AIDS-related diseases; more than half a million (570 000) were children. Today the total number of people living with HIV stands at 40.3 million, double the number (19.9 million) in 1995. Despite progress made in a small but growing number of countries, the AIDS epidemic continues to outstrip global efforts to contain it. (WHO, 2005).

Adult prevalence rate was 8.8%, percentage of HIV positive adult women was 55%. The main mode of transmission was heterosexual. Thus, about 70% of World HIV/AIDS cases are in Africa (UNAIDS /WHO, 2001).

In Nigeria, a prevalence rate of 0.5 – 21% in different parts of the country with a median prevalence of 5.4%, which has been

showing an upward increases from 1.8% in 1991, 3.8% in 1993, 4.5% in 1995.

The first AIDS case in Nigeria was reported in 1986. Since then, adult HIV prevalence increased from 1.8% in 1991 to 5.8% in 2001 and 5% in 2003. The 2003 HIV Sero- prevalence Sentinel Survey, measured prevalence of HIV in pregnant women attending antenatal clinics. The HIV prevalence among the tested women ranged from 1% in Osun State to more than 12% in Cross River State. The zone with the highest incidence is North Central with 7%, while the zone with lowest incidence is south West with 2.3 %. The HIV prevalence is highest among youths aged 20-24 years {5.6%}. While prevalence is somewhat higher in urban areas, the difference in most zones is not significant.

This HIV prevalence translates into 2.4 -5.4 million people living with HIV, ranking Nigeria 3rd among countries with the largest number of people living with the virus in the world, after South Africa and India.

HIV prevalence in North West as at 2003.

Jigawa 2%, Kebbi 2.5%, Kaduna 6%, Sokoto 4.5%, Kano 4.1%, Katsina 2.8% and Zamfara 3.3%.

AIDS has no regard to sex, social status, age, religion or race. It affects all and spares none, with young people especially female being vulnerable to infection.

Trends in AIDS incidence show important differences between regions of the World. More than 95 percent of new cases remain

in developing countries. In Africa, HIV infection in women now out- numbers those in men (WHO 2000).

Fifty five percent of adult infections in sub-Saharan Africa are in women, 30% in South East Asia, and 20% in Europe and USA. [Fact sheet, 2000].

Beyond the death toll and human suffering, AIDS continues to roll back hard won-development gains in many regions of the World. The trend in HIV infection will have a profound impact on future infants, child and maternal mortality, life expectancy and economic growth. The question arises – Why are women more vulnerable to HIV infection? Biologically, larger mucosal surface; Microlesions which can occur during intercourse may be entry points for the virus, many young women are more vulnerable in this respect. More so, there are more viruses in sperm than in vaginal secretions. (WHO, 2000).

As with sexually transmitted infections (STI), women are at least four times more vulnerable to infection, the presence of untreated STI is a risk factor for HIV. In addition, coerced sex increases risk of micro lesions.

Economical, financial or material dependence on men means that women cannot control when, with whom and in what circumstances they have sex. Many women have to exchange sex for material favors, for daily survival. There is formal sex work but there is also this exchange, which in many poor settings, is many women's only way of providing for themselves and their children.

Socially and culturally, women are not expected to discuss or make decisions about sexuality, they cannot request, let alone insist on using a condom, or any form of protection. If they refuse sex or request condom use, they often risk abuse, as there is a suspicion of infidelity. The many forms of violence against women mean that sex is often coerced, which is itself a risk factor for HIV infection.

For married and unmarried men, multiple partners (including sex workers) are culturally accepted. Women are expected to have relations with or many older men, who are more experienced, and more likely to be infected. Men are seeking younger and younger partners in order to avoid infection and in the belief that sex with a virgin cures AIDS and other diseases.

RATIONALE

As we know "prevention is better than cure". Prevention of HIV/AIDS is cheaper, better and more effective than no cure. Without cure or preventive vaccines, prevention remains the mainstay in the control of this human calamity. Considering the prevalence rate and the status of women especially in the African setting, there is need for a research study or survey of the knowledge attitude and practice of these preventive measures among the women. The knowledge gain will be useful in designing intervention programmes to reduce the prevalence of this deadly disease and reduce further spread.

A lot of work has been done so far towards understanding and improving public awareness of this new threat. Most of these

have been targeted to adolescents, service providers including clinicians, nurses, students, patients, and high risk behaviour persons like commercial sex workers, female hawkers other trades like migrant workers, long distance drivers etc.

However, [FCET] Gusau is the only female Federal College of Education Technical in Nigeria. Students are of diverse cultural background, ethnic groups, religion and upbringing. They are in their adolescents and youthful period with potential risk, their first time to be away from parental control; the quest for material gain in order to match up with societal expectations coupled with ignorance and care free attitude predisposes some of them, and makes them a high risk group for HIV/AIDS.

STUDY OBJECTIVE

AIM

The main objective is to determine knowledge, attitudes and practice of preventive measures of HIV / AIDS among students of Federal College of Education Technical in Gusau.

Specific Objectives

1. To determine the extent of knowledge of HIV/AIDS among the students of FCET in Gusau.
2. To find out the perceived beliefs and attitudes of the students concerning HIV/AIDS.
3. To find out the sexual behaviors of the students
4. To assess the extent of practice of HIV/AIDS related preventive measures.

5. To determine the effects of socio demographic factors on knowledge attitude and practice towards HIV/AIDS.

6. To use result of findings / outcome of survey in offering recommendations on behavioral modification that will enhance reduction in spread thereby reducing prevalence rate.

OPERATIONAL DEFINITION

A) Correct knowledge of transmission is defined to be - knowledge of transmission

i) Through sexual intercourse with infected person.

ii) Through transmission with HIV infected blood

iii) From infected mother to child

iv) Use of contaminated sharp objects (surgical instruments) or sharing of these objects

B) Correct knowledge of Prevention is known to be –Those who knows that HIV/AIDS can be prevented by

i) Abstinence

ii) Being faithful to one un-infected partner

iii) Use of condom

iv) Screening of blood before transfusion

v) Non -sharing of sharp object or use of contaminated sharp objects

C) Three common Misconceptions: Respondent who have the knowledge that

i) A healthy looking person cannot transmit AIDS

ii) Mosquito bite can transmit AIDS

iii) Attending lecture/ interaction with HIV/AIDS can lead to the spread of AIDS.

CHAPTER TWO

2.00 LITERATURE REVIEW

Acquired Immune Deficiency Syndrome (AIDS) was first reported in June 1981 as a strange illness seen among healthy people who were homosexuals in Los Angeles, United States of America. These groups of people reported with pneumocytis carinii pneumonia and severe forms of karposi sarcoma associated with cell mediated immune deficiency (WHO, 1994).

Later among intravenous drug abusers, same signs and symptoms were seen which was thought to be restricted to these groups only. It was later found in heterosexual people and recipients of blood transfusion, which later shed light that it was of infection origin. There is absence of any known cure and almost 100% certainty of death for people who have the disease.

In 2005, there were close to five million new HIV infections worldwide, 3 200000 of these in sub-Saharan Africa alone. In the same year, three million people died of AIDS-related diseases; more than half a million (570 000) were children. Today the total number of people living with HIV stands at 40.3 million, double the number (19.9 million) in 1995. Despite progress made in a small but growing number of countries, the AIDS epidemic continues to outstrip global efforts to contain it.

The inescapable fact is that, as more people become infected with HIV, more people will die of AIDS. The number of people

receiving HIV antiretroviral therapy in low and middle-income countries has tripled since the end of 2001. Yet, at best, only one person in ten in Africa and one in seven in Asia in need of antiretroviral treatment were receiving in mid-2005. Efforts to rapidly expand and sustain access to antiretroviral treatment and care will be undermined if the spiraling cycle of new HIV infections is not broken. To get ahead of the epidemic, there is growing recognition that HIV prevention efforts most be scaled up and intensified (UNAIDS, 2005)

The knowledge levels from various studies differ mainly because of differences in the time of study and respondent selection based on other parameters as well as the geographical location of the study areas. In a hospital-based study among STD clinic attendants in Zambia in 1994, it was reported that 94% of males and 52% of females could mention at least one way of preventing a sexually transmitted infection {Faxelid et al, 1994}
Another study in Kenya in 1994 among STD clinic attendances showed that 54.3% of them were aware of AIDS as against 56.3% for syphilis and 70.4% for gonorrhea. 27.6% of them were adolescents. 76% of them got their information from media, 10% from teachers, 9.3% from friends and 0.7% from relatives. Also 46.5% had known condom as protective although 76.2% males and 74.3% females had not used it (Lerna and Hassan, 2005).
In another study in Kenya in 1996 among ANC attendants it was reported that all respondents had heard of HIV, 98.5% knew the

presentation, 97.3% knew that the test for HIV test was blood test. {Maryan et al, 1996}

A study in Ilorin involving 95.6% students, and 4.4% staff of University of Ilorin of maximum age 25 years, revealed that 83% respondents knew what AIDS does to the body, 82.3% knew causative agent as virus, and 33.7% did not know that AIDS is not curable. While 46.9% did not know that, there is no vaccine for AIDS and 22% did not know that condom protects. On the route of transmission, 95.2% identified sex, 92.6% blood transfusion, 91.6% sharing of needles and 86.8% as mother to baby. [Fakeye, 1996]

In a study of KAP knowledge Attitude and Practice towards AIDS among civil servants in Nigeria studied responses from 340 randomly selected workers in Benin City using self – administered questionnaires. They reported that 97.1% were aware of AIDS and 14.7% had correct knowledge of etiology. 36.8% thought utensils and 37.9% casual kissing could transmit the infection {Okojie et al, 2001}.

In another study in Ibadan Nigeria on knowledge, attitude and behaviour patterns among University students reported that 58.7% knew the cause as virus and 72.6% of respondents thought AIDS could be spread by kissing hugging or shaking hands. Oladipo et al, {2001}.

Similarly, in a study among undergraduates in Nigerian University reported that 3.8% did not believe that AIDS has reached Nigeria by October 1991. {Gugnami and Ukeji, 1991}

In a survey of secondary school, students, using questionnaire there was 92% level of awareness but 30% were not aware that AIDS was in Nigeria. 79 – 85% get their information through mass media, 31% were aware of condom for protection. {Asindi at el ,1991}

Studying conception of AIDS among students in Nigerian University, it was found that 20% none medical students and 3.3% medical students considered HIV infection as God's punishment for men's sexual excesses. None however attributed it to mystical forces. Similarly, 59% medical students believed condom is protective even though most were not favorably disposed to use it. {Odebiyi, 1991}

In a study among dental auxiliaries, aged 20 – 45 years in Kenya, 83.1% of them knew when first case was reported in Kenya. On transmission 32% believed kissing, 94.5% sexual intercourse, 72% blood product and 73% mother to baby as the route of transmission. {Temi, 2004}

Studying adolescents born and nurtured in cities in Nigeria it was reported that 37.9% knew cause of AIDS, 96.7% were aware, 17% knew route of transmission and 19.1% identified high-risk behavior. (Odunjmrin and Akinkugbe, 2001).

In a related study, in Benin City on sexual behaviour and perception of adolescents, it was reported that 94% of girls 13 – 18 years old were aware and were sexually active, 35 with multiple partners. 39% thought kissing could transmit AIDS and 74% know it could be transmitted through sex. More than 77% of them

believed sharing utensils could transmit HIV. 71.1% believed it was curable and 83.3% knew that it was not curable.40% knew condom protects and 5.9% thought drugs or native medicine protect. On cause, 40.5% did not know, 24.1% believed bacteria, 11.1% parasite, 8.7% virus and 10.6% consider the work of the gods as causing AIDS. On the source of information, 5.9% got it through media, 42.1% from Schoolmates and friend. 16.9% from teachers and 15.1% from medical personnel. (Unuigbe, and Ogbeide, 2002)

Evaluating public awareness in Maiduguri it was found that 29.8% did not know the causative agent of AIDS, 58.6% said virus, 6.7% bacteria and 3.9% said parasites caused AIDS. 0.6% said God caused it. On transmission, 78.9% considered sex, 56.7% blood, 54.8% needle syringe, and 18.35% as from mother to fetus. 16.3% did not know, 16.35% consider mosquito bites 16.3% consider clothing, 7.7% considered hand shake and 5.8% said immunizations transmitted HIV. On recognition, 6.73% did not know how to diagnose HIV infection and 86.54% believed a blood test was necessary. On prevention, 30.77% did not know any method, 53.75% said abstention from sex, and 17.31% avoidance of blood transfusion and 13.46% said the use of condom could prevent HIV transmission. {Chikwem, et al, 2002}

Similarly, Don Nutbean et al, (2003) reported a study of public knowledge and attitude to AIDS from Wales in a sample of 1303 people aged 15 to 54 years. The result show that most people were aware that sexual intercourse and sharing needle with

HIV infected person presented high risk of causing the disease. There was however, considerable misunderstanding about the nature of infection such that 33% of respondents thought that a person with single heterosexual partner was at risk of catching AIDS. In addition, 25% thought that kissing or being spat at represented high risk, and 16.6% considered coughing, sneezing, sharing utensils, soaps towels etc were routes of transmission.

In a study carried out in Lagos on awareness of HIV/AIDS among market women in an urban market, it was found that 83% had heard of HIV/AIDS, main source of information was electronic and print media. Only 31% of respondents had seen an HIV/AIDS patient; less than 65 knew AIDS was transmitted by sex; 53.2% by blood transfusion, and 62% by mother to child transmission; just 45% knew HIV had no cure. Very few (24%) could correctly identify preventive measures against HIV. {Campbell, 2003}.

Two hundred and eighty seven students participated in a study, with an age range from 10 – 18 years. Over 90% knew that blood products, sexual intercourse are major forms of transmitting the infections, while 68% knew it could spread from mother to child. The major sources of information were mass media, schools, people around and religious houses. Posttest revealed an increased knowledge in most expects with a statistically significant difference for knowledge with a mean of *(P. value = 0.05).* It was concluded that the importance of continuous awareness and health education to Secondary School students could not be over

emphasized. There is however a major challenge of converting knowledge to practice. (Campbell et al, 2004)

A study undertaken on *"Female adolescent hawkers in Nigeria: HIV /AIDS related knowledge, attitudes and behaviour*" carried out in the Middle Belt of Nigeria (Kwara and Kogi States) which constitute a cultural mix of the Northern and Southern part of the country, revealed that the adolescents and youth who had heard about AIDS constituted 81.0% of the sample population but less than half of them 48.1% knew the causative agent. They knew mainly the sexual route of transmission.

A few of them (16%) claimed to have ever known someone living with HIV/AIDS. Only 22% knew that a symptomatic stage of the infection exists. Most of them (78.6%) knew that there was yet no cure for AIDS. The first sources of information about HIV/AIDS were the ,36.6%) radio (26%), and friends (22%), other sources include the School. (Araoye,2003)

In a study among dental auxiliaries aged 20 – 45 years in Kenya, 87.7% believed that dentistry as practiced in Kenya carried high risk of HIV transmission, 27.7% felt that HIV positive health workers should stop treating patients and 23.1% supported the idea of isolating HIV positive persons.

Studying the staff attitudes and knowledge towards caring for **PLWA** (people living with AIDS) in a Nigerian teaching hospital, in a survey involving 111 doctors, 92 nurses and 53 none health workers, it was reported that, up to 25% of doctors would hesitate to treat a person living with AIDS, 33.3% nurses would hesitate to

nurse a person living with AIDS and that up to 33.3% of doctors would not perform surgery on a person living with AIDS despite adequate precaution (Adelekan, 2002).

Similarly, in a study among undergraduates in Nigerian University reported that 3.8% did not believe that AIDS has reached Nigeria by October 1991. They also found that 40% of medical students and 45% of non-medical students had aversion to sit near a person with AIDS. (Guguani and Ukeji, 2002)

According to Asindi, (1991) who studied secondary school students using a questionnaire, reported 37% thought the victim should be isolated 14% thought he should be killed and 63% and 77% respectively will reject or stop seeing a relative or friend with HIV.

Studying conception of AIDS among students in Nigerian University found 20% none medical students and 3.3% medical students considered HIV infection as God's punishment for men is sexual excesses. None however, attributed it to mystical forces. (Odebiyi, 2001)

In a study of experiences, atitudes, knowledge, perception of AIDS and occupational hazards it was reported that of the 79 Nigerian dentists aged between 21 – 60 years, 84.4% thought that AIDS patient should be treated in special centers and 88.6% had entertained fear of being infected. (Sole, 2004)

Evaluating public awareness in Maiduguri, Chikwem (1989) found that 60.53% respondents thought the persons with AIDS should be hospitalized, 25.96% believed in confinement, 17.31%

thought they should be counseled and 6.73% said they should be killed.

Similarly, in a study of public knowledge and attitudes to AIDS from Wales in a sample of 1303 people aged 15 to 54 years. The result shows that 50% males, 40% females did not sympathize with a homosexual or drug addict who catches AIDS. (Nutbean, 2003)

In a much earlier study Calabrese et al, (1999) reported majority of respondents felt that victim of HIV should be confined in hospital and should not be allowed to travel or escape.

In a study carried out in Lagos on Awareness of HIV/AIDS among market women, it was reported that only 25% would agree to shake hands with an HIV positive patient. None of the women believed HIV positive women should breast-feed her child and only 9.2% believed they should even be allowed to have children. (Campbell et al, 2001)

Outcome of HIV/AIDS workshop for the unreached Secondary Schools in Lagos State revealed that 43.4% were afraid of AIDS, while 59% would agree to have an HIV test done. Almost 70% of the respondents would not mind shaking hands with an AIDS patient. Seven percent felt that HIV patients should be punished.

Since the discovery of AIDS in 1980 – 81, there has been a lot of work aimed at understanding the disease, its nature, Epidemiology, care and cure, prevention and control. From early in the epidemic studies show the disease to be related to sexuality and other human practice/habits e.g. infection during use.

Understanding these habits, remain essential in control especially where no vaccine/cure is available; human sexuality in particular is very important determinant of HIV spread.

Traditionally, in most Nigerian settings and may be other parts of Africa pre-marital sexual intercourse was an abomination and all the cultures place great values in sustenance of virginity before marriage as reported in a survey on marital sexuality in urban Nigeria (Baamikole et al, 2002)

In another study reviewing attitudes towards risky sexual behaviour among Zambian students, it was reported that, up to 84.4% respondents disapproved of married people having extra marital affairs and that up to 74% of the respondents did not agree that it is really African to have more than one partner, and 74% of respondents did not agree that people should have sex before marriage. (Pempalani et al)

Religions which are to be mankind divine guidance does not condone sexual relations outside marriage "Do not (even) go near zina" (fornication) said the Glorious Qur'aan. However, despite all these, extramarital and premarital sex, homosexuality has come to be accepted, and some societies have now legalized same sex marriages.

In a study among already married women in Nigeria, a survey of nine Nigeria cities shows 50.5% women aged between 25 – 29 years had premarital sex, 57.4% were Yoruba women, and up to 68.6% women who attained post secondary school education had

premarital sex. They used a structured questionnaire and stratified sampling technique. (Bamikole, 2001)

According to Caldwell, (1998) in a study of social context of AIDS in sub-Saharan Africa, he reported sexual permissiveness in African societies as being responsible for rapid spread of AIDS.

Another study on sexual behaviour contraceptive practices and reproductive health among adolescents, reported that sexual activity among unmarried adolescents in Africa is high and rising. (Nicholas, 2000)

It was reported that, there is high premarital sex among Chileans in Santiago Chile, where 65% of females had premarital sex, and indeed 85.7% females between ages 20 years had premarital sex. (Joan, 1997)

In another study in Ibadan, on sexual behaviour contraceptive practice and reproductive health among Nigerian adolescents it shows that 82.4% of male students, and 61.2% of female students who have married had had sexual relations, 53.7% males, and 23.3% females' students had pre-marital sex. [Nicholas and Ladipo, 2000].

In another study carried out on sexual behavior of secondary school students in Plateau State, it was reported that 350 males (57%) and 139 females (48%) of the respondents had more than one lifetime partner. One hundred and ninety one males (32%), 126 females (45%) were forced to have sex. In addition, 158 males (28%), 92 females (33%) of the respondents exchanged sex for money, food or shelter. 318 males (54%), 161 females (61%) of the

respondents use condom or other contraceptives; 204 males (33%), 110 females (39%) of the respondents had ever made someone pregnant or ever be pregnant 189 males (31%) 111 females (38%) had treatment for sexually transmitted infections. (Slap, 2003)

Reported in a survey carried out on the sexual behaviour of female apprentice tutors in Agbowo, Ibadan, that 53% had ever had sex, 27% used condom at last sex. [Ajuwon, 2002].

In a survey on 345 female hawkers in Oyo, Ogun and Osun States it was found out that 26% had experienced attempting rape, 6% raped. Among 546 apprentices in Ibadan North West LGA, it was discovered that 65% males and 48% females had mean no of sexual partners ranged from seven among males and two among female. [Fawole, 2003]

According to Jinadu and Odesanmi, (1993), in a study carried out on sexual behaviour of secondary school students in Ile-Ife Osun State Nigeria, it was found that 60% had multiple partners including female sex workers; only 8% used a condom

Ajuwon, (2000) in a survey carried out in Ibarapa (Oyo State) discovered that among 1025 high school students, 6% had ever had sex; 23% used condom at last sex.

Several surveys confirm that some adolescents participation in risky activities in choosing precocious sex, rape, unprotected sex with many partners, infection of psychoactive substances, seeking the services of quacks to terminate pregnancies (among those with unwanted pregnancy), not seeking the appropriate

treatment for sexually transmitted infection thereby being abortion or sexually transmitted infections relation complications.

In Dakar Senegal, a high extramarital sexual relation was common among Senegalese and even found among various ethnic groups. [Ibon Thior, 2000]

In another study in Zambia, on behaviour, knowledge and reactions concerning sexually transmitted infections, Faxelid et al reported high rate of multiple sex partners with a median of three for females and eight for males in a three months period among STD clinic attendant.

It was revealed that a female extramarital relation was for material and economic reasons and highest among the younger wives in polygamous marriage and that male extramarital relations were highest among monogamous marriages. [Onubuloye, 2003].

In a related study among prostitutes in Maiduguri, it was found that 72.6% of prostitutes either were married or still in marriage. Each prostitute entertained a mean of 3.3 customers per day and had sex with a mean of 1046 customers per year; and 85.9% were in prostitution in Maiduguri for economic reasons. [Chikem ,2003]

On practices among health workers as reported, 20% of the respondents recommended zero grazing i.e. one marriage partner only, 33.9% recommended pre-marital fidelity, 64.6% routine condom use for all extra-marital sex and 52.3% mandatory condom use for all prostitutes. Seventy point five percent use

gloves routinely and 58.5% of this use a pair of glove per patient, 67% use facemask routinely and only 13.8% of them for every patient.

On method of sterilization, 16.9% use boiling, 70.8% steam sterilization, 40% use chemicals 59.6% use dry heating and 4.6% none. 96.7% think that public should be educated on cross infection.[Kaimenyi,2003].

In a study of female circumcision in Ilesha, Nigeria it was found that 66.3% of 578 Girls studied were circumcised and 68.7% of these were performed by traditional surgeons. Olamijulo ,2002].

Similarly Mairo Mandara in a study of female genital mutilation in Zaria reported that a number of surgical procedures were done on the external genitalia of female children performed along with uvulectomy on the 7th post natal day by traditional practitioners called “Wanzamai” i.e. barbers.

AIDS, the acquired immuno-deficiency syndrome (sometimes called “slim disease”) is a fatal illness caused by a retrovirus known as the human immuno-deficiency virus (HIV) which break down the body’s immune system, leaving the victim vulnerable to a host of life threatening opportunistic infections, neurological disorders or unusual malignancies.

EPIDEMILOGICAL FEATURES

When the virus was first identified it was called "*lymphadenopathy – associated virus* (LAV)" by the French Scientists; Researchers in United States of America called it "human T-cell lymph tropic virus III (HTLV)" In May 1986, the international Committee on the Taxonomy gave it a new name: human immuno– deficiency virus (HIV).

The virus is 1/10,000th of a millimeter in diameter. It is a protein capsule containing two short strands of genetic material (RNA) and enzymes. The virus replicates in actively dividing T4 lymphocytes and like other retroviruses can remain in lymphoid cells in a latent state that can be activated. The virus has the unique ability to destroy human T4 helper cells, a subset of the human T-lymphocytes. The virus is able to spread throughout the body. It can pass through the blood brain barrier and can then destroy some brain cells. This may account of the neurological and psychomotor abnormalities observed in AIDS patients. HIV mutate rapidly, new strains are continually developing. There are two type of HIV – the most common HIV 1 and a more recently recognized virus (in West Africa) called HIV

The virus is easily killed by heat, is readily inactivated by ether, acetone, ethanol (20 percent) and beta – *propiolactone* (1:400 dilution), but is relatively resistant to ionizing radiation and ultraviolet light.

Source of infection – The virus has been found in greatest concentration in blood, semen and cerebro - spinal fluid. Lower concentrations have been detected in tears, saliva, breast milk, urine, cervical, and vaginal secretions. HIV has also been isolated in brain tissue, lymph nodes, bone marrow cells and skin.

PATHOGENESIS

HIV selectively infects T-helper cells apart from several other cells in the immune system such as B cells, microphages and nerve cells. When the virus reproduces, the infected T-helper cells are destroyed. Consequently, people with AIDS tend to have low overall white blood cell count.

Whereas healthy individuals have twice as many *"helper"* cells as *"suppressor"* cells, in the AIDS patients the ratio is reversed. A decreased ratio of T-helper to T-suppressor cells may be an indirect indicator of reduced cellular immunity. One of the most striking features of the immune system of patients with AIDS is profound *lymphopenia*, with a total lymphocyte count often below 500c mm. It is the alteration in T-cell function that is responsible for the development of neoplasms, the development of opportunistic infections or the inability to mount a delayed type hypersensitivity responses. The lack of an obvious immunolgical response by the host to the virus is one of the problems confronting scientist (WHO, 1985).

MODE OF TRANSMISSION

These are either through sexual or asexual routes. The asexual routes includes, transfusion of blood or blood products, or transplanted tissues or organs donated from an HIV infected donor, using skin piercing instruments or injecting equipment that is contaminated with the virus, transmission from infected mothers to child during pregnancy, labour or following birth through breast feeding.

SEXUAL TRANSMISSION

AIDS is a sexually transmitted disease, which can be spread by homosexual men undertaking oral intercourse and heterosexual men/women engaging in penile – vaginal intercourse.

Transmission of the AIDS virus by sexual methods is more in those engaged in anal intercourse in both homosexuals and bisexuals. (Agadzi, 1987).

The African perspective of the killer disease helps in promoting the disease transmission among the male population who may at the same time infect the female (if they are heterosexual). It is reported that homosexuals change their sexual partners ranging from 10 to 100 partners in one year. In the USA, over 70 percent of the cases were homosexuals or bisexual men. In contrast, in equatorial Africa, AIDS is spread mainly through heterosexual act (Park 2000). Every single act of unprotected intercourse with an HIV – infected person exposes the uninfected partner to the risk of infection.

The magnitude of the risk is affected by a number of factors, including the presence of sexually transmitted Infection (STI) the sex and age of the un-infected partner, the type of the sexual act, the stage of illness of the infected partner, and the virulence of the HIV strain involved. A European study of 563 heterosexual couples in which only one partner was infected at the start suggest that chances of transmission of HIV infection from male to female is twice as likely as from female to male (Park, 2000). Up to 80 percent of HIV has been credited to sexual transmission in Nigeria (Emil et al 1999; Ejembi 2001)

Homosexual are also frequently at risk of contracting a number of sexually Transmitted Infections (STIS), such as herpes, gonococcal infection of the urethra (urethritis), syphilis infection of the rectum by the gonorrhea organism (proctitis) and "amoebic bowel disease or invasion of the large bowel by entamoeba histolytic a which causes ulceration of the mucous membranes of the large intestines with its consequent diarrhoeal episodes. These areas of inflammation caused by the bacteria make penetration by the AIDS virus and then into blood stream during anal intercourse (Park, 2000).

Heterosexual intercourse, which involves penile-vaginal intercourse, carries a limited risk of AIDS infection especially among the non-prostitute group. However, Homosexuals involved in anal intercourse carries a higher risk of transmission than vaginal intercourse because the act is more likely to injure tissues of the rectum wall especially the mucous membrane which are not

as ruggedly designed as the vaginal walls to take the kind of frictions and rough usage that occur in anal coitus.

Generally, women are more vulnerable to HIV infection because of the larger surface (vagina) is exposed than the penis of men and semen contains higher concentration of HIV than vagina or cervical fluids. Risk is higher when the woman is menstruating, very young or old, or have sexually transmitted infections that predisposes the vaginal surfaces to easy penetration by the AIDS virus.

As for HIV infected people, they are more infectious to others in very early stage that is *"Window Period"* before antibody production, because a level of virus in the blood at that time is higher than other times (Park, 2000).

Oral Intercourse

The practice of oro-anal or oro-vaginal intercourse as a means of obtaining sexual satisfaction may promote the spread of some sexually transmitted infections (STI)) such as syphilis of the penis, lips, or of the tongue. However, transmission of AIDS this way has not yet been reported probably because of the low incidence, the virus has been detected in the saliva of healthy or sick carriers; this indicates possibility of transmission through saliva especially if the act leads to damage of the soft tissues (mucous membranes of the mouth, tongue or gums). Such injuries or cuts could serve as an entry point of the virus into the system.

ASEXUAL TRANSMISSION (Blood Contact)

(a) Blood Transfusion

AIDS is also transmitted by transfusion of whole blood cells, platelets and factors viii and ix derived from plasma contaminate with HIV. There is no evidence of transmission even occurring through blood products such as albumin, immuno-globulins or hepatitis vaccine that meet WHO requirement. The risk of contacting HIV from a unit of blood is 95 percent (Park, 2000).

In Nigeria, blood transfusion is the second most common source of transmission of AIDS, accounting to 10 percent of HIV transmission (Akinsele, 1998, Alan et al, 1988; Ejembi 2001)

The indiscriminate blood transfusions that are done everywhere in the country without HIV screening particularly in rural areas ensures great risk. This is more so since HIV/AIDS in Nigeria has equal prevalence in both rural and urban areas (Emil et al, 1999).

Nevertheless, among drug users who inject themselves with heroin, cocaine or other drugs, intravenous route of transmission is significant because exposure may be repeated several times a day. As a result, needle – sharing by drug users is a major cause of AIDS in many countries. Any skin piecing, tattooing, acupuncture or scarification can transmit the virus if the instruments used have not been sterilized and have been used on

an infected person. Hair Saloons, traditional doctors or barbers etc can spread HIV with contaminated equipment (Park, 2000).

Vertical Transmission (Maternal – Foetal) Transmission:

Mother to child transmission of HIV may pass from an infected mother to her foetus through the pregnancy during delivery or breast-feeding. About one third of the children of HIV positive mothers are infected through this route. This risk is higher if the mother is newly infected or already has AIDS (Park, 2000). Twenty three percent of vertical transmission is intravenous, 65 percent is intrapartum and early post partum while 12 percent is late post partum. (Obusu, 1998). Vertical transmissions constitute about 20 percent of cases Worldwide, while in Nigeria is about 10 percent (Park, 2000, Ejembi, 2001)

Since its discovery, it has spread round the globe and is now a pandemic. The history of the disease can be divided into three periods: Silence (Mid 1970s – 1981); Initial Discovery (1981 – 1985) and Global Mobilization (1986 – 1988). AIDS is now the fourth biggest latter Worldwide. Nebehays, (2000). Without doubt, the HIV/AIDS epidemic is the greatest health problem that is greatly challenging science, and humankind and may remain so for a long time (Emil et al, 2001). While the HIV/AIDS rates are said to have been stabilized in most highly developed countries, the disease is still ranging in Africa. U.N sources say that one in five adults in Africa has HIV/AIDS. (Park 2000).

Most of the countries in Eastern and Southern Africa have prevalence rates above 10 percent with Botswana having as high as 35.8 percent. Initially there was little thought that AIDS will not find its way to Nigeria but it did. HIV/AIDS was first detected in a 13- year old girl in 1984 but was not reported in Nigeria until 1986 and the prevalence since then has been on steady increase. The HIV prevalence of 5.8% makes this most populous black nation the third worst affected country in the world. The situation is because of HIV transmission due to poor knowledge, attitude and practice of precautionary measures and delayed national mobilization of HIV / AIDS issue (NACA, 2001).

In some zones of the country, the prevalence in the 20 – 24 year age group is almost 10 percent. It is estimated that 2.6-5.6 million Nigerians have HIV, which is more than 10 percent of the HIV in Africa. (WHO, 2004).

HIV – 1 and HIV – 2 are circulating concurrently but HIV – 1 is predominant and constitute about 89 percent of total HIV infection, while HIV – 2 is 4 percent and mixed infection from HIV – 1 and HIV – 2 is 7 percent (Emil et al, 1999).

Thus, the predominance of HIV – 1 refers a faster spread of the disease in Nigeria and consequently a faster appearance of clinical signs since HIV – 2 has a longer incubation period.

FACTORS DETERMINING THE SPREAD

There are three factors determining HIV spread agent factors, host factors and environmental factors.

Agent Factors

The availability of binding sites on the envelop proteins of human cells makes it possible for the virus to enter susceptible Cells and cause disease. Thus, the host cells that the protein cannot bind to are free from invasion and cell depletion.

The ability to enter the host cell and be attached to its gene code also enhances its effects.

Also the ability to replicate and destroy CD4+ cells and leave them to attack other cells also enhances its effect, its ability to replicate on stimulation of the host's immune system, the continuous mutation it undergoes rapidly with new strains which are continually developing makes it difficult to develop antibodies against it and the difficulty to develop drugs against it as it is in tracellular all its effect (Sofoluwe, 200)

Host factors

The presence of HIV receptor cells in the epithelium of the oral, cervicovaginal, urethra and anal (rectal) walls as well as some macrophages and brain cells is among the host factors that enhance HIV infection and thus explain why the HIV is in greatest concentration in the blood, semen and CSF, with lower concentrations in tears, saliva, breast milk, urine and cervical and vaginal secretion (Park, 2000).

Breast – feeding also enhances transmission. (Ogunmeka, 1996). However, until date only blood and semen have been conclusively shown to transmit the virus (Park, 2000). Male circumcision has been found to reduce risk of infection (Cameron, et al., 1988). The presence of Chemokine Receptors CCR5 and CXCR4 has been known to give resistance to HIV infection for persons homozygous for the gene concerned (Sofoluwe and Ogunmeka, 1996). Anti viral therapy on infected persons reduces the viral load and transmission (Lucas and Gilles, 1990).

Similarly, babies of HIV positive pregnant mothers that were given Zidovudine (AZT) in pregnancy have fewer rates of infections than babies whose infected mothers were not given treatment. Certain occupation increase risk of infection e.g. commercial sex workers, long distant drivers etc (Araoye; et al 1996; Odunjinrin and Adegote, 1995). Age is also one of the host factors as most cases of HIV have occurred among sexually active persons aged 20 – 49 years. Faryna and Morales (2000) found out that even as from 14 years, some youths become sexually active. This group represents the most productive members of society and those responsible for child bearing and child rearing. Children under 15 years make up less than 3 percent of cases. (Thomas, 2001).

Medical workers are also assumed to be of high risk though rates of infection in them have not been found to be higher than in the general population (Kubde, 2004). They are exposed to needle prick injuries and to secretions of patients that may be HIV

positive. Individual sexual behaviours may also increase risk e.g. multiple sexual partners and unprotected sexual intercourse.

With the 2000/2001 world AIDS campaign focusing on men, it is now fairly well known that the behaviour and attitudes of men of all ages drive the epidemic because men have more sexual partners than women, determine time and frequency of sex and either to use or not to use condom (Thomas 2001). The individual's state of immunity, if depressed, can enhance infectivity and early development of signs and symptoms of the disease (Wokoma, 1994).

Environmental factors

Socio-economic practices that affect sexual behaviour, which is the main factor in transmission in Sub-Saharan Africa, will enhance or hinder HIV spread. Street trading exposes adolescents to sexual harassment and advances especially for female youths who may end up having unprotected sexual intercourse with multiple partners. With the breaking down of cultural values following modernization, the virtue of virginity has significantly lost its appeal. In a few communities where it is still respected, sexual behaviour among youths is restrained and this may be happening only in very few communities. This will hinder sexual transmission.

Cultural views on adultery help to confine Women's sexual behaviour to their marital homes but the same does not apply to the men who may go out and contract sexually transmitted diseases including HIV that they may transmit to their wives.

Cultural practices like female genital mutilation, tribal/tattoo marks, and scarifications by traditional healers all with unsterlized blades enhances spread of HIV/AIDS. Group circumcision in some communities during which the same blade is used on a number of males or female enhances transmission, wife sharing and inheritance also enhance HIV/AIDS (Zurmont, 1995)

Moral rules are relaxed during certain festivals. A study in Brazil showed increase in risky sexual behaviour during a carnival. In some communities e.g. in Port Harcourt such practices are seen (Hugher et al. 1996). Only a few of the people who had condoms distributed to them during the carnival used them.

In Nigeria, both Islam and Christianity frown at sexual immorality; even the traditional religions have sexual codes. Present day Christianity advocates monogamy, which further reduces exposure to HIV. Thus, strong adherence to religious beliefs reduces transmission.

The economic hardship has led to a lot of vices, as young people especially females in higher institution gave economic gain as one of the main reasons for engaging in sexual intercourse to please/compensate the men who took care of them.
The boy friends and "sugar daddies" gave them money and presents, which their parents at home, cannot afford.

Many youths feel they have to do certain things that others of their age are engaged in to belong to such groups. Many of them end up compromising home standards and engage in sexual

intercourse by experimentation. A study in Ilorin among commercial vehicle drivers gave pressure as the reason a lot them had their first sexual intercourse in life with a prostitute (Araoye and Kayode, 1999).

Other factors that inhibit promiscuity also alter transmission e.g. fear of God, fear of pregnancy, fear of parents, fear of public opinion, fear of venereal disease, not ready yet, wants to remain a virgin, fear of AIDS/HIV and dither existence of a happy home (Sofoluwe and Ogunmeka, 1996, Alan et al, 1988; Ejembi, 2001).

CLINICAL MANIFESTATION

The clinical manifestation may be due to infection by the virus itself or secondary infection due to immune depression.
Thus, the clinical features of HIV infection have been classified into four broad categories:

(i) Initial infection with the virus and development of antibodies.

(ii) A symptomatic carrier state.

(iii) AIDS – related complex (ARC)

(iv) AIDS (Anonymous, 1986).

(i) **Initial Infection**:

Except for a general mild illness (fever, sore – throat, malaise, *lethargy, myalgia, arthralgia* and rash) that about 70 percent of people experience a few weeks after initial infection with the virus, most HIV infected people have no symptoms for the first five years

or so. They look healthy and feel well although right from the start they can transmit the virus to others. Once infected, people are thus infected for life. Scientists have not found as yet a way of curing them, or making them uninfectious to others.

HIV antibodies usually take between 2 to 12 weeks to appear in the blood – stream, though they have been known to take longer. The period before the antibodies are produced is the *'window period'* during which although the person is particularly infectious because of the high concentration of virus in the blood, he will test negative on the standard antibody test. Though the body's immune system reacts to the invasion of HIV by producing antibodies, these do not inactivate the virus in the usual way.

(ii) A symptomatic carrier state

Infected people have antibodies but no overt signs of disease except persistent generalized lymphadenopathy. It is not clear how long the symptomatic carrier state lasts. Between 30 – 40 percent of seropositive patients develop AIDS within 7 years of infection (Sofoluwe and Ogunmeka, 1996).

(iii) AIDS – related complex (ARC)

A person with ARC has illness caused by damage to the immune system, but without the opportunistic infections and cancers associated with AIDS, but they exhibit one or more of the following clinical signs, unexplained diarrhea lasting longer than a month, fatigue, malaise, loss of more than 10 percent body weight, fever, night – sweats, or other milder opportunistic infection such

as oral thrush, generalized lymphadenopathy or enlarged spleen. Patients from high – risk groups who have two or more of these manifestations (typically including generalized lymphadenopathy) and who have a decreased number of T – helper lymphocytes are considered to have AIDS – related complex subsequently develop AIDS.

(iv) AIDS

This is the end-stage HIV infection. A number of opportunistic infections commonly occur at this stage. Death is due to uncontrolled or untreatable infection (Park, 2000, David et al; 1996).

In the chronic stage, the patient may have *dysphagia, pruritus, dyspnea, recurrent herpes zoster* and persistent generalized *lymphadenopathy*. *Kaposi sarcoma* or *cryptococcal meningitis* alone are sufficient for the diagnosis of AIDS.

Other opportunistic infections includes *pneumocystis carinii, pneumonia, fungal infections*, *Cytomegalovirus, herpes simplex, virus, toxoplasmosis, tuberculosis.* (Sofoluwa and Ogunmeka, 1996).

A high percentage of patients develop opportunistic infections before their death (Chan et al, 1995). The infections depend on the exposure of the patient to the microbial agents, *pneumocystis, carinii* is the most common infection for American and European patients while the gastrointestinal system is more commonly affected in Africans with some cases of *tuberculosis* and *toxoplasmnosis* e.t.c. (Okeahialan et al., 1996.)

Tuberculosis has been on the increase with the AIDS pandemic. Studies documented shows the incidence of the disease rises correspondingly with the spread of HIV. (Wokoma, 1994; Idoko and Anteyi, 1994). The clinical picture of tuberculosis is similar in both HIV sero-positive and sero-negative patients but it is more aggressive in those who are sero-positives and are more likely to die (Idoko and Anteyi, 1994).

In children, the features are mainly failure to thrive, Marasmus, un-resolving pneumonia, diarrhea, persistent generalized lymphadenopathy, tuberculosis, meningitis, etc. The US Center for Diseases Control [CDC] classified the natural history of HIV/AIDS in children into five stages as follows:

In stage N, there are no signs and symptoms and it lasts for ten months. Stage A shows mild signs and symptoms and lasts for four months; **Stage B** shows moderate signs and symptoms and lasts from the second year on the average to sixty – five months. **Stage C** last thirty – four months with severe signs and symptoms and ends in **stage D**, which is death. Average time from birth to developing AIDS is 4.8 years. Fifty percent of the children developed signs and symptoms in five years (Barchat et al, 1996). Zidovudine therapy on HIV positive pregnant mother and those breast-feeding baby alters the above natural trend (Dun et al. 1992, Carlin et al, 1996).

In developing countries where there may be high risk of dying from malnutrition and other diseases associated with stopping

breast – feeding it is advised that breast – feeding be continued while mother and baby remain on treatment (Otubu, 1998)

Diagnoses and treatment

This is based on signs and symptoms and confirmed with laboratory tests. Every diagnosis and treatment is to the benefit of the patient who is thereby enabled to receive early and optimal medical care that might result in preventing or delaying complications and reduce transmission. There are criteria that are being suggested for diagnosis by WHO, and are used for surveillance. (Sofoluwe and Ogunmeta, 1996).

WHO Case Definition

WHO case definition for AIDS in an adult or adolescent is considered if, at least 2 of the following major signs are present in combination with at least 1 of the following minor signs listed below, and if these signs are not known to be due to condition unrelated to HIV infection (Park, 2000; David, et al, 1996).

Major signs

* Weight loss > 10% of body weight.
* Chronic diarrhea for more than 1 month.
* prolonged fever for more than 1 month (intermittent or constant)

Minor Signs

* Persistent cough for more than 1 month.
* Generalized pruritic dermatitis.
* History of herpes zoster.

* Oropharyngeal candidiasis.
* Chronic progressive or disseminated herpes simplex infection
* Generalized Lymphadenopathy.

The presence of either generalized Kaposi sarcoma or cryptococcal meningitis is sufficient for the diagnosis of AIDS for surveillance purposes. The clinical definition is relatively specific (if used correctly); meaning that the majority of people diagnosed as having AIDS will have been correctly assessed.

***Expanded WHO Case Definition for AIDS Surveillance**:*

For the purpose of AIDS Surveillance, an adult or adolescent is considered to have AIDS if a test for HIV antibody gives a positive result, and one or more of the following conditions are present: - > 10% body weight loss or cachexia, with diarrhea or fever, or both, intermittent or constant, for at least one month, not known to be due to a condition unrelated to HIV infection.

Cryptococcal meningitis, Pulmonary or extra – pulmonary tuberculosis, Kaposi sarcoma. Neurological impairment that is sufficient to prevent independent daily activities, not known to be due to a condition unrelated to HIV infection (for example, trauma or cerebro vascular accident).

Candidiasis of the oesophagus.

Clinically diagnosed life – threatening or recurrent episodes of pneumonia, with or without etiological confirmation.

Invasive cervical cancer.

HIV antibodies appear between three weeks and three months after exposure and can be continuously detected there after. At present to ensure accuracy, two different tests are commonly applied. At first a sensitive test is used to detect the HIV – antibodies which is normally the ELISA, while a second confirmatory test is used to weed out any false positive results, usually is a western blot which is highly specific, based on detecting specific antibody to viral core protein and envelop glycoprotein.

Prevention and treatment are essential partners

To ensure a comprehensive response to HIV, treatment and prevention efforts should be accelerated simultaneously. Mathematical modeling comparing a range of scenarios shows that in the scenario in which effective prevention and treatment are scaled up jointly, the benefits, both in terms of new HIV infections and deaths averted are greatest (WHO, 2005).

Successful HIV treatment can create a more effective environment for HIV prevention. Intensified HIV prevention is needed to make HIV treatment affordable and sustainable; and sustained progress in the response against AIDS will only be attained by intensifying HIV prevention and treatment simultaneously. In sub-Saharan Africa, a comprehensive prevention and treatment package would avert 55% of the new infections that otherwise could be expected to occur until 2020. (WHO, 2005]

Evidence and experience show that rapidly increasing the availability of antiretroviral therapy, leads to greater uptake of HIV testing. Kenya, for example, has seen a dramatic increase in testing. While in Brazil, uptake increased more than threefold in 2001-2003 (WHO, 2005).

Uganda has had similar experiences. After being forced to close due to a lack of clients, counseling and testing clinic in Masaka, Uganda, reopened in 2002 when an antiretroviral treatment programme began at the same hospital. Within a few months, more than 5000 people had sought and received voluntary counseling and testing-a seventeen fold increase over the figure for the year 2000 (Mpiima et al., 2003). This provided health workers with opportunities to educate people about HIV prevention, tailored to their HIV test results.

Availability of treatment and enhanced community outreach can lead to more openness about AIDS, which can help break down stigma and discrimination. A health survey conducted after the introduction of an antiretroviral programme in Kyayelitsha, South Africa, found higher condom use, willingness to join AIDS clubs, and readiness to be tested for HIV than in an of the seven other sites surveyed (WHO, 2003).

Nevertheless, greater treatment access also brings new challenges. There is evidence of increases in unsafe sexual behaviour coinciding with wide scale antiretroviral access in several high-income countries (Stolte et al., 2004). There is a need

for stronger operational research to improve our understandings of changing prevention needs, challenges and opportunities.

Stigma and discrimination: The undermining factor.

HIV stigma and the resulting actual or feared discrimination have proven to be perhaps the most difficult obstacles to effective HIV prevention. Stigma and discrimination simultaneously reduce the effectiveness of efforts to control the global epidemic and create an ideal climate for its further growth.

HIV stigma stems from fear as well as associations of AIDS with sex, disease and death, and with behaviours that may be illegal, forbidden or taboo, such as pre and extramarital sex, prostitution, sex between men, and injecting drug use. Stigma also stems from lack of awareness and knowledge about HIV. Such stigma can fuel the urge of make scapegoats of, blame and punish, certain people or groups. Stigma taps into existing prejudices and patterns of exclusion and further marginalizes people who might already be more vulnerable to HIV infection. Fear of stigma can also dissuade people living with HIV from playing a vital front in HIV prevention efforts.

Stigma prompts people to act in ways that directly harm others and deny them services or entitlements actions that take the form of HIV-related discrimination. Stigma prevents many people from negotiating safer sex, taking an HIV test, disclosing their status to their partners or seeking treatment, even when prevention services are made available.

CONTROL

Since no vaccine has yet been produced to prevent the disease, and no drug can really cure this disease presently, efforts are been directed towards prevention and control. However, the prevention is the most important. The basic approaches are: -

- Prevention using education and prevention of blood borne HIV transmission;
- Anti – retroviral treatment including combination therapy and post exposure prophylactic treatment.

Health Education is the only means at present available to enable people to make life saving choices. A study by Kickbusch (2001) shows that general literacy is an important determinant of health. Since sexual intercourse is the dominant route of transmission, the main strategy for prevention is aimed at behaviour modification to avoid risky behaviour e.g. avoiding indiscriminate sex, using condoms, abstinence of sex before marriage, being faithful to single partner.

Other strategies for prevention for non – sexual route includes; avoid sharing razors and toothbrushes, proper sterilization of surgical and skin piercing instruments e.g. for circumcision etc. Intravenous drug users should be informed that the sharing of needles and syringes involves special risk. Heat is preferred as the most effective means of sterilization as boiling in water for 20 mins destroys HIV (Sofoluwe and Ogunmeka, 1996, Park 2000).

Household bleach has been recommended for equipment that cannot be heated e.g. hair clippers used in saloons and other equipment.

Women suffering from AIDS or who are at high risk of infection should avoid becoming pregnant since infection can be transmitted from mother to unborn or newborn. (Sofolowe, 1996).

However, where they become pregnant, treating the mother with zidovudine from time of diagnosis can reduce transmission and putting the baby on zidovudine while the mother is still on it. The baby can be breast fed for six weeks and then subsequently put on artificial feed. It has been found that prolonged bread feeding even with treatment increase the risk of the infection. (Otubu, 1998). HIV has been found in cell – free cervico – vaginal fluids in amount that do not relate with the detection of HIV in blood (Rasheeds et al., 1996).

The HIV in the vaginal fluid reduces significantly when the patient is on zidovudine. (Bartlett et al., 1996, Cirara 1996). This may account for the reduction in transmission following treatment of the pregnant mother. Some advocate cesarean section to protect the baby from exposure to the HIV rich cervico – vaginal fluid and hence reduce transmission but this is still controversial (Otubu 1998).

Babies born to HIV positive mother will test positive for HIV because of trans – placental transmission of the antibodies, which may remain in the blood for twelve to eighteen months after delivery, they will then become negative and only the infected ones

(about 40%) will test positive again. The babies should be given normal immunizations except BCG for those with HIV symptoms and should be taken for routine examination. They should be treated vigorously for common paediatric conditions (Sofoluwe and Ogumeka, 1996).

Blood and all blood products should be screened for HIV before transfusion. People in high – risk groups should refrain from donating blood, body organs, sperms etc. A national blood transfusion scheme should be developed to guide blood transfusion activities with probably national blood transfusion bank.

Current approaches are on for development of AIDS vaccines for the prevention of AIDS include the development of HIV envelop subunit vaccine, peptide – based HIV subunit vaccines, Anti – idiotype HIV vaccines, inactivated HIV vaccines, live virus HIV vaccines and passive immunization (Crottlieb et al., 1999).

HIV / AIDS control in Nigeria

When HIV/AIDS was first diagnosed in 1986, it was considered a minor problem. By the end of 1988, only thirteen full-blown cases of AIDS had been seen in the country and it was still look at with levity (Obadina, 1989). By 2 August 1989, thirty-five cases had been seen. The government tried to set up committees but not much was done while the disease continued to spread.

In 1999, the HIV/AIDS preventive activities in Nigeria were being coordinated by the National AIDS Control Programme in

the Federal Ministry of Health (Anonymous, 1999). In 2001, Nigeria had to host the first summit of all African Heads of States on the Control and Prevention of HIV / AIDS and other diseases. The Federal Government created National Action Committee on AIDS **[NACA]**, at the Federal and states level. They are mandated to coordinate activities within the states, as a multi – Sectoral Committees, comprising the State AIDS / STI Committee under the Chairmanship of the State Commissioner for Health. (Ledlies, 2001).

In line with the resolutions of the African Heads of State to stem the transmission of HIV from infected women to their children, the Federal Ministry of Health initiated a National programme for the Prevention of Mother to Child transmission of HIV (PMTCT) in 2001. The Nigerian PMTCT strategy has the following components:

- Advocacy, social mobilization and behaviour change communication
- Voluntary counseling and testing of pregnant women,
- Administration of nevirapine to women in labour and their babies within 72 hrs of delivery.
- Infant feeding counseling,
- Modification of infant feeding practices
- Modification of obstetric practices,
- Follow-up of HIV positive children and their babies

The programme started in tertiary health institutions as pilot sites. With support from UNICEF, six teaching/national

hospitals (one in each geo-political zone) were selected. With funds from CDC and APIN, the number of sites was increased to 11 in 2003. Currently, there are 11 sites with 22 satellite sites in the whole country. A 5-year Scale up plan for prevention of mother to child transmission **[PMTCT]** has been developed by FMOH in collaboration with its partners. The scale up plan has taken cognizance of the need to expand care services beyond the children to their mothers, fathers and siblings. This approach, it is hoped, will serve to reduce the level of stigma currently hampering the uptake of PMTCT services even in the few sites where the services are established.

A number of Non – Governmental Organisations (NGOs) both international and local are working to promote HIV / AIDS prevention activities. The Society for Women and AIDS in Nigeria **(SWAAN)** is one such body. They carry out HIV / AIDS campaigns and education in schools, women groups, etc. SWAAN is also working to provide community and home based care for people with HIV/AIDS (Mabogunje, 1998).

There is reduced life expectancy, in some African countries, the average life expectancy has been reduced by about 20 years because of AIDS. The Mozambican Head of State commented that if nothing is done to arrest the AIDS epidemic, countries stands the risk of losing a generation or two of the population and these are the able – bodied adults. He also alluded to the fact that the UN estimates that at current rates 37 percent of the youths aged

16 in communities, are disintegrating in the worst affected countries. The traditional safety nets are collapsing as families and neighbours can no longer be relied upon to look after orphans, provide financial and material support to those in need because they are over burdened. (Ejembi, 2001; Orubuloye, 1998).

Poverty levels are rising because of reduced production and diversion of family budgets to treat AIDS victims. Food production is going down. The Food and Agricultural Organization **[FAO]** estimate that AIDS has killed more than 7 million agriculture workers, most of them in Africa.

In the health sector, there is diversion of health budgets to cater for AIDS to the detriment of other health problems. Already in some African countries, AIDS patients take up more than 50 percent of the adult beds in their hospitals.

AIDS is also affecting negatively on the youth. The school drop out rates is on the increase. The proportion of youth having to take on the responsibility of heading households because of the death of their parents is on the increase. There is rising destitution, crime and prostitution among girls because of loss of parents (Ejembi, 2001).

Similarly, a study among young people in Italy showed that they had a fair knowledge about sexually transmitted diseases but a change in behaviour was not influenced by the knowledge (Eloise et al 1995).

According to Yang (1995) from Singapore, it would be unrealistic to expect sexually active adolescents to stop their

sexual activities. He feels encouraging abstinence and delay in starting sexual activity may be the most effective methods in preventing the consequences of adolescent sexual activity. This laudable goal is hardly achievable in general (Yang, 1995).

Earl (1995), feels current HIV risk reduction strategies for adolescents in the United States of America have been less than effective in steering the tide of infection because of failure to make developmentally appropriate risk reduction information material available and reliance rather than condom based intervention which has an unacceptably high failure rate. He suggested that current methods of risk reduction should be analyzed, and more developmentally appropriate and effective ones should be created (Earl, 1995).

In the midst of all these, with the present reality of behaviour modification not responding to knowledge about HIV/AIDS amongst adolescents, behavioural researchers are working to find out what measures to adopt that will ensure behaviour change for individual good (Earl, 1995).

HIV/AIDS is an unfortunate tragedy that befell humanity and until something is done, the fate of the people of the world is not sure in 20 years to come. This is so because of the predominant route of transmission it chose which is sexual intercourse, to which nothing can be done about.

CHAPTER THREE

Methodology (Material and Methods)

Background of study area.

Gusau, the capital of Zamfara State in the North Western zone of Nigeria is made up of mainly Hausa, Fulani, though we have other tribes – Yoruba, Ibos, etc. It is also a local government and the site of many governmental activities. However, Gusau, one of the most densely populated local government in the state headed by a Chairman, assisted by councilors taking care of the different political wards/districts in the local government. In addition, the Emirate council headed by the Emir also partakes in the political affairs/administration with the support of the various village/district heads.

The adoption and practice of the Shariah legal system has a lot of impact of the way of life of the people. Though mainly Muslims, there is presence of followers of other religions who go about their normal daily activities without being disturbed.

Federal college of education (technical) Gusau was established in 1990. The only single sex (female) Federal College of Education in the Federation is located on the outskirt of Gusau, along Zaria/ Funtua road.

Since inception, the institution has six schools: -

A) **School of Education**; i) General studies department ii) Education department

B) **School of Science** i) Mathematics Department ii) Chemistry Department iii) Physics Department iv) Biology Department v) Computer Department i)Interscience Dept.

C) **School of Vocational Education**

i) Agric. Science Dept ii) Home Economic Dept

D) **School of Languages** i) English Dept ii) Hausa Dept iii) Arabic Dept

E) **School of Business Education**

i) Secretarial Studies Dept ii) Accounting Dept

F) **School of Technical Education** i) Building Dept ii) Electricity and Electronics Dept iii) Wood work Dept iv) Metal work Dept

- Various courses/ programmes

(i) Chemistry /Interscience (ii) Physics/Computer(iii) Mathematics/Computer (iv) Agricultural Science/Home Economics (v) Secretarial Studies/ Accounting

(vi) English/Hausa (vii) Hausa/Arabic (viii)English/ Arabic

s.

(ix) Building/Woodwork (x) Woodwork /Metal work (xi) Building/ Metal Work (xii) Electricity/Electronics e.t.c

The various courses lead to the award of National Certificate of Education **(NCE).**

There is only one main campus, located at Mareri along Zaria Road Gusau. Admission is by Quota system with Zamfara State having the highest.

The School sick bay clinic provides treatment for minor ailments, acute simple non-complicated illnesses for the staff and students; however, the complicated cases are referred to hospital. There is no specialized programme on HIV/AIDS as at the time of study.

Study Design

This was a cross sectional descriptive study conducted among students of Federal college of Education (Technical) Gusau Zamfara State,

The study population was all students of Federal Collage of Education Technical Gusau. However, the target population are the adolescents, young female (Youth), "the at risk group

Sample size

The population of the student as at the time of the survey was; 2587, therefore, a minimum sample size was calculated using the statistical formula **$n= Z2Pq/d^2$ where Z = 1.96;** P =

prevalence rates 3.3% (according to the 2003 National sentinel survey of Zamfara)

$q = 1-p$

$= 1 - 0.033$

$= 0.967$

$$n = \frac{(1.96)^2 \times 0.033 \times 0.967}{(0.05)^2}$$

$n = 49$

However, 200 students participated in the survey

Sampling Technique

The halls of residence were used for convenience, having six hostels (Nana Asmau, Gamji, New York, Sarkin Katsina, G R A, and Maryam all contains two blocks each; a block having six rooms each.

Using a multistage sampling method, 3 hostels (Nana, Gamji, and New York) were randomly selected from the halls of residence and from each of the selected hostels, one block was randomly selected.

With each block having six rooms accommodating six official students, and occasional squatters (who are also included in the study), every third occupant of the room was selected for survey.

Instrument for data collection

A close-ended structured self-administered questionnaire was designed. However, a pretest was done with about 12-voluntered students seen on campus to ascertain level of understanding. Some questions were adjusted for easy comprehension; however adequate explanation was given.

Data collection

Using the questionnaire, datae were collected on socio – demographic characteristic like, knowledge on HIV/AIDS, attitude on HIV/AIDS and precautionary and practice they know. Information was sought on risky sexual behavior e.g multiple sexual partners, non-use of condoms.

Data analysis

Data from the questionnaire were analyzed with computer using Epi-Info version 6. They were presented as simple frequencies and percentage with measures of central tendency (Mean, Mode & Median) and standard deviation to assess variability computed as appropriate.

The finding of the discussions were compared & analyzed).

Limitation of study/constraints

The topic being a very sensitive one most people were not willing to give responses or correct responses. The socio cultural

background of the study area, and people's value and beliefs affected getting adequate co-operation from the student

Ethical consideration

Permission was obtained from the management of the school, adequate explanation were given to the students; informed consent obtained, and were assured of confidentiality.

CHAPTER FOUR

Results

Demographic Characteristics

The respondents were within ages 15 – 38 years, with 60% being 20 – 24 years, 32% were 25 – 29 years, 2% were less than 20 years and 6% were over 30 years, 30-34 = 4%, 35 to 38 years 2% (/Fig. 1) The respondents were from different ethnic groups in the country, 29% were Yorubas, 42% Hausas, 10% Fulani, Igbos were 5%, other ethnic groups showed 12% while 2% showed no response (Fig.2).

Different NCE programmes were offered in the school, 50.0% of the respondents were in school of Education, 16% in School of Applied Sciences, 16% were in School of Vocational education, School of languages were 10%, school of Business education were 4%, and school of technical education were 4% (Table 1). Of the respondents, 48% were in 2nd year of study, while 48% were in their 1st year of study, but 4% showed no response (Table 2)

The respondents showed 71% Muslims, Christians, 27% Atheists were 1% other religions were 1% (Fig 3) Most of the respondents 75% were single, 10% married, 5% and 5% were separated and divorced respectively while 5% did not respond at all (Fig 4.). The sponsorship revealed that 48.5% were private, 51.5% on scholarships (Table 3).

Thirty percent of the fathers had post secondary education, 20% were illiterate, 20.5% secondary and 10.5% were primary school

leavers, but 19% showed no response. However, 10.5% of secondary education, 10-5% secondary, 30% primary, 25.5% were illiterate but 23.5% showed no response (Fig:4). Eighteen point five percent said they source money from elsewhere outside sponsorship, while 71.5% did not, but 10% showed no response. About 35.5% of respondent's fathers were civil servants, 28.5% were traders and 21.5% were farmers,

14.5% other jobs, 0.2% no response. However, 10.5% of the mothers are traders, 11.5% civil servants, 43% housewives and 3.5% were farmers, others menial jobs (Table 4). Majority of respondents 68.5% are from polygamous family, while 31.5 % had monogamous family (Table 5).

Knowledge of AIDS

All the respondents 100 % had heard about AIDS. About 70% of respondents got to know about AIDS through reading literature, 50% of respondents' source of information was through a talk on AIDS, 40% of respondents heard about AIDS from Health Workers, while another 90% learnt about it from Mass Media. Additionally 76% of respondents learnt about AIDS from friends/relations, 5% learnt from native doctors, about 10 percent learnt from Church/Mosque and 1% learnt about AIDS from infected persons. Many of the respondents learnt about AIDS from multiple sources.

Also 5% of respondents said that HIV/AIDS could be transmitted through mosquito bites, 20% said it could be transmitted through kissing AIDS patients. Also, 6% said it could be transmitted through sharing cloths with AIDS patients,

additionally 80% said HIV infected blood when transfused to one can spread AIDS, others 95% said AIDS could be transmitted through sharing Needles and Syringes. About 98% said sexual intercourse with HIV infected patients can result in the spread of the disease, 41% said it could be transmitted by having abortion done, while 50% said cuts from saloon and marks by native doctors could transmit the disease. Many of the respondents knew multiple route of transmission of HIV/AIDS.

Majority (90%) of the respondents said that HIV/AIDS transmission can be reduced by abstinence, 90% said reduction could be achieved with condom during sexual intercourse, 82% said refusal of transfusion with unscreened blood could reduce HIV/AIDS transmission. Additionally, 80% said reduction can be achieved by having ones owned barbing or hair saloon instruments/kits, 60% said reducing number of sexual contacts can reduce transmission of HIV/AIDS and 95% said having sex with only one un-infected partner could reduce transmission of HIV/AIDS. Of the respondents, 10% said that permanent cure for HIV/AIDS is available, 70% said no permanent cure, 20% were not sure and 1% showed not response (Table 6).

Table 1: Background socio demographic variable of respondents.

Course of Study	**Frequency**	**Percentage**
School of sciences	32	16
School of Education	100	50
School of vocational Education	32	16
School of languages	20	10

School of business Education	8	4
School of Tech education	8	4
TOTAL	**200**	**100**

Among the courses available in the school, 50.0% of the respondents were in school of Education Studies, 16% in School of Applied Sciences, 16% were in School of Vocational education, School of languages were 10%, school of Business education were 4%, and school of technical education were 4%.

TABLE: 2 Distribution of respondents according to year of study

Year of Study	**Frequency**	**Percentage**
PRE NCE	----	----
NCE 1	96	48
NCE 2	96	48
NO RESPONSE	8	4
TOTAL	**200**	**100**

Of the respondent, 48% were in 2nd year of study, while 48% were in their 1st year of study, but 4% showed no response (Table 2).

Table 3: Distribution of Respondents According to Sourcing for Money else where apart from Sponsorship.

Sourcing for money Apart from sponsors	**Frequency**	**Percentage**
YES	37	18.5
No	143	71.5
No response	20	10
Total	**200**	**100.0**

Eighteen point five percent said they source money from elsewhere outside sponsorship, while 71.5% did not, but 10% showed no response

Table 4: Distribution of Respondents according to parents Occupation

Occupation	**Father**		**Mother**	
	Frequenc	**Percentag**	**Frequency**	**Percentage**
Civil Servant	71	35.5	21	10.5
Trading	57	28.5	23	11.5
Farming	43	21.5	7	3.5
House Wife	-	-	86	43.0
Others	29	14.5	40	20.0
No Response	01	0.5	17	8.5
Total	**200**	**100.0**	**200**	**100.0**

35.5% of respondent's fathers were civil servants, 28.5% were traders and 21.5% were farmers, 14.5% other jobs, 0.5% no response. However, their mothers showed 10.5% traders, 11.5% civil servants, 43% housewives and 3.5% were farmers, others menial jobs.

Table 5: Distribution of Respondents by Family type

Family Type	**Frequency**	**Percentage**
Monogamous	60	30
Polygamous	137	68.5
No Response	3	1.5

Total	**200**	**100.0**

Majority of respondents 68.5% are of polygamous family, while 30 % are of monogamous family.

Table 6: Distribution of Respondents according to knowledge & source of information on HIV/AIDS

Source of Information on AIDS	**Yes**	**NO**	**NO respons**
Read about it	70%	18%	**12**
Attended a talk about it	50%	40%	10
Learnt from Health Workers	40%	20%	40
Learnt from Mass Media	90%	8%	2
Learnt from friends and relation	76%	20%	4
Learnt from Native Doctors	5%	-	-
Leant from church/mosque	10%	-	-
Learnt from infected person	1%	-	-

70% of respondents had known about AIDS through reading literature, 50% of respondents' source of information was through a talk on AIDS, 40% of respondents heard about AIDS from Health Workers, while another 90% learnt about it from Mass Media. Additionally 76% of respondents learnt about AIDS from Friends/Relations, 5% learnt from Native Doctors, about 10 percent learnt from the church/mosques, and 1% learn HIV from infected persons. Many of the respondents learnt about AIDS from multiple sources.

Table 7: Distribution of Respondents according to knowledge of Route of Transmission of AIDS.

Route of Transmission of HIV/AIDS	PERCENTAGE			
	Yes	No	Not Sure	No Response
Through Mosquito bites	5%	90%	5%	-
Through Kissing of AIDS	20%	70%	5%	5%
Through sharing cloth with patients	6%	80%	14.5%	0.5%
Through Transfusion with HIV Infected Blood	80%	14%	4%	0.5%
Through sharing needles & syringes	95%	3%	1%	1%
Through sexual intercourse HIV Infected person	99%	0.5%	0.5%	1.0%
Through Abortions	41%	30%	25%	4.0%
Through cut from saloon and marks by native doctors	50%	12%	10%	5%

Though 5% of respondents said that HIV/AIDS could be transmitted through mosquito bites, 20% said it could be transmitted through kissing AIDS patients. Also 6% said it could be transmitted through sharing cloths with AIDS patient. Additionally 80% said HIV infected blood when transfused to one can spread AIDS, others 95% said AIDS could be transmitted through sharing needles and syringes. About 98% said sexual intercourse with HIV infected patients can results in the spread of the disease, 41% said it could be transmitted by having Abortion done, while 50% said cuts from saloon and marks by native doctors could transmit the disease. Many of the respondents knew multiple route of transmission of HIV/AIDS.

Table 8: Distribution of Respondents according to knowledge of Method of HIV/AIDS prevention.

HIV/AIDS can be Reduced by:	PERCENTAGE			
	Yes	No	Not Sure	No Respons
By not having sexual intercourse (Abstinence)	90%	2%	5%	-
By using Condom during intercours	90%	5%	2%	3%
By refusing transfusion with blood	82%	5%	2%	2%
By having self barbing saloon instruments	80%	8%	5%	-
By reducing number of sexual contact	60%	20%	10%	-
By having sex with only one partner	95%	2%	1%	1%

Majority (90%) of the respondents said that HIV/AIDS transmission can be reduced by abstinence, 90% said reduction could be achieved with condom during sexual intercourse, 82% said refusal of transfusion with unscreened blood could reduce HIV/AIDS transmission. Additionally, 80% said reduction can be achieved by having ones owned barbing or saloon instruments/kits, 60% said reducing number of sexual contacts can reduce transmission of HIV/AIDS and 95% said having sex with only one un-infected partner could reduce transmission of HIV/AIDS.

Table 9: Distribution of Respondents according to knowledge of Available of cure for HIV/AIDS.

There is a permanent cure	**Frequency**	**Percentage**
Yes	20	10
No	140	70
Not sure	38	19
No Response	2	1
Total	**200**	**100.0**

10% said that permanent cure for HIV/AIDS is available, 70% said no permanent cure, and 20% were not sure, and 1% showed no response.

ATTITUDES

Majority (95%) of respondents believed that AIDS is in Nigeria, while 4 % did not believe, and 1.0% showed no response. Of the respondents, 50 % believed that some of their colleagues might have AIDS, while 40% did not, with 5% showing no response (Table 11). About 40.0% of respondents agree that HIV patient walking about do not constitutes a risky while 40% disagree saying they constitutes a risk of infecting people by walking about in public places (Table 12). Also 4 % of respondents said that HIV/AIDS could be contacted by casual contact like hugging, while 85 % did not agree, 10% were not sure but 10% showed not response (Table 13).

Only 5% of respondents are afraid of sharing toilets with HIV/AIDS person for fear of contacting AIDS, while 80% are not, 15% said they were not sure (Table 14). About 30% will not be bordered to attend classes with some one with HIV/AIDS, while 60% will, 5% were not sure, but 5% showed no response (Table 15).

About 70% of the respondents have had sexual intercourse before, 15 Percent had not (Table 16). About 20% said they had their first sexual intercourse at 18 – 20 years, 15% had first intercourse at 15 – 17 years and 22 % when above 20 years (Table 17.) Seventy percent (70.0%) of the respondents had a lover (boy friend) and 15% did not (Table 18), while 10% of the respondents had above three sexual partners so far, 50% had only one partner (Table 19). Also 50% of the respondents had one sexual partner in the last one year, 5% had above three, 10% had two, 10% had three 20% had none and 5% showed no response (Table 20).

About 70% of the respondent had steady sexual partner, 20% did not have steady sexual partner,5% showed not applicable and 5% showed no response (Table 21). About 5% of respondents involved themselves in casual sexual relationship apart from steady partner, 70% do not have casual sex and 5% showed no response. (Table 22).

Table 10: Distribution of Respondents beliefs towards HIV/AIDS

Belief that AIDS is in Nigeria	**Frequency**	**Percentage**
Yes	190	95
No	8	4
No Response	2	1
Total	**200**	**100**

Majority (95%) of respondents believed that AIDS is in Nigeria, while 4 % did not believe, and 1.0 showed no response.

Table 11: Distribution of Respondents beliefs towards possibility of colleagues having AIDS.

Belief that some colleagues might have AIDS	**Frequency**	**Percentage**
Yes	100	50
No	80	40
No Response	20	10
Total	**200**	**100**

50 % believed that some of their colleagues might have AIDS, while 40% did not, with 5% showing no response

Table 12: Attitudes of respondents to people with HIV/AIDS walking about in public.

One with HIV/AIDS should be allowed to walk about in public place	**Frequency**	**Percentage**
Agree	80	40
Disagree	80	40

No Response	40	20
Total	**200**	**100**

About 40.0% of respondents agree that HIV patient walking about do not constitutes a risky while 40% disagree saying they constitutes a risk of infecting people by walking about in public places.

Table 13: Attitude of respondents to people living with HIV/AIDS: Casual contacts like hugging.

One can get HIV/AIDS By Casual contact like hugging.	**Frequency**	**Percentage**
Agree	8	4
Disagree	170	85
Not sure	20	10
No response	2	1
Total	**200**	**100**

4 % of respondents said that HIV/AIDS could be contacted by casual contact like hugging, while 85 % did not agree, 10% were not sure but 1% showed no response.

Table 14: Attitudes of respondents to people living with HIV/AIDS: Sharing toilet with them.

I am afraid of sharing toilet wit HIV/AIDS persons.	**Frequency**	**Percentage**
Agree	10	5
Disagree	160	80
Not sure	30	15

Total	**200**	**100**

5% of respondents are afraid of sharing toilets with HIV/AIDS person for fear of contacting AIDS, while 80% are not, 15% said they were not sure.

Table 15: Attitudes of respondents to people living with HIV/AIDS: Attending

Class with someone with HIV/AIDS

I will not be bordered to attend classes with someone with HIV/AIDS	**Frequency**	**Percentage**
Agree	60	30
Disagree	120	60
Not sure	10	5
Not response	10	5
Total	**200**	**100**

30% will not be bordered to attend classes with some one with HIV/AIDS, while 60% will, 5% were not sure, but 5% showed no response

Table: 16 Attitudes towards AIDS: Having had sex before

Experience of Sexual Intercourse	**Frequency**	**Percentage**
Yes	140	70
No	30	15
Not applicable	14	7
No response	16	8
Total	**200**	**100**

70% of the respondents have had sexual intercourse before, 15 Percent had not.

Table: 17: Attitudes towards AIDS: Age at first sexual intercourse

Age at first sexual intercourse	**Frequency**	**Percentage**
12 – 14 years	20	10
15 – 17 years	30	15
18 – 20 years	120	60
Above 20 years	20	10
Not Applicable	6	3
No response	4	2
Total	**200**	**100**

20% said they had their first sexual intercourse at 18 – 20 years, 15% had first intercourse at 15 – 17 years and 22 % when above 20 years.

Table: 18 Attitudes towards AIDS: Having a Lover (boy friend/girls friend)

Intimate relationship with the opposite sex	**Frequency**	**Percentage**
Yes	140	70
No	40	20
Not applicable	10	5
No response	10	5
Total	**200**	**100**

Seventy percent (70.0%) of the respondents had a lover (boy friend) and 15% did not.

Table: 19 Attitudes towards AIDS: So far total number of sexual partners in life.

Number of sexual partners so far	Frequency	Percentage
One	100	50
Two	20	10
Three	26	13
Above three	20	10
None	30	15
No response	4	2
Total	**200**	**100**

10% of the respondents had above three sexual partners so far, 50% had only one partner

Table: 20 Attitudes towards AIDS: Number of sexual partners in the last one-year life.

How many sexual partners have you had in the last one-year?	Frequency	Percentage
One	100	50
Two	20	10
Three	20	10
Above three	10	5
None	40	20
No response	10	5
Total	**200**	**100**

50% of the respondents had one sexual partner in the last one year, 5% had above three, 10% had two, 10% had three 20% had none and 5% showed no response.

Table: 21 Attitudes towards AIDS: Having steady sexual partner.

Having steady sexual partners	**Frequency**	**Perc4eentag**
Yes	140	70
No	40	20
Not applicable	10	5
No response	10	5
Total	**200**	**100**

70% of the respondent had steady sexual partner, 20% did not have steady sexual partner, 5% showed not applicable and 5% showed no response.

Table: 22 Attitudes towards AIDS: Having casual sex apart from partner

Involvement in causal sexual relationship	**Frequenc**	**Percentage**
Yes	10	5
No	140	70
Not applicable	40	20
No response	10	5
Total	**200**	**100**

5% of respondents involved themselves in casual sexual relationship apart from steady partner, 70% do not have casual sex and 5% showed no response.

PRACTICE

40% of respondents had stopped having sexual intercourse because of AIDS, 40% had not, while 10% showed no response (Table 23). Of the respondents, 50 % had reduced the number of people they have sexual intercourse with because of AIDS, 13.5% had not, while 0.5% showed no response (Table 24). About 51% of respondents had started using condom during sexual intercourse because of AIDS, 40 % had not started using condom, while 25% showed no response (Table 25).

While 31%, use condom every time because of AIDS, 32% use sometimes, 33.4% not applicable but 0.5% showed no response (Table 26). About 50% of respondents now keep to one sexual partner because of HIV/AIDS, 20% do not, and 0.5% showed no response (Table 27). Of the respondents, 22% have now decided to go for HIV/AIDS test because of AIDS, 75% have not decided but 3% showed no response (Table 28).

About 40% of respondents have stopped patronizing Saloon because of HIV/AIDS (Table 29) About 90 % of respondents would not want to be transfused with blood because of HIV/AIDS (Table 30) Majority of the respondents, 90% are now careful where they receive injection because of HIV/AIDS (Table 31). Of the respondents, 80% had correct knowledge of mode of transmission, 70% had correct preventive behaviour while only 5% had common misconception on HIV/AIDS (Table 32). In addition, 42.8% of female had correct knowledge. Statistical analysis using chi

square test shows no relationship between knowledge and sex of respondents.

Table 23: Respondents practice towards AIDS: Stopped having sexual intercourse having casual sex apart from partner.

Stopped having sexual intercourse because of HIV/AIDS	**Frequency**	**Percentage**
Yes	80	40
No	80	40
Not applicable	20	10
No response	20	10
Total	200	100

40 % of respondents had stopped having sexual intercourse because of AIDS, 40% had not, while 10% showed no response.

Table 24: Respondents practice towards AIDS: Reduced the number of sexual Partner because of HIV/AIDS.

Reducing the number of people I have sex intercourse.	**Frequency**	**Percentage**
Yes	100	50
No	27	13.5
Not applicable	72	36
No response	1	0.5
Total	**200**	**100**

50 % had reduced the number of people they have sexual intercourse with because of AIDS, 13.5% had not, while 0.5% showed no response.

Table: 25: Respondents Practice towards AIDS: Started using condom because of AIDS

Have Started Using Condom because of HIV/AIDS	**Frequency**	**Percentage**
Yes	102	51
No	30	15
Not applicable	67	33.5
No response	1	0.5
TOTAL	**200**	**100**

51% of respondents had started using condom during sexual intercourse because of AIDS, 15% had not started using condom, while 0.5% showed no response.

Table: 26: Respondents Practice towards AIDS: Personal use of condom during sexual intercourse

Use of condom during:	**Frequency**	**Percentage**
Every time	66	33
Sometime	64	32
Not applicable	69	34.5
No response	1	0.5
Total	**200**	**100**

31%, use condom every time because of AIDS, 32% use sometimes, 33.4% not applicable but 0.5% showed no response

Table: 27: Respondents practice towards: AIDS: Keeping one sexual partner

Keeping to one sexual partner	**Frequency**	**Percentage**
Yes	100	50
No	40	20
Not applicable	57	28.5
No response	3	1.5
Total	**200**	**100**

50% of respondents now keep to one sexual partner because of HIV/AIDS, 20% do not, and 1.5% showed no response

Table: 28: Respondents practice towards AIDS: Decided to test to know if I have HIV/AIDS:

Decision to test for HIV/AIDS	**Frequency**	**Percentage**
Yes	44	22
No	150	75
No response	6	3
Total	**200**	**100**

22% have now decided to go for HIV/AIDS test because of AIDS, 75% have not decided but 3% showed no response.

Table: 29: Respondents practice towards AIDS: Stopped patronizing Saloon because of HIV/AIDS

Stopped patronizing hair saloons that do not sterilize their instruments because of HIV/AIDS	Frequency	Percentage
Yes	100	50
No	20	10
I am afraid	70	35
No response	10	5
Total	**200**	**100**

40% of respondents have stopped patronizing Saloon because of HIV/AIDS.

Table: 30: Respondents practice towards AIDS: Don't want blood transfusion because of HIV/AIDS

I don't want to be transfused with blood because of HIV/AIDS	Frequency	Percentage
Yes	180	90
No	2	1
I am afraid	16	8
No response	2	0.5
Total	**200**	**100**

About 90% of respondents would not want to be transfused with blood because of HIV/AIDS

Table: 31: Respondents practice towards AIDS: Being Careful when receiving injection because of HIV/AIDS

Being careful with injections because of AIDS	**Frequency**	**Percentage**
Yes	196	98
No	4	2
Total	**200**	**100**

98% are now careful where they receive injection because of HIV/AIDS

Table: 32 Distribution of respondents according to correct and incorrect knowledge of Transmission and Precautions.

Mode of Transmission	**Frequency**	**Percentage**
Correct knowledge	160	80
Incorrect knowledge	40	20
Total	**200**	**100**

Prevention Behavior	**Frequency**	**Percentage**
Correct knowledge	140	70
Incorrect knowledge	60	30
Total	**200**	**100**

Common Misconception	Frequency	Percentage
10	10	5
190	190	95
Total	**200**	**100**

42.8% of female had correct knowledge. 80% had correct knowledge of mode of transmission, 70% had correct preventive

behaviour while only 5% had common misconception on HIV/AIDS.

Table: 33: Showing other relationship tested with their X^2 ,df and X^2 value

	VARIABLES	**X^2**	**DF**	**P VALUE**
1	Age and correct knowledge of Transmission	0.6048	5	>0.98
2	Tribe and correct knowledge of Transmission	0.0677	5	>0.99
3	Religion and correct knowledge of Transmission	0.0002	4	>0 99
4	Age and correct knowledge of Prevention	0.2069	5	>0.99
5	Tribe and correct knowledge of prevention.	0.1658	5	>0.99
6	Religion and correct knowledge of Prevention	0.2527	4	>0.99
7	Religion and Misconception	0.0001	4	>0.90

N/B There is no relationship in all shown above.

Statistical analysis using chi square test shows no relationship between knowledge and sex of respondents.

RESULTS FROM FOCUS GROUP DISCUSSION

Two sessions of focus group discussion were held with twelve available students who volunteered to participate in the discussion. Majority of the respondents (80%) were within the age range 20 – 24 years, most in NCE one (school of education) and were singles. Though 50% are Hausas, other are Yorubas, Igbos e.t.c.

All of them had heard about HIV/AIDS however, the practices of the preventive measures are still very low. Almost all had the general knowledge of the mode of transmission, but majority of them kept emphasizing on majority sexual intercourse as the major route of transmission. They all knew how to prevent AIDS and some saw themselves at risk of contacting HIV/AIDS.

Some persons believed that God would protect them since they are innocent, i.e. getting infected through means other than sexual route.

Average they knew correctly the symptoms and signs of HIV/AIDS. Almost all knew that premarital and extra-marital sex was wrong, but claimed some situations to be unavoidable. All

believed that they could acquire HIV/AIDS through sexual intercourse with an infected person.

All were afraid of having HIV/AIDS because of past sexual exposure and that they do not want to die young.

More so, they are afraid of being tested in case they come out positive, the post HIV depression alone can kill before the full-blown disease manifest

Many of them are not aware of any sterilization methods in the hair saloons they patronized. Some says the press/media should not only emphasize HIV/AIDS but also other killer diseases, but said the advertisement given to it is all right.

The need to intensify the media publicity or not, showed equivocal response so as not to increase unnecessary fear in the masses. The unnecessary fear and stigmatization should be removed more especially for sake of the people that must have been infected through the non-sexual route. Most of them claimed that even though they had, had sexual intercourse before, have now stopped and denied any casual sex. There is equivocal response as to whether people with HIV/AIDS should be told they have it or not reasons are possible deterioration of health and increased spread. However, the knowledge of ones status will help in taking adequate treatment and prevent other spread to people. Some believed it would help them prepare themselves for the unexpected. About 50 percent said, those with HIV/AIDS deserve what they got, if they involve in unprotected sex and other said they should be pitied if they are infected accidentally i.e. through

non-sexual route. However, few said condom does not give 100 percent protection. Some said AIDS patient should be isolated for treatment though; stigmatization should be taken care of. They also would like to know the past sexual history of spouse and their HIV status.

Most said students have skills to make reasonable decision to alter their risky behaviour, but by choice may not want to change. Some claimed that condom usage was more for preventing pregnancy than HIV/AIDS, and not used frequently because it reduces sexual pleasure and shows sign of distrust of the other partners, which they usually do not like their partner to assume. The unavailability of the condoms, shyness when buying and failing to buy from a known person or from a distant chemist contributes to condom usage failure

On general comments, some claimed they believe in God and that their faith in God is that God will protect them from HIV/AIDS. Others said according to destiny some will die due to one reason or the other, and if it is from HIV/AIDS that is their destiny.

When the students were asked, what they think can be done to make them stop giving themselves for money; they said generally, the government should improve the economic situation in the country, as this will create more income to their parents, which will subsequently increases their own pocket money. They also plead for scholarships by the government and corporate individuals as it will contribute to their well-being.

CHAPTER FIVE

DISCUSSION

The study showed that they respondents were within ages 15-38 years with majority 60% being in the age group 20 – 24 years. This was consistent with the findings of the HIV/Syphilis sentinel survey (Emil et al, 1999; Emil et al, 2001).

It is among young people between these ages 15 and 24 years that one find the most risky attitudes and behaviour relating to HIV (Thomas, 2001).

The study also revealed that the respondents had good knowledge about HIV/AIDS and by extension the knowledge in Federal College of Education (Tech) Gusau concerning HIV/AIDS is high, as 100% had heard. This is consistent with other studies done. Unuigbe and Ogbeide (1999), who conducted their study in Benin City, reported that 94% of their respondents were aware of AIDS. Knowledge about mode of transmission was also good as 80% had adequate knowledge of mode of transmission. Unuigbe and Ogbeide (1999) also found out that 64% of respondents knew about route of transmission. Umoh and Okesina working among adolescents from rural communities in Kwara State also reported high level of awareness 72%, and high level of knowledge of mode of transmission (Umoh and Okesina, 1999).

About 95% believed AIDS is in Nigeria 40% believed that HIV patient cannot infect any one while waling about and only 4% said AIDS can be contacted through casual contact like hugging and only about 5% of respondents said they were afraid of sharing

toilets with some one with AIDS and 30% would not be bordered to attend class with some one with AIDS which all confirmed the good knowledge. The focus group discussion also confirmed the same and they knew that a virus cause AIDS. All of them fear the disease and called it a killer disease and were eager to know more about the disease. About 10% said that permanent cure for HIV/AIDS is available which is due to unconfirmed proclamation in the media by some people who claimed they had the treatment to cure AIDS, which showed the role the media had on the people in giving out information's. Where as in the study it showed that 7.1% said that AIDS was curable (Unuige and Ogbeide 1999).

The source of information revealed that 90% learnt from mass media and 70% read about it, while the role of the health worker was 40%, which were major route of information dissemination. This was also observed by Amazigo (1997).

In the focus group discussion, they felt more information should be given concerning HIV/AIDS by the media and religious places to be able to achieve more coverage regularly. In addition, the focus group also discloses that some of those with AIDS deserved what they got if from loose sexual life, and if not should be pitied.

From focus group discussions, most of them said it is not good to be involved in sexual intercourse before marriage or outside marriage. However, this was different from the findings in the study.

In comparison with this and with their 80% knowledge of transmission, their knowledge of preventive behaviour was 70%. About 70% of respondents had had sexual activity commencing as early as 14 – 18 years. Mean age at first sexual intercourse was 17 years and is inconsistent with the findings in the Guinea study which was 15.4 years (Gordgen, 1998) and Kinshasha, Zaire (Unuigbe, 1999)

In addition, the age of sexual exposure is decreasing because of loose morality in the environment. There is global trend towards early onset of sexual activity among youths factors such as early onset of menarche, changing values due to increasing urbanization, exposure to foreign culture through rural/urban migration, tourism, mass media, internet, erosion of traditional norms and values, peer influence and lack of parental control have all been implicated as factors responsible for this trend. This is of a great concern, as their chance of getting HIV/AIDS is high. Sexual transmissions of HIV/AIDS constitute about 80% to over all routes of transmission (Emil et al, 2001). Also 70% of the respondents had lovers, while about 10% had had sexual intercourse with over three different sexual partners. This is different with findings by Nicholas et al (1986) who reported 38.9% in Ibadan. Araoye (1996) reported 54% also 39.6% keeping at least one sexual partner in the last one year and 29.0% are not having steady sexual partner while 24.1% were engaged casual sex which further serve a risk that may pre- dispose to HIV/AIDS. It was found that with every single act of unprotected sexual intercourse

with HIV – infected person, the un – infected partner is exposed to risk of infection (park, 2000). These calls for urgent action as the effects might be disastrous if such risky behaviours continued unchecked. Majority of those sexually active (39.6%) were keeping only one sexual partner because they felt it was not safe having sex with more than one partner. This is in agreement with the results of the study conducted in Zambia to assess the impact of AIDS on students. Here majority of the students (92%) said it was not safe to have sex with more than one partner (Pempelani, 1993). The Focus Discursion (FGD) revealed that the respondents would want to know the past sexual history of would – be partner and their HIV status before marriage, as they would make theirs known too. This is also consistent with findings by Yang (1995) who found 35% were not practicing preventive methods even though they knew it.

About 90% of respondents know that condom use would prevent transmission of HIV/AIDS, but only 33% use condom every time during sexual intercourse and 32% used it occasionally. Concerning condom usage, Unuigbe and Ogbeide (1999) found that 26.9% of sexually exposed students used condom regularly. Araoye (1996) found out that only 31% use condom regularly. Focus Group Discussion (FGD) gives reason as it reduces sexual satisfaction, and shows sign of distrust of the other partner, which they would not tolerate. Usage is associated with prevention of pregnancy rather than with HIV/AIDS. This negative attitude towards the use of condom agrees with the findings of Marian and

Okorofua (1993) in Benin. There is therefore an urgent need to promote condom acceptance and usage. The reason for low condom usage may be the increase frequency of sexual intercourse as found among African American drug users residing in Washington D.C (Anonymous, 2001).

With respect to finance, and needs, about 18.5% said they sourced for money elsewhere apart from their sponsorship, and this might also contribute to their involvement in high sexual activity in order to meet their needs, Tennin and Okonofua (1999) found that finances where part of the major reasons girls gave for engaging in sexual intercourse.

From this study, risky behaviours have not been found to be related to family type, educational level of parents, religion and ethnicity. There was also no relationship between knowledge of reduction of AIDS through condom usage and actual condom usage during sexual intercourse. There was also no relationship between knowledge of reduction of AIDS through condom usage and frequency of condom usage during sexual intercourse.

CONCLUSION

From the findings of the survey it can be concluded that there is urgent needs for intervention; they would have to be targeted for sexual behavioural change through behavioural change communication. Fears need to be allayed; misconceptions/false claims needs to be corrected. Stigmatization needs to be tackled so that more persons can be counselled and tested voluntarily for HIV/AIDS. However, this involves everyone understanding and

cooperation in order to achieve the goal of averting new infections, reducing the spread and helping people living with HIV/AIDS live a normal life within the communities.

The consequences of not talking to young people early can be great. Communities attempting to prevent the spread of HIV disease among this population (Youths) must be aware of the various forms that behaviour takes and the broader developmental context within which it occurs in order for prevention efforts should be truly appreciated and therefore effective. There are things that do not work along in HIV prevention and they are the same prevention strategies that people tend to think of first when they think of HIV disease. These include:

- **Information alone does not work:** All of us working in health promotion tend to suffer from the "truth equals action illusion".
- Scare tactics do not work in the long term and they can backfire in the short – term motivator. It has the effect of gaining an adolescents attention – until something else more interesting or pleasant does. Applied too intensively and in the absence of concrete message about what adolescents and youths can do to make things better, scare tactics can encourage denial and create a sense of hopelessness about HIV disease.
- Nothing works in a Vacuum. Just as information alone, does work, no single AIDS prevention intervention for adolescents and youths, no matter what it is, will work when implemented in the absence of others to support it. Distributing condoms or making

condoms more accessible to adolescents and youths will not by itself work. A school – based education program alone will not work. Media campaigns alone will not work. All of these and other programs working together and in close co-ordination may, on the other hand, have an impact. The point is simply that HIV prevention is not a one – short deal and there are no single magic bullets to accomplish it (Gary et al., 1994).

Concisely, adolescents and youths appear to alter behaviour patterns that put them at risk of HIV infection only if they receive a repeated, consistent prevention message develop the skill to make use of it and have support for change from groups and individuals with whom they identify. To a greater or lesser degree, all effective HIV prevention interventions among adolescent to date have incorporated all of the elements just stated.

Studies have shown that the ability of adolescent to talk and negotiate about sex effectively is the single greatest predictor that they will use condoms (Gary et al 1994). These skills can be developed through peer role – playing and peer group counseling intervention, which have been used to developing such skill in other places. Because these students know very well, the particular tone, style and content of communications that will convey information and concern and still offer concrete support.

RECOMMENDATION

In view of the present situation of HIV/AIDS in the country, the followings are recommended: -

1. The rights and status of women and young girls deserve special attention. Around the world-from sub-saharan Africa, an increasing number of women are being infected with HIV. It is often women with little or no income who are most at risk.
2. Build and maintain leadership from all sections of society, including governments, affected communities, nongovernmental organizations, faith-based organizations, the education sector, media, the private sector and trade unions.
3. Involve, people living with HIV, in the design, implementation and evaluation of prevention strategies, addressing the distinct prevention needs.
4. Address cultural norms and beliefs, recognizing both the key role they may play in supporting prevention efforts and the potential they have to fuel HIV transmission.
5. Promote gender equality and address gender norms and relations to reduce the vulnerability of women and girls, involving men and boys in this effort.
6. Promote widespread knowledge and awareness of how HIV is transmitted and how infection can be averted.

7. Promote the links between HIV prevention and sexual reproductive health.
8. Support the mobilization of community-based responses throughout the continuum of prevention, care and treatment.
9. Promote programme targeted at HIV prevention needs of key affected groups and populations.
10. Mobilizing and strengthening financial, and human and institutional capacity across all sectors, particularly in health and education.
11. Review and reform legal frameworks to remove barriers to effective, evidence based HIV prevention, combat stigma and discrimination and protect the rights or people living with HIV or vulnerable or at risk HIV.
12. Ensure that sufficient investments are made in the research and development, and advocacy for new prevention technologies.

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