

NORTH – WEST UNIVERSITY

**TITLE: AN INVESTIGATION INTO THE KNOWLEDGE OF
JUNIOR SECONDARY SCHOOL STUDENTS ON HIV AND AIDS
AND THEIR SEXUAL BEHAVIOUR IN RAMOTSWA SECONDARY
SCHOOLS**

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DECLARATION

I ALBERTINAH MMADINTWA BOTLHOLE declare that An investigation into the knowledge of Junior Secondary School students about HIV and AIDS and their sexual behaviour in Ramotswa Junior Secondary Schools is wholly mine except where specific acknowledgements of the sources is clearly made. This has not been submitted before at any other university. It is being submitted to satisfy the requirements for the degree: Master of Education (Guidance and Counselling) at North West University, Mafikeng Campus.

Signed-----Date -----

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AYA	African Youth Alliance
ACHAP	African Comprehensive HIV and AIDS Partnership
HIV	Human Immuno-Deficiency Virus
CDC	Centres for Disease Control and Prevention
CJSS	Community Junior Secondary School
GDP	Gross domestic Product
NACP	National AIDS Control Programme
NDP	National Development Plan
NACA	National AIDS Co-Ordinating Agency
PACT	Peer Approach to Counselling by Teens
PMTCT	Prevention of mother to Child Transmission
RTI	Reproductive Tract Infections
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infections
UNAIDS	United Nations Joint Programme on HIV and AIDS
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
WHO	World Health Organisation

ABSTRACT

The study was aimed at investigating the knowledge that Junior Secondary School students have on HIV and AIDS and their sexual behaviour in Ramotswa Secondary Schools.

The increasing prevalence of HIV and AIDS in Botswana has prompted the researcher to focus on investigating the knowledge that Junior Secondary School students have on HIV and AIDS. Schools offer an appropriate setting for HIV and AIDS education, but looking at the way HIV and AIDS is spreading the capacity of regular classroom teachers to provide health and HIV and AIDS education with knowledge and comfort may be limited by lack of HIV and AIDS related training and by attitudes and values. Hence the researcher found it imperative to launch this study, which will unveil the knowledge that Junior Secondary School students have on HIV and AIDS and their sexual behaviour. This survey assessed HIV and AIDS knowledge of 120 students out of a total of 800 students from Ramotswa Secondary Schools.

The findings revealed that 80% of female students and 70% of male students have knowledge about HIV and AIDS. Nevertheless, while basic knowledge is considerably low, it is this knowledge that is most likely to affect behaviours and affect risk. Of a particular concern is confusion over the relationship between HIV and AIDS and serious lack of knowledge about how long one could be asymptomatic with HIV. The nature of the knowledge about HIV and its relation to AIDS is such that, it is likely that quite a few do not realise they are at risk.

Findings in the qualitative investigations were consistent. On significant difference between Junior Secondary female students and Junior Secondary School male students in their sexual behaviour, the inferential statistics: chi square was 4.9. This result means that there is significant difference between junior Secondary school female students and junior secondary school male students in their sexual behaviour.

CHAPTER 1

BACKGROUND AND ORIENTATION TO THE PROBLEM

TITLE

**An investigation into the knowledge of Junior Secondary School students
on HIV and AIDS and their sexual behaviour in Ramotswa Junior
Secondary Schools.**

1.0 INTRODUCTION

1.2 BACKGROUND INFORMATION

According to the Joint United Nations Programme on AIDS (UNAIDS) estimates globally, about 40 million people are currently living with HIV and AIDS. An estimated 5 million people became infected with HIV in 2003. Over the next decade, without effective treatment and care, they will join the ranks of the more than 20 million people who have died of AIDS since the first case in 1981. However, the vast majority of people have not yet acquired the HIV, enabling them to protect themselves against it (UNAIDS and WHO, 2004: 4).

According to UNICEF (2004:17) HIV and AIDS is one of the greatest threats to childhood in the world today. While most of the 38 million people living with HIV and AIDS are adults, the pandemic is increasingly recognized as having a devastating effect on childhood. Over 2 million children under the age of 16 are already infected with HIV, 15% of HIV positive infants die before they reach the age of two. It is estimated that 2.1 million children worldwide under the age of 16 are currently living with HIV. In 2003, about 630,000 children under the age of 15 became infected. About 1700 children become infected with HIV everyday in Southern Africa.

As a way of combating the HIV and AIDS pandemic, we must focus on young people. More than half of those newly infected with HIV today are between 13 and 24 years old. Yet the needs of the world's 1 billion young people are routinely disregarded when strategies on HIV and AIDS are drafted, policies made and budgets allocated. This is especially tragic as young people are more likely than adults to adopt and maintain safe behaviours. "Global success in combating HIV and AIDS must be measured by its impact on our children and young people. Are they getting the information they need to protect them from HIV? Are girls being empowered to take charge of their sexuality? Are infants safe from the disease? Are children orphaned by AIDS being raised in loving, supportive environments? These are the hard questions we need to be asking. These are the yardsticks for measuring our leaders. We cannot let another generation be devastated by AIDS" (Bellany, 2004: 12).

While adolescents become infected with HIV primarily through unprotected sexual activity, infants are infected through their mothers. Preventing HIV infection in women of reproductive age is therefore the most effective way to decrease the number of young children infected with HIV. Keeping adults alive is very critical. As a reduction in HIV prevalence the World Health Organization (WHO), UNAIDS, UNICEF and other partners saw it as major need to ensure that 3 million people have access to antiretroviral treatment by the end of 2005. Prevention of mother - to - child transmission (PMTCT), programmes that provide antiretroviral drug prophylaxis to pregnant women and to newborns at birth, can reduce the risks of transmission by half. Botswana is one of the 70 countries that UNICEF is currently supporting. Brazil has successfully implemented antiretroviral treatment for children and adolescents as an integral part of its national treatment policy (UNICEF, 2004: 20).

As NACP (2002: 15) states, Sub Saharan Africa is the worst affected region of the world, with 25 – 28.2 million people living with HIV and AIDS in 2003. HIV and AIDS pandemic is not only a severe development crisis affecting Sub

Saharan Africa; it is also the biggest threat to the region's health problem. In Botswana since 1985, when the first case of HIV and AIDS was diagnosed the rise has been alarming. The rate at which HIV and AIDS continues to increase is now almost beyond anyone's imagination. The government of Botswana has declared HIV and AIDS an emergency and has put a lot of effort into the fight against the disease. Botswana is among the 19 African nations that have established National AIDS councils or commissions personally chaired by the head of state to take charge of a multi- sectoral response to AIDS.

During the past three decades Botswana has made impressive strides in terms of health care. However, the advent of AIDS has threatened to reverse more of those gains. The transmission of the virus responsible for AIDS has reached alarming proportions in Botswana. As a result, AIDS mortality will significantly affect children and adults in their prime. Children suffer disproportionately as a result of AIDS. “ Young people are prominent in the figures of sexually transmitted infections (STIs) and HIV infection in Botswana and as such represent the major groups who are at risk in this area” (UNICEF, 2002:6). If young people do not have knowledge about HIV and AIDS then as part of the sexually active group they will die in large numbers. For one to be able to protect herself/himself from contracting HIV infection, she/he should have knowledge on its mode of spread and prevention.

It is difficult to determine the reasons for the rapid transmission of the virus in Botswana. However, it has been pointed out by UNICEF (2002: 7), that the major contributing factors are the high rate of sexually transmitted diseases and having more than one partner. In the absence of a proven cure the researcher found it necessary to investigate whether this tremendous rise is due to lack of knowledge about HIV and AIDS in young people. Programmes that address only epidemiological and behavioural factors without taking into consideration children who are particularly vulnerable to HIV infection, will have limited success.

1.3 PROBLEM STATEMENT

The main purpose of this study is to investigate the knowledge that junior secondary school students have on HIV and AIDS and their sexual behaviour in Ramotswa secondary schools. To know whether these young people have knowledge about HIV and AIDS is a concern to the nation, health workers, and AIDS activists. Lack of knowledge can predispose them to contracting HIV and AIDS because of false beliefs and faulty information from different sources. The study will be conducted taking into consideration sexual behaviour, age, gender, religion and culture as operational variables. Sexual behaviour is an operational variable since it seeks to find out different views and the situation at hand. Religion is categorised into Christianity, Islam, Hinduism, and others.

1.3.1 HYPOTHESES

1. Do Junior Secondary School students have knowledge about HIV and AIDS?
2. There is significant difference between Junior Secondary School female students and Junior Secondary School male students in their sexual behaviour.
3. There is a significant positive relationship between Junior Secondary School students' knowledge about HIV and AIDS and the use of condoms.
4. There is a significant positive relationship between teenager's sexual behaviour and their knowledge about HIV and AIDS.

1.4. SIGNIFICANCE OF THE STUDY

Studies of the knowledge about HIV and AIDS have been conducted globally and in Africa. Most, of the studies have been focusing on adolescents and women, thus the researcher felt that there is need to research on the 13 -16 year old children. The 11th International Conference on AIDS showed that these days' children engage in sexual activities early in life (UNICEF, 2004:8).

Hubley (2002:10) concurs by saying almost all African young people became sexually active as teenagers, including a high proportion of younger than 15 years old. Studies in many countries indicated a high proportion of over 20% of girls of 16 or less who have engaged in sex. At this young age, girls, are more biologically susceptible to contracting HIV because of their incomplete developed genitalia. Seropositivity rates for teenage girls are often shockingly high. Studies in Kisumu, Kenya, found HIV positivity rates among girls of 8% at age 15 rising to 33% at age 19. Rates among boys were substantially lower (UNICEF, 2004:78). Early sexual activity is a high risk factor for HIV infection. Many girls become infected almost as soon as they have their first sexual encounters, and female age specific incidence peaks in the early twenties, about 10 years earlier than for men. Research cited in Hubley (2002: 10) suggests that the age of her sexual partner is a major risk factor for a young woman. A partner of her own age is much less likely to infect her with HIV than one who is 5 to 10 years older. A typical infection scenario is that an older man infects a teenage girl, she will later infect a steady boyfriend or husband and possibly children too (Argenti and Waal, 2002: 40).

The study will help to give baseline information about whether children have knowledge about HIV and AIDS. This information should guide teachers when dealing with children on issues of HIV and AIDS.

Furthermore, the study will help curriculum planners to identify knowledge gaps pertaining to their courses, which deal with children and HIV and AIDS.

1.5. CHAPTER PLANNING

- Chapter 1 – Problem Orientation
- Chapter 2 – Literature Review
- Chapter 3 – Research Methodology
- Chapter 4 – Data Analysis and Interpretation
- Chapter 4 – Summary

1.6. PRELIMINARY REVIEW OF LITERATURE

a) WHAT IS AIDS?

The full name for AIDS is Acquired Immune Deficiency Syndrome. As the name implies it is a disease caused by a deficiency in the body's immune system. It is a syndrome because there are a range of different symptoms that are found. It is acquired because AIDS is an infectious disease caused by a virus that is spread from person to person through a variety of routes. This makes it different from immune deficiency from other causes such as treatment with anti cancer drugs or immune system suppressing drugs given to persons receiving transplant operations. AIDS is caused by the Human Immunodeficiency Virus (HIV), by killing or damaging the cells of the body's immune system, HIV progressively destroys the body's ability to fight infections and certain cancers (Matthews, 2003:25).

Connolly (2002:68) states that, the term AIDS applies to the most advanced stages of HIV infections. Centres for Disease Control and Prevention (CDC) definition of AIDS includes all HIV people having less than 200 CD4 count and T-cells per cubic millimetre of blood. (Healthy adults usually have CD4+ T cell counts of 1,000 or more.) More over, the definition includes 26 clinical conditions that affect people with advanced HIV disease. Symptoms of infections common in people living with AIDS include:

- Coughing and shortness of breath
- Seizures and lack of coordination
- Difficult or painful swallowing
- Mental symptoms such as confusion and forgetfulness
- Severe and persistent diarrhoea
- Fever
- Vision loss
- Nausea, abdominal cramps and vomiting
- Weight loss and extreme fatigue
- Severe headaches
- Coma (Hubley, 2002:47).

It has been found that there could be a period of up to 10 years being infected with the virus and developing the symptoms of AIDS. For each person with the symptoms of AIDS there could be more than 100 others who were carrying the virus but did not have the disease. These people are said to be HIV positive (Matthews, 2003:28).

HIV is the Human Immunodeficiency Virus; it is transmitted through blood, semen and vaginal fluids. Once in the body, the virus uses the CD4 cells. These cells are vital as they coordinate the body's immune system, protecting us from illness. As the amount of HIV in the body increases, the number of CD4 cells decreases, weakening the immune system even further (Soul City, 2004:5).

b) ORIGINS OF THE EPIDEMIC

In 1980 – 81 Dr Michael Gotteib of Los Angeles recognised a pattern among 5 young and previously healthy male patients who had contracted a rare form of pneumonia. Two of them had died and the other three were seriously ill. The disease usually affected people whose immune system was suppressed because of drugs or disease. However, it was hard to draw any conclusions beyond the similarities in age and lifestyle. These findings were published in specialists'

medical journal (Morbidity and Mortality Weekly Report) cited in Hubley (2002: 2) leading other physicians to announce similar findings. At about the same time, the Centres for Disease Control and Prevention (CDC), noticed an alarming rate of a rare cancer called Kaposi's sarcoma in otherwise healthy homosexual men. Scientists now know that Kaposi's sarcoma is just one of the many conditions that can develop at the onset of AIDS. In 1981 however, it was branded with the term "Gay Cancer" Further research led to it being linked to a wider condition, called GRID (Gay - Related Immune Deficiency) the new term showed that doctors believed the real problem to be in the immune system. By this time, late 1981, there was a growing sense of urgency: 422 cases had been diagnosed in the USA alone and 159 people had died (Hubley, 2002:2).

Some evidence suggests that HIV and AIDS began in Africa, although it is hard to detect exactly how and why. A few people even argue that it was passed to humans from monkeys, which were killed and then eaten. In 1981 – 83 Central African cases of life – threatening Kaposi's sarcoma, meningitis and throat infections (Which collectively became known as 'slim disease') seemed to be related to the international symptoms of AIDS. The evidence goes back even further. HIV has been recovered from a blood sample taken from a patient who was tested in connection with a 1976 Ebola virus outbreak. Less conclusive evidence dates back to 1959 and beyond (Connolly, 2002:10).

Badri (2000:120) refutes these claims that Aids began in Africa. He states that, American virologists, claimed to have found a very high percentage of over 50% of HIV positives in old Kenyan and Ugandan blood samples stored since the 60s and 70s. These results were widely spread and the western media found 'scientific' evidence to 'prove' American innocence and justify its predicted attitude. Very shortly after these results were publicised, it became clear that the testing methods were faulty and the findings were discredited since more refined testing techniques failed to duplicate them. Thus, no verification was found for the hypothesis that AIDS appeared in Africa before the United States. African doctors in hospitals have

recognised in the early 80s that AIDS was a new disease to them, and they were anxious to identify it.

In Kigali Rwanda and Kinshasa Zaire there was an increase in the disease cryptoccal meningitis in 1980. In Rakai district Uganda, a disease was found where young people dramatically lost weight and died. This became known as 'slim disease'. In 1983, this same wasting disease was reported in Zambia together with Kaposi's sarcoma. It seemed likely that these diseases in Africa were the same as this new disease AIDS in USA (Hubley, 2002: 5).

c) HISTORICAL BACKGROUND OF HIV AND AIDS

1914

Kaposi's sarcoma was first reported in Africa. The most common tumour found among the indigenous people, the disease remained within distinct boundaries in the open savannah of Central Africa. Kaposi's sarcoma would years later become one of the diseases directly related to HIV and AIDS (Hubley, 2002: 20).

Mid 1970 - 1980

HIV unknown and transmission not accompanied by signs or symptoms. Data suggests current pandemic started in mid 1970's. By 1980, HIV had spread to at least five continents – North and South America, Europe, Africa and Australia – and between 100 000 and 300 000 persons may have been infected (Lifeline North West, 2004: 11).

1980

Two women were admitted with pneumocystis to the same hospital as the Portuguese man in 1978. One of the women of Democratic Republic of Congo had sought treatment in the more advanced hospital in Paris after her African doctors could find no effective treatment for her. The second woman was

French but she, too, had lived in Democratic Republic of Congo. By the end of 1980, both these women had died (UNAIDS, 2003:69).

1981

In New York, Dr Alvin Friedman-Kien, a specialist, first reported symptoms indicating immune deficiency in young, homosexual man. The patient had a high fever, a number of purple spots on his legs and had lost a substantial amount of weight. The doctors were also diagnosing similar cases and were puzzled by the disease that seemed to only affect young, gay males (UNAIDS, 2003: 70).

1982

- In the course of the year, the three modes of transmission are identified: blood transfusion, mother-to-child, and sexual intercourse.
- There were reports that two homosexual men died of AIDS in South Africa. Disease was initially named:
- GRID (Gay-Related Immune Deficiency)
- ACIDS (Acquired Community Immune Deficiency Syndrome) and;
- CAIDS (Community Acquired Immune Deficiency Syndrome).
- AIDS (Acquired Immune Deficiency Syndrome) was finally adopted in July, in Washington(www.aidsmap.comandimmunesystem.htm/printable).

1983

Doctors at institute Pasteur in France reported that this unknown disease completely destroyed the human system by attacking the T-cells that are the response initiators of all immune systems (www.aidsmap.comandimmune system.htm/printable).

1984

Lifeline North West (2004:11) states that Dr Gallo identified the AIDS virus and established that this unknown disease completely destroyed the human

system by attacking the T-Cells that are the response initiators of all immune systems.

1985

- The scope of the growing epidemic becomes manifest. By 1985, at least one case of HIV and AIDS has been reported in each region of the world.
- Film star Rock Hudson becomes the first international icon to disclose he has AIDS.
- In United States, the Food and Drug Administration (FDA) approves the first antibody test and HIV screening of blood donations begins (<http://andscience.howstuffhaveoriginated>).

1981 - 1986

- In 1986, the first cases of AIDS reported in Nigeria.
- Journalists visiting certain regions of Uganda were told that between 4000 and 5000 people had died of AIDS in the period 1981 and 1986, almost 60% of sex workers in Kampala and Entebbe, the two main urban centres of Uganda, had full-blown AIDS or were HIV positive (<http://andscience.howstuffhaveoriginated>).

1987

By March, nearly 100 percent of the commercial sex workers tested in Kampala and Entebbe were HIV positive or had full-blown AIDS (Togni; 1997). In the same year, tests done on pregnant women at Kampala's Mulago Hospital showed that 70% of them were HIV positive. In some areas of Nairobi, a 95% HIV positive prevalence existed among commercial sex workers (Togni: 1997) cited in (Lifeline North West, 2004: 11).

1990

- More than 600 cases of AIDS reported in South Africa
- 27 AIDS – related deaths reported.

- 0.76% of pregnant women were confirmed HIV positive (Hubley 2002: 5).

1991

Only 57 cases of the disease were reported to the WHO, while the figure increased to 552 respectively for 1992 and 1993.

11% of the workforce in South Africa is HIV positive. The total of HIV positive people in South Africa constituted 17% of the population.

The first short-course regimen to prevent mother to child transmission is announced ([www.aidsmap.com/andimmune system.htm/printable](http://www.aidsmap.com/andimmune/system.htm/printable)).

1995

An HIV outbreak in Eastern Europe is detected among injecting drug users (Lifeline North West, 2004: 11).

1996

The joint United Nations Programme on HIV and AIDS (UNAIDS) is created. Evidence of the efficacy of Highly Active Anti-retroviral Therapy (HAART) is presented for the first time (UNAIDS, 2003:73).

1997

Brazil becomes the first developing country to provide anti-retroviral (UNAIDS, 2003:73).

1998

South Africa Deputy President Thabo Mbeki launched the Partnerships against AIDS' campaign to promote awareness and responsibility with respect to the disease (Lifeline North West, 2004: 11).

1999

- Providing free AZT to HIV positive pregnant women remains an issue for parliamentary debate.

- The first efficacy trial of a potential HIV vaccine in a developing country starts in Thailand.
- Botswana starts to provide anti-retroviral to HIV positive people.
- Rape numbers continue to rocket in South Africa.
- International Conference on AIDS and STD held in Lusaka, Zambia in September (www.aidsmap.comandimmune.system.htm/printable).

2000

The UN Security Council discusses HIV and AIDS for the first time (UNAIDS, 2003:73).

2001

UN Secretary-General Kofi Annan launches his call to action, including the creation of a global fund on HIV and AIDS (www.aidsmap.comandimmune.system.htm/printable).

2003

Roll out projects funded by the global fund on HIV and AIDS (Lifeline North West, 2004:10).

d) TRANSMISSION OF HIV

Among adults, HIV is spread mainly during sexual intercourse with an infected person. During sex, the virus can enter the body through the mucus linings of the vagina, vulva, penis, or rectum after oral sex. The likelihood of transmission is increased by factors that may damage these linings, especially other sexually transmitted diseases that cause ulcers or inflammation.

HIV can also be transmitted by contact with infected blood, most often by the sharing of needles or syringes contaminated blood containing virus. It can also

happen if you have a freshly open wound, which comes into contact with the blood of a person with HIV.

Mother - to - child transmission, children can acquire HIV from their mothers before or during birth, more especially if the mother was not taking drug Zidovudine (AZT). The use of antiretroviral drugs also reduces the rate of mother-to-child HIV transmission by 2/3.

The virus may also be transmitted from an HIV infected mother to her infant via breastfeeding. By sharing toothbrushes (the virus can spread through cuts in the mouth) and razor blades with a person who is HIV positive (Soul City, 2004:7).

e) IMPACT OF HIV and AIDS

AIDS has had a devastating effect on individuals, families and communities everywhere the disease has spread.

At the individual and family level AIDS lead to:

- loss of income-earning opportunities because of sickness and the need to care for the sick.
- money being diverted away from food, schools and other household expenditures to pay for medical costs, funeral expenses and caring for orphans.
- withdrawal of children from school to reduce expenditure and increase labour.

At the national level AIDS is having an impact on development through:

- loss of productive trained labour reducing productivity of key industries
- money being diverted from other health issues to treatment of AIDS patients

Sub-Saharan Africa is the highest hit in the world's levels of HIV and AIDS. A report from the World Bank in 1999 describes the crisis ahead:

“Tragically mass killers are nothing new in Africa. Malaria still claims about as many African lives as AIDS and preventable childhood diseases kill millions of others. What sets AIDS apart, however, it kills so many adults in the prime of their working and parenting lives, it decimates the workforce, fractures and impoverishes families, orphans millions, and shreds the fabric of communities” (www advocates for youth.org).

According to Connolly (2002:11) AIDS is having an impact on education, social and health services. Treatment of AIDS is estimated to take up 39% of the beds in Kenyatta National Hospitals in Nairobi, Kenya; over a quarter of the health spending in Zimbabwe and 2/3 that of Rwanda. In the first ten months of 1998, Zambia lost 1300 teachers because of AIDS – equivalent to 2/3 their amount output from teacher training colleges. The serious economic and social impact of AIDS was shown in a study revised by UNAIDS of commercial farms in Kenya. In one sugar estate one in four of the workforce was infected with HIV. Between 1989 and 1997 there was an increase in absenteeism, company spending on funerals increased fivefold, expenditure on health provision increased tenfold and productivity declined.

According to the “Botswana 2001 Secro – Prevalence Sentinel Survey ‘December 2001’” among pregnant women and men with sexually transmitted disease, HIV prevalence rate among pregnant women was 38.8% and 29.8% among the adult (15 – 49 years) population in 2001. High prevalence rates were reported among the younger age groups, the most sexually active and productive sectors of the population. The 2000 study on the ‘Macro – Economic Impacts of HIV and AIDS in Botswana’ by the Botswana institute for development Policy Analysis, indicate that HIV and AIDS poses a great threat to continued growth in Botswana, mostly because of its impact on the force,

saving and investment (Government of Botswana, National Development Plan 9:2003:47).

Recent studies in Botswana show that knowledge about the sexual transmission of the HIV virus is universal among the youth. This high knowledge however differs with the youth sexual behaviour. The study further revealed that most of young people in Botswana start sexual activity as early as 13 or 15 years old. The mean age at first sexual intercourse is 16 years. This included the researcher's target group. The researcher also found that knowledge about condoms was very high, particularly for those aged 15 - 24 years old. A majority of respondents stated a preference for health facilities to access condoms, with considerably fewer stating an alternative source (UNICEF/UNAIDS, 2004:67).

Ramaja conducted a study on "The level of knowledge among Gabane Private Senior Secondary School students"; and her study showed that students have knowledge about HIV and AIDS except the 17% who did not know about the causes and the 31% who did not know about the transmission of HIV and AIDS. The study also revealed that most of the students do not practice safe sex. The high level of knowledge that the students have about HIV and AIDS does not measure up with the rate at which they get infected with this disease. Ramaja further found that it is a point of attitude and life style that cause the youth to be infected with very high numbers, leading to an increase in morbidity and mortality rate in the country and also leading to an increase in health budget (Ramaja, 2000:13).

The government of Botswana has already held workshops on youth and HIV and AIDS in order to equip people who work mainly with youth organisations and institutions with knowledge about this disease and disseminated the information to the youth in different parts of the country. Many young people have learned about HIV and AIDS in school, suggesting that most teachers cover family and life education in the education system. Further, over half of female respondents aged 15

– 24 had also spoken to their parents (usually mother) about HIV and AIDS. The information about HIV and AIDS is made to reach the youth through the media. Some students said they have heard about HIV and AIDS issues from the radio and television.

1.6 RESEARCH DESIGN

The researcher will use the survey approach that will employ the use of questionnaire and interviews. This approach will be used because it saves time and financial resources. Analysis of data from close-ended questions is fairly easy. These will be used to find out the level of knowledge that junior Secondary School students have about HIV and AIDS and their sexual behaviour.

i. ETHICAL CONSIDERATIONS

The researcher will make arrangements with the authorities of the secondary schools in Ramotswa. Consent for conducting the study will be obtained from Botswana Ministry of Education. Each participant will be informed of the nature and aim of the study. Tools used will be shown and explained to the respondent. Participation will be voluntary. Questions will be designed to provide a degree of anonymity. Asking interviewees not to write names on the research instrument will ensure anonymity and confidentiality.

Brink (1996:39) postulates that ethical principles related to subject protection are a major part of all research documents, but there are other important principles as well. These other principles deal with such sensitive issues as honesty and integrity in conducting research, responsibilities of the researcher, sharing and utilising data, truthful reporting of results and assigning authority on scientific publication describing the research.

ii. POPULATION AND SAMPLING PROCEDURES

The sample will consist of one hundred and twenty (120) students out of eight hundred (800) students from all the four junior secondary schools in Ramotswa, which is 15% of the student's population. Thirty (30) students will be used from each school hence the use of random sampling. The population of the study will be 120 ($n = 120$).

The population of the study will consist of teachers and students. A total of eight teachers will be selected from four junior secondary schools out of 60. Teachers and students will be selected using simple random sampling. This procedure provides equal opportunity of selection for each element in a population. 2 teachers will be selected per school. The researcher shall ensure proportional presentation of both male and female students.

1.7 DATA COLLECTION

To make sure that administrators are part of this research permission to carry out research will be sought from school heads and the researcher will administer questionnaires on one appointed afternoon. The researcher will administer the questionnaire at the various junior secondary schools in Ramotswa.

a. INSTRUMENTS

The researcher will use questionnaires and closed, fixed response interviews to collect data. Questionnaires cover a wider geographical area than any other data-collecting instrument, which allows a bigger sample size. They provide a permanent, verifiable record of the data collection effort. Closed, fixed interviews are simple to be analysed and responses can be directly compared and easily aggregated. Furthermore, many questions can be asked in a short time.

Questionnaires will consist of the following type of questions: Strongly Agree, Yes/No to a situation whereby students leave questions unanswered.

1.8 DATA ANALYSIS AND INTERPRETATION

The analysis will employ both the quantitative and qualitative methods. Quantitative means to measure on some numerical basis and this data is often objective. Validity is often low in a quantitative approach while reliability is high. Qualitative approach on the other hand, emphasises meanings, experience, and description. It also gives richer results and more realistic information (Mhlanga and Ncube, 2003:14). Descriptive statistics will be used. Further analysis would be done using inferential statistics. The respondents to the questionnaires will be analysed into frequency counts, which will be converted to percentages for easy interpretation by the researcher. The information will be displayed in a way that it will carry the message over to the reader in clear and simple terms, for example, easily understandable graphs and tables and the use of simple language.

1.9 LIMITATIONS

The researcher will take a sample from a small area, viz Ramotswa secondary schools which would be a representation of Botswana secondary schools. Therefore, it will not give a fair representation of knowledge about HIV and AIDS of junior secondary students of Botswana secondary schools. The time period may be too short for data collection purpose since it will be done in Ramotswa while the researcher is staying in Mafikeng. Another limitation is that, this study will include students from different social backgrounds and religions and treat their behaviour as the same. Since sex is a taboo in Setswana culture, children might have discomfort in giving information for fear that their parents might get to know or hear what they said. Due to the stigma attached to HIV and AIDS and the intimacy of the questions, the informant might give some incomplete or bias answers.

1.10 DEFINITION OF TERMS

AIDS

Acquired Immune Deficiency Syndrome (AIDS), a collection of symptomatic conditions caused by the Human Immunodeficiency Virus. AIDS develops once HIV has weakened the immune system to such an extent that illness easily and regularly attacks the body.

‘A’ means acquired, meaning that the virus is not spread through causal or inadvertent contact, such as flu. In order to be infected, they have to be directly exposed to be virus. ‘I’ and ‘D’ stand for immunodeficiency. The virus attacks a person’s immune system and makes the system less capable of fighting infections, making the immune system deficient. ‘S’ is for syndrome, because AIDS is not just one disease that set in as the immune system fails (Whiteside and Sunter, 2000:46).

HIV

Human Immunodeficiency Virus (HIV) is a virus which attacks the body’s immune system. HIV is a particular type of virus, a retrovirus, and more specifically, a lent virus, a particular type of retrovirus. Many viruses cause acute infections that are cleared by the immune system leaving lifelong immunity as the only reminder that the infection ever occurred. HIV infects CD4+ cells, a component of immune system. HIV slowly destroys the immune system reducing the body’s ability to fight illness. When the immune system weakens, a person becomes vulnerable to diseases, which normally would not have affected him/her (Connolly, 2002:6).

HIV to AIDS

Loewenson and Whiteside (1997) in (Whiteside and Sunter 2000:13-14) explain what happens during the transition period between HIV and AIDS as follows: “As the body’s defence system weakens symptoms appear, alone or severally. They include: chronic fatigue or weakness, diarrhoeas, minor skin infections, respiratory problem, sustained weight loss, persistent swelling of the lymph nodes,

deterioration of the central nervous system. As the immune system weakens more severe diseases manifest themselves, such as Cryptococcus meningitis, tuberculosis, pneumocystic, pneumonia and cancers...this more severe phase can continue for up to 2 years before death, with progressively longer periods of illness that may be inter-spersed with periods of remission.

HIV POSITIVE

When HIV antibodies present in the blood, presence of antibodies confirm the presence of the HIV virus. Being HIV positive means that at some point exposure to the virus and infection with HIV have occurred. It does not mean that an individual did not have AIDS or will definitely develop AIDS in the future. Being HIV positive does not mean that an individual is immune to the virus. Being HIV – positive does not mean that an individual can no longer have sex, it does mean however, a major change in the way an individual live his or her life (Matthews, 2003:20).

CD4+ CELL

A white blood cell (lymphocyte) with CD4 molecules on its surface. A CD4-positive (CD4+ cell). Each type of white blood cell plays a specific role in the immune system. The CD4 cell modulates the immune response to an infection through a complex series of interactions with ANTIGEN presenting cells. The CD4 cell also known as the T-helper T. Cell (Smith, 2001:22).

CD4 CELL COUNT

The number of CD4 cells per cubic millimetre of blood. This measurement is the most commonly used surrogate marker for assessing the state of an HIV-infected patient's immune system. The CD4 cell count frequently indicates the stage of HIV infection. As the count declines the risk of developing opportunistic infections increases. The normal range for CD4 cell counts is 500 to 1500 and patients should be tested every six to 12 months if counts are higher than 500, if the counts are lower, testing every 3 months is advised (Smith, 2001:24).

SEXUAL BEHAVIOUR

Sexual activities, ranging from touching, caressing and looking to teasing, kissing, massaging, licking, sucking and penetrating. What an individual does during sex, what an individual feels about her or his sexuality, how she/he wants to explore it who he/she is with, how much love and understanding he/she feels, how comfortable all parties involved are with their bodies, how each party feels that day are matters of personal preference and indemnity. Sexual behaviour is also a reflection of sexual drives and satisfactions both of which generally evolve throughout an individual's lifetime (Watstein and Chandler, 1998:18).

CONDOM

It is a thin rubber tube, which is rolled onto the erect penis before sexual intercourse to prevent direct skin – to – skin contact with the vagina and the exchange of body fluids between the man and the woman. Condoms provide protection against the spread of HIV and other STIs and prevent pregnancy; when the man ejaculates, his semen is caught in the teat at the end of the condom thus preventing them from entering into the woman's vagina (Randy and Pearl, 1997:77).

KNOWLEDGE

Knowing the 'Facts' about HIV and AIDS

The facts, information, understanding and skill that a person has acquired through experience or education (Crowler, 1995, 656). The ability to remember or recall or recognise – ideas, facts, in a situation in which certain cues signals and clues are given to bring out whatever knowledge has been stored (Gage and Berliner, 1998:42).

EPIDEMIC

Occurring in many more people than would be statistically expected during a given time. (Generally used of a disease the term may also be applied to injuries or other events that endanger public health) also, a disease that so occurs, we say there is an AIDS epidemic because the disease is spreading very quickly to many segments the population. District from 'endemic', which indicates restriction to a particular place or population. A disease is an epidemic when it affects a large number of people within a population, community or region. An epidemic is an outbreak of an infectious disease that affects a lot of people in a certain area (Conlon, 2004:73).

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

In this chapter, literature review has covered the following: the AIDS pandemic global context, sub- Saharan Africa context, Southern Africa context, South Africa and Botswana context. It has also covered the following about HIV and AIDS: how HIV and AIDS is spread and how it is not spread, common sicknesses of people with HIV and AIDS, culture and HIV and AIDS, prevention, reducing infection, the Islamic view of HIV and AIDS prevention, the impact of HIV and AIDS, how do HIV and AIDS affected households cope in Africa, impact on children, macro economic impacts and the impact of developments on HIV and AIDS. In addition it has covered the impact on life expectancy, the economic impact and the future impact of HIV and AIDS. In addition it has covered factors influencing HIV and AIDS, knowledge about HIV and AIDS, condom use and sexual behaviour.

2.1 THE AIDS PANDEMIC GLOBAL CONTEXT

According to the Joint United Nations Programme on AIDS (UNAIDS, 2004:10) estimates, globally, the total number of people living with HIV and AIDS rose in 2004 to reach 39.4 million – 44.3 million. The global epidemic killed 3.1 million (2.8 million – 3.5 million) people in the past year. An estimated 5 million people became infected with HIV and AIDS in 2003. Over the next decade, without effective treatment and care, they will join the ranks of the more than 20 million people who have died of AIDS since the first case in 1981. More than half of those newly infected with HIV today are young people. Young people are the centre of the global HIV and AIDS pandemic. They are also the world's greatest hope in the struggle against this fatal disease. By 2003, 15 million children under the age of 18 had been orphaned by HIV and AIDS: just 2 years earlier, the figure stood at 11.5 million, 8 out of 10 of these children live in sub- Saharan Africa. It is estimated that

in 2010, over 18 million African children under the age of 18 will have lost one or both parents to HIV and AIDS, and the number of orphans will increase by 2 million over the same period (UNICEF, 2004:89).

2.2 SUB SAHARAN AFRICA CONTEXT

Sub- Saharan Africa remains by far the worst – affected region, of the world. The total number of people living with HIV and AIDS in sub- Saharan Africa by December 2004 is between 23.4 million – 28.4 million. About 2/3 (64%) of all people living with HIV are in sub – Saharan Africa. The epidemics in sub – Saharan Africa appear to be stabilizing generally, with HIV prevalence at around 7.4% for the entire region (UNAIDS and WHO, 2004). Though sub – Saharan Africa has the highest level of people living with HIV and AIDS, transmission has been mainly through heterosexual sex and blood transfusions. In sub – Saharan Africa, the HIV and AIDS burden has fallen on women and their babies they are the most affected (Bellany, 2004:23).

UNAIDS and WHO (2004:14) states that the overall 55% of infected adults in sub – Saharan Africa are women, which means more than six HIV positive women for every five HIV positive men. Recent studies reviewed by UNAIDS in several African populations found that girls aged 15 – 19 are around 5 or 6 times more likely to be HIV positive than boys their own age. This is probably due to practices such as ‘sugar daddies’ where older men buy sexual favour from young girls.

2.3 SOUTHERN AFRICA

Southern Africa remains the worst affected sub – region in the world, with data from selected antenatal clinics, in urban areas showing HIV prevalence surpassing 25%, having risen sharply from around 5% in 1990 (UNAIDS, 2004:56).

2.4 SOUTH AFRICA

In recent years the burden of HIV and AIDS has shifted to Southern Africa especially South Africa. South Africa continues to have the highest number of people living with HIV in the world. An estimated 5.3 million [4.5 million – 6.2 million] people living with HIV end - 2003 in South Africa – 2.9 million [2.5 million – 3.3 million] of them women (Aids. org. [www. immunet.org](http://www.immunet.org)).

Reproductive health Research Unit and Medical Research Council conducted a comprehensive study on woman and they found that prevalence levels are still increasing in all age groups, except for pregnant women older than 40 years of age. However, prevalence levels among pregnant women aged 15 – 24 years have continued to rise – from 23.1% in 2001 to 24.3% in 2003 (UNAIDS, 2004:40).

Another survey was on youth and sexuality; it revealed that HIV prevalence to be comparatively low among 15 – 19 years olds, at 4.8%. In this age group, HIV infections are massively concentrated among women. About one in four (24.5%) women surveyed was HIV- positive, compared to one – in thirteen (7.6%) men. More than (77%) of young South Africans living with HIV are females a discrepancy that only begins, to fade among South Africans 30 years older. Similar to young people around the world, many young South Africans (62%) who learn they are HIV positive never believed that they are at risk of contracting the virus (Reproductive Health Research and Medical Research Council, 2004) in (UNAIDS, 2004:56).

Analysis of South Africa, death registration data shows a rise in the total number of adult deaths in the past 6 years – an increase of more than 40% and, in the case of women aged 20 – 49 years, an increase of more than 50% once population growth and possible improvement in death registration are taken into account (Bradshaw, 2004:68). Mpondombili project, which is

aimed at improving young people's ability to use 'dual protection' against HIV infection and unwanted pregnancy, carried out a study in Kwa Zulu and Natal. The study found that HIV prevalence among antenatal women in South Africa was 37.5% in 2003. The 2003 Love life national youth survey found that 14.1% of youth 15 – 24 years old prevalence was 4.8% among men and 15.5% among women in this age group (www.sexualhealthexchange.org).

2.5 BOTSWANA

Botswana is a landlocked country with an estimated population of 1,667,407 and a population growth rate of 2.5%. Four countries border Botswana: Namibia, South Africa, Zambia and Zimbabwe. There has been a sustained improvement across most health indicators in Botswana over the last two decades. In common with other developing countries, Botswana has a young population structure. HIV and AIDS is one of the most serious urgent problems facing Botswana because Botswana ranks at the highest in HIV prevalence in the world with 160 000 women aged 15 - 49 being HIV positive (UNDP, 2003:67).

Existing information, from surveys conducted in health facilities that HIV is present in every geographical area in Botswana, and although HIV and AIDS is often discussed as an urban disease, all districts, no matter how remote are experiencing a rapid increase in HIV prevalence. According to NACA surveillance report (2003:28) in the Northern district of Chobe and the Northern mining town of Selibe Phikwe the rate of 15 – 49 HIV positive as of 2000 has already reached 50%. This is double the rate of less than 10 years ago. Botswana population without AIDS is projected to be 2.1 million by 2010; with AIDS the population will only be 1.5 million (UNDP, 2000:27).

2.6 HOW HIV AND AIDS IS SPREAD

Jackson (2002:81) states that HIV is a sexually transmitted infection (STI), also passed on through direct - blood contact such as through contaminated needles or blood transfusion and from mother to baby. HIV lives and reproduces in certain cells in human blood. To cause infection, the virus must pass from one person's bloodstream into another's, either through other body fluids such as semen or vaginal fluids. HIV is found in significant amounts in blood, semen and vaginal fluids in small amounts in saliva, urine, vomit and other fluids that may contain traces of blood. Breast milk can contain sufficient virus to transmit infection to a baby, although the majority of babies are not infected through breastfeeding. Table 1.1 shows the amounts of virus contained in body fluids and whether it can spread the infection or not.

Table 1.1 The distinction between fluids shown to contain tiny amounts of virus and those that contain sufficient virus to spread the infection.

BODY SUBSTANCE/ FLUIDS	KNOWN TO CONTAIN VIRUS OR ANTIBODIES	KNOWN TO SPREAD HIV
Blood	YES	Yes, high risk
Semen	YES	Yes, high risk
Vaginal/cervical fluid	YES	Yes, high risk
Breast milk	YES	Medium risk
Saliva Urine Faeces Vomit	YES	Low risk, but infection can occur through the presence of traces of blood
Internal Fluids; Cerebrospinal (around brain/ spinal cord) Synovial (around joints) Amniotic (surrounding the fetus) Pleural (around the lungs)	YES	Small risk to health staff

Tears	YES	No risk identified
Sweat	POSSIBLE	No risk identified
Skin	NO	No risk identified
Hair		
Breath		
Coughs and sneezes		
Nails		

Hubbleby (1990:32) cited in Kasule (2000:50) concurs with Jackson by saying HIV is present in the blood, semen and vaginal fluids. It is present in the body tissues and organs as well as the cerebra-spinal fluid in the spinal cord and brain. It can sometimes be found in tears, saliva and breast milk although these last three are not considered significant routes of infection.

2.7 HOW HIV and AIDS IS NOT SPREAD

Rogers (2001:18) in Conlon (2004:90) states that, the lack of certainty about some aspects of HIV transmission has created many fallacies. There can also be confusion about what contains the virus but doesn't transmit it to others. The following activities (left) and uses of objects (right) come within the no risk categories:

Hugging	baths/showers
Kissing	toilet seats
Sneezing	door knobs
Coughing	office equipment
Spitting	books
Shaking hands	crockery
Playing contact sports	glasses
Insect bites	cutlery
	Towels
	Swimming pools

The above view is supported by (Hubley 1990:33) and (Garwood 1995:12) cited in Jackson (2002:48) when they state that, HIV is not spread by mosquito bites, kissing, toilet seats, shaking hands telephones, sharing cups, hugging and coughing.

2.8 COMMON SICKNESSES OF PEOPLE WITH HIV AND AIDS

HIV slowly damages a person's immune system. The immune system is part of the body that fights germs. These germs make us sick. With a damaged immune system, the body is not properly protected against germs. This is why people living with HIV can get sick more easily and more often.

The following are some of the common sicknesses of people with HIV and AIDS:

- Chest pain and coughing
- Night sweats and fever
- Loss of weight and a runny tummy
- Painful swallowing and sore in or around the mouth
- Bad headaches
- Not being able to see properly
- Tiredness

2.9 CULTURE AND HIV AND AIDS

The influence of culture on sexual behaviour is complex at both individual and societal levels. At the individual level, many men and women publicly endorse the strict morals norms of their culture while at the same time, privately behaving quite differently. Sex is said to be the area of human experience most lied about. In Swaziland for a man to have multiple female partners is a sign of prestige that reaches its peak in the king, who traditionally has numerous wives selected at

special ceremonies where young women display their attractiveness (Soul City, 2004:67).

2.9.1 HARMFUL CULTURAL PRACTICES

With regard to HIV and STI transmission, practices and traditions that are risky include:

- The practice of the levirate (inheritance of a wife by the deceased husband's brother), for instance in Zambia and Zimbabwe. The woman is supposed to become the brother's wife, even though her husband may have died of AIDS and she has HIV. In Zambia, the widow has to sleep with the brother in a linked cleansing ceremony.
- Initiation rites in parts of Malawi involve adolescent girls being secluded for training to be a wife, training that includes having sex with an anonymous man selected from the community.
- The practice of *dipo* in Krobo culture in Ghana, also an initiation ceremony into womanhood, involves initiating sexual activity (SAFAAIDS, 2002:13).

2.9.2 HARMFUL CULTURAL ATTITUDES AND VALUES

- Polygamy, common in many countries, is particularly risky if men are allowed to have many girlfriends while seeking further wives and if condoms are not used, or if wives seek extramarital relationships. If any partner becomes infected, the others are at high risk of infection during the window phase.
- The expectation in parts of Zimbabwe that a woman uses the same cloth to clean herself and the man after sex, even if they used a condom for sex itself.

- The idea that sex is something to do and not to talk about, least of all between sexual partners (Berer and Ray, 1993:56) cited in Jackson (2002:56).

In addition, various myths and incorrect information arise, such as:

- The belief that the first sexual act with a new partner cannot cause pregnancy or infections.
- The view that wives cannot contract STIs from unfaithful husbands because STIs do not affect “nice” women.
- Fears that condoms actually spread HIV, or that they can become stuck in the vagina (Ranging, 2001:78) in (<http://woman aids.org>).

2.10 RELIGION AND SEX EDUCATION

Some powerful religious and faith groups still oppose sex education despite the evidence in favour of it, and vehemently oppose condom use. In their efforts to discredit condoms and focus solely on abstinence and monogamy, some condemn the use of condom as unethical; some undermine using condoms as unsafe and few go so far as to discredit condoms through misinterpreting data and down right manipulation.

Faith groups need to decide whether they are more concerned to save lives or to prevent sex that they consider immoral, even at the price of higher infection rates and death - death not only among the immediate “immoral” risk-takers but also among monogamous spouses and babies. They need to review the research data objectively and ask themselves again what strategies can achieve the best results (Jackson, 2002:57).

According to Snyder (2000:56) Uganda is one of the few countries in sub-Saharan Africa with some success in reducing HIV prevalence levels – although the published drop from a peak of 28% among antenatal women in the early 1980s to

an estimated 8% today even though they may exaggerate the success. Yet Catholic Church officials in the country still oppose the condom use that has been significant factor in curbing the epidemic.

Some Muslim leaders in Uganda apparently take a more pragmatic stance, drawing back from actively promoting condoms but not condemning their use. The Anglican Church goes further: “ It is the duty of religious leaders to sensitise their flock on AIDS and one cannot be involved in AIDS prevention without talking about condoms,” in the words of cleric Sam Ruteikara Myanja (2000:68) cited in (Jackson, 2002:70).

With regard to condom use and sex education, maintaining an open dialogue and exploring arguments objectively rather than through heated argument may help persuade faith leaders to review the evidence and reconsider their views.

2.11 PREVENTION

(Murangi 1999:70) in Mutangadura (2000:12) indicate that disseminating information can prevent AIDS. If information on issues related to AIDS is communicated effectively, many people would become aware of the danger of HIV and AIDS. This would help to minimize the spread of the disease.

The following are ways of minimizing the spread of the disease:

- Be monogamous and faithful to one partner, this reduces the rate of being infected by multiple partners.
- Abstain from illegal sexual activities; this is the most effective way of minimizing the risk of contracting HIV and AIDS.
- Minimise risks, to avoid infection, practice safer sex by using a condom. It is essential to learn how to use condoms effectively and to dispose of them carefully.

Sabatier (1998:52) indicates that so far, education is the AIDS medicine we have. "Spread it around", says an AIDS worker in Brazil. Until a vaccine is developed, preventing further spread of the HIV virus can be done only by preventing transmission.

There are some actions, which only governments or health authorities can take and they depend on adequate funds and medical staff:

- Ensuring that every citizen, including the young receives information on HIV and on how it is spread
- Ensuring adequate availability of condoms
- Making free, confidential HIV testing and counselling available
- Ensuring that people with HIV and AIDS, or those who think they might be at risk, are protected from discrimination so that they feel free to seek the help they need.

Sabatier (1998:60) further stresses that all those actions are largely dependent on governments, but most prevention hinges mainly on the responsible actions of the individual.

2.12 REDUCING INFECTION

Reducing infection means making each act of unprotected sex less risky by reducing the amount of virus in the genital secretions. Interventions to reduce infectivity are described below:

1) STI TREATMENT

Sexually transmitted infections (STIs) and some reproductive tract infections (RTIs) in women, increase the risk of HIV transmission many times, for a number of reasons. In particular, several infections cause genital lesions or sores through which the virus can readily spread. Further, the presence of a genital

infection, with or without sores, increase the number of CD4 cells in the genital area, the cells that the virus primarily targets (Jackson, 2002: 102).

2) MALE CIRCUMCISION

Increasing evidence shows that male circumcision, the removal of the foreskin from the penis, confers some protection against HIV infection in men, apparently reducing the risk by about half or more. This is highly significant and may confer as much protection as the first HIV vaccines when they are available (Jackson, 2002: 102).

3) INDIVIDUAL BEHAVIOUR CHANGE

The most certain ways to prevent HIV acquisition through sex are not having sex, or staying faithful to one uninfected lifelong monogamous partner. There are ideals that merit support. Consistent condom use also reduces infection risk substantially. Strategies to provide condoms and promote their use are quite compatible with promoting abstinence and fidelity, and both should be accepted as elements of overall strategies to slow the spread of HIV and STIs Sabatier (1998: 80).

4) CONSISTENT CONDOM USE

To date, consistent condom use is undoubtedly the most effective way to reduce the risk of HIV (and other STIs) transmission in risky sexual encounters. In addition to male condoms, female condoms are now on the market (sometimes marketed as femidoms) (Jackson, 2002:106).

5) FEWER SEXUAL PARTNERS, MONOGAMY

The greater the number of sexual partners, the greater the probability that one or more of them has HIV. Therefore reducing the number of sexual partners can help reduce risk if it means only having sex with partners likely to be at low risk of infection (Leik, 1989: 411) cited in Rogers (2001:60).

6) NON-PENETRATIVE SEX AND ABSTINENCE

If a couple avoids penetrative sex, then the risk of HIV transmission is largely removed. Semen on healthy unbroken skin cannot lead to infection.

7) MICROBICIDES

Microbicides are creams, gels, foams or patches of film that dissolve in the vagina and kill HIV and other micro organisms. They are inserted before sex, and can be used with a condom to increase the degree of safety (Faleyimu et al, 2001:21).

2.13 THE ISLAMIC VIEW OF HIV AND AIDS PREVENTION

Some religions such as Islam have their own way of preventing HIV and AIDS infection. According to Badri (2000:246) Muslims have a distinct culture that prohibits them from HIV and AIDS infection. This serves as a preventive measure against infection of the deadly virus. Among other things, he talks of Islam's balanced attitude to sex, which shields the society from retaliatory sexual revolutions. Islam, like Christian religions, strongly prohibits adultery, sodomy and other forms of fornication. However, Islam does not perceive sex as an evil, unavoidable pleasure for procreation. Instead, they honour the pleasure of sex as a great gift from God and a source of his pleasure and reward if practiced in the sanctioned manner.

Badri (2000:248) further states that Islam strictly prohibits homosexuality, adultery, anal intercourse and vaginal sex during menstruation. Anal intercourse with the wife is treated as “minor sodomy” and one of the greatest sins. Islam strictly prohibits the intake of alcohol and drugs. “Alcohol dissolves moral restraints so that, after a few drinks, people will not remember to use condoms or to avoid risk groups.” Islam sternly bars the intake of *kharm*, an Arabic word that literally means any substance, which covers or curtails the mind. That is, any substance which intoxicates its user, whether it is taken as a drink, inhaled, eaten, smoked or taken in any other way. For this reason, no practicing Muslim would take *kharm*, and even among the general population, modern Muslims have the lowest rate of alcohol abuse and the highest rate of abstinence with respect to all kinds of intoxicants.

Another Islamic injunction which is inhibitive of HIV infection is the *Sunnah* of male circumcision. According to the Muslims, uncircumcised men are at a high risk of being infected with the AIDS virus and other STIs as compared to circumcised men. The inner lining of the erect penis in an uncircumcised male can represent as much as half of the surface of the shaft. This will increase the chances of a virus in the exposed soft skin, and increase the risk of infection. This preventive measure has also proved to be effective even in African tribes practicing male circumcision (Badri, 2000:248).

He further suggests that the benefits of *Ghusl al Janabah*- this is the thorough washing of the genitals and the whole body after engaging in sexual intercourse. This is a compulsory command without which a Muslim cannot pray, read the Holy Qur'an or even stay in the Mosque. As is known, HIV is very weak, and such washing is certainly to be of help, as washing of the genitals after sexual intercourse is believed to protect against sexually transmitted disease.

2.14 THE IMPACT OF HIV AND AIDS

According to UNICEF and UNAIDS (2004:65) many countries in Sub-Saharan Africa have failed to bring the epidemic under control. Nearly two-thirds of the world's HIV-positive people live in Sub-Saharan Africa, although this region contains little more than 10% of the world's population. There is a significant risk that some countries will be locked in a vicious cycle, as the number of people falling ill and subsequently dying from AIDS has a tremendous impact on many parts of African society, including population growth, educational sector, women and girls, demographic, household sector, and macro-economic aspects.

Jackson (2002:22) states that because AIDS affects primarily the productive age range in the population, where the epidemic is most serious it affects productivity and production, and household, community, sectoral and national economic security. The main impacts are felt initially at household and community level. It has taken longer for the macro-economic impacts to be recognized at different levels, but in hard-hit countries and regions these impacts are becoming increasingly clear. Also clear is that the impacts will be felt for decades.

There are many countries outside Africa, especially in Asia and Eastern Europe, where [HIV and AIDS] is spreading at an alarming rate. But nowhere else has AIDS yet become a threat to economic, social and political stability on the scale that it now is in southern and eastern Africa... Last year, AIDS killed about 10 times more people in Africa than did armed conflict. Kofi Annan, UN Secretary-General (2000:7) cited in (Jackson, 2002: 23).

Gaolatlhe (2005:20) had this to say about the impact of HIV and AIDS; "among the epidemic challenges facing Botswana now and over the past two decades is HIV and AIDS. Botswana has the most severe HIV and AIDS epidemic in the world. The rate of HIV infections continue to rise to a point which is now almost beyond anyone's imagination. Surveys of HIV infections rates among pregnant women,

which are used to track epidemic, have shown a sustained rise in infection level to an, estimated 38.5% nation wide 2000. Millions of people worldwide are now infected with the virus. But such numbers are almost meaningless in terms of any understanding of the impact of HIV and AIDS on the infected individuals, their families' supporters, or caregivers. AIDS has had a devastating effect on individuals, families and communities everywhere the disease has spread. Unfortunately, HIV and AIDS principally affects the most productive age groups of the population. This, in turn, has an impact on the labour force by resulting in a shortage of skilled labour due to absenteeism, physical weakness, emotional stress and death. Apart from the impact on labour force, AIDS is also a burden on hospital resources. The inadequacy of health resources, coupled with the shortage of workers, will further compound the problems of caring for AIDS patients Gaolatlhe (2005:20).

Botswana has a strong record in economic and human development, from being among the poorest countries in Africa at independence; the country has the highest per capita GDP on the continent due to its substantial mineral wealth." Gaolatlhe (2005:40) states that the impact of HIV and AIDS is threatening the economy of the country, during 2005 budget speech, the minister of finance Mr. Balidzi Gaolatlhe said the ministry of the state president has been given an estimate of P1.11 billion which is the largest share of the proposed development budget. This money is mainly accounted for the HIV and AIDS Programmes. The ministry of health has been allocated the third largest share of P606 million or 12% of the total development budget. This ministry has been given this share to intensify the challenges posed by HIV and AIDS (Government of Botswana, 2005:47). This money is more than other shares that has been given to other ministries because of the HIV and AIDS scourge that has hit the country.

2.14.1 POPULATION GROWTH

The rate of population growth depends on the fertility (birth) rates and mortality (death) rates in a population, and on migration. The rate of population growth is declining in countries hard hit by AIDS, especially in countries such as Botswana, South Africa and Zimbabwe where fertility rates had already been reduced. According to Jackson (2002:23) by 2010, growth rates in South Africa and Zimbabwe are projected to be reducing by 75% or more and in Kenya by 66%. In Nigeria, growth rates are projected to be 40% lower than without AIDS. These estimates and projections are negatively optimistic: some projections suggest negative population growth in Botswana and Zimbabwe for a limited period early in the 2000s, followed by a partial recovery. The Minister of Health and Child Welfare in Zimbabwe is also on public record as saying that the country in 2001 may already have had zero population growth, although net out-migration has contributed to this, as well as AIDS.

Government of Botswana (2005:34) states that the Central Statistics Office (CSO) recently completed the Botswana AIDS Impact Survey 11, which is based on a representative sample of the whole population, and consequently provides comprehensive picture. The overall incidence of the disease among those 18 years of age and older is 17.3%, while incidence for the population aged 15 to 49 years is 25.3 %. Far too many people are suffering now. Minister of finance and Development planning said that they are going to redouble efforts to extend the anti – retroviral programme. Gaolatlhe (2005:40) says, the government introduced the Short Term Plan of Action for orphans, in an effort to mitigate the impact of HIV and AIDS among children. Under this programme, Government provides a food basket, clothing, school uniforms and other necessities to orphans. The trends in the number of children registered and supported since 1999 show that the number of orphans supported under the orphan care programme has more than doubled, from 21 109 in 1999 to 47 725 in 2004. The programme is also supporting 4 713

vulnerable children, many of whom were identified through the Home Based Care Programme (Government of Botswana, 2005:34).

HIV and AIDS will lead to a declining growth rate in the number of children, with indications that the number of children aged 5 – 9 years is already declining. As the current, smaller cohort of younger children has been heavily affected by HIV and AIDS grows older, growth in the number of children in the older age bands that they enter will fall. Enrolment rates may also be substantially influenced by HIV and AIDS impacts on the household of potential students. The HIV prevalence epidemic is projected to cause a decline in the number of children in Botswana over the next 15 years.

Figure 2.1: Projected number of children and young people, 2000 - 2015 (no AIDS scenario.) (UNAIDS, 2004:14)

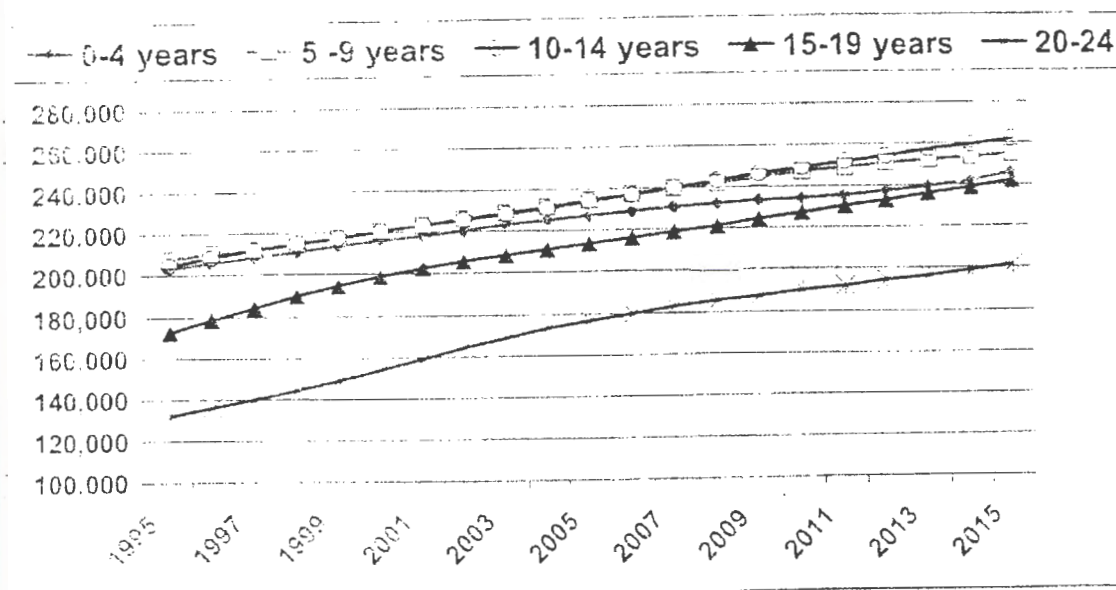


Figure 2.2: Projected number of children and young people, 1995- 2015

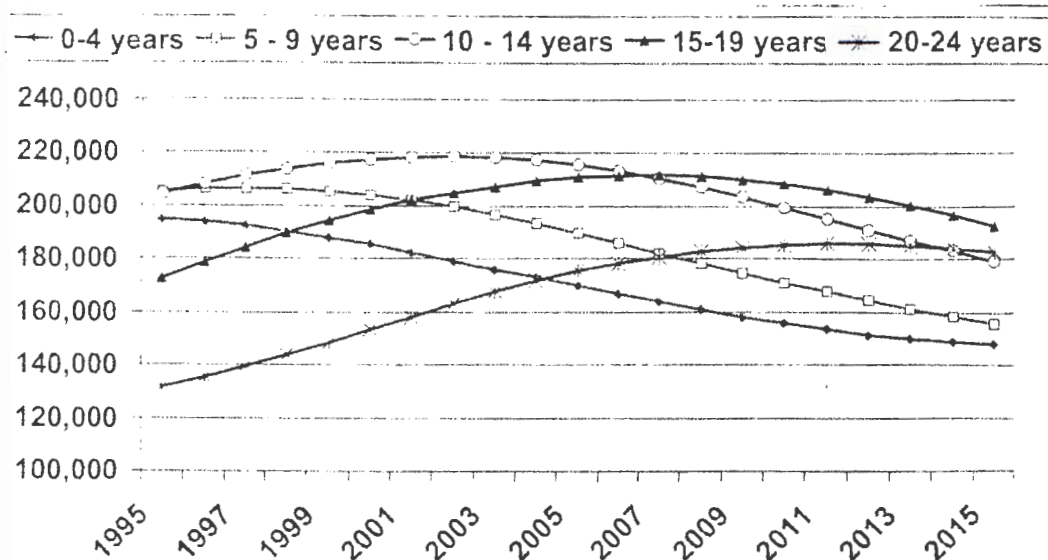
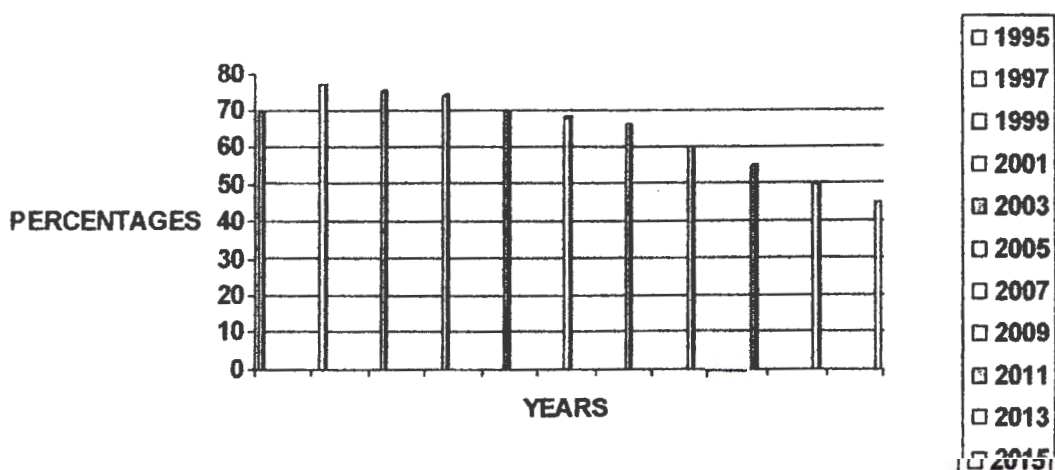


Figure 2.2 shows the extent that the population of children will decline compared to a situation without AIDS in the population. By 2005 there will be almost 20% fewer 5-9 year olds than expected and this may increase to almost 30% by 2010. Over time this effect will move along with this age cohort, so that there may be a discernable decrease of young adults from the middle to end of this decade (UNAIDS, 2004:14).

Figure 2.3: Percentage reduction in population of children and young people due to HIV compared to a no-AIDS scenario



The projection indicates that enrolment into primary schools will slow down and then decline. This will however take some time. However, data from the MOE suggests that in 1998 the number of children entering primary school dropped for the first time in the last 5 years (Figure 2.1). This is consistent with the projections produced above. However, there are obviously many other reasons that children may not enrol into school, especially in an environment of increasing hardship at a household level (UNAIDS, 2004:15).

2.14.2 EDUCATION SECTOR

The core of the education system is 740 primary schools and 270 secondary schools. The primary schools serve around 145 000 students with around 8300 teachers. Until 2000, education sector responses to HIV and AIDS were very limited. The epidemic was mainly seen as a health issue and responses focused on HIV prevention among learners. The broader relevance of HIV and AIDS to the sector was not widely appreciated or formalized in policy and structure (UNDP, 2003).

During NDP 8 two studies were conducted in Botswana on the impact of HIV and AIDS on the Education sector. It showed enrolments to be adversely affected and productivity of teachers being affected by increased morbidity, absenteeism and mortality. In this respect Ministry of Education will during the course of NDP 9, strengthen HIV and AIDS campaigns. This would be done by:

- Promoting behaviour change by employing more interactive pedagogical methodologies of delivering reproductive health education.
- Strengthening the school health – programme.
- HIV and AIDS materials development and production for students and teachers.
- HIV and AIDS awareness and information dissemination campaigns

(Government of Botswana National Development Plan 9, 2003/4 – 2005/9: 50).

2.14.3 IMPACT ON WOMEN AND GIRLS

Looking at the current situation of HIV and AIDS, up to 60% of today's 25 year olds will not reach their 60th birthday. HIV's impact on adult mortality is greatest on people in their twenties and thirties and is proportionately larger for women than men. According to Botswana National Strategic Frame Work for HIV and AIDS 2003 – 2009, cited in Government of Botswana National Development Plan 9, (2003/4 – 2005/9: 68) the epidemics impact on women and girls is especially marked. Literature currently available on HIV and AIDS indicates that as the AIDS pandemic has spread through societies, also it has established itself among heterosexual population, particularly in areas like Botswana where heterosexual sex is the dominant mode of HIV, transmission. The impact of AIDS on women is severe with 30% more likely to be HIV positive than men. Most women in Botswana face heavy economic, legal, cultural and social disadvantages, which increase their vulnerability to the epidemic's impact. The dangers that women face from the AIDS pandemic have been described as "triple jeopardy": a woman may become infected with HIV herself and then develop AIDS; if she is HIV positive she may transmit this infection to her baby in the womb and the child may develop HIV; women are the carers, producers and guardians of family life. This means they bear the largest AIDS burden more especially if someone close to them develops AIDS. Families may withdraw young girls from school to care for ill family members with HIV. Older women often shoulder the burden of care when their adult children fall ill. Later they may become surrogate parents to their bereaved grand – children. Young women widowed by AIDS may lose their land and property after their husband has died. As a result, some are driven to transactional sex in exchange for food and other commodities. When the male of a household becomes ill, women always take on the additional responsibility of looking after this male (Government of Botswana National Development Plan 9, 2003/4 – 2005/9: 68).

2.14.4 DEMOGRAPHY

HIV and AIDS is expected to have a negative impact on Botswana's demography (UNDP, 2001). According to UNAIDS and WHO Epidemiological fact sheet 2002 update, there is an estimated 330.000 adults and children living with HIV. The number of those who died of AIDS during 2001 stood at 26,000. Orphaned children, that is those who have lost their mother, father or both parents under the age of 15 in 2001 were estimated at around 69 000 (UNAIDS, 2002:23) in (Government of Botswana 2003:89).

Botswana is not the only country that HIV and AIDS epidemic have a major impact on, with the world's highest levels of HIV and AIDS, it is with other sub – Saharan Africa countries. A report from the World Bank in 1999 describes the crisis ahead:

"Tragically mass killers are nothing new in Africa. Malaria still claims about as many African lives as AIDS and preventable childhood diseases kill millions of others. What sets AIDS apart, however, is its unprecedented impact on regional development. Because it kills so many adults in the prime of their working and parenting lives, it decimates the workforce, fractures and impoverishes families, orphans millions, and shreds the fabric of communities" (World Bank, 1999:90).

2.14.5 IMPACT OF HIV and AIDS ON HOUSEHOLD

The toll of HIV and AIDS on households can be very severe. Although no part of the population is unaffected by HIV, it is often the poorest that are the most vulnerable to HIV and AIDS and on whom the consequences are most severe. In many cases, the presence of AIDS means that the household will dissolve, as parents die and children are sent to relatives for care and upbringing. A study in Zambia revealed that 65% of households in which the mother had died had dissolved. But much happens to a family before this dissolution happens: HIV and

AIDS strips the family of assets and income-earners, further impoverishing the poor (UNAIDS, 2002:45).

In Cote d'Ivoire...when a family member has AIDS, the average household income falls by a range of 52% to 67%. And as family income plummets and the cost of caring for the patient escalates, food consumption drops (UNAIDS and UNICEF 2001:43).

The impacts of AIDS on the household vary but commonly involve:

- Loss of income – earning opportunities because of sickness and the need to care for the sick
- Money being diverted away from food, schools and other household expenditures to pay for medical costs, funeral expenses and caring for orphans.
- Withdrawal of children from school to reduce expenditure and increase labour.
- Increased workload on women and children
- Emotional stress and loss
- Risks of stigma, isolation and rejection.

AIDS increases household poverty and long-term insecurity in the context of physical and emotional suffering and bereavement. Where AIDS remains highly stigmatised, the psychosocial impact will be greatest and access to community and other support the least. AIDS also often leads to marital and family conflict, arousing blame and suspicion regarding the source of infection and the cause of death (Jackson, 2002:26).

According to World Bank (1999:209) severe as the short-term impacts of AIDS may be at household level, it is the long-term impacts of multiple deaths that are of greatest concern for household survival and development overall. Households may

recover over time from one death, but multiple deaths may be crippling. The World Bank identified three primary sets of entangled factors influencing how severe is the economic impact of an adult death on the survivors in the household.

These factors or characteristics relate to:

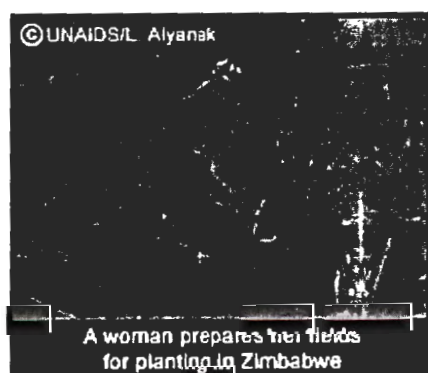
- The deceased individual, such as age, sex, income and cause of death
- The house-hold, such as composition of household members and assets
- The community, such as attitudes to helping needy households, and how available are resources.

2.14.5.1 BASIC NECESSITIES

A study in South Africa found that already poor households coping with an AIDS-sick member were reducing spending on necessities even further. The most likely expenses to be cut were clothing (21%), electricity (16%) and other services (9%). Falling incomes forced about 6% of households to reduce the amount they spent on food and almost half of households reported having insufficient food at times (Henry, 2002:40).

2.14.5.2 FOOD PRODUCTION

Figure 2.4: Food Production



It is estimated that in Burkina Faso, 20% of rural families have reduced their agricultural work or even abandoned their farms because of AIDS. In Ethiopia, AIDS-affected households were found to spend 11-16 hours per week performing agricultural work, compared with an average 33 hours for non-AIDS affected households (UNAIDS, 2004:67).

2.14.5.3 ILLNESS

Taking care of a person sick with AIDS is not only an emotional strain for household members, but also a major strain on household resources. Loss of income, additional care-related expenses, the reduced ability of caregivers to work, and mounting medical fees and funeral expenses together push affected households deeper into poverty. According to the study by Henry (2004:56) in Côte d' Ivoire, health care expenses rose by up to 400% when a family member had AIDS.

2.14.5.4 FUNERALS

But the financial burden of death can also be considerable, with some families in South Africa spending three times the total household monthly income on a funeral (Soul City, 2004:67).

2.15 HOW DO HIV AND AIDS AFFECTED HOUSEHOLDS COPE IN AFRICA?

Three main coping strategies appear to be adopted among affected households. Savings are used up or assets sold; assistance is received from other households; and the composition of households tends to change, with fewer adults of prime working age in the households (Jackson, 2002:89).

Almost invariable, the burden of coping rests on women, as there is an increased demand for their income-earning labour, household work, childcare and care of the sick. As men fall ill, women often have to step into their roles outside the homes. In parts of Zimbabwe, for example, women are moving into the traditionally male

dominated carpentry-industry. This often results in women having less time to prepare food and for other tasks at home.

"I used to stay with the children, but now it is a problem. I have to work in the fields. Last year I had more money to hire labour so the crops got weeded more often. This year I had to do it myself."

- Angelina, Zimbabwe (UN, 2001: 76) cited in ([www.impact](http://www.impactonhiv.com) on HIV.com).

Tapping into savings if available and taking on more debt is usually the first option by households that struggle to pay for medical treatment or funeral costs. Then as debts mount, precious assets, such as bicycles, livestock and even land, are sold. Once households are stripped of their productive assets, the chances of them recovering and rebuilding their livelihoods become even slimmer.

One of the more unfortunate responses to a death in poorer households is removing the children (especially girls) from schools. Often the school uniforms and fees become unaffordable for the families and the child's labour and income-generating potential are required in the household.

2.16 THE IMPACT ON CHILDREN

Figure 2.5: Orphans with grand mother



It is hard to overemphasise the trauma and hardship that children affected by HIV and AIDS are forced to bear worldwide. Not only does HIV and AIDS mean children lose their parents or guardians, but sometimes it means they lose their childhood as well (*HIV and AIDS orphans in Africa, avert.org*).

As parents and family members become ill, children take on more responsibility to earn an income, produce food and care for family members. It is harder for these children to access adequate nutrition, basic health care, housing and clothing. Fewer families have the money to send their children to school.

Often both of the parents are HIV-positive in Africa. This has resulted that AIDS in Africa has orphaned more children than anywhere else. Also many children will be part of a generation to be raised by their grandparents or left on their own in child-headed households. As projections of the number of AIDS orphans rise, some calls have been heard for an increase in institutional care for children. This solution is not only expensive but also detrimental to the children. Institutionalisation stores up problems for society, which is ill equipped to cope with an influx of young adults who have not been socialised in the community in which they have to live. There are other alternatives available. An example is the approach developed by church groups in Zimbabwe, where they recruit community members to visit orphans in their homes where they live either with foster parents, grandparents, other relatives or in child-headed households.

The way forward is prevention. It is important to prevent children from becoming infected with HIV at birth and later on in their life. Also, generally preventing more people from becoming infected with HIV in the future, and care to prevent people from dying of AIDS is essential. Then fewer children will be orphaned by HIV and AIDS (*HIV and AIDS orphans in Africa, avert.org*).

2.17 MACRO-ECONOMIC IMPACTS

Mutangadura (2000:12) states that *Arndt observes, it is critical to factor in the slow-moving nature of economic and social impacts of the epidemic, and its long duration, "Over the course of a decade, the implications for macro- economic performance are substantial"*

The extent to which AIDS damages the national economy depends on complex factors and on how macro-economic indicators are measured. To date, insufficient research has been undertaken on this area, although information is increasing from various countries. For instance, Arndt cited in Jackson (2002:24) will be 17% lower by 2010 than it would have been without AIDS but per capita GDP, that is economic production per head, will decline by 7%. This difference reflects the likelihood that proportionately more people in low-income brackets, or without formal employment, will die of AIDS than people with high income. Early in the epidemic, the World Bank speculates that AIDS might not actually decrease GDP because of the high losses among the poor; today, however, it is widely recognised, including by the World Bank, that GDP can be significantly impacted (Jackson, 2002:24).

Loewenson and Whiteside (1997) cited in Whiteside and Sunter (2000:30) describe the three critical factors influencing the macro-economic impact of AIDS as:

- The distribution and overall levels of wealth and poverty
- The extent of social cohesion (social norms and values, family support and controls)
- The extent of mobility in the population, including migration, displacement, and sexual mixing within and between different social groups.

These three factors interact to create a spiral of HIV risk and hence worsen the HIV and AIDS epidemic itself, as discussed further below. The International AIDS Economics Network (IAEN), and the Health and AIDS Economics Research Division (HEARD) of Natal University, Durban, are undertaking and bringing together research on the economic impacts of AIDS, particularly in Southern Africa.

Linked with reducing GDP, the main macro-economic impacts identified include:

- Reduced national savings and investment, which are themselves critical for economic growth
- Increased spending on health at the expense of productive sector investment and spending
- Probable reduced spending on education, leading to slower skills accumulation and slower replacement of the labour force
- Particularly heavy impacts on sectors dependent on professional, managerial and skilled technical staff
- Increased poverty and widening economic disparities as the poor are driven even further down
- Changed markets: markets for non-essentials will contract while those for a few selected items, such as coffins, increase
- Growth and increased reliance on the informal sector
- Reduced capacity governance
- Increased national instability and social insecurity.
- The extent to which these outcomes will occur in different countries will unfold over many years. They increase population movement in search of employment and further reduce social cohesion, both worsening the spread of HIV and the ultimate scale of the AIDS epidemic (Jackson, 2002:99).

2.18 THE IMPACT OF DEVELOPMENTS ON HIV AND AIDS

Just as AIDS impacts negatively on development, so can development processes worsen the spread of HIV. The epidemic is rightly said to be associated with

poverty, but the reality is much more complex. Some of the most affected countries in Africa, such as South Africa and Botswana, also rank among the wealthiest and most developed. Likewise, infection levels within a country are not always highest among the poor. In Malawi, for instance, the 1996 survey, including 19 sentinels marked higher HIV prevalence than women from lower socio-economic groups (Kaluwa, 1997: 56 in Mutangadura, 2000:70). In the mid-1990s in Zambia, Fylkesnes (1995: 45) found that women with more than 12 years of education had the lowest HIV infection rates. Early in the epidemic this is not an uncommon finding. Some have also observed that HIV is at least partly an infection of men with money and women without.

In employment settings such as the gold mines in South Africa, where men live far from their wives and families in single-gender hostels, levels of HIV infection are particularly high. Men come from several different countries in the region where the HIV epidemic spread earlier, and have undoubtedly helped bring HIV infection into South Africa. In addition, many become infected while working in South Africa, and will then take the infection back home to their wives.

Caltonville district contains 12 mines, the historically white town of Caltonville (population 20,000), the black township of Khutsong (population 150, 000), and other smaller residential areas. Ninety percent of the miners are migrants, many from Botswana, Lesotho and Mozambique. They live in crowded single-gender hostels, away from their wives and families, undertaking dangerous work every day. Understandably they turn to the solace of alcohol, drugs and sex. As Brian Williams, then head of the Working Together for Health HIV and AIDS Outreach Project commend, "The miners say quite correctly, that in 10 years the rocks or dust will kill us, so why should we worry about HIV? In the meantime we might as well have a good time" (Adesky, 2001:17).

One important aspect of how HIV transmission is increased by "development" is the relative income of men and women. Action Aid (Bataringaya, 1999), for example,

documented the increase in STI rates around the time of harvest in rural communities in East Africa. The significant factor was that the men suddenly had access to extra cash, and many used it to purchase sex. In Zimbabwe, large –scale farmers report anecdotally that their foremen, drivers and other better-paid staff have higher rates of HIV infection than lower-paid workers, because those with more money can frequent beer halls and purchase sex more often. Condom use appears to be low. Increasing men’s incomes is problematic for HIV transmission indirectly, too: it may decrease women’s status and power to negotiate around safe sex within or outside marriage (Jackson, 2002:31).

2.19 THE IMPACT ON LIFE EXPECTANCY

In many countries of sub-Saharan Africa, AIDS is erasing decades of progress in extending life expectancy. Life expectancy reflects the conditions in a community, but also life expectancy affects conditions in the community. Average life expectancy in sub-Saharan Africa is now 47 years, when it would have been 62 years without AIDS. Life expectancy at birth in Botswana has dropped to a level not seen in Botswana since before 1950. In less than ten years time, many countries in Southern Africa will see life expectancies fall to near 30, levels not seen since the end of the 19th Century (Stanecki, 2002:89) cited in Connolly (2002:90). Table 1.2 shows different average expectancy in 11 African countries. Life expectancy in this table by the year 2010 would range between 26.7 and 38.7.

Table 1.2 Average life expectancy in 11 African Countries (age in years)

UNAIDS (2004) 'Report on the global HIV and AIDS epidemic 2004', July.

Country	Before AIDS	2010
Angola	41.3	35.0
Botswana	74.4	26.7
Lesotho	67.2	36.5
Malawi	69.4	36.9
Mozambique	42.5	27.1
Namibia	68.8	33.8
Rwanda	54.7	38.7
South Africa	68.5	36.5
Swaziland	74.6	33.0
Zambia	68.6	34.4
Zimbabwe	71.4	34.6

By 2010, the populations of five countries - Botswana, Mozambique, Lesotho, Swaziland and South Africa will have started to shrink because of the number of people dying from AIDS. In two more countries, Zimbabwe and Namibia, the population growth rate will have slowed almost to zero.

2.20 THE ECONOMIC IMPACT

Through its impacts on the labour force, households and enterprises, HIV and AIDS can act as a significant brake on economic growth and development. Besides the human cost, HIV and AIDS is having deep effects on Africa's economic development. In turn, this affects Africa's ability to cope with the epidemic. The impact of HIV and AIDS on the economies of African countries is difficult to measure. The economies of many of the worst affected countries were already struggling with development challenges, debt and declining trade before HIV and AIDS started to affect Africa. Together with other factors, HIV and AIDS has had a devastating effect on many countries economies (WHO and UNAIDS, 2004:58).

HIV and AIDS has an impact on labour supply, through increased mortality and morbidity. This is multiplied by the loss of skills in key sectors of the labour market. Long periods of AIDS-related illness reduce labour productivity. Government income also declines, as tax revenues fall, and governments are pressured to increase their spending, to deal with the rising prevalence of AIDS, as a result creating a potential financial crisis. One review reported that the annual costs associated with sickness and reduced productivity as a result of HIV and AIDS varied from US\$17 per employee in Kenyan manufacturer firm to US\$300 in the Ugandan Railway Corporation. A recent study in South Africa and Botswana found that HIV and AIDS among workers added 0.45-5.9% to the companies' annual salary and wage bills (UNAIDS, 2002:60).

A recent calculation has suggested that the rate of economic growth has fallen by 2-4% in sub-Saharan Africa. Meanwhile, some studies have forecast that, by 2015, the economies of Botswana and Swaziland would grow by 2.5% and 1.1% points less, respectively, than they would have in the absence of the epidemic. By the beginning of the next decade, South Africa, which represents about 40% of sub-Saharan Africa's economic output, faces a real gross domestic product 17% lower than it would have been without AIDS (UNAIDS, 2004:62).

Many of the continent's economic development goals depend on Africa's ability to diversify its industrial base, expand exports and attract foreign investment. By making labour more expensive and reducing profits, AIDS limits the ability of African countries to attract industries that depend on low-cost labour and makes investments in African businesses less desirable. HIV and AIDS therefore threatens the foundations of economic development in Africa (Rosen, 2004:18) in (UNAIDS 2004:318).

2.21 THE FUTURE IMPACT OF HIV AND AIDS

Some of the ways in which HIV and AIDS has already started to have a devastating impact on countries in Sub-Saharan Africa have been outlined below but HIV and AIDS could have an even greater impact in the future as increasing numbers of people become ill and die. This is not however inevitable as much can, and indeed should be done, to reduce the impact of the epidemic.

What needs to be done is that alongside the continuation of prevention programmes, there needs to be a major international effort to provide treatment and care for those who are becoming sick. Million of lives can be extended, at least for a few years, if there is sufficient action now. But equally millions of people will die over the next few years if there is insufficient action (www.avert.organdhiv). The needs to consist of a range of provision including voluntary counselling and testing services, food, treatment for Opportunistic Infections and antiretroviral treatment ([www.impact on HIV.com](http://www.impactonhiv.com)).

There has been a great deal of emphasis over the last year on a number of specific initiatives, the most significant of which is the President Bush Emergency Plan for AIDS Relief cited in WHO (2003:56), and although there is now slightly more information available about what this plan is going to provide, and some money is starting to be distributed, it is still unclear how many people are going to get improved HIV and AIDS treatment as a result, and equally importantly when they will get it.

Another very important initiative is the WHO 3 by 5 initiatives, launched on December 1st 2003. The 3 by 5 initiative aims to provide HIV and AIDS antiretroviral treatment for 3 million people by the end of 2005. The WHO does not have the money itself, nor does it seek to do this itself. Rather the WHO 3 by 5 plan is a "blueprint" of how such treatment could be provided. WHO will need additional money just to carry out its own role in the plan.

There is also the Global Fund for HIV and AIDS, TB and Malaria, and some of the money that they are going to be providing to the governments of different countries, will also be used to provide treatment. It is already clear that there is a major lack of coordination between these major international organizations and their differing HIV and AIDS initiatives (WHO, 2003:56).

In spite of all of these initiatives, there is currently lack of urgent action. Too much time is spent on detailed planning, and on ensuring that everything is carried out to a comparable standard to those standards adopted in more developed countries. There has to be with everything a "good enough standard" adopted in order that, actions which would on other occasions take years, can instead be done in months. Everyone has to act now, as a matter of great urgency, and to contribute in whatever way they can. And if enough people act now, the lives of millions can be saved (Fredrickson, 2005: 18).

2.22 FACTORS INFLUENCING HIV AND AIDS

2.22.1 GENDER AND AGE

a) GENDER

The cultural expectations, traditions, and norms about appropriate female and male attributes and behaviour; greatly influences the extent to which an individual is vulnerable to HIV and AIDS. There are also consistent differences between women and men's roles, access to productive resources, and decision – making authority. In many societies, men are expected to be responsible for the productive activities out side the home, while women are expected to be

responsible for the reproductive and productive activities within the home (www. Sexualhealth.org).

b) AGE

Williams (2003: 78) indicates that like gender, age is a hierarchically ordered status that assigns power unequally. In general, youth have significantly less power than adults. Again, similar to the inequalities associated with gender, this power imbalance is demonstrated in youth' lack of access to economic opportunities, decision – making, and other resources compared to adults. Young women and girls occupy the space where the lowest ends of the two hierarchies converge and are thus at a double disadvantage, leaving them with less power than men, boys, and older women. Young women and girls' lack of power, associated with both their age and gender, is critical to HIV and AIDS because it directly translates into a lack of power in sexual interactions. In general, young women and girls have the least amount of control over when, where, with whom, and how they have sex. Additionally, when they are able to exercise choice and control, they often do not have the knowledge to act safely. This vulnerability is intricately tied to social norms about femininity and masculinity, which maintain the imbalance of power unfavourable towards young women and girls (Williams, 2003:78).

2.22.2 NORMS.

i. VIRGINITY

Xues (2000:67) suggests that women have to protect themselves against abusive relationships, but norms about female behaviour, prevent them from doing so. In many African countries culturally a woman is expected to be a virgin before marriage. This influences unmarried young women to be silent about sex, which makes them ignorant about sexual interactions. This lack of information about sexual experiences makes them passive in sexual interaction, which shows that they

are 'good' girls by the time they are married. In addition girls engage in high – risk sexual behaviours, such as anal sex because they want to preserve their virginity. If it is found out that a young woman knows about sex she is thought to be sexually active, which is a status that can result in social isolation and punishment from peers and older adults. Ignorance about sex, reproductive anatomy, and HIV prevention increases young women and girls' vulnerability to HIV infection by making it difficult or even possible for them to reduce their HIV risk.

ii. **MARRIAGE**

Clark (2004:45) says the ideals of virginity and purity makes millions of girls in the world to get married at an early stage (before 18 years) which make them to abandon school, and are denied good health, and they would never have that opportunity to play with their peers and to be independent economically. Early marriages deprive young women of their basic rights and put them in risky situations. Young women generally enter into marriage with partners who are much older and more sexually experienced. Because women are expected to be silent, they have little negotiations power in sexual behaviour and practices, putting them at greater risk of contracting STIs including HIV. One can conclude that marriage increases women's HIV risk because it has been found that female adolescents, married 15 – 19 year olds have higher HIV infection level than non – married sexually active females of the same age (Glynn et al, 2001) cited in (Drimie, 2003: 87). Many people believe that marriage protects them from HIV, but this is not the case. Marriage and other long – term, monogamous relationships do not protect women from HIV. Recent studies that were carried out in Cambodia, revealed that 13% of urban and 10% of rural men reported having sex with both a sex worker and their wife or steady girlfriend. Yet, the country's 2000 Demographic and health Survey found only 1% of married women used condoms during their last sexual intercourse with their husband (Cambodian National Institute of statistics, 2002:68).

Another study that was carried out in Thailand found that 75% of HIV infected women were likely infected by their husbands. Nearly half of these women reported heterosexual sex with their husbands as their only HIV risk factor (Xues, 2000: 48).

iii. CROSS GENERATIONAL MARRIAGE

A study in Kisumu, Kenya found that as many as half of the married women whose husband were ten or more years older were infected with HIV, and that 32,9% of married young women were HIV – positive, compared to 22.% of unmarried young women. Even when they know about the infidelity of their older husband, young wives are often unable to refuse sex or negotiate condom use, because to do so would indicate a lack of trust and undermine their masculinity (Luke, 2004:87).

iv. MOTHERHOOD

For young married women, motherhood is another feminine ideal that puts them at risk. Bearing children is critical and in many cases the only way for a young married women to secure their social identity, marriage, and status in the household. Thus, the use of barrier methods or non – penetrative sex as safer sex options presents an extremely difficult choice for women because they also prevent pregnancy. Additionally, once young women do become mothers, programmes that seek to prevent mother – to – child transmission by encouraging women not to breast-feed can stigmatise women. Breast-feeding is often an integral part of the ideal of mother - hood and in many places women who do not breastfeed are treated as bad mothers or promiscuous people.

v. NORMS OF MASCULINITY

Norms surrounding contribute to the vulnerability of young women and girls, as well as the vulnerability of young men and boys. In general men want to prove to others that they are men enough by engaging into activities that put them at high

risk of infection. They engage themselves into relationships with multiple partners, they do not use condoms, and they engage themselves in sex with sex workers. For example, a study of Xhosa township youth in South Africa found that 'successful' masculinity hinged on a young man's number of partners, the sexual desirability of his main partner to other men, and his ability to control girlfriends ([www, sexualhealthexchange.org](http://www.sexualhealthexchange.org)).

Norms of masculinity also emphasise that men have dominant power over women. They do this through violence and coercion. This puts women at risk of infection because they do not have a saying when it comes to sex. Young women are exposed to sexual coercion in a variety of places from husbands, other family members, peers, friends, and strangers. Disturbingly, young women and girls are also at risk of sexual coercion and violence at school. On-going studies in sub-Saharan Africa have found that sexual abuse of girls in school by male teachers and students is common and accepted. Domestic violence also presents a significant barrier for young women who are married or in partnerships to practice safer sex and seek testing and treatment. Often, women do not ask their partners or husbands to wear condoms or fear of violent reaction. Similarly, many women do not seek treatment or testing and choose not to disclose their results to partners and husbands for fear of violence. Sexual coercion and violence put young women and girls at risk of HIV infection both directly and indirectly. Most obviously, violent sexual acts, such as rape, are likely to result in vaginal tearing or lacerations, thus dramatically increasing the risk of contracting an STI or HIV. Further, women who have been raped or abused when they were young are more likely to engage in high-risk behaviour, including having multiple partners and using intravenous drugs, when they are older (www.unaid.org).

Evidence suggests that throughout the world, boys and young men also experience forced sexual relations, although they have less research attention than young women (Population Council, 2003) in ([www sexualhealthexchange.org](http://www.sexualhealthexchange.org)). The abrasions caused by forced vaginal or anal penetration facilitate entry of the virus –

a fact that is especially true for adolescent girls. Moreover, condoms are rarely used in such situations. In some countries, one in five women report sexual violence by intimate partner, and up to 33% of girls report forced sexual initiation (WHO, 2001). Sexual coercion in childhood and adolescence has long term consequences in terms of reproduction health and HIV, violence and mental health problems. A review of evidence in Latin America found that young women who had been sexually abused had significant earlier sexual initiation and more lifetime partners than non-abused women. A Ugandan study of 575 sexual active girls aged 15 to 19 found that those who had experienced sexual coercion were significantly more likely to be non – users of contraception, to have unintended pregnancies, and not use condoms at last intercourse. The study also found that after controlling for other risk factors, girls who had experienced coercion first sex were more likely to be HIV infected (www.sexualhealthexchange.org).

2.22.3 POVERTY

Poverty makes girl and young women to exchange sex for survival. Conflict makes women and girls disproportionately vulnerable to HIV infection: they are exposed to mass rape, sexual abuse, including sexual slavery, at a time when there is little or no access to health care or protection. Under these circumstances, neither faithfulness nor condom use is negotiable. Men seek young women because they are not HIV positive while young women seek older men because they are financially stable (Henry, 2002:60).

2.23 KNOWLEDGE ABOUT HIV AND AIDS

Today youth have inherited a lethal legacy that is killing them and their friends, their brothers and sisters, parents, teachers and role models. An estimated 11.8 million young people aged 15 to 24 years are living with HIV and AIDS. Each day, nearly 6,000 young people between the ages of 15 and 24 years become infected

with HIV. Yet only a fraction of them know they are infected. More than two decades into the epidemic, the vast majority of young people remain uninformed about sex and sexual transmitted infections (STIs). Although a majority have heard of AIDS, many do not know how HIV is spread and do not believe they are at risk. In countries with generalised HIV epidemics, such as Cameroon, Central African Republic, Equatorial Guinea, Lesotho, Botswana and Sierra Leon, more than 80% of young women aged 15 to 24 years do not have sufficient knowledge about HIV and AIDS (Moore et al, 2000:87). (Jejeebhoy and Bott, 2003:45) concurs by saying; in Somalia, only 26% of girls have heard of AIDS; only 1% know how to protect themselves from the infection.

In Ukraine, nearly 100% of adolescents females have heard of AIDS, only 21% could correctly identify the three primary ways of avoiding sexual transmission. 'The ABCs of prevention'. A – Abstain from sex, B- be faithful to one partner, C – consistently use of latex condom properly (Collins and Toure, 2000) in (<http://womenaids.uniad.org>).

Government of Botswana (2004:43) states that, a study carried out in Botswana revealed that; two thirds of young people in their last year of primary school in Botswana thought they could tell if someone was infected with HIV by looking at them. But at secondary school level, only a fifth of the pupils still believed they could screen out risky partners by looks alone. This misinformation is especially dangerous in a century where one in three potential partners is infected.

A number of factors that discourages young people to take the risk of AIDS seriously are lack of knowledge that there are many people in their age range diagnosed with AIDS. But the fact is that Infection is taking place during the early teen years though diagnosis does not occur until later in the twenties, due to the long latency period between infection and the appearance of symptoms. Gasennelwe (1999:94) conducted a survey of knowledge, perception and practices of teenagers in Gaborone regarding AIDS. The study revealed that the overall

awareness of AIDS was high. The study also showed that many girls were misinformed or lacked information about how AIDS can be avoided. The results also showed discrimination attitudes of Botswana people with HIV and AIDS.

Walker (2000:43) in an article on teenager's knowledge on Acquired Immune Deficiency Syndrome and associated risk behaviour stated that adolescents are now recognised as being at high risk for contracting the HIV, the presumed cause of AIDS. This article reports the findings of a survey that examined AIDS knowledge, risk behaviour, and information sources for AIDS in a group of sub urban New Jersey High School students (N = 152). This group had knowledge of HIV and its transmission, but results indicated that students also participated in behaviours considered 'risky' for transmission of HIV. These behaviours included unprotected sexual intercourse and sexual intercourse with multiple partners over a period of time.

Kasule (2000:56) in an article of Kenya on knowledge, attitude and practice of sexual transmitted disease and AIDS in school going children, in a questionnaire that was administered among 1689 secondary school girls and boys revealed that their knowledge was very low, 80% could name one STI in an open question. Only 16% could recognise the important symptoms of the common and treatable disease such as gonorrhoea and syphilis. These common STIs facilitate transmission of HIV and AIDS. The awareness of AIDS is high but when it comes to the mode of transmission of intercourse with an infected person. Furthermore, despite an intensive AIDS awareness campaign programmes mounted by the government of Zimbabwe, a large number of students thought that one can contract HIV and AIDS by shaking hands, sharing a toilet and witchcraft. Misconceptions about HIV and AIDS are widespread among young people. They vary from one culture to another, and particular rumours gain currency in some populations both on how HIV is spread (by mosquito bites or witchcraft, for example) and on how it can be avoided (by eating a certain fish, for example, or having sex with a virgin). Surveys from 40 countries indicate that more than 50% of young people aged 15 to 24 harbour

serious misconceptions about how HIV and AIDS is transmitted. The data shows that there is a need to review strategies of disseminating information to teenagers regarding STD including AIDS, reproductive biology, sexuality and contraception.

Ramosesane (2002:45) conducted a research about knowledge of children aged 14 years and less on the transmission and prevention of HIV and AIDS and her study revealed that children had knowledge deficit on HIV and AIDS (67%). 23% showed some knowledge as the study stated that AIDS is a sexually transmitted disease. As a result the researcher concluded that children aged 14 years and less have a low level of knowledge about HIV and AIDS.

Recent studies in Botswana cited in Government of Botswana (2004:86) show that knowledge about the sexual transmission of the HIV virus is universal among the youth. This high knowledge however differs with the youth, sexual behaviour. The study further revealed that most of young people in Botswana start sexual activity as early as 13 or 15 years old. The mean age at first sexual intercourse is 16 years. This included the researcher's target group. Other findings were that the youth especially the males have multiple partners, There is low rate of condom use as reflected by high teenage pregnancies and high STDs specially among the sexually active males. All these expose the youth to HIV transmission.

Government of Botswana (2003:67) states that, Talk - Back conducted a baseline study about Knowledge, attitudes and practices of teachers and students on HIV and AIDS. The study revealed that students have knowledge about HIV and AIDS and how it can be transmitted and prevented. The level of awareness improves with the level of one's education. Those in lower levels of education, primary and junior secondary school displayed higher levels of ignorance about HIV and AIDS. Less than 20% of the students could say the signs and symptoms of HIV and AIDS, 85% of the population knew the risk factors of HIV and AIDS transmission. The study found that those who are more knowledgeable about HIV and AIDS were female

students. When it comes to treatment 50% of males said they could get treatment from traditional healers while 80% of the females opted for hospitals.

Williams (2003:42) says that, a study conducted in Post – Communist Russia and Successor states found that the effectiveness of health education resulting to AIDS is being hampered by the misunderstanding created and reinforced by the press coverage of HIV and AIDS. This shown by the fact that it misrepresents AIDS and its victims by dividing victims into two categories: the ‘innocent’ (children and haemophiliacs) and the ‘guilty’ (gay men, prostitutes and drug users).

The first group is given favourable airing and treated sympathetically, while the second are seen as being more susceptible to HIV and AIDS. However, the activists of the ‘guilty’ have constructed as a social problem, in the sense that their behaviour is labelled as such. The consequence is that they face discrimination in a number of respects: access to jobs, housing and education. The on – going AIDS awareness campaign has also persistently failed to reach them.

Adolescence stage is often a time of experimenting with drugs and alcohol. In the united Republic of Tanzania, young people aged 16 – 24 years who smoke and drink alcohol are four times more likely than their peers to have multiple sex partners. In the United States of America, college students who have sex under the influence of drugs or alcohol; are 2.5 times more likely not to use protection. In Buenos Aires, Argentina, a fifth of drug injectors said they started injecting when they were 16 or younger and two thirds had started by the time they were 18 (www.unaids.org). Even when the do have information, some adolescents engage in unprotected sex because they lack the skills to negotiate abstinence or condom use. They may be fearful or embarrassed to talk with their partners about sex.

Educating young people about HIV, and teaching them skills in negotiation, conflict resolution, critical thinking, decision – making and communication, improves their self – confidence and ability to make informed choices, such as postponing sex until

they are mature enough to protect themselves from HIV, other STIs and unwanted pregnancies (www. unicef. Org).

2.24 CONDOM USE AND SEXUAL BEHAVIOUR

Condoms are promoted to reduce the rate of HIV infection, and unwanted pregnancy. However, consistent and correct use of condoms by young people who are sexually active continues to face a list of barriers. Huge numbers of young Botswana become infected with HIV during or shortly after their school – going years. Antenatal survey data and other sources indicate that infection rates are close to zero in the early teens and then rise rapidly from the mid – teens to peak at between 40% and 60% among women aged 25 – 29 in mid 30s. The difference in peak age groups is thought to be because of girls' partnerships with older men. This puts them in very high risk of HIV although the average age of onset of sexual activity is 15 – 18 years for girls and around 14 years for boys (UNDP, 2001:42). This makes teenage pregnancy to be very high. Exposure to early sex and childbearing lead to the risk of contracting sexually transmitted diseases, including HIV and AIDS.

This attitude of teenage girls having relationships with older man renders the use of condoms ineffective. Botswana has one of the highest fertility rates in sub - Saharan Africa, though there is indication it is now declining. There are several reasons for the high fertility but one of the most significant is the cultural imperative for a woman to prove that she is fertile by having a child. As in most African societies, a married woman who fails to produce a child would most likely be scorned by her husband and society. This results in many women becoming pregnant during their first relationship. On the other hand, it is believed that men must also prove their virility by making a woman pregnant (Government of Botswana, 2003:23). This, in turn, reduces the use of condoms and increases the rate of infection.

In the past, condoms have not been viewed in a positive light. In the pre AIDS era, the pill was the preferred method of contraceptives, with condoms rating poorly in popularity. Reasons, which lead to insufficient use of condoms, vary particularly with girls. The government of Botswana saw it as a need to avail condoms everywhere, public toilets, offices, and clinics through the installation of condom machines. For other young people, the issue may not be the availability of condoms, but rather having the negotiating skills required to convince sexual partners to agree to use them.

Most HIV and AIDS prevention programmes attempt to persuade people to change their sexual behaviour. They assume that partners could be given information, which will lead them to make rational decisions to practice safer sex and then to implement those decisions. These programmes normally fail to recognise the difficulties that are faced by females who attempt to do this. Even if there is a female condom, women are afraid to use it, they normally persuade men to use condoms, which can be extremely difficult. Insisting that partners use condoms may seem to imply that the partner has some sexually transmitted diseases. Unequal gender norms and socialisation reduce young women's ability to make informed choices about their own sexuality. Some young people who dislike to use condoms say that condoms interfere with the sexual pleasure and they make their sexual intercourse not to feel natural. Young women fail to carry condoms because they fear to be labelled 'easy' or 'a slut' (www.unaid.org).

In spite of the advent of HIV and AIDS, most young people use condoms as a contraceptive rather than as an STI precaution (Donald et al, 2000) in (Hubley, 2002:67). In one national representative American study of young men 20 – 24 years of those who reported using a condom in the previous six weeks, half of the white respondents had done so only for birth control while a mere 7% had done so for protection against HIV and other STIs (Taufer et al, 1999) in (NACP, 2002:56).

UNICEF (2004:38) conducted a study about 'The use of condoms by the adolescents' and found that sexually active adolescents report placing high value and importance on using a contraceptive that protects against STIs and know that condoms prevent STDs, yet the females did not want their partners to use condoms, and the males intention to use condoms have decreased. Although the study was conducted in Francistown with a high prevalence of AIDS, sexually active adolescents continued to have multiple sex partners and did not substantially increase their use of condoms, thus continuing to place themselves and their partners at possible risk for STIs including HIV infection.

Promoting condom use is a challenge, more especially to a country like Botswana, which is hardly hit by HIV and AIDS epidemic. ([www advocates for youth.org](http://www.advocatesforyouth.org)) states that, research has found that young people of today hold more positive attitude to condom usage than their peers in previous decades. However, Positive attitude do not necessarily result in intended or actual use, a substantial number of young people continue to place themselves at risk through their unsafe sexual behaviour. Research indicates that this is because most young people have not personalised the risk of HIV and AIDS infection. Young people consistently perceive STDs including HIV, as common occurrence. They also believe that these negative, harmful events occur only to other people, especially to people who belong to highly publicised and stereotypic risk groups such as homosexuals, prostitutes and injecting drug users ([www advocates for youth.org](http://www.advocatesforyouth.org)).

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.0 INTRODUCTION

This chapter outlines the procedures on how the problem was investigated and why particular methods and techniques were employed.

3.1 RESEARCH DESIGN

The researcher will use the survey approach that will employ the use of questionnaire and interviews. These will be used to find out the level of knowledge that community junior secondary students have about HIV and AIDS and their sexual behaviour. The design was chosen above all other designs because it is economical in terms of time and amount of data collection. Analysis of data from close-ended questions is fairly easy; hence the study is likely to be completed within the specified period.

3.2 POPULATION AND SAMPLING PROCEDURES

The sample will consist of one hundred and twenty (120) students out of a total of eight hundred (800) students from the four junior secondary schools in Ramotswa, which is 15% of the student's population. Thirty (30) students will be used from each school hence the use of random sampling. The population of the study will be 120 ($n = 120$).

The population of the study will consist of teachers and students. Teachers will be eight in number, selected from the all the four junior secondary schools out of 60.

Teachers and students will be selected using simple random sampling. Sampling is efficient and precise. Samples can be studied more quickly than targets populations and they are also less expensive to assemble. Sampling is efficient in that resources that might go into collecting data on an unnecessarily large number of individuals or groups can be spent on other activities like monitoring the quality of data collection (Fink, 1995:38) in (Mhlanga and Ncube, 2003:32). The main purpose for using random sampling is that random samples produce research data that can be generalised to a large population within margins of error that can be determined statistically. This procedure provides equal opportunity of selection for each element in a population. 2 teachers will be selected per school. Teachers were selected check whether they give students information about HIV and AIDS. The researcher shall ensure proportional presentation of both male and female students.

3.3 DATA COLLECTION

To make sure that administrators are part of this research, permission to carry out this research will be sought from school heads and the researcher will administer questionnaires on one appointed afternoon. The researcher will administer the questionnaire at the various junior secondary schools in Ramotswa.

3.4 INSTRUMENTS

The researcher will use questionnaires and closed, fixed response interviews to collect data. Questionnaires cover a wider geographical area than any other data-collecting instrument, which allows a bigger sample size. They provide a permanent, verifiable record of the data collection effort. Closed, fixed interviews are simple to be analysed and responses can be directly compared and easily aggregated. Furthermore, many questions can be asked in a short time. There would be one questionnaire for students and the researcher will conduct interviews with guidance teachers. Each questionnaire leaflet would be divided into two sections (A

and B). Section A would contain demographic information and section B would investigate the knowledge about HIV and AIDS that junior secondary school students have about HIV and AIDS. Respondents would be asked to indicate their responses by using, **strongly agree, agree, uncertain, strongly disagree and disagree** by making a tick in the relevant box. They would on the other part be asked to indicate **yes** or **no** by also making a tick in the relevant box. The researcher would mostly use close-ended questions because they are less tedious to compile and the respondents would take a short time to respond to the questions.

3.5 DATA ANALYSIS AND INTERPRETATION

The analysis will employ both the quantitative and qualitative methods. Quantitative means to measure on some numerical basis and this data is usually objective. Mhlanga and Ncube (2003:14) say that validity is often low in a quantitative approach while reliability is high. Qualitative approach on the other hand, emphasises meanings, experience, and description. It also gives richer results and more realistic information (Mhlanga and Ncube, 2003:14). Descriptive statistics will also be used. Further analysis would be done using inferential statistics. The respondents to the questionnaires will be analysed into frequency counts, which will be converted to percentages for easy interpretation by the researcher. The information will be displayed in a way that will carry the message over to the reader in clear and simple terms, for example, easily understandable graphs and tables and the use of simple language.

The researcher will make arrangements with the authorities of the secondary schools in Ramotswa. Permission to carry out research will be sought from school heads and the researcher will administer questionnaires on one appointed afternoon.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.0 INTRODUCTION

This chapter presents the results that came from the collected data during the research, and the analysis of the results. The data analysis deals with responses of teachers and students from community junior secondary schools in Ramotswa. The findings of the study were based on the frequency counts and descriptions were used to analyse the results. The responses were analysed and under the following hypotheses:

1. Do Junior Secondary School students have knowledge about HIV and AIDS?
2. There is significant difference between Junior Secondary School female students and junior secondary school male students in their sexual behaviour.
3. There is a significant positive relationship between Junior Secondary School students' knowledge about HIV and AIDS and the use of condoms.
4. There is a significant positive relationship between teenager's sexual behaviour and their knowledge about HIV and AIDS.

4.1 ANALYSIS OF RESPONSES TO ITEMS OF THE QUESTIONNAIRE.

SECTION A

TEACHERS

4.1.1 DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS.

Table 4.1 gives the distribution of 8 teachers from 4 community junior secondary schools in Ramotswa who completed the questionnaire.

Table 4.1 Distribution of teachers in terms of gender.

	FREQUENCY	%
MALES	4	50
FEMALES	4	50
TOTALS	8	100

The table above indicates that 50% of the respondents were males while the other 50% were females. The results may be attributed to the sampling method that was used. This gives a fair sample on gender equality.

4.1.2. AGE OF TEACHERS WHO PARTICIPATED IN THE STUDY

Table 4.2 Frequencies and percentages of teachers according to their age.

MALES			FEMALES	
AGE	FREQUENCY	%	FREQUENCY	%
20 - 25	0	0	0	0
26 - 30	0	0	2	50
31 - 35	1	25	0	0
36 - Above	3	75	2	50
TOTAL	4	100	4	100

The information in the above table indicates the age of respondents from 25 and above. The majority of respondents were in the range of 36 and above, the reason might be that teachers who filled the questionnaire are in senior positions that mean they have been long in the service.

4.1.3 PROFESSIONAL QUALIFICATIONS OF TEACHERS IN THE STUDY

Table 4.3 Level of education of teachers

	MALES		FEMALES	
	FREQUENCY	%	FREQUENCY	%
CAMBRIDGE OVERSEAS CERTIFICATE	0	0	0	0
DIPLOMA	0	0	0	0
BACHELOR DEGREE	2	50	4	100
OTHERS	2	50	0	0
TOTAL	4	100	4	100

Details in the table above indicate that there are male teachers in the bachelor degree and Masters degree while female teachers appear only under Bachelor degree category. No teachers appear under Cambridge Overseas and Certificate categories and under Diploma.

4.1.4 RELIGION

Table 4.4 Religion

	MALES		FEMALES	
	FREQUENCY	%	FREQUENCY	%
CHRISTIANITY	3	75	4	100
ISLAM	0	0	0	0
HINDUISM	0	0	0	0
OTHER	1	25	0	0
TOTAL	4	100	4	100

According to this table most of the teachers are Christians this is due to the fact that most of the people in Botswana are Christians so it was difficult to find teachers from other religious groups.

4.2 TEACHERS RESPONSES

1.1.1 SECTION B

Data for the analysis of responses to this question were derived from Appendix A.

Table 4.5 Have you ever heard of HIV?

	YES	NO
FREQUENCY	8	0
%	100	0

The above table indicates that 100% of the population of teachers have heard of HIV.

Table 4.6 Have you ever gone for an HIV test?

	YES		NO		YES - NO
GENDER	FREQUENCY	%	FREQUENCY	%	
MALES	1	25	3	75	4
FEMALES	3	75	1	25	4

This table shows 25% male teachers agree that they have gone for a test while 75% of male teachers have not gone for a test. 75% female teachers responded yes while 25% said no they have not gone for a test.

Responses to question 3.

3(a) If you answered yes to the above Question what motivated you to go for this test? The following statements are the answers that I got from teachers:

- Wanted to make best-informed choices for kids, and myself in order to plan for our future so that I do not immerse myself into big debt.
- Just wanted to know my status to be on one safe side.

- Because I wanted a baby
- Because I wanted to know my status

3(b) If no why have you not gone for an HIV test?

The following statements are responses to the above question:

- Not yet ready psychologically
- Fear of what might come out, and how I will handle it
- Still thinking about it
- Procrastination

Table 4.7 Provides frequencies ad percentages of hypothesis 1 questions

STATEMENT	GENDER	YES		NO	
		F	%	F	%
4a).If the results of your test is positive this means that you have been infected by HIV.	Females	4	100	0	0
	Males	4	100	0	0
4b).If you test negative you are not infected with HIV.	Females	3	75	1	25
	Males	4	100	0	0
5. Whether you have HIV or not, having an HIV test gives you the power to plan for a healthy future.	Females	4	100	0	0
	Males	4	100	0	0
6. The results of HIV test will give you your HIV status.	Females	4	100	0	0
	Males	4	100	0	0
7. Have you ever heard of counselling when you go for an HIV test?	Females	4	100	0	0
	Males	4	100	0	0
8. The pre-test counselling will prepare you for the test and will help you to anticipate the result.	Females	2	50	2	50
	Males	3	75	1	25
9. During the post-test counselling you will be told the results of the test.	Females	4	100	0	0
	Males	3	75	1	25

According to Table 4:7

Statement 4 (a): 100 % of teachers regardless of gender, responded positively.

Statement 4 (b): 100 % of male teachers and 75% of female teachers agree that if you test negative you are not infected with HIV and 25% of female teachers disagree with this statement.

Statement 5: 100 % of teachers agree that whether you have HIV or not, having an HIV test gives you the power to plan for a healthy future.

Statement 6: 100% of teachers responded affirmatively to the statement that says the results of HIV test will give you your HIV status.

Statement 7: 100% of teachers agree that they have heard of counselling when you go for an HIV test.

Statement 8: 75% of male teachers and 50% of female teachers affirm to the statement that the pre-test counselling will prepare you for the test and will help you to anticipate the result while 25% of male teachers and 50% of female teachers are against the statement.

Statement 9: 100 % of female teachers and 75% of male teachers responded affirmatively to this statement and 25% of male teachers were in disagreement to the statement.

Table 4.8 If you had sex without a condom recently, the virus may not show up in the first test.

	YES		NO		YES - NO
	FREQUENCY	%	FREQUENCY	%	
MALES	3	75	1	25	4
FEMALES	4	100	0	0	4

This table shows 75% of male teachers agree with the statement while 25 % of male teachers are against the statement and 100 % of female teachers responded positively.

Statement 11: If your answer is yes how long should you wait in order to go for test?

The following were responses of seven teachers who answered yes teachers:

- Six months
- Three months
- Six weeks
- Three months or longer
- Six months
- Three months
- Three months

Table 4.9 HIV can be passed on more easily if you have an STI.

	YES	NO
FREQUENCY	8	0
%	100	0

The above table indicates that 100% of the population of teachers responded affirmatively to the above statement.

Table 4.10 HIV is spread through having sex without a condom.

GENDER	YES		NO		YES - NO
	FREQUENCY	%	FREQUENCY	%	
MALES	4	100	0	0	4
FEMALES	4	100	0	0	4

This table shows 100% teachers regardless of gender agree that HIV is spread through having sex without a condom.

14: Despite what appears to be widespread use of condoms and long experience with them, many people still seem to be having problems using them, problems such as condoms bursting or falling off. Why is this?

The following are responses of teachers:

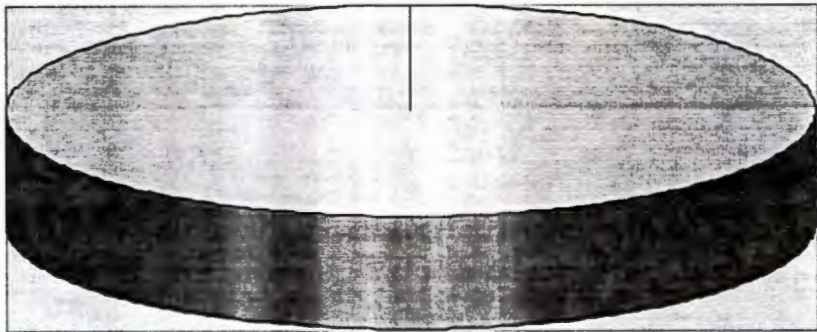
- Just an act, there is nothing like that
- They do not take time to learn how to use them correctly
- Ignorance and lack of adequate knowledge and proper use of condoms
- Carelessness and not paying particular attention to the instructions of how to use them

15: At what point should young people be allowed to learn about biological aspects of reproductive health, if at all?

Responses of teachers regardless of gender:

- Teenage years
- Primary school
- As early as they are able to conceptualise information

Figure 4.1: Are you free to discuss reproductive health issues with your students?



This pie chart above shows 100% teachers regardless of gender agree that they are free to discuss reproductive health issues with their students?

17: If yes what is it that you have discussed with them so far?

Responses of teachers:

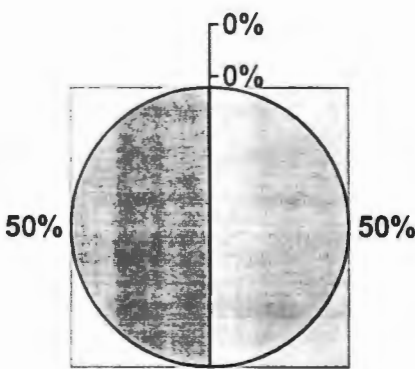
- Puberty
- Sexuality
- Love affairs and sex education
- Problems being a teenage mother
- HIV and AIDS issues

Table 4.11: Do you provide written material about reproductive health to students?

	YES		NO		YES - NO
GENDER	FREQUENCY	%	FREQUENCY	%	
MALES	3	75	1	25	4
FEMALES	4	100	0	0	4

This table shows that 100% of female teachers and 75% of male teachers said they provide written material about reproductive health to students while 25% of male teachers said no.

Figure 4.2: Have you any objections to student having access to condoms?



This pie chart above shows 50% teachers regardless of gender agree that they are free to discuss reproductive health issues with their students and another 50% disagree giving reasons that it encourages experimentation by students.

ANALYSIS OF RESPONSES TO ITEMS OF THE QUESTIONNAIRE

STUDENTS

SECTION A

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 4.12: Age category

AGE	FREQUENCY	%
11 - 15	40	33.3
16 - 19	80	66.7

Table 4.12 shows that 33.3% of the students fall under age category 11-15 years while 66.7% of the students fall under 16-19 years. This is due to the sampling technique used which selected more students in form 2 and form 3 because the researcher did not want to use more form ones because they are still new in the schools therefore they do not have more knowledge about some of the things that are happening in the school.

Table 4.13: Gender characteristics

GENDER	FREQUENCY	PERCENTAGE
MALE	60	50
FEMALE	60	50
TOTAL	120	100

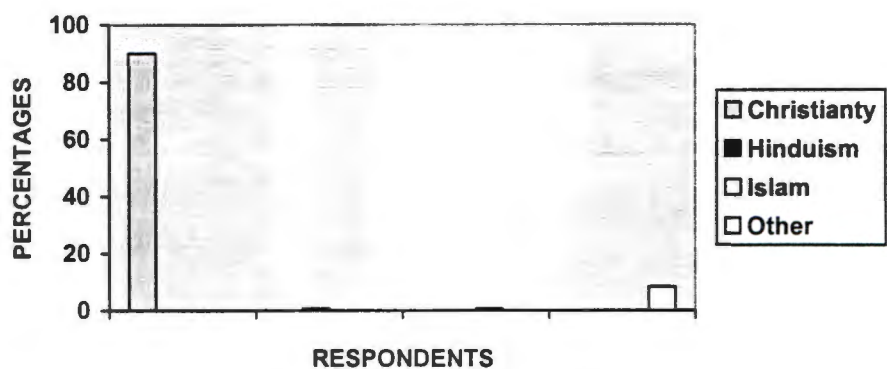
The above table indicates that there are 120 students who responded to the questionnaire, 60 males and 60 females, same number for both sexes. Looking at this table, gender is fairly represented.

Table 4.14: Form

FORM	FREQUENCY	PERCENTAGE
1	40	33.3
2	38	31.7
3	42	35

From table 4.14, 33.3% are form ones and 31.7% form twos while 35% are form threes. Thus, suggesting that the total number of form 2 and form 3 are more than that of form ones alone. This was done because the researcher wanted to collect more information from the form twos and form three because they are not new in the school therefore they are conversant with what is happening in the school.

Figure 4.3: Religion

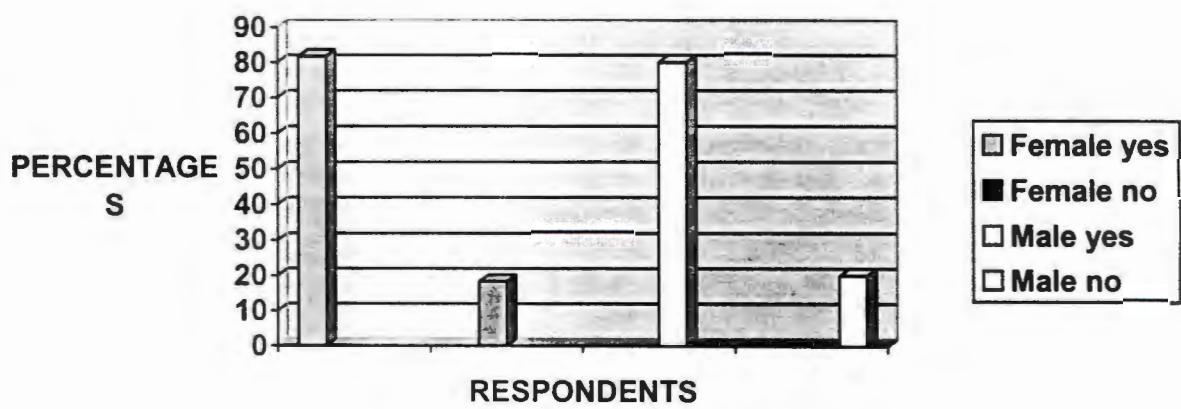


All the schools that were used in this survey are from the Ramotswa village and they are Tswana medium schools. Ramotswa village is dominated by the Roman Catholic Church and Lutheran Church which are all Christian churches, This accounts for the results that were found which are 90% Christianity, 0.83% Hinduism, 0.83% Islam and 8.34% belongs to other religions which were not stated.

SECTION B

STUDENT’S RESPONSES

Figure 4.4: Have you ever heard of any infections that can be transmitted sexually?



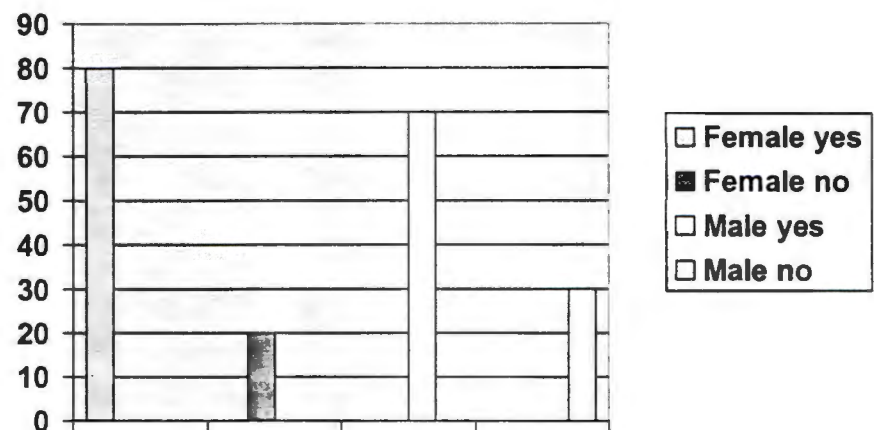
Information displayed on the above chart shows 81.7% of females agree with the statement while 18.35 are against. 80% of males agree and 20% of males say no they have never heard of any infections that can be transmitted sexually.

Table 4.15: Have you heard of AIDS?

	YES	NO
FREQUENCY	106	14
%	88.3	11.7

From Table 4.15 above the majority of students have heard of AIDS: 88.3% of both males and females and 11.7% said they have never heard of AIDS. Thus, suggesting higher level of HIV and AIDS awareness amongst students.

Figure 4.5: There is a relationship between HIV and AIDS.



The Figure 4.5 above shows 80% of females agree with the statement while 20% disagree with the statement. 70% of males are for the statement while 30% are saying there is no relationship between HIV and AIDS.

HYPOTHESIS 2:There is significant difference between junior secondary school female students and junior secondary school male students in their sexual behaviour.

Table 4.16: Analysis of all responses to hypothesis two questions using Chi Square.

KEY: N - Number

Chi sq - chi square

Df - degree of freedom

Sign - significance

	N	Chi sq	df	Sign
MALES	15	4.9	1	3.841
FEMALES	15	4.9	1	3.841

On significant difference between Junior Secondary School female students and Junior Secondary School male students in their sexual behaviour, the inferential

statistics: chi square was 4.9. This result means that there is significant difference between Junior Secondary School female students and Junior Secondary School male students in their sexual behaviour.

Reference: Appendix C

Table 4.17: Provides frequencies of hypothesis 3 questions

STATEMENT	A	SA	U	D	SD
	1	2	3	4	5
11: If pregnant woman has the AIDS virus, her child will inevitably get AIDS virus as well.	32	44	9	12	23
12: Touching someone who has the AIDS virus can spread the AIDS virus	4	2	8	77	29
13: Kissing someone who has the AIDS virus can result in AIDS virus infection.	5	10	21	48	36
14: If you go for HIV test and your results of the test are HIV positive it means you have AIDS	23	31	19	19	28
15: If you go for HIV test and your results are HIV negative it means you are free to have sex without a condom.	5	6	9	70	30
16: Traditional healers can cure AIDS.	8	5	18	72	17
17: A person who has genital sore is more likely to get AIDS.	18	23	46	17	18
18: A person can have an STD without any symptoms.	10	25	33	31	21
FREQUENCY	105	146	163	346	202
POINTS	105	292	489	1384	1010

The following key was used to interpret the responses;

A – Agree

SA – Strongly Agree

U – Uncertain

D – Disagree

SD – Strongly Disagree

According to the above Table respondents who responded positively scored 1.109 points, while those who responded negatively scored 750 points and those who were uncertain scored 489 points. Therefore is a significant positive relationship between Junior Secondary School students' knowledge about HIV and AIDS and the use of condoms.

Table 4.18: Analysis of all responses to hypothesis three questions using Pearson Product.

X	X ²	XY	Y	Y ²
32	1024	416	13	169
4	16	308	77	5929
5	25	240	48	2304
23	529	437	19	361
5	25	350	70	4900
8	64	576	72	5184
18	324	324	18	324
10	100	250	25	625
ΣX 105	ΣX ² 2107	ΣXY 2901	ΣY 342	ΣY ² 19796

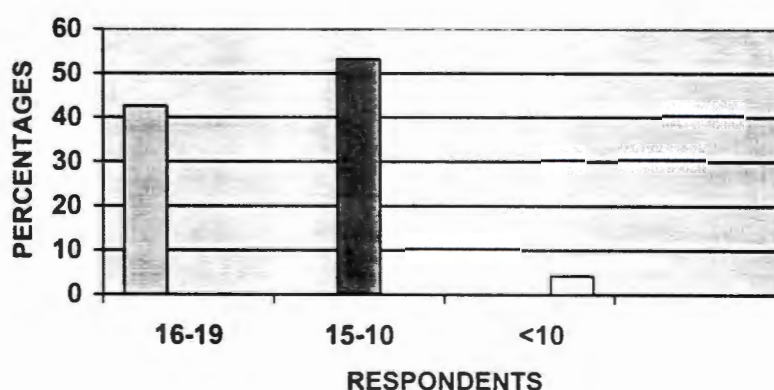
Calculations: reference to Appendix D

Table 4.19: Have you ever had sexual intercourse?

GENDER	YES		NO		YES - NO
	FREQUENCY	%	FREQUENCY	%	TOTAL
MALES	14	23.3	46	76.7	60
FEMALES	33	55	27	45	60

This table show 23.3% male students agree that they had sexual intercourse while 76.7% males say no. 55% of female students responded by saying yes they have had sexual intercourse while 45% are saying they have never had sexual intercourse.

Figure 4.6: If yes think back to the first time you had sexual intercourse, how old were you then?



Information displayed on the above chart shows that 42.6% of both male and female students had sexual intercourse at the ages between 16 years and 19 years, 53.2% of both male and female had sexual intercourse at the ages 15 years and 10 years while 4.2% had sexual intercourse while they were younger than 10 years old.

Table 4.20: Was this planned in advance, or did it just happen?

	Planned in advance	Just happened
FREQUENCY	15	32
%	31.9	68.1

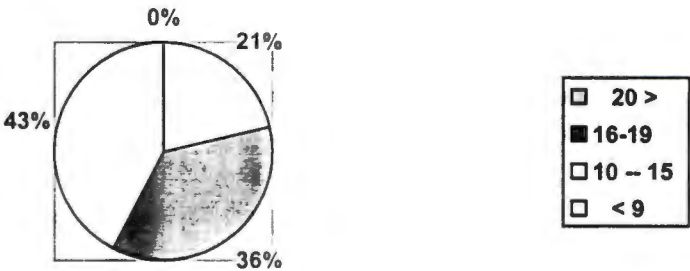
Table 4.19 indicates that 31.9% of the population of students who have sexual intercourse had it planned in advance while 68.1% was not planned, it just happened.

Table 4.21: Was condom used the first time you had sexual intercourse?

	Condom used	Condom not used
FREQUENCY	7	40
%	14.9	85.1

The above table show 14.9% of the students who have had sexual intercourse used a condom the first time when they had sexual intercourse while 85.1% did not use a condom.

Figure 4. 7: What was the age of your first sexual partner? If not certain get an estimate.



Information displayed on the above chart shows that 21% of the population of students who have had sexual intercourse say the age of their first sexual partner was 20 and above, 36% say it was between 16 and 19 years, 43% said it was between 10 and 15 years. Nobody responded to 9 years and younger.

Table 4.22: Was it something you desired at the time or it was coerced (forced)?

	Desired	Forced
FREQUENCY	37	10
%	78.7	12.3

Table 4.17 shows that 78.7% of students who have had sexual intercourse had it because they desired to have it and 12.3% had it forced (coerced).

Table 4.23Data for the analysis of responses to these questions were derived from APPENDIX A

QUESTION	SEX	YES		NO		DO NOT APPLY	
		F	% F	F	% F	F	F %
21.Should girls seek the consent of their partners to obtain condoms?	M	28	47	26	43.3	6	10
	F	18	30	34	56.7	8	13.3
22.If you were to discover that you are HIV positive today would you continue to use condoms?	M	48	80	7	11.7	5	8.3
	F	48	80	4	6.7	8	13.3
23.Does your partner live in the same town or village with you?	M	14	23.3	8	13.3	38	63.4
	F	6	10	14	23.3	40	66.7
24.During the last times that you had sex with any partner did you use condoms?	M	12	20	3	5	45	75
	F	10	16.7	4	6.7	46	76.7
25.Do you know where to obtain condoms?	M	45	75	7	11.7	8	13.3
	F	32	53.4	14	23.3	14	23.3
26.Did you ever use any contraceptives apart from condoms during sexual intercourse?	M	8	13.3	11	18.4	41	68.3
	F	3	5	15	25	42	70

KEY:

F – Frequency

% F – Percentage Frequency

Table 4.24: If you answered NO to question 19, under what circumstances, if any would you decide to use a condom the first time you will have sex? Tick the response that you feel is correct (You can tick more than one)

STATEMENT	FREQUENCY	PERCENTAGE
a) Do not know	22	30
b) Under any circumstances	45	61.6
c) If suspect partner had disease	37	50.7
d) If partner had other partner	22	30
e) If feared pregnancy	40	54.8
f) If I do not use other contraceptives	41	56.2

According to the above table:

Statement 27 a): 30% of students said they do not know under what circumstances they would use a condom when they first have sex.

Statement 27 b): 61.6% of the students said they use a condom under any circumstance.

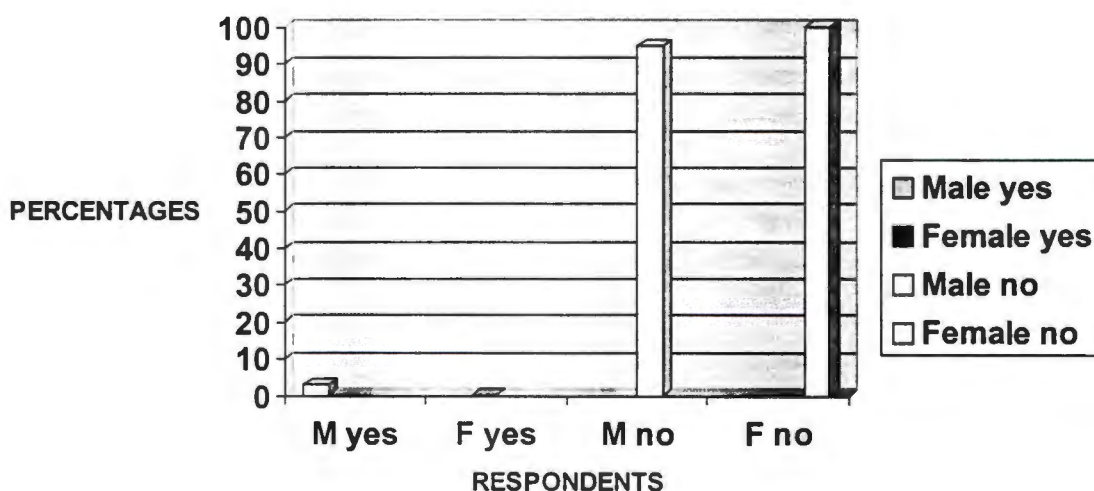
Statement 27 c): 50.7% of the students said they would use condom if they suspect partner had disease.

Statement 27 d): 30% of the students said they would use a condom if partner had other partners.

Statement 27 e): 54.8% of the students said they would use a condom if feared pregnancy.

Statement 27 f): 56.2% of the students said they would use a condom if do not use other contraceptives.

Figure 4.8: Have you ever had sex with someone in exchange for gifts or money?



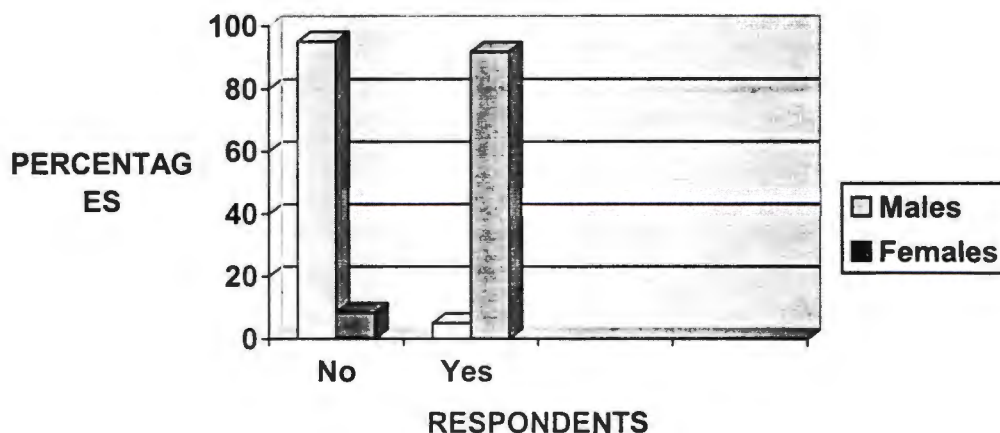
Students disagree that they have had sex with someone in exchange for gifts or money. This is indicated in the above figure where 5% of males and 0% are saying yes they are agree and 95% males and 100% females saying no.

Table 4.25: Did this ever occur with someone who was older than you?

GENDER	YES		NO		YES - NO
	FREQUENCY	%	FREQUENCY	%	TOTAL
MALES	5	8.3	55	91.7	60
FEMALES	7	11.7	53	88.3	60

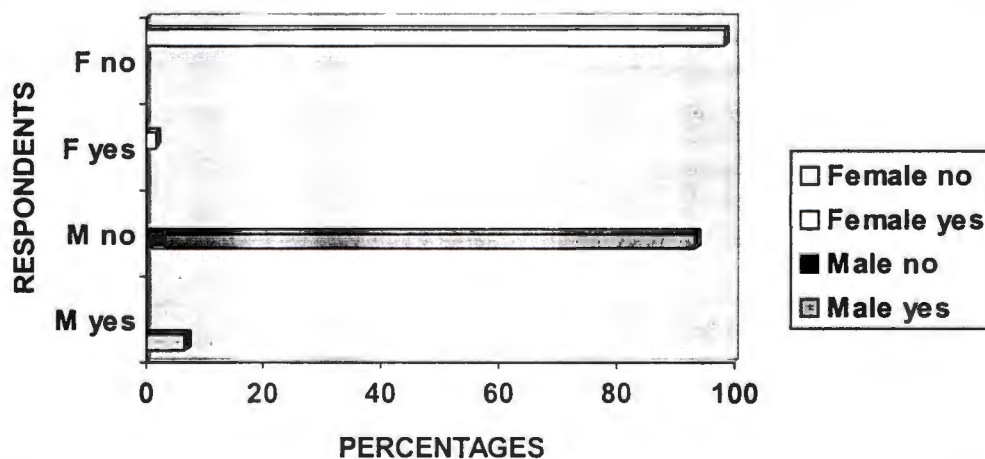
Students disagrees that this occurred with someone older than they are. According to the above table 8.3% males and 11.7% females are saying yes I occurred while 91.7% males and 88.3% female say no.

Figure 4.9: Have you ever had a sexual partner who was ten years or more older than you?



Looking at this Figure female students with 91.7% agree that they have had a sexual partner who was ten years older than them. Only 8.3% of males are saying yes. 95% of males and 5% females say no they have never had a sexual partner who was ten years older than them.

Figure 4.10: Sometimes people have sex because they were forced to do so. Has this ever happened to you?



Students disagree that they have had sex because they were forced to do so. This is indicated by the above table where 6.7% males and 15% females are saying yes. 93.3% males and 98.3% females say no this has never happened.

Figure 4.11: Was this person/one of these people an extended family member?

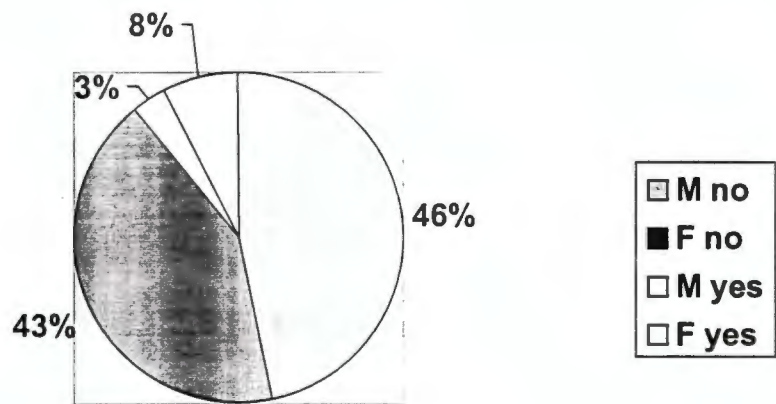
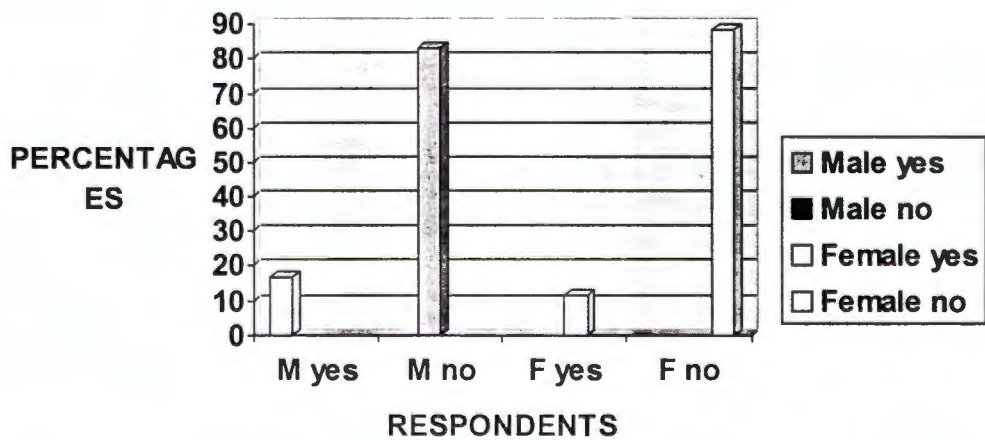


Figure 4.10 shows that 43% female students and 46% male students said no while 8% female students and 3% male students said yes this person/one of these people was an extended family member.

Figure 4.12: Was this person/one of these people a friend of yours or a peer?



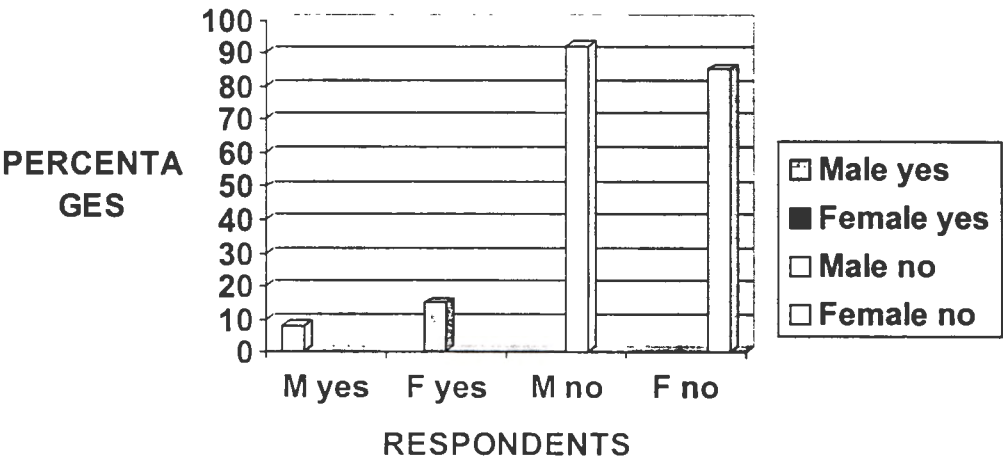
According to the above figure 16.7% males and 11.7% female students are saying yes while 83.3% males and 88.3% females are saying no this person/one of these people was a friend/peer.

Table 4.26: Think about the first time this happened, did you talk to any one about it?

GENDER	YES		NO		YES - NO
	FREQUENCY	%	FREQUENCY	%	TOTAL
MALES	10	16.7	52	83.3	60
FEMALES	8	13.3	55	86.7	60

The above table shows that 16.7% of male students and 13.3% female students said yes they talked to someone the first time this happened while 83.3% males and 86.7 females said ‘no they did not talk to any one’

Figure 4.13: Were you ever obliged to have sex with someone even though you were suspicious that they might have a sexually- transmitted disease?



According to the above figure, 8.3% of male students and 15% of the female students said yes they were obliged to have sex with someone even though they were suspicious that they might have a sexually- transmitted disease while 91.7% of male students and 85% of female students said no.

DISCUSSION OF DATA ANALYSIS

HYPOTHESIS 1: Do Junior Secondary School students have knowledge about HIV and AIDS?

HYPOTHESIS 2: There is significant difference between Junior Secondary School female students' knowledge about HIV and AIDS and Junior Secondary School male students' knowledge about HIV and AIDS.

Both hypothesis one and hypothesis two were answered in Table 4.15, Table 4.16, Table 4.17, Table 4.18, Table 4.19 Table 4.20, Table 4.21 and Figure 4.5, Figure 4.6, Figure 4.7. Generally knowledge of HIV and AIDS among youth in Ramotswa secondary schools is good. 80% of female students and 70% of male students said yes there is a relationship between HIV and AIDS. Females seem to be more knowledgeable about HIV and AIDS than males. On significant difference between Junior Secondary School male students in their sexual behaviour, the inferential statistics: chi-square was 4.9. This result means that there is significant difference between Junior Secondary School female students and Junior Secondary School male students in their sexual behaviour. Reverence: Appendix C.

HYPOTHESIS 3. There is a significant positive relationship between Junior Secondary School students' knowledge about HIV and AIDS and the use of condoms.

Table 4.22 and Table 4.23 answer the above hypothesis. Findings suggest that girls are more knowledgeable about the use of condoms than boys: 75% girls and 53.4% of Boys know where to obtain condoms. 61.6% of students said they would use condoms under any circumstances. 56.7% do not see the consent of their partners to obtain condoms as 30% said they should seek consent of their partners to obtain the

condom. These results mean that there is significant positive relationship between Junior Secondary School students, about HIV and AIDS and the use of condoms, therefore hypothesis 3 is accepted.

HYPOTHESIS 4. There is a significant positive relationship between teenagers' sexual behaviour and their knowledge about HIV and AIDS.

Figure 4.8, Figure 4.9, Figure 4.10, Figure 4.11, Figure 4.12, Figure 4.13. And Table 4.24 and Table 4.25 on student responses are quite evidence that there is a positive relationship between teenagers' sexual behaviour and their knowledge about HIV and AIDS. Overall findings about teenagers' sexual behaviour and their knowledge about HIV and AIDS were somewhat positive, although problems remained. Of concern, only 31.9% of first sexual encounter were planned while 68.1% just happened, although even in these cases condoms were generally used which shows that there is a significant positive relationship between teenagers' sexual behaviour and their knowledge of HIV and AIDS.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter covers the summary of the research, recommendations and conclusions based on the results of the study.

5.1 SUMMARY

The purpose of this study was to investigate the knowledge of junior secondary school students about HIV and AIDS and their sexual behaviour in Ramotswa junior secondary schools. Questionnaires (APPENDIX A and B) were developed to gather information and the items sought to find out whether the following are significant to the identified problem:

1. Do Junior Secondary School students have knowledge about HIV and AIDS?
2. There is significant difference between Junior Secondary School female students and junior secondary school male students in their sexual behaviour.
3. There is a significant positive relationship between Junior Secondary School students' knowledge about HIV and AIDS and the use of condoms.
4. There is a significant positive relationship between teenager's sexual behaviour and their knowledge about HIV and AIDS.

The study was carried out in four junior secondary schools in Ramotswa. The sample consisted of one hundred and twenty (120) students and eight teachers.

5.2 RECOMMENDATIONS

The study recommends that:

In order to fight STI's and HIV and AIDS there must be openness, trust sharing of ideas, guidance, responsibility, involvement and acceptance by parents of youth. People as individuals have the right to decide and have opinions.

Further studies of condom usage are needed to examine the seriousness of constraints and explore opportunities for their use. STI prevention, diagnosis and treatment are to be improved further.

Approaches should be tested for changing the ways of bringing up children and allowing them more responsibility and independence earlier in life. A major effort can be made in the educational system focusing on gender issues, issues of sexual relations and much more training in life skills using experiential and task based learning approaches.

Avoid over- reliance on counselling teachers and system and any tendency to abdicate responsibilities to them. Many guidance and counselling teachers in Botswana schools have limited skills and they are not trained to deal with these issues. Therefore, there is need for active involvement of other teachers. School management team have to be actively involved in guidance and counselling activities.

Most young people need comprehensive education on HIV and AIDS prevention, treatment, care and support. Even though they are familiar with the basic messages on HIV and AIDS; they are not familiar with in depth information, which fuels the myths and fear around HIV and AIDS.

Interventions need to provide up to date, accurate and detailed information about all aspects of HIV and AIDS within the context of reproductive health needs and concerns of young women and men.

The introduction of a reproductive health education curriculum in all schools starting at an early age will be an advantage to the students.

For HIV and AIDS prevention and care programmes to be effective, young people must be involved in their design and implementation.

Parents, extended families, communities, schools and peers are critical in guiding and supporting young people to make safe choices about their health and well-being. Caring adults help young people feel safe and secure, allowing them to develop the resiliency needed to manage the challenges in their lives.

Adolescents who are not yet sexually active must be encouraged to delay sexual activity. This can be done through clubs i.e. Abstinence clubs. When young people do have sex, they must be able to use a latex condom consistently and properly. Good-quality condoms have to be easily available and affordable.

5.3 CONCLUSION

Knowledge of HIV and AIDS among youth in Ramotswa secondary schools is good. 80% of female students and 70% of male students said yes there is a relationship between HIV and AIDS. However 20% of the study population knew the risk factors of HIV and AIDS transmission. Females were more knowledgeable on HIV and AIDS than males.

It is apparent that teachers teach courses on sexuality, HIV and AIDS and the relationship skills clearly, but they do need special training to increase their knowledge and comfort levels. During the survey, some teachers expressed

discomfort with the question of whether they have gone for an HIV test because they thought that the next question that the researcher was going to ask would be to reveal their HIV status, which was not the case.

Levels of knowledge are high for many basic knowledge variables. Basic knowledge about STIs is quite good, as is knowledge about the means of HIV transmission. Almost all respondents had heard of AIDS many knew how HIV could be spread, and almost knew symptoms of AIDS.

Nevertheless, while basic knowledge may be very high, substantive knowledge is considerably lower, and it is knowledge that is most likely to affect behaviours and affect risk. Of a particular concern is confusion over the relationship between HIV and AIDS, and serious lack of knowledge about how long one could be asymptomatic with HIV. The nature of the knowledge about HIV and its relation to AIDS is such that it is likely that quite a few do not realise they are at risk.

According to the answers given by teachers many students have been exposed to education about adolescents' reproductive health issues. It appears that most of these young people learned about these issues only in school, but when it comes to talking with parents just a few of them are able to do that they are not there. These discussions tended to cover both the biological and social aspects of reproductive health. Given other findings about HIV and AIDS, there is of course room for improvement, but the channels to reach young people are certainly there.

Findings suggest that girls do not need the consent of their partners to obtain condoms, since only as 30% suggested that they should seek consent of their partners to obtain the condom. When asked whether they knew where to obtain condoms, 53.4% said yes the know where to obtain them.

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APPENDIX A

STUDENTS' QUESTIONNAIRE

The purpose of this questionnaire is to investigate the knowledge of junior secondary school student about HIV and AIDS and their sexual behaviour in Ramotswa secondary schools. I will appreciate if you answer this questionnaire. The information will be confidential and no identification of a specific school will be given when the research is compiled.

SECTION A

DEMOGRAPHIC FACTORS

NB: Kindly answer the following questions by making a tick in the appropriate box.

AGE CATEGORY

11 – 15 (1)	
16 – 19 (2)	

GENDER

MALE (1)	
FEMALE (2)	

FORM

FORM 1 (1)	
FORM 2 (2)	
FORM 3 (3)	

RELIGION

CHRISTIANITY (4)	
ISLAM (3)	
HINDUISM (2)	
OTHER (1)	

SECTION B

NB: Tick the answer that you think is the most appropriate.

QUESTION	YES (2)	NO (1)
1. Have you ever heard of any infections that can be transmitted sexually?		
2. Have you ever heard of AIDS?		
3. Is there any relationship between HIV and AIDS?		
4. Do people with AIDS show any signs of infection and show symptoms?		
5. Have you ever discussed sexual issues with an adult, other than a family member, whom you considered to be very well informed?		
6. Have you ever heard of condoms?		
7. Have you seen a condom demonstration?		
8. Do you personally have an acquaintance, friend, family member or relative that you know is sick with AIDS or who has died of AIDS?		
9. Have you ever gone for a test to see if you have the AIDS virus?		
10. Do people with AIDS show any signs of infection and show any symptoms?		

STATEMENT	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
11. If a pregnant woman has the AIDS virus, her child will inevitably get AIDS virus as well.					
12. Touching someone who has AIDS virus can spread the AIDS virus.					
13. Kissing someone who has the AIDS virus can result in AIDS virus infection.					
14. If you go for HIV test and your results of the test are HIV positive it means you have AIDS.					
15. If you go for HIV test and your results are HIV negative it means you are free to have sex without a condom.					
16. AIDS can be cured by traditional healers.					
17. A person who has genital sore is more likely to get AIDS.					
18. A person can have an STD without any symptoms.					

19. Have you ever had sexual intercourse?

YES (2)	
NO (1)	

20. If yes think back to the first time you had sexual intercourse. How old were you then?

a) Was this planned in advance, or did it just happen?

planned in advance (2)	
just happened (1)	

b) Was a condom used the first time you had sexual intercourse?

Condom used (2)	
Condom not used (1)	

c) What was the age of this first sexual partner? If not certain get an estimate.

20> (4)	
16 – 19 (3)	
10 – 15 (2)	
< 9 (1)	

d) Was it something you desired or the time, or were you very reluctant and or was it at least somewhat coerced (forced)?

planned in advance (2)	
just happened (1)	

QUESTION	YES (3)	NO (2)	DO NOT APPLY (1)
21. Should girls seek the consent of their partners to obtain the condoms?			
22. If you were to discover that you are HIV positive today would you continue to use condoms?			
23. Does your partner live in the same town or village with you?			
24. During the last times that you had sex with any partner did you use condoms?			
25. Do you know where to obtain condoms?			
26. Did you ever use any contraceptive apart from condoms during sexual intercourse?			

27. If you answered NO to question 19, under what circumstance, if any, would you decide to use a condom the first time you will have sex? Tick the response that you feel is correct (you can tick more than one)

- 1 do not know
- 2 under any circumstances
- 3 if suspect partner had disease
- 4 if partner had other partner
- 5 if feared pregnancy
- 6 if I do not use other contraceptives
- 7 other (state)

QUESTION	YES (2)	NO (1)
28. Have you ever had sex with someone in exchange for gifts or money?		
29. Did this ever occur with someone who was older than you?		
30. Have you ever had a sexual partner who was ten years or more older than you?		
31. Sometimes people have sex because they were forced to do so. Has this ever happened to you?		
32. Was this person/one of these people an extended family member?		
33. Was this person/one of these people a friend of yours or a peer?		
34. Think about the first time this happened, did you talk to any one about it?		
35. Were you ever obliged to have sex with someone even though you were suspicious that they might have a sexually-transmitted disease?		

APPENDIX B

TEACHERS QUESTIONNAIRE

The purpose of this questionnaire is to investigate the knowledge of junior secondary school student about HIV and AIDS and their sexual behaviour in Ramotswa secondary schools. I will appreciate if you answer this questionnaire. The information will be confidential and no identification of a specific school will be given when the research is compiled.

SECTION A

DEMOGRAPHIC FACTORS

NB: Kindly answer the following questions by making a tick in the appropriate box

AGE CATEGORY

20 – 25	(1)	
26 – 30	(2)	
31 – 35	(3)	
36 – Above	(4)	

GENDER

2	MALE	(1)	3
4	FEMALE	(2)	5

ACADEMIC QUALIFICATIONS

CAMBRIGE OVERSEAS LEVEL/ CERTIFICATE	(1)	
DIPLOMA	(2)	
BACHELOR DEGREE	(3)	
OTHERS	(4)	

RELIGION

CHRISTIANITY (4)	
ISLAM (3)	
HINDUISM (2)	
OTHER (1)	

SECTION B

1. Have you ever heard of HIV?

YES (2)	NO (1)
---------	--------

2. Have you ever gone for an HIV test?

YES (2)	NO (1)
---------	--------

3 a) If yes what motivated you to go for this test?

4 b) If no why have you not gone for an HIV test?

5 a) If the result of your test is positive this means that you have been infected by HIV.

YES (2)	NO (1)
---------	--------

6 b) If you test negative: you are not infected with HIV.

YES (2)	NO (1)
---------	--------

7. Whether you have HIV or not, having an HIV test gives you the power to plan for a healthy future.

YES (2)	NO (1)
---------	--------

8. The results of HIV test will give you your HIV status.

YES (2)	NO (1)
---------	--------

9. Have you ever heard of counselling when you go for an HIV test?

YES (2)	NO (1)
---------	--------

10. The pre-test counselling will prepare you for the test and will help you to anticipate the result.

YES (2)	NO (1)
---------	--------

11. During the post-test counselling you will be told the results of the test.

YES (2)	NO (1)
---------	--------

12. If you had sex without a condom recently, the virus may not show up in the first test.

YES (2)	NO (1)
---------	--------

13. If your answer is yes how long should you wait in order to go for test?

14. HIV can be passed on more easily if you have an STI.

YES (2)	NO (1)
---------	--------

15. HIV is spread through having sex without a condom.

YES (2)	NO (1)
---------	--------

16. Despite what appears to be widespread use of condoms and long experience with them, many people still seem to be having problems using them, problems such as condoms bursting or falling off. Why is this?

17. At what point should young people be allowed to learn about biological aspects of reproductive health, if at all?

18. Are you free to discuss reproductive health issues with your students?

YES (2)	NO (1)
---------	--------

19. If yes what is it that you have discussed with them so far?

20. Do you provide written material about reproductive health to students?

YES (2)	NO (1)
---------	--------

21. Have you any objections to students having access to condoms?

YES (2)	NO (1)
---------	--------

APPENDIX C (CHI SQUARE 2 x 2)

HYPOTHESIS 2: There is significant difference between junior secondary school female students and junior secondary school male students in their sexual behaviour.

	Strongly Agree	Agree	N
MALES	55(a)	83(b)	138(n)
FEMALES	50(c)	63(d)	113(m)
TOTALS	105(K)	146(L)	251(N)

$$X^2 = \frac{N(ad - bc)^2}{KLmn}$$

$$X^2 = \frac{251(55 \times 63 - 83 \times 50)^2}{105 \times 146 \times 113 \times 138}$$

$$\therefore X^2 = \frac{251(3465 - 4150)^2}{239056020}$$

$$\therefore X^2 = \frac{251(-685)^2}{239056020}$$

$$\therefore X^2 = \frac{251(129600)}{239056020}$$

$$\therefore X^2 = \frac{18921600}{239056020}$$

$$\therefore X^2 = 0.49$$

$$\therefore X^2 = 4.9$$

$$df = (r - 1)(k - 1)$$

$$\therefore df = (2 - 1)(2 - 1)$$

$$\therefore df = 1 \times 1$$

$$\therefore df = 1$$

Level of significance at $0.05 = 3.841$. My obtained value of 4.9 is greater than the critical value. Therefore there is significant difference between junior secondary school female students and junior secondary school male students in their sexual behaviour. Therefore hypothesis two is accepted.

APPENDIX D (Pearson Product Moment)

HYPOTHESIS 3:

There is a significant positive relationship between Junior Secondary School students' knowledge about HIV and AIDS and the use of condoms.

X	X ²	XY	Y	Y ²
32	1024	416	13	169
4	16	308	77	5929
5	25	240	48	2304
23	529	437	19	361
5	25	350	70	4900
8	64	576	72	5184
18	324	324	18	324
10	100	250	25	625
$\sum X$ 105	$\sum X^2$ 2107	$\sum XY$ 2901	$\sum Y$ 342	$\sum Y^2$ 19796

$$r^1 = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n(\sum X^2) - (\sum X)^2][n(\sum Y^2) - (\sum Y)^2]}}$$

$$r^1 = \frac{8(105) - (105)(342)}{\sqrt{[8(2107) - (105)(105)][8(19796) - (342)(342)]}}$$

$$r^1 = \frac{840 - 35910}{\sqrt{[16856 - 11025][158376 - 116964]}}$$

$$r^1 = \frac{-35070}{\sqrt{[5831][41412]}}$$

$$r^1 = \frac{-35070}{\sqrt{241473372}}$$

$$r^1 = \frac{-35070}{\sqrt{15539.4135}}$$

$$r^1 = -2.26$$

$$t = r \sqrt{n-1}$$

$$t = 2.26 \sqrt{8-1}$$

$$t = 2.26 \sqrt{7}$$

$$t = 2.26 \times 2.7$$

$$t = 5.88$$

The degree of freedom at 5% is 2.776 and 1% is 4.604.

My obtained value of 5.88 is greater than the degree of freedom therefore there is significant positive relationship between junior secondary school students' knowledge about HIV and AIDS and the use of condoms.

Distribution of χ^2
Probability

d.f.	.99	.98	.95	.90	.80	.70	.50	.30	.20	.10	.05	.02	.01	.001
1	0.0043	0.0044	0.0046	0.0048	0.0050	0.0052	0.0054	0.0056	0.0058	0.0060	0.0062	0.0064	0.0066	0.0068
2	0.0100	0.0102	0.0104	0.0106	0.0108	0.0110	0.0112	0.0114	0.0116	0.0118	0.0120	0.0122	0.0124	0.0126
3	0.0158	0.0160	0.0162	0.0164	0.0166	0.0168	0.0170	0.0172	0.0174	0.0176	0.0178	0.0180	0.0182	0.0184
4	0.0207	0.0209	0.0211	0.0213	0.0215	0.0217	0.0219	0.0221	0.0223	0.0225	0.0227	0.0229	0.0231	0.0233
5	0.254	0.252	0.250	0.248	0.246	0.244	0.242	0.240	0.238	0.236	0.234	0.232	0.230	0.228
6	0.872	0.870	0.868	0.866	0.864	0.862	0.860	0.858	0.856	0.854	0.852	0.850	0.848	0.846
7	1.239	1.237	1.235	1.233	1.231	1.229	1.227	1.225	1.223	1.221	1.219	1.217	1.215	1.213
8	1.646	1.644	1.642	1.640	1.638	1.636	1.634	1.632	1.630	1.628	1.626	1.624	1.622	1.620
9	2.098	2.096	2.094	2.092	2.090	2.088	2.086	2.084	2.082	2.080	2.078	2.076	2.074	2.072
10	2.592	2.590	2.588	2.586	2.584	2.582	2.580	2.578	2.576	2.574	2.572	2.570	2.568	2.566
11	3.053	3.051	3.049	3.047	3.045	3.043	3.041	3.039	3.037	3.035	3.033	3.031	3.029	3.027
12	3.571	3.569	3.567	3.565	3.563	3.561	3.559	3.557	3.555	3.553	3.551	3.549	3.547	3.545
13	4.107	4.105	4.103	4.101	4.099	4.097	4.095	4.093	4.091	4.089	4.087	4.085	4.083	4.081
14	4.660	4.658	4.656	4.654	4.652	4.650	4.648	4.646	4.644	4.642	4.640	4.638	4.636	4.634
15	5.229	5.227	5.225	5.223	5.221	5.219	5.217	5.215	5.213	5.211	5.209	5.207	5.205	5.203
16	5.812	5.810	5.808	5.806	5.804	5.802	5.800	5.798	5.796	5.794	5.792	5.790	5.788	5.786
17	6.408	6.406	6.404	6.402	6.400	6.398	6.396	6.394	6.392	6.390	6.388	6.386	6.384	6.382
18	7.015	7.013	7.011	7.009	7.007	7.005	7.003	7.001	6.999	6.997	6.995	6.993	6.991	6.989
19	7.633	7.631	7.629	7.627	7.625	7.623	7.621	7.619	7.617	7.615	7.613	7.611	7.609	7.607
20	8.260	8.258	8.256	8.254	8.252	8.250	8.248	8.246	8.244	8.242	8.240	8.238	8.236	8.234
21	8.897	8.895	8.893	8.891	8.889	8.887	8.885	8.883	8.881	8.879	8.877	8.875	8.873	8.871
22	9.542	9.540	9.538	9.536	9.534	9.532	9.530	9.528	9.526	9.524	9.522	9.520	9.518	9.516
23	10.196	10.194	10.192	10.190	10.188	10.186	10.184	10.182	10.180	10.178	10.176	10.174	10.172	10.170
24	10.856	10.854	10.852	10.850	10.848	10.846	10.844	10.842	10.840	10.838	10.836	10.834	10.832	10.830
25	11.524	11.522	11.520	11.518	11.516	11.514	11.512	11.510	11.508	11.506	11.504	11.502	11.500	11.498
26	12.198	12.196	12.194	12.192	12.190	12.188	12.186	12.184	12.182	12.180	12.178	12.176	12.174	12.172
27	12.879	12.877	12.875	12.873	12.871	12.869	12.867	12.865	12.863	12.861	12.859	12.857	12.855	12.853
28	13.565	13.563	13.561	13.559	13.557	13.555	13.553	13.551	13.549	13.547	13.545	13.543	13.541	13.539
29	14.256	14.254	14.252	14.250	14.248	14.246	14.244	14.242	14.240	14.238	14.236	14.234	14.232	14.230
30	14.953	14.951	14.949	14.947	14.945	14.943	14.941	14.939	14.937	14.935	14.933	14.931	14.929	14.927



YUNIBESITI YA BOKONE-BOPHIRIMA
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Date: 05-05-2005

District Manager
Circuit Manager
Site Manager
Educator

Sir/Madam

RESEARCH PROJECT: FIELD WORK

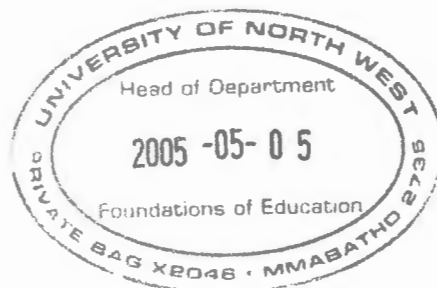
The Department of Foundations of Education hereby request you to grant our B.Ed (Hons), postgraduate student(s) permission to conduct research in schools (s) college(s) under your jurisdiction,

TOPIC: An investigation into the knowledge of junior secondary school students on HIV And AIDS and their sexual behaviours in Ramotswa Secondary schools
STUDENT NAME: ALBERTINAH BOTHALE STUDENT NO: 10695931

Thanking you in anticipation

Yours sincerely

MR TB ASSAN
HOD: FOUNDATIONS OF EDUCATION



University of North – West
Private Bag X 2046
Mmabatho

05 – 05 2005

Permanent Secretary
Ministry of Education
Private Bag 00206
Gaborone

RE: Permission to conduct Research in Ramotswa Junior Secondary Schools.

Dear Madam

I kindly request your permission to conduct a research study in Ramotswa Junior Secondary Schools from Monday 30th May to Friday 10th June 2005.

I am a student at North West University studying Master's of Education (Guidance and Counselling). In partial fulfilment of the program, I am required to carry out a research project in which I will need subjects. My research topic: **An investigation into knowledge of Junior Secondary School students on HIV and AIDS and their sexual behaviour in Ramotswa Junior Secondary Schools.**

Thanking you in anticipation.

Yours sincerely

Albertinah Mmadintwa Botlhole



Student No: 10695931

TSM No: 71567

REFERENCE:



REPUBLIC OF BOTSWANA

KAGISO SECONDARY SCHOOL
PRIVATE BAG 001
RAMOTSWA
BOTSWANA

Tel 5390232
Fax 5390281

TELEPHONE: 3655400

TELEX: 2944 THUTO BD

FAX: 351624/3655458

REFERENCE: E 11 / 17 XXXV(50)



REPUBLIC OF BOTSWANA

MINISTRY OF EDUCATION

PRIVATE BAG 005

GABORONE

BOTSWANA



20 May 2005

Dear Albertina M Botlhole

PERMISSION TO CONDUCT A RESEARCH- Albertina M Botlhole

We acknowledge receipt of your request to conduct a research that will investigate the knowledge that junior secondary school students have about HIV/AIDS and their sexual behaviour in Ramotswa secondary schools.

You have been granted permission to conduct your research entitled:

An investigation into knowledge of community junior secondary school students about HIV/AIDS and their sexual behaviour in Ramotswa community junior secondary schools

You are how ever informed that the findings of your research should be used to form part of the dissertation to fulfil the award of Master's degree at the University of North West, South Africa.

You are reminded to submit a copy of your final report to the Ministry of Education, Botswana

Thank you

A handwritten signature in ink, appearing to read 'M I Mokubung'.

M I Mokubung

For / Permanent Secretary