

KNOWLEDGE, ATTITUDES AND RISK-BEHAVIOURS OF
SECONDARY SCHOOL TEACHERS ABOUT AIDS IN
IBADAN MUNICIPALITY

BY

ADEKEMI OLUGBENKE OSUNDARE (Mrs.)
B.Sc. (Hons.) Sociology, Ibadan
SRN (England and Wales)
Certificate in Family Planning

A dissertation presented in partial fulfilment
for the degree of MASTER OF PUBLIC HEALTH (HEALTH
EDUCATION) of the UNIVERSITY OF IBADAN, Ibadan

DEPARTMENT OF PREVENTIVE AND SOCIAL MEDICINE
COLLEGE OF MEDICINE
UNIVERSITY OF IBADAN
IBADAN, NIGERIA

December 1990

DEDICATION

This work is dedicated to:

- the evergreen memory of my late mother - Mrs. Emily Odedele - Arowoogun whose ambition for me in life is to be educated.
- my uncle - Chief T.A. Aderibigbe who actually brought me up.
- my loving husband - Niyi and
- my children - Moyo, Tola and Molara without whose encouragement, moral support and above all patience this work would not have been possible.

ABSTRACT

The Acquired Immune Deficiency Syndrome (AIDS) epidemic poses a major threat to public health in many countries around the world. In the absence of a potent vaccine or effective cure, primary prevention through health promotion is the only realistic means of controlling the spread of AIDS. School provides an excellent forum for the education of students on AIDS. Teachers have a crucial role to play in the education of students on AIDS.

This study was designed to examine the knowledge, attitudes and risk-behaviours of secondary school teachers on AIDS with a view to providing a baseline information upon which an AIDS education programme can be developed for the teachers.

A total of 610 secondary school teachers in Ibadan Municipality were randomly selected from half of all the secondary schools in the Municipality. The schools were selected from the three zones in the Municipality, namely, the inner core, the transitional and the periphery. The teachers were interviewed using a pre-tested self administered questionnaire.

Findings showed that half (51%) of the teachers are aged between 31 and 40 years. A large majority (85.2%) of them are Christians while 82.1% are married. The teachers' knowledge on AIDS as a disease condition is low (8.7%) and their marital status and religious affiliation appear to positively affect their attitude towards AIDS prevention. Majority (77.1%) of the married teachers who are Christians support the practice of having only one sexual partner and the inclusion of AIDS Education in the School Curriculum.

Concerning risk behaviour, a large majority (95.1%) of the teachers do not engage in homosexual relationship while 90.7% have only one sexual partner.

Finally, based on these findings, the implications for health education were discussed and specific recommendations were suggested.

ACKNOWLEDGEMENT

I would like to express my profound gratitude and appreciation to Professor J. D. Adeniyi, a Consultant Health Education and Project Leader, African Regional Health Education Centre (ARHEC), Department of Preventive and Social Medicine who despite his ever-tight schedule and heavy administrative load, has also spared time to help with the supervision of this work right from the beginning to the very end, guiding me with patience and offering useful suggestions at every stage of this study.

Secondly, I have to thank Professor Z.A. Ademuwag for his assistance and useful suggestions at the early stages of this study.

Thirdly, I am mightily indebted to Dr. O. Oladepo Lecturer, African Regional Health Education Centre, Department of Preventive and Social Medicine, who has always shown great interest in this project from its inception and who has also found time to go through this work, making useful comments.

I also wish to express my gratitude to the following individuals who have in one way or another

ACKNOWLEDGEMENT

I would like to express my profound gratitude and appreciation to Professor J. D. Adeniyi, a Consultant in Health Education and Project Leader, African Regional Health Education Centre (ARHEC), Department of Preventive and Social Medicine who despite his ever-tight schedule, and heavy administrative load, has also spared time to help with the supervision of this work right from the beginning to the very end, guiding me with patience and offering useful suggestions at every stage of this study.

Secondly, I have to thank Professor Z.A. Ademuwagun for his assistance and useful suggestions at the early stages of this study.

Thirdly, I am mightily indebted to Dr. O. Oladepo, Lecturer, African Regional Health Education Centre, Department of Preventive and Social Medicine, who has always shown great interest in this project from its inception and who has also found time to go through this work, making useful comments.

I also wish to express my gratitude to the following individuals who have in one way or another

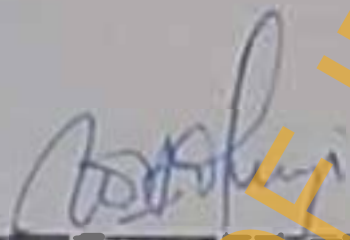
made some contributions to this project: Mr. W. R. Brieger, Dr. Bamgboye, Dr. Sangodoyin, Messrs Steve Kalya and Ahmed Adetunji, Messrs Ademola Ajuwon and Fred Oshiname; Mr. Poju Aderibigbe, Biodun Osundare, Bose Ogunleye, Mrs. Akin Ojo, Mrs. Phebean Alade and to all the teachers of various secondary school in Ibadan Municipality, an area covered by this study.

My gratitude also extends to the people in the Computer Room of the College of Medicine, and to Mrs. Bello, who has kindly helped with the typing of this work.

Above all, I thank the Head of Department of Preventive and Social Medicine for providing me with the status of a Graduate Assistantship during the course of this study.

CERTIFICATION

I certify that this work was carried out by Mrs. Adekemi Olugbenke OSUNDARE in the Department of Preventive and Social Medicine, College of Medicine, University of Ibadan, Ibadan, Nigeria.



SUPERVISOR

J. D. Adeniyi, B.A. (Ife); M.P.H.
(Chapel Hill); A.R.S.H. (London);
Dr. P.H. (John Hopkins)
Professor of Health Education and Project Leader
African Regional Health Education Centre
Department of Preventive and Social Medicine
College of Medicine
University of Ibadan
Ibadan, Nigeria.

TABLE OF CONTENTS

	PAGE
DEDICATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENT	v
CERTIFICATION	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	xi
LIST OF APPENDICES	xiii
 CHAPTER ONE: INTRODUCTION	 1
OBJECTIVES OF THE STUDY	5
HYPOTHESES	6
SCOPE OF THE STUDY	8
 CHAPTER TWO: LITERATURE REVIEW	
The Nature and Extent of the Problem	9
Clinical Symptoms of HIV and AIDS	9
Status of AIDS infection and its associated problems	12
Levels of AIDS Control and associated behavioural problems	20
Knowledge, Attitudes and Practices on AIDS	30
Review of Literature on Sex Education	50
The School Health Programme and its role in the Control of AIDS	56
The role of teachers in School AIDS Control programme	63

TABLE OF CONTENTS (Contd.)

	PAGE
CHAPTER THREE: METHODOLOGY	67
DESCRIPTION OF THE STUDY AREA	67
RESEARCH DESIGN	70
SAMPLING PROCEDURE	71
INSTRUMENTS AND METHODS OF DATA COLLECTION	72
RELIABILITY AND VALIDITY DATA ANALYSIS	76
CHAPTER FOUR: PRESENTATION OF FINDINGS	77
Personal information of the respondents	77
Knowledge of AIDS	
On Attitudes towards AIDS Control measures	102
On Risk-behaviour/practices that could lead to the Spread of AIDS	106
LIMITATIONS OF THE STUDY	116
CHAPTER FIVE: DISCUSSION OF FINDINGS	118
Demographic Characteristics	118
Knowledge of AIDS	120
Attitudes towards AIDS Control measures	123
Risk Behaviour/Practices that could lead to the Spread of AIDS	126
IMPLICATIONS FOR HEALTH EDUCATION PLANNING	133
Poor Knowledge	133
On Attitudes	138
On Behaviour	141

TABLE OF CONTENTS (Contd.)

	PAGE
CHAPTER FIVE (Contd.)	
CONCLUSION	146
DIRECTION FOR FUTURE RESEARCH ...	147
RECOMMENDATIONS	148
REFERENCES	150
APPENDICES	160

UNIVERSITY OF IBADAN LIBRARY

LIST OF TABLES

	PAGE
1. Distribution of respondents by sex	78
2. Distribution of respondents by age	78
3. Distribution of respondents by religion	79
4. Distribution of respondents by level of education	80
5. Distribution of respondents by marital status	81
6. Respondents' knowledge on the causes of AIDS	82
7. Respondents' knowledge on the causes of AIDS by educational level	84
8. Respondents' knowledge on the causes of AIDS by subject taught	86
9. Respondents' knowledge about the mode of spread of AIDS	87
10. Respondents' knowledge about the mode of spread of AIDS by educational level ...	89
11. Respondents' knowledge on the mode of spread of AIDS by subject taught ...	92
12. Respondents' knowledge about prevention of AIDS	94
13. Respondents' knowledge about prevention of AIDS by educational level ...	96
14. Respondents' knowledge about prevention of AIDS by subject taught	99

LIST OF TABLES (Contd.)

	PAGE
15. Correct and incorrect modes of transmission of AIDS reported by respondents	101
16. Attitudes of respondents towards having injection from hospital by religion ...	103
17. Attitudes of respondents towards inclusion of AIDS Education in the School Curriculum by level of education ...	105
18. The use of condom among respondents by marital status	107
19. Practice of homosexuality among male respondents by religion	109
20. Reported sexual dealings with prostitutes among respondents by religion ...	111
21. Reported sexual dealings with prostitutes among respondents by marital status ...	113
22. Reported restriction to one sexual partner among respondents by marital status	115

LIST OF APPENDICES

	PAGE
1. Questionnaires on Knowledge, Attitudes and Behaviour on AIDS	160
2. Format of Health Education Strategies	169
3. List of Selected Secondary Schools ...	173
4. WAEC Syllabus for Senior Secondary Schools 1989/90	178

UNIVERSITY OF IBBADAN LIBRARY

CHAPTER ONE

INTRODUCTION

The first cases of AIDS were reported in 1981. Since that year AIDS has remained a major public health issue in many parts of the world because of the threat it poses to the health of families and communities. The cause of AIDS is Human Immunodeficiency Virus (HIV), a retrovirus that destroys the body's immune system such that it renders the body defenceless and exposed to opportunistic infections and cancers which are the direct causes of death (Armstrong 1985; Mann 1986).

AIDS is not only new but also fatal. At present, there is neither a potent vaccine against HIV nor effective cure for AIDS. Treatment of AIDS patients is palliative comprising mainly of the management of opportunistic infections that take advantage of the body's impaired immune system (Liskin et al, 1986). Zidovudine (AZT), an anti-viral drug, has been shown to prolong the life of AIDS patients (Mann, 1986b) yet it has severe side effects and is quite expensive (Sabatier, 1987) thus limiting its therapeutic potentials.

Currently, the incidence and the prevalence rates of AIDS worldwide are high. Not only have the total number of cases of AIDS worldwide increased rapidly since 1981, but also rising are the number of countries reporting the incidence of the disease. For example, as at July 1988, a total of 96,433 AIDS cases were reported to the World Health Organization (WHO) from 136 countries worldwide (Mann, 1988b). However, by July, 1989, the figures rose to 170,000 cases from 149 countries worldwide (Liskin et al, 1989). But these figures may have under-estimated the global AIDS problem since the disease is under-reported in some parts of the world (Mann, 1988a). It is estimated that about five to ten million people worldwide may be HIV infected (Mann, 1988a).

AIDS is transmitted worldwide mainly through three routes, namely, sexual contact, blood and spread from infected mother to child. In Africa, AIDS is transmitted predominantly through heterosexual intercourse (Johnson and Pond, 1988). There is a disparity in the prevalence rate of AIDS in the African continent. Whereas high AIDS figures have been reported from parts of East, Central and South Africa only

few cases have so far been reported from West and North Africa (Liskin et al, 1989; Onapela and Platt, 1989).

Although sexual contact is the predominant route of HIV transmission in Africa, there are other socio-cultural practices common on the continent that may favour the transmission of HIV. Such practices are made for either ritual or medicinal purposes including male and female circumcision, scarification and activities of 'injection doctors' who usually give intramuscular injections to their clients using mostly unsterilised needles (Hrdy, 1987).

In Nigeria, only few cases of HIV infection and AIDS have so far been reported. Results of a study conducted by Mohammed and others (1988) in Nigeria revealed that of the 5,238 screened only 12 (0.23%) were HIV positive. This low prevalence of AIDS suggests that HIV is a recently introduced virus into Nigeria (Mohammed et al, 1988). The current low prevalence of AIDS in Nigeria should not imply complacency especially since the disease has the potential to spread rapidly if left unchecked (Biggar, 1986). Given the present low prevalence, the opportunity exists for the spread

of AIDS to be controlled before the disease gains a foothold in Nigeria.

In the absence of a potent vaccine against HIV or effective treatment for AIDS, primary prevention through health promotion is the only realistic means of controlling the spread of AIDS in Nigeria. Education has a crucial role to play in prevention and control efforts since AIDS is transmitted mainly through activities that individuals can modify or change. The school is a viable medium for educational activities on AIDS. Through the school health programme, students will be provided information and skills they can use to protect themselves against acquiring AIDS. To achieve this objective, teachers' support and cooperation must be enlisted. To be effective educators on AIDS, teachers must themselves be well educated on the various aspects of the disease. As role models, teachers should not only educate the students but also show positive attitude to AIDS education by avoiding behaviours that may expose them to HIV transmission.

To develop a meaningful educational programme on AIDS for teachers, it is necessary to determine their level of knowledge, attitude and behaviour on AIDS. Such information is essential because it will provide the baseline data upon which AIDS education programmes will be planned. At present, such information does not exist for teachers in the secondary schools in Ibadan Municipality. This study is designed to provide a solution to this problem.

OBJECTIVES OF THE STUDY

General Objective

To assess the level of Knowledge, Attitudes, and Risk-behaviours of Secondary School teachers in Ibadan Municipality about AIDS.

Specific Objectives

1. To assess the level of knowledge of secondary school teachers in Ibadan Municipality on AIDS.
2. To examine the attitudes of teachers in secondary schools in Ibadan Municipality towards AIDS Control measures.
3. To determine the teachers' risk-behaviours or practices that could lead to the spread of AIDS.
4. To assess the implications of these findings for developing a School Health Education programme on AIDS.

HYPOTHESES

The following hypotheses are tested and discussed. There is no relationship between:

1. Teachers level of education and their knowledge about the causes of AIDS.
2. Teachers level of education and their knowledge about the mode of spread of AIDS.
3. Teachers level of education and their knowledge about the prevention of AIDS.
4. Teachers knowledge on the causes of AIDS and the subject they teach.
5. Teachers knowledge on the mode of spread of AIDS and the subject they teach.
6. Teachers knowledge on the prevention of AIDS and the subject they teach.
7. Religious belief of the teachers and their attitude towards the practice of having one sexual partner.
8. Religious belief of the teachers and their opinion towards taking injection only from hospital.

9. Level of education of the teachers and their opinion on the inclusion of AIDS Education in the School Curriculum.
10. Teachers marital status and their use of condoms since exposure to AIDS information.
11. Teachers religious belief and the practice of homosexuality.
12. Teachers religious belief and having sex with prostitutes.
13. Teachers marital status and having sex with prostitutes.
14. Teachers marital status and having only one sexual partner.

SCOPE OF THE STUDY

This research is limited only to the knowledge, attitudes and risk-behaviours that the secondary school teachers in Ibadan Municipality have in relation to AIDS. Although one could have observed the risk-behaviours on AIDS, but this study focused only on reported risk-behaviours.

UNIVERSITY OF IBADAN LIBRARY

CHAPTER TWO

LITERATURE REVIEW

The Nature and Extent of the Problem

Clinical Symptoms of HIV and AIDS

Acquired Immune Deficiency Syndrome (AIDS) is caused by a retrovirus, Human Immunodeficiency Virus (HIV). The disease attacks certain white blood cells responsible for the formation of the body's immune system. By so doing, it renders the body defenceless and vulnerable to opportunistic infections and cancers which in most cases are the direct causes of death (Armstrong, 1985; Mann, 1986; Potts, 1987; Montagnier, 1988).

Clinically, HIV infection is subdivided into five (5) stages (Plot and Colebunders, 1988). The first is the acute illness stage. This may occur as early as seven days after infection and it usually precedes the appearance of antibodies in the blood. The presenting signs and symptoms are fever, enlarged lymph nodes, night sweating, and cough. The incubation period usually ranges between 6 and 12 weeks after infection.

The second stage is Latency phase or Asymptomatic Carrier Stage. The incubation period is not clearly defined, but the stage is characterised by an absence of illness and symptoms. The third is the Persistent Lymphadenopathy, a phase in which there is enlarged lymph nodes (larger than one centimetre in diameter) in two or more sites other than the groin (Plot and Colebunders, 1988). The phase may last for at least three months.

The next stage is the AIDS-Related Complex (ARC) characterised by features similar to those seen in patients with AIDS but they are less severe (Plot and Colebunders, 1988). Here patients do not show any opportunistic infections or malignancies, but may present with clinical features such as weight loss, fatigue, enlarged lymph nodes diarrhoea lasting longer than one month, fever, lesions of the skin and mucous membrane (Sabatier, 1987). Incubation period may last for some weeks.

AIDS or "Full-blown" AIDS is the 5th and the last stage. At this stage, characterised as the most severe stage, the body's immune system finally collapses thus

allowing life-threatening infections to invade the body (Sabatier, 1987). Incubation period is 29 months in adult and 12 months in children (Armstrong, 1985). A patient with full-blown AIDS is usually extremely thin (emaciated) (which is why AIDS is referred to as slim disease in Africa), grossly fatigued, and has multiple infections (Sabatier, 1987) such as Tuberculosis (in Africa) and Pneumocystitis Carinii (in Europe and North America). Incubation period ranges between six months to five years (Armstrong, 1985) and about 50% of patients with AIDS die within eight months of diagnosis (Mosher, 1988). Not all those infected with HIV develop AIDS, and the clinical features of AIDS vary in different age groups. In children for example, the signs and symptoms differ slightly from those of adults and are much more severe. Among children, the major symptoms are failure to thrive, malnutrition chronic diarrhoea and oral thrush (Johnson and Pond, 1988).

Status of AIDS infection and
its associated problems

AIDS has reached a worldwide epidemic proportion such that it now threatens the survival of mankind in virtually all countries of the world. Statistical data revealed a staggering figure and point to an upward swing. For instance, as at 1st July, 1989, a total of more than 170,000 cases of AIDS were officially reported to the WHO from 149 countries (Liskin et al, 1989) and a year earlier, 96,433 AIDS cases were reported from 136 countries (Mann, 1989). And in Africa south of the Sahara, as of January 1989, a total of 20,778 AIDS cases had been reported and by July 1989, that is six months later, AIDS cases in Africa have risen up to 25,000 and officials indicate that this figure is just a tip of the iceberg (Liskin et al, 1989).

Cases of AIDS have been reported even in countries which hitherto have been said to have no officially reported cases. These include Asia with 389 cases (Liskin et al, 1989). And the global AIDS figure continues to increase since there is yet no cure and scientists have little hope of developing one in the near future.

Equally depressing is the fact that these data may in fact represent as it were, only a small fraction of those already infected with HIV worldwide. It is estimated that close to three million Africans may already have been infected with HIV in 11 countries of Central, East and Southern Africa alone while at present as many as ten million may be infected with HIV virus worldwide (Liskin, et al, 1989). In Nigeria, as at 1st November, 1989, out of over 50,000 screened persons, 260 are certified to have been infected with HIV. And out of these figure, 35 have developed into full-blown AIDS and 19 of whom have died (Ransome-Kuti, 1990).

The above figure reveals that there is a problem of under-reporting existing on AIDS epidemic. Several factors account for poor statistical reporting of AIDS worldwide. AIDS like all Sexually Transmitted Diseases (STDs) is a social disease which carries a stigma. Therefore quite often because of fear people do not present themselves for screening. Once an individual is afflicted with AIDS, he may be subjected to discrimination, rejection and even ostracism. And moreover, because the disease has no cure yet, many people do not see the need to report and therefore do not present themselves for screening (Lowe-Morna, 1989).

This probably explains why the data reported often do not reflect the true situation in a country.

In most of Africa today, reporting of AIDS may probably be suffering from gross-underreporting (Lowe-Morna, 1989). Most of the cases not reported may be bearing similarities with all the clinical features of HIV and other common tropical diseases such as tuberculosis, measles, malnutrition and therefore may be subjected to confusion in diagnosis. Moreover, apart from this, many of these countries in Africa also lack the infrastructure necessary for carrying out adequate statistical reporting. And in East, Central and Southern parts of Africa, where there is high incidence of AIDS many of the Primary Health Care (PHC) network have been ravaged by inter-tribal wars in that part of the continent thus making it virtually impossible to monitor any diseases (Lowe-Morna, 1989). Besides, many cases of AIDS never get to hospital, because many prefer to obtain treatment from traditional healers. The second reason is that HIV tests are far too expensive. These, therefore are some of the reasons behind under-reporting in many parts of the world today particularly in Africa and this under-reporting creates a big problem for public health today.

Apart from the rising figures of AIDS cases and the problem of under-reporting, there are still other problems posed by AIDS. There is the lack of medical equipments with which to carry out tests for AIDS. Added to this is the problem of dearth of trained medical personnel particularly in most of the developing world today where the ratio of doctor to the entire population is about 1:15,000 in the urban areas (Ladipo, 1983). The situation is even worse in the rural communities where more than half of the population reside, there it is a doctor to 50,000 people (Ladipo, 1983).

Furthermore, AIDS epidemic is also striking highly different populations wreaking havoc and with devastating results. Since 1981, when it was first discovered, it first surfaced among the homosexuals. Male homosexual group help the spread of AIDS in the developed world particularly in the United States of America (USA). It is reported that this group accounts for over 92% of HIV infected population in the United States (Sabatier, 1987). The reason for this is not

far-fetched. Scientists have claimed that HIV is transferred more efficiently between male partners (homosexual contact) than between men and women (heterosexual contact).

AIDS is also striking the group of young people, individuals at the prime of life, aged between 20 - 40 years (Liskin et al, 1989) who constitute essentially the productive forces in any economic sector of a community, a group which no society can afford to do without. With able-bodied men laid waste with AIDS, economic activities are likely to be adversely affected (Green, 1988). And unfortunately, about 90% of all AIDS cases worldwide are said to come from this group (Mann, 1986). In Bangkok, Asia, where most of the Intra-venous Drug (IVD) users are youths under the age of 25 years, the rate of HIV infection among them has increased from zero in 1987 to over 40 percent in 1989. (Liskin et al, 1989). In countries such as the United States of America, Brazil and even Uganda for example, a large proportion of the youths became infected with HIV during adolescence between 15 - 19 years of age - a period when they are still in school (Liskin et al, 1989).

The impact of AIDS disease in Africa is even more severe as its (Africa's) population typical of any underdeveloped world is broad-based and tapers at the peak. In effect, this means that the impact (of this disease) falls heavily on the youths who occupy a large portion of the population pyramid.

But AIDS is not limiting itself to one particular group of people, it is spreading beyond the groups that it first afflicts. At least as of now, increasing number of young women are now becoming infected with HIV either through heterosexual contact or through infected blood transfusion (Mariasy and Radlett, 1989; Schoepf et al, 1987). Statistical reports indicate that 7% of AIDS population in the United States are females and the data are on the upward swing (Wallis, 1985).

In Africa, the picture is about the same. Up to 12% of pregnant women coming to urban hospital in Zaire, are infected with HIV (Potts, 1987). By implication therefore, it may probably mean that children born by HIV infected women may be HIV infected and that their number may also probably be on the increase. It is estimated that between 30 - 50% of children born by HIV infected women may be infected with

HIV (Mann, 1987; Harries, 1989). Many of these will probably die within five years.

Cost

There is the problem of cost, a huge sum of money is being earmarked worldwide for the control of AIDS even at the expense of other vital national developmental projects. Although, the developed countries such as the United States of America and Britain may not feel this impact (of AIDS) but the developing nations definitely will. In the USA alone, it is said that the cost of caring for ten AIDS patients (\$450,000.00) is greater than the entire budget of a large hospital in Zaire (Mann, 1987) and \$16 billion is being projected as the total cost of medical care for AIDS patients in 1991 (Wallis, 1985; Mann, 1987).

So, for Africa, the situation could be worse in terms of shouldering the huge cost of AIDS amidst dwindling resources. In Nigeria alone, a country considered to be economically more viable than most nations in Africa, the 1990 Budget Allocation for AIDS programme alone is ₦1.5 million (Ransome-Kuti, 1990). Unfortunately, this cannot be provided for by many African nations who must depend on external aid in order to survive. Many cannot even fund health

education campaigns let alone funding the treatment of AIDS. But for those countries who at least are able to do so, resources meant for vital developmental projects and insufficient in most cases may have to be diverted to AIDS Control activities. If more money is siphoned off to cater for a fraction of the health sector; it means that other sectors such as education, rural development, which require equal financial attention may have to suffer.

In addition, AIDS in Africa like in any of the developing nations is one more disease to contend with. Other major life-threatening diseases which also compete for attention and financial resources are tuberculosis, malaria and parasitic infections (Hubley, 1988⁸) which also equally suppress the immune system. But whereas, these chronic tropical diseases are curable, AIDS is not (Mahler, 1988).

Social Problem

There is the social problem posed by the epidemic of AIDS. The loss of a father, the breadwinner whose income generations may be relying upon (Mahler, 1988; Wallis, 1985) could cause untold hardship and even lead to disintegration of the family. Another dimension to the social problem posed by AIDS is that of

individuals who help to spread the virus to the rest of the population deliberately. An example is the role played by prostitutes in disseminating the HIV throughout the world. Deliberate or not, they too help in no small way to spread the infection into the rest of the society out of sheer necessity to survive (Kotoney-Ahulu, 1989).

Levels of AIDS Control and Associated Behavioural Problems

In the control of diseases such as AIDS, there are five levels of health interventions (Brieger et al, 1988). There is health promotion, specific protection, early detection; limitation of disability; rehabilitation.

Specific protection is anything an individual does to promote his health and avoids diseases. This includes having immunization or vaccination. In the case of AIDS, research efforts is directed at developing a vaccine for the disease. However, various factors have been reported to make development of anti-viral vaccine almost impossible (Jefferies, 1988; Sabatier, 1987). It has been said that no drug nor vaccine (if and when developed) can actually cross the blood-brain barrier, which protects the brain to attack the HIV

(Sabatier, 1987). Besides, developing a vaccine is a difficult task and testing for its safety and effectiveness is a lengthy process (Sabatier, 1987; Wallis, 1988). A lot of money too will be required to carry out researches into production of vaccines and because research itself is very painstaking, researchers are not willing to venture into an unprofitable business of developing HIV Vaccine (Varleum, 1989; Sabatier, 1987).

Other problems involved with effectiveness of vaccine against AIDS include the following: first, although the body's immune system produces antibodies to HIV, these do not inactivate the virus (Jefferies, 1988). This suggests that vaccine induced antibodies may not destroy the virus. Secondly, HIV mutates rapidly. Several strains have now been isolated including HIV - I, HIV - II, STLV - III. With such high frequency of genetic mutations, a vaccine derived from one strain may not be effective against others (Francois and Petricciani, 1985). This implies developing multiple potent vaccines for each strains of the retroviruses.

Moreover, even if a potent vaccine against HIV is developed, there are still some other problems that may

limit its production or use on a large scale. These are: nobody to finance such project because of the uncertainty of the outcome of the venture. And again, testing might pose another problem. Chimpanzees which could be used for trial are not only scarce, but are also expensive (Liskin et al, 1986). Even if a vaccine is developed, this can only protect those not yet infected and may not reverse the HIV status of those already infected.

Also, there may not be human volunteers who would want to receive the vaccine and who would also present themselves for monitoring to assess its efficacy. This is because AIDS is associated with a lot of stigma. People, once found to be HIV positive may be faced with a lot of discrimination from colleagues in the workplace, from friends, relations and even family members. An individual found to be HIV positive may face a bleak future with difficult life choices of employment, of marriage. Therefore, volunteers might be unwilling to abandon safe sexual practices and adopt high-risk practices to test an unproven vaccine (Liskin et al, 1986). Because of the possible

serious side-effects, high-risk individuals might also be unwilling to volunteer for vaccine trials.

Therefore, the future of developing a vaccine that would cure AIDS would depend on removing stated possible obstacles. A lot of money will for instance be required to carry out researches into production of anti-viral vaccines and it is the big time corporations or the government that can fund this kind of research. With all these hurdles to cross, developing an anti-viral vaccine, may not be feasible.

Treatment Control (this could be termed limitation of disability): which is the timely treatment once symptoms become manifest. Relating this to AIDS therefore, this is another control effort made by scientists towards finding a cure that would reactivate the immune system. In this regard, they (scientists) have developed drugs capable of retarding the progress of the disease (Wallis, 1988). Intensive research effort in the United States of America (USA) and Europe has produced Zidovudine (AZT), a drug that is capable of prolonging the life of AIDS patient (Sabatier, 1987). It does so by retarding the progress of the disease by slowing

down the rate at which the virus proliferates or reproduces itself.

And in the developing countries too, efforts are being made to develop drugs that would be capable of slowing down the progress of HIV infection. For instance, scientists in Africa, specifically in Kenya have also come up with an anti-viral drug known as "KEMRON" presently undergoing some refinement (Anonymous, 1990).

But there are possible obstacles to manufacturing new AIDS drug. The first is the cost of all anti-viral drugs. A single daily dose of AZT for example cost between \$10 - \$20 (Sabatier, 1987). And a patient may have to be on it for the rest of his life. And from somebody from a developing country, this may be rather expensive. The enabling factors of non-accessibility (in terms of cost) may result in patient's non-compliance to the drug regimen. This would therefore mean that the patient would not get cured and therefore would lead to other social problems such as lack of employment or inability to carry on with his work, could face discrimination and individual concerned could also have fear of death, fear of future life choices such as choice of life partner.

Apart from this (problem of cost) one major limitation of AZT is its side-effects. It is capable of damaging the bone marrow and can also cause severe anaemia such that will require constant blood transfusion (Sabatier, 1987), the procedure which could only be carried out in the hospital. This would obviously cause some disruptions in the life of the affected individual. For instance, employment may be terminated as a result of long absenteeism from the place of work, family life disrupted with the absence of the breadwinner from home. Thus the side-effects made the drug unattractive and therefore put a big question mark on the future prospect of its marketability. For all these reasons therefore, the prospect of finding a drug that would cure AIDS may not be feasible.

Early Detection: which include screening and testing for AIDS at an early stage of the disease when treatment can be more effective. Testing people for HIV infection remains an important aspect of AIDS Control activities. In this regard therefore, various tests have been developed to detect HIV infection in human blood and these are widely used in most of the developed world today. One of them is ELISA Enzyme-

Linked Immunosorbent Assays (Elisa). The other is the Radioactive Immunoassay (RIA) and the third is the Western Blot or the Confirmatory test.

There are possible obstacles to each of these various tests. For Elisa, there is the problem of cost. A single test cost between \$1 to \$3 in the United States of America (USA) (Liskin et al, 1986). As for the Radioactive Immunosorbent Assay, researchers are faced with the problem of how to dispose of its toxic wastes and this is why the test is not widely accepted. (Varleum, 1989). The Western Blot test is expensive, each single one costs about \$90. Besides, the test is time-consuming (Varleum, 1989). Because of these considerations, testing for AIDS too has remained quite expensive venture and therefore it may also not be feasible. But the real problem with tests (Elisa and Western Blot) is not so much about their cost per se but the fact that both tests have to be conducted so as to be absolutely certain of HIV status. In other words, a reliable test implies carrying out both Elisa and Western Blot tests.

Therefore screening people itself (or testing people) for AIDS as a way of detecting those who are infected with HIV itself poses an ethical/moral questions: when a cure has not yet been found for the disease, of what use is the screening then when those found to be infected cannot be cured. As a result of this, people may not be too willing to put themselves forward for screening and also because of the discrimination they may likely face from colleagues in their workplace, from friends and relations once they are found to be HIV positive. Thus screening and test for AIDS too has its limitation and therefore may not be feasible as a possible control measure. However, there is one advantage involved in screening for AIDS. It can help detect HIV carriers who may be counselled to lead lives which limit their chance of reinfection to disease progression.

Rehabilitation: in relation to AIDS prevention involves the re-integration of the HIV infected person back into the society to be a functioning member of the community. But rehabilitation often proves difficult and near impossible in the case of AIDS because once an

individual is afflicted with the disease, he is stigmatised and often faces discrimination from members of the society - friends, family members, colleagues in the person's workplace - thus making rehabilitation difficult.

Personal Protection or (Health promotion): the measures an individual undertakes in order to protect himself from contracting HIV infection. Such measures include some practices such as having one sexual partner, avoidance of risk-behaviour/practices such as prostitution and homosexuality, and the use of condom during sexual intercourse which may decrease his exposure to acquiring HIV infection. Therefore, it becomes obvious that health promotion is the only option now left in the case of AIDS and this is where Health Education could play a very significant role - by reinforcing those behaviours which are known to contribute positively to the prevention of the disease. Examples to justify this position abound.

In Kenya and Ghana, pilot studies were carried out among prostitutes to show the important role that Health Education could play in promoting desired health behaviour (Ngugi et al, 1988; Yeboah-Afari, 1988). It (the study) indicates that health education if properly

planned and executed could successfully influence behaviour. For example, a pilot study which was conducted in Ghana enrolled 75 prostitutes in a project, with the aim of seeing whether the spread of HIV in a high-risk group can be minimised through a health education intervention (Yeboah-Afari, 1988).

About six of the prostitutes were selected and trained as lay educators. Health Education messages sent through these representatives (lay educators) was to encourage these prostitutes to quit prostitution and find an alternative job or otherwise protect themselves with condom. Condoms were freely distributed to these prostitutes from time to time, some men posing as clients were sent to them to find out if these women offer their customers condoms before sexual intercourse. These men do not have sex with them (the prostitutes) but pay for their time. The results which were quite encouraging indicate that almost all the women had condoms handy.

This study clearly illustrates the effect of an AIDS Education programme. In the study messages were targetted to the right audience - the prostitutes. And this group were actively involved right from the beginning in the planning and execution of the health

education interventions. Their representatives serving as lay-educators positively influenced the rest of their group because people are more willing to change their behaviour if approached by a trusted member of their own group rather than an outsider (Yeboah-Afari, 1988; (Hubley, 1988b). More importantly, is the availability of resources. Condoms were freely provided and this might have accounted for the success of the programme. This study thus indicates therefore that a health education programme, if properly planned can succeed in changing risk-behaviour with particular reference to AIDS.

Knowledge, Attitudes and Practices on AIDS

Knowledge about AIDS

It has been discovered that people generally lack adequate knowledge and good understanding of AIDS in spite of the great threat that the disease poses to the survival of mankind. This has very often affected negatively their (peoples) attitudes and behaviour to the disease.

In a survey conducted in Yaounde, Cameroun among the school population, it was discovered that people

(both staff and students) generally are deficient in knowledge of sex education including AIDS Education (Population Reports, 1987). It is observed that people often mix the right and wrong information on AIDS. For example, HIV infection is transmitted through sexual intercourse, through blood contact and through perinatal transmission. But many people believe in addition to these that HIV could be spread through sneezing, ^{through} saliva, through casual contact like hugging, kissing, touching, or sharing of clothes, eating together from one plate, sharing the same swimming pool or toilet seats (Wallis, 1985). For example, fire men throughout the USA have refused to do mouth-to-mouth resuscitation to AIDS patients and specifically to homosexuals (Wallis, 1985) - because of fear of AIDS transmission through saliva. At a New-York City television, technicians announced that they would not work in the studio during a schedule live interview with an AIDS patient - and so the interview was dropped (Wallis, 1985). Because of the fear that AIDS could be contracted through casual contact.

Another study conducted in Rwanda has demonstrated low level of knowledge of people on AIDS disease. This

survey research which was reported by Feldman et al (1987) indicated how people's knowledge on AIDS could be assessed. In this study, 33 visitors to ^{the} main hospital in the capital of Rwanda were interviewed to obtain their perceptions of AIDS.

At the time the survey was conducted in 1985, the hospital has diagnosed almost 500 cases of clinical AIDS found in samples of the urban population and 18% of the urban population when tested are found to be HIV positive. Out of this sample, only a third could correctly state the mode of transmission of the AIDS virus and only half could mention a single symptom. The researchers (of the study) then suggested that lack of understanding of AIDS could only explain why, despite many of the respondents admitting to be frightened of AIDS, none reported to have changed their sexual behaviour. Another survey conducted in the U.S.A. revealed that although the prevention of HIV transmission is dependent upon the alteration of behaviour, most would agree that appropriate knowledge and attitudes are prerequisites for such change. Using a brief self administered questionnaires, Price and Others (1988) investigated levels of AIDS knowledge in

a sample of 250 Ohio adolescents. Although between half and three-quarter of these secondary school students knew about certain characteristics of AIDS, they were not able to correctly identify all risk groups, nor did they understand transmission. Overall, students who performed best nonetheless answered only 47% of the questions correctly.

Sources of information used by the students demonstrated that those using magazines were the best informed with television and newspapers ranking second and third respectively. Perceived vulnerability was assessed by asking students if they were worried about getting AIDS. Only 27% indicated that this was the case and fewer males than females were "personally worried" about contracting AIDS.

In another study conducted in Scotland (Hastings and Leather, 1987) focus group qualitative research methods were used to assess knowledge and attitudes towards AIDS as part of the development of a public information leaflet. Participants correctly saw AIDS as a Sexually Transmitted Disease (STD) that could also be transmitted through blood contact. However, most believed that social contact was also sufficient

for transmission either through sharing facilities (such as a common cup) or through social interaction (shaking hands). Although respondents were able to correctly identify homosexual men and intravenous drug users as groups at higher risk, these groups were seen as being different from "ordinary people." These negative feelings generated to the condition of AIDS was seen both as shameful and only affecting those with idiosyncratic behaviours. Thus, these kind of studies could therefore help shed some light on the levels of knowledge and awareness of people on AIDS.

Attitudes of People to Aids

Attitudes towards AIDS victims: peoples attitudes towards AIDS victims are generally negative. Individual afflicted with AIDS are very often rejected by society, friends and family. They are faced with discrimination both at work and at school. The result of which can often cause great stress, depression, a sense of isolation and personal rejection and great fear particularly fear of death. Examples of the kind of rejection and discrimination AIDS victims often face abound. In the United States, a 13 year old high school student with HIV infection was barred from

attending school (Wallis, 1985) and has to remain at home deprived of the company of friends and the hope of a bright future. In New Orleans, USA, a writer was fired from an editing job just because he contracted HIV (Wallis, 1985). AIDS victims are treated like lepers even by some in ^{the} medical community. Health workers are wary of AIDS victims, very often nurses are unwilling to give necessary care and attention to AIDS patients. Ambulance workers in several cities in the USA have refused to transport desperately ill AIDS patients to hospital (Wallis, 1985). AIDS patients are shunned even in death. In New-York (USA), undertakers have refused to embalm the remains of AIDS patients (Wallis, 1985).

In Africa, the attitude towards AIDS patients is not as bad as it is in America and Europe (Attawell and Hilary, 1989b). This may be because of the closely family network that characterised the social organization. Very often, terminally ill AIDS patients are nursed at home by family and close relations (Attawell and Hilary, 1989b).

Attitudes towards AIDS disease itself:

People's attitudes to AIDS disease is that of phobia, which is why they (people) refer to it as a killer disease. There is this overwhelming fear of death arising from AIDS. In the United States, a former governor of Georgia was reported to have undergone AIDS test out of fear that he might have received the HIV virus from contaminated blood serum (Wallis, 1985).

Out of irrational fear and paranoia for the AIDS disease, scientists have termed AIDS "the disease of the century" (Wallis, 1985). Other people have viewed the disease as God's revenge on Sodomites and junkies. People are often thrown into a state of confusion once they suspect they might have contracted AIDS. For instance, a 28 year old patient was thrown into a state of confusion while waiting for the result of AIDS tests that will determine if his recent exhaustion, bouts of fever and severe headaches could be as a result of AIDS (Wallis, 1985). In a state of fear he said "I'm very scared to die such a young man. I'd like a little more time, I lived in the fast lane, if only God will give me a break" (Wallis 1985). It is

the certainty of death from AIDS that makes the disease so frightening.

In addition, AIDS disease itself carries a social stigma. In New-York City in 1986, when outreach workers began to talk to the Hispanic Community about AIDS, the response was: "Why are you talking to us about this? It's a disease of whites, of homosexuals and drug addicts, we don't have these kinds of people here" (Mariasy, 1988).

Again, in this period of AIDS epidemic, people are discriminated against on account of race and even sex. For instance, mandatory blood screening for AIDS of African students is in force in many European countries (Sabatier, 1988). Women, in trying to protect themselves from HIV, often face hostility from their husbands (Lowe-Morna, 1989). Women who insist on their husbands using condoms have often been accused by their husbands of either sleeping around or get a slap for accusing the husband of sleeping around; or been accused of bewitching them (the men) out of jealousy (Lowe-Morna, 1989). In some countries it is reported that Sexually Transmitted Diseases (STDs) including AIDS, are called "woman's disease" and this

reflects an inaccurate belief that women give men these diseases (Attawell and Hilary, 1989b).

Practices/Behaviours capable of transmitting AIDS

Global practices:

All over the world, there are some practices/risk behaviours which are capable of transmitting the spread of AIDS. These behaviours commonly practiced all over the world are those that relate to sex for instance prostitution and homosexuality and those practices that relate to blood contact such as intra-venous drug using (Mann, 1987; Piot and Colebunders, 1988). These sets of practices could place individuals at risk of contracting HIV infection.

Prostitution or having sex with many partners is a practice common to all societies all over the world and a practice which involves repeated exposure of an individual to intimate sexual contact either by peno-vaginal penetration or by anal intercourse (Piot and Colebunders, 1988) - a practice which is known to be capable of transmitting HIV infection. As of now, increasing number of women are now becoming infected with AIDS (Marissy and Rodlett, 1989)

through heterosexual contact; and statistical data indicate that 7% of AIDS population in the U.S.A. are females (Wallis, 1985). In Italy, women who go into prostitution do so to earn money with which to finance drug addiction (Owen, 1988). In the Ivory-Coast, considered as the base of AIDS epidemic in West Africa, reports indicated that prostitution is a booming business just as it is in Europe. Young females from Ghana, Togo and from poor rural areas go into prostitution for foreign exchange (Kotoney-Ahulu, 1987). In the cities, opportunities are limitless, people are anonymous, therefore, prostitution becomes a lucrative business because social control is loosened thus creating opportunities for increased sexual contact. As a result of this, prostitution creates another potent avenue in the transmission of AIDS. In 1985, in Nairobi, Kenya, 66% of low income female prostitutes and 31% of high-income female prostitutes have been HIV infected (Sabatier, 1987).

Homosexuality, like prostitution is another practice which is capable of transmitting AIDS and which is common to all societies the world over. Homosexuals

usually employ sexual techniques that place them at risk of acquiring AIDS, receptive anal intercourse with an infected partner has been specially cited as one single sexual technique that clearly leads to acquiring HIV infection (Liskin et al, 1986). It is reasoned that during this process (of anal intercourse) the HIV in semen of the donor might have gained entry into the bloodstream of the recipient (Liskin et al, 1986). It is estimated that between 65% to 75% of AIDS cases in the USA and Europe have occurred in homosexual men (Liskin et al, 1986). But reports indicate that pockets of homosexuality can be found even in Africa (Hrdy, 1987; Johnson and Pond, 1988). Although the practice is not as common as it is in Europe and America.

Intra-venous drug using is another global practice which also plays a significant role in the transmission of HIV infection, the use of shared unsterilised instruments such as dirty needles and syringes has particularly placed IVD users at risk of acquiring AIDS. AIDS epidemic poses a major threat not only to them but also to their sex partners and offspring.

This kind of practice could be found not only in countries of Europe and America where IVD users constitute the second largest risk-groups (outside homosexuals) in the transmission of AIDS (Des Jarlais et al, 1985) but could also be found in developing countries of Asia such as in Bangkok where HIV infection among IVD users seeking treatment has increased from zero in 1987 to over 40% in 1989 (Anonymous, 1989). The reason for this sharp increase in the rate of HIV infection among IVD users is first, the employment of "shooting galleries" which serves as a place for injection of drug and also where they can rent shared unsterile syringes and needles (Des Jarlais et al, 1985; Friedman, 1987). The second is the procedure of I.V. injection itself which facilitates cross-infection and therefore the spread of AIDS infection.

The procedure itself involves the withdrawal of some amount of blood first to ascertain whether the needle is in the vein or not after which the person then proceeds to inject the substance directly into the bloodstream (Hrady, 1987; Des Jarlais et al, 1985). This same needle that has already been used is then shared

with a close friend or other member(s) of the group called "running buddies" (Selwyn et al, 1987). It is believed that during this process, some amount of contaminated blood is transferred (Liskin et al, 1986).

IVD users are quite aware of the implications of their actions and they refuse to heed the warnings. They understand what AIDS is and how it can be contracted. But since the sterile needles are not available to them, the only option left is to employ used unsterile needles which they use. But perhaps what is of significance is the fact that the practice of sharing needles among IVD users indicates that the item is not made readily available to its users. This situation therefore reminds one of the health education doctrine which states that knowledge itself is necessary but may not be a sufficient factor in bringing about a positive change in health behaviour.

As indicated above, IVD users are quite aware of the dangers involved in the use of shared unsterile needles and yet refuse to stop the act simply because there are no sterile needles made available to them. The PRECEDE Model of behaviour change may perhaps be of relevance here. Green et al (1980) propound that before

there can be any desired change in behaviour, there has to be present three interacting sets of influencing factors. These are the PREDISPOSING, the ENABLING and the REINFORCING factors - factors which are antecedent to behaviour. The absence of one may adversely affect behaviour and therefore may lead to no change in behaviour.

The PREDISPOSING factors, which are knowledge, attitude, belief, values and perception directly influence or motivate behaviour. They may either support or inhibit behaviour. The ENABLING on the other hand are skills and resources which help to facilitate the behaviour necessary to perform a health behaviour and they actually facilitate the behaviour to be accomplished. The influence of peer groups, relatives and models are examples of the REINFORCING factors and these ensure the continuity or perpetuation of the desired behaviour. They actually determine whether health action are supported.

Linking this theory to the issue of IVD using therefore, it can be deduced that the users are quite aware (knowledge) of the danger involved in the use of shared unsterile needles

(Predisposing Factor). But resources, that is sterile needles (Enabling) necessary for the performance of the desired act are not available so positive change in behaviour could not occur. This is because the absence of one factor may adversely affect the others and therefore may not produce the desired behaviour. The supportive role of peer group (Reinforcing) makes the act to be perpetuated.

Similarly of significance here is the negative supportive role that the presence of "shooting galleries" plays in behaviour of IVD users. The shooting gallery is a place where IVD users could come together and share used syringes and needles for injections. This could be considered as a kind of reinforcement the IVD users receive from their peers or "buddies." The gallery could also serve as a potent factor in the perpetuation of the dangerous act.

Another possible reason could be given as to why IVD users (and even prostitutes) refuse to respond to positive change in behaviour in spite of some risk-reduction efforts (such as abundant supply of sterile needles (or condoms as in the case of prostitutes) Yeboah-Afari (1988) and health education campaign.

First, is the peculiar character of HIV/AIDS disease itself which have hindered the perceptions of the risk being taken by IVD users (Des Jarlais et al, 1987; Ngugi et al, 1985). An example is the relatively long incubation period of the disease which ranges from between 3 - 10 years and which by so doing slows down any risk-reduction efforts among the IVD users (Des Jarlais et al 1985). The other reason is the difficulty in differentiating AIDS as a singularly important cause of death as compared with many other causes (of death). A useful model which could be applied to this type of behavior here is the Health Belief Model (HBM).

Rosenstock (1974) states that before there can be any positive change in behaviour, certain belief patterns must occur. Before an individual can take any action to avoid contracting a disease (like AIDS for example). He may need to believe that first, his health is not in danger, that he is not personally susceptible to the disease (Perceived Susceptibility). Secondly, that the occurrence of the disease will not endanger his life, meaning that it would not have serious effect on his life (for example in terms of pain, discomfort, time

cost for work). Thirdly, that he would derive some benefits from the action he is to take (Perceived benefit) or the action to be taken would be of some benefit to him and lastly that these benefits (to be realised) would outweigh the cost of the disease and the inconvenience of his action (Perceived Barriers).

The Perceived Susceptibility and perceived seriousness serve as a "cue to action" or forces one to take action. But whether the act is performed (or not) would depend on individual's assessment of the benefits to be derived (Perceived Benefits) from taking such action vis-a-vis the cost of the disease itself or the inconvenience of his action (Perceived Barriers).

Linking this model (HBM) to the issue of AIDS, it can be observed from the foregoing that the IVD users behaviour could not be sufficiently motivated and therefore could not result in positive change in behaviour. This is because the IVD users do not consider AIDS to be a more serious disease, one that could have a more serious effect on their life, than those diseases that commonly afflict them, even in spite of the fact that they are aware of their susceptibility to the disease.

Practices common in Nigeria:

Of the three practices earlier mentioned, prostitution or having multiple sexual partner is one practice which is common to Nigeria and which could aid the spread of AIDS. In addition to this, there are existing traditional practices which are believed to be capable of also transmitting HIV infection. These practices include circumcision (both male and female), tribal marks, scarification, tattooing and the practice of untrained injection doctors who administer injection with dirty needles.

Circumcision (both male and female) is a cultural practice in Nigeria (and indeed in much of Africa) today which very often involves the use of shared unsterile instruments (Oduntan and Onadeko, 1984; Ebomoyi 1985) and which could aid the transmission of HIV infection. The real danger the practice poses to the health of a person is when a relatively large number of individuals are circumcised using one single instrument (Hrdv, 1987). According to Oduntan and Onadeko (1984), circumcision is grouped into three categories. Of these three, the Infiltulation or Pharaonic Circumcision is the most severe form which

involves and which may result in contamination of individuals blood with HIV infection through shared unsterile instruments.

Other traditional practices include the activities/practices of the "injection doctors in African and in the rural parts of Nigeria which could also play a significant role in the spread of HIV infection. These "injection doctors" are untrained practitioners who usually administer over-the-counter parenteral antibiotics (Hrdy, 1987). Their practices involve giving intramuscular injections with used unsterilised needles for a wide variety of ailments including the ones which require oral application. And unfortunately the practice is widespread in Africa and indeed in Nigeria today where medicines delivered by injections is more often preferred and this can help in the spread of AIDS.

Practices common to teachers:

Out of these practices mentioned above, having more than one sexual partner and the non-use of condoms are the practices commonly found among teachers. Having more than one sexual partner is a practice which could help in AIDS transmission and which unfortunately is (a practice) fully sanctioned by the society. About

non-use of condoms among teachers, there are reasons as to why many prefer not to use condom. To be sure, condom is used for the purpose of birth control (prevention of pregnancy) and also for the prevention of sexually transmitted diseases (STDs).

According to Wittet and Zimmermann (1989), people may decide not to use condom because of personal preferences. To some, the use of condom is not natural as it reduces sensitivity to sexual intercourse, or it is usually messy after use. Social pressures from family to have more children could result in many not using condom. Some religious denominations such as the Catholics are known to always frown at any form of Contraceptives including condoms. As issues bothering on human sexuality is always kept secret, potential buyers of condoms may be embarrassed to buy condoms from public places. Sometimes, it is the high cost and non-availability that prevents many from non-use of condom and this kind of risk-behaviour is capable of transmitting the spread of AIDS.

Review of Literature on Sex Education

Reports indicate that all over the world, at least half of those infected with HIV are under the age of 25 years and that a large proportion of them became infected during adolescence (Attawell and Hilary, 1989). This thus suggests that AIDS has become a major problem affecting youths today and this may be as a result of the absence of sex education.

The extent of the problem

In the developed countries of the world and even in some developing ones too namely the U.S.A., and Brazil and Uganda, it has been reported that the high proportion of AIDS cases in the 20 to 29 year-old age group indicates that infection probably occurred when they were 15 - 19 years of age, and many of the cases arising from this is as a result of unprotected sex (Attawell and Hilary, 1989). Recent reports had it that one out of every 300 college students screened in the United States is HIV positive (Time, 1985). Again in the United States Gonorrhoea (an STD) is reported to rank second to Common Cold as the most common disease in youths (Porter, 1956).

In the developing countries, specifically in Nigeria, adolescent boys and girls are usually the victim of sexual abuse. Newspapers are replete with news of male lecturers harrassing their female students for sexual favours - the failure of which could result in them failing their examinations. There is a growing rate of STDs among our youths. In West Africa, STDs are reported to be next to malaria in spread (Afolabi, 1978). In Lagos Weekend (1978) it was reported that a secondary class III girl who got married in 1973 later returned to another school after having a baby. No sooner did she settle in this new school when teachers demanded sex from her to give her pass mark in school examinations, and thus she gave in to these demands (Afolabi, 1978). Such is the growing rate of promiscuity among our youths in most of the urban centres today.

The need for Sex Education

Most of the sexual problems among adolescents throughout the world today are due to ignorance as a result of inadequate knowledge on human sexuality. The reasons for this are not far-fetched. At home, there is this lack of parental education on sexuality.

Parents are not giving enough and adequate sex education to their wards. It has been discovered that most emotional problems faced by teenagers today are rooted in difficulties in communicating with their parents at home and feeling accepted and understood (Attawell and Hilary, 1989a).

Parents themselves are products of stringent and repressive pattern of sexual morality enforced by their own parents and the socially built in taboos on sex education is then handed down from generation to generation (Afolabi, 1978). In school, the extent of the ignorance is revealed when in a classroom session on sex education, one adolescent was quoted to have said that "It is not the physiology and anatomy that we don't understand but rather our feelings. We want to know what they mean and what to do about them." (Josselyn, 1972). Teachers are not willing to sex educate the students and they (teachers) may not even successfully handle sex education without some training (Afolabi, 1978; Akintayo, 1987). This is because teachers like students too did not receive adequate training in sex education from Teacher Training and Colleges of Education (Ademuwagun, 1975).

Although the church has always been in the forefront of providing moral education to the society and especially the youths but it is argued that the church could sometimes be partly blamed for the ignorance of youths on sex education. The religious instructions on human sexuality are usually based on strict moral codes, which are often reinforced by the family. This trend seems to be forcing youths to depend on their own initiative, learn from ignorant friends or peers and schoolmates or "uninformed companions" (Willgoose, 1972; Durojaiye, 1970).

It has been suggested that one way of dealing with adolescent problem of sexual adjustment arising from ignorance is for parents to provide adequate information on sex to their children/wards early in life (Josselyn, 1972). This way, the child will not only gain factual knowledge but will also in adulthood come to accept his own sexuality rather than be frightened and confused by it (Josselyn, 1972).

Another means of easing the problem of sexual adjustment for the adolescent is for secondary school authorities to bring in professionals (such as family planners, health educators) from time to time to

discuss not only the factual questions on sex but also discuss their emotional difficulties in accepting sexuality (Josselyn, 1972). It has also been suggested that sex education including AIDS Education should be part of the secondary school Curriculum (Afolabi, 1978). At the moment, there is nothing ⁱⁿ the WAEC Syllabus which suggests the teaching of AIDS in our secondary schools (WAEC 1989/90). And this is happening at a time when AIDS has become an Epidemic and the school population stands at a greater risk of AIDS transmission.

Theories of Sex Education

Various theories have been propounded to explain human sexuality. Betty Vorburg (1976) for instance has advanced a theory to show how the development (or evolution) of human societies determines the patterns of sexual behaviours: she postulates that Agricultural Societies are characterised by the most Repressive pattern of sexual behaviour while Horticultural Societies are noted for their stringent pattern. Pattern close to the freest (or free) is observed in highly industrialised societies and the freest pattern of sexual behaviour is observed in Hunting and Gathering

Societies. The developed countries of the world namely Europe and America seem to have free pattern of sexual behaviour while most of the developing societies, Asia and Africa, specifically Nigeria still observe the most stringent pattern of sexual behaviour.

Another set of theories was advanced by Johnson et al (1973) who gave seven different models of sex education throughout the world:

1. The first is called NO Sex Education theory: that is leave the young alone, and in marriage they suddenly know what to do.
2. The Cutter theory is the second: learn in gutter where kids laugh at sex without getting sick.
3. Do it yourself theory: people can now read and bypass hurdles between sex information and those in need.
4. Minimal Sex Education theory: avoid sexual problems and need for youths sex education through sports and games.
5. Naturalistic Humanistic Love theory: honest and loving dealing with children will overcome sex education.

6. Sex Subliminated theory: frank education with high moral. Sex only exists in marriage and love.
7. The Blunt Blitz theory: shock treatment unrestricted bluntness in presenting sex information.

The Australian society has been quoted as an example of the first theory - the No Sex Education theory while the Polynesian society is said to display the other extreme - the seventh theory which is the Blunt Blitz theory (Afolabi, 1978).

The School Health programme and its
role in the control of AIDS

The School Health programme is an integral part of Community Health which involves all the activities undertaken either at school or in the community to influence the knowledge, attitude and behaviour of the school age children and the school teachers with regards to their personal and community health (Ademuwagun, 1969). It is a well integrated programme whose activities are interdependent with one phase supporting and supplementing the other (Anderson and Creswell, 1976).

School Health programme is divided into four interrelated phases. These are: Healthful School Environment, School Health Services, School Health Instructions and Home, School and Community Cooperation for Health (Ademuwagun and Oduntan, 1986; Nemir and Schaller, 1975).

Healthful School Environment concerns those activities undertaken in the school compound to ensure the health and safety of students and staff (Smolensky and Brovechio, 1966). This phase has a role to play in AIDS control programme. For instance, of importance is the relationship between students and students and between students and teachers.

Interpersonal relationship between students and students: In mixed schools - healthy atmosphere could be created in which both boys and girls could mix freely, relate to one another without involving themselves in or experimenting with sexual intercourse (pre-marital sex), - a behaviour that could aid the spread of HIV infection. Opportunity could be created for expressing themselves on sexual needs and drives.

The school period is a time when adolescents try to experiment with sex and even get engaged in unprotected sex. And because this is the kind of behaviour

which helps the spread of all STDs including AIDS if healthy atmosphere exists in the school between students and students then the spread of the disease will be put under control.

Interpersonal relationship between students and teachers: Teachers should serve as models through showing good examples for their students to emulate by putting into practice what they teach. No teacher should encourage amorous relationship to exist between him and his students, nor should encourage such relationship that would involve having sexual dealings with students. Teachers through teaching and demonstrating good behaviour for example, can positively influence the attitudes and behaviours of their students in the fight against AIDS disease. This is important because students as well as their teachers are vulnerable, group in AIDS transmission. Therefore, in order to control the spread of AIDS, school teachers should encourage healthy and non-amorous relationship between them and the students they teach.

Similarly, School Health Services are activities/ measures designed to prevent and control communicable

diseases (Smolensky and Brovechio, 1966). Communicable diseases would include the spread of AIDS disease in the school community. Examples of the AIDS control measures include screening or testing of all school members, both the students and ^{their} teachers for HIV positive infection. Those found to be HIV positive should not be ejected from school nor be made to face discrimination from fellow colleagues but be regarded as an equal member of the school. Again, those found to be HIV positive should be provided with counselling services. Group and individual counselling services could be given by Health Educators or Family Planners who could be called upon to perform those services. Prompt treatment should also be given to those found to be HIV positive. Also from time to time the health of the school personnel could be monitored in the fight against AIDS in the school community. This could be ensured through adequate Pre-employment and periodic medical examinations for teachers and students and this could include screening for HIV positive.

The School Health Instruction is concerned with formal planned classroom teaching in health including AIDS Education - to prepare students and teachers to

make proper decisions throughout their lives on matters affecting their health (Anderson and Creswell, 1976). Relating this to AIDS control therefore would involve giving correct information to students in respect to the causes, signs and symptoms, the spread and prevention of AIDS. This is aimed at influencing their knowledge, attitude and behaviour positively to guard them against acquiring the deadly disease. This would include improving the attitudes of school members (students and teachers) towards those found to be HIV positive. The phase would also involve conducting surveys on the knowledge, attitude and practices so as to know how much of these variables - knowledge, attitude, practices people have.

Similarly, School Health Education also involve (apart from conducting survey) the development of Curriculum for students, in which AIDS Education should be included. At present, no AIDS Education is included in the Secondary School Syllabus (WAEC Syllabus 1989/90). An important aspect of this phase involves the provision of Health Instruction resources such as AIDS Resource Centre (like a school library)

where various books, journals, magazines and audio-visual aids on AIDS could be made available. Services of resource persons like Health Educators could be employed from time to time to give lectures on AIDS Education and other STDS. Also, pre-service and in-service education of teachers could be organised whereby members of staff could be brought up to date on new developments on AIDS disease.

The fourth phase of the School Health programme is the Home, School and Community Cooperation/Coordination. These are activities carried out both in the School and at home to promote and ensure the health of the school child; whatever positive health knowledge, attitudes, and practice the child learns at home would be reinforced while at school thus establishing the cooperation and coordination between the school and the home/community environment (Kilander, 1962). With regards to the control of the spread of AIDS, the teachers could perform health education activities such as giving lectures to parents to upgrade their knowledge on AIDS - this is done with the aim of reinforcing the students knowledge on AIDS while at

home. This would also involve discussion between parents and teachers on moral issues involving their children. Parents should be educated on the period of adolescent growth and what it entails, discussion should also centre on the issue of promoting teenage abstinence before marriage; on parents and teachers serving as good models for students to emulate; on parent asking about child sexual behaviour. Discussion should also centre on ways by which the community and the government could help prevent/control the spread of AIDS among youths.

Perhaps more importantly, discussion between parents and teachers should centre on ways of promoting good moral conduct as a virtue and bringing up children in such a way that they would value this (good moral conduct). This means that teachers and parents would not engage in such risk practices/behaviours such as prostitution (having many sexual partners) and promiscuity.

The role of teachers in School AIDS Control Programme

The role of the school teacher in AIDS control programme is very crucial. The school community could be considered as a population comprising mainly of youths who belong to the high-risk, sexually-active and therefore vulnerable group in the transmission of HIV infection. The spread of the disease in the school population therefore may be facilitated by the vulnerability of this target population to AIDS and this is where teachers' role in AIDS control becomes particularly unique.

The school teacher is for instance expected not only to teach students how to read, write and count alone, he is also expected to instruct them on how to live a healthy life free of diseases including AIDS (Ademuwagun, 1970). This is particularly important in this part of the world because very often, the teacher is confronted with a class full of children suffering from various other diseases such as tuberculosis, malnutrition. And in a situation such as this, the school teacher must serve to educate the child (through teaching and serving as models) and if

possible his parents on how to live a healthy life free of diseases first of all before he is taught how to learn because before an individual is educated, he must first of all be healthy (Ademuwagun, 1984).

In view of this therefore, it is considered important that the school teacher should educate their pupils on matters relating to human sexuality including AIDS along with various other subjects he teaches because of the special problem/threat which AIDS poses to the school community.

Similarly, the school teacher should serve as a resource person on matters relating to health (with particular reference to AIDS Education) - that is the teacher should serve as sources of information and reservoir of knowledge on AIDS. The unique role of teachers in matters relating to health had been identified long ago. As early as 1958, the WHO has declared that teachers:

must be considered as health workers, principal collaborators, it is they who will present to the school children the elementary ideas of hygiene and prophylaxis thus creating health consciousness in the

children from their early days. It is important therefore to provide teachers with health education (WHO, 1958).

Thus the school teacher could serve as a health worker in the school environment and also as a source of information on matters relating to health including AIDS. This role is particularly unique because in this part of the developing world very often the school teacher is the most practical instrument that exists for disseminating health information (Ademuwagun, 1974). This is because the large segment of the population who resides in the rural areas are mostly uneducated. Parents who are themselves illiterate and are hampered by cultural taboos and norms cannot be relied upon to furnish the child with adequate information he requires on matters relating to human sexuality which includes AIDS Education. The teacher could be considered as the only reliable person on the spot to be considered in matters relating to health. To this end, it is important that the teacher possesses adequate knowledge on AIDS.

But unfortunately, the background training and the knowledge of teachers in the area of Health Education (including AIDS Education) in Nigeria is very minimal and grossly inadequate. It is reported that only teachers from Teacher Training Colleges, Colleges of Education in various Universities are exposed to some rudimentary knowledge of health education. This inadequate preparation could probably account for the low status given to the teaching of health education today in most of our secondary schools. And by extension, that is why AIDS Education is missing in the secondary school Curriculum (WAEC Syllabus, 1989-1990).

In addition, the teacher could also serve the role of a Primary Health Care (PHC) worker in AIDS prevention and control. With the scarcity of medical specialists and Health Educators, the school teacher could serve as lay educators disseminating information concerning AIDS (prevention and control) into the community in which the school is situated. In this way, the school teacher could ginger the community's interest and help bring about increased awareness on AIDS disease or possibly teach the community through the Parent/Teacher Association.

CHAPTER THREE

METHODOLOGY

Description of the Study Area

Ibadan, is a city founded in the early part of the 19th Century by fleeing refugees from Old Oyo Empire following the Fulani invasion of Yorubaland (Mabogunje, 1963). Designated as the largest city in Africa (outside Cairo), and the most populous in black Africa, Ibadan is the capital of Oyo State of Nigeria and it belongs to the Oyo Yoruba sub-group. With an estimated population of 1,066,543 (over a million) using the annual growth rate of 2.5% which is the projected population of the city for 1989. The City is located at the South-Western part of the country and some 90 kilometres north of Lagos.

Ibadan Municipal Government area (the area covered by this study) is bounded on the North by Akinyele Local Government, on the South by Oluyole Local Government, on the West by Akinyele Local Government and on the East by Lagelu Local Government. Ibadan Municipality

is made up of three (3) distinct zones namely: the Inner Core made up of traditional areas; the Transitional area and the Periphery (Adeniyi and Brieger, 1982; Lloyd, Mabogunje and Awe, 1967). The Inner core zone spreads over places such as Bere, Idi-Ose, Orits-Aperin, the Transitional zone covers places such as Oke-Bola, Oke-Ado, and Ago Taylor while the Periphery includes areas such as Bodija, Agodi GRA, University of Ibadan.

The main occupation of the people is mainly subsistence farming (especially the indigenous, population) supplemented by petty trading. The educated non-indigenes are either civil-servants or engage in trading articles ranging from foodstuffs to motor spare parts. The city is dotted with numerous banks, industries and markets where economic activities are carried out. There are three main religions being practised and these are: Islam, Christianity and Traditional religion. In the health sector, there are many private clinics and two big hospitals namely the University College Hospital (UCH) and the State Hospital at Adeoyo and Ring Road. Two political systems are in operation in the city and these are the Modern (that is the western type) and the Traditional which is Monarchical.

In the area of education, the City is endowed with well over 200 primary schools, 93 secondary schools and two (2) teacher training colleges. There is a Polytechnic and a University. Ibadan Municipality has the highest number of secondary schools in the whole of Oyo State. The 93 secondary schools in the city are scattered all over the three zones in the following manner: 21 schools are located in the Inner Core; 57 in the Transitional and 15 in the Periphery area of the City.

Before the State Government take over of schools from private organisation, schools were founded according to religious affiliation. But today, the schools are identified not only on the basis of religion but also on the sex of students in the schools and on social status of the students' parents (Afolabi, 1978). Thus there are boys only and girls only schools, Islamic schools, Mission or Christian schools.

In the whole of Ibadan Municipality, the breakdown of the secondary schools based on the above criteria are as follows:

- 20 Mission schools or (21.5%).
- 4 Moslem schools or (4.3%).
- 3 Boys only schools or (3.2%).
- 10 Girls only schools or (10.8%).
- 78 Mixed schools or (83.9).

Altogether, there are 4,282 teachers which spread over the 93 secondary schools in the City.

RESEARCH DESIGN

The main purpose of this study is to assess the knowledge, attitudes and risk-behaviour of the secondary school teachers about AIDS in Ibadan Municipality. This therefore is purely a descriptive, cross-sectional survey

Because of the nature of the research, exploratory and non-experimental, no attempt was made to control the variables, but necessary steps were taken to ensure that the sampling technique used was representative of the entire study population.

SAMPLING PROCEDURE

A multistage sampling technique was used. In the first stage, all the 93 secondary schools in Ibadan Municipality, the area covered by this study were stratified according to historical progression into three zones. These were: the INNER CORE, the TRANSITIONAL area and the PERIPHERY (Adeniyi and Brieger, 1987). Thus 21 secondary schools were located in the INNER CORE; 57 in the TRANSITIONAL and 15 in the PERIPHERY.

In the next stage, 50% of the secondary schools was randomly selected from each stratum using the table of random numbers. Thus, 11 schools were randomly selected from the Inner Core, 28 from the Transitional and 8 from the Periphery making 47 Secondary Schools selected in all (see Appendix).

The third stage was the selection of the 30% of teachers from each of the 47 selected secondary schools. This was done by obtaining the list of names of the teachers in each school, followed by selection of the 30% by balloting, although it is noted that the Table of Random numbers can be used. The estimated numbers of teachers in all the 93 existing secondary schools in

Municipality and the 47 selected ones as at May 1989 (the time this research was conducted) were 4,282 and 2,272 respectively. A 30% sample of the teachers from the 47 selected secondary schools was expected to total 682.

This sample size (30%) was considered adequate for the survey since it is above the minimum statistical sample size. Moreover, logistic consideration was another justification for the choice of this 30%. And because Ibadan Municipality has 15.2% of all the secondary schools in Oyo State. The sample was expected to be fairly representative of the calibre of teachers to be found in other urban areas of the State.

INSTRUMENTS AND METHODS OF DATA COLLECTION

Instruments

Questionnaire was used as an instrument to collect data. And it set out to elicit information on the following:

- a. The demographic characteristics such as the age, sex, level of education.
- b. The knowledge of teachers on AIDS.

- c. Attitudes of teachers towards AIDS Control measures.
- d. Risk-behaviours/practices of teachers which could expose them to acquiring HIV infection.

Method

This method (Questionnaires) was chosen because it was useful as a survey research method and also because it gave a vast amount of hard numerical data with extensive coverage (Ramakrishna and Brieger, 1987; Abramson, 1979). The questionnaire was self-administered during the school hours between 8.00 a.m. and 2.00 p.m. when most of the teachers were around. Time taken to fill one questionnaire was approximately 30 minutes. The questions were in English because the target audience is literate (they were mostly graduate teachers with a minimum of NCE).

RELIABILITY AND VALIDITY

Ten draft questionnaires were pretested and the respondents were randomly chosen. This number was chosen in order to reduce the non-respondents bias (the more the questionnaires, the more the non-respondents bias)

and the second reason was because this number can easily be managed. The pretest was done in Orogun High School, Orogun, Ibadan - a school that was not chosen for the study.

Out of the 10 respondents used for the pretest, 4 spent roughly 20 minutes (mostly male respondents) while the rest six spent 30 minutes to complete the filling.

Repeatability

To ensure repeatability, modified repeat questions were included in the questionnaires. These were:

- Question 51: Have you been using condom (durex) during sexual intercourse since you know about AIDS?

Yes

No

If yes, give reasons: _____

If no, give reasons: _____

- Question 67: Have you been using nothing as protection during sexual intercourse?

Yes

No

If yes, give reasons: _____

If no, give reasons: _____

Those who responded to Question 51 in the affirmative also responded in the negative for Question 67. This therefore showed that responses were uniform and consistent.

Reliability

For reliability, technical Questions such as the ones asked to assess knowledge on AIDS in Questions 8 - 14: What is AIDS, How is AIDS caused? What are the signs and symptoms - were all left untouched after the pretest. This was because these questions formed the back-bone of the study and therefore cannot be eliminated. The aim of asking those questions was just to measure the respondents sensitivity to technical questions. Most of the responses showed that they had some idea/knowledge of AIDS. For example, to the question on How is AIDS caused? responses were similar and relevant, these included sexual intercourse, promiscuity, moral or sexual laxity, etc. This made one to ascertain that the responses given to most of the technical questions were reliable.

DATA ANALYSIS

Data collected were fed into an IBM Microcomputer. The descriptive statistics e.g. frequency description, tests of association such as the Chi-Square (χ^2) distribution tests, Correlation Coefficient and test of significance (T - test) were calculated and findings presented in tables.

UNIVERSITY OF IBADAN LIBRARY

CHAPTER FOUR

PRESENTATION OF FINDINGS

The findings of the study were presented in this chapter. Of the 682 questionnaires administered, 610 were recovered adequately completed and accepted for analysis. The personal information of the respondents was analysed first after which the analysis of various variables on knowledge, attitudes and risk-behaviour/practices followed.

Personal Information of the Respondents

Sex Distribution

The respondents consisted of 46% males and 54% females (Table 1 below).

TABLE 1

Distribution of Respondents by Sex

Group	No.	%
Male	283	46.0
Female	327	54.0
Total	610	100.0

Age Distribution

The highest number of respondents were between ages 31 and 40 years (51%) while very few teachers were between below 20 years and above 60 years respectively (Table 2).

TABLE 2

Distribution of Respondents by Age

Age group in years	Frequency	%
10 - 20	2	0.3
21 - 30	206	34.0
31 - 40	309	51.0
41 - 50	51	8.0
51 - 60	4	0.6
61 - 70	3	0.4
No response	35	5.7
Total	610	100.0

Religion

Most of the teachers were Christians (85.2%) - Table 3. This was followed by Moslems (12.6%). Four respondents (.7%) were traditionalists.

TABLE 3

Distribution of Respondents by Religion

Religion	Frequency	%
Christianity	520	85.2
Islam	77	12.6
Traditional African Religion	04	0.7
Atheist	02	0.3
Others	03	0.5
No response	04	0.7
Total	610	100.0

Level of Education

The educational status of respondents were presented in Table 4. 51.6% were NCE graduate teachers while 41.1% were degree holders. One could notice that the bulk of the respondents were purely degree and NCE graduates. There were very few Grade I and Grade II teachers each constituted (.3%) while OND/HND holders were made up of 5%.

TABLE 4
Distribution of Respondents by Level of Education

Qualification	Frequency	%
Graduate teacher	251	41.1
NCE	315	51.6
Grade I teacher	02	0.3
Grade II teacher	02	0.3
OND/HND	29	5.0
Others	11	1.7
Total	610	100.0

Marital Status

Those teachers who were married (Table 5) constitute a substantial part of the study population (82.1%). A small portion of the respondents were single (16.1%).

TABLE 5

Distribution of Respondents by Marital Status

Marital Status	Frequency	%
Single	98	16.1
Married	501	82.1
Divorced	7	1.1
Separated	1	0.2
Widowed	3	0.5
Total	610	100.0

Knowledge of AIDSCauses of AIDS

A small percentage 8.7% of the respondents named retrovirus as the virus that caused AIDS. Those who did not know the causes of AIDS constituted a large proportion of the study population (92.7%) while those who did not respond at all were made up of 21.5% (see Table 6).

TABLE 6

Respondents' knowledge on the causes of AIDS

Causes of AIDS	N = 610	
	No.	%
Retrovirus/HIV	53	8.7
Bacteria/Fungus/Shigella	2	0.3
Sexual intercourse	332	54.4
Unscreened blood transfusion/ blood contact	96	15.7
Intravenous/sharing of hypodermic needles	72	11.8
Others	64	10.5
No response	131	21.5

*Multiple responses allowed

Knowledge on the causes of AIDS and teachers educational level were assessed (see Table 7). 13.2% of graduate teachers gave the correct answer as retrovirus or HIV; OND/HND holders 6.8% and NCE teachers 5.7%. This suggested that knowledge of teachers on the causes of AIDS was very poor.

UNIVERSITY OF IBADAN LIBRARY

TABLE 7

Respondents' knowledge on the causes of AIDS by educational level

N = 610

Causes of AIDS	Graduates N=251 %		NCE N=315 %		Grade I N=2 %		Grade II N=2 %		OND/HND N=29 %		Others N=11 %		Total
Retrovirus/ HIV	33	13.2	18	5.7	0		0		2	6.8	0		53
Bacteria/ Fungus	0		2	.6	0		0		0		0		2
Sexual Intercourse	131	52.0	174	55.2	2	100.0	1	50.0	16	55.2	8	72.7	332
Blood Trans- fusion/Blood Contact	51	20.3	39	12.4	0		0		6	20.7	0		96
Intravenous injection	34	13.6	31	9.8	0		0		7	24.0	0		72
Others	22	8.8	35	11.1	0		1	50.0	6	20.0	0		64
No Response	48	19.1	76	24.1	0		0		4	13.8	3	27.3	131

*Multiple responses allowed

The knowledge of the causes of AIDS between science-based teachers and non-science teachers was also determined. Science-based teachers were more knowledgeable than non-science teachers. 26.3% of the 201 science-based teachers and 18.7% of the 385 non-science teachers gave the correct answers (see Table 8). This suggested that teachers knowledge of the causes of AIDS was generally poor.

UNIVERSITY OF BAHAMAS LIBRARY

TABLE 8

Respondents' knowledge on the causes of AIDS by subject taught

168-165-201

N = 610

Causes of AIDS	Arts N=237		Science N=136		Social Science N=129		Education N=19		Integrated Science N=65		Others N=6		No Res- ponse N=18		Total
		%		%		%		%		%		%		%	
Retrovirus/ HIV	17	7.2	17	12.5	8	6.2	1	5.3	9	13.8	1	16.7	0		53
Bacteria/ Fungus	1	4.0	0		0		1	5.3	0		0		0		2
Sexual intercourse	139	58.6	70	51.5	70	54.3	12	63.2	28	43.1	2	33.3	11	61.1	332
Blood Trans- fusion/ Blood con- tact	32	13.5	23	16.9	21	16.3	3	15.8	12	18.5	4	66.7	1	5.6	96
Intravenous injection	29	12.2	16	11.8	15	11.6	3	15.8	8	12.3	1	16.7	0		72
Others	23	9.7	14	10.3	16	12.4	1	5.3	9	13.8	0		1	5.6	64
No Response	50	21.1	28	20.1	29	22.5	4	21.1	15	23.0	0		5	27.8	131

*Multiple responses allowed

Mode of spread of AIDS

Those who named sexual intercourse as one means of promoting the spread of AIDS form the majority of study population 66%. Few respondents (10.7%) knew that unsterile needles and syringes could spread HIV infection. This included the spread through unscreened blood transfusion 17.9% as presented in Table 9.

TABLE 9

Respondents' knowledge about the mode of Spread of AIDS

N = 610

Mode of Spread	No.	%
Through sexual intercourse	403	66.0
Through blood transfusion	103	17.9
Through using unsterile needles	65	10.7
Others	82	13.4
No response/ Don't know	89	14.6

• Multiple responses allowed

When asked about how AIDS was transmitted, OND/HND teachers as well as NCE and graduate teachers had more knowledge than other categories of teachers. Of the OND/HND teachers, 65.7% mentioned sexual intercourse; 22.3% cited the use of unscreened blood transfusion while 12.4% gave the use of unsterile needles. And of the NCE teachers, 66.3% mentioned sexual intercourse; 13.3% mentioned unscreened blood transfusion; and 3.8% gave the use of unsterile needles as some ways of spreading HIV infection. Again, of the graduate teachers 65.7% cited sexual intercourse with many partners; 22.3% mentioned the use of unscreened blood transfusion while 12.4% gave the use of unsterile needles as the ways in which AIDS could be transmitted. Out of those who gave the wrong answer, 14.6% were NCE teachers, 13.8% were OND/HND holders while 12% were graduate teachers (see Table 10).

TABLE 10

Respondents' knowledge about the mode of spread of AIDS by educational Level

N = 610

Spread of AIDS	Graduate		NCE		Grade I		Grade II		OND/HND		Others		Total
	N=251	%	N=315	%	N=2	%	N=2	%	N=29	%	N=11	%	
Sexual intercourse	165	65.7	209	66.3	1	50.0	1	50.0	21	72.4	6	54.5	403
Unscreened blood transfusion	56	22.3	42	13.3	0		0		4	13.8	2	18.2	104
Using unsterile needle	31	12.4	12	3.8	0		0		9	31.0	1	9.1	53
Others	30	12.0	46	14.6	0		1	50.0	4	13.8	1	9.1	82
No Response	36	14.3	46	14.6	1	50.0	0		2	6.9	4	36.4	89

*Multiple responses allowed

Teachers' knowledge of the spread of AIDS and the subject they teach were presented in Table 11. Almost all the teachers irrespective of what subject they teach had some knowledge of the mode of spread of AIDS. However, science teachers had more knowledge than their non-science counterpart. Of the 237 arts teachers, 68.3% cited sexual intercourse; 15.2% cited the use of unscreened blood transfusion and 11% gave the use of unsterile needles as the ways in which HIV could be transmitted. Of the 136 pure science teachers who got the correct answer, 68.3% cited sexual intercourse; 19.1% cited the use of unscreened blood transfusion; while 12.5% gave the use of unsterile needles as some of the ways in which AIDS could be spread. Again, among the social science teachers who gave correct answers, 62.8% mentioned sexual intercourse; 20.1% cited the use of unscreened blood transfusion while 7.8% mentioned the use of unsterile needles as some means of AIDS transmission.

And out of the education teachers who gave the correct answer, 63.1% mentioned sexual intercourse, 15.8% cited the use of unscreened blood transfusion while 7.8% mentioned the use of unsterile needles as some ways of

AIDS transmission. Again, out of the Integrated science teachers who gave the correct answer, 63% cited sexual intercourse; 23% mentioned the use of unscreened blood transfusion and 15.3% gave the use of unsterile needles as some ways in which HIV could be transmitted.

UNIVERSITY OF IBADAN LIBRARY

TABLE 11

Respondents' knowledge on the mode of spread of AIDS by subject taught

N = 610

Spread of AIDS	Arts		Science		Social Science		Education		Integrated Science		Others		No Response		Total
	N=237	%	N=136	%	N=129	%	N=19	%	N=65	%	N=6	%	N=18	%	
Through sexual intercourse	162	68.3	93	68.3	81	62.8	12	63.1	41	63.0	3	50.0	12	66.6	404
Through the use of unsterile needles	26	11.0	17	12.5	10	7.8	1	5.2	10	15.3	0		2	11.1	65
Through unscrubbed blood transfusion	36	15.2	26	19.1	26	20.1	3	15.8	15	23.0	2	33.3	2	11.1	110
Others	37	15.6	18	13.2	12	9.3	4	21.0	9	13.8	1	16.6	1	5.5	82
No Response	31	13.0	16	11.8	27	20.9	3	15.8	8	12.3	0		4	22.2	89

Prevention of AIDS

As shown in Table 12, half of the respondents 51.5% have some knowledge of AIDS prevention namely that AIDS could be prevented through the use of sterile needles. Few respondents know that prevention is possible through practice such as the use of condom (21.5%); through avoidance of unscreened blood transfusion, 21.6%.

TABLE 12

Respondents' knowledge about prevention of AIDS

Prevention of AIDS	N = 610	
	No.	%
Through sex: safe sex; use of Condom	131	21.5
Through avoidance of unscreened blood transfusion	132	21.6
Through the use of sterile needles	314	51.5
Others	15	2.5
No Response/Don't know	126	20.7

*Multiple responses allowed

Teachers level of education and knowledge of AIDS prevention was presented in Table 13. When asked how AIDS could be prevented, 57% of Graduate teachers cited the use of sterile needles; 26.3% cited safe sexual Practices and the use of Condom; while 21.1% gave avoidance of unscreened blood transfusion. Of the NCE teachers, 48% cited the use of sterile needles; 22% cited avoidance of unscreened blood transfusion while 17.8% gave safe practices and the use of Condom as preventive measures for the spread of AIDS. And out of the 29 OND/HND teachers, 44.8% cited the use of sterile needles, 27.6% cited avoidance of unscreened blood transfusion; while 17.2% gave safe sexual practices and the use of Condom as measures for AIDS prevention.

This suggests that the OND/HND, NCE and Graduate teachers possess enough knowledge on AIDS prevention.

TABLE 13

Respondents' knowledge about prevention of AIDS by educational level

N = 610

Prevention of AIDS	Graduate		NCE		Grade I		Grade II		OND/HND		Others		Total
	N=251	%	N=315	%	N=2	%	N=2	%	N=29	%	N=11	%	
Sex: safe sex; use of Condom	66	26.3	56	17.8	1	50.0	1	50.0	5	17.2	2	18.2	131
Using sterile needles	143	57.0	151	48.0	1	50.0	1	50.0	13	44.8	5	45.5	314
Avoidance of unscreened blood trans- fusion	53	21.1	69	22.0	1	50.0	0		8	27.6	1	9.1	132
Others	7	2.8	6	1.9	0		0		2	6.9	0		15
No Response	46	18.3	71	22.5	0		0		5	17.2	4	36.4	26

*Multiple responses allowed

Majority of the teachers irrespective of the subject which they teach could indicate at least one single preventive measure against AIDS disease as presented in Table 14. Arts and Education teachers appeared to have better knowledge of AIDS than teachers who teach Science subjects. Of the 237 Arts teachers, 89% mentioned avoidance of the use of unsterile needles; 21.5% gave avoidance of unscreened blood transfusion; and 21.1% gave safe sexual practices and the use of Condom as some ways by which AIDS could be prevented. Of the pure Science teachers who got the answer correct, 54.4% cited the use of sterile needles; 24.3% mentioned the avoidance of unscreened blood transfusion; and 21.3% gave safe sex practices and the use of Condom.

Out of the 129 Social Science teachers, 48.8% mentioned the use of sterile needles, 20.9% gave safe sex practices; 18.6% cited unscreened blood transfusion as some measures of preventing AIDS transmission. Again, out of the 19 Education teachers, 47.3% mentioned the use of sterile needles, 31.5% gave avoidance of unscreened blood transfusion and 31.5% cited safe sex

practices as the ways by which AIDS could be prevented. And also out of the 65 Integrated Science teachers, 56.9% cited the use of sterile needles, 23% mentioned safe sex practices while 20% gave avoidance of unscreened blood transfusion as some of the measures which could be taken to prevent AIDS transmission (see Table 14).

UNIVERSITY OF IBADAN LIBRARY

TABLE 14

Respondents' knowledge about prevention of AIDS by subject taught

Prevention of AIDS	Arts		Science		Social Science		Education		Integrated Science		Others		No Res- ponse		Total
	N=237	%	N=136	%	N=129	%	N=19	%	N=65	%	N=6	%	N=18	%	
Sex: safe sex, use of Condom	50	21.1	29	21.3	27	20.9	6	31.5	15	23.0	1	16.5	3	16.6	131
The use of sterile needles	121	89.0	74	54.4	63	48.8	9	47.3	37	56.9	2	33.3	8	44.4	314
Avoidance of un-screened blood transfusion	51	21.5	33	24.3	24	18.6	6	31.5	13	20.0	2	33.3	3	16.6	132
Others	6	2.5	3	2.2	3	2.3	0		1	1.5	1	16.6	1	5.5	15
No Res- ponse	49	20.7	25	18.4	34	26.3	3	15.8	1	1.5	1	16.6	4	22.2	216

*Multiple responses allowed

Majority of the teachers had some knowledge of the spread of AIDS as presented in Table 15. 93.8% indicated that AIDS could be transmitted by practices such as prostitution, 88.4% mentioned blood transfusion, 83.6% cited sexual intercourse with many partners, 84.6% gave the use of unsterile needles while 75.9% mentioned homosexuality as ways by which AIDS could be transmitted.

Almost half of the teachers did not understand how AIDS is transmitted. 48.4% indicated that the disease could be contracted through casual contact (such as shaking hands, hugging). 46.6% mentioned immunization, while 37.2% cited drinking from the same cup, and 31.8% mentioned sharing of clothes as some ways in which AIDS could be transmitted.

TABLE 15

Correct and incorrect modes of transmission of AIDS reported by respondents

AIDS can be transmitted through the following routes:

Routes of Transmission	N		610		Don't know	
	Yes	%	No	%	know	%
<u>Correct Responses</u>						
Homosexuality	463	75.9	73	11.9	74	12.1
Prostitution/Promiscuity	572	93.8	16	2.6	22	3.6
Through the use of unsterile needles	516	84.6	47	7.7	47	7.7
Through the placenta from mother to child	391	64.1	94	15.4	125	20.5
Through unscreened blood transfusion	539	88.4	32	5.2	39	6.4
Through indiscriminate sexual intercourse with both sexes	510	83.6	37	6.1	63	10.3
<u>Incorrect Responses</u>						
Through sharing of clothes	194	31.8	307	50.3	109	17.9
Through casual contact such as shaking hands	295	48.4	224	36.7	91	14.9
Through drinking from the same cup	227	37.2	273	44.7	110	18.0
Through eating from the same plate	152	24.9	332	54.4	126	20.6
Through smoking	91	14.9	385	63.1	134	22.0
Through immunization	284	46.6	241	39.5	85	13.9

*Multiple responses allowed

On Attitudes towards AIDS Control Measures

Teachers religious belief and their attitude towards having injection only from Hospital

The attitude of teachers towards having injection only from hospital (Table 16) is assessed according to their religious affiliations. 62.3% of Christians and 9.5% of Moslems have positive attitude to having injection in the hospital. So are .5% traditionalists. There is no significant association between attitude of teachers towards having injection from the hospital and their religious belief.

TABLE 16

Attitudes of respondents towards having injection from hospital by religion

Attitudes towards having injection from hospital	Christian		Moslem		Trad. Afr. Rel.		Others		No Res- ponse		Total	%
	No.	%	No.	%	No.	%	No.	%	No.	%		
Good practice	380	62.3	58	9.5	3	.5	5	.8	3	.5	449	73.6
Bad practice	42	6.9	7	1.1	1	.2	0		0		50	8.2
No response	98	16.0	12	2.0	0		0		1	.2	111	18.2
Total	520	85.2	77	12.6	4	.7	5	.8	4	.7	610	100.0

$$\chi^2 = 3.14; \quad df = 1; \quad P = < 0.05$$

Teachers' educational level and their attitude towards the inclusion of AIDS education in the School Curriculum

The teachers level of education as it affected their attitude to the inclusion of AIDS Education in the School Curriculum was presented in Table 17. The result indicated that 91.6% of all the teachers did have positive attitude. But that only 36.9% of Graduate teachers and 48.2% of NCE holders had positive attitude. There was no significant relationship between the two variables.

TABLE 17

Attitudes of respondents towards inclusion of AIDS Education in the School Curriculum by level of education

Attitudes towards inclusion of AIDS Education in School Curriculum	Graduate		NCE		Grade I		Grade II		OND/HND		Others		Total	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
YES: POSITIVE ATTITUDE	225	36.9	294	48.2	2	.3	1	.2	28	4.6	9	1.4	559	91.6
NO: NEGATIVE ATTITUDE	13	2.1	8	1.3	0		0		1	.2	0		22	3.6
No response	13	2.1	13	2.1	0		1	.2	0		2	.2	29	4.8
Total	251	41.2	315	51.6	2	.3	2	.4	29	4.7	11	1.8	610	100.0

$$\chi^2 = 2.11; \quad df = 1; \quad P = < 0.05$$

On Risk-behaviour/Practices that could lead
to the spread of AIDS

Teachers marital status and
and the use of condom

Most respondents did not use condoms and they comprised of married teachers 60%, single teachers 10.8% as presented in Table 18. There was no significant association between the teachers marital status and their use of condom.

TABLE 18

The use of condom among respondents by marital status

Teachers Marital Status	Use of Condom						Total	%
	Yes		No		No Response			
	No.	%	No.	%	No.	%		
Single	27	4.4	66	10.8	5	.8	98	16.1
Married	123	20.1	366	60.0	12	2.0	501	82.1
Divorced	3	.5	3	.5	1	.2	7	1.1
Separated	0		1	.2	0		1	.2
Widowed	1	.2	2	.3	0		3	.5
Total	154	25.2	438	71.8	18	3.0	610	100.0

$$\chi^2 = 0.51; \quad df = 1; \quad p = < 0.05$$

Teachers religious belief and the practice of homosexuality

Religious belief of the teachers as it affected the practice of homosexuality was presented in Table 19. Majority of the male teachers (95.1%) reported that they did not practice homosexuality while a very small segment .7% said that they did. There was no significant association between the teachers religious belief and the practice of homosexuality.

TABLE 19

Practice of homosexuality among male respondents by religion

Teachers religious belief	Practice of homosexuality						Total	%
	Yes		No		No Response			
	No.	%	No.	%	No.	%		
Christianity	1	.3	217	76.6	9	3.1	227	80.2
Islam	0	.3	43	15.2	3	1.1	46	16.3
Trad. African Religion	1	.3	3	1.1	0		4	1.4
Atheist	0		1	.3	0		1	.3
Others	0		2	.7	0		2	.7
No response	0		3	1.1	0		3	1.1
Total	2	.7	269	95.1	12	4.2	283	100.0

$$\chi^2 = 32.35612 \quad d.f. = 4 \quad P = < 0.05$$

Teachers religious belief and having sexual intercourse with prostitutes

On the issue of whether religious belief of respondents affects the practice of having sexual intercourse with prostitutes, results revealed that a very small segment of the male teachers (10.3%) reported having sexual dealings with prostitutes while the majority (87.6%) said they did not (see Table 20). Of the respondents who claimed to have no sexual dealings with prostitutes, 71% were Christians, 14.1% were Moslems and .7% were traditionalists. The findings indicated that no significant relationship existed between the teachers religious belief and having sexual intercourse with prostitutes.

TABLE 20

Reported sexual dealings with prostitutes among respondents by religion

Teachers religious belief	Having sex dealings with prostitutes						Total	%
	Yes		No		No Response			
	No.	%	No.	%	No.	%		
Christianity	20	7.1	201	71.0	6	2.1	227	80.2
Islam	6	2.1	40	14.1	0		46	16.3
Trad. African Religion	2	.7	2	.7	0		4	1.4
Atheist	0		1	.3	0		1	.3
Others	1	.3	1	.3	0		2	.7
No response	0		3	1.1			3	1.1
Total	29	10.3	248	87.6	6	2.1	283	100.0

$$\chi^2 = 10.812 \quad df = 4 \quad P = < 0.05$$

Teachers' marital status and having sexual relations with prostitutes

On the issue of whether the marital status of teachers affected the practice of having sexual intercourse with prostitutes, the findings revealed that a very small section 10.3% of the study population reported having sexual dealings with prostitutes while the majority 87.6% said they did not (see Table 21). of the respondents who claimed to have no sexual dealings with prostitutes, 19.8% were single teachers, 67.1% were married and .3 were divorced. There was no significant relationship between the marital status of teachers and having sexual intercourse with prostitutes.

TABLE 21

Reported sexual dealings with prostitutes among respondents by marital status

Marital of status Respondents	Having sex with Prostitutes						Total	%
	Yes		No		No Response			
	No.	%	No.	%	No.	%		
Single	6	2.1	56	19.8	1	.3	63	22.3
Married	21	7.4	190	67.1	5	1.8	216	76.3
Divorced	2	.7	1	.3	0		3	1.1
Separated	0		1	.3	0		1	.3
Widowed	0		0		0		0	
Total	29	10.3	248	87.6	6	2.1	283	100.0

$$\chi^2 = 10.327 \quad df = 3 \quad P = < 0.05$$

Teachers marital status and
having one sexual partner

Marital status of the teachers as it affected the practice of having one sexual partner was assessed in Table 22. Majority of the teachers (90.7%) reported having only one sexual partner while a very small segment 7% said that they had more than one. One the respondents who claimed to have only one sexual partner, 12% were single teachers, 77.1% were married while 1.1% were divorced. The data indicated that there was positive significant relationship between marital status of respondents and having one sexual partner.

TABLE 22

Reported restriction to one sexual partner among respondents by marital status

Marital status Respondents	Having only one sexual partner						Total	%
	Yes		No		No Response			
	No.	%	No.	%	No.	%		
Single	73	12.0	17	2.8	8	1.3	98	16.1
Married	470	77.1	25	4.1	6	1.0	501	82.1
Divorced	7	1.1	0		0		7	1.1
Separated	0		1	.2			1	.2
Widowed	3	.5	0		0		3	.5
Total	553	90.7	43	7.0	14	2.3	610	100.0

$$\chi^2 = 19.85 \quad df = 1 \quad P = < 0.05$$

LIMITATIONS OF THE STUDY

1. Cultural norms in Nigeria dictate that any discussions on human sexuality be kept from the public. For this reason, people do not always feel free to discuss matters relating to their sexual lives. It was therefore difficult to elicit correct (valid) and honest information on this issue. Again because in the Questionnaires, teachers' sexual behaviour were reported not observed behaviour, there was no way by which the information being sought could be verified. This had therefore put a limitation to the study.
2. The Questionnaires were self-administered: 2% of the study population took some Questionnaires home. Under this circumstance, there was no way of preventing cross-fertilisation of ideas. This therefore served as a limitation.
3. Some secondary school teachers (1%) refused bluntly to fill the Questionnaires because they (the questions) were on AIDS. They insisted that they could not participate in this exercise

strictly on the basis of their religion. They argued that AIDS occurs as a result of sin (fornication and adultery), and that the disease was a form of punishment from God on all those who were afflicted. They further argued that since they cannot fall victims, they did not see the need for them to fill the Questionnaires. This set of teachers thus refused to fill the Questionnaires even though they were statistically chosen. Such religious attitude would not help the AIDS Control programme especially as teachers have a crucial role to play in the AIDS Control programme. This too was another limitation to the Research.

CHAPTER FIVE

DISCUSSION OF FINDINGS

Discussion of findings are in the following order: the Demographic Characteristics, Knowledge of AIDS, Attitudes towards AIDS Control measures, the Risk-Behaviour/Practices that could lead to the spread of AIDS.

Demographic Characteristics

The study population is made up of mainly married women. A large number of respondents are within 31 - 40 years of age bracket and are Christians. These attributes have some implications for HIV/AIDS transmission. Women of child-bearing age is said to occupy an important position (an agent) in AIDS transmission. Since HIV infection is transmitted through three main routes: through sexual contact, through blood contact and through Perinatal transmission - from mother to her child/children (Attawell and Hilary, 1987). Women within the age bracket (21 - 40 years) are more at risk because not only could

the woman infect herself and her sexual partner, she also stands the risk of passing on the infection to her offspring.

It is said that at least as of now, increasing number of young women are now becoming infected with HIV either through heterosexual contact or through infected blood transfusion (Shoepf et al 1987). Throughout the world, 80% of the women presently suffering from AIDS are of childbearing age (Mariasy and Radlett, 1989). And it is estimated that between 30 - 50% of children born by HIV infected women may be infected with HIV (Attawell and Hlary, 1987). Report also indicates that 7% of AIDS population in the United States of America are females (Wallis, 1985). And in Africa, up to 12% of pregnant women coming to urban hospital in Zaire are infected with HIV (Sabatier, 1988).

A large number of teachers in this study are aged between 31 and 40 years. This is an age when individuals are sexually active and also of childbearing and therefore could be considered at some considerable risk of contracting HIV infection. The consequences of this on a young single teacher is enormous: a teacher

afflicted with the disease could face a bleak future - fear of future illness and death, uncertainly about life choices: about marriage, about employment (Attawell and Hilary, 1989). Equally important is the fact that teachers within this age group constitute a sizeable productive force within the economy which would likely be adversely affected (Green, 1988). It is estimated that about 90% of all AIDS cases throughout the world are said to come from this age group (Mann, 1986).

Knowledge of AIDS

The assessment of teachers on the causes of AIDS shows that only 8.7% of the teachers gave the correct answer. This shows that knowledge of teachers on AIDS is poor. On spread and prevention of HIV infection, although a large number of the teachers indicated one or more correct answers, however, these are inadequate.

This finding is consistent with Reports from Yaounde, Cameroon which indicated that teachers lacked knowledge of sex education (AIDS Action, 1988). The survey revealed that schools are not providing enough information on human sexuality (AIDS Action, 1988). In the United States of America, knowledge,

Attitude and Practices of teachers in relation to AIDS Education are said to be deficient (Population Reports, 1986). Only a few schools offer AIDS Education Programmes (on AIDS Education) are just beginning to come underway in a few areas, and plans to include AIDS in the School Curriculum are in progress (Liskin et al, 1986).

It has been said that teachers receive little or no preparation in Health Education (Ademuwagun, 1975) and therefore may not be competent enough to handle sex education courses in our secondary schools. Infact, reports indicated that in the whole of Nigeria, the background training and knowledge of teachers in this area (health/sex education and even AIDS Education) is very minimal and grossly inadequate (Ademuwagun, 1975). It is revealed that only teachers from Teacher Training Colleges and Colleges of Education in various Universities in the country are exposed to some rudimentary knowledge of health education. This may therefore explain why the knowledge of teachers on AIDS is poor.

It appears that teachers apart from not receiving adequate knowledge on AIDS in Teacher Training Colleges,

the sources of information such as television, radio, newspaper on this new disease are also not providing enough information. At present, little information on health issues is being provided to the general public via the mass-media (particularly the television). Some of the health-related programmes (except the weekly health-talk on Broadcasting Corporation of Oyo State (BCOS) network) which has been spared) have been suspended in favour of the various programmes on the on-going political transition. And apart from the media not providing enough information, it is probable that the teachers themselves do not show enough interest in anything relating to human sexuality, or simply that teachers hardly find time for extra-curricula activities such as reading to improve their knowledge. And again if teachers are willing to read and update their knowledge, it appears that the facility too may not be present. For example, the Media Resource Centre (or Library) where various books, journals and magazines on AIDS could be stocked are not available in most of our schools today. Teachers ought to know the

causes, signs and symptoms, spread and prevention of AIDS in order to impart adequate knowledge onto the students they teach, onto their peer groups in various associations women's [such as the Lioness, Rotary, and also to their children given the fact that the majority of this study population are women.

Attitudes towards AIDS Control Measures

People with high level of education have been observed to often have positive attitude towards their health (Ademuwagun, 1970). This may explain why teachers in this study (comprising mainly of NCE, graduates and degree holders, 90.7% have positive attitude towards AIDS control measures such as having one sexual partner, having AIDS Education included in the curriculum of secondary schools; and having injection only from hospital where they are sure effective sterilization of needles and syringes is ensured and where there is non-sharing of needles. The crucial point is that the positive attitude brought about by the level of education of these teachers on the variables listed above may make them (the teachers) less at risk of contracting AIDS if put into practice.

The findings reveal that very few teachers engage in practice that may expose them to contracting

HIV infection. 8.2% of the study population is reported to obtain injection from sources outside the hospital. Some of these teachers may probably be trained patronizing the services of Traditional Birth Attendants (TBA), unregistered private clinics or even quack or "injection doctors" known to involve giving intramuscular injection with used unsterile needles for a wide variety of ailments including the ones which require oral application (Hrdy, 1987). This type of activities may aid the transmission of HIV infection.

It is interesting to observe that two variables - religion and marital status do have considerable influence on the attitudes of the respondents. The study population is predominantly Christians (85.2%) and majority of Christians do support the idea of having one sexual partner a practice known to place individual less at risk of contracting AIDS. Most religions (western type) preach against the idea of having more than one wife. And since it is gathered from the review of literature that having more than one sexual partner or the practice of prostitution is one means of contracting HIV/AIDS infection

(Armstrong, 1985; Ngugi et al, 1985. The attitude of respondents who support the practice of having one sexual partner would also be a positive attitude towards the control of AIDS epidemic in the school community.

Over 91.6% of the total respondents have positive attitude to the inclusion of AIDS Education in the School Curriculum. Majority of these are graduate and NCE holders. This may have been necessitated (motivated) by the fact that no AIDS Education is included in the WAEC Syllabus (WAEC Syllabus, 1989/90, see Appendix). And even though these teachers did not receive any education on AIDS in their Teacher Training Colleges, it appears that they (teachers) realise that AIDS is a serious disease which has now reached an epidemic proportion all over the world. And they might also feel that secondary school children who are adolescents and are sexually active are particularly more at risk of contracting the disease and that one of the ways in which to fight the epidemic is through the inclusion of AIDS Education into the School Curriculum.

Risk Behaviour/Practice that could lead to the spread of AIDS

The following risk practices/behaviours that may or may not favour the transmission of AIDS were found (in this study) to be influenced by variables such as religion, sex of the respondents, marital status and type of marriage.

Marital status was for example associated with the use of condom, a behaviour known to help in the control of HIV infection. Most of the study population are married and a large proportion of them do not use condom (60%). Also, even though majority of the study population are females, the data suggest that more male teachers use condoms than their female counterpart.

The reason for non-use of condoms even after respondents have heard about AIDS may relate to those given by Wittet and Zimmermann (1989) that individuals may prefer not to use condoms because of personal idiosyncracies. Some of these teachers might find the use of unnatural (that it reduces sensitivity to sexual intercourse) or that it is usually messy after use. Although these personal preferences vary from person to person but are nevertheless often shared by very many individuals.

In addition, because many of the teachers are of childbearing age, social pressures from relations or family to have more children could result in many not using condoms. The other reason might be related to religious inclinations. Catholics have been known to often discourage the use of Contraceptives which include condom use partly because of their preference for natural birth control.

This kind of value - preference for natural family planning makes condom use and also the use of other family planning devices less popular among Catholics throughout the world. The Islamic religion too like the Catholics do not favour the use of contraceptives including condom use. The Islamic religion allows one man to marry four wives (and bear as many children as they deserve), a doctrine which makes the use of condom unnecessary.

Also, in a developing country like Nigeria, cultural norms dictate that any discussion on human sexuality be kept secret from the public - thus free discussion on human sexuality is often discouraged. Potential buyers of condoms may be embarrassed to buy condoms from public places. Sometimes, the high cost and the non-availability of condom may prevent many potential buyers from using condom, and therefore may favour the transmission of HIV infection in the community.

Again, in this study, marital status of the respondents was also (linked) with having one sexual partner a behaviour known to aid the control of AIDS transmission. A large majority (77.1) of the teachers who favour the practice are married (and monogamous). This reported behaviour is important as sex with multiple sexual partner are put in check.

In addition, because many of the teachers are of childbearing age, social pressures from relations or family to have more children could result in many not using condoms. The other reason might be related to religious inclinations. Catholics have been known to often discourage the use of Contraceptives which include condom use partly because of their preference for natural birth control.

This kind of value - preference for natural family planning makes condom use and also the use of other family planning devices less popular among Catholics throughout the world. The Islamic religion too like the Catholics do not favour the use of contraceptives including condom use. The Islamic religion allows one man to marry four wives (and bear as many children as they deserve), a doctrine which makes the use of condom unnecessary.

This finding may also support the values expected of married women in respect of having sexual relationship with the husband alone for life. This practice can contribute to the control of the spread of HIV infection.

Similarly, in this study, marital status of respondents has been closely linked (associated) with the practice of prostitution or having sexual intercourse with prostitute (or promiscuity) a behaviour which could expose individuals to acquiring HIV infection. It is revealed that a very small segment of the study population (10.3%) do have sexual dealings with prostitutes or have multiple sex partners and majority of these (small segment of the population) are male married teachers. But why do people still get involved in the practice of prostitution/or in having multiple sexual partners in spite of the risk involved? A report indicates that one reason why many young women who went to Ivory Coast for prostitution do so is purely to search for their means of livelihood (Kotonoy-Anulu, 1987). But among the well-educated and employed teachers such as obtains in this study, having multiple

sexual partners may probably be influenced by the effect of peer group pressure - by virtue of their membership in various clubs and associations.

This also suggests that out of the very few teachers who are reported to engage in having sex with multiple sexual partners, many of them are male teachers (female teachers who engage in such activities at least in this society would be frowned upon).

Having multiple sexual partners (concubines) by the males is a practice sanctioned by this society but which may also aid the spread of AIDS. Society permits a double-standard practice - it allows men to have sexual relations outside their married homes (extra-marital affairs) but would consider it a crime if done by their female counterparts. For instance, Yoruba norms favour sexual permissiveness for men and sexual abstinence for women (Olusanya, 1969). That is why polygyny - a man having more than one wife is a socially approved custom among the Yorubas (Fadipe, 1970). Married male teachers therefore who are reported to engage in having more than one sexual partner as it is the case in this study could stand

the risk of not only acquiring the HIV infection but also introducing the HIV infection into the population - thereby infecting his wife(s) and passing on the infection to their offspring.

Also in the study, religious belief of the respondents was associated with homosexuality, a practice which is known to also expose the individuals to acquiring HIV infection. A very small proportion (.7%) of the study population disclosed their involvement in homosexual practice, and of these few, Christians form the majority (followed by Moslems) of those who are reported to have homosexual dealings. This is inconsistent with some belief that homosexual practices are common among Moslems - a belief that has not been scientifically proven. This self-reported practice of homosexuality by male teachers in this study may constitute a threat to the school community. The sexual techniques that homosexuals employ such as receptive anal intercourse with an infected partner has been cited as one single sexual

act that could lead to acquiring HIV/AIDS infection. In this society, a married male teacher who is also a homosexual stands the risk of introducing an HIV infection into the population: namely by infecting his wife with HIV and passing on the infection to his children.

UNIVERSITY OF IBADAN LIBRARY

IMPLICATIONS FOR HEALTH EDUCATION PLANNING

The aim of health education in AIDS prevention is to prevent the spread of the disease (AIDS) by influencing positively risk-behaviour/practices which expose an individual to acquiring the disease. The study revealed that the teachers do engage in such practices which could make them susceptible to AIDS. The study has revealed that: the secondary school teachers knowledge about AIDS is poor; that there are still some self-reported negative attitudes towards some AIDS control measures such as non-use of condom; having multiple sexual partners and homosexual practices; that there are some self-reported practice of some behaviours such as having multiple sex partners; and homosexuality (see discussion); that there are also some self-reported behaviours such as keeping to one sexual partner which decrease their chances of acquiring AIDS.

Poor knowledge

The knowledge of teachers about AIDS is low. Therefore, the aim of Health Education would be two fold: one is to enlist the support and cooperation

of teachers whose knowledge we want to improve and secondly to equip them (the teachers) with basic information on AIDS so as to be able to impart adequate knowledge on AIDS to the students. To this end, the suggested Health Education intervention that would best deal with this problem (of low level of knowledge) would be resource development strategy through training (for more details on the Contents, Objectives and Logistics, see Appendix).

The use of training as a method has often been used to improve knowledge on AIDS with relative success. And there are various documents to justify this choice of method. Chirwa and Sivile (1989) have successfully carried out a health education intervention which demonstrated how training was effectively used to bring about increase in knowledge of AIDS. Recognising that traditional healers who form an important resource group in their communities have very little knowledge on AIDS, they enlist their (traditional healers) support in an AIDS education campaign in Zambia. This was done with the aim of gaining support of traditional healers in the fight

against AIDS and also of promoting lifestyles that will increase preventive behaviours/practices against AIDS/HIV infection among the people. They (Chirwa and Sivile) therefore designed a training workshop for this traditional healers using a participatory interactive discussion approach. This method involved Health Education activities such as brainstorming, group discussion and talks with visual aids.

To evaluate the impact of the workshop on the knowledge of traditional healers in relation to AIDS, a pre and post-test was carried out. Questionnaire method was used to elicit information on the causes, the nature, the spread, and the prevention of AIDS. At the end of the workshop, the results indicate that of the 33 participants who entered for the pre-test, none possess any knowledge on the nature, spread and prevention of AIDS. The results also indicate that at post-test, all participants (100%) exhibited correct knowledge of issues concerning AIDS. A total of 89.8% of the participants for example know that AIDS could be transmitted through sexual intercourse and 60% could correctly see the need to use properly sterilized instruments for any treatment which involves piercing the skin.

It could therefore be deduced from the result of this (Zambia) study that training workshop if organised for the secondary school teachers, just as it is done here for the traditional healers in Zambia (Chirwa and Sivile, 1989) could serve as a very effective strategy in bringing about increase in knowledge of AIDS.

In addition, advantages of participatory interactive discussion approach usually used in training sessions which could also be used for training teachers has been well highlighted (Chirwa and Sivile, 1989). First, participatory interactive discussion on AIDS is effective in helping participants to gain the knowledge and understanding needed to participate in AIDS Education in their respective communities. Secondly, the advantage of this kind of approach for education is that small group interaction often provides a supportive interpersonal learning environment (Chirwa and Sivile, 1989). Another benefit of small group discussion is that participants are free to raise issues of concern which are dealt with directly, and discussion focused directly on issues relevant to the group (Chirwa and Sivile, 1989).

In other words, face-to-face discussion would be particularly useful for teachers because it would encourage discussion, when questions and misunderstandings can be dealt with; information and experiences can be shared and especially because personal involvement and commitment on the part of the teachers can be encouraged (Sherr, 1988). But apart from using training as a health education strategy to enhance teachers' knowledge on AIDS, mass communication too could also be used to increase teachers' awareness on AIDS, television, radio, newspapers, Media Resource Centre (a kind of library) could serve as sources of information. For Contents, Objectives, Logistics - see Appendix). The literature is replete with various innovative AIDS awareness campaigns often launched in the mass media to inform and educate with the aim of raising peoples knowledge and awareness even though information through this medium is not usually targetted to a particular audience.

In the United Kingdom, a billboard campaign captioned "Don't die of ignorance" was a message targetted at the general public. Even though this did not influence behaviour but it succeeded in raising peoples

awareness of the disease, AIDS. About a year later, up to 93% of teenagers knew how HIV was transmitted (Mariasy, 1988).

On Attitudes

Results of the study also indicate that among some secondary school teachers, there are still some reported negative attitudes towards AIDS Control measures (see discussion). Some do not want AIDS Education included in the School Curriculum. Some also feel that having multiple sexual partners (prostitution) is a good practice. Others still feel that there is nothing wrong in the practice of homosexuality. Therefore, the aim of health education in AIDS prevention would be to positively influence the attitudes of teachers. To this end, the suggested health education intervention that would best deal with the problem of negative attitude would be training.

The use of training as a method aimed at solving the problem of some teachers' negative attitude towards AIDS control measures (such as non-use of condoms) has met with success. And there are documents to justify this choice of method. The Connaissid Project in Zaire has successfully conducted a health education

intervention which demonstrated how training could be effectively used to bring about not only increase in knowledge (as discussed earlier) but also considerable improvement in attitudes and even practices on AIDS.

A research conducted by members of Connaissida used community-based training design to seek solution to the ever increasing rise in AIDS cases in Zaire (Schoepf et al, 1988). The training involves a group of prostitutes in one community and members of a neighbourhood church women's club in another community (serving as primary health care workers). It (the training) also involves using the experiences of individual prostitutes together with the principles of group dynamics to modify behaviour. The group dynamics principle allows participants to reflect together in depth and engage in problem-solving on matters of common concern. In other words, the training is intended to engage prostitutes directly in solving the problem of AIDS prevention in their own lives. For prostitutes, the training is aimed at finding ways to convince clients to use condom. And for the primary health care workers, the training is aimed at helping recalcitrant men to change their behaviour and use condom in each sexual encounter.

Using the methods in group dynamics, the prostitutes were able to change their behaviour to use condom in each sexual encounter. They (the prostitutes) also derived other benefits from participating in this experimental training programme. For example, the training session provided creative ways to approach AIDS Education. Also, the rapport generated in this training session makes it possible to conduct in-depth interviews with individuals and small groups on sensitive subjects such as human sexuality. The training design seems to yield more reliable information than that obtained from Questionnaire surveys.

But perhaps more importantly is the fact that when the training programme was evaluated, the results showed that in 1986 long before the training was conducted, most prostitutes interviewed scoffed at condoms and many were unfamiliar with their use. But sixteen (16) months later, when training was conducted, it was discovered that knowledge had increased and attitudes and practices had changed significantly (Shoopf et al, 1988). Prostitutes not only required clients to use condoms but they also have their own condoms handy and would send away any man who refused to use condom

because according to the prostitutes, "they don't want to die" (Schoepf et al, 1988).

On Behaviour

There are some self-reported practice of some behaviours such as having multiple sexual partners and homosexuality (see discussion) and non-use of condom during sexual intercourse. The aim of health education would be to positively influence behaviour and effect increase in the use of condom among teachers. To this end, the suggested Health Education intervention that would also best deal with self-reported risk-behaviours being practiced by some teachers would be audience involvement/participation.

The use of audience involvement as a method aimed at solving the problem of teachers' reported practice of risk-behaviour which could expose them to acquiring HIV infection has also met with success. There are various documents to justify the choice of this method. In Ghana, a pilot study was carried out among prostitutes to show the important role that Health Education could play in bringing about desired health behaviour (Yeboah-Afari, 1988). The study indicates that health education if properly planned and executed could

successfully influence behaviour. For example, the study enrolled 75 prostitutes in a project, with the aim of seeing whether the spread of HIV in a high-risk group can be minimised through a health-education intervention (Yeboah-Afari, 1988).

About six (6) of the prostitutes were selected and trained as lay educators. Health Education message sent through these representatives (serving as lay educators) was to encourage these prostitutes to quit prostitution and find an alternative job or otherwise protect themselves with condom. Condoms were freely distributed to these prostitutes from time to time, some men posing as clients were sent to them to find out if these women offer their customers condoms before having sexual intercourse. These men do not have sex with them (the prostitutes) but pay for their time. The results which were quite encouraging indicate that almost all the women had condoms handy.

The study clearly illustrates the effect of an AIDS Education programme. In the study, messages were targeted to the right audience - the prostitutes. And this group was actively involved right from the beginning in the planning and execution of the health

education interventions. Their representatives serving as lay-educators positively influenced the rest of their group because people are more willing to change their behaviour if approached by a trusted member of their own group rather than an outsider (Yeboah-Afari, 1988). More importantly, is the availability of resources. Condoms were freely provided and this might have accounted for the success of the programme. (Ghana) This study thus indicates therefore that a health education programme, if properly planned can succeed in changing risk-behaviour with particular reference to AIDS.

Another document (study) to justify the choice of audience involvement and participation as one health education strategy/method aimed at solving the problem of teachers' practice of risk-behaviours in relation to AIDS, is a pilot study carried out in Kenya. In this study, health education intervention targeted at prostitutes in Nairobi resulted in increase in condom use (Ngugi et al, 1988).

Five hundred and ninety-five (595) prostitutes were registered in this study to evaluate condom use (by these prostitutes) as a health education intervention. Out of these number, some were selected to serve

as lay educators (representatives) for the group. Health education messages were disseminated to the group and these messages emphasise the danger inherent in the practice of prostitution and the need for these prostitutes to either quit prostitution and find an alternative job to do or otherwise use condom during sexual encounter. Various community meetings (called Baraza) were formed in which these messages were disseminated to the prostitutes and condoms freely distributed.

To evaluate the outcome of the study, these prostitutes were divided into three groups according to the health education intervention received. The first group attended community meetings, received counselling and free condoms. The second group attended community meetings and received free condoms. The last group attended community meetings only. The results of the pre-test conducted at the beginning of the study show that 10%, 9%, and 7% respectively reported occasional use of condoms. But at the end of the study, post-test result showed a sharp increase in condom use by 80%, 70% and 58% respectively. This study thus indicates that health education programme if properly targetted

at a particular audience, and if properly planned and executed can result in changing behaviour.

Apart from the use of audience involvement and participation as a strategy to change teachers' risk-behaviour in relation to AIDS, another strategy that could be used is to arrange occasional visits for teachers to STD Clinics. The aim of such visits would be to stimulate (ginger) the teachers to change their behaviour, to adopt non-risk behaviours which would decrease their chances of acquiring HIV infection.

UNIVERSITY OF IBADAN LIBRARY

CONCLUSION

This research is designed to explore the level of knowledge, attitude and risk-behaviours of secondary school teachers about AIDS in Ibadan Municipality. This is one with a view of developing Health Educational strategies that may positively influence these variables.

In view of the findings of the study therefore, it is concluded that future research efforts be geared towards identifying some segments of the population e.g. teachers to have implications for educating people in order to see if and what appropriate interventions that can be made.

DIRECTION FOR FUTURE RESEARCH

One of the findings of this study revealed that the level of knowledge of secondary school teachers on AIDS is low, and that some teachers reportedly have negative attitudes towards AIDS Control measures such as the non-use of condom.

To this end, further research can be centred on conducting training session for secondary school teachers as a health education intervention to increase their level of knowledge on AIDS and to improve their attitudes towards AIDS Control measures. In fact, such training could be funded by the Local Government with assistance from the State Government.

RECOMMENDATIONS

The following recommendations based on the findings of the results are made:

- It is observed that general knowledge on AIDS is low among the teachers. To this end, it is suggested that Media Resource Centre (a kind of library where various books, journals and magazines are stocked) be introduced into secondary schools to enlighten both teachers and pupils on health related matters (with special provision for enlightenment on AIDS).
- Furthermore, it is recommended that AIDS Education (Health Education on AIDS Prevention and Control) be introduced into the syllabus of our teachers at our Colleges of Education and Teacher Training Colleges to equip the teachers with adequate knowledge on AIDS as part of Communicable Disease Control such as malaria, STDS, etc. Also, the same (AIDS Education) should be introduced into the WASC/GCE syllabus. This way, the awareness of the students on AIDS and disease control would also be increased.

- Similarly, in-service training programme of teachers on a yearly basis should be introduced into all our secondary schools so as to increase the knowledge and improve attitudes of teachers on AIDS, and other communicable diseases such as malaria, STDS, etc. It is when they are adequately educated on AIDS and disease control that they will be in a better position to transfer this knowledge to their students. To this end, the school authority should make available the services of resource persons such as Health Educators and Family Planners to come and give lectures on AIDS and disease control to the school community from time to time.
- It is also suggested that massive campaign on disease control which is well-funded by Government be commenced (and if possible targetted at teachers). Financial support for this campaign may also be obtained from agency. This done on a National level can bring awareness of AIDS and disease control to teachers in the rural areas who are hard to reach. Health education strategies such as the use of town-criers, opinion leaders, community mobilization, etc. can be used to convey messages on AIDS and other communicable diseases.

REFERENCES

- Abramson, J.H. (1979): Survey methods in community medicine: An introduction to epidemiological and evaluative studies. Churchill Living stone, New York, Second edition; pp. 125 - 128.
- Ademuwagun, Z.A. (1969): The place of school health education in public health programme. Journal of Society of Health, Nigeria, Vol. IV, No. 3, pp. 149 - 152.
- Ademuwagun, Z.A. (1970): The role of school health education in developing countries. The Health Education Journal, London. Vol. 29, No. 4, pp. 111 - 114.
- Ademuwagun, Z.A. (1972): Mental health in schools - West African Journal of Education. Vol. 26, No. 2, pp. 226 - 229.
- Ademuwagun, Z.A. (1974): Health Education in teacher education. West African Journal of Education. Vol. 26, No. 2, p. 116.
- Ademuwagun, Z.A. (1975): Preparing the physical and health education teachers for secondary schools in developing countries. West African Journal of Education, Vol. 19, No. 1, pp. 77 - 120.
- Ademuwagun, Z.A. (1976): Problems of interview methods and techniques in health education. Journal of the Society of Health, Nigeria, Vol. 11, No. 1, pp. 91 - 99.
- Ademuwagun, Z.A. (1984): The health of the Nigerian school child: Implication for national policy on school health education. A Keynote address delivered at the workshop on the Health of the School Child in Kaduna, Nigeria, p. 12.

- Ademuwagun, Z.A. and Oduntan, S.O. (1986): A School Health Education Handbook. University Press Ltd., Ibadan, pp. 2 - 5.
- Adeniyi, J.D. and Brieger, W.R. (1978): Designing a health education curriculum for Africa: How useful are the USA models. International Journal of Health Education, Vol. 21, No. 1, pp. 1 - 24.
- Adeniyi, J.D. and Brieger, W.R. (1982): Urban Community Health Education in African, ARHEC/PSM, University College Hospital, Ibadan, Nigeria: A mimeo. pp 1 - 9.
- Afolabi, A. (1978): An analysis and assessment of sex education needs of secondary school pupils in Ibadan. MPH dissertation, University of Ibadan, pp. 3 - 13.
- Akintayo, O. (1987): An Assessment of secondary school teachers' knowledge, attitude and perception of sex education. MPH dissertation, University of Ibadan. pp. 7 - 15.
- Anderson and Cresswell (1976): The School Health Programme, pp. 1 - 8.
- Attawell, K. and Hilary, H. (1987): Special programme on AIDS. WHO Report, AIDS Action, Issue 1, pp. 3 - 5.
- Attawell, K. and Hilary, H. (1989^a): Youths and AIDS. AIDS Action, Issue 7, pp. 3 - 4.
- Attawell, K. and Hilary, H. (1989^b): Women HIV and AIDS. AIDS Action, Issue 9, December, p. 1.
- Anonymous (1990): Kenon: WHO Urges Caution. Africa Health. Vol. 13, No. 1, November, p. 7.
- Biggar, R.J. (1986): The AIDS problem in Africa. Lancet, No. 1, pp. 79 - 83.

- Brieger, W.R. and Adeniyi, J.D. (1982): Urban community health education in Africa. International Quarterly of Community Health Education, Vol. 2, No. 2, pp. 109 - 121.
- Brieger, W.R.; Ramakrishna, J.; Adeniyi, J.D. and Kale, O.O. (1988): Health education interventions to control onchocerciasis in the context of primary health care. Primary Health Care: The African Experience. Vol. 2, Third Party Publishing Company, California. pp. 341 - 371.
- Brokensha, D.; Mckqueen, K.M. and Stess, L. (1987): Social factors in the transmission and control of AIDS in Africa. Report prepared for the directorate for health, bureau of science and technology, Agency for International Development. pp. 12 - 17.
- Centre for Disease Control (1987): Antibody to HIV in prostitutes. Morbidity and Mortality Weekly Report, Vol. 36, No. 11, pp. 157 - 161.
- Chirwa, B.U. and Sivile, D. (1989): Enlisting the support of traditional healers in an AIDS education campaign in Zambia. International Quarterly of Community Health, Vol. 9, No. 3, pp. 221 - 229.
- Dalzel-Ward, A.J. (1976): A textbook of health education. Tavistock publications Limited, London. Second impressions, p. 11.
- Des Jarlais, D.; Friedman, S.R. and Hopkins, W. (1985): Risk reduction among intravenous drug users. Annals of Internal Medicine, Vol. 103, No. 5, pp. 755 - 759.
- Des Jarlais, D.C. and Friedman, S.R. (1987): HIV infection among intravenous drug users: epidemiology and risk. AIDS - An International Bimonthly Journal, Vol. 1, No. 2, pp. 67 - 76.
- Dowdler, W. (1985): An interview. World Health Forum, Vol. 6, No. 4, pp. 330 - 336.

- Durojaiye, M.O.A. (1970): Approach to sex education in West African Schools. Journal of Society of Health, No. 4, pp. 120 - 123.
- Ebomoyi, E. (1985): Female Circumcision: An inhuman practice. World Health Forum, No. 6, pp. 236-237.
- Fadipe, N.A. (1970): The sociology of the Yoruba (ed.) Okediji, F. and Okediji, F.O., Ibadan University Press.
- Feldman, D.A.; Friedman, S.R. and Des Jalais, D.C. (1987): Public awareness of AIDS in Rwanda. Social Science and Medicine, Vol. 24, pp. 97 - 100.
- Francois, D.P. and Petricciani, J.C. (1985): The prospect for and pathways towards a vaccine for AIDS. The New England Journal of Medicine, Vol. 313, No. 25, pp. 1585 - 1590.
- Friedman, H.L. (1985): The health of adolescents and youth: A global overview. World Health Statistics Quarterly, No. 38, pp. 256 - 265.
- Furstenberg, F.F.; Moore, K.A. and Peterson, J.L. (1985): Sex education and sexual experience among adolescents. American Journal of Public Health, Vol. 75, No. 11, pp. 1331 - 1332.
- Green, L.W.; Krester, M.W.; Oeds, S.G. and Patridge, K.B. (1980): Health education planning: A diagnostic approach. Mayfield Publishing Company, California, p. 69.
- Green, E.C. (1988): AIDS in Africa: An agenda for behavioural scientists. In the social and policy impact (ed.) Miller N. and Rockwell, R.; The Edwin Mellen Press, New York, pp. 177-178.
- Harries, A. (1989): The clinical spectrum of HIV infection in Africa. Africa Health, Vol. 11, No. 5, pp. 35 - 39.
- Hastings, G.B.; Leather, D.S. and Scott, A.C. (1987): AIDS publicity: Some experience from Scotland. British Medical Journal, Vol. 294, pp. 48 - 49.

- Hrdy, D.B. (1987): Cultural practices contributing to the transmission of Human Immunodeficiency Virus in Africa. Review of Infectious Diseases, Vol. 9, No. 6, pp. 1109 - 1119.
- Hublely, J. (1988^a): AIDS in Africa - A challenge to health education. Health Education Research Theory and Practice, Vol. 3, No. 1, pp. 41 - 47.
- Hublely, J. (1988^b): Guidelines for action. AIDS Action, Issue 2, pp. 4 - 5.
- Jefferies, D. (1988): Explaining the nature of the virus that causes AIDS. AIDS Action, Issue 3, pp. 2 - 3.
- Johnson, B.J. and Pond, R.S. (1988): AIDS in Africa: A review of medical, public health, social science and popular literature. A report prepared under contract for MISEREOR, Aachen, West Germany. pp. 4 - 38.
- Johnson, W.R. et al (1973): Human sexual behaviour and sex education. Lea and Fabinger, Philadelphia, 3rd Edition, p. 239.
- Josselyn, I.M. (1972): The adolescent and his world. Family Service Association of America, New York, pp. 9 - 14.
- Kilander, H.F. (1962): School health education: A study of content, methods and materials. The Macmillan Company, New York. pp. 10 - 15.
- Kotoney-Ahulu, F.I.D. (1987): Clinical epidemiology not seroepidemiology, is the answer to Africa's AIDS problem. British Medical Journal, Vol. 294, pp. 1593 - 1594.
- Kotoney-Ahulu, F.I.D. (1989): An African on AIDS in Africa. The AIDS letter. Royal Society of Medicine, No. 11, p. 1 - 3.
- Ladipo, O.A. (1983): Training of Midwives in family planning in Nigeria. Planners' Forum Magazine, Vol. 1, No. 1, pp. 5 - 7.

- Lambo, T.A. (1964): Social and Health problems of adolescents in transitional cultures of Africa. Collected papers of T.A. Lambo. Department of Psychiatry, University of Ibadan, No. 44.
- Liskin, L.; Blackburn, R. and Maier, J.H. (1986): AIDS: A public health crisis. Population Report, Series L, No. 6, pp. 196 - 203.
- Liskin, L. et al (1989): AIDS Education: A beginning. Population Reports, Series L, No. 8, pp. 1 - 6.
- Lloyd, P.; Mabogunje, A.L. and Awe, B. (1967): The City of Ibadan. Cambridge University Press, London. pp. 5 - 30.
- Love-Morna, C. (1989): Public awareness and the new AIDS culture. Africa Health, Vol. 11, No. 5, pp. 32 - 33.
- Love-Morna, C. (1989): Identifying our strengths. AIDS Action. Issue 9, December, p. 5.
- Mabey, D. (1989): The impact of other sexually transmitted diseases on HIV transmission. Africa Health. Vol. 11, No. 5, p. 21.
- Mabogunje, A.L. (1963): Urbanization in Nigeria. University of London Press. pp. 1 - 20.
- Mahler, H. (1988): A global strategy. World Health. March, pp. 2 - 3.
- Mann, J.M. (1986): A global challenge World Health, November, pp. 12 - 15.
- Mann, J.M. (1987): AIDS: A global problem. AIDS Action. Issue 1, pp. 4 - 5.
- Mann, J.M. (1988^a): for a global challenge. World Health, March, pp. 4 - 8.
- Mann, J.M. (1988^b): The global picture of AIDS. An Address presented at the IV International Conference on AIDS in Stockholm, Sweden, June, p. 1.
- Marlasy, J. (1988): Education campaign: Pointers and pitfalls. AIDS Watch, No. 2, 2 - 3.

- Mariasy, J. and Radlett, M. (1989): Women face new Dilemmas. AIDS Watch, No. 5, pp. 2 - 3.
- Miller, N. and Rockwell, R.C. (1988): Introduction. AIDS in Africa, The Social and Policy Impact. Miller No, and Rockwell, R.C. (ed.). The Edwin Mellen Press, New York. pp. xxiii - xxxi.
- Mohammed, I. et al (1988): HIV Infection in Nigeria. AIDS - An International Bimonthly Journal, Vol. 2, No. 1, pp. 61 - 62.
- Montagnier, L. (1988): AIDS: A shadow in our World. World Health.
- Mosher, S. (1988): AIDS, the fact. Topic. Issue No. 175. published by the United States Information Agency, pp. 2 - 7.
- Nemir, A. and Schaller, W.E. (1975): The School Health Program. W.B. Saunders Company. Philadelphia, U.S.A. (4th Ed.), pp. 1 - 10.
- Ngugi, E.N. et al (1988): Prevention of transmission of Human Immunodeficiency Virus in Africa: Effectiveness of Condom Promotion and Health Education among prostitutes. The Lancet. Vol. II, No. 8616, pp. 887 - 890.
- Oduntan, O. and Onadeko, M. (1984): Female circumcision in Nigeria. Report presented at the seminar on Traditional practices affected the health of women and children in Africa held in Dakar, Senegal.
- Olusanya, P.O. (1969): Cultural barriers to family planning among the Yorubas. Studies in Family Planning, No. 37, pp. 13 - 16.
- Onapela, A. and Platt, J.J. (1989): AIDS in Africa: Emerging trends. Social Sciences and Medicine, Vol. 28, No. 1, pp. 1 - 8.
- Osoba, A.O. and Ogunbanjo, B.O. (1986): Syphilis and gonorrhoea have company. World Health, November, pp. 5 - 7.

- Otite, O. and Ogionwo, W. (1981): An Introduction to Sociological studies. Hienemann Education Press Ltd., Ibadan. p. 15.
- Owen, M. (1988): Italy seeks a strategy. AIDS Watch, No. 3, pp. 4 - 5.
- Pinching, A. (1988): Opportunistic infections, pneumocystitis carinii pneumonia (PCP). AIDS Action, Issue 5, pp. 6 - 7.
- Plot, P. and Colebunders, R. (1988): The clinical symptoms. World Health, March, pp. 25 - 26.
- Plog, F. and Bates, D.C. (1976): Cultural Anthropology; Alfred A. Knopf, New York, pp. 8 - 9.
- Population Reports (1987): AIDS Education: A beginning. Series L, No. 8.
- Potter, S.J. et al (1956): Sex Education as viewed by teenage unwed mothers. Intellect. No. 104, p. 5151.
- Potts, M. (1987): AIDS: The most presumptions pox. Network, Special Issue, Spring, pp. 1 - 7.
- Price, J.H.; Desmarg, S. and Kukulka, G. (1988): Perception and Misconceptions of AIDS. American Journal of Public Health, Vol. 78, No. 4, pp. 405 - 407.
- Ramakrishna, J. and Brieger, W.R. (1987): The value of qualitative research: health education in Nigeria. Health Policy and Planning, Vol. 2, No. 2, pp. 171 - 172.
- Ransome-Kuti (1989a): The Guardian Newspaper.
- Ransome-Kuti, O. (1990): 19 die of AIDS. Weekend Concord Newspaper, February 17; p. 17.
- Rosenstock, I.M. (1974): Historical origins of the health belief model. Health Education Monograph. Vol. 2, No. 2, pp. 328 - 352.

- Sabatier, R. (1987): AIDS in the developing world. International Family Planning Perspectives, Vol. 13, No. 3, pp. 96 - 103.
- Sabatier, R. (1988): AIDS: is race an issue? AIDS Watch, No. 1, pp. 2 - 3.
- Sabatier, R. (1988): A new hurdle for mothers and children. AIDS Watch. No. 2, pp. 2 - 3.
- Schoepf, B.G.; Nkera, R; Schoepf, C.; Enugunda, W. and Ntosomo, P. (1988): AIDS and Society in Central Africa: A view from Zaire. In AIDS in Africa, The Social and Policy Impact (ed.) Miller, N. and Rockwell, R.C.; The Edwin Mellen Press, New-York, pp. 211 - 227.
- Selwyn, P.A.; Ferner, C.; Cox, C.P.; Lipshutz, C.; and Cohen, R.L. (1987): Knowledge about AIDS among drug users in New-York City. AIDS - An International Bi-monthly Journal, Vol. 1, No. 4, pp. 247 - 254.
- Senturia, Y.D. (1987): Questions and answers. AIDS Action. Issue 1, pp. 1 - 2.
- Sherr, L. (1988): Running AIDS Workshops. AIDS Action, Issue 3, No. 7.
- Smolensky and Brovehio (1966): The School Health Education. pp. 1 - 9.
- The Champion Newspaper, November 1, 1989, p. 4.
- The Guardian Newspaper, Sunday, January 18, 1989, p. 2.
- The punch Newspaper, December 14, 1988, p. 3.
- Turner, C.E.; Sellery, C.; Morley, S. and Sara Loluse (1957): School Health and Health Education. The C.V. Mosby Co.; St. Louise, Missouri, U.S.A.

- Udoh, C.O. (1979): A comparison of professional preparation programmes for health education in selected Nigerian and American Colleges and Universities. Ph.D. thesis, University of Ibadan.
- Varleum, T. (1989): HIV Serodiagnostics in practice. Africa Health, Vol. 11, No. 5, pp. 42 - 43.
- Wallis, C. (1985): AIDS: A growing threat. Time Magazine, August 12, pp. 40 - 47.
- West African Examinations Council (WAEC) Syllabus (1989/90), pp. 105 - 106.
- Wittet, S. and Zimmerman, M. (1989): Developing a global strategy for promoting condom use. Africa Health, Vol. 15, No. 5, pp. 18 - 19.
- Willgoose, C.E. (1972): Health teaching in secondary schools. N.B. Saunders Company, Philadelphia, U.S.A., Third Edition, pp. 31 - 33.
- Woods, N.F. (1979): Human sexuality in health and illness. The C.V. Mosby Company, St. Louis, Missouri, U.S.A., pp. 16 - 20.
- World Health Organization (1958): Expert Committee on Training of Health Personnel in Health Education of the public. Technical Report Series, No. 156, p. 15.
- World Health Organization (1987): Facing the world-wide threat. Network. Special Issue, Spring, pp. 1 - 3.
- World Health Organization (1988): Global programme on AIDS. Progress Report, No. 3, pp. 1 - 4.
- Yeboah-Afar1, A. (1988): Helping prostitutes in Accra. AIDS Watch, No. 4, pp. 4 - 5.
- Yorburg, B. (1976): Sex and Society. Intellect. No. 104, pp. 509 - 510.

APPENDIX 1

Questionnaires on Knowledge, Attitude and Behaviour/Practice about AIDS

Sir/Madam,

This study is designed to obtain information on knowledge, attitude and behaviour/practices about AIDS from teachers of Secondary Schools in Ibadan Municipality.

The findings will later be used for developing a School Health Education Programme on AIDS.

You are requested to please fill out the questionnaires below. The information supplied will be used only for the purposes of this study and kept strictly confidential. No names are required.

Thanks for your cooperation.

A. O. Osundare (Mrs.)

DEMOGRAPHIC CHARACTERISTICS

1. Sex:

Male 1

Female 2

2. Age: years

3. Religion

Christianity

1

Islam

2

Traditional African Religion

3

Atheist

4

Others (Specify)

5

4. Highest Educational Qualification attained:

Graduate teacher

1

NCE

2

Grade I teacher

3

Grade II teacher

4

OND/KND

5

Others (specify)

6

5. Marital status:

Single

1

Married

2

Divorced

3

Separated

4

Widow

5

6. What subject(s) do you teach?

7. If married, what type of marriage/family?
- Monogamy 1
- Polygamy 2
- Others (Specify) 3

ON KNOWLEDGE ABOUT AIDS

8. What is AIDS?
.....
9. How long ago did you first hear of AIDS?
.....
10. What/who are your sources of information?
.....
11. How is AIDS caused?
.....
12. What are the signs of AIDS?
.....
.....
13. How does AIDS spread?
.....
.....
14. How can AIDS be prevented?
.....
.....

UNIVERSITY OF IBADAN LIBRARY

In numbers 15 to 50, please put a tick (✓) in the column provided below to indicate the correct answers to the questions asked.

	Yes	No	Don't Know
15. Patients with AIDS can be cured			
AIDS can be transmitted through the following routes/practices:			
16. Homosexuality			
17. Sharing of clothes			
18. Prostitution/Promiscuity			
19. Through casual contact such as shaking hands, kissing and hugging			
20. Through the placenta from mother to child			
21. Through drinking from the same cup			
22. Through blood transfusion process			
23. Through tattooing marks			
24. Through eating from the same plate			
25. Through male and female circumcision			
26. Through tribal marks			
27. Through smoking			
28. Through immunization			
29. Through having sexual intercourse with members of both sexes (Hetero-sexuality)			
30. Through using unsterilized needles and syringes			

ON ATTITUDE

What do you think about the following behaviours/ practices:

	Good	Bad	Don't Know
31. Using of condom (Durex) during sexual intercourse			
32. Keeping of one sexual partner			
33. Abstaining from sexual intercourse			
34. Practice of taking injection only from hospital			
35. Tatooing for children			
36. Tribal Marks for children			
37. Circumcision for children			
38. Ear piercing for children			
39. The On-going Screening exercise for AIDS			
	Yes	No	Don't know
Please put a (✓) where appropriate			
40. Do you think/feel that AIDS prevention and control should be included in the School Education Curriculum?			
41. Do you consider teachers' role as very crucial in the prevention/control of AIDS among pupils/students?			
Do you think there is any danger/ having sex with the following category of people			
42. Prostitutes?			
43. Persons of the same sex?			
44. Many sexual partners?			
45. Casual friends/acquaintances?			
46. Should teachers discuss AIDS in schools with their students?			
Should the following category of people be subjected to constant screening and be health educated on AIDS disease?			
47. Prostitutes			
48. Homosexuals			
49. Adolescents			
50. Do you think you could contact AIDS?			

ON BEHAVIOURS/PRACTICES

Please put a tick (✓) where applicable to you, and give answers to the questions asked. Have you been:

51. using condom (Durex) during sexual act since you know about AIDS?

Yes 1

No 2

52. If yes, give reasons

.....

53. If no, why not?

.....

54. Keeping to one sexual partner?

Yes 1

No 2

55. If yes, give reasons

.....

56. If yes, for how long do you intend to keep to one sexual partner?

.....

57. If no, why not

.....

58. Engaged in the practice of homosexuality?

Yes 1

No 2

59. If yes, give reasons

.....

60. If no, why not?

.....

61. A member of the Homosexual Club/Asspciation?
(gay club)

Yes 1

No 2

62. If yes, give reasons

.....

63. If no, why not?

.....

64. Abstaining from sex entirely?

Yes 1

No 2

65. If yes, give reasons

.....

66. If no, why not?

.....

67. Using nothing as protection during
sexual act?

Yes 1

No 2

68. If yes, give reasons

.....

69. If no, why not?

.....

70. Having sex with prostitutes?

Yes 1

No 2

71. If yes, give reasons

.....

72. If no, why not?

.....

73. Partake in the on-going screening exercise for AIDS?

Yes 1

No 2

74. If yes, give reasons

.....

75. If no, why not?

.....

76. Has the knowledge about AIDS in any way influenced your behaviour or lifestyle?

Yes 1

No 2

Don't know 3

UNIVERSITY OF IBADAN LIBRARY

77. If yes, state the kind of change(s)

.....

78. If no, why not?

.....

79. Since you have been hearing about AIDS, have you in anyway been involved in educating people in:

School? 1

Church? 2

Mosques? 3

Any other place (specify) 4

80. In you present job as a teacher, is it possible for you to teach students about AIDS?

Yes 1

No 2

81. If yes, in what situation are you able to do so?

Assembly 1

Personal Guidance/
Counselling 2

Formal classroom teaching
in health science 3

Any other (specify) 4

UNIVERSITY OF IBADAN LIBRARY

ON KNOWLEDGE (A) SUGGESTED FORMAT OF A TRAINING PROGRAMME ON AIDS ORGANISED FOR SECONDARY SCHOOL TEACHERS

Training Objective	CONTENT/TASKS	STRATEGY	Target group	Activities Training Methods	Logistics/Aids	Duration	Evaluation
<p>1. To increase the level of knowledge/awareness of secondary school teachers on AIDS;</p> <p>2. To list the signs and symptoms of AIDS</p> <p>3. To describe the spread of AIDS</p> <p>4. To describe the prevention of AIDS</p>	<p>Causes of AIDS; Signs and Symptoms of AIDS; Spread of AIDS; AIDS preventive measures such as: Safe Sex practices:</p> <p>a) Keeping to one sexual partner or limiting the number of partners to as few as possible.</p> <p>b) Avoidance of sexual intercourse with someone who has had many sexual partners e.g. prostitutes.</p> <p>c) Avoidance of anal and oral sex practices as done by homosexuals.</p> <p>d) Use of condom during sexual intercourse.</p> <p>e) Promotion of premarital abstinence or chastity.</p>	Resource Development strategy through (TRAINING)	Secondary school teachers.	<p>1. Interactive - participatory - small group discussion</p> <p>2. Lectures</p> <p>3. Brainstorming</p> <p>4. Pre-post test</p> <p>5. Drama</p> <p>6. Demonstration</p> <p>7. Explanations.</p>	<p>Use of audio-visuals;</p> <p>a) Flipcharts</p> <p>b) Video shows of AIDS cases</p> <p>c) Film shows on AIDS</p> <p>d) Posters</p> <p>e) Chalkboard</p> <p>f) Handouts</p> <p>g) Overhead Projector</p> <p>h) Film slides</p> <p>i) Monofilament photographs of AIDS victims.</p>	4 weeks - (during the long vacation) and conducted twice yearly	<p>- Pretest</p> <p>- Posttest</p> <p>- Review of Questions</p> <p>- End of training session</p> <p>- Review by training committee.</p>

ON KNOWLEDGE (A) SUGGESTED FORMAT OF A TRAINING PROGRAMME ON AIDS ORGANISED FOR SECONDARY SCHOOL TEACHERS

Training Objective	CONTENT/TASKS	STRATEGY	Target Group	Activities Training Methods	Logistics/Aids	Duration	Evaluation
<p>1. To increase the level of knowledge/awareness of secondary school teachers on AIDS:</p> <p>2. To list the signs and symptoms of AIDS</p> <p>3. To describe the spread of AIDS</p> <p>4. To describe the prevention of AIDS</p>	<p>Causes of AIDS; Signs and Symptoms of AIDS; Spread of AIDS; AIDS Preventive measures such as: Safe Sex practices:</p> <p>a) Keeping to one sexual partner or limiting the number of partners to as few as possible.</p> <p>b) Avoidance of sexual intercourse with someone who has had many sexual partners e.g. prostitutes.</p> <p>c) Avoidance of anal and oral sex practices as done by homosexuals.</p> <p>d) Use of condom during sexual intercourse.</p> <p>e) Promotion of premarital abstinence or chastity.</p>	Resource Development strategy through (TRAINING)	Secondary school teachers.	<p>1. Interactive - participatory - small group discussion</p> <p>2. Lectures</p> <p>3. Brainstorming</p> <p>4. Pre-post test</p> <p>5. Drama</p> <p>6. Demonstration</p> <p>7. Explanations.</p>	<p>Use of audio-visuals:</p> <p>a) Flipcharts of AIDS cases</p> <p>b) Video shows of AIDS cases</p> <p>c) Film shows on AIDS</p> <p>d) Posters</p> <p>e) Chalkboard</p> <p>f) Handouts</p> <p>g) Overhead Projector</p> <p>h) Film slides</p> <p>i) Monofilament photographs of AIDS victims.</p>	4 weeks - (during the long vacation) and conducted twice yearly)	<p>- Pretest</p> <p>- Posttest</p> <p>- Review of Questions</p> <p>- End of training evaluation</p> <p>- Review by training committee.</p>

ON KNOWLEDGE (B)

SUGGESTED FORMAT OF A MASS-COMMUNICATION STRATEGY (USING MASS-MEDIA TO CREATE AWARENESS)

Objective	CONTENT/TASKS	Strategy	Target group	Description of Activities	Logistics	Duration	Evaluation	BUDGET
<p>To create awareness among the general public (including the teachers) about AIDS/HIV Infection:-</p> <ol style="list-style-type: none"> 1. To list the signs and symptoms of AIDS 2. To describe the spread of AIDS 3. To describe the prevention of AIDS 	<p>Causes of AIDS; Signs and Symptoms of AIDS; Spread of AIDS; AIDS preventive measures, such as: a) Safe sex practices; b) Keeping to one sexual partner or limiting the number of partners to as few as possible. c) Avoidance of sexual intercourse with someone who has had many sexual partners e.g. prostitutes. d) Avoidance of anal and oral sex practices done by homosexuals. e) Use of condom during sexual intercourse; f) Promotion of pre-marital - abstinence or chastity.</p>	<p>Mass Communication through the mass media</p>	<p>General public including secondary school teachers.</p>	<p>a) About 4 TV spots (one spot per week) will be developed describing the nature of AIDS disease; its course, signs and symptoms; mode of transmission, treatment (drug and vaccine) as well as the preventive measures in English Lang. and Yoruba Lang. b) 4 Radio spots on the topic (as above) c) 2 TV feature programmes d) Articles will be written in the local newspapers e.g. Sketch, Tribune to AIDS on a bi-weekly basis for a period of 3 months (or as needed)</p>	<p>Radio Television Newspapers.</p>	<p>1 year</p>		<p>Funded by the Oyo State Govt. operated by the Federal Govt.</p>

UNIVERSITY OF IBB

ON ATTITUDES

FORMAT OF A TRAINING PROGRAMME ON AIDS ORGANISED FOR SECONDARY SCHOOL TEACHERS

171

Objective	CONTENT/TASKS	Strategy	Target group	Methods/Activities	Logistics/Aids	Duration	Evaluation	BUDGET
To improve the attitudes of teachers towards the proper use of condom	The proper use of condoms	Resource Development strategy through (TRAINING)	Secondary school teachers.	Demonstration of the proper use of condom; Discussion	Condom plastic/synthetic phallus.	4 weeks (during the long vacation)	Return demonstration of the proper use of condom.	Funded by the Oyo State Govt. and assisted by the Federal Govt.

UNIVERSITY OF IBADAN LIBRARY

FORMAT OF AUDIENCE INVOLVEMENT STRATEGY TO CHANGE RISK-BEHAVIOURS OF TEACHERS IN RELATION TO AIDS

Objective	CONTENT/TASKS	STRATEGY	Target Group	Activities	Logistics	Duration	Evaluation
To influence/change behaviour through:	The proper use of condoms. Studying the records of STD cases: What types of people/class/status are infected. What age range patronize the STD clinics.	Audience involvement and participation. Audience involvement and participation.	Secondary school teachers.	Demonstrations of the proper use of condoms.	Condom (synthetic and artificial phallus)	few hours	Return demonstration of the proper use of condom.
			Secondary school teachers	b) Looking into records for STD cases. Demonstration of the proper use of condom. Discussion.	Record books	1 day	
To modify the behaviour of teachers through the proper use of condom.	The proper use of condom.	Resource development through (TRAINING)	Secondary school teachers		Condom, synthetic artificial phallus, chalkboard.	6 weeks (during the long vacation)	Return demonstration of the proper use of condom.

APPENDIX 3

List of Selected Secondary Schools

No.	NAMES	LOCATION (Within the I.M.C. Area)	No. of Teachers in these selec- ted Schools	% of Teachers to the Total Population	No. of Teachers Selected from Each School (30%)
1.	Adekile Goodwill Grammar School, Aperin, Ibadan	Inner Core	65	2.9	20
2.	Lagelu Grammar School, Agugu	"	85	3.7	25
3.	Zumratul Hujaj Comm. Grammar School, Olorunsogo	"	58	2.6	17
4.	Community Grammar School, Kudeti	"	31	1.4	9
5.	St. David High School, Kudeti	"	49	2.2	15
6.	Aperin Oniyere Comm. Gram. Sch., Aperin	"	70	3.1	21
7.	Ibadan City Academy, Eleta	"	71	3.1	21
8.	Olubi Memo. Gram. School, Kudeti	"	27	1.2	8

Selected Secondary Schools (Contd.)

9.	C.A.C. Grammar School, Aperin	Inner Core	70	3.1	21
10.	I.M.G. Grammar School, Aperin	"	36	1.6	11
11.	Urban Day Grammar School, Elekuro	"	57	2.5	17
12.	Eleyele Sec. Sch., Eleyele	Transitory Area	32	1.4	10
13.	Odo-Ona Girls School, Odo Ona	"	35	1.5	10
14.	Estate High Sch., Orita Basorun	"	33	1.5	10
15.	Anglican Grammar School, Molete	"	27	1.2	8
16.	Anwar-Ul Islam Grammar School, Eleyele	"	37	1.6	11
17.	Government College, Apata	"	64	2.8	19
18.	Holy Trinity Gram. Sch. Old Ife Road	"	75	3.3	22
19.	Bishop Philips Academy, Iwo Road	"	80	3.5	24
20.	Odo-Ona High Sch., Odo Ona	"	13	.6	4

Selected Secondary Schools (Contd.)

21.	Molete High Sch., Molete	Transitory Area	33	1.5	10
22.	Our Lady of Apostle Sec. Gram. School, Odo-Ona	"	42	1.9	13
23.	Celestial Church High School, Oke-Ado	"	35	1.5	10
24.	St. Patrick's Gram. School, Orita-Basorun	"	71	3.1	21
25.	Ibadan Grammar School, Molete	"	51	2.3	15
26.	St. Louis Gram. School, Mokola	"	65	2.9	20
27.	St. Teresa's College, Oke-Ado	"	77	3.4	23
28.	Eyinni High Sch., Old Lagos Road	"	36	.6	11
29.	Loyola College, Old Ife Road	"	74	3.3	22
30.	Ijokodo High School, Ijokodo	"	35	1.5	10
31.	Community Grammar School, Ring Road	"	26	1.1	8

Selected Secondary Schools (Contd.)

32.	St. Lukes Grammar School, Molete	Transitory Area	35	1.5	10
33.	Eleyele Secondary School, Eleyele	"	32	1.4	10
34.	St. Gabriel's Commercial Secondary School, Mokola	"	51	2.3	15
35.	Community Grammar School, Mokola	"	36	1.6	11
36.	Army Barrack's Grammar School, Iwo Road	"	46	2.0	14
37.	Baptist Secondary School, Oke-Ado	"	52	2.3	16
38.	Basorun High School, Bode	"	40	1.8	12
39.	Ibadan Boys High School, Oke-Bola	"	49	2.2	15

Selected Secondary Schools (Contd.)

40.	Jericho High School, Jericho	Periphery	26	1.1	8
41.	Abadina College, University of Ibadan	"	63	2.8	19
42.	Ikolaba Grammar School, Agodi G.R.A.	"	40	1.8	12
43.	International School, University of Ibadan	"	51	2.3	15
44.	Mount Olivet Grammar School, Bodija	"	62	2.7	19
45.	St. Michael Anglican Church Grammar School, Owode	"	22	1.0	7
46.	Methodist Grammar School, Bodija	"	62	2.7	19
47.	Onireke High School, Onireke	"	45	2.0	14
Grand Total			2,272	-	682

WAEC SYLLABUS FOR SENIOR SECONDARY SCHOOLS
1989/90

HEALTH SCIENCE

FAMILY LIFE AND SEX EDUCATION

Contents	Notes
1. Sex Education and sexuality (a) Meaning and component of sex education and sexuality	Mention should be made of the influence of sex behaviour. The importance of sex education should be emphasised.
2. The family (a) Family patterns and functions (b) Characteristics of a happy family i Understanding ii Communication iii Parental responsibilities iv Good health (c) Family Health Roles	Reference should be made to nuclear polygamous, single-parent and extended family. Roles of the family in health care of each member should be mentioned. Reference should be made to the institutions responsible for promoting health family living.
(d) Factors affecting family life i Extending family ii Inlaws	

Contents	Notes
<ul style="list-style-type: none"> iii Family size iv Working wives v Delayed marriage vi House helps vii Preference of sex of children 	<p>The roles of each institution in promoting health family living should be discussed.</p>
<ul style="list-style-type: none"> (a) Family problems <ul style="list-style-type: none"> Social and psychological causes and implications of the following: <ul style="list-style-type: none"> i Unwanted pregnancies ii Motherless babies iii Abandoned babies iv Abortion v Children marriage vi Sexual perversion vii Divorce viii Venereal Diseases ix Birth defects (r) Institutions responsible for promoting Health family living <ul style="list-style-type: none"> i School ii Community iii Religious group iv Government 	
<ul style="list-style-type: none"> 3. Marriage <ul style="list-style-type: none"> (a) Needs for marriage <ul style="list-style-type: none"> i Status ii Emotional security iii Socio-economic security iv Sexual expression v Companionship vi Procreation 	

Contents	Notes
4. Types of marriage contacts	Reference should be made to the requirements and implications of each type.
1. Traditional	
ii. Christian	
iii. Moslem	
iv. Registry	
(c) Factors in choice of marriage partner	The importance and the implication of each factor should be discussed. The traditional and modern roles of parents in marriage should be discussed.
1. Ethnic consideration	
ii. Religious consideration	
iii. Age consideration	
iv. Genetic consideration	
v. Socio-economic consideration	
vi. Personal characteristics	
vii. Home/family background	
viii. Health consideration	
(d) Types of marriages	The meaning advantages and disadvantages of each type should be mentioned.
1. Monogamy	
ii. Exogamy	
iii. Polygamy	
iv. Endogamy	
v. Bigamy	
vi. Polyandry	
(e) Family planning	The health, economic, political and ethical considerations should be discussed. The relative reliability, advantages and disadvantages of each technique should be discussed. Sources of family planning services should also be discussed.
1. Meaning and reasons for	
ii. Contraceptive techniques:	
Foam, Condom, Diaphragm, Injection, Intrauterine device (IUD), Rhythm method/safe period, sterilization (female) vasectomy, the pills and withdrawal.	