

**THE ACQUISITION OF HIV/AIDS INFORMATION
BY COMMERCIAL SEX WORKERS IN SELECTED
BROTHELS IN LAGOS STATE, NIGERIA**

BY

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MATRICULATION NO: 770015624

October, 2015

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**Thesis submitted to the School of Post Graduate Studies,
University of Lagos, in Partial Fulfilment of the
Requirements for the Award of Degree of Doctor of
Philosophy (Ph.D.) in Mass Communication, University of
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October, 2015

DECLARATION

I declare that this Ph.D. thesis was written by me. I also declare that this thesis is the result of painstaking efforts. It is original and it is not copied.

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CERTIFICATION

This is to certify that the Thesis:

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SEX WORKERS IN SELECTED BROTHELS IN LAGOS STATE,
NIGERIA

Submitted to the
School of Postgraduate Studies
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is a record of original research carried out

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DEDICATION

This study is dedicated to God Almighty.

I also dedicate it to the evergreen memory of my parents, Samuel Obasola Kayode and Beatrice Obafunmilayo Kayode.

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Olujimi Olusola Kayode

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ABSTRACT

THE ACQUISITION OF HIV/AIDS INFORMATION BY COMMERCIAL SEX WORKERS IN SELECTED BROTHELS IN LAGOS STATE, NIGERIA

The study is aimed at one of the ‘vector groups’, the commercial sex workers (CSWs), and how this group acquires, processes, and uses information from the several campaigns on HIV/AIDS in Lagos State, Nigeria. The study explores the application of uses and gratification theory to HIV/AIDS information acquisition by CSWs. The research problem is that CSWs being a “hidden population” are not only at a high risk of HIV/AIDS but are vectors due to several sexual partners, and may not practice safe sex despite their perception of high risk from exposure to several HIV/AIDS campaigns. Using the uses and gratification theory and the theory of reasoned action/planned behaviour, the study investigates how HIV/AIDS information has been utilized by CSWs. The theoretical assumptions of this study are that individual reasoning provides the impetus for human action and behavioural change and that health communication audiences exhibit such information behavior that is typified by active seeking and using of information and messages garnered from multi-media campaigns, in this case, HIV/AIDS communication channels. Population of the study comprises all CSWs in the 20 local governments in Lagos state. Fifteen local governments representing 75% were randomly selected using the table of random numbers. Using the brothels in the sampled local government as a unit of sampling, 70 brothels were identified of which 40 were randomly selected. Fifteen CSWs were conveniently selected from each of the 40 brothels constituting the sample size of 600 CSWs. The study employed a triangulation methodology that includes survey, focus group discussions (FGDs) and in-depth interviews (IDIs). The survey elicited responses from six hundred commercial sex workers all of whom are brothel-based. Forty eight CSWs (eight FGD sessions consisting of six CSWs per session) further participated in the FGD sessions. Furthermore, another 48 CSWs from the 600 sample size were further subjected to IDIs. Data analysis for the survey was done using the SPSS package 15th version and the FGDs as well as the IDIs transcripts were qualitatively analyzed. The study found that most (60%) of the CSWs interviewed have secondary school level education, and those who have post-secondary education are fewer (10%) and the age range of CSWs indicate that most are between 21 to 29 years. Furthermore, the study also found that most of the CSWs have a good understanding of HIV/AIDS, and have good comprehension and conviction of the multi-media messages to which they have been exposed over the years. They have used HIV/AIDS messages in learning safe sex skills. Also, the perceived risk of the commercial sex workers is relatively high as most of them understand what it takes to prevent HIV/AIDS, and that their work predisposes them to infection should they fail to practise safe sex. However, the study found that the CSWs’ ability to negotiate safe sex is inhibited by economic (monetary gains) and social factors (boyfriends, drunkenness, personal visits, etc.) in spite of their perceived risk of HIV/AIDS. The study recommends more multimedia interventions and campaign assessments, especially interpersonal and community based interventions.

KEY WORDS: HIV/AIDS. COMMERCIAL SEX WORKERS. ACQUISITION. BROTHELS.

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CHAPTER ONE

INTRODUCTION

Background of study

Commercial sex work is a sexual variance that is reputed to be as old as mankind and it is also regarded as a social problem. In one sense, defining a particular problem as social or as personal makes no difference. The Commercial Sex Worker (CSW) is one or had become one regardless of the causes of the problem, whether it is laziness, poverty, poor upbringing, broken home or even the state of the economy. In other ways, whether we define a problem as social or personal is crucial as this distinction determines how we perceive the causes of the problem, the consequences of the problem, and how we attempt to cope with the problem.

Social problems, such as CSW, affect a significant number of people and are part of our social life. Therefore, to define it as a personal problem would lead to castigating the CSW, whereas by defining it as a social problem, one would be able to recognize the need for collective action that would see the causes in social factors outside individuals. After all, without the male clientele, the CSW would soon be forced to find something else to do.

Commercial Sex Work is, therefore, not just the personal problem of the Commercial Sex Worker that can be solved by individual efforts, it requires collective action to attack such things as social attitudes that legitimize exploitation of women, poverty and high rate of unemployment, high divorce rates and separations that result in broken homes and their social consequences, promiscuity, extramarital sex, and so on. (Lauer and Lauer, 2001)

With the emergence of the AIDS epidemic, commercial sex work has become even more of a social problem than ever before. It is a known fact that a work in which people practising a high risk behaviour such as this could contribute significantly to the spread of the dreaded disease.

Heterosexual transmission is still regarded as the most dominant mode of the spread of HIV/AIDS, and homosexual transmission is still relatively rare in Africa compared to South-East Asia and Central and South America.

Commercial sex work in this context refers to paid sexual relations between a woman and her client, the remuneration providing a part of or the women's entire livelihood. We should note that a certain amount of male version also exists even in Nigeria. In particular, young men who come from impoverished homes may offer themselves as sexual partners to gay or homosexual older men. The young men often consider themselves heterosexuals who are only engaging in the homosexual prostitution temporarily in order to make ends meet. Such sex work exists but it is not yet widespread in Nigeria and most parts of Africa as it is in the West. (Lauer and Lauer, 2001)

Besides, this study focuses on female commercial sex worker as this is likely to be where most heterosexual transmission of HIV/AIDS is prevalent in Nigeria.

Many authorities on HIV-AIDS seem to affirm the presumption and concern about the potential for commercial sex workers to act as a bridgehead for AIDS to pass into the general population. For instance, Potts et al (1991) identified the following factors as determining the rate of spread of HIV/AIDS by sexual contact: rate of acquisition of new sexual partners, type and frequency of sexual contact within a partnership, pattern of mixing between groups with various degrees of sexual activity or other high risk behaviour, among others. They also asserted that one of the most important and prevalent routes of the spread of HIV/AIDS into the general population in both urban and rural areas of Africa, India and South-east Asia is sexual contact by males with female sex workers who as a result of their occupation, often acquire the disease early in the history of the HIV/AIDS epidemic (Potts, Anderson, and Boily, 1991).

Another authority in the *Network of Sex Work Projects Bulletin*, June 1995, says concerning the relationship between sex work and the spread of HIV/AIDS that,

“in parts of Africa HIV rates among sex workers may be as high as 60 per cent. Rates of around 30 per cent are common in Thailand and some parts of India. In Western Countries, HIV rates among drug-using sex workers, urban male sex workers and transgender people are higher than average. However, in Canada, China, Austria, Australia and Germany, rates among female sex workers are lower than among comparable groups of non-sex workers”.

It is incontrovertible that commercial sex workers (CSWs) are at high risk of HIV/AIDS because they have many sexual partners, and are one of the primary vectors of HIV/AIDS. Social problems, such as commercial sex work, affect a significant number of people and are part of our social life. Therefore, Commercial Sex Work is not just the personal problem of the Commercial Sex Worker that can be solved by individual efforts; it requires collective action (Lauer & Lauer, 2013). Authorities on HIV-AIDS affirm the belief that CSW acts as one of the links between HIV/AIDS and the general population.

For instance, Potts, Anderson and Boily (1991) believed that the rate of acquisition of new sexual partners, type and frequency of sexual contact within a partnership, pattern of mixing between groups with various degrees of sexual activity or other high risk behaviours, determine the rate of spread of HIV/AIDS by sexual contact. Several studies also established that one of the prevalent routes of HIV/AIDS spread to the general population in Africa’s urban and rural areas, India and South-east Asia, is sexual contact by males with female sex workers, who often acquire the disease early in the history of AIDS (Potts, Anderson &Boily, 1991, Côté, et al, 2004; Saiboko, 2013).HIV, the virus that causes AIDS, is one of the world’s most serious health

and development challenges. According to the World Health Organization (WHO), there were approximately 35 million people worldwide living with HIV/AIDS in 2013. Also, WHO, established that an estimated 2.1 million individuals worldwide became newly infected with HIV in 2013.

A United Nations AIDS programme (UNAIDS) report shows that 19 million of the 35 million people living with HIV today do not know that they have the virus. The vast majority of people living with HIV are in low and middle-income countries. Furthermore, WHO asserts that sub-Saharan Africa is the most affected region, with 24.7 million people living with HIV in 2013. Seventy-one percent of all people who are living with HIV in the world live in this region. HIV is the world's leading infectious killer. According to WHO, an estimated 39 million people have died since the first cases were reported in 1981 and 1.5 million people died of AIDS-related causes in 2013 (aids.gov/hiv-aids-basics/hiv-aids-101/global-statistics).

Nigeria carries the second heaviest burden of HIV in Africa and has an expanding population of People Living with HIV (PLHIV). With an estimated population of 162 million, Nigeria is the most populated country in sub-Saharan Africa, a region which has the world's heaviest burden of HIV/AIDS. Despite challenges in scaling up access, institutional reforms and political commitment to tackle the diseases, the country has seen more citizens placed on life saving medication.

Since 1986 when the first case of HIV/AIDS was reported in Nigeria till December 2013, over 3 million people now live with HIV/AIDS and an estimated one and a half million require antiretroviral (ARV) drugs, close to 400 thousand new infections occurred in the year ended 2011 and records show 217,148 AIDS related deaths (Global Aids Response Progress Report, 2013). Esu-Williams (2009) found that commercial sex work (CSW) is a significant vector of

HIV/AIDS in Nigeria. In addition, the risk of transmission is particularly high among them because they have large numbers of sexual partners paying them for sex. Risk behaviour among commercial sex workers(CSWs) include large numbers of sexual partners – 2 to 20 per day - and sexual interaction with other highly vulnerable groups such as long distance truck drivers and traders. Human Immunodeficiency Viruses type 1 and type 2 (HIV-1, HIV-2), the etiological agents of AIDS, keep spreading in most developing countries, threatening the health of other nations.

Preventing further spread depends on how fast measures are introduced to combat the scourge. In the context of this background, the main thrust of this study is to find out how the uses and gratification theory is applied in the acquisition, processing and uses of HIV/AIDS information as well as the influence of Information, Education, and Communication (IEC) campaigns on CSWs' informational behavior. Several studies have looked at the health behavior and the prevalence of sexually transmitted infections due to sex work as well as the sociology of sex work. (Falola, 1984; Population Reports, Vol. XVII, No. 3, 1989; Orubuloye&Oguntimehin, 1999; Asowa-Omorodion, 2000; Bamgbose, 2002; Alary & Lowndes, 2004; Izugbara, 2007; Tinuola, 2008; Forbi, Onyemauwa, Gyar, Oyeleye, Entonu, Agwale, 2008; Esu-Williams, 2009; Muñoz, Adedimeji, &Alawode, 2010; Nelson and Ukonmi, 2010; Eluwa, Strathdee, Adebajo, Ahonsi, Azeez, &Anyanti, 2012; Scheibe, Drame& Shannon, 2012). However, this study, in addition to what has been done, examines how HIV/AIDS messages and information have been processed by CSWs in the context of the uses and gratification theory. It also investigates how CSWs have processed and used HIV/AIDS information they have had as well as how they have applied knowledge from the IEC campaigns to their informational behavior and their sexual life.

Statement of the problem

The main problem of this study is that CSWs are at high risk of AIDS because they have many sexual partners, and may often have sexually transmitted diseases (STDs) and are one of the primary vectors of HIV/AIDS. Besides, the clients of these CSWs are even more difficult to reach than the CSWs themselves because of the social stigma involved.

But for the brothel-based CSWs, these people are in themselves hard to reach because many of them are street walkers, call girls, and part-time CSWs. The part-time CSWs are more or less embedded in the general population and are only accessible to researchers when they patronize the brothels or the “red light” areas in the cities. So far, despite the seemingly widespread dissemination of information about AIDS, it appears only a minority of people have altered their sexual behaviour; a great many seem to continue in high risk behaviour in spite of several health communication campaigns and the prevalence of HIV and other sexually transmitted infections among CSWs may not have substantially declined due to poverty, high unemployment rate and economic recession in spite of the fact that sex work is illegal though socially accepted. CSWs may have been prompted to do safe sex based on the information acquired through IEC campaigns and how such information had been utilized and their role as vectors of HIV/AIDS may have been declining.

Most of the studies have been conducted outside of mass communication (Falola, 1984; Orubuloye&Oguntimehin, 1999; Asowa-Omorodion, 2000; Bamgbose, 2002; Alary & Lowndes, 2004; Izugbara, 2007; Tinuola, 2008; Forbi, Onyemauwa, Gyar, Oyeleye, Entonu, Agwale, 2008; Esu-Williams, 2009; Muñoz, Adedimeji, &Alawode, 2010; Nelson and Ukonmi,

2010; Eluwa, Strathdee, Adebajo, Ahonsi, Azeez, & Anyanti, 2012; Scheibe, Drame & Shannon, 2012). This study however fills the knowledge gap as it looks at informational behaviour in terms of how CSWs use HIV/AIDS information integrating, processing and advocating after having acquired the messages of health communication campaigns.

Aims and objectives of the study

The purpose of this study is to explore the application of uses and gratification theory to the process of acquisition of HIV/AIDS messages by CSWs in Lagos State. The objectives of the study are to:

1. Appraise how much comprehension, conviction and knowledge of HIV/AIDS commercial sex workers have.
2. Ascertain how commercial sex workers process and apply HIV/AIDS information.
3. Investigate the way commercial sex workers disseminate HIV/AIDS information they acquire through IEC campaigns to their co-workers.
4. Examine the attitude, intention and practice of life skills and safe-sex of commercial sex workers.
5. Analyze the perceived severity and risk of HIV/AIDS by commercial sex workers.

Research questions

Research questions that this study addresses are as follows:

1. What is the extent of knowledge of HIV/AIDS that the CSWs have acquired?
2. In what ways have CSWs processed and applied HIV/AIDS information?
3. How do CSWs disseminate HIV/AIDS information provided by IEC campaigns to their co-workers?
4. How has HIV/AIDS information been applied in the attitude and practice of life skills and safe sex of CSWs?
5. What is the CSWs level of perceived severity and risk of HIV/AIDS?

Significance of the study

The study is significant in that it interrogates knowledge and practice in health communication of HIV/AIDS, especially in targeted social groups such as the CSWs. Also, the study has helped to determine the knowledge, attitude, belief and practices of CSWs in relation to HIV/AIDS, IEC communication.

In addition, the study contributes to the growing literature on health communication and behavioural change by examining the level of knowledge of HIV/AIDS of CSWs, and the direction of attitudinal and behavioural dispositions of CSWs concerning HIV/AIDS. Apart from this, the study identifies key features of the socio-cultural factors that influence acquisition of HIV/AIDS information by CSWs and recommends some effective ways of implementing behavioural change communication especially towards hard-to-reach and high-risk target audiences.

Secondly, findings of this research would help inform policy initiatives that seek to prevent and control AIDS in the country. Information gleaned from this study may also help clarify the appropriate role of health communication services and other interventions. In addition, findings provide culturally relevant data that would enhance culturally relevant AIDS intervention efforts. Thirdly, evidence from other independent sources such as the United Nations AIDS Programme (UNAIDS) and the National Agency for the Control of AIDS (NACA) suggests the need to know more about the effectiveness of integrated communication intervention strategies. Thus, this study builds on other similar ones already carried out to add more knowledge about the effectiveness or otherwise of integrated communication intervention strategies. Fourthly, this study produces findings which have theoretical and practical applications in that it contributes to the assessment of the millennium development goals (MDG), especially number six which deals with how the Nigerian government is combatting HIV/Aids, malaria and other diseases. Finally, the study enables more insight into the theories of communication impacts on behaviour by providing localized indicators and examples of what influences behaviour and behaviour change especially among CSWs. The practical applications of findings offer insight and foundations for planning, executing and evaluating health communication programmes, especially on HIV/AIDS (Akinfeleye, 1989, 2008; Barnard & Mckeganey, 1996; Nhung & Williams, 1996; Mishra, Agrawal, Alva, Gu, & Wang, 2009).

Scope of the study

The study did not examine the acquisition of HIV/AIDS information across the various types of CSWs; rather, it is limited to only brothel-based sex workers. Secondly, it was conducted in Lagos State across thirty local council development areas (LCDAs). Furthermore, acquisition of HIV/AIDS information describes, in this study, how the uses and gratification theory is applied

in the context of CSWs informational behavior such as discussing HIV/AIDS messages among peers and advocating safe sex skills as garnered from health communication campaigns.

Limitation of study

1. There is no list of all brothels in Lagos State, perhaps because sex work is still considered illegal. Therefore, the researcher had to create a list from what the trained enumerators identified. Such a list could not have been exhaustive.
2. Other categories of female sex workers such as street-walkers, escorts, call girls, etc. were not included in the study, so also ‘indirect sex workers’ that are imperceptibly located within the city who cannot be easily identified.
3. Some brothels were difficult to reach or not at all because the managers or pimps did not allow the researcher to reach the CSWs apparently because they were not convinced that it is an academic exercise.
4. The study covered Lagos State only. While Lagos State is cosmopolitan, there are sex workers in other parts of the country, especially, the rural suburbs.
5. The study did not include male sex workers, though rare in this part of the world, male sex workers do exist even in Nigeria.

Operational definition of terms

The following terms are defined within the context of the study:

Knowledge: awareness and recall of HIV/AIDS issues such as sources of infection and prevention methods.

Attitude: evaluations expressed as dispositions towards HIV/AIDS issues such as IEC messages and information.

Beliefs: thoughts or opinions and convictions about HIV/AIDS that express accurate or inaccurate perception of risk factors.

Practices: specific actions taken or not taken to help meet HIV/AIDS prevention needs.

Behaviour: conduct or deportment contingent on concurrent or preceding events, undertaken continuously to promote or maintain healthy sexual priorities.

Intention: the likelihood to engage in a preventive health action concerning HIV/AIDS.

Comprehension: understanding of HIV/AIDS issues especially concerning risk factors and other message thrusts of IEC campaigns.

Approval: discussions with personal networks – friends, peers – concerning HIV/AIDS preventive actions.

Advocacy: experiencing, acknowledging and recommending personal benefits of HIV/AIDS preventive actions to peers.

Acquisition of Information: awareness and recall of sources of HIV/AIDS information such as the mass media and interpersonal usage of information – acknowledgment or recall of sources of HIV/AIDS information that may have influenced current beliefs and actions.

Safe Sex: sexual activity undertaken in such a way as to minimize the risk of sexually transmitted diseases.

Life-skills: the ability of commercial sex workers to take greater responsibility for their own lives, resist negative pressures, minimize harmful behaviour and make healthy life choices.

Health Communication: information and messages concerning HIV/AIDS disseminated through the combination of mass-mediated and interpersonal sources.

IEC Campaigns: information, education and communication interventions using multiple reinforcing communication channels – radio, television, newspaper and magazines, billboards and posters, peer groups, community organizations, counseling unit and clinics – to influence behaviour change.

Commercial Sex Worker: female sex worker who has sexual intercourse with several sexual partners more or less daily, usually for monetary gains, in a brothel or hotel.

Brothel: A specifically dedicated establishment or building in which sex workers provide in-house services to clients.

Hotel: A business or building established to provide temporary accommodation for rent which are not normally dedicated to provide patrons with in-house sex services.

CHAPTER TWO

LITERATURE REVIEW

HIV/AIDS the pandemic

The true history of the origin of HIV/AIDS can be traced throughout the 20th century and back to 1878. On April 29 of that year (1878) the USA passed a federal quarantine act. It is not certain how many people developed AIDS in the 1970s, or indeed in the years before. It is also not certain where the HIV/AIDS virus originated but available data suggest that the current pandemic started in the mid-to late 1970s and today had spread across the globe.

In the short time since the first cases of the HIV/AIDS epidemic were reported in 1981 scientists have identified the viral cause of the illness, the basic modes of transmission, accurate tests for the presence of infection, and effective drugs that slow or halt the progression of the disease. During that same period, governments and grassroots organisations around the world were spurred into action to meet the growing need for HIV/AIDS education, counseling, patients' rights, and clinical research. Despite these advances, critics observe that many governments were slow to respond to the crisis. There was indeed a period of silence during which the HIV/AIDS spread was relatively unchecked by awareness or any preventive action and millions of people may have been infected (www.who.int/bct/)

By that time, many people had already died from the disease. HIV/AIDS advocates believe that the lack of government support for HIV/AIDS research in these early years delayed the development of an effective vaccine or a cure for the disease.

Origin of the virus

Using computer technology to study the structure of HIV/AIDS, scientists have determined that HIV/AIDS originated around 1930 in rural areas of Central Africa, where the virus may have been present for many years in isolated communities. The virus probably did not spread because members of these rural communities had limited contact with people from other areas. But in the 1960s and 1970s, political upheaval, wars, drought, and famine forced many people from these rural areas to migrate to cities to find jobs. During this time, the incidence of sexually transmitted infections, including HIV/AIDS infection, accelerated and quickly spread throughout Africa.

As world travel became more prevalent, HIV/AIDS infection developed into a worldwide epidemic. Studies of stored blood from the United States suggest that HIV/AIDS infection was well established thereby 1978.

In 1970, at about the same time that the HIV/AIDS epidemic was taking hold in Africa, American molecular biologist David Baltimore and American virologist Howard Temin independently discovered the enzyme reverse transcriptase, which could be used to identify retroviruses. Over the next ten years, many retroviruses were identified in animals. But not until 1980, shortly before the first HIV/AIDS cases were recognized in the United States, did American virologist Robert Gallo identify the first human retroviruses, HTLV-1 and HTLV-II (HTLV stands for human T cell lymphotropic virus) (www.uniaids.org)

Other studies demonstrated that these human retroviruses were more closely related to a retrovirus found in African chimpanzees than to each other. This discovery suggests that the human retroviruses may have evolved from retroviruses that originally infected chimpanzees. The chimpanzee retrovirus likely infected people and underwent mutations to form the human

retrovirus. In 1999 scientists confirmed that HIV/AIDS spread from chimpanzees to humans on at least three separate occasions in Central Africa, probably beginning in the 1940s and 1950s.

Retroviruses that cause immune deficiency diseases affect animals other than humans.

This group of retroviruses includes Feline Immunodeficiency Virus (FIV), which infects cats, and Simian Immunodeficiency Virus (SIV), which attacks monkeys and apes. SIV is of particular interest in medicine as the origin of HIV/AIDS. Scientists believe that SIV from a chimpanzee likely infected humans and underwent mutations to form HIV (www.hivinsite.ucsf.edu)

Beginning in June 1981, the CDC published reports on clusters of gay men in New York and California who had been diagnosed with pneumocystic pneumonia or Kaposi's sarcoma. These two rare illnesses had previously been observed only in people whose immune systems had been damaged by drugs or disease. These reports triggered concern that a disease of the immune system was spreading quickly in the homosexual community.

Initially called gay-related immunodeficiency disease (GRID), the new illness soon was identified in population groups outside the gay community, including users of intravenous drugs, recipients of blood transfusions, and heterosexual partners of infected people. In 1982, the name for the new illness was changed to Acquired Immunodeficiency Syndrome or HIV/AIDS (www.unaids.org). While the disease was making headlines for the speed with which it was spreading around the world, the cause of AIDS remained unidentified. Fear of HIV/AIDS and ignorance of its causes resulted in some outlandish theories.

Some thought the disease was God's punishment for behaviours that they considered immoral. These early theories created a social stigma surrounding the disease that still lingers. Scientists quickly identified the primary modes of transmission – sexual contact with an infected person,

contact with infected blood products, and mother-to-child transmission. From these modes of transmission, it was clear that the new illness was spread in a specific manner that matched the profile of a viral infection. In 1983 French cancer specialist Luc Montagnier and his colleagues isolated what appeared to be a new human retrovirus from HIV/AIDS patients. They named it lymphadenopathy virus (LAV). Eight months later Gallo and his colleagues isolate the same virus in HIV/AIDS patients, naming the virus HTLV-III.

Eventually, scientists agreed to call the infectious agent human immunodeficiency virus (HIV). In 1985, a new HIV--causing virus was discovered in West Africa, named HIV-2, the new virus is closely related to the first HIV, but it appears to be less harmful to cells of the immune system and reproduces more slowly than HIV-1.

Research leading to the development of the ELISA test was conducted simultaneously by teams led by Gallo in the United States and Montagnier in France. In 1985 the ELISA test to identify HIV in blood became available, followed by the development of the Western Blot test. These tests were first employed to screen blood for the presence of HIV before the blood was used in medical procedures. The tests were later used to identify HIV-infected people, many of whom did not know they were infected. These diagnostic tests also helped scientists study the course of HIV infection in populations (www.unaid.org).

CONCEPTUAL FRAMEWORK

Defining the Illness

The CDC presented its first definition of HIV/AIDS in 1982. The CDC recommended that physicians diagnose HIV/AIDS if a person has an illness known to be caused by immune deficiency, as long as there is no known cause for this immune deficiency (people who undergo radiation therapy or who take certain drugs may impair their immune systems).

As more information became known about the cause of HIV infection and the nature of the virus itself, this definition of HIV/AIDS was revised repeatedly to expand the list of illness considered diagnostic indicators of the disease. Early definitions were based on the opportunistic infections commonly found in HIV-infected men. As a result, many women who did not have symptoms covered in the official HIV/AIDS definition were denied disability benefits and HIV/AIDS-related drug therapies.

The current definition of HIV/AIDS was created in 1993 and includes 26 opportunistic infections and cancers, known as diagnostic indicators, that affect both men and women. The definition also emphasizes the importance of the level of CD4 cells in the blood. Today doctors make the diagnosis of AIDS in anyone with a CD4 count below 200 cells per microliter of blood, regardless of the associated illnesses they may have. (www.cdc.gov/nchstp/dstd/dstdp.html)

Human Immunodeficiency Virus (HIV)

Human Immunodeficiency Virus, infectious agent that causes Acquired Immunodeficiency Syndrome (AIDS), a disease that leaves a person vulnerable to life-threatening infections. Scientists have identified two types of this virus. HIV-1 is the primary cause of AIDS worldwide. HIV-2 is found mostly in West Africa.

HIV belongs to the retrovirus family of viruses, whose members share a unique method of replicating themselves when they infect living cells. Retroviruses store their genetic information in molecules of ribonucleic acid (RNA). However, unlike other RNA viruses, retroviruses use RNA as a template (master pattern) for forming deoxyribonucleic acid (DNA), the genetic material that puts viral replication instructions into effect.

This process, called reverse transcription, is the exact opposite of the normal flow of genetic information in living things, in which DNA serves as the template for RNA formation. HIV consists of a flexible outer membrane, called the envelope that surrounds a protein case known as the capsid. The envelope is studded with glycoproteins, chemical receptors that enable the virus to lock into target cells. Inside the capsid reside two identical strands of RNA. These RNA strands make up the virus's genetic program and store all the instructions needed to replicate HIV once it has infected a host cell. HIV also contains molecules of an enzyme called reverse transcriptase. When HIV infects a cell, reverse transcriptase copies the genetic instructions in the virus's RNA and uses the instructions to build complementary strands of DNA.

HIV transmission occurs when a person is exposed to body fluids infected with the virus, such as blood, semen, vaginal secretions, and breast milk. The primary modes of HIV transmission are (1) sexual relations with an infected person (see Sexually Transmitted Infections); (2) sharing hypodermic needles or accidental pricking by a needle contaminated with infected blood; and (3) transfer of the virus from an infected mother to her baby during pregnancy, childbirth, or through breastfeeding.

When HIV enters the body, it infects lymphocytes, which are a type of white blood cell in the immune system. HIV uses its glycoproteins to attach itself to receptors on the surface of a lymphocyte. The outer envelope of HIV then fuses with the lymphocyte, enabling the HIV

capsid to enter the lymphocyte itself. HIV commandeers the genetic material of the lymphocyte, instructing the cell to replicate more viruses. The newly formed viruses break free from the host, destroying the cell in the process.

The new viruses go on to infect and destroy other lymphocytes.

Over a period that may last from a few months to up to 15 years, HIV may destroy enough lymphocytes that the immune system becomes unable to function properly. An infected person develops multiple life-threatening illnesses from infections that normally do not cause illnesses in people with a healthy immune system. Some people who have HIV infection may not develop any of the clinical illnesses that define the full-blown disease of AIDS for ten years or more. Doctors prefer to use the term AIDS for cases where a person has reached the final life-threatening stage of HIV infection.

No treatment is available that cures AIDS, but a number of drugs have been developed that suppress HIV replication, thereby preventing the destruction of the immune system. Known as antiretroviral therapy, these drugs target different stages in the life cycle of HIV. There are four main classes of drugs used against HIV: nucleoside analogues, non-nucleoside reverse transcriptase inhibitors, protease inhibitors, and fusion inhibitors. Nucleoside analogues and non-nucleoside reverse transcriptase inhibitors use different mechanisms to block the action of the enzyme reverse transcriptase.

Protease inhibitors interfere with protease, an enzyme vital to the formation of new HIV. When these drugs block protease, defective HIV forms that is unable to infect new cells. In 2003, the U.S. Food and Drug Administration approved the use of enfuvirtide, sold under the brand name Fuzeon. This drug belongs to a new class of drugs called fusion inhibitors, which prevent the

binding or fusion of HIV to lymphocytes (Potts, Anderson, and Boily, 1991:4; Anderson, May, Boily, Garnett and Rowley, 1991:581-589; www.AEGIS.com)

Acquired Immunodeficiency Syndrome – AIDS

Acquired Immunodeficiency Syndrome (AIDS), human viral disease that ravages the immune system, undermining the body's ability to defend itself from infection and disease is distinct from HIV. Caused by the Human Immunodeficiency Virus (HIV), AIDS leaves an infected person vulnerable to opportunistic infections. Such infections are harmless in healthy people, but in those whose immune systems have been greatly weakened, they can prove fatal. Although there is no cure for AIDS, new drugs are available that can prolong the life spans and improve the quality of life of infected people.

Infection with HIV does not necessarily mean that a person has AIDS. Some people who have HIV infection may not develop any of the clinical illnesses that define the full-blown disease of AIDS for ten years or more. Physicians prefer to use the term AIDS for cases where a person has reached the final; life-threatening stage of HIV infection.

PREVALENCE

Developing Nations

While cases of AIDS have been reported in every nation of the world, the disease affects some countries more than others. More than 95 per cent of all HIV-infected people live in the developing world. In these areas, the disease has sapped the populations of young men and women who form the foundation of the labour force. Most die while in the peak of their reproductive years. Moreover, the epidemic has overwhelmed health-care systems, increased the number of orphans, and caused life expectancy rates to plummet.

These problems have reached crisis proportions in some parts of the world already burdened by war, political upheaval, or unrelenting poverty.

Nowhere is this better demonstrated than in Sub-Saharan Africa, where the number of AIDS cases far exceeds that of all other geographic regions. Of the estimated 14,000 HIV infections that occur each day worldwide, about half of these infections occur in Sub-Saharan Africa.

About 70 per cent of all people infected with HIV live in this region. In some countries in the southern part of the continent, including Botswana, Lesotho, Swaziland, and Zimbabwe, more than 30 per cent of the population has HIV infection or AIDS.

In Asia and the Pacific Islands, an estimated 7.2 million people were living with HIV infection by 2002. Health officials fear that as the virus spreads through China and India, the world's two most populous countries, cases of HIV infection in this region may surge up to 25 million cases by the year 2010, dwarfing the problems seen in Sub-Saharan Africa.

In 2002, the Chinese government reported that China had about 1 million HIV-positive people in a population of more than 1 billion. However, public health experts are concerned by the fast-rising number of new infections among intravenous drug users who share infected needles. In 2002, HIV prevalence among intravenous drug users ranged from 44 per cent to 85 per cent in selected communities of drug users in both Yunnan, in southern China, and Xinjiang, in northwestern China. The incidence of HIV infection will likely be exacerbated by the growing sex industry in China. Surveys indicate that as many as 4 million prostitutes work in China. Of these, four out of ten never use a condom to protect themselves or their clients from HIV infection or other sexually transmitted infections. In rural areas of China, the incidence of HIV infection is rising because many poverty-stricken people regularly sell their blood. The people

who buy the blood use unsterile methods to draw blood; including reusing contaminated needles, which can spread HIV infection.

In Latin America and the Caribbean region nearly 1.7 million people have been diagnosed with HIV infection or AIDS, twice the incidence in the United States and Canada. Brazil, Mexico, Colombia, and Argentina are the Latin American countries with the highest number of cases of HIV infection or AIDS.

AIDS is the final stage of a chronic infection with the human immunodeficiency virus. There are two types of this virus: HIV-1, which is the primary cause of AIDS worldwide, and HIV-2, found mostly in West Africa. On its surface, HIV carries a protein structure that recognizes and binds only with a specific structure found on the outer surface of certain cells. HIV attacks any cell that has this binding structure. However, white blood cells of the immune system known as T cells, which orchestrate a wide variety of disease-fighting mechanisms, are especially vulnerable to HIV attack. Particularly vulnerable are certain T cells known as CD4 cells. When HIV infects a CD4 cell, it commandeers the genetic tools within the cell to manufacture new HIV virus. The newly formed HIV virus then leaves the cell, destroying the CD4 cell in the process. No existing medical treatment can completely eradicate HIV from the body once it has integrated into human cells.

The loss of CD4 cells endangers health because these immune cells help other types of immune cells respond to invading organisms. The average healthy person has over 1,000 CD4 cells per microliter of blood. In a person infected with HIV, the virus steadily destroys CD4 cells over a period of years, diminishing the cells' protective ability and weakening the immune system. When the density of CD4 cells drops to 200 cells per microliter of blood, the infected person becomes vulnerable to any of about 26 opportunistic infections and rare cancers, which take

advantage of the weakened immune defenses to cause disease in the victim (Grant and Cock, 2001:59-64, UNAIDS, 1994).

How HIV/AIDS infection spreads

Scientists have identified three ways that HIV infections spread: sexual intercourse with an infected person, contact with contaminated blood, and transmission from an infected mother to her child before or during birth or through breastfeeding.

A. Sex with an Infected Person

HIV transmission occurs most commonly during intimate sexual contact with an infected person, including genital, anal, and oral sex. The virus is present in the infected person's semen or vaginal fluids. During sexual intercourse, the virus gains access to the bloodstream of the uninfected person by passing through openings in the mucous membrane – the protective tissue layer that lines the mouth, vagina and rectum – and through breaks in the skin of the penis. In the United States and Canada, HIV is most commonly transmitted during sex between homosexual men, but the incidence of HIV transmission between heterosexual men and women has rapidly increased. In most other parts of the world, HIV is most commonly transmitted through heterosexual sex.

B. Contact with Infected Blood

Direct contact with HIV-infected blood occurs when people who use heroin or other injected drugs share hypodermic needles or syringes contaminated with infected blood. Sharing of contaminated needles among intravenous drug users is the primary cause of HIV infection in Eastern Europe, particularly in Ukraine, Russia, Belarus, and Moldova. Epidemics of HIV infection among drug users have also emerged in Georgia, Armenia, Azerbaijan, and Kazakhstan in Central Asia.

Less frequently, HIV infection results when health professionals accidentally stick themselves with needles containing HIV-infected blood or expose an open cut to contaminated blood. Some cases of HIV transmission from transfusions of infected blood, blood components, and organ donations were reported in the 1980s. Since 1985, government regulations in the United States and Canada have required that all donated blood and body tissues be screened for the presence of HIV before being used in medical procedures. As a result of these regulations, HIV transmission caused by contaminated blood transfusion or organ donations is rare in North America. However, the problem continues to concern health officials in sub-Saharan Africa. Less than half of the 46 nations in this region have blood-screening policies. By some estimates, only 25 per cent of blood transfusions are screened for the presence of HIV. WHO hopes to establish blood safety programmes in more than 80 per cent of sub-Saharan countries by 2003.

C. *Mother-to-Child Transmission*

HIV can be transmitted from an infected mother to her baby while the baby is still in the woman's uterus or, more commonly, during childbirth. The virus can also be transmitted through the mother's breast milk during breastfeeding. Mother-to-child transmission accounts for 90 per cent of all cases of AIDS in children. Mother-to-child transmission is particularly prevalent in Africa, where the number of women infected with HIV is ten times the rate found in other regions. Studies conducted in several cities in Southern Africa in 1998 indicate that up to 45 per cent of pregnant women in these cities carry HIV.

D. *Misperceptions about HIV Transmission*

The routes of HIV transmission are well documented by scientists, but health officials continually grapple with the public's unfounded fears concerning the potential for HIV

transmission by other means. HIV differs from other infectious viruses in that it dies quickly if exposed to the environment. No evidence has linked HIV transmission to casual contact with an infected person, such as handshake, hugging, or kissing, or even sharing dishes or bathroom facilities. Studies have been able to identify HIV transmission from modes common to other infectious diseases, such as an insect bite or inhaling virus-infected droplets from an infected person's sneeze or cough.

Symptoms of aids

Without medical intervention, AIDS progresses along a typical course. Within one to three weeks after infection with HIV, most people experience flu-like symptoms, such as fever, sore throat, headache, skin rash, tender lymph nodes, and a vague feeling of discomfort. These symptoms last between one to four weeks. During this phase, known as acute retroviral syndrome, HIV reproduces rapidly in the blood. The virus circulates in the blood throughout the body, particularly concentrating in organs of the lymphatic system. The normal immune defenses against viral infections eventually activate to battle HIV in the body, reducing but not eliminating HIV in the blood. Infected individuals typically enter a prolonged asymptomatic phase, a symptom-free period that can last ten years or more. While persons who have HIV may remain in good health during this period, HIV continues to replicate, progressively destroying the immune system. Often an infected person remains unaware that he or she carries HIV and unknowingly transmits the viral to others during this phase of the infection.

When HIV infection reduces the number of CD4 cells to around 200 per microliter of blood, the infected individual enters an early symptomatic phase that may last a few months to several years. HIV-infected persons in this stage may experience a variety of symptoms that are not life-threatening but may be debilitating. These symptoms include extensive weight loss and fatigue

(wasting syndrome), periodic fever, recurring diarrhea, and thrush, a fungal mouth infection. An early symptom of HIV infection in women is a recurring vaginal yeast infection. Unlike earlier stages of the diseases, in this early symptomatic phase the symptoms that develop are severe enough to cause people to seek medical treatment. Many may first learn of their infection in this phase.

If CD4 cell levels drop below 200 cells per microliter of blood, the late symptomatic phase develops. This phase is characterized by the appearance of any of 26 opportunistic infections and rare cancers. The onset of these illnesses, sometimes referred to as AIDS-defining complications, is one sign that an HIV-infected person has developed full-blown AIDS. Without medical treatment, this stage may last from several months to years. The cumulative effects of this illness usually cause death.

Often the first opportunistic infection to develop is pneumocystis pneumonia, a lung infection caused by the fungus pneumocystiscarinii. This fungus infects most people in childhood, setting harmlessly in the lungs where it is prevented from causing disease by the immune system. But once the immune system becomes weakened, the fungus can block the lungs from delivering sufficient oxygen to the blood. The lack of oxygen leads to severe shortness of breath accompanied by fever and a dry cough.

In addition to pneumocystis pneumonia, people with AIDS often develop other fungal infections. Up to 23 per cent of people with AIDS become infected with fungi from the genus Cryptococcus, which cause meningitis, inflammation of the membranes that surround the brain. Infection by the fungus Histoplasma capsulatum affects up to 10 per cent of people with AIDS, causing general weight loss, fever, and respiratory complications.

Tuberculosis, a severe lung infection caused by the bacterium *Mycobacterium tuberculosis*, typically becomes more severe in AIDS patients than in those with a healthy immune system. Between the 1950s and the late 1980s, tuberculosis was practically eradicated in North America. In the early 1990s, doctors became alarmed when incidence of the disease dramatically escalated. This resurgence has been attributed to the increased susceptibility to tuberculosis of people infected with HIV. Infection by the bacterium *Mycobacterium avium* can cause fever, anemia, and diarrhea. Other bacterial infections of the gastrointestinal tract contribute to wasting syndrome.

Opportunistic infections caused by viruses, especially members of the herpesvirus family, are common in people with AIDS. One of the herpesviruses, cytomegalovirus (CMV), infects the retina of the eye and can result in blindness. Another herpesvirus, Epstein - Barr virus (EBV), may cause certain types of blood cancers. Infections with Herpes Simplex Virus (HSV) types 1 or 2 may result in sores around the mouth, genital area, or anus.

Many people with AIDS develop lower cancers. The destruction of CD4 cells impairs the immune functions that halt the development of cancer. Kaposi's sarcoma is a cancer of blood vessels caused by a herpesvirus. This cancer produces purple lesions on the skin, which can spread to internal organs and cause death. B cell lymphoma affects certain cells of the lymphatic system that fight infection and perform other vital functions. Cervical cancer is more common in HIV-infected women than in women free from infection.

A variety of neurological disorders are common in the later stage of AIDS. Collectively called HIV-associated dementia, they develop when HIV or another microbial organism infects the brain. The infection produces degeneration of intellectual processes such as memory and, sometimes, problems with movement and coordination.

HIV infection in children progresses more rapidly than in adults, most likely because the immune systems in children have not yet built up immunity to many infectious agents. The disease is particularly aggressive in infants – more than half of infants born with an HIV infection die before age two. Once a child is infected, the child's undeveloped immune system cannot prevent the virus from multiplying quickly in the blood. This extensive virus burden speeds the progression of the disease. In contrast, when adults become infected with HIV, their immune system generally fights the infection. Therefore, HIV levels in adults remain lower for an extended period, delaying the progression of the disease.

Children develop many of the opportunistic infections that befall adults but also exhibit symptoms not observed in older patients. Among infants and children, HIV infection produces wasting syndrome and slows growth (generally referred to as failure to thrive). HIV typically infects a child's brain early in the course of the disease, impairing intellectual development and coordination skills. While HIV can infect the brains of adults, it usually does so toward the later stages of the disease and produces different symptoms.

Children show a susceptibility to more bacterial and viral infections than adults. More than 20 per cent of HIV-infected children develop serious, recurring bacterial infections, including meningitis and pneumonia. Some children suffer from repeated bouts of viral infections, such as chicken pox. Healthy children generally develop immunity to these viral illnesses after an initial infection (Mortimer and Loveday, 2001:6-11; Adler, 2001:1-5; www.niaid.nih.gov/daids/meetingsum.htm)

Detecting and monitoring hiv/aids infection

Since HIV was first identified as the cause of AIDS in 1983, a variety of tests have been developed that help diagnose HIV infection as well as determine how far the infection has progressed. Other tests can be used to screen donated blood, blood products, and body organs for the presence of HIV.

Doctors determine if HIV is present in the body by identifying HIV antibodies, specialized proteins created by the immune system to destroy HIV. The presence of the antibodies indicates HIV infection because these antibodies form in the body only when HIV is present. HIV antibodies form anywhere from five weeks to three months after HIV infection occurs, depending upon the individual's immune system. The antibodies are produced continually throughout the course of the infection.

The standard test to detect HIV antibodies in the blood is the enzyme-linked immune-sorbent assay (ELISA). In this test, a blood sample is mixed with proteins from HIV. If the blood contains HIV antibodies, they attach to the HIV proteins, producing a telltale colour change in the mixture. This test is highly reliable when performed two to three months after infection with HIV. The test is less reliable when used in the very early stage of HIV infection, before detectable levels of antibodies have had a chance to form. Doctors routinely confirm a positive result from an ELISA test by using the Western Blot test, which can detect lower levels of HIV antibodies. In this test a blood sample is applied to a paper strip containing HIV proteins. If HIV antibodies are present in the blood, they bind to the HIV proteins, producing a colour change on the paper. The combination of the ELISA and the Western Blot test is more than 99.9 per cent accurate in detecting HIV infection within 12 weeks following exposure.

Once tests confirm an HIV infection, doctors monitor the health of the infected person's immune system by periodically measuring CD4 cell counts in the blood. The progressive loss of CD4 cells corresponds to a worsening of the disease as the immune system becomes increasingly impaired. Doctors also measure the viral load – the amount of the virus in the blood using polymerase chain reaction (PCR) technology. PCR tests measure the level of viral ribonucleic acid (RNA), a type of nucleic acid, in blood to determine the rate of HIV growth in an infected person. Knowing the viral load helps doctors estimate an infected person's survival time. For example, studies show that without treatment, the average survival time for people with an HIV viral load greater than 30,000 per microliter of blood is 4.4 years, while those with a viral load below 10,000 per microliter of blood live for an average of ten years.

A modified ELISA test that detects p24 antigen, a protein produced by HIV, can determine if specific drug treatments are having a positive effect on a patient. Blood banks, plasma centres, clinical laboratories, private clinics, and public health departments also use this p24 antigen test to screen for the presence of HIV in blood, blood components, and organs before they are used in medical procedures. (UNAIDS, 2000)

HIV and AIDS in Africa

The African countries south of the Sahara have some of the best HIV surveillance systems in the world. They provide solid evidence that the HIV infection rate has stabilized at a relatively low level in Senegal and that the extremely high rates in Uganda have been reduced. However, in most sub-Saharan countries, adults and children are acquiring HIV at a higher rate than ever before: the number of new infections in the region during 1999 was 4.0 million. This acceleration effect is yet another challenge posed by long-standing epidemics. As the rate of HIV infection in the general population rises, the same patterns of sexual risk result in more new infections simply because the chances of encountering an infected partner become higher.

Altogether, there are now 16 countries in which more than one-tenth of the adult population aged 15 – 49 is infected with HIV. In seven countries, all in the southern cone of the continent, at least one adult in five is living with the virus. In Botswana, a shocking 35.8% of adults are now infected with HIV, while in South Africa, 19.9% are infected, up from 12.9% just two years ago. With a total of 4.2 million infected people, South Africa has the largest number of people living with HIV/AIDS in the world. While West Africa is relatively less affected by HIV infection, the prevalence rates in some large countries are creeping up. Cote d'Ivoire is already among the 15 worst-affected countries in the world; in Nigeria, by far the most populous country in sub-Saharan Africa, over 5% of adults have HIV. The prevalence rate in other West African countries remains below 3%. Infection rates in East Africa, once the highest on the continent, hover above those in the West of the continent but have been exceeded by the rates now being seen in the southern cone. The prevalence rate among adults in Ethiopia and Kenya has reached double-digit figures and continues to rise.

These rises are not inexorable. Uganda has brought its estimated prevalence rate down to around 8% from a peak of close to 14% in the early 1990s with strong prevention campaigns, and there are encouraging signs that Zambia's epidemic may be following the course charted by Uganda. Yet, even in these countries, the suffering generated by HIV infections acquired years ago continues to sectors of the economy stagger under the burden.

Uganda's was the first government on the continent to recognize the danger of HIV to national development. Acknowledging an explosive epidemic in the general population very early on, President Yoweri Museveni took active steps to fight its spread through action by the government and other groups in society, including religious leaders and community development organizations, which were encouraged to tackle HIV and AIDS in ways that made best use of their particular skills.

This broad-based approach to the epidemic contributed to a reduction in HIV infections among young pregnant women living in towns and cities, as recorded in the 1998 Report on the Global HIV/AIDS Epidemic. Gratifyingly, data from a large community-based study now show a similar fall in infection rates in rural Uganda. ...the HIV prevalence rate among 13 – 19 year old girls has fallen significantly over an eight-year period, while the rate in teenage boys always much lower because boys are less likely than girls to have partners in the older, more heavily infected age groups – has remained roughly stable. A large increase in condom use probably contributed to these lower rates of infection (and to the significant decline in teenage pregnancies which accompanied it).

In Zambia, the government has been trying to involve all sectors in HIV prevention, from health to education, agriculture and industry. Religious leaders and church groups have also been playing a part in prevention. New data from Zambia's HIV sentinel surveillance system ... show

that the percentage of pregnant girls aged 15 – 19 infected with HIV in the capital, Lusaka, has on average dropped by almost half in the last six years.

Comparisons between studies of sexual behaviour conducted in 1990, 1992, 1996 and 1998 suggest that these falling HIV rates are due in part to a decrease in the prevalence of some types of risky sexual behaviour in urban areas. For example, far fewer young women in Lusaka were having sex before marriage in 1996 than in 1990, and the percentage of unmarried women who were sexually active fell from 52% to 35% over that period. Among young men, according to nationwide studies, the change came later; in 1998 just over half of unmarried men said they had not had sex in the past year, compared with just over a third two years earlier, and the proportion of men reporting two or more casual partners in the past year also fell. However, there was no evidence at the national level that either girls or boys were postponing the start of their sex life.

Elsewhere in the region too, there are signs that young people are avoiding the patterns of behaviour which led their parents and older siblings to such high levels of HIV infection. Condom use, for example, is increasing among young people and there are indications that, among the better-educated, sex with casual partners may start later and be less frequent. But these changes are taking place against a background of very high infection rates, especially in young African women.

There are frighteningly high prevalence rates of infection (exist) among teenagers and women in their early 20s in various urban and rural areas in Africa. The rates among teenage girls and especially among women under 25 defy belief: in 7 of the 11 studies, more than one woman in five in her early 20s was infected with the virus; a large proportion of them will not live to see their 30th birthday. Close to 6 out of 10 women in this age group in the South African town of Carletonville tested positive for HIV.

The infection rates in young African women are far higher than those in young men. In the 11 population-based studies presented here, the average rates in teenage girls were over five times higher than those in teenage boys. Among young people in their early 20s, the rates were three times higher in women. In large measure, this enormous discrepancy is due to age-mixing between young women and older men, who have had much more sexual experience and are much more likely to be exposing the girls to HIV. It is also because girls are more easily infected during vaginal intercourse with an infected partner than boys are.

The fact that, in Africa, women's peak infection rates occur at earlier ages than men's helps explain why there are an estimated 12 women living with HIV for every 10 men in this region of the world. Not only do the young age groups account for a bigger proportion of the population, but individuals who are infected at a younger age tend to survive longer and continue to be counted among those living with HIV....

Since the early 1990s, it has been clear that HIV would help undermine development in countries badly affected by the virus. Warnings about falling life expectancy, increasing numbers of orphans, extra costs for business and the destruction of family and community structures are not new.

These effects are becoming increasingly visible in the hardest-hit region of all, sub-Saharan Africa, where HIV is now deadlier than war itself; in 1998, 200,000 Africans died in war but more than 2 million died of AIDS. AIDS has become a full-blown development crisis. Its social and economic consequences are felt widely not only in health but in education, industry, agriculture, transport, human resources and the economy in general. This wildly destabilizing effect is also affecting already fragile and complex geopolitical systems.

As a result, AIDS is rapidly becoming the key issue for human security in sub-Saharan Africa. AIDS in Africa was chosen as the theme for the United Nations Security Council meeting on 10 January 2000 – the first time that body had dealt with a development issue.

It is now clear that the population structures of badly affected countries will be radically altered by HIV. And that can only mean massive changes in the way societies organize themselves, make a living and care for the needy.

In developing countries, population structure is generally described as a pyramid, reflecting the demographer's traditional depiction of populations according to age group, with men on one side of a central axis and women on the other. The shape of the pyramid is determined by both birth and death rates. When both are high, the pyramid has a wide base and tapers off steadily with increasing age. As health improves and fertility falls, the older age groups grow larger than the younger age groups, and the pyramid becomes more of a column. Now, AIDS has begun to introduce a completely new shape, the "population chimney".

The base of the pyramid is less broad. Many HIV-infected women die or become infertile long before the end of their reproductive years, which means that fewer babies are being born; and up to a third of the infants born to HIV-positive mothers will acquire and succumb to the infection. But the dramatic change in the population pyramid comes around 10 or 15 years after the age at which people first become sexually active, when those infected with HIV early in their sexual lives begin to die off. The populations of women above their early 20s and men above their early 30s shrink radically. As only those who have not been infected survive to older ages, the pyramid becomes a chimney. The chimney ... shows the dramatic impact that AIDS is predicted to have on the structure of the population of Botswana, where over a third of the 775,000 adults are now infected with HIV. (in the absence of an AIDS epidemic) more children would be born (because

more mothers would survive and remain fertile throughout their reproductive years) and fewer would die because they acquired the virus from their mothers. Far fewer young adults would die before old age.

The implications of this change in population structure are truly shocking. According to the United States Census Bureau, there will be more adults in their 60s and 70s in Botswana in 20 years' time than there will be adults in their 40s and 50s. This projection is based on the assumption that patterns of new infection will not change greatly over the next decade; however, as changes in future infection rates will principally affect men and women under 40 in 2020, the demographic chimney pattern for older adults is hardly affected by this assumption. The "missing adults" – men and women who should have reached their 40s and 50s in 2020 are now in their 20s and 30s, although some have already died. Many more are already infected with HIV, which will kill them before they reach their 50s.

What this means for society is hard to predict, since the world has never before experienced death rates of this magnitude among young adults of both sexes across all social strata. But there is one certainty: a small number of young adults, the group that has traditionally provided care for both children and the elderly will have to support large numbers of young and old people. Many of these young adults will themselves be debilitated by AIDS and may even require care from their children or elderly parents rather than providing it.

Even without analyzing the data on death rates, countries with severe long-standing HIV epidemics know from the massive increase in funerals that deaths are on the rise. The data show the same rising trend. Demographers have developed techniques to measure death rates in developing countries by asking about recent household deaths or by studying the reports of surviving relatives in large scale censuses and surveys. Recent analyses of these household-based

data for countries with high HIV prevalence rates show clear increase in both adult and child mortality rates, which often appear after many years of a steady decline in death rates. It is worth noting that these data represent a “best-case” scenario and may underestimate actual death rates. Because AIDS may kill several members of a household, it can destroy households completely, with the result that some of the deaths will not be captured in subsequent household surveys.

Even more dramatic increases are seen in adult death rates. In Zimbabwe, a comparison of estimates based on registered deaths and data collected in different census and household surveys over the past two decades show remarkably consistent patterns of increasing mortality among young men. Even though the data presented here have been adjusted for the under-reporting of deaths that is the norm in developing countries, the adjustments must be viewed as conservative, because the families most devastated by deaths may no longer exist to report such events. The true mortality rates could thus be even higher.

Given the death rates prevailing at the time in each age group, a (Zimbabwean) man who was 15 in 1983 would have had just a 15% chance of dying before reaching his 50th birthday. By 1997, 15-year-old boys faced a much bleaker prospect: half could expect to die before the age of 50. The situation was just as bad for women: the likelihood of a 15-year-old dying before the end of her reproductive years quadrupled from around 11% in the early 1980s to over 40% by 1997.

There is no phenomenon apart from the AIDS epidemic that could possibly explain this recent drastic rise in mortality after years of declining death rates. Indeed, smaller community-based studies with information on the cause of death show that in countries where just under 10% of the adult population has HIV infection, almost 80% of all deaths in young adults aged 25-45 are associated with HIV. The proportion of HIV-related deaths is likely to be even higher in areas with higher HIV prevalence rates.

High and stable HIV prevalence rates are bad news. But there is worse news. Prevalence rates do not reflect the true impact of the epidemic. The 15-49 years old age group includes people who are not yet infected with HIV but who will be one day. And it excludes men and women born 15 – 49 years ago who were infected with HIV but have already died. If the probability that a person will become infected at any time in his or her life is summed up, the cumulative figure is higher than the “snapshot” provided by current prevalence rates.

To give a better idea of the actual risk of dying of HIV-associated disease, researchers have built models to follow people throughout their lives, examining their exposure to risks of infection with HIV at each age. The risks are calculated from patterns of HIV infection at each age observed in African communities. In general, the rate of new infections peaks among women in their early 20s and among men slightly later and tapers off at older ages. The rate of new infections at each age is determined by the current phase of the HIV epidemic in a country. In the model, men and women also face the competing risk of dying of other causes at rates similar to those recorded before the HIV epidemic.

The likelihood that a boy now aged 15 will eventually die of AIDS is much higher than the likelihood that a man now aged 15-49 is currently infected with HIV. This sobering fact remains true even if the rates of new infection fall in the future... even in (an) optimistic scenario... the proportion of young people who will die of AIDS is appallingly high in many countries in (Zambia, South Africa, Zimbabwe, and Botswana) where 15% or more of all adults are currently infected with HIV, at least 35% of boys now aged 15 will die of AIDS. (In Botswana, where more than 30% of all adults are currently infected with HIV, between 65% and 85% of boys now aged 15 will die of AIDS).

The premature death of half of the adult population, typically at ages when they have already started to form their own families and have become economically productive, can be expected to have a radical effect on virtually every aspect of social and economic life. While it is difficult to measure the precise impact of HIV at a national level in most hard-hit countries, a great deal of information does exist about how the epidemic is affecting everything from households to the public and private sector of the economy.

Household Impacts

The few surveys of the impact of having a family member with AIDS show that households suffer a dramatic decrease in income. Decreased income inevitably means fewer purchases and diminishing savings.

In urban areas in Cote d'Ivoire, the outlay on school education was halved, food consumption went down 41% per capital, and expenditure on health care more than quadrupled. When family members in urban areas fall ill, they often return to their villages to be cared for by their families, thus adding to the call on scarce resources and increasing the probability that a spouse or others in the rural community will be infected.

Families make great sacrifices to provide treatment, relief and comfort for a sick breadwinner... A common strategy in AIDS-affected households is to send one or more children away to extended family members to ensure that they are fed and cared for. Such extended family structures have been able to absorb some of the stress of increasing numbers of orphans, particularly in Africa. However, urbanization and migration for labour, often across borders, are destroying those structures. As the number of orphans grows and the number of potential caregivers shrinks, traditional coping mechanisms are stretched to breaking point. Households headed by orphans are becoming common in high-prevalence countries. Studies in Uganda have

shown that following the death of one or both parents, the chance of orphans going to school is halved and those who do go to school spend less time there than they did formerly. Other work from Uganda has suggested that orphans face an increased risk of stunting malnourishment.

There is a consensus that help for orphans should be targeted at supporting families and improving their capacity to cope, rather than setting up institutions for the children. Orphanages may not be relevant to a long-term solution. Moreover, in a subsistence economy, children sent away from their village may lose their rights to their parents' land and other property as well as their sense of belonging to a family.

So far, the AIDS epidemic has left behind 13.2 million orphans – children who, before the age of 15, lost either their mother or both parents to AIDS. Many of these children have died, but many more survive, not only in Africa (where 95% currently live) but in developing countries throughout Asia and the Americas.

Before AIDS, about 2% of all children in developing countries were orphans. By 1997 the proportion of children with one or both parents dead had skyrocketed to 7% in many African countries and in some cases reached an astounding 11%. In African countries that have had long, severe epidemics, AIDS is generating orphans so quickly that family structures can no longer cope. Traditional safety nets are unraveling as more young adults die of this disease. Families and communities can barely fend for themselves, let alone take care of orphans. Typically, half of all people with HIV become infected before they turn 25, acquiring AIDS and dying by the time they turn 35, leaving behind a generation of children to be raised by their grandparents or left on their own in child-headed households.

Wherever they turn, children who have lost a mother or both parents to AIDS face a future even more difficult than that of other orphans. According to a report published jointly in 1999 by UNICEF and the UNAIDS secretariats, AIDS orphans are at greater risk of malnutrition, illness, abuse and sexual exploitation than children orphaned by other causes. They must grapple with the stigma and discrimination so often associated with AIDS, which can even deprive them of basic social services and education.

Although the crisis is enormous and its impact devastating, countries and communities across Africa are rallying to react to the damage and to counter some of its worst impacts in recent times. In Malawi, the Government decided early on to support community based programmes and has had a National Orphan Care Task Force since 1991. Across the country, community-based organizations are setting up child-care centres to improve the care of children and increase their learning opportunities.

In Zambia, which has the second largest proportion of AIDS orphans in the world after Uganda, nongovernmental organizations are working hard to fill gaps by providing food, clothing and school fees to orphans and their families. In Zimbabwe, where 7% of all children under 15 are orphaned by AIDS, a National Policy on the Care and Protection of Orphans has been developed, which advocates that orphans should be placed in institutions only as a last resort and be cared for by the community whenever possible.

Uganda Women's Effort to Save Orphans (UWESCO) was started in 1986 by Janet Museveni, wife of President Yoweri Museveni, in the aftermath of the country's lengthy civil war, functioning as a relief agency to assist orphans in resettlement camps and return them to their extended families.

As the country became increasingly affected by the AIDS epidemic, UWESO shifted its emphasis to support for AIDS orphans; the organization, with its 35 branches country-wide, helps fund education and training for the children and runs a micro-finance scheme to help the caretakers-typically, female relatives of the children – to start up small businesses and trading activities.

Education is an essential building block in a country's development. In areas where HIV infection is common, HIV-related illness is taking its toll on education in a number of ways. First, it is eroding the supply of teachers and thus increasing class sizes, which is likely to dent the quality of education. Secondly, it is eating into family budgets, reducing the money available for school fees and increasing the pressure on children to drop out of school and marry or enter the workforce. Thirdly, it is adding to the pool of children who are growing up without the support of their parents, which may affect their ability to stay in school.

Skilled teachers are a precious commodity in all countries, but in some parts of the world, they are becoming too sick to work or dying of HIV-related illness long before retirement. The Central African Republic, where around one in every seven adults is estimated to be infected with HIV, already has a third fewer primary school teachers than it needs. A recent study of the impact of HIV on the educational sector showed that almost as many teachers died as retired between 1996 and 1998. Of those who died, some 85% were HIV-positive, and they died an average of 10 years before reaching the minimum retirement age of 52.

The study recorded that 107 schools had closed owing to staff shortages, and only 66 remained open. With the teacher short-age expected to worsen, researchers calculate that over 71,000 children aged 6-11 will be deprived a primary education by the year 2005.

A similarly dramatic impact has been found in Cote d'Ivoire, where teachers with HIV miss up to six months of classes before dying (compared with 10 days missed by teachers dying of other causes) and where confirmed cases of HIV/AIDS account for 7 out of 10 deaths among teachers. In Zambia, deaths among teachers are very high and still rising rapidly. In the first 10 months of 1998, Zambia lost 1300 teachers – the equivalent of around two-thirds of all new teachers trained annually. AIDS may aggravate the existing disparity in educational access between town and countryside. In a national survey of 6-15 year olds in 1996, over 70% of those living in cities were enrolled in school, compared with just over half of those in rural areas. Rural postings are already unpopular among teachers in many countries, and the Zambian study suggested that the need to be close to a source of health care – a town or city – acted as an extra disincentive to teachers to go to rural areas.

It is commonly assumed that children drop out of school when their parents die, whether of AIDS or another cause. While there has been little rigorous research, a few studies can point to AIDS in the family as a direct cause of school drop-out. For example, in a study of commercial farms in Zimbabwe, where most farm-work deaths are attributed to AIDS, 48% of the orphans of primary-school age who were interviewed had dropped out of school, usually at the time of their parent's illness or death, and not one orphan of secondary-school age was still in school.

Information collected in large household surveys representative of the general population confirms the general assumption that children whose parents have both died are less likely to be in school than children who are living with one or both parents.

The impact of parental AIDS is not necessarily a direct one or seen only in children who have already been orphaned. A child's schooling may be temporarily interrupted by a shortage of cash occasioned by spending on a parent's ill-health or by periods of work in the home or help sick parents. By the time children are actually orphaned, they are likely to be over-age for their class, even if they are still in school.

This was the case in both the Zimbabwean and Kenyan studies cited here. Being older than their classmates was in turn associated with a higher rate of dropping out of school for a number of other reasons, including pregnancy and the need to take paying work. Many of the marriages that led to drop-out were arranged, so it is quite possible that relatives or sick parents themselves saw marrying a girl off as a relatively painless way of ensuring that she would be cared for after their death. In at least one study of orphans in Kenya, boys tended to give economic reasons for dropping out of primary school (64% said they could not afford fees or needed to earn cash from fishing) while 28% of girls said that they had become pregnant and 41% had left to get married. Since the start of the epidemic, 18.8 million children and adults have fallen sick and died and almost twice that number are now living with HIV, with some 5.4 million newly infected people joining their ranks in 1999. As a consequence, the epidemic's impact on the health sector over the coming decade will be predictably greater than in the past two decades combined.

Already, however, the increased demand for health care from people with HIV-related illnesses is heavily taxing the overstretched public health services of many developing countries. In the mid-1990s, it was estimated that treatment for people with HIV consumed 66% of public health spending in Rwanda and over a quarter of health expenditures in Zimbabwe. A recent study estimates that in 1997, public health spending for AIDS alone already exceeded 2% of gross domestic product (GDP) in 7 of 16 African countries sampled – a staggering figure in countries

where total health spending accounts for 3-5% of GDP. In recent years, HIV-positive patients have occupied...39% of the beds in Kenyatta National Hospital in Nairobi, Kenya, and 70% of the beds in the Prince Regent Hospital in Bujumbura, Burundi. A related impact of the epidemic is that patients suffering from other conditions are being crowded out. The hospital sector in Kenya has seen increased mortality among HIV-negative patients, who are being admitted at later stages of illness.

The shifting and growing demand on health care systems is underscored by the exploding tuberculosis epidemic in the countries most heavily affected by HIV. As...HIV weakens people's immune system it makes them far more vulnerable to developing active tuberculosis.

Tuberculosis has become the leading cause of death among people with HIV infection accounting for about a third of AIDS deaths worldwide. Hospital data from African show that up to 40% of HIV infected patients have active tuberculosis. With a greater number of HIV-positive people developing active tuberculosis, there is also a greater risk that the tubercle bacillus will pass to others in the community. The World Bank has estimated that 25% of HIV-negative persons dying of tuberculosis in the coming year would not have been infected with the bacillus in the absence of the HIV epidemic. Each of these new tuberculosis infections represents a further cost to the health sector.

The development of new therapies for HIV-infected person and of vaccines will further raise health sector costs in infrastructure, drugs, training, and personnel expenditures. At the same time, HIV-related illness and premature death among health care workers themselves will continue to create cost of another kind for the health sector. Sickness and death due to AIDS is growing rapidly among health care personnel, but few countries have as yet fully understood the epidemic's impact on human resources in their health sector. A study in Zambia showed that in

one hospital, deaths in healthcare workers increased 13-fold over the 10 year period from 1980 to 1990, largely because of HIV. As increase rates of absenteeism, reduce productivity, and lead to higher levels of spending for treatment, death benefits, additional staff recruitment and training of new health personnel.

Agriculture is one of the most important sectors in many developing countries, particularly when measured by the percentage of people dependent on it for their living.

Although the sector may produce only 20% of a country's wealth (measured as a percentage of the gross national product), it might provide a living or survival for as much as 80% of the country's population. Indirectly, it provides a livelihood for still other parts of the population, such as processing workers on sugar estates (see "The Bottom Line", below).

The effect of AIDS is devastating at family level. As an infected farmer becomes increasingly ill, he and the family members looking after him spend less and less time working on his family's crops. The family begins to lose income from un-marketed or incompletely tended cash crops, has to buy food it normally grows for itself, and many even have to sell off farm equipment or household goods to survive.

The vicious circle is compounded by the high costs of health care, whether the sick person turns to a traditional healer or to the health services. A 1997 study by the Food and Agriculture Organization of the United Nations (FAO) showed that in the mid-west of Cote d'Ivoire, care for male AIDS patients cost on average about US\$ 300 a year, representing a quarter to a half of the net annual income of most small-scale farms.

The time lost by family members must also be taken into account. For instance, the repeated absence of another member of the farm to accompany the patient to a healer also reduces the farm's production. And when the most debilitating phases of AIDS coincide with key farming

periods such as sowing or clearing, the time spent nursing a sick person and lost to farm labour is sorely missed. A recent survey in the rural Bukoba District of the United Republic of Tanzania found a radical shift in the allocation of labour time: a woman with a sick husband spend 60% less time on agricultural activities than she would normally do.

Altogether, the effects on production can be serious. In West Africa, many cases have been reported of reduced cultivation of cash crops or food products. These include market gardening in the provinces of Sanguie and Boulkiemde in Burkina Faso and cotton, coffee and cocoa plantations in parts of Cote d'Ivoire. A recent study in Namibia by the FAO concluded that the impact on livestock is considerable, with a heavy gender bias: households headed by women and children generally lose their cattle, thus jeopardizing the food security of the surviving members. But even the poorer male-headed households experience a decrease in livestock when a wife dies. In Zimbabwe, the output of communal agriculture (much of it subsistence farming) has fallen by 50% over the past five years owing largely, though not solely, to the AIDS epidemic, according to a report published in 1998. Maize production has seen a decline of 54% of harvested quantity and a further drop of 61% in marketed output.

The number of hectares under cotton has decreased by about 34% and marketed output by a further 47% and the production of ground-nuts and sunflowers has fallen by 40%. The Southern Africa AIDS Information Dissemination Service (SAFAIDS), an AIDS-related nongovernmental organization in Zimbabwe, warned that a food crisis could erupt in Zimbabwe within the next 20 years as the group of people of productive age shrinks and the areas under cultivation diminish as a result.

Given the proportion of adults infected with HIV and dying from associated diseases in Africa, it is inevitable that the business sector, as well as families, schools and other sectors, will feel the

cost. Yet many companies (in common with many governments) have ignored the early warning signs and have not acted against HIV until sickness and deaths become too common to ignore. While experience suggests that HIV prevention is most effective when it is introduced very early on, before the virus gets a grip and the population of infected people becomes uncontrollably large, business people have taken some persuading.

Interviews conducted in engineering and construction companies in Gaborone, Botswana, found resistance to the idea of implementing HIV prevention and planning measures even though 39% of people of working age in the city were estimated to be infected in 1998.

Some companies in Africa have already felt the impact of HIV on their bottom line. Managers at one sugar estate in Kenya said they could count the cost of HIV infection in a number of ways: absenteeism (8000 days of labour lost due to sickness between 1995 and 1997 alone), lower productivity (a 50% drop in the ratio of processed sugar recovered from raw cane between 1993 and 1997) and higher overtime costs for workers obliged to work longer hours to fill in for sick colleagues.

Direct cash costs related to HIV infection have risen dramatically in this same company spending on funerals rose fivefold between 1989 and 1997, while health cost rocketed up by more than 10-fold over the same period, reaching KSh 19.4 million (US\$ 325 000) in 1997. The company estimated that at least three-quarters of all illness is related to HIV infection. Indeed, illness and death have jumped from last to first place in the list of reasons for people leaving a company, while old-age retirement slipped from the leading cause of employee drop-out in the 1980s to just 2% by 1997...

In Botswana's relatively recent HIV epidemic, the tidal wave of deaths has yet to break. Recognizing that a massive increase in sickness and death is on its way, several companies

joined forces to fund the Botswana Business Coalition on AIDS in order to share information about prevention and care in the workplace and keep up to date on legal and ethical issues raised by the epidemic.

The Coalition also works in close collaboration with the Government and trade unions to coordinate approaches to policy and HIV prevention programmes in the workplace. The Government's occupational health service provides training to companies that wish to initiate HIV prevention in the workplace.

Experience has shown that there are effective measures that businesses can take to respond to the epidemic. A study in 40 Zimbabwean factories demonstrated that strengthened prevention efforts in the workplace can reduce HIV transmission (and the future costs associated with it) when compared with workplaces that have weaker prevention programmes. In all 40 factories, workers were given information about preventing HIV and were offered voluntary counseling and HIV testing. In half the factories, workers could also choose to speak privately with one of the peer educators- workers who had been specially trained to discuss HIV prevention with their colleagues make condoms available, and provide information about sexually transmitted infections and where they could be treated.

Discouragingly, the number of new HIV infections actually rose over the two-year period of the study in both groups of factories and in all age groups. But the good news for the managers of factories with peer educators was that the rise was 34% less in these factories than in the others. This substantial reduction was achieved at a cost of around US\$ 6 per employee – less than the cost of one set of protective overalls.

Since untreated syphilis, gonorrhoea and other sexually transmitted infections increase the risk of acquiring and passing on HIV, companies seeking to prevent HIV in the workforce have a clear

interest in making sure that these infections are treated quickly and effectively. Many companies have their own clinics at which workers can be treated for free. Companies that consider this option too expensive might reflect on the findings of a company survey in Botswana, which showed that workers lost several hours waiting at government clinics where free external treatment was available. The associated lost productivity probably cost the company much more than providing private treatment would have done.

In fact, some studies suggest that providing services to the wider community can have as much of an effect on the health of the workforce as providing them to the workers alone. In a study in South Africa, a mine-sponsored service for treating sexually transmitted infections in sex workers in the surrounding community led to a significant reduction in the number of infections among the miners themselves. Over the same period, in another mining community where there was no special prevention effort, sexually transmitted infections among miners increased.

Government policy can encourage companies in the private sector to invest in HIV prevention in the workforce, for example by providing tax breaks for those with active prevention programmes. Some development agencies now require an assessment of the impact of AIDS in every development project, and a few governments, for example that of Botswana, are considering including AIDS prevention in the workplace as a requirement for any large tender.

(Source: Report on the Global HIV/AIDS Epidemic. 2000. UNAIDS: Joint United Nations Programme on HIV/AIDS; Awake, November 8, 2002:3-11 and November 22, 2004:3-9).

HIV and AIDS in Nigeria

The first two cases of HIV and AIDS in Nigeria were identified in 1985 and were reported at an international AIDS conference in 1986. In 1987 the Nigerian health sector established the National AIDS Advisory Committee, which was shortly followed by the establishment of the National Expert Advisory Committee on AIDS (NEACA).

At first the Nigerian government was slow to respond to the increasing rates of HIV transmission and it was only in 1991 that the Federal Ministry of Health made their first attempt to assess the situation with HIV and AIDS in Nigeria. The results showed that around 1.8 percent of the population of Nigeria were infected with HIV. Subsequent surveillance reports revealed that during the 1990s HIV prevalence rose from 3.8 percent in 1993 to 5.4 percent in 1999.

Following a peak of 5.8 percent in 2001, HIV prevalence then declined steadily throughout the decade. When antiretroviral drugs (ARVs) were introduced in Nigeria in the early 1990s, they were only available to those who paid for them. As the cost of the drugs was very high at this time and the overwhelming majority of Nigerians were living on less than \$2 a day, only the wealthy minority were able to afford the treatment (<http://www.avert.org/hiv-aids-nigeria.htm>).

When Olusegun Obasanjo became the president of Nigeria in 1999, HIV prevention, treatment and care became one of the government's primary concerns. The President's Committee on AIDS and the National Action Committee on AIDS (NACA) were created, and in 2001, the government set up a three-year HIV/AIDS Emergency Action Plan (HEAP). In the same year, Obasanjo hosted the Organisation of African Unity's first African Summit on HIV/AIDS, Tuberculosis, and Other Related Infectious Diseases.

In 2002 the Nigerian government started an ambitious antiretroviral treatment programme, which aimed to supply 10,000 adults and 5,000 children with antiretroviral drugs within one year. An

initial \$3.5 million worth of ARVs were to be imported from India and delivered at a subsidized monthly cost of \$7 per person. The programme was announced as 'Africa's largest antiretroviral treatment programme'. By 2004 the programme had suffered a major setback as too many patients were being recruited without a big enough supply of drugs to hand out. This resulted in an expanding waiting list and not enough drugs to supply the high demand. The patients who had already started the treatment then had to wait for up to three months for more drugs, which can not only reverse the progress the drugs have already made, but can also increase HIV drug resistance. Eventually, another \$3.8 million worth of drugs were ordered and the programme resumed.

ARVs were being administered in only 25 treatment centres across the country which was a far from adequate attempt at helping the estimated 550,000 people requiring antiretroviral therapy. Despite increased efforts to control the epidemic, by 2006 it was estimated that just 10 percent of HIV-infected women and men were receiving antiretroviral therapy and only 7 percent of pregnant women were receiving treatment to reduce the risk of mother-to-child transmission of HIV. As a result, in 2006 Nigeria opened up 41 new AIDS treatment centres and started handing out free ARVs to those who needed them. Treatment scale-up between 2006 and 2007 was impressive, rising from 81,000 people (15 percent of those in need) to 198,000 (26 percent) by the end of 2007.

Nigeria's programme to prevent the transmission of HIV from mother to child (PMTCT) started in July 2002. Despite efforts to strengthen PMTCT interventions, by 2007 only 5.3 percent of HIV positive women were receiving antiretroviral drugs to reduce the risk of mother-to-child transmission. This figure had risen to almost 22 percent by 2009, but still remained far short of universal access targets which aim for 80 percent coverage (<http://www.avert.org/hiv-aids-nigeria.htm>).

In 2010 NACA launched its comprehensive National Strategic Framework to cover 2010 to 2015, which required an estimated N756 billion (around US\$ 5 billion) to implement. Some of the main aims included in the framework are to reach 80 percent of sexually active adults and 80 percent of most at-risk populations with HIV counselling and testing by 2015, ensure 80 percent of eligible adults and 100 percent of eligible children are receiving ART by 2015; and to improve access to quality care and support services to at least 50 percent of people living with HIV by 2015.

Nigeria is reputed to have the second highest number of new infections of HIV and AIDS reported each year globally. An estimated 3.7 percent of the population are said to be living with HIV. Approximately 210,000 people died from HIV and AIDS in Nigeria in 2011 and, in 2012, the national life expectancy was 52 years. Although national life expectancy remains low, this figure has been rising since access to antiretroviral therapy became available in the mid-2000s.

There are three main HIV transmission routes in Nigeria:

- Heterosexual sex. Approximately 80 percent of HIV infections in Nigeria are a result of heterosexual sex. Women are particularly affected by HIV; in 2011 an estimated 1.7 million women were living with HIV and prevalence was 3 percent among young women aged 15-24. Factors contributing to this include a lack of information about sexual health and HIV, low levels of condom use, and high levels of sexually transmitted diseases. However, gender inequality among women has been identified as a key driver of the HIV epidemic among women.
- Blood transfusions. HIV transmission through unsafe blood accounts for the second largest source of HIV infection in Nigeria.
- Mother-to-child transmission. Most children infected with HIV acquire it from their mothers. An estimated 69,400 children were newly infected with HIV in 2011.

Key at-risk groups in Nigeria, include, brothel and non-brothel based female sex workers (FSW). HIV prevalence is 24.5 percent, men-who-have-sex-with-men (MSM) HIV prevalence is 17.2 percent, injecting drug users (IDUs). HIV prevalence is 4.2 percent. Transport workers and members of the Armed Forces and Police are also considered high-risk. It has been found that individuals that fall under these groups and their partners account for 40 percent of new HIV infections in Nigeria (<http://www.avert.org/hiv-aids-nigeria.htm>).

Sex is traditionally a very private subject in Nigeria and the discussion of sex with teenagers is often seen as inappropriate. However, successful delivery of sex education to young people is reliant on increasing the participation of these community leaders in the planning and implementation of such programmes. In 2009 only 23 percent of schools were providing life-

skills based HIV education. Only 25 percent of men and women between the ages of 15 and 24 correctly identified ways to prevent sexual transmission of HIV, in 2010.

In some regions of Nigeria girls marry relatively young, often to much older men. Studies have found those who are married at a younger age have less knowledge about HIV and AIDS than unmarried women, and are more likely to believe they are low-risk for becoming infected with HIV. However, the need to improve knowledge about HIV among girls overall (both married and unmarried) remains, as HIV prevention knowledge is significantly less among girls (aged 15-19), compared to boys.

Using a condom is the most effective way for a person to protect themselves from HIV, unless they practice abstinence. However, restrictions on condom promotion in Nigeria have hampered efforts to promote this form of HIV prevention. In 2001, a radio advertisement was suspended by the Advertising Practitioners Council of Nigeria (APCON) for promoting messages suggesting that it is acceptable to engage in premarital sex as long as a condom is used. In 2006 APCON also started to enforce stricter regulations on condom advertisements that might encourage 'indecentcy'.

Nevertheless, in the National Strategic Plan 2010-2012 Nigeria set the target of having 80 percent of sexually active men and women using condoms consistently and correctly with non-regular partners by 2015; indicating a positive change in attitude towards condom use. However, nearly half (42 percent) of HIV infections occur among people considered to be having low-risk sex; those in cohabiting or married partnerships. This is a result of low condom use among regular sexual partners, but when one partner is engaging in high-risk behaviours outside of the relationship. More than 2 billion male condoms and 886,979 female condoms were distributed, both by NGOs and the Federal Ministry of Health, in 2010.

Media campaigns to raise awareness of HIV are a practical way of reaching many people in different regions. Radio campaigns such as the one created by the Society for Family Health are thought to have been successful in increasing knowledge and changing behaviour. "Future Dreams", was a radio serial broadcast in 2001 in nine languages on 42 radio channels. It focused on encouraging consistent condom use, increasing knowledge and increasing skills for condom negotiation in single men and women aged between 18 and 34. In 2005, a campaign was launched in Nigeria in a bid to raise more public awareness of HIV/AIDS. This campaign took advantage of the recent increase in owners of mobile phones and sent text messages with information about HIV/AIDS to 9 million people. Another high profile media campaign is fronted by Femi Kuti, the son of FelaKuti, the famous Afrobeat musician who died of AIDS in 1997. He appears on billboards alongside roads throughout Nigeria with the slogan 'AIDS: No dey show for face', which means you can't tell someone has AIDS by looking at them.

Many sex workers in Nigeria are not being reached by HIV and AIDS prevention programmes and therefore do not have the knowledge about how to protect themselves from HIV and other STDs. Considerably less sex workers were reached with HIV prevention messages in 2011 (26 percent), than in 2009 (80 percent). Whilst consistent condom use has been found to be extremely high among sex workers with their clients, many are not using condoms consistently during sex with partners. A quarter of sex workers were living with HIV in 2011. Nearly all sex workers (89 percent) reported condom use with their most recent client, in 2011.

The government's National HIV/AIDS Strategic Framework for 2005 to 2009 set out to provide ARVs to 80 percent of adults and children with advanced HIV infection and to 80 percent of HIV-positive pregnant women, all by 2010. However, only 31 percent of people who needed treatment for advanced HIV infection received it in 2009. As a result of this slow progress the

With the large amounts of money now being sourced from both international and domestic sources and a government dedicated to increasing prevention measures and treatment access, Nigeria seems set to make a lasting impact on its HIV epidemic.

Importantly, Nigeria must sustain and increase present funding and investment levels, if access to HIV testing and treatment is to reach all Nigerians. Moreover, HIV education and knowledge must be expanded and gender inequality issues addressed to lower current levels of new HIV infections, particularly among young women and children.

Nigeria continues to be home to 10 percent of the global population of people living with HIV, and still has a long way to go in tackling its devastating HIV and AIDS epidemic. In 2011, the Nigerian Health Minister acknowledged the extent of the challenge that Nigeria faces when he stated... The HIV and AIDS epidemic in Nigeria remains a public health problem of enormous magnitude that must be given priority attention(<http://www.avert.org/hiv-aids-nigeria.htm>).

HIV/AIDS women and other vulnerable groups

HIV/AIDS has ravaged the population at large but women and children have been the most vulnerable. The poor health status of women in the developing world, Nigeria inclusive is a reflection of their relatively low societal status and the general poverty in the country.

In generally, women are marginalized not only in decision making in their homes, but in political decision making as well. This problem is carried to the extent that they do not even have a say often times in matters affecting their health. Many of the sex workers, at least in Africa and Nigeria especially are women and adolescent girls, some of which are coerced or at least lured into sex work. Even married women are not better off. Many husbands are involved in high risk sexual behaviour because they often have more than one sexual partner and some even indulge in several cases of casual sex with CSWs and promiscuous ladies.

There is also the issue of age-mixing in which adult males, some of them relatively aged cohabit with teenage girls and pre-adults severally and give gifts or money to these girls as reward for sex.

Another sex of vulnerable groups are child prostitutes who face the same hazards as the professional sex workers but may not likely get treatment and attention from government interventions. There are also student prostitutes and the promiscuous pre-adult who exposes himself or herself to high sex due to his or her lifestyle and this may ultimately make them vectors of the HIV/AIDS plague. Other vulnerable groups are homosexuals, long distance drivers, and military personnel, blood donors, and STI patients. There are also the babies of HIV positive mothers who stand the risk of being infected either as foetus in the womb or from breastfeeding. (HPC Manual, 1995; Saidi et al, 1995)

Sociology of sex work

Sociologists have examined sex work as a form of deviant behaviour, a type of gender relations, and as a distinct occupational sector. The deviance framework is based on the traditional stigmatization of sex work and highlights the ways in which actors are subjected to social control and discriminatory treatment. The other two frameworks are the oppression paradigm and the empowerment paradigm. The oppression paradigm holds that sex work is an expression of patriarchal gender relations. The most prominent exponents of this position go further claiming that exploitation, subjugation, and violence against women are intrinsic to and ineradicable from sex work, transcending historical times, national context, and type of sexual commerce.

Researchers who subscribe to the oppression paradigm use dramatic language to highlight the plight of sex workers, sexual slavery, 'prostituted' women, paid rape, etc. 'Prostituted' clearly indicates that sex work is something done to a woman, not something that has been chosen by a

woman and clients are labeled as prostitute users, batterers and sexual predators. A diametrically opposed perspective is the empowerment paradigm, which focuses on the ways in which sexual commerce qualifies as an occupation and may be potentially empowering for sex workers. This paradigm holds that there is nothing inherent in sex work that would prevent it from being recognized as an occupation involving economic transactions that may actually enhance the sex worker's socioeconomic status just as in any other occupational sector. This perspective tends to emphasize the routine aspects of sex work as if it were some type of service work.

Empowerment theorists tend to highlight aspects of sex work that demonstrate that it can be edifying, lucrative or esteem-enhancing especially where it is not criminalized but legal (Weitzer, 2009).

Defining sex work: While sex work is often equated with prostitution, sex work includes many kinds of work, a variety of commercial exchanges, and involves a wide array of institutions. Sex work scholars refer to sex work as sexual products, sexual services, sexual fantasies and/or sexual contact produced in exchange for financial or material goods. Sex work includes a variety of forms including: pornography, sex chat lines, sexually explicit live internet video, exotic dance, erotic massage and survival sex work (exchanging services for food, clothing, or other goods). Scholars note great diversity in sexual commerce, especially the wide range of individuals, identities and practices involved. Importantly, the study of sexual commerce implicates the doing of sex work, but also the culture, politics, institutions, values and markets that frame and define the intersection of intimacy and markets (Brents, 2010)

Sex Work - Key Facts and Figures

- Over 75% of new HIV infections occur through sexual contact. Factors that increase the rate and efficiency of heterosexual HIV transmission include high rates of sexual partner change and the presence of other sexually transmitted infections (STIs).

- In many countries, sex workers are frequently exposed to HIV and other STIs. HIV prevalence as high as 60-90% are found in some places where sex workers have poor access to HIV prevention services.

- In commercial sex settings where condom use is inconsistent and access to effective STI treatment limited, half to two-thirds of women working as sex workers typically have a curable STI at any one time.

- Only 16% of sex workers are estimated to have access to HIV prevention services.

Regardless of the region, poor access to services correlates with high STI and HIV prevalence.

- Early in epidemics, HIV and STI prevalence frequently rises rapidly among sex workers and their clients, especially where condom use is low and access to health care services poor. In the absence of effective interventions, clients transmit infection both to sex workers and to their regular partners, extending transmission into the general population.

- In the absence of effective interventions, high rates of transmission in commercial sex and drug injecting networks continue to drive HIV epidemics even after HIV has spread more widely in generalized epidemics. (www.who.int/hiv/toolkit/sw)

In contrast to popular thinking, female sex workers are an extremely heterogeneous population. They are situated in a myriad of social and environmental contexts. Past and current studies suggest that there are many different types of female sex workers, including 'call girls' and escorts working in the upper echelons of the sex industry, 'in-house' sex workers working in parlors or brothels, 'street-walkers' who sell sex for money through sidewalk solicitations, part-timers who supplement their incomes with sex-for-pay, and drug-involved street-based sex workers, the majority of whom shift between sex-for-money and sex-for-drug exchanges as circumstances require. At least 20 types of sex work were identified according to worksite, principal mode of soliciting clients, or sexual practices. These types of work are often grouped under the headings of 'direct' and 'indirect' sex work, with the latter group less likely to be perceived or to perceive themselves as sex workers.

	DIRECT SEX WORK
1.	Street: Clients solicited on the street, park or other public places.
2.	Brothel: Premises explicitly dedicated to providing sex.
3.	Escort: Client contacts sex worker by phone or via hotel staff. Most covert form of sex work.
4.	Private: Client contacts sex worker by phone. Similar to escorts except services provided in sex worker's premises.
5.	Window or doorway: Brothels with sex workers on public display.
6.	Club, pub, bar, karaoke bar, dance hall: Clients solicited in alcohol vending venues.
7.	Other all-male venues: Clients solicited in all-male venues such as barbershops or sports venue.
8.	Door knock or hotel: Unattached males are approached in their hotel rooms or boarding houses.
	INDIRECT SEX WORK:
9.	Through various media including noticeboard and newspaper advertisements, 'sex worker catalogues' with mobile phone numbers, the internet via virtual brothels, etc. Services are delivered mostly in brothels and other indoor venues.
10.	Bondage and discipline: sexual fantasy through role play. May involve the inflicting of pain, but genital contact is not routine.
11.	Massage parlour: Premises ostensibly dedicated to providing massage, but a range of sexual services may be provided.
12.	Travelling entertainers: Actors, dancers and others involved in entertainment may also provide sexual services.
13.	Beer girls: Young women hired by major companies to promote and sell products in bars and clubs. Sexual services sold to supplement income.
14.	Street vendors and traders: Ostensibly marketing rural produce or other goods but supplementing income with sexual services.
15.	Opportunistic: A person approached in a social venue may occasionally choose to charge for sexual favours if the client appears wealthy enough.
16.	Individual arrangements: The single mother who may have sex with her landlord in place of rent. 'Kept' women. Concubines, etc.
17.	Swingers clubs: sex clubs employ (undisclosed) sex workers if there is a shortage of female guests.
18.	'Sex for drugs': Women providing fellatio for crack cocaine in crack houses.
19.	Beachboys and gigolos: Men and boys engaged by women ostensibly for social purposes but sex is often involved.
20.	Survival sex: where starvation or other serious deprivation is imminent as in war or famine.

Fig. 1 Types of Sex Work (Source: adapted from: <http://prostitution.procon.org>.)

HIV/AIDS and commercial sex workers

The primary subject of this study, HIV/AIDS and Commercial Sex workers, is defined as a social problem because the cause and solutions of the problem lie outside of the individuals who are the major social actors. Besides, a social problem is a product of social definition – that is, something becomes a problem and becomes a more or less serious problem as it is so defined by the society.

Today, HIV/AIDS is a serious social problem that is said to have devastated the quality of life worldwide. The main vector of the disease is sexual transmission and this is more probable through commercial sex. Commercial sex itself could also be considered a social problem that has defied solutions over time and has become more or less a serious problem with the advent of HIV/AIDS.

Commercial sex workers face the hazard of contracting AIDS and becoming vectors to the population at large. It has been confirmed that CSW (Commercial Sex Workers) not only contract AIDS but also help spread it. Rates of infection are particularly high among CSW and particularly in West Africa which has been identified as a region where the disease is more rampant (Lauer and Lauer, 2002).

Lauer and Lauer (2002:4) quote C. Wright Mills as having made a distinction between a personal problem and a social problem. They said Mills called personal problems “personal troubles of milieu” and refers to social problems as “public issues of social structure”. This indicates that one main distinction between personal and social problem is that of the number of people affected by the problem. No doubt HIV/AIDS is one problem that affects a significant number of people, and so is CSW. AIDS and CSW cannot be regarded as personal problems; they are social problems that are due in part to social attitudes and practices.

Attitudes and behaviours are by definitions social. They are formed and acted in the matrix of people's social relationships. They are also influenced and shaped by norms which are in themselves shared expectations about behaviours. Norms, attitudes and behaviours are social. Peoples' standards of behaviour are not created by them as individuals rather they are social and to the extent that HIV/AIDS and CSW involve norms, attitudes and behaviours, problems related to them are social problems.

Sociologists have developed several theories that explain social problems and most of the theories avoid reducing social problems to personal troubles. There are mainly five typologies of theories used to explain social problems: the social disorganization theory, the value conflict theory, the deviance theories and the social structure theories. Of all these types of theories, one is most appropriate in the context of this discourse: the deviance theories.

The social disorganization theory views society in terms of a 'network of norms' about behaviour and contends that the stability of any society depends on 'consensus' about what is expected of individuals in that society. When consensus breaks down for whatever reasons, the society is said to be in a state of social disorganization and this state signals change. Social disorganization is manifested in such things as poverty, political corruption, vice and crime, though poverty is considered as the most central notion of social disorganization.

The consequences of disorganization are stress for individuals and various problems for the society. In other words, social disorganization leads to social problems (Lauer and Lauer, 2002).

The social change theory assumes that conflicting or rapid rates of change cause social problems. Social change refers to alterations in the patterns of interaction or in such aspects of culture as norms, values, and technology. However, social change does not account for the perpetuation of

a social problem, though it may give insight into how and why a problem has occurred in the society.

On the other hand, some other sociologists identify social problems as the outcome of the conflicting values of different groups in the society which results always in a power struggle. This is the value conflict theory. The social structure theories immersed in Marxist and neo-Marxist theories view social problems as consequences of tensions inherent in the structure of the entire society itself (Lauer and Lauer, 2002).

As earlier mentioned, the most appropriate theoretical explanation for HIV/AIDS and CSW as social problems is situated in the Deviance theories which explain problems as the result of some violations of social norms rather than a general breakdown of networks of norms. The deviance viewpoint assumes that deviant behaviours such as commercial sex reflect social definitions of that which is deviant rather than individual pathology. There are three variations of the sociological view of deviance. Robert Merton's theory of anomie. Edwin Sutherland's theory of differential association and Howard S. Becker's labeling theory. (Clark, 2001; Lauer and Lauer, 2002)

Merton's theory sees social deviance such as commercial sex as a means by which individuals such as CSWs adapt to social contradictions between the ideals of success and good quality of life, and the reality of life such as poverty and unemployment. In other words, people, who could not find legitimate means of achieving success in life, especially as measured by financial wealth, may resort to illegitimate means because they are forced to innovate in order to attain such goals as society expects. Merton's theory assumes that the aspirations for material wellbeing are generally high in most societies and that people pursue similar sets of existential goals, especially those that involve success as measured by financial wherewithal (Clark, 2001).

People adapt to the realities of life in various ways, some conform and others deviate. In this context, CSWs may be regarded as people who have deviated by selling their bodies to gain material wellbeing.

Sutherland's theory of differential association was developed with specific reference to crime. While the theory has been modified over time, the initial formulation argued that criminal behaviour is learned in the process of social interaction, particularly in interaction of the individual with those people with whom he or she has frequent intimate, face-to-face interaction such as parent, spouse, children and close friends. The basic viewpoint of the theory is that people tend to accept those definitions of behaviour that they encounter most often in their primary group interaction, whether the behaviour has been defined by society as legitimate or illegal, notwithstanding. Obviously, this theory establishes social deviance as a learning process that occurs within social interactions. The premise is that social deviance such as commercial sex work may be learned through social interaction with members of an individual's primary group such as friends whose approval is important (Lauer and Lauer, 2002).

The third variation of the deviance theories is the Labeling theory. This theory has a different emphasis from the other deviance theories, although like them, it identifies social problems as violations of the expectations of society. The labeling theory asserts that no behaviour is inherently deviant, rather social deviance comes from definitions based on other people's reactions. The theory is concerned with how a deviant identity is imposed on certain people in certain groups such as CSW, who thereby receive negative treatments and may develop negative self-images.

According to labeling theory, the crucial matter is not the behaviour of the deviant but the reactions of the society at large which labels him or her as such. It is important therefore to note that labeling theory focuses basically on the nature of the societal reaction to the deviant rather than the nature of deviance or the deviant (Clark, 2001; Lauer and Lauer, 2002).

Social problems such as commercial sex work involve multiple causes and so it cannot be discussed within the framework of one single theory rather it is exemplified by several complimentary theories as have been indicated here. Many factors enter into social problems such as commercial sex work and they are found at the individual, the group, the societal and indeed the global levels.

Female CSWs often have 200 – 300 sexual partners per year and are therefore assumed to have much higher rates of exposure to HIV and AIDS than the vast majority of the people.

Commercial Sex Work, the performance of sexual acts solely for the purpose of material gain has been characterized by most sociologists and societies as deviant sexual behaviour. However, deviant sexual behaviour comes in several modes across the world. Many types of sexual deviance are recognized as virtually existing in all societies – incest, abduction, rape, adultery, homosexuality, fetishism, pedophilia, bestiality, necrophilia and so on.

Much sexual deviant behaviour is relative to specific cultures and societies where they exist predominantly, but commercial sex work seems to be universal or near so; though different cultures and societies regulate sexual behaviour and such work in vastly diverse ways. For example, although commercial sex work is abhorred in most societies, it is nevertheless tolerated in most others and it is legally proscribed in some.

In Nigeria, two types of sexual behaviour are generally seen as deviant: sex between an unmarried individual and an excessive number of partners, and sex between a married individual and someone who is not his or her mate. However, these kinds of sexual behaviour are still largely tolerated though abhorred. On the other hand, promiscuity – indiscriminate casual relations with many partners, is not acceptable to most Nigerians, though there seems to be an increasing acceptance of premarital sex which does not really reflect an acceptance of promiscuity. Nigerians generally tend to devalue casual and promiscuous relationships and by the advent of HIV/AIDS there was a more telling reason leading people to avoid promiscuity but it is still uncertain whether the awareness and knowledge of HIV/AIDS is significantly affecting sexual behaviour of the people. So far, despite the widespread dissemination of information, it appears that only a minority of people may have altered their sexual behaviour and a great many Nigerians may still have continued in high-riskbehaviour (Clarke, 2001; IHPC, 1995; MakinwaAdebusoye, 1991a & 1991b; Adesina and Olatunji, 1997).

Extramarital sexual behaviour is also deviant of the norms in Nigeria in spite of the general acceptance of polygamy. Most Nigerian men and women believe that such behaviour is wrong and that it damages the martial relationship but whether these people refrain from the practice is another matter. It is probable that a substantial number of Nigerians engage in extramarital sex, though it is difficult to ascertain how many. Clearly, most Nigerians practice fidelity, though not as many as disapprove of infidelity. Commercial sex work is however in a class of its own as regards sexual behavioural deviance.

It is one deviance that has been condemned throughout human history and throughout most of societies, but continues to survive in every society in spite of all kinds of attempts to completely suppress it. It has been dubbed the oldest profession in the world though the concept of women as property which prevailed in most cultures until the end of 19th century meant that the profits of the profession most often accrued to the men who controlled it.

Commercial sex work has always existed. However, there have been few times and places in which sex workers have been free from persecution, stigma and violence. HIV/AIDS is the most recent issue in the long history of re-occurring moral and practical questions and conflicts raised about sex work. The ancient Romans decided to restrict brothels to special areas as a result of discussions which were remarkably similar to those taking place today in many countries about how sex industry might be appropriately located and controlled.

Men have traditionally been characterized as procurers and customers, but they are increasingly being identified as sex workers themselves. They generally serve male customers and sometimes impersonate women.

CSW may be of either sex, but throughout history, the majority has been women, reflecting both the traditional socioeconomic dependence of women and the tendency to exploit female sexuality. Male sex work may be more established in other parts of the world, especially, the West and America but it is still less well established and accepted in Africa and most especially Nigeria. Although, there have been media reports of male sex work in some parts of northern Nigeria and on a smaller cases in cities such as Lagos and Port Harcourt, this is not the norm rather the female sex worker in its various forms is the norm (The News, 24 May, 1993:48-49; The News, 7 February, 2005:48-50; Tell, September 17, 2001:16-23).

Clarke (2001) defines sex work as the act in which certain individuals (who are mostly females) offer themselves for sexual intercourse (with mostly males) and accepts payment in cash, goods or service as reward. Other definition refers to sex work as paid sexual relations between a woman and her client, the remuneration providing part or the woman's entire livelihood. A sex worker may also be described as a person past puberty that receives money or goods in exchange for sexual services and consciously defines those activities as income generating, whether or not he or she does this on a full time, part time or occasional basis (Lauer and Lauer, 2002; Network of Sex Work Projects Bulletin, June, 1995).

Commercial sex work is the performance of sexual acts solely for the purpose of financial or material gain. People are sex workers when they grant sexual favours to others for money, gifts or other payment and in so doing use their bodies as commodities. In legal terms, the word sex work refers only to those who engage overtly in such sexual economic transactions, usually for a specified sum of money.

The mode of work in sex work is so diverse that conceptualization of sex work and a sex worker are at best varied, and complex and vague. Clarke (2001) identified eight major types of sex workers in Nigeria from the streetwalker to the live-in-lover type, the full time to the part time type, the high class to the subsistence level types.

Lauer and Lauer (2002) say that there are various kinds of sex workers from the street walkers to the high-paid call girls to the brothel workers to the sex workers who use the internet to solicit clients, and some work full-time, while others use sex work to supplement their incomes; some work for some time, while others may quit after some time and even settle into marital life.

By far, the largest chunk of sex workers are probably the ones in the population that are so imperceptibly located within society that they cannot be easily identified and targeted especially through interpersonal interventions. More so as sexuality is still more or less a taboo topic in most African societies and is not freely discussed in public.

Women have usually entered sex work through coercion or under economic stress. In most societies, sex workers have had low social status and a restricted future, because their sexual service was disapproved and considered degrading. A few female sex workers, however, have acquired wealth and power through marriage; one example is the Byzantine empress Theodora, wife of Justinian I.

Sex work exists almost everywhere; in 1985 a revival of the practice was even noted in China, where emphasis on equality between the sexes combined with government repression seemed to have eliminated the profession. The issue of sex work has been partially resolved through decriminalization and tolerance. The U.S. remains one of the few countries with laws against sex work. In other nations, criminal laws seek instead to deal with the social problems of sex work through control of public solicitation and restriction of those who would exploit sex workers. The prevalence of the AIDS virus among sex workers, however, caused renewed concern about the problem in the 1980s (UNAIDS, 2001).

A significant proportion of the sex workers are young adults, majority of whom might have been lured or coerced into it in order to survive the harsh realities of living in a developing economy such as Nigeria.

The total population of sex workers is difficult to estimate in Nigeria because of a dearth of statistics, vital and national. Besides, sex workers are in themselves difficult to access because not all of them operate on the streets or in brothels. There may be a significant percentage of them living within the population without any clear means of identifying and locating them.

The problem of sex work is not only with the sex workers. What about those who use their services? The clients of sex workers are in themselves vectors of HIV/AIDS and again, it is difficult to estimate the population of them. In view of the number of sex workers available, however, and the number of times they have sex each day, it is clear that a substantial male population has sex with them especially, in big cities such as Lagos. Those who patronize sex workers tend to do so over an estimated extended period of time rather than having single encounters. For instance, a study of beer parlour patrons and alcohol use in relation to sexual behaviour in Lagos found that many of the men engaged in sex with CSWs almost every day and also many use several primary and casual sex partners (Lawal, 2002).

In terms of commercial sex work and the quality of life, sex workers typically preferred their professions to options they perceived they have. Many of the sex workers may not have been coerced into the profession but lured by peers and the promise of financial survival and the good life. This is not so much evidence of the quality of life for the sex workers as it is a testimony to the low quality of life endured by the women before they decided to enter sex work. Most of them apparently see sex work as better than other choices open to them. This point underscores the undesirability of those other choices of life open to the sex worker because the quality of life for them has little to be envied; though it may bring financial reward, it degrades the individual dignity.

Studies concerning sex workers almost always indicate that they go into the profession for financial reward. Other advantages they mention included adventure, flexibility of time of work in that it is a form of being self-employed, and learning about themselves and others (Prince, 1986; Igun, 1974).

Whatever the advantages that may be indicated for sex work, there are serious problems with the quality of life. In the first place, sex work contradicts people's value of physical wellbeing as most sex workers face occupational hazards that may leave them with health and physical problems. In the past, sexually transmitted infections have been a prominent problem although this is generally being treated fairly well today but this has also been discovered to correlate strongly or lead to HIV/AIDS.

A different problem is that of violence against the sex workers which may come from pimps, the police and the clients. However, most of the high class sex workers are less likely to face such physical abuse, but this is not the case with streetwalkers and sex workers at the subsistence level.

Sex work has been proven to lead to psychological and emotional problems for the worker. For example, far from achieving sexual fulfillment, the sex worker often becomes virtually asexual with respect to her own sexual functioning. Many sex workers believe their work to be dehumanizing and there is a higher rate of emotional problems among them. Moreover, these problems are built into the role of the sex worker, making escape from the problems difficult. For the sex worker, work seems to be a lesser devil than poverty, but the psychological and emotional quality of life that is inherent in the work may turn out to be dehumanizing and depressingly low (Lauer and Lauer, 2002).

Conceptual framework for the study

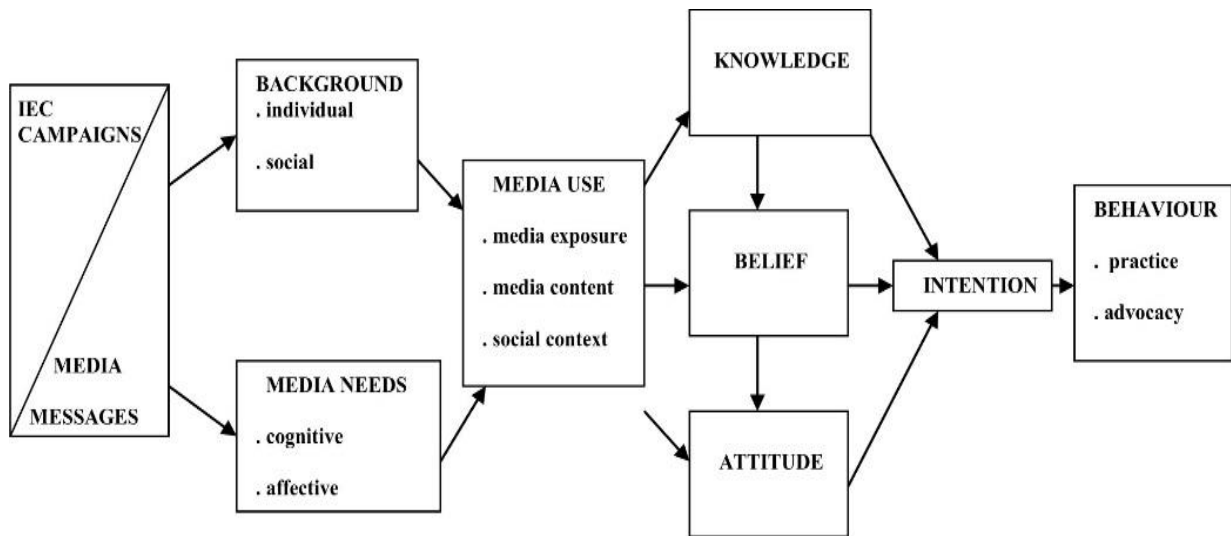


Fig. 2 Conceptual Framework of the study (developed by the researcher)

The conceptual framework for this study is shown in Fig.3. The model shows that IEC campaigns and media messages published concerning HIV/AIDS provide sources of information for the individual who in this case may be a CSW. However, two main factors come into play as the individual acquires HIV/AIDS information – background and media needs. The background factor consists of individual personality, situation and needs and the social dimensions such as cultural, interpersonal and group communication influence.

The media needs of the individual constitute the second factor and this can be cognitive and/or affective. Cognitive refers to knowledge, comprehension, and conviction of HIV/AIDS information whereas affective concerns emotional experience that may accompany the cognitive.

These two factors – background and media needs – lead to motivation to seek and use information regularly and consequently form habits of media use or media behaviour based on continuous media exposure of HIV/AIDS media content and IEC messages as well as the influence of peers, that is, the social context.

This acquisition of information process affects the individual's knowledge, attitude and belief, all of which are antecedents of intention to change, practice life skills related to HIV/AIDS, and intention in turn forms the antecedent of behavioural change. At this point, the individual may start to practice safe sex or other such life skills learned from information acquired and eventually continue with such practice that may then become habits of behaviour. When practice becomes behaviour it may result in advocacy where the individual tells others to change.

Using this conceptual framework, the study investigates knowledge, attitude, beliefs, intention and practice of life skills concerning HIV/AIDS by CSWs.

Theoretical framework

The theoretical framework of the study was developed based upon two theoretical assumptions namely: that individual reasoning provides the impetus for human action and behaviour change and that IEC audience exhibit such information behaviour that is typified by active seeking and using of information and messages garnered from multi-media campaigns (Piotrow, Kincaid, Rimon II & Rhinehart, 1997; Kelly, Parker & Lewis, 2001; Green & Ottoson, 2008). However, this study is based upon the theory of reasoned action and a later version of this framework, the theory of planned behaviour.

In addition, the communication dimension of the study makes it imperative to combine this health behaviour theory with a mass communication theory in order to cover the full scope of the study. The uses and gratification theory best provides the communication theoretical framework.

Uses and gratification theory

What mass communication scholars today refer to as the uses and gratifications theory is generally recognized as an aspect of media effects paradigm (McQuail, 1994). In the early period of uses and gratification research efforts were directed to study the phenomenon that attract and hold audiences to the kinds of media and the types of content that satisfy their social and psychological needs (Cantril, 1942 as cited by Ruggiero, 2000) as well as to discover motives and selection patterns of audiences for the mass media.

Each of these studies formulated a list of uses and gratification served either by some specific content or by the medium itself such as, to match one's wits against others, to get information and advice for daily living, to provide a framework for one's day, to prepare oneself culturally for the demands of upward mobility, or to be reassured about the dignity and usefulness of one's role (Katz, Blumler, & Gurevitch, 1974)

The primary difference between the early uses and gratification research approach and the most current approach is that the early researcher examined mass communication from the perspective of the communicator, whereas the current research perspective focuses on the audience (Windahl, 1981). In the 1980s, researchers began to reinstate the long-held notion of an active audience.

During this time, some researchers started to reiterate that although uses and gratification theory sought to explain the outcomes or consequences of mass communication, it did so by recognizing the potential for audience initiative and activity such that different individuals tend to display different types and amounts of activity in different communication settings and at different times in the communication process.

In support of this, theoretical active audience models have increasingly emerged that range from high audience activity to low levels of involvement (Rubin, 1994). Uses and gratifications emerged as an alternative perspective that could be used to study and understand media effects as a result of more complex processes associated with media impacts.

Uses and gratification is a psychological communication perspective that examines how individuals use the content of the mass media, in this case, IEC and health communication campaign/HIV AIDS interventions. An audience based theoretical framework, it is grounded on the assumption that individuals select and use media contents to fulfill felt needs or wants as part of their informational behavioural change process. These needs are expressed as motives for adapting to media use, and are connected to the social and psychological make-up of the individual. Based on perceived needs, social and psychological characteristics, and media attributes, individuals use media content and experience related informational behavioural gratifications.

The perspective can be used to understand a variety of media uses and consequential gratifications. It assumes a relatively active audience, which consciously selects content and media to satisfy specific informational behavioural needs or desires. The uses and gratification perspective emphasizes that motives, attitudes, and behaviours related to media content exposure and consumption will vary by individual or group. This study is situated within the framework of

the Uses and Gratification theory, which holds that people actively seek out specific media and specific content to generate specific gratifications or results. Researchers in Uses and Gratifications ask the question, what do the audience or receivers do with the media and why? In other words, this theory provides a framework for investigating why individuals choose to use the media they use and the content they select. Much of the work of this theory is based on the research of Jay Blumler and Elihu Katz (1974). Studies have shown that audience gratifications can be derived from at least three distinct sources: media content, exposure to the media per se, and the social context that typifies the situation of exposure to different media (Griffin, 2003; West & Turner, 2004). McQuail (2005) exemplified the process of media use in a model [Fig. 4 below] which depicts the relationship between media use behaviour and the individual's situation and needs and the mass media structure. The value of Uses and Gratification theory is in its ability to provide a framework for the consideration and investigation of the audience.

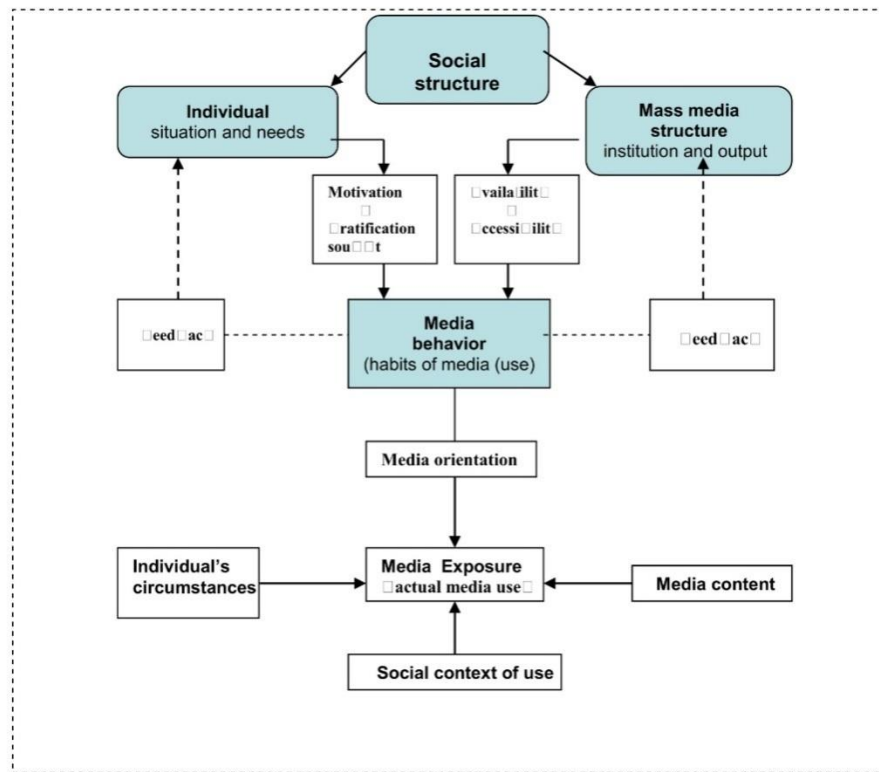


Fig. 3 A structural model of media use (McQuail, 2005: p. 422)

Theory of reasoned action/ planned behaviour

Various theoretical frameworks have been proposed to deal with the psychological processes involved in explaining human behaviour in all its complexities, from concern with physiological processes at one extreme to concentration on social institutions at the other. The theory of planned behaviour is an extension of the theory of reasoned action (Ajzen&Fishbein, 1980; Fishbein&Ajzen, 1975). As in the original theory of reasoned action, a central factor in the theory of planned behaviour is the individual's intention to perform a given behaviour. Intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour.

From a general view, application of the theory of planned behaviour to a particular area of interest, be it problem drinking or condom use provides a host of information that is extremely useful in any attempt to understand these behaviours, or to implement interventions that will be effective in changing them (Ajzen, 1991).

The core assumption of the theory of planned behaviour is that these factors – attitude toward the behaviour, subjective norms, and perceived behavioural control – lead to intention and this in turn leads to behaviour. Perceived behavioural control refers to a person's perception of his or her ability to perform a given behaviour. A general rule is that the more favourable the attitude and the subjective norm, and the greater the perceived control, the stronger should be the person's intention to perform the behaviour in question.

It is important to realize that the behavioural, normative, and control beliefs a person holds about performing a given behaviour are influenced by a wide variety of cultural, personal and situational factors. In addition, the individual may be affected by the physical environment, the social environment, exposure to and acquisition of information, as well as such broad dispositions as values and prejudices. Other aspects of the theory indicate the following:

1. Intention is the immediate antecedents of actual behaviour.
2. Intention, in turn, is determined by attitude toward the behaviour, subjective norm, and perceived behavioural control.
3. These determinants are themselves a function, respectively of underlying behavioural, normative and control beliefs.
4. Behavioural, normative, and control beliefs can vary as a function of a wide range of background factors.
5. Background factors include: information, social and individual factors.

The core assumption of the theory of planned behaviour is that these factors – attitude toward the behaviour, subjective norms, and perceived behavioural control – lead to intention and this in turn leads to behaviour.

Limitations of the theory:

1. Factors such as personality and demographic variables are not taken into consideration.
2. There is much ambiguity regarding how to define perceived behavioural control and this creates measurement problems.
3. Assumption is made that perceived behavioural control predicts actual behavioural control. This may not always be the case.
4. TPB only works when some aspect of the behaviour is not under volitional control.
5. The longer the time interval between behavioural intent and behaviour, the less likely the behaviour will occur.
6. The theory is based on the assumption that human beings are rational and make systematic decisions based on available information. Unconscious motives are not considered.

Review of empirical studies

With the emergence of the AIDS epidemic, commercial sex work has become even more of a social problem than ever before. It is a known fact that people practicing high risk behaviour such as this could contribute significantly to the spread of the dreaded disease. Heterosexual transmission is still regarded as the most dominant mode of the spread of AIDS, and homosexual transmission is still relatively rarer in Africa than, for instance, South-East Asia and Central and South America.

Commercial sex work in this context refers to paid sexual relations between a woman and her client, the remuneration providing a part of or the women's entire livelihood (Lauer & Lauer, 2013).

It should be noted that a certain amount of male version also exists even in Nigeria. In particular, young men who come from impoverished homes may offer themselves as sexual partners to gay or homosexual older men. The young men often consider themselves heterosexuals who are only engaging in the homosexual prostitution temporarily in order to make ends meet. Such sex work exists but it is not yet widespread in most parts of Africa (Lauer & Lauer, 2013). Besides, this study focuses on female commercial sex worker as this is likely to be where most heterosexual transmission of AIDS is prevalent in Nigeria. Existing studies estimate an HIV/AIDS prevalence of between 50 per cent and 70 per cent among CSWs (Bamgbose, 2002; UNDP, 2004; Esu-williams, 2009), compared with a prevalence of 2.3 - 3.8% in the general population (UNAIDS, 2008).

Many authorities on HIV-AIDS seem to affirm the presumption and concern about the potential for commercial sex workers to act as a bridgehead for AIDS to pass into the general population (Forbi, Onyemauwa, Gyar, Oyeleye, Entonu, Agwale, 2008; Imade et al., 2008). For instance, Potts et al (1991) identified the following factors as determining the rate of spread of HIV/AIDS by sexual contact: rate of acquisition of new sexual partners, type and frequency of sexual contact within a partnership, pattern of mixing between groups with various degrees of sexual activity or other high risk behaviour among others.

They also asserted that one of the most important and prevalent routes of the spread of AIDS into the general population in both urban and rural areas of Africa, India and South-east Asia is sexual contact by males with female sex workers who as a result of their occupation, often acquire the disease early in the history of the AIDS epidemic (Potts, Anderson &Boily, 1991).

From the foregoing, commercial sex work is a significant vector of the HIV/AIDS and to that extent and much more it is a social problem, at least, in most parts of Africa. Despite the seemingly widespread dissemination of information about AIDS, many people may not have altered their sexual behaviour; a great many seem to continue in high risk behaviour in spite of several information, education, and communication (IEC) campaigns. There is still some evidence that the prevalence of HIV and other sexually transmitted infections among CSWs have not substantially declined (Forbi&Odetunde, 2007; Oyefara, 2007; UNAIDS, 2008).

It is suggested by Izugbara, (2007) and Oyefara, (2007) that the inability to reduce substantially the prevalence of HIV infection among sex workers is influenced by poverty, high unemployment rate and economic recession in spite of the fact that sex work is illegal. Scholars of sociology of sex work (Forbi&Odetunde, 2007; Oyefara, 2007; and Izugbara, 2007) have identified some economic, sociological and socio-psychological reasons why some women engage in commercial sex work. The economic reasons revolve round the use of sex work to sustain or augment livelihood. In this wise, many sex workers are motivated into the work for financial expediency – the prime motivation is money. Secondly, some see the work as an entrepreneurial endeavour that offers some degree of self-employment.

The sociological reasons center on the pull of rural-urban migration. Many young females are lured by the seeming social opportunities in the cities from the rural areas only to discover that life in the cities is not what it seems. Some of such women are then lured into the work to

survive in the cities. The socio-psychological reasons extend into the other personal reasons the individual decides to work as a sex worker. Some females have been known to become sex workers to gratify their unrestrained sexual urges.

Others have become promiscuous and then become sex workers, owing to their desire to become part of certain social circles of peer groups – such kind are common among female university students (Umar, Adekunle&Bakare, 2001; Lawoyin, 2004; Izugbara, 2007; Akinfeleye, 2008). Akinfeleye (2008) states the highlights of the characteristics of sex work in Nigeria. He included among others that: sex work is mostly an urban social problem. Several individuals from all works of life are involved either on part time or full time basis and it is not a predominantly lower class phenomenon. It is illegal though such Nigerian laws that govern it seem dormant. It does not carry as much of social stigma as in other countries of the world.

Majority of the sex workers are involved on part-time basis and many of them do not even accept that they are practicing commercial sex work per se. Another study categorizes sex work into three major sub-groups: residential or brothel-based, part-time, and call girls (IHPC Manual, 1995). Several scholars have examined the problems of HIV/AIDS and other sexually transmitted infections among sex workers in Nigeria (Umar, Adekunle&Bakare, 2001; Bakare et al., 2002; Lawoyin, 2004 Izugbara, 2007; Forbi et al., 2008; Imade et al., 2008; Akinfeleye, 2008).

Some of the scholars provided epidemiological data in their studies, while others examined the knowledge, attitudes and practices of CSWs towards HIV (Esu-Williams, 2009; Muñoz, Adedimeji, & Alawode, 2010). A few others examined the complex interaction between individual and structural factors, how these shape the context of sex work (Falola, 1984; Orubuloye & Oguntimehin, 1999; Asowa-Omorodion, 2000; Bamgbose, 2002; Izugbara, 2007; Tinuola, 2008; Nelson and Ukonmi, 2010; Eluwa, Strathdee, Adebajo, Ahonsi, Azeez, & Anyanti, 2012).

Falola, T. (1984) found that sex workers viewed their work as a form of business, a survival imperative in the face of poverty, and they generally considered it both risky and disgraceful and were generally willing to grant unprotected sex to clients offering to pay a premium for it.

Orubuloye and Oguntimehin, (1999) and Muñoz, Adedimeji, & Alawode (2010) established that the impact of previous interventions to reduce the risk of HIV infection among CSWs has been limited by personal and structural factors such as, flawed knowledge and fatalistic attitudes; the psychosocial and economic context of sex work; religious beliefs, stigma and risk taking. Asowa-Omorodion (2000) showed the extensive sexual networking of commercial sex workers, the health implications, and the utilization of nonorthodox health services.

Oladosu and Oladipo (2001) in a study of condom use among sex workers in Nigeria, found that CSWs who were exposed to advertisements of "Gold Circle" and "Cool" condom brands were two times as likely to consistently use condoms than those who did not see any advertisements. Sex workers who knew two or more modes of HIV transmission were 44 per cent more likely to use condoms consistently than those who had no such knowledge. Sex workers who worried about contracting HIV were two times more likely to consistently use condoms than those not worried.

They also affirmed that the most important predictor of consistent condom use among CSWs was self-efficacy. In the Nelson and Ukonmi study (2010), findings show that whereas sex workers have a high level of knowledge of HIV/AIDS, this knowledge is hardly translated into action.

They continue to engage in high risk behavior such as multiple sexual partners, which increases their vulnerability to HIV infection and undesirable sexual health outcomes. The sex workers tend to redefine and reconstitute the meanings of risks in ways that increases risks in their work. Muñoz, Adedimeji, and Alawode (2010) examined the factors which contribute to the continued risk of HIV infection in commercial sex work in Nigeria, despite the high level of integrated communication campaigns on its prevention and the practice of safe sex skills, not only among sex workers, but also the general population in Nigeria.

They concluded that psychosocial and economic factors exert enormous influence on the extent of risk-taking among CSWs, including emotional pressures from intimate and stable boyfriends who desire unprotected sex. More importantly, the financial incentives from clients willing to pay 16 times the normal fee for unprotected sex, render the use of condoms in the context of CSWs' circumstances unrealistic.

In another study, Ankomah, Omoregie, Akinyemi, Anyanti, Ladipo, and Adebayo (2011) found that sex workers underestimated their risk of infection and rationalized, defended, or justified their behaviors, a typical psychological response to worry, threat, and anxiety arising from the apparent discrepancies between beliefs and behaviors; and to reduce dissonance, many sex workers had a strong belief in fatalism, predestination, and faith-based invulnerability to HIV infection.

Many believed that one will not die of acquired immune deficiency syndrome if it is not ordained by God. In other words, most sex workers considered risk reduction and in particular condom use as far beyond their control or even unnecessary, as a result of their strong beliefs in fatalism and predestination. Eluwa, Strathdee, Adebajo, Ahonsi, Azeez, & Anyanti, (2012) found that sex workers had a high level of HIV-related stigma.

Edegoh, Asemah and Ude-Akpeh (2013) investigated HIV/AIDS media campaigns and knowledge of high risk factors among sex workers in South-South geo-political zone of Nigeria in order to ascertain whether or not the numerous media campaigns on HIV/AIDS have had positive influence on sex workers' attitude towards the high risk factors of their endeavour.

Findings of the study revealed that sex workers still engage in high risk behaviour. The study, therefore, concludes that media campaigns on HIV/AIDS have not been effective on sex workers. Edegoh et al (2013) situated their study in the agenda setting theory and thus followed the media effects paradigm that focuses on effectiveness from the perspective of media impacts which assumes that the media audience is passive rather than active.

Scheibe et al concluded that the criminalization of sex work; community and service provider stigma; violence; substance use and limited access to health services and prevention commodities contribute to the high HIV burden evident among female sex workers in Africa (Scheibe, Drame, and Shannon, 2012). Eluwa et al (2012) estimated in a study where a total of 2897 and 2963 FSWs were surveyed in 2007 and 2010, respectively that overall HIV prevalence decreased in 2010 compared to 2007. Besides, consistent condom use with boyfriends in the last 12 months was lower in 2010 compared to 2007.

Scorgie et al (2012) systematically reviews the socio-demographics of female sex workers (FSW) in Africa, their occupational contexts and key behavioral risk factors for HIV.

In total 128 relevant articles were synthesized on the patterns and settings of sex work in sub-Saharan Africa, as well as key socio-demographic features of sex workers, including HIV status. They found that FSW commonly have limited economic options, many dependents, marital disruption, and low education. They observed that sex work is not typically based in the large-scale brothels in most of Africa except Nigeria. Overall, bars and other drinking venues, streets and hotels are most commonly identified as places for soliciting clients. Sex sometimes occurs at the site of solicitation, especially if this is outdoors, or it may take place elsewhere, for example, sex may be negotiated in a bar but occur at the sex worker's home.

Their review found substantial variation in the average number of clients per FSW around one client per day, with the remainder having considerably more, as high as a mean 34 clients per week. Only a handful of studies provide data on the size of sex worker populations in sub-Saharan Africa. FSW experience intense stigma, discrimination and consequent social marginalization, which in turn deepen their vulnerability to HIV acquisition, among other health risks. Overall, most sex work in the region takes place within environments that have little or no systematic promotion of safer sex, scant control over clients' behavior

Nagot et al (2002) conducted a socio-anthropologic survey to analyze the prostitution network in the BoboDioulasso city, Burkina Faso in 1998. According to social characteristics, women were classified in six different categories, including four groups of nonprofessional sex workers. The study established an elaborated typology of six kinds of sex workers: seaters, roamers, sellers, cabarets, students, bar waitresses and found that the "seaters" was the most often infected, with an HIV prevalence of 57% (58 of 101 women). Nonprofessional "sellers" and "bar waitresses" were more often infected than professional "roamers," with an HIV prevalence of 37% (24 of 65

women), 40% (27 of 67 women), and 29% (27 of 92 women), respectively, despite a much lower number of clients per week (average of 2.6 clients, 3.3 clients, and 18.6 clients, respectively).

Finally, "students" and "cabarets" (women making and selling local beer in huts) were infected with an HIV prevalence of 15% (9 of 62 women and 9 of 60 women, respectively), which remains higher than the prevalence measured recently in the general female population in the city (6.4%). The study highlighted the high level of vulnerability of nonprofessional sex workers.

Mah and Dibba (2008) conducted an assessment of most-at-risk populations (MARPs) in the Gambia in which five most-at-risk populations were examined: commercial sex workers, including male "Bumsters" and female sex workers, commercial vehicle drivers or truckers, men who have sex with men, fisherfolk, and uniformed personnel. Findings showed that although knowledge of HIV appeared to be high, numerous myths and misconceptions indicated that there was a misunderstanding of the actual modes of transmission and preventative behaviors.

Among most MARPs, correct and consistent condom use was not widespread and multiple partners, particularly those outside of marriage, were more common than in the general population. Several other most-at-risk populations were identified in this assessment, including tailors, taxi drivers and prisoners.

Ankomah, et al (2011) carried out a study based on 24 focus group discussions held among brothel-based sex workers in four geographically and culturally dispersed cities in Nigeria, and found that sex workers underestimated their risk of infection and rationalized, defended, or justified their behaviors. Many believed that one will not die of acquired immune deficiency syndrome if it is not ordained by God. From these findings, most sex workers considered risk reduction and in particular condom use as far beyond their control or even unnecessary, as a result of their strong beliefs in fatalism and predestination.

Obioha (2008) adopting combined anthropological research techniques, namely key informant interview, written records and non-participant observations in Taraba state, Nigeria found among other that the summary of risk behaviours include permissive sex, lack of commitment to marriage institution by many, polygamy, unscreened blood transfusion and quack medical practice, and diverse categories of risk groups identified are the CSWS, truck drivers, youths and traders.

Sekoni et al (2013), in a study, sought to assess the prevalence, knowledge and treatment practices of sexually transmitted infections among brothel based female sex workers and found that more than half of the respondents had poor knowledge of symptoms of sexually transmitted infections and that about half of those with sexually transmitted infections sought treatment in a hospital or health centre while some from a patent medicine vendor. They also found that the knowledge of sexually transmitted infections among these female sex workers is poor and the prevalence is relatively high.

With this background, this study fills a gap in knowledge by examining the effectiveness of HIV/AIDS campaigns from the perspective of an audience such as the CSWs as active health information seekers and users. It also looked at the effectiveness of IEC campaigns on HIV/AIDS through the paradigm of the uses and gratification theory.

Thus, the study interrogates the usefulness of the theory as a conceptual framework to identify what defines HIV/AIDS information problems, motivations, and information seeking and utilizing behavior of CSWs. The study also examines informational behaviour of CSWs such as acquisition, integration and utilization of HIV/AIDS messages garnered from health communication interventions.

CHAPTER THREE

RESEARCH METHODOLOGY

Research method

The study is aimed at one of the ‘vector groups’, the commercial sex workers (CSWs), and how this group acquires, processes, and uses information from the several campaigns on HIV/AIDS in Lagos State, Nigeria. The study explores the application of uses and gratification theory to HIV/AIDS information acquisition by CSWs. The research problem is that CSWs being a “hidden population” are not only at a high risk of HIV/AIDS but are vectors due to several sexual partners, and may not practice safe sex despite their perception of high risk from exposure to several HIV/AIDS campaigns.

Population of the study comprises of all CSWs in the 20 local governments in Lagos state. Fifteen local governments representing 75% were randomly selected through random table techniques. Using the brothels in the sampled local government as a unit of sampling, 70 brothels were identified of which 40 were randomly selected. Fifteen CSWs were conveniently selected from each of the 40 brothels constituting the sample size of 600 CSWs. The study employed a triangulation methodology that includes survey, focus group discussions (FGDs) and in-depth interviews (IDIs). The survey elicited responses from six hundred commercial sex workers all of whom are brothel-based. Forty eight CSWs (eight FGD sessions consisting of six CSWs per session) further participated in the FGD sessions. Furthermore, another 48 CSWs from the 600 sample size were further subjected to IDIs. Data analysis for the survey was done using the SPSS package 15th version and the FGDs as well as the IDIs transcripts were qualitatively analyzed.

Research design

The research design included: survey and focus group discussions and in-depth interviews which were also the data collection methods. Sampling method was multi-stage sampling. Fifteen local governments representing 75% were randomly selected through table of random numbers from the 20 in Lagos State. To develop a sampling method suitable for a “hidden” population such as CSWs where there is no reliable or suitable sampling frame readily available, the researcher had to create one. Enumerators, having been trained by the researcher, were sent into the local government areas to identify brothels and hotels where CSWs could be found regularly. From the foregoing enumeration, seventy (70) brothels and hotels were identified and listed. Using the brothels in the sampled local government as a unit of sampling, 70 brothels were identified of which 40 were randomly selected. Fifteen CSWs were conveniently selected, using the snowball technique, from each of the 40 brothels constituting the sample size of 600 CSWs. The survey elicited responses from six hundred commercial sex workers. Forty eight CSWs (eight FGD sessions consisting of six CSWs per session) further participated in the FGD sessions. Furthermore, another 48 CSWs from the 600 sample size were further subjected to IDIs. A pilot study of the research work was carried before the main study to enable the researcher become familiar with the research procedures, instruments and data collection methods. The pilot study took place at four brothels in Alimosho, Apapa/Iganmu, Shomolu and ‘Empire’ in Surulere. Study also used FGDs and IDIs. The eight focus group discussions (FGDs) were conducted in the brothels – Ashawo Complex, Ojo; Rita Lori, Surulere; Mayson Hotel, Oshodi; Mississippi Hotel, Ikorodu; Alanbil Hotel, Badagry; Pilot Hotel, Ajegunle; Page Hotel, Ikeja; and Hotel Belissimo, Epe. All the CSWs used in the focus groups were offered ‘co-operation fees’ to capture their interest and to help compensate for peripheral costs in attending interviews.

Forty in-depth interviews were carried out across the forty brothels selected such that one interview per brothel was concluded. The research instrument for the survey was adapted from the theory of planned behaviour (TPB) questionnaires already developed and used in previous similar studies (Fishbein, and Ajzen, 1975). The various components and sections of the questionnaire were developed from previously tested instruments (Fishbein and Ajzen, 1980). Also, discussion guides and interview schedules were developed from the questionnaire and the pilot study. Furthermore, validity of research instruments was confirmed as the results obtained from the survey and the in depth interview in the pilot study were similar.

Population of study

The study population is female sex workers in Lagos State, Nigeria, who may be categorized into different commercial sex worker types on the basis of the occupational context of the job.

Clarke (2001) identified eight types of sex workers in Nigeria – the street walker, the brothel resident, the home resident, the quartered part time lover, the alienated, the criminal-world type, the professional call girl, and the city-girl, single, part time lover.

Similarly, Goldstein (1979) identified four types – the street walker who solicits on the street, the call-girl who solicits over the phone, the house prostitute who solicits in a brothel and the massage-parlour prostitute who provides services in a club offering massage and other health-related facilities.

Oyefara (2007) opines that there are three types – house CSW, street walkers and corporate CSW. This study focused on the category of CSWs referred to as either house prostitute (Goldstein, 1979) or as brothel residents (Clarke, 2001). These are CSWs who work in brothels and consistently derived their main income and livelihood from the work.

Study location

The study location spreads across Lagos State covering thirty local council development areas that were randomly selected from the fifty seven listed by the Lagos State Independent Electoral Commission (LASIEC).

The thirty local government councils/development areas randomly selected were; Agbado/Oke-Odo, Agboyi/Ketu, Agege, Alimosho, Amuwo-Odofin, Apapa, Apapa/Iganmu, Ayobo-Ipaja, Badagry, Bariga, Egbe-Idimu, Epe, Iba, Ifako, Ijaiye, Igando, Ikeja, Ikorodu, Ikoyi/Obalende, Isolo, Itire-Ikate, Lagos Island, Mushin, Ojo, Ojodu, Ojokoro, Onigbongbo, Oshodi-Isolo, Shomolu, Surulere and Yaba.

Sampling technique

Purposive sampling technique using the snowball type was used across the forty brothels such that fifteen CSWs each were interviewed, a total of six hundred questionnaires being returned for further analysis. After initial screening, only five hundred and seventy six were found useful for coding and data entry into computer and statistical analysis and manipulations. Thus, five hundred and seventy six respondents constitute the total sample used in the analysis of quantitative data in the study.

The research team consisted of twenty trained final year students of the researcher who were able to interview the CSWs during their off peak time of the day, usually in the early afternoon.

The research team approached each brothel and the sex workers therein through the proprietors and some of the leaders of the CSWs and the interviews were conducted through self-administered questionnaires especially to the literate sex workers. Where the respondents could not read and write, the trained interviewers were able to interpret and record their answers.

In addition to the quantitative data, a qualitative method of focus group and in-depth interviews were also used in the study.

The focus group and in-depth interviews allowed the study to capture subjective comments, feelings, perceptions and motivations from the sex workers, further interpreting the quantitative data from the survey. The focus group and in-depth interviews also enabled further probing and insightful examination of the acquisition and processing of HIV/AIDS information by the sex workers.

The focus group members were selected based on a sampling of the forty brothels from which eight were selected and a focus group of six CSWs from the eight sampled brothels formed the focus group members.

A total of eight groups consisting of six respondents each resulting in forty eight CSWs being conducted within four groups formed the focus group interview design.

The eight focus groups were conducted in their natural settings, that is, in brothels and the discussions were audio taped providing qualitative transcribed data.

More ground was covered within the duration of each of the fgi since only six participants were used. This also allowed greater detail with more in-depth probing on topics of discussion. There was more time to work with each group and discuss their opinions.

The smaller group of the fgi's also offered a better avenue to discuss what would otherwise have been sensitive issues if a fuller focus group had been used.

All the CSWs used in the focus groups were offered 'cooperation fee' to capture their interest and to help compensate for peripheral costs in attending interviews.

The researcher served as the moderator in each focus group and the discussions were conducted using a focus group discussion guide.

An assistant moderator who is a graduate assistant in the researcher's department and another student who is a working journalist were also employed and trained to observe and take notes.

The main rationale for using the six-participant type of focus group is that as a general rule of thumb, studies covering extremely technical or emotional subjects such as the study examined are more successful when fewer participants are involved in the focus group discussion.

Research instruments

The research instrument for this study was adapted from the theory of planned behaviour (TPB) questionnaires already developed and used in previous studies. The various components and sections of the questionnaire were developed from previously tested instruments. In addition, the study also developed and used focus group discussion guides and in-depth interview guides. Both of which were pretested (Fishbein, and Ajzen, 1975; Adler and Clark, 2003; Salkind, 2006; and Wimmer and Dominick, 2000)

Data analysis

Data analysis of the survey was done using the SPSS package 15th version. After initial screening, only five hundred and seventy six (576) questionnaires were found useful for coding and data entry into computer and statistical analysis and manipulations.

CHAPTER FOUR

DATA PRESENTATION

This chapter presents the study's data that were gathered, its analysis, interpretation and the discussion of findings through the data. The study surveyed 600 respondents who are casual sex workers in selected local government and local council development areas (LGA/LCDA) in Lagos State. The selected LGAs/LCDAs are Agbado/Oke-Odo, Agboyi/Ketu, Agege, Alimosho, Amuwo-Odofin, Apapa, Apapa/Iganmu, Ayobo-Ipaja, Badagry, Egbe-Idimu, Epe, Iba, Ifako, Ijaiye, Igando, Ikeja, Ikorodu, Ikoyi/Obalende, Isolo, Itire-Ikate, Lagos Island, Mushin, Ojo, Ojodu, Ojokoro, Onigbongbo, Oshodi-Isolo, Shomolu, Surulere and Yaba. However, out of the 600 questionnaires administered, 576 were suitable for analysis, giving a return rate of 96%.

Data presentation

Therefore, the data presented below is based on the 576 questionnaires that were returned. In line with its design, analysis of the data begins with the preliminary data, which comprises the demographic characteristics of the respondents as presented below in section one.

Demographic characteristics of the respondents

Table 1: Academic attainment of the respondents

Academic attainment	Percentage
Primary	18.9
Secondary	63.9
Post-secondary	9.1
No formal education	8.1
Total	100%
n	576

In table 1, the academic attainment of the respondents is presented. The table shows that 18.9% of them obtained just primary education; 63.9% of them possessed secondary school certificate; 9.1% of them had post-secondary school education while the remaining 8.1% had no formal education.

Table 2: Literacy level of respondents

Literacy level	Percentage
Can read and write in English	57.7
Can read and write	27.5
Cannot read and write at all in native language	14.8
Total	100%
n	576

Concerning the literacy level of respondents, table 2 shows that 57.7% of them said they can read and write in English language, 27.5% indicated they can read and write while 14.8% admitted they cannot read and write at all in native language.

Table 3: Age of the respondents by next birthday

Age	Percentage
Below 20 years	8.8
21-29	77.5
30-39	13.0
Above 40 years	0.7
Total	100%
n	576

Table 3, shows that 8.8% of them are below 20 years, 77.5% are between the ages of 21 and 29 years; 13.0% are aged 30 to 39 and 0.7% of them say they would be more than 40 years by their next birthday.

Most of the CSWs represented in the study have secondary school level education (about 60%), this is followed by those who have primary school education (about 20%) and those who have post-secondary education are rather fewer (about 10%) whereas much fewer CSWs do not have formal education. The age range of CSWs indicate that most are between 21 to 29 years (77%), about 13% are between 30 to 39 years, fewer sex workers are below twenty years (9%) so are those above forty years (1%). The total number of respondents was 576. The demographic characteristic variables are, age and level of education.

Following below in the tables are the findings of the study as related to the research questions raised.

Research Question 1: How much knowledge of HIV/AIDS do CSW have?

Table 4: What is the most common way of contracting HIV infection?

Response	Percentage
Sexual intercourse	63.9
Sharing sharp objects	20.5
Blood transfusion	15.6
Total	100%
n	576

In table 4, the commercial sex workers demonstrate their knowledge and awareness level when they were asked, “What is the most common way of contracting HIV infection?” In their response, 63.9% of them said the most common way of contracting HIV infection is through sexual intercourse; 20.5% of them said it is through the sharing of sharp objects and the remaining 15.6% said it is through blood transfusion. The data shows that there is awareness of HIV/AIDS by the CSWs.

Table 5: Where did you receive most of your HIV/AIDS information?

Response	Percentage
Newspaper/magazine	6.9
Television	52.4
Radio	25.3
Friends/colleagues	15.3
Total	100%
n	576

Table 5 contains response concerning the communication channel where the commercial sex workers receive their HIV/AIDS information most. The table shows that 6.9% of the sex workers said they receive most their HIV/AIDS information through newspaper/magazine; 52.4% said they receive most through television, 25.3% said it is through radio while 15.3% said it is through their friends and colleagues. Again, this is a demonstration of people who are knowledgeable about the issues of HIV/AIDS. The pattern of exposure continues in table 6.

Table 6: Within the last two months, how many times would you say you have heard or seen something about HIV/AIDS in the media?

Response	Percentage
Never	7.3
Once/twice	18.1
Many times	63.9
I don't know	10.8
Total	100%
n	576

In table 6, the commercial sex workers gave a hint regarding the number of times they had heard or seen something about HIV/AIDS in the media within the last two months. In their response, 7.3% said they had never heard or seen anything about HIV/AIDS in the media within the past two months, 18.1% said they had heard or seen it once/twice, 63.9% said they had heard or seen it many times now while 10.8% said “I don't know” to the question. Their knowledge is also tested in table seven to show how much they know prevention method against the disease.

Table 7: Age of CSWs and their knowledge of HIV/AIDS information

Knowledge	Below 20years	21-29 years	30-39 years	Above 40 years
Sexual intercourse	60.0% (33)	60.6% (265)	89.2% (53)	50% (12)
Sharing unsterilized sharp objects	24.0% (13)	22.6% (99)	2.7% (2)	0
Blood transfusion	16.0% (9)	16.7% (73)	8.1% (5)	50% (12)
Total %	100	100	100	100
n	55	437	60	24

$X^2 = 0.029$ $df = 6$ $n = 576$ $X^2 = 0.029 \leq 0.5$ confidence level

Most CSWs in the study (Table 7) were young adults between 21 and 29 years old (78%) and 61% of them showed evidence of good knowledge of HIV/AIDS information and messages, linking HIV/AIDS to sexual intercourse whereas those few CSWs above 40 years (50%) seemed less knowledgeable.

Table 8: Knowledge of prevention of HIV/AIDS infection

Knowledge	Primary	Secondary	Post-secondary	No formal Education
Asking my clients to use condom	59.3	86.7	92.3	78.3
Asking my clients to withdraw before ejaculation	25.9	4.4	3.8	13
Using female condom myself	14.8	8.8	3.8	8.7
Total %	100	100	100	100
n	108	364	52	52

Then the commercial sex workers were asked, as a way of testing their knowledge further, how they could prevent HIV/AIDS infection and in their response in table 8, 92% of the post-secondary educated CSWs said they usually asked their client to use condom, however 13% of them especially those with no formal education and primary education said they could prevent HIV/AIDS by asking their client to withdraw before ejaculation, thus exhibiting some ignorance of prevention and 9% of CSWs said they used female condom, which does not seem to be popular yet although respondents with primary education had impressive usage.

Table 9: Conviction of HIV/AIDS cure

Conviction	Primary	Secondary	Post-secondary	No formal Education
Yes	59.3	33	57.7	8.7
No	40.7	67	42.3	91.3
Total %	100	100	100	100
n	108	364	52	52

In table 9, the belief of the commercial sex workers on the possibility of curing HIV/AIDS is presented and it reveals that while 59% of them are convinced that the disease can be cured, 40% others believed the disease cannot be cured. For instance, about 59% of primary and 58% of post- secondary level educated CSWs are convinced that HIV/AIDS can be cured. Interestingly, most (91%) of CSWs without formal education are convinced there is no cure for HIV/AIDS. The more educated the CSWs, the more, it seemed, the conviction of cure except for secondary educated respondents.

Table 10: Education as a factor for knowledge acquisition and understanding

Knowledge	Primary	Secondary	Post-secondary	No formal Education
Sexual intercourse	38.9	70.9	38.5	100
Sharing sharp objects	53.7	11.5	26.9	0
Blood transfusion	7.4	17.6	34	0
Total %	100	100	100	100
n	108	364	52	52

$X^2 = 0.029$ $df = 6$ $n = 576$ $X^2 = 0.029 \leq 0.5$ confidence level

In table 10, the role of formal education in the understanding, and knowledge acquisition of respondents is shown. As the table indicates, formal education did not play any role whether in the understanding, or knowledge acquisition. Both CSWs who acquired formal education and those who did not, had more or less the same level of knowledge and understanding. The data in the table show that about half of the CSW who went to only primary school (53.7%) consider sharing sharp objects with someone who is HIV/AIDS positive will give such person the disease. But the situation changed with those who acquired secondary education among the CSWs as about 7 in 10 of them showed that it is through unprotected sexual intercourse that someone can contract the disease (70.9%) while all the CSWs who never acquired any formal education (100%) mentioned unprotected sexual intercourse. What this translates to is that the knowledge, acquisition and understanding of the respondents are not determined by their education.

Research Question 2: How have CSWs processed and applied HIV/AIDS information?

Table 11: When the topic of HIV/AIDS comes up, I always try to learn more about it

Response	Percentage
Yes	80.2
No	16.0
I don't know	3.8
Total	100%
n	576

The responses captured in table 11 is such that 80.2% of the respondents said whenever the topic of HIV/AIDS came up, they always tried to learn more about it and 16.0% said no, they did not learn from the topic while 3.8% said they did not know what they did in time like that.

Table 12: When I encounter information about the issue of HIV/AIDS, I am likely to stop and carefully think about it

Response	Percentage
Yes	80.6
No	11.9
I don't know	7.6
Total	100%
n	576

Table 12 above contains response concerning how the respondents are likely to behave when they encounter issues of HIV/AIDS. The shows that 80.6% of them said they were likely to stop and think about it, 11.9% said no while 7.6% said they did not know how they were likely to behave in time like that. Furthermore, the study tries to evaluate the disposition of the commercial sex workers towards HIV/AIDS and IEC campaigns to establish the dynamics of relationship that exists. This is captured in tables 13 to 21 below.

Table 13: I have often thought about what actions I myself might take based on what I have heard or read about HIV/AIDS

Response	Percentage
Yes	69.0
No	12.3
I don't know	18.8
Total	100%
n	576

Table 13 above contains response to the statement ‘I have often thought about what actions I myself might take based on what I have heard or read about HIV/AIDS’. The table indicates that 69.0% said yes to the statement, 12.3% however said no while 18.8% said did not know what to say.

Table 14: I have often found myself relating what I have in the media concerning HIV/AIDS with what my peers tell me about it

Response	Percentage
Yes	69.0
No	23.0
I don't know	8.0
Total	100%
n	576

In table 14, response to the statement “I have often found myself relating what I have in the media concerning HIV/AIDS with what my peers tell me about it” and 69.0% agreed by saying yes, 23.0% disagreed by saying no while 8.0% of them did not know what to say.

Table 15: I am not interested in details, it is sufficient to get general idea on HIV/AIDS issue

Response	Percentage
Yes	70.5
No	20.9
I don't know	8.6
Total	100%
n	576

Table 15 indicates that those commercial sex workers who said yes to the statement “I am not interested in details, it is sufficient to get general idea on HIV/AIDS issue” are 70.5%, those who said no are 20.9% and those who said “I don't know” to the statement are 8.6%.

Table 16: The information I have at this time meets all my needs for knowing about HIV/AIDS

Response	Percentage
Yes	65.0
No	20.6
I don't know	14.4
Total	100%
n	576

In table 16, the respondents responded to the statement “the information I have at this time meets all my needs for knowing about HIV/AIDS” in a way that 65.0% said yes, 20.6% said no while 14.4% said did not know what to say to the statement.

Table 17: If I need to act on this HIV/AIDS matter, the advice in the media is enough for me

Response	Percentage
Yes	54.0
No	36.0
I don't know	10.1
Total	100%
n	576

Table 17 shows how the commercial sex workers responded to the statement “if I need to act on this HIV/AIDS matter, the advice in the media is enough for me”. Their response is such that 54.0% said yes to the statement but 36.0% of them said no while 10.1% said did not know what to say.

Table 18: I often talk with my friends about what I have learnt about HIV/AIDS in the media to see what they think

Response	Percentage
Yes	76.6
No	20.9
I don't know	2.5
Total	100%
n	576

Table 18 presents what the commercial sex workers do upon learning about HIV/AIDS in the media and when the statement “I often talk with my friends about what I have learnt about HIV/AIDS in the media to see what they think” was put to them, 76.6% of them said yes to it, 20.9% said no while 2.5% said “I don't know” to the statement.

Table 19: Often, when I have learnt something new about HIV/AIDS, I recall it later and think about it

Response	Percentage
Yes	80.6
No	16.2
I don't know	3.2
Total	100%
n	576

Table 19 presents how the commercial sex workers behave after learning something new about HIV/AIDS. In the table, 80.6% of the commercial sex workers said “often, when I have learnt something new about HIV/AIDS, I recall it later and think about it” and 16.2% of them said no to the statement while 3.2% said “I don't know”.

Table 20: I tried to think of the practical applications of what I read/heard about HIV/AIDS

Response	Percentage
Yes	74.1
No	12.6
I don't know	13.3
Total	100%
n	576

In table 20, the respondents were asked of what they do after reading or hearing about HIV/AIDS in the media and 74.1% said yes, “I tried to think of the practical applications of what I read/heard about HIV/AIDS”, 12.6% said no while 13.3% did not know what to say after reading or hearing about the disease.

Table 21: I tried to relate the ideas about HIV/AIDS in media stories to my own past experience

Response	Percentage
Yes	71.3
No	20.3
I don't know	8.3
Total	100%
n	576

Table 21 contains response to the statement “I tried to relate the ideas about HIV/AIDS in media stories to my own past experience”. The response shows that 71.3% said yes to the statement, 20.3% said no while 8.3% did not know what to say regarding the statement.

Table 22: CSWs discussion about HIV/AIDS media messages

Response	Primary	Secondary	Post-secondary	No formal education
Yes	76.5	85.8	84.6	43.5
No	15.7	5.7	11.5	52.2
I don't know	7.8	8.5	3.8	4.3
Total %	100	100	100	100
n	108	364	52	52

Most CSWs with the exception of those with no formal education indicated that they discussed about HIV/AIDS media messages, an exemplification of the application of uses and gratification by the CSWs (Table 22).

Table 23: CSWs likelihood of learning more of HIV/AIDS after contact with media information

Conviction	Primary	Secondary	Post-secondary	No formal education
Yes	72.2	83.5	96.2	56.5
No	20.4	14.3	0	34.8
I don't know	7.4	2.2	3.8	8.7
Total %	100	100	100	100
n	108	364	52	52

Table 23 indicates that most CSWs always tried to learn more about HIV/AIDS whenever they come in contact with HIV/AIDS information, and only few of them said they did not learn more about the topic, except for CSWs with no formal education 35% of whom said they did not learn

more. The more educated CSWs seemed motivated to learn more about HIV/AIDS whenever they come in contact with HIV/AIDS information.

Table 24: CSWs likelihood of thinking more of HIV/AIDS after exposure to media information

Response	Primary	Secondary	Post-secondary	No formal education
Yes	76.5	85.8	84.6	43.5
No	15.7	5.7	11.5	52.2
I don't know	7.8	8.5	3.8	4.3
Total %	100	100	100	100
n	108	364	52	52

$$X^2 = 0.000 \quad df = 6 \quad n = 576$$

$$X^2 = 0.000 \leq 0.5 \text{ confidence level}$$

Table 24 above contains responses concerning how the respondents are likely to behave, process, integrate, elaborate and apply information about HIV/AIDS. The table shows that between 70 to 80% of CSWs who had some form of education said they were likely to stop and think more about HIV/AIDS after seeing media messages, 11 to 15% said they would do nothing while 4 to 8% did not know. However, CSWs who did not have formal education (52%) were less likely to think more about HIV/AIDS even after exposure to media messages. In other words level of education influences respondents' processing of HIV/AIDS information after exposure to media messages.

From the above findings, therefore, it is established that while majority of CSWs processed HIV/AIDS information they came across, exposure and attainment of certain level of formal education was a factor in the processing, integration and application of HIV/AIDS information.

Research Question 3: How have CSWs disseminated HIV/AIDS information provided by IEC campaigns?

Furthermore, the study examined the third research question on the process by which the CSWs disseminate HIV/AIDS information provided by IEC campaigns.

Table 25: I believe so much in making sure that my sexual partner wears condom before and during sex on a regular basis that I now persuade my co-CSWs to do the same

Response	Percentage
Not at all	6.3
Seldom	7.7
Once in a while	4.2
Neutral	4.9
Few times	3.9
Many times	24.2
Very much	48.8
Total	100%
n	576

Table 25 contains the response regarding the statement “I believe so much in making sure that my sexual partner wears condom before and during sex on a regular basis that I now persuade

my co-CSWs to do the same”. The respondents who said not at all to the statement are 6.3%, those who said seldom are 7.7%, once in a while are 4.2% while those who were indifferent to the statement are 4.9%. But those who said few times are 3.9%, many times are 24.2% and 48.8% of them said very much.

Table 26: Relating of HIV/AIDS messages from the mass media to what peers say

Response	Primary	Secondary	Post-secondary	No formal education
Yes	68	72.3	92.3	21.7
No	20	19.7	3.8	73.9
I don't know	12	8.1	3.8	4.3
Total %	100	100	100	100
n	108	364	52	52

In table 26, most CSWs (between 68 to 92%) relate HIV/AIDS messages they had been exposed to with what others had told them indicating active rather than passive audience informational behaviour. The more educated the respondents, the more likely they would relate HIV/AIDS messages they have gathered from the mass media to what their peers tell them. This indicates that most CSWs were active in their informational behaviour, most especially the more educated ones.

Table 27: Dissemination of HIV/AIDS information through interpersonal sources

Response	Primary	Secondary	Post-secondary	No formal education
Yes	82.4	81.3	61.5	47.8
No	15.7	16.5	34.6	52.2
I don't know	2.0	2.3	3.8	0
Total %	100	100	100	100
n	108	364	52	52

Table 27 presents what the CSWs do upon learning about HIV/AIDS in the media and when the statement “I often talk with my friends about what I have learnt about HIV/AIDS in the media to see what they think” was put to them, 76.6% of them said yes to it, 20.9% said no while 2.5% said “I don't know” to the statement. Most CSWs discussed and debated HIV/AIDS messages, although those with no formal education seemed to shy away from further discussion or debate.

Table 28: Education as factor for dissemination of HIV/AIDS information

Information Dissemination	Primary	Secondary	Post-secondary	No formal education
Yes	68	72.3	92.3	21.7
No	20	19.7	3.8	73.9
I don't know	12	8.1	3.8	4.3
Total %	100	100	100	100
n	98	346	52	80

$\chi^2 = 0.000$ $df = 4$ $n = 576$ $\chi^2 = 0.000 \leq 0.5$ confidence level

Table 28 above presents the relation between formal education attained by the CSWs and the process of dissemination of HIV/AIDS information provided by IEC campaigns. The essence of this table is to examine whether the formal education qualification of the CSWs will influence the way they process HIV/AIDS information exposed through campaigns from IEC. As the table shows, formal education played a major role in the dissemination of HIV/AIDS information provided by IEC campaign. This is because only about 2 in 10 CSWs (21.7%) with no formal education disseminated HIV/AIDS information while it increased as CSWs moved up in education. For instance, those with primary education (68%), secondary school (72.3%) and post-secondary school (92.3%) disseminated HIV/AIDS information provided by IEC. Thus, the CSWs who are educated tend to disseminate HIV/AIDS information as they were provided by IEC campaign.

Research Question 4: What are the attitude and practice of life skills and safe-sex of CWSs?

Table 29: For me, to make sure that my sexual partner wears condom or any such protection before and during sex is...

Response	Percentage
Extremely difficult	6.3
Very difficult	5.9
Difficult	5.9
Neutral	10.1
Easy	2.4
Very easy	13.6
Extremely easy	55.6
Total	100%
n	576

In table 29, the respondents give an idea of how difficult or easy is it for them to practice safe sex with their client and 55.6% of them said for them, to make sure that their sex partner wears condom or any of such protection before and during sex was extremely easy to do, 13.6% said it was very easy, 2.4% said it was an easy thing to do and 10.1% are indifferent. But 5.9% said it

was difficult, the same percentage said it was very difficult while 6.3% said it was an extremely difficult thing to do.

Table 30: Whether or not, I make sure that my sexual partner wears condom or any of such protection before and during sex is completely up to me

Response	Percentage
Strongly agree	60.7
Fairly agree	7.7
Agree	5.6
Neutral	9.1
Disagree	1.4
Fairly disagree	9.5
Strongly disagree	6.0
Total	100%
n	576

Table 30 contains the level of agreement or otherwise of the respondents regarding the statement “whether or not, I make sure that my sexual partner wears condom or any of such protection before and during sex is completely up to me”. To this end, 60.7% of the respondents said they strongly agreed, 7.7% said they fairly agreed, 5.6% agreed while 9.1% were indifferent. Also, 1.4% disagreed with the statement, 9.5% fairly disagreed while 6.0% strongly disagreed.

Table 31: Most of the CSWs with whom I am acquainted make sure that their sexual partner wears condom before and during sex, on a regular basis

Response	Percentage
Definitely true	40.4
Fairly true	9.3
True	9.3
Neutral	13.9
False	3.9
Fairly false	10.4
Definitely false	12.9
Total	100%
n	576

Table 31 contains the last statement that completes research question 4. The statement contained in the table is “most of the CSWs with whom I am acquainted make sure that their sexual partner wears condom before and during sex, on a regular basis” and 40.4% said this was definitely true, 9.3% said it was true and the same percentage said it was true. But while 13.9% are neutral in their answer, 3.9% said it was false, 10.4% said it was fairly false and 12.9% said it was definitely false.

Table 32: I am confident that if I wanted to, I could make sure that my sexual partner wears condom before and during sex on a regular basis

Response	Percentage
Definitely true	63.3
Fairly true	6.3
True	2.8
Neutral	8.0
False	4.5
Fairly false	6.6
Definitely false	8.4
Total	100%
n	576

Table 32 contains response to the statement “I am confident that if I wanted to, I could make sure that my sexual partner wears condom before and during sex on a regular basis”. In their responses, 63.3% of the commercial sex workers said it was definitely true to the statement, 6.3% said it was fairly true, 2.8% said it was true and 8.0% are indifferent. Also, 4.5% said it was false, 6.6% said it was fairly false and 8.4% said it was definitely false.

Table 33: For me, to make sure that my sexual partner wears condom before and during sex on a regular basis is...

Response	Percentage
Impossible	5.2
Almost impossible	2.4
Less impossible	9.1
Neutral	9.1
Less possible	7.7
Almost possible	17.1
Possible	49.3
Total	100%
n	576

When the respondents were asked to comment on the statement “for me, to make sure that my sexual partner wears condom before and during sex on a regular basis is”, they responded in table 33 as thus: 5.2% said impossible, 2.4% said it was almost impossible, 9.1% said it was less impossible, 9.1% are indifferent, 7.7% said it was less possible, 17.1% said it was almost impossible while 49.3% said it was possible to make sure that their sexual partner wears condom before and during sex on a regular basis.

Table 34: Making sure that my sexual partner wears condom before and during sex on a regular basis will help me live a healthy, disease free life

Response	Percentage
Extremely unlikely	4.2
Very unlikely	2.1
Unlikely	2.1
Indifferent	6.6
Likely	4.5
Very likely	15.4
Extremely likely	65.0
Total	100%
n	576

In the same vein, in table 34, 4.2% of the respondents said it is extremely unlikely “making sure that my sexual partner wears condom before and during sex on a regular basis will help me live a healthy, disease free life”, 2.1% answered that it was very unlikely, 2.1% said very unlikely, 6.6% are indifferent, 4.5% said it was likely, those who said very likely accounts for 15.4% while 65.0% said it was extremely likely that making sure will help them live a healthy and disease free life.

Table 35: Patterns of practice of safe sex by CSWs

Pattern	Primary	Secondary	Post-secondary	No formal education
Everyday	56.6	76.4	19.2	8.7
Almost everyday	7.5	11.5	42.3	34.8
Most days	13.2	6.6	30.8	13
Few times	22.6	5.5	7.7	43.5
Total %	100	100	100	100
n	108	364	52	52

When the respondents were asked that in the course of the past month, how often they made sure that their sexual partners wore condom or any of such protection before and during sex, quite a sizeable number (43%) of CSWs with no formal education said few times, whereas the educated ones from primary to post-secondary said they practiced safe sex every day, almost every day and most days (between 77 to 95%). Generally, the more educated CSWs tended to practice safe sex more consistently than the ones with no formal education.

Table 36: Estimation of how often CSWs made sure of safe sex

Estimation	Primary	Secondary	Post-secondary	No formal education
Never	3.7	2.7	3.8	0
Seldom	7.4	1.6	0	13
Once in a while	7.4	1.1	3.8	34
Neutral	9.3	2.2	0	8.7
Few times	5.6	13.2	7.7	30.4
Many times	5.6	8.2	7.7	0
Every time	61.1	70.9	76.9	13
Total %	100	100	100	100
n	108	364	52	52

Table 36 above presents the relationship between formal education attained by the CSWs and their practice of safe sex. Most CSWs who had primary, secondary and post-secondary level education made sure they practiced safe sex more or less every day unlike those with no formal education who did not practice safe sex as consistently as such.

The last research question for the study has to do with the perceived risk of HIV/AIDS by the CSWs and tables 37 and 38 present their responses as follows:

Research Question 5: What is the nature of perceived severity and risk of HIV/AIDS by CSW?

Table 37: Perceived risk of HIV/AIDS

Perceived severity	Primary%	Secondary %	Post-secondary %	No formal education %
Yes	70.4	75.3	84.6	87
No	22.2	11	0	4.3
I don't know	7.4	13.7	15.4	8.7
Total %	100	100	100	100
n	108	364	52	52

Table 38: Education as factor for perceived risk of HIV/AIDS

Perceived risk	Primary %	Secondary %	Post-secondary %	No formal education %
Likely	0	0	0	0
Not very likely	26.4	17.6	38.5	56.5
Never	50.9	43.4	26.9	4.3
Unsure	5.7	9.3	26.9	0
Somewhat likely	0	0	0	0
Very likely	17	29.7	7.7	39.1
Total %	100	100	100	100
n	105	363	51	57

$X^2 = 0.000$ df = 6 n = 576

$X^2 = 0.000 \leq 0.5$ confidence level

Tables 37 and 38 present the response given by the CSWs on what they thought were the chances that they might be infected with HIV/AIDS due to sex work. As the tables show, most of the respondents did think they were at risk of being infected with HIV/AIDS. However, academic attainment of respondents played no role in their perceived risk of HIV/AIDS. Perceived risk of HIV/AIDS among respondents was generally high regardless of their level of education.

Table 39: Relationship between the age of CSWs and their knowledge of HIV/AIDS information

Knowledge	Below 20 years	21-29 years	30-39 years	Above 40 years
Sexual intercourse	60.0% (33)	60.6% (265)	89.2% (53)	50% (12)
Sharing unsterilized sharp objects	24.0% (13)	22.6% (99)	2.7% (2)	0
Blood transfusion	16.0% (9)	16.7% (73)	8.1% (5)	50% (12)
Total	100%	100%	100%	100%
n	55	437	60	24

$$X^2 = 0.029 \text{ df} = 6 \text{ n} = 576 X^2 = 0.029 \leq 0.5 \text{ confidence level}$$

The table 39 above presents the relationship between the age of CSWs and their knowledge of HIV/AIDS information. When asked to say which is the most common way of contracting HIV infection, those who chose “sexual intercourse” among under 20 years were 60%, among aged 21 to 29 years were 60.6%; among 30 to 39 years were 89.2% while among those above 40 years were 50%. In the same vein, those who chose “sharing unsterilized sharp objects” among under

20s were 24%; among 21 to 29 years were 22.6%; among aged 30 to 39 years, 2.7% of them and none from those above 40 years. For those who chose blood transfusion as the most common way of contracting HIV virus, 16% of them below 20 years; 16.7% of them aged 21 to 29 years, 8.1% of them were aged 30 to 39 years while 50% of them were above 40 years. This outcome shows that CSWs across all the age categories possessed adequate knowledge of HIV information. So, age was no barrier to their knowledge of the most common way of contracting HIV virus.

Furthermore, the academic attainment of the CSWs was cross-tabulated to show whether that would have something to do with their knowledge of HIV information. The next table presents the findings.

Table 40: Relationship between education of CSWs and their knowledge of HIV/AIDS information

Knowledge	Primary	Secondary	Post-secondary	No formal education
Sexual intercourse	38.9% (50)	70.9% (198)	38.5% (40)	100% (78)
Sharing unsterilized sharp objects	53.7% (69)	11.5% (35)	26.9% (14)	0
Blood transfusion	7.4% (10)	17.6% (50)	34.6% (32)	0
Total	100%	100%	100%	100%
n	129	283	86	78

$$X^2 = 0.000df = 6n = 576X^2 = 0.000 \leq 0.5 \text{ confidence level}$$

In table 40, the relationship between the academic attainment of the CSWs and their knowledge of HIV information is contained. As shown by the table, 38.95 of those who had only primary school education said sexual intercourse was the most common way of contracting HIV virus; 53.7% of them said it was through sharing of unsterilized sharp objects while 7.4% of them it was through blood transfusion. For those who had education up to secondary school level, 70.9% of them said sexual intercourse was the common way, 11.5% of them said it was through the sharing of unsterilized sharp objects while 17.6% chose blood transfusion. Those who schooled beyond secondary school, 38.5% of them chose sexual intercourse; 26.9% chose sharing of unsterilized sharp objects while 34.6% of them chose blood transfusion as the common way. Similarly, all those (100%) who had no formal education chose sexual intercourse. This outcome suggests that whether they had formal education or not, the CSWs had adequate knowledge of the most common source of spread of HIV virus.

Table 41: Relationship between literacy level of CSWs and their knowledge of HIV/AIDS information

Knowledge	Can read and write in English	Can read and write	Cannot read and write at all in native language
Sexual intercourse	64.0% (219)	52.6% (85)	88.1% (62)
Sharing unsterilized sharp objects	23.8% (81)	19.2% (31)	4.8% (3)
Blood transfusion	12.2% (42)	28.2% (46)	7.1% (7)
Total	100%	100%	100%
n	342	162	72

$X^2 = 0.000$ df = 4 n = 576 $X^2 = 0.000 \leq 0.5$ confidence level

In table 41, relationship between the literacy level of respondents and their knowledge of HIV information is contained. As shown by the table, 64% of those who can read and write said sexual intercourse was the most common way of contracting HIV virus; 23.8% of them chose sharing of sharp objects while 12.2% chose blood transfusion. For those who can read and write, 52.6% of them chose sexual intercourse, 19.2% chose sharing unsterilized sharp objects and 28.2% chose blood transfusion. Those who cannot read and write at all in native language had 88.1% of the choosing sexual intercourse, 4.8% chose sharing of unsterilized sharp objects while 7.1% of them chose blood transfusion as the most common way of contracting HIV virus. The findings mean whether the CSWs were literate or not, they had high knowledge of HIV virus spread.

Table 42: Relationship between CSWs perceived risk of unsafe sex and their positive intention or behavioural change

Knowledge	Not very likely	Never	Unsure	Very likely
Pleasant	52.9% (77)	84.2% (200)	66.7% (26)	71.6% (110)
Neutral	5.7% (8)	5.3% (12)	3.7% (1)	13.5% (21)
Unpleasant	41.4% (60)	10.5% (26)	29.6% (12)	14.9% (23)
Total	100%	100%	100%	100%
n	145	238	39	154

$$X^2 = 0.000 \text{ df} = 6 \quad n = 576 \quad X^2 = 0.000 \leq 0.5 \text{ confidence level}$$

Table 42 above shows the relationship between CSWs perceived risk of unsafe sex and their positive intention or behavioural change. As shown by the table, 52.9% of those who said it was not very likely that they contracted HIV virus said it would be pleasant to tell their sexual

partners to wear condom, 5.7% of them said they would be neutral while 41.4% said it would unpleasant to tell their partners to wear condom. Also, 84.2% of those who felt they would never catch HIV virus said it would be pleasant telling their sexual partners to wear condom, 5.3% said they would neutral while 10.5% of them said telling their sexual partners to wear condom would be unpleasant. Equally, 66.7% of those were not sure if they can catch HIV virus said they it would be pleasant to tell their partners to wear condom, 3.7% of them were neutral while 29.6% said it would be unpleasant. Similarly, 71.6% of those who admitted that they could contract the virus felt it would be pleasant for their clients to wear condom, 13.5% of them were neutral while 14.9% said telling their clients to wear would be unpleasant. This findings show that despite the varying degrees of perceived risk of the casual sex workers, their positive behavioural intention and change remain the same. Their perceived risk did not influence their behavioural change.

Table 43: Relationship between CSWs’ dispositions to HIV/AIDS information and positive intention or behavioural change

Knowledge	Yes	No	I don’t know
Pleasant	80.7% (375)	39.4% (26)	33.3% (15)
Neutral	5.4% (25)	21.2% (16)	0
Unpleasant	13.9% (65)	39.4% (26)	66.7% (28)
Total	100%	100%	100%
n	465	68	43

$\chi^2 = 0.000$ $df = 4$ $n = 576$ $\chi^2 = 0.000 \leq 0.5$ confidence level

The table 43 above shows the relationship between the CSWs' disposition to HIV/AIDS information and its influence on positive intention or behavioural change. As shown in the table, 80.7% of those who has positive disposition to HIV/AIDS information said it was pleasant tell their sexual partners to wear condom during sex; 5.4% of them were neutral and 13.9% of them said that would be unpleasant telling clients to wear condom. Also, 39.4% of those who had negative disposition to HIV/AIDS information said it would be pleasant telling their clients to wear condom, 21.2% of them were neutral while 39.4% of them said such information would be unpleasant. But for those who could not say anything about their disposition, 33.3% of them said telling their partners would be pleasant while 66.7% of them said that would be unpleasant. This outcome shows that disposition to HIV/AIDS information was a big factor in behavioural change or intention of CSWs. It means CSWs' dispositions to HIV/AIDS information had a lot to do with their behavioural change status.

Table 44: Relationship between CSWs' manner of processing HIV/AIDS information and its influence behavioural change

Knowledge	Yes	No	I don't know
Pleasant	82.6% (327)	26.5% (19)	65.4% (70)
Neutral	4.7% (19)	26.5% (19)	1.9% (3)
Unpleasant	12.6% (50)	47.1% (34)	32.7% (35)
Total	100%	100%	100%
n	396	72	108

$$X^2 = 0.000 \quad df = 4 \quad n = 576 \quad X^2 = 0.000 \leq 0.5 \text{ confidence level}$$

In table 44, relationship between CSWs' manner of processing HIV/AIDS information and its influence on behavioural change is contained. When the CSWs were asked to say their manner of HIV/AIDS information processing by responding to the statement "I have often thought about what actions I myself might take based on what I have heard or read about HIV/AIDS" 82.6% of those who said yes to the statement said it was pleasant telling their sexual partners to wear condom, 4.7% of those who said yes were neutral while 12.6% of them felt it would be unpleasant. Also, 26.5% of those who said no to the statement felt it would be pleasant, the same percentage were neutral while 47.1% of them said it would be unpleasant telling their clients to wear condom. For those who said "I don't know", 65.4% of them said it would be pleasant, 1.9% of them were neutral while 32.7% of them said it would be unpleasant to tell the clients to wear condom. This outcome shows that CSWs' manner of processing HIV/AIDS information did not influence their behavioural change or intention.

ANALYSIS OF IN-DEPTH INTERVIEWS AND FOCUS GROUP DISCUSSIONS CONDUCTED IN SELECTED BROTHELS IN LAGOS STATE, NIGERIA.

In-Depth Interviews

Forty CSWs were selected across the forty brothels, one from each brothel. Interviewees' ages ranged from 18 to 33. The median age was 24 years. Data saturation had been achieved after the thirtieth CSW was interviewed. Interview guide was designed to elicit CSWs' discussions of their lives as sex workers and as users of information from IEC HIV/AIDS campaigns. Interviews lasted between 45 to 90 minutes and were held in the brothels' bars and drinking rooms. Verbally informed consent was obtained from each CSW. Respondents were reimbursed for their time at the rate of three to five thousand naira after due negotiations with managers or pimps.

The themes that emerged early in the course of data collection, and remained salient throughout the in-depth interviews indicate that CSWs comprehend and are convinced of HIV/AIDS messages, their perceived risk of HIV/AIDS is relatively high and so is their safe sex skills. However, their ability to negotiate safe sex seemed inhibited by economic and social reasons. An illustrative response to the question assessing CSWs knowledge of HIV/AIDS goes thus:

“I hear na, demdey talk for radio, for television even these people weydey come teach us for here about it (HIV/AIDS), dem don come before. She bi dem say na from sex na him be the common way and then, if you go barber shop you fit catch am from there. Then others dey talk say maybe if you use spoon with somebody wey get am but I no too think that one because dem say na blood, na blood to blood na him dey cause am, shebi?”

When asked about prevention, the typical answer was:

“Na by condom, nawetindem teach us be that and dem talk am for radio and television and those people dem say, once you use condom you no fit catch am, if you like sleep with ten men sefwey get the thing, make you dey use condom, nothing go happen...”

“...this people wey come, demdey come here plenty times, dem go come teach us about HIV, come give us condom sef... I dey hear am well, well....”

(Commercial sex worker, 23 years old, Surulere, Lagos.)

Most CSWs interviewed did believe they are at risk of HIV/AIDS because of the nature of their work, especially when they fail to practice safe sex. However, many give spiritual connotations to their responses by alluding to either destiny or God’s protection.

“...this thing we dey do na God dey help us... na by the grace of God... person wey go catch AIDS go catch no how and person wey no go catch no go catch... I believe God no go make me catch am...” (**Commercial sex worker, 20 years old, Empire Red Light district, Surulere, Lagos.**)

However, concerning their ability to negotiate safe sex, they mostly believe that they are capable of insisting that clients use condom most times; but for regular customers they seemed to feel safe having known such customers for a while. This attitude is also indicated for their boyfriends. They tend to feel safe with their boyfriends, with whom they allow unsafe sex. However, many CSWs interviewed admitted to having more than one boyfriend, typically, two or three boyfriends.

“... I get my man though I get two boyfriend join... I need money now... and even den too dey get more than one girl.... no be man....” (**Commercial sex worker, 24 years old, Empire Red Light district, Surulere, Lagos.**)

Furthermore, CSWs interviewed generally alluded to the fact that negotiating safe sex with clients were often hindered when they the CWSs are drunk as well as when they are more or less defenseless because they had followed the clients home and could not count on support from their peers who would have helped if they had had the sexual encounter in the brothel. In the same way negotiations for safe sex are often unassailable when the clients are willing to pay more exorbitantly than the going rate. For example many CSWs interviewed aligned more or less with this:

“...if customer wan pay more like say twenty thousand naira for one round, I fit agree flesh to flesh... so I go fit treat myself in case anything

happen...I go look well well say he no get disease and na regular customer...” (Commercial sex worker, 29 years old, Agege, Lagos.)

“

...I no dey follow customer go him house unless na partyif he want pay well I fit agree ...na chance...I go tell my people where he dey carry me go... if we reach and he not wan use condom....I go agree if he pay...” (Commercial sex worker, 26 years old, Badagry, Lagos.)

In addition, there also emerged good evidence that CSWs integrate, elaborate and discuss HIV/AIDS issues and ideas derived from the IEC campaigns they had been exposed to.

Here is an illustrative comment on whether the CSWs discuss HIV/AIDS messages:

Yes, we discuss HIV every time among ourselves... that it is dangerous... it is a killer disease and everyone should abstain from flesh-to-flesh...” (Commercial sex worker, 27 years old, Obalende, Lagos Island.)

Further analysis of the in-depth interviews indicated a number of uses and gratification that the CSWs made of IEC HIV/AIDS campaigns. Themes that emerged from the interviews concerning uses and gratification showed that CSWs used the IEC messages as platform to share experiences with their peers, to satisfy their curiosity about HIV/AIDS, to gain useful information, and reinforce their behavioural, normative and control beliefs about HIV/AIDS prevention and safe sex.

Focus Group Discussions

In the sampled areas, sex work takes place in a wide variety of settings, ranging from established, formal brothels to more informal venues like bars, hotels and red-light suburbs. Where sex work is more formal, managers or controllers (“pimps”) or ‘madams’ tend to act as gatekeepers or intermediaries between the sex worker and client. There is substantial variation in the average number of clients per CSW. Generally, CSWs reported around three clients per day, with some having considerably more, as high as a mean of 30 clients per week. Clients come in various descriptions, and distinctions are often made between ‘regular’ clients and ‘one-time’ or ‘casual’ clients. There are indications that ‘regular clients’ often later become ‘boyfriends’.

A proportion of CSWs in the study sample have received no formal education (about 10%). Though most of them have had primary and secondary education, even though they often discuss in ‘pidgin’ English. Economic reasons seemed to have made sex work a means of survival for most brothel-based CSWs, particularly those with dependants. These economic reasons often determine unsafe sexual behaviour among them.

Focus group discussions suggested that several CSWs have children and, sometimes, adult dependents. Some children may be born in the course of sex work—contraception use among sex workers is by no means universal.

The average age of sex workers in the study ranged between 20 and 30 years, though many claimed to have entered sex work two or three years earlier. Generally, the typical CSWs began sex work, on average, in their early twenties. The theme that younger CSWs may have been “tricked” into becoming sex workers by being lured to the city from the village on the promise of securing job or searching for greener pasture appeared across the discussions.

A major theme in the discussions was that where sex workers are poorly organized and do not have a united front, each individual CSW is less able to refuse a client who is unwilling to use a condom. Likelihood of condom use therefore may be undermined by competition and lack of cohesion among sex workers in a particular brothel or red-light suburb. Remarkably, refusal by clients remains the most important reason for condom non-use in many sexual encounters.

Many CSWs cited refusal by clients and clients' readiness to pay exorbitant fees for unsafe sex as reasons for not using condoms. Some of the CSWs had wanted a client to use a condom but were too afraid to ask in order not to lose him to another sex worker who may be willing to accept what is referred to as 'skin-to-skin'. Many of the sex workers in the FGDs agreed to having had sex with a client who refused their request for condom use on some occasions, from time to time, though not always. Furthermore, many CSWs were of the opinion that their peers would accept a client who does not want to use condom, if he is willing to pay the asking price or if he is a 'regular' or a 'boyfriend'. In other words, such situation seemed to be the norm. Condom-use may also be influenced by managers, madams or controllers, or "pimps".

Several CSWs in the discussion groups alluded to instructions from the owner of their brothels or the manager as an impetus for insisting on condom use by clients. In the highbrow red-light suburbs, such as Ikeja and Lagos Island, there are sex workers that live and work in highly structured hotels or house settings, where owners, hotel managers and senior sex workers have substantial influence. Each of these settings has a sex-worker leadership structure, consisting of a chairperson who sets the rules, a deputy chairperson who relays the rules to other sex workers, and a policing agent who enforces the rules. In brothel suburbs with such leadership structure, condom and other safe sex negotiations seemed enforceable. Many more CSWs also referred to interpersonal interventions from voluntary counseling sessions as having influenced them to

insist on condom use. Some others mentioned that free condom had been given them from time to time and that affordable condom could be bought within the suburbs.

During discussions, most CSWs admitted they had unprotected sex for extra money; they revealed that they usually receive 3 to 4 times more for unprotected sex. One other determinant of condom use is the use of alcohol or other such intoxicating substances. CSWs may be so intoxicated that negotiating condom use becomes futile; this is seldom the case though. Many of the women explained that they would always insist on clients' use of condoms, except when intoxicated.

CSWs are generally aware of their level of risk for HIV. They also typically have high levels of knowledge on the key features of the infection. However, some of our FGDs also indicate that many CSWs believe that they cannot contract HIV, not necessarily because of safe sex skills but for spiritual reasons. They explained that those who are infected may have been destined by God to be so infected whereas they are safe because of God's protection or of destiny. In one focus group discussion at Empire Hotel, Surulere, Lagos, this illustrative comment was recorded:

“Let me say it is only God that use to save us, as we are now, we have young man that use to come to us, you understand... me. I have a friend, I mean boyfriend... when it is time to play to each other, we use to play skin-to-skin. But my problem is he will not even chase only me... as he have me, he have many other girlfriends, I believe. But that is the way they do when they don't want to use condom.

Any man that come to you to say he need friend know that he don't like condom. They will befriend you, make you happy, play with you anytime, and give you what you want, before you know it friendship don start. As they are playing with you, that's how they are playing with another person.... Me I also play with another boyfriend... two or three so I can get more money..."

Many of them claimed that they have not really seen an infected person amongst them though other sexually transmitted infections (STIs) are more or less rampant. With this spiritual connotations in their perception of perceived severity and risk of HIV/AIDS, CSWs rationalize their inability to always practice safe sex.

Generally, CSWs do not have much difficulty in negotiating safe sex with clients, apparently because they are brothel-based, they seemed to find some empowerment from peers especially in the red-light suburbs and thus they are not prone to violence from clients who do not want to use condoms. Discussions indicated that they had it easy most times negotiating safe sex with clients, and they practiced safe sex more or less on a daily basis, except when they have to deal with boyfriends or clients willing to pay three to four times higher than the going rate. However, they may not be able to insist on safe sex whenever they entertain clients outside the brothels or in the clients own residence. In terms of uses and gratification, themes of discussions hovered around how CSWs utilized messages and information they garnered from IEC campaigns. Most CSWs affirmed that they discussed HIV/AIDS issues and ideas with their peers from time to time and most especially, whenever they had watched or heard such messages. They all agreed they made issues relating to HIV/AIDS messages a front burner in their conversations and using information gathered from IEC campaigns to further explain and discuss regularly. They related

media stories to their experiences, and often thought about the practical ways they could adopt what they had learnt from the media and from the interpersonal interventions. Evidence from the focus group discussions indicates that CSWs elaborate, integrate, process and try to apply HIV/AIDS information consistently and in many cases, especially among their opinion leaders, they often disseminate and advocate HIV/IDS safe sex skills through word-of-mouth channels.

CHAPTER FIVE

FINDINGS AND DISCUSSIONS

Findings

The general findings of the study indicate that CSWs had good knowledge of HIV/AIDS and had accessed information from the IEC and BCC campaigns over the years.

1. CSWs are aware of prevention methods such as the use of condoms both male and female types. Generally age or education seemed not to be a factor as such in the acquisition of HIV/AIDS information. However, when it comes to the processing, integrating and elaboration of acquired information, the evidence of the significance of educational level is apparent.
2. The more educated CSWs used the HIV/AIDS information acquired more elaborately and thus exemplified the uses and gratification theory application much more than CSWs who had little or no formal education. Furthermore, the more educated the CSWs the more likely that safe sex skills are discussed, HIV/AIDS information are debated and the use of condom advocated.
3. In terms of actual behavioural change, the more educated CSWs tended to practice safe sex more consistently than those with no formal education.
4. Perceived risk of HIV/AIDS is generally high and educational level seemed not to be a factor. Almost all CSWs regardless of education had a high level of perceived risk although this did not necessarily influence their actual behaviour in terms of safe sex.
5. Most of the CSWs are aware and convinced that unsafe sex could make them vulnerable to STDs as well as HIV/AIDS. However, they still permitted regular

clients and boyfriends to have unsafe sex from time to time for social reasons or whenever their guards are down due to intoxication or vulnerability in negotiating safe sex. Many sex workers have boyfriends and tended to allow unsafe sex from them.

6. The CSWs are not well as organized yet as a work force and this may have affected the norm of condom use which may be negatively affected by competition and lack of common front or cohesion. While some level of peer empowerment is evident in the brothels concerning safe sex, many CSWs still find it difficult negotiating safe sex whenever money is concerned. For the right price, most CSWs will succumb to unsafe sex in spite of the high level of perceived risk. Although there is some evidence of positive influence from ‘managers’, ‘madams’, and pimps.

It is against the context of these findings, that it is suggested that three strategies most currently being touted by researchers and policy makers should be emphasized, individual / cognitive interventions, participation and empowerment, structural, policy and environmental interventions.

Discussions of findings

Individual / cognitive interventions

These are strategies that aim to increase preventative behaviours during commercial sex by influencing individuals’ attitudes and normative perceptions and increasing their skills and knowledge. They include providing accurate, easily understood information about how HIV and STIs are transmitted and how transmission can be prevented; teaching risk reduction methods and skills such as the correct use of condoms, negotiation and communication skills; information

about non-penetrative and lower risk sexual practices; what to do when condoms break; recognition of STI symptoms and where and how to access STI diagnosis and treatment; increasing people's capacity to act on issues around sexual health by raising health expectations, encouraging self-efficacy for behaviour change and reducing negative outcome expectancies concerning safe sex. There is some evidence that these approaches alone can lead to some increases in protective behaviours. (Keely et al, 2002)

Participation and empowerment

Resources and co-ordination are required for communities to come together to plan and carry out specific activities. The priority should be for sex workers, rather than outsiders, to identify those factors that contribute to their vulnerability and marginalization. This means that a key strategy is building capacity in local NGOs to enable them to provide technical support that assists communities to identify issues and mobilize to change them effectively. Increased access to resources, raised collective self-worth and solidarity are among the desired outcomes that help to reduce risk taking. One of the key aims of community mobilization is to increase the sustainability of projects by reducing the need for external inputs as capacity within communities' increases.

Examples of activities that aim to empower sex workers and stimulate community mobilization include: providing spaces where sex workers can meet and discuss issues and, ideally, communicate with others and gathering information; ensuring that peer support extends beyond sexual health education to include psychosocial support, referral and advocacy (peer education may be seen as a more limited cognitive intervention, although in fact it often also contributes to empowerment and mobilization); encouraging self-help groups and facilitating discussion processes by providing support for travel, one-off events such as World AIDS Day and cultural

activities; providing appropriate training and support for sex worker leaders so they develop the skills they need to organize in their communities and advocate on their behalf.

Enabling environment

An enabling environment is where sex workers can live and work in ways that are most conducive to protective behaviours, including safe sex and accessing STI treatment. At work this means having access to condoms, supportive management, proper lighting, sanitation and security. Importantly it also means clients who know they will be expected to use condoms for penetrative sex and fellow workers who also provide only low risk services. Outside of work it can mean access to primary health care, adequate housing, equitable credit facilities, child care and freedom from various kinds of abuses. Where these are not in place, pressure on sex workers to provide risky services is far more difficult to resist. Enabling environments can be stimulated by structural and policy interventions such as:

1. policy, law reform and actions that aim to make commercial sex workplaces safer and increase sex workers control;
2. policy, law reform and actions that reduce violence and corruption;
3. strategies for reducing the impact of violence, such as self-defense;
4. improved sanitation;
5. liaison with police and other influential authorities;
6. ensuring sustained access to condoms, lubricants
7. ensuring access to appropriate STI diagnosis and care;
8. ensuring access to voluntary counselling, testing and HIV care and treatment; childcare systems for generating and managing income. (Overs, 2002)

CHAPTER SIX

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Whatever the state of the epidemic across Nigeria, Africa and globally, expanding efforts to prevent HIV transmission during commercial sex should be a high priority. Even though knowledge and experience about how to work with sex workers on health issues remains incomplete and controversial, it has become obvious that in many places the role of commercial sex is significant in sustaining and expanding HIV epidemics, albeit in different ways and at different rates. However, by bringing together epidemiological data, operations and behavioural research, project reports and, most importantly, information from communities themselves, practical strategies, guiding principles and measures of success can be identified. A degree of consensus has emerged among frontline projects and key agencies, including many governments, about which combination of policies and programmes reduce HIV transmission during commercial sex which include appropriate interventions for sex workers and their clients. Nearly half of the 4.8 billion people in developing countries live in areas where HIV infection is not yet widespread, even among people most likely to be exposed to the virus. An effective response in these countries would contain the epidemic within the nascent or concentrated stages and spare billions of people the ravages of the epidemic. That response must include appropriate interventions for sex workers and their clients.

Recommendations

Preventing transmission among those with high rates of partner change is desirable and cost effective because it prevents more secondary cases per primary case averted than interventions directed at those who practise low risk sex. This applies not only to sex workers, but also to men

who acquire HIV during unprotected commercial sex and transmit it during non-commercial sexual networking frequently enough to form a significant “epidemiological bridge” to a broader population. Where epidemics are already generalized, sex workers are usually more affected than others. Care and treatment that integrates effective prevention activities and protects HIV positive sex workers from discrimination has an important role in reducing the epidemic in the longer term and for future generations. In the early years of the epidemic, the association between multi-partner sex and HIV transmission led to sex workers and others such as long distance truck drivers, uniformed men, being labelled ‘high risk groups’. Many early targeted interventions among high risk groups were not only unsuccessful, but often contributed to an increase in discrimination against already vulnerable people, especially commercial sex workers who are already criminalized and stigmatized in most parts of the third world and African, in spite of their availability and ubiquitousness. They may also have contributed to complacency among general populations who mistakenly viewed HIV/AIDS as a disease of others. It is also likely that approaches that labelled sex workers as vectors of HIV infection also led to resistance and resentment from the very individuals whose co-operation and mobilization were essential to successful responses.

Greater awareness of the size and shape of HIV epidemics has now generated a compelling case for a paradigm shift re-focusing not only on commercial sex workers but also other populations such as clients, non-professional sex workers and environments that most affect epidemic dynamics, whilst avoiding the mistakes of the past. Relocating sex workers within a new conceptual universe of “people who participate in commercial sex” is central to the notion of this shift. This enables us to extend our focus to include clients, sex business managers, sex workers’ private partners and families, police, ancillary sex industry workers and others. Relocating sex

workers in this way redistributes the responsibility to “use condoms” or “insist on condom use” that has too often been disproportionately assigned to sex workers. As well as being less stigmatizing, this approach can lead to important new strategies such as sex workers functioning as educators for clients and others and negotiating work conditions. It can also involve a much wider range of stakeholders and extend and improve the quantity and quality of information and exert appropriate legal, political and social influence (Longo, 1997; Mann and Tarantola, 1996; Evans, 1998 and Keely et al, 2002) The key principles of a renewed approach to targeting include: responsibility for sexual health lies not only with sex workers but also with clients and third parties, government and the broader society, the health and human rights of sex workers must be seen as both essential elements of overall HIV prevention strategies, and legitimate ends in themselves, commitment to working in partnership with sex workers requires a commitment to address social marginalization, economic exclusion and violence, as well as a focus on health. This means building programmes on strategies that address the “situations and structures which create vulnerability and deprive sex workers of their perceived right to live and work safely”, such as violence and other human rights violations. Given the right inputs and an improved legal and policy framework, sex workers claim they can have a valuable role as educators and may even function as "part of the solution." (Overs, 2002).

The study had been able to establish that in spite of health communication interventions and the high level of perceived risk of HIV/AIDS, CSWs ability to negotiate safe sex had been inhibited by economic and social factors: money may induce unsafe sex, so also ‘boyfriend’ relationship. The main recommendation is that more multimedia campaigns are still required, especially interpersonal and community-based interventions. Qualitative data and anecdotal information

can help fill some of the gaps yet unexplored and where limited data has been published. The paradigm shift advocated above should lead to further areas of research and study.

Contributions to knowledge

1. The researcher developed a model which provides a conceptual framework for the study which may be used in similar studies.
2. The study found that the 'active audience' paradigm has been established within the Nigerian context in the way commercial sex workers accessed, processed and disseminated HIV/AIDS information to peers, and this can be useful in developing local health communication interventions.
3. The study establishes that economic and social factors are important in the examination of the attitude, intention and practice of safe sex by commercial sex workers, thereby providing more insight into the theories of communication impacts.

Suggestions for further studies

The following are the suggestions for further studies:

1. This study covers brothel-based commercial sex workers. Further studies should examine other categories of commercial sex workers such as street-walkers, escorts, call girls, etc.
2. Further studies should examine clients rather than female sex workers.
3. Further studies should extend the scope to include urban and rural communities across Nigeria.

Ethical issues addressed in the study

The researcher ensured that ethics of research was adhered to in the field work as well as in the focus group discussions and the indepth interviews. The respondents for the survey were given free choice in the completion of the questionnaire. No influence was exerted on them and they were not induced to respond to questions in any predetermined way. They were also not compelled to complete the questionnaire if they refused to do so.

The research assistants as well as the enumerators were trained to treat the respondents with respect and their confidentiality and privacy were respected. The rights of the respondents to refuse or agree to complete the questionnaire were acknowledged. Where any of the respondents refused to cooperate in answering questions or even in participating, their freewill was respected. For the focus group discussions and the indepth interviews, the principle of anonymity of the participants was respected.

In this regard, the participants were not identified by name or other specific means of identification to protect their their privacy. The participants were treated with respect and they were encouraged to contribute freely to the discussions. No suggestions were made to them as to how to respond to the points raised by the moderator.

Participation in the focus group discussions and the indepth interviews was voluntary and no form of coercion was applied to obtain their consent to participate. The participants were properly informed about the purpose of the indepth interviews and the focus group discussions. They were told that the exercise was for academic purpose only.

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APPENDIX I

My name is Olujimi Olusola Kayode, a doctoral candidate in the Department of Mass Communication, School of Post Graduate Studies, University of Lagos. I am conducting a study on the acquisition of HIV/AIDS information by commercial sex workers in selected brothels and hotels in Lagos state, Nigeria, for the fulfillment of the requirements for the Ph.D. Degree in Mass Communication. You have been selected, in accordance with a sampling procedure to participate in this exercise. You are therefore requested to answer the following questions truthfully. Whatever you say will not be disclosed for any purpose other than academic. To protect your privacy we are not going to ask you for your name.

Thanks for your cooperation.

- 1) Have you ever heard of HIV/AIDS?
Yes No

- 2) What is the most common way of contracting HIV infection?
Sexual intercourse
Sharing sharp objects
Blood transfusion

- 3) Where did you receive most of your HIV/AIDS information?
Newspaper/magazine
Television
Radio
Friends/colleagues

- 4) Within the last two months, how many times would you say you have heard or seen something about HIV/AIDS in the media?
Never
Once/twice
Many
Don't know

- 5) How can you prevent HIV/AIDS infection?
Asking my client to use condom
Asking my client to withdraw before ejaculation
Others (specify).....

- 6) Do you believe that HIV/AIDS can be cured?
 Yes No
- 7) What are the chances that you might catch HIV/AIDS?
 Likely Not very likely Never Unsure
 Somewhat likely Very likely
- 8) Someone who looks healthy but who has HIV/AIDS can pass it to other people?
 Yes No Don't know
- 9) One can get HIV/AIDS by kissing a person who has the disease?
 Yes No Don't know
- 10) One can get HIV/AIDS by being bitten by mosquitoes or other bloodsucking insects?
 Yes No Don't know
- 11) What factors motivated you into commercial sex work?
 Poverty Friends No job No husband
 I love sleeping with men
- 12) When the topic of HIV/AIDS comes up, I always try to learn more about it.
 Yes No Don't know
- 13) When I encounter information about the issue of HIV/AIDS, I am likely to stop and carefully think about it.
 Yes No Don't know
- 14) I have often thought about what actions I myself might take based on what I have heard or read about HIV/AIDS
 Yes No Don't know
- 15) I have often found myself relating what I have in the media concerning HIV/AIDS with what my peers tell me about it.
 Yes No Don't know
- 16) I am likely to focus on HIV/AIDS issue in the news very attentively.
 Yes No Don't know
- 17) When I come across news about HIV/AIDS, I always try to learn more about.
 Yes No Don't know
- 18) I rarely spend much time thinking about information on HIV/AIDS.

- Yes No Don't know
- 19) I'm not that interested in details. It is sufficient to get general idea on HIV/AIDS issue.
Yes No Don't know
- 20) The information I have at this time meets all my needs for knowing about HIV/AIDS.
Yes No Don't know
- 21) I have far more information on HIV/AIDS than I personally need.
Yes No Don't know
- 22) If I need to act on this HIV/AIDS matter, the advice in the media is enough for me.
Yes No Don't know
- 23) The media and people have presented too many conflicting viewpoints on HIV/AIDS.
Yes No Don't know
- 24) I often talk with my friends about what I have learned of HIV/AIDS in the media to see what they think
Yes No Don't know
- 25) Often when I have learned something new about HIV/AIDS, I recall it later and think about it.
Yes No Don't know
- 26) I rarely spend much time thinking about media stories on HIV/AIDS that I heard or read earlier.
Yes No Don't know
- 27) I tried to think of the practical applications of what I read/heard about HIV/AIDS.
Yes No Don't know
- 28) I tried to relate the ideas about HIV/AIDS in media stories to my own past experiences.
Yes No Don't know

The questions in this section make use of rating scales with 7 places; you are to circle the number that best describes your opinion.

In making your ratings i.e. giving your answers please remember the following points:

- Be sure to answer all items – do not omit any
- Never circle more than one number on a single scale.

Some of the questions may appear similar, but they do address somewhat different issues. Please read each question carefully.

- 29) For me, to make sure that my sexual partner wears condom or any such protection before and during sex is
extremely difficult 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely easy
- 30) Most people who are important to me think that
I should do safe sex
: 1 : 2 : 3 : 4 : 5 : 6 : 7 : I should not do safe sex
- 31) For me to do safer sex on a regular basis is
extremely good: 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely bad
- 32) In the course of the past month, how often have you made sure that your sexual partner wears condom or any such protection before and during sex?
..... every day
..... almost everyday
..... most days
..... many times a few times
..... never
- 33) Please estimate how often you have made sure?
never: 1 : 2 : 3 : 4 : 5 : 6 : 7 : every time
- 34) I will try to make sure that my sexual partner wears condom or any such protection before and during sex.
Extremely likely : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely unlikely
- 35) Whether or not I make sure that my sexual partner wears condom or any such protection before and during sex is completely up to me.
Strongly agree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly disagree
- 36) Most of the CSWs with whom I am acquainted make sure that their sexual partner wears condom before and during sex, on a regular basis.
Definitely true : 1 : 2 : 3 : 4 : 5 : 6 : 7 : definitely false
- 37) I am confident that if I wanted to I could make sure that my sexual partner wears condom before and during sex on a regular basis.
Definitely true : 1 : 2 : 3 : 4 : 5 : 6 : 7 : definitely false

38) For me, to make sure that my sexual partner wears condom before and during sex on a regular basis is

extremely pleasant: 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely unpleasant

39) I will make an effort to make sure that my sexual partner wears condom before and during sex on a regular basis.

I definitely will: 1 : 2 : 3 : 4 : 5 : 6 : 7 : I definitely will not

40) For me, to make sure that my sexual partner wears condom before and during sex on a regular basis.

Impossible : 1 : 2 : 3 : 4 : 5 : 6 : 7 : possible

41) Making sure that my sexual partner wears condom before and during sex on a regular basis will help me live a healthy, disease free, life.

Extremely unlikely: 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely likely

42) For me, to make sure that my sexual partner wears condom before and during sex on a regular basis is

enjoyable : 1 : 2 : 3 : 4 : 5 : 6 : 7 : unenjoyable

43) My co-CSWs think I should make sure that my sexual partner wears condom before and during sex on a regular basis

not at all : 1 : 2 : 3 : 4 : 5 : 6 : 7 : very much

44) I believe so much in making sure that my sexual partner wears condom before and during sex on a regular basis, that I now persuade my co-CSWs to do same.

Not at all : 1 : 2 : 3 : 4 : 5 : 6 : 7 : very much

45) I am aware of female condom or such prevention methods for women and I have been using one of them.

Not at all : 1 : 2 : 3 : 4 : 5 : 6 : 7 : very much

Socio-Economic Data

46) Educational Status

What level of education have you attained?

Primary

Secondary

Postsecondary

No formal education

- 47) How literate are you?
Can read and write in English Can read and write
Cannot read and write at all in native language
- 48) What is your age by next birthday?
Below 20 years 21 – 29 years
30 – 39 years Above 40 years

APPENDIX II

Interview Guide

- 1) Have you ever heard of HIV/AIDS.... And how did get to know or hear about it?
- 2) What is the most common way of contracting HIV infection you know?
- 3) How can you prevent HIV/AIDS infection?
- 4) Do you believe that HIV/AIDS can be cured?
- 5) What do you think are the chances that you might catch HIV/AIDS?
- 6) Where did you receive most of your HIV/AIDS information from And in what ways have you attempted to learn more about HIV/aids?
- 7) What do you think about the various information in the media concerning HIV/aids?
- 8) Do you think you have had more than enough information in the media?
- 9) Do you believe what you hear in the media?
- 10) Do you discuss HIV/aids information with your friends..... What do you most often discuss about concerning HIV/aids?
- 11) How much of HIV/aids information from the media can you recall..... give some specific details?
- 12) Do you ever reflect upon what you hear about HIV/aids what mostly comes to your mind?

- 13) How do you relate what you have heard or known about HIV/aids with your practical experience as a sex worker?
- 14) Do you make your clients use condom..... and are there occasions when you allow them to do it without condom..... And why?
- 15) How easy or difficult is it to make client use condom?
- 16) Have you heard of female condom..... And do you use it already or intend to use it?
- 17) How far do you think your colleagues insist on clients' using condom?
- 18) Are there any problems concerning asking clients to use condom..... And how do you tackle such problems?
- 19) What level of education do you have?
- 20) How old are you by your next birthday?

APPENDIX III

Focus Group DISCUSSION GUIDE

1. Let the group discussion start with issues of knowledge of HIV/aids such as the most common ways of contracting it; is HIV/aids curable, how can it be prevented; etc.
2. Discuss at this point, what they think about their chances of 'catching' aids; their ability to recognize if their clients have aids; can someone who looks healthy actually be a carrier; the risks if any of sleeping with several men; etc.

Let them then discuss why they are into sex work.

3. Let discussion start on, the sources of HIV/aids information; which of the mass media do they think has given most information and how have they received information from peers and such interpersonal sources; how recently can they recall campaigns or other messages from the media.
4. Start another discussion on, whether they often think and talk about HIV/aids and whether they make use of what they learn from the media in such discussions.
 - 4a. Let them discuss about the quality of information from the media, whether this is educative, informative or entertaining and whether this is of any use to them and in what ways are such information useful.
 - 4b. Let them talk about any confusion that they may have had from what they hear from the media or from peers.
5. Let them discuss about their recall of HIV/aids messages from the media and whether they reflect on such messages and how that affects them.
6. Let them discuss about the practical implications of the information they have heard from the media and whether or how they connect this with their past experiences.
7. At this point let them discuss whether they actually request clients to use condom and how easy or difficult it is to negotiate this.....what are the clients' position on condom use.

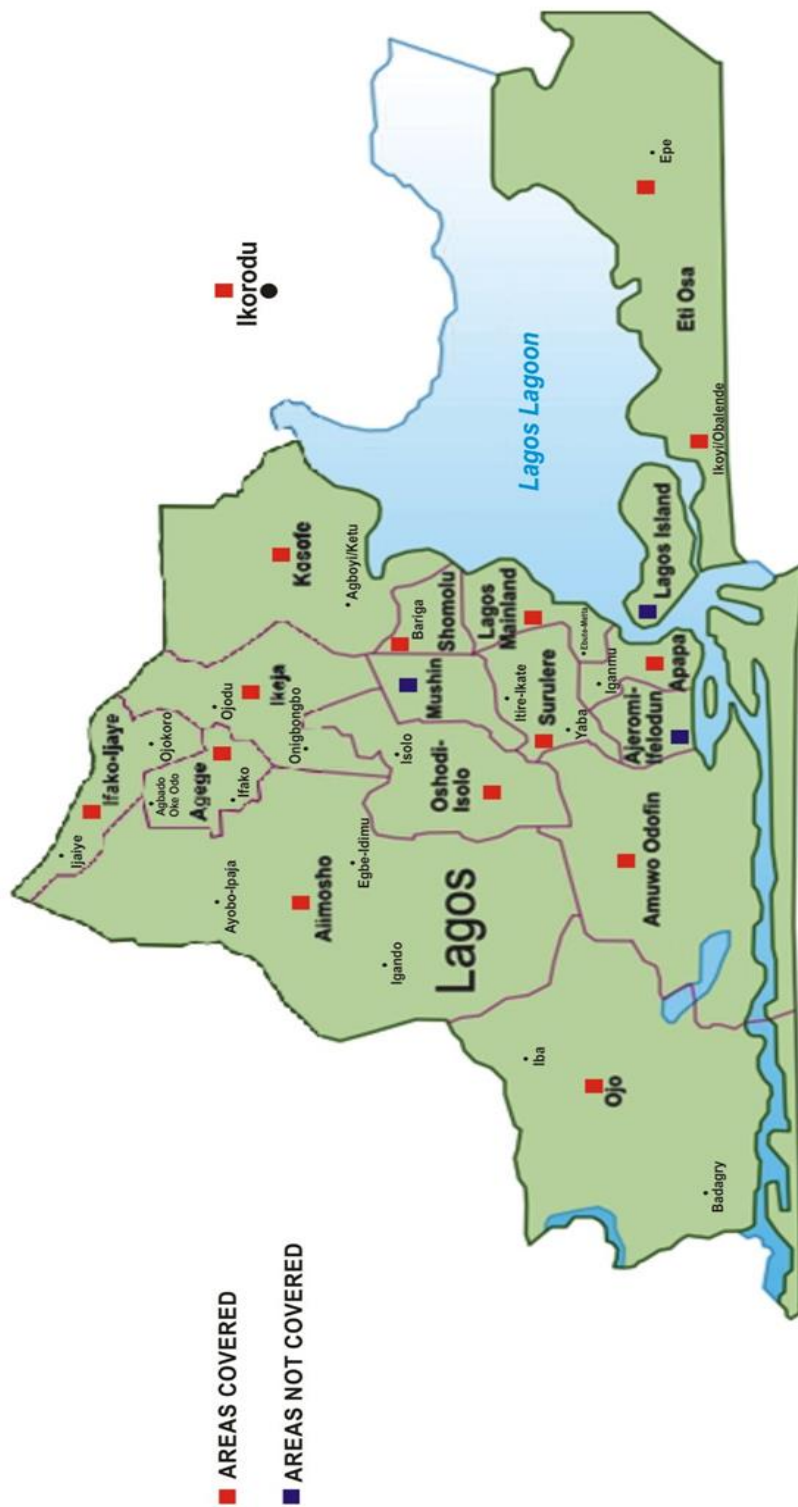
Let them further discuss what they think is the prevailing situation concerning condom use by clients in their brothel.

8. Discuss female condom, what do they know about it Are they using it or do they intend to use it.

9. Let them discuss their ability to control the situation when they encounter 'difficult' clients.

10. Let them give a general idea of the level of education, ability to read and write, and their age, one by one.

APPENDIX IV LOCATION OF STUDY



APPENDIX V

List of brothels

1. ISAAC JOHN STREET IKEJA
2. RITA LORI HOTEL ,SURULERE
3. PEKA PUB ON OPEBI ROAD, IKEJA
4. JOLLY FRIENDS PUB AJAO STREET OFF ADENIYI JONES , IKEJA
5. EMPIRE HOTEL, Surulere
6. MAYSON HOTEL AKA ILE ASHAWO BOLADE BUSTOP OSHODI.
7. CHANNEL 5, EGBEDA LAGOS
8. ASHAWO COMPLEX OJO ROAD (AGBOJU) OPP FESTAC SECOND GATE
9. IKENGA GIRLS ,IJESHA SURULERE
10. HAPPY DAY HOTELS (COKER ROAD SURULERE
11. ASHY HEAVEN APAPA ALONG ELEGANZA PLAZA.
12. PEOPLES CLUB NEAR RANDLE IJAYE
13. ASO ROCK AMUKOKO AJENGULE.
14. OBALENDE BROTHELS LAGOS ISLAND.
15. T & K INTERNATIONAL HOTEL, Iyana Ipaja
16. HOTEL BELISSIMO, Epe
17. MISSISSIPI HOTEL, Ikorodu
18. KEN DALLAS HOTEL, Igondo
19. ALLEN Q HOTEL, Ipaja
20. SUNLIGHT HOTEL, Ebute Meta

21. ROOF TOP HOTEL, Ebute Meta
22. PAGE HOTEL, Ikeja
23. ADIO'S HOTEL INTERNATIONAL Palmgroove, Lagos
24. ADOFF HOTEL Iba, Ojo, Lagos
25. AIYEDERE HOTEL Ketu, Lagos
26. ALANBIL HOTEL Badagry
27. GUO DENTIAL GUEST HOUSE Badagry
28. NACKS HOTEL Orile, Iganmu, Lagos
29. NEW BENDEL HOTEL Ikeja, Lagos
30. NEW GENERATION HOTEL Ifako-Ogba,
31. NEW GOLDEN CITY HOTEL Ejigbo,
32. NEW VERO-GAT HOTEL Okota Palace Road, Isolo, Lagos
33. NIGER HOTEL Surulere, Lagos
34. OAK HOTEL Amuwo Odofin, Lagos
35. OLUBUKUN GUEST HOUSE Bariga
36. OMAODUN HOTEL Agege, Lagos
37. THE Z'S PLACE RELAXATION HOTEL Savage Street, Lagos
38. TOPMOST HOTELS LIMITED Shomolu
39. PILOT INTERNATIONAL HOTEL Ajegunle,
40. SUNNY-DEK HOTEL, Ikorodu, Lagos.