THE SPREAD OF HIV/AIDS IN SEKONDI-TAKORADI

BY

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DEDICATION

I gratefully dedicate this work to the Almighty God, my family, my deceased sister and friend (Juliet Enyonam Ama Hosu-Porbley) and all loved ones.

DECLARATION

I declare that I single handedly undertook this study and all information in this document are results of my own studies under supervision. All secondary works used have been duly acknowledged. I am however solely liable for any criticism and correction to be made to this work

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ABSTRACT

Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome (HIV/AIDS) pandemic has killed over 14 million people worldwide. Over 36.1 million people are also living with the disease the world over. Sub Saharan Africa has been the hardest hit region in the whole world, with high incidence on women and children. The disease has affected every nation in the world such that, it has drawn international attention. As a result, ideas are being sought and measures being planned to curb its spread. The disease is seen as wiping the gains of development and halting the future development of individuals and nations as a whole.

In Ghana, over 430 000 people are living with HIV/AIDS. It has claimed over thousands of lives since its recognition in 1986. Efforts are therefore being made to reduce the spread of the disease in order to reduce its impact. It is in this vein that this study was conducted to find out dimensions of the disease in Sekondi-Takoradi, a vibrant port city in the Western region of Ghana. This study has found that the disease is spreading increasingly among young married couples, followed by divorcees and those who have re-married, and singles with sexual partners. The disease has higher incidence on women and people of lower socio-economic status.

The research has also found that the disease is driven in Sekondi-Takoradi by infidelity in marriage, sexual behaviour in terms of pre-marital relations and extra-marital relations as well as multiple sexual partnerships. Also low level and inappropriate application of condom, inadequate knowledge of the disease, stigma, lower socio-economic status, and mobility both internal and external were found as driving the spread of the disease in the metropolis. These findings would help to initiate appropriate measures like community education to fight the spread of the disease.

CHAPTER ONE

1.0 THE PROBLEM AND RESEARCH METHODOLOGY

This very first chapter comprises of an introduction to HIV/AIDS, problem statement, objectives, research propositions, methodology and sources of data, research instruments sampling design and methods of data analysis.

1.1 Introduction

HIV and AIDS, (a pandemic in the world, 'the dreadful killer', 'and the hidden epidemic') are the acronyms, which stand for Human Immuno-deficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) respectively. AIDS is the end stage manifestation of the disease caused by HIV*. HIV destroys the biological ability of the human body to fight off opportunistic infections such as tuberculosis. AIDS is defined in terms of how much deterioration of the immune system has taken place as seen by the presence of opportunistic infections (MOH, 1999). AIDS is not inherited but acquired. All infected persons virtually die from the AIDS disease.

AIDS was initially recognised as a disease in 1981 by the Centre for Disease Control (CDC) in the United States, but might have started in the late 70s in some areas as recorded by UNAIDS (1999). The disease has a controversy over its origin, but it is most often believed to have an African origin, with its hardest hit countries in sub Saharan Africa, hence Africa is referred to as the global epicentre by UNAIDS (1999).

* There is a debate on this. Thabo Mbeki (President of South Africa) claims HIV is not the cause of AIDS.

HIV infection is first and foremost a biomedical condition. HIV is a family of retroviruses that enters the bloodstream and attacks the body's immune system, compromising its ability to fight infections. Although one HIV is spoken about, two basic strains of HIV have been discovered, each with its associated subtypes. HIV-1, with its nine subtypes is the most common virus strain and is found principally in the First World, Asia, Latin America, and in most African countries. HIV–2 is geographically linked to West Africa, although HIV-2 cases have been reported in Mozambique, suggesting that it is now spreading to other regions. HIV-1 is a more virulent strain than its counterpart and has a shorter incubation period. A cause for concern amongst virologists is that both virus strains mutate and it is possible for one type to transform itself into another within the infected person. Thus, to date, attempts to find a vaccine or a cure have eluded the scientific community. There is also the Simian Immunodeficiency Virus (SIV), which is antigenically related and found in primates in Africa.

When HIV enters the body, it attaches itself to the wall of the CD4 cell. This cell is a white blood cell, or lymphocyte, belonging to a class of lymphocytes called T cells. T cells are a critical part of the body's immune system for they organize the overall immune response to a variety of infectious diseases. Having attached itself to the CD4 cell, the virus enters the cell and, through a process that is not entirely understood, kills the cell. This results in fewer CD4 cells to organize the immune response, further resulting in increased vulnerability to infections. As the immune system weakens, a clinical point is reached where the condition is diagnosed as AIDS. From that point forward, numerous opportunistic infections can invade the body with little resistance, ultimately resulting in death. The HIV infections to AIDS could be in stages. Once infected with HIV, a person is labeled 'HIV positive' and carries the virus for the rest of his or

her life. At the point of infection, a battle begins between the virus and the body's immune system. This battle proceeds through various stages before the person dies. Four stages have been identified (Addler, 2000).

The first stage is known as 'primary (or acute) HIV infection' and lasts until the body's initial immune response develops a small measure of control over the virus. This stage lasts for up to three weeks during which time up to 90 percent of people will develop non-specific symptoms common to many viral infections. These can include amongst others, night-sweats, fever, malaise, headaches, and enlarged lymph glands. According to Addler (2000), recent studies suggest that 'infectivity can vary dramatically according to the stage of HIV'. 'Two peaks of infectivity have been linked to the periods of highest viral load. The first and highest is during the first few months of infection (before the body develops sufficient antibodies to the virus), and the second peak (although not as high as the first) is at the end of the third stage, as the person progresses to AIDS. The initial peak during early infection, coupled with the type of virus strain (HIV-1 is more easily transmitted than HIV-2), is considered to be one reason why many Third World countries have experienced such a rapid spread of HIV'.

The second stage is called 'seroconversion' - a period during which the body develops antibodies to ward off HIV. Even though HIV ultimately wins the battle, the body's immune system is able to keep the virus in check for a number of years. Acute infection precedes this stage because the body takes a while to detect foreign substances before it develops antibodies to fight them.

The seroconversion stage lasts from six to twelve weeks during which time antibodies are not detectable and a blood test during this time will return a negative result. This period is often referred to as the 'window period', a dangerous time during which a person can inadvertently infect others. However, once antibodies are detected, the blood test result is positive and

seroconversion is said to have taken place. While the antibodies reduce the concentration of HIV, they do not eliminate it entirely and the person remains infected and capable of transmitting the virus for life.

Subsequent to seroconversion, an HIV positive person enters a third stage called 'asymptomatic stage' during which time he or she will generally remain clinically healthy. This stage occupies about 80 percent of the time from infection to death. The asymptomatic stage is a marker of the 'silent epidemic' where the virus slowly but surely spreads throughout the body. Although not perfect, a useful method of tracking the spread of HIV in the body is to count the CD4 cells in the blood. A healthy, HIV negative person has a CD4 count of between 700 and 1,300 per millilitre of blood. As the virus spreads and CD4 cells are destroyed, the loss of these cells reaches a point where the CD4 count drops to between 200 and 300 and the body begins to battle to fight infections. This marks the final leg of the asymptomatic stage. Thrush, shingles and tuberculosis, coupled with weight loss, diarrhoea, fever and fatigue are all common symptoms of the late asymptomatic stage, and act as a marker for the onset of AIDS. While these associated infections are common in HIV negative persons, the critical difference is that those who are HIV positive experience these complaints as chronic infections, and they can persist for several weeks or months.

In most Third World countries, people live with HIV infection throughout the asymptomatic stage without knowing it. If a diagnosis is made, it is invariably at the late stage when the person goes to a clinic or hospital. Undiagnosed HIV infection increases the susceptibility of a society to the epidemic. When the CD4 blood count drops below 200, a person becomes vulnerable to serious opportunistic infections such as drug resistant pneumonia, Karposi's Sarcoma (KS), tuberculosis, meningitis, and other bacterial infections. It is at this

stage that the person moves from being merely HIV positive to having full-blown AIDS; marking the beginning of the final stage. It is during this stage that medical costs escalate and jobs are lost, placing enormous strain on the finances of the individual and the state. The vulnerability of an individual or a country to the impact of the epidemic is dependent upon income levels and the ease of access to medications, health and social services. Where the HIV epidemic is low and health and social services are accessible, such as in First World countries, the burden on the individual might still be relatively high, but it will not seriously be on the country. In Third World countries, the impact of the epidemic, both on the individual and on the country is most keenly felt at this final stage of infection due to insufficient resources to provide for the care of the infected individual. Addler (2000) is however of the view that, *"Although, technically, AIDS is not strictly a disease, it is often referred to as such. Rather, AIDS is a catchall for the many medical conditions that arise from a weakened immune system that can no longer fight infections. A person, therefore, does not die of AIDS, but rather succumbs to an infection, or collection of infections"*.

Studies (Bosenge and Ryder 1988, UNAIDS, 1999; MOH-Ghana, 1996, 1999; Allen et al, 1991; Sanders and Sambo, 1991) have consistently shown that the virus is transmitted mainly by three modes: through sexual intercourse, blood-to-blood contact, and mother-to-child transmission. The way in which HIV is transmitted is closely associated with the biomedical nature of the virus. In order for a person to become infected with HIV, it is necessary for the virus to enter the bloodstream. The greatest concentration of the virus is found in the blood, and sexual secretions, including semen of infected persons. According to UNAIDS (1999), sexual intercourse is the principal mode of transmission, accounting for an estimated 75 percent of infections globally, of which 75 percent involve heterosexual intercourse and 25 percent sexual

relations between men and the other modes of transmission. In Third World countries, sexual transmission accounts for even higher proportions of infections. In Africa, Asia, and the Caribbean, infections are overwhelmingly heterosexual, with an estimated less than one percent through homosexual sex. The story is different in Latin America and Eastern Europe, where homosexual sex still accounts for the majority of infections through sex (UNAIDS, 1999). This pattern appears to be changing as more women are becoming infected, suggesting that HIV is spreading to the general population through heterosexual intercourse as a proximate with its background issues.

Blood-to-blood transmission occurs when HIV-contaminated blood comes into direct contact with that of an uninfected person. The main transmissions occur through the sharing of intravenous drug-injecting equipment and through contaminated blood products used in transfusions. HIV transmission through blood transfusion services have all but been eliminated in First World countries (Addler 2000), where sophisticated screening mechanisms have been introduced to ensure that blood products are HIV-free. However in the Third World, numerous countries have yet to implement such mechanisms leaving the risk of transmission through contaminated blood an issue to contend with. In spite of the risks, HIV transmissions through transfusions have never exceeded 10% of total HIV infections, even in Third World countries. More serious than transmission through blood transfusions, is the sharing of contaminated needles among injecting drug users. In some countries, drug injecting accounts for more cases of HIV infection than sex. Malaysia, Vietnam, Southwest China, Northeast India and Myanmar, all report that three quarters of recorded cases are due to injecting drug use. In Eastern Europe, the problem is even more troubling. For example, in Belarus, some 87 percent of infections are among injecting drug users. The principal problem with injecting drug use is that, the sharing of

infected needles is able to introduce HIV directly into the bloodstream of an uninfected person, a highly efficient means of transmitting HIV. As a result, HIV has grown more rapidly in drug-injecting populations.

Mother-to-child transmission of HIV, the third recognized mode, occurs in either two ways. The first is at birth when the infant comes into contact with the blood of an infected mother in the uterus. The second is through infant breastfeeding. It is estimated that about 50 to 65 percent of infections occur at birth. Since mother-to-child transmission is a result of the heterosexual epidemic, infants in the Third World are at greatest risk, particularly in sub-Saharan Africa. Globally, mother-to-child transmission accounts for about 5 to 10 percent of infections, and possibly 15 to 20 percent in Africa. Those infants that escape infection at birth, nevertheless, run the risk of infection through breastfeeding (UNAIDS, 1999).

Generally, after infection, an average of 8 to 9 years may pass before AIDS fully develops, but this incubation period varies; in children it lasts for a maximum of 2 years. According to Mann et. al. (1988), the interval between diagnoses of AIDS to death varies greatly in between the developed and the developing countries. Survival periods in Africa and other developing regions seem to be shorter than the developed world. This may be attributed to early diagnosis and medical facilities availability and it may also be due also the type of virus at work.

HIV/AIDS has different dimensions ranging from global, regional to specific areas or countries. On the global scale and according to UNAIDS (1999), the total number of people living with HIV/AIDS was over 33.4 million, including 32.2 million adults of which 13.8 million were women and 1.2 million, children under 15 years. The statistics also shows that since the beginning of the epidemic, to 1998, a total number of 13.9 million people have died of AIDS, out

of which 10.7 million were adults, and 4.7 million were women and 3.2 million were children under 15 years. Since the beginning of the epidemic two decades ago, AIDS deaths in 1998 alone amounted to 2.5 million of the cumulative 13.9 million death cases. This indicates that the disease is increasing at a very fast rate the world over. Out of the over 33.4 million cases of HIV/AIDS reported in the world as of end 1998, people newly infected in 1998 totalled 5.8 million revealing 10% more than previous years. Virtually every country in the world had seen new infections in 1998 and the epidemic is frankly out of control in many places.

The UNAIDS (1999) record, also shows that more than 95% of all HIV infected people now live in the developing world, which has likewise experienced 95% of all deaths to date from AIDS, and largely among young adults who would normally be in their peak productive and reproductive years. The repercussions of these deaths due to AIDS are so great, ranging from falling child survival rates, crumbling life expectancy, overburdened health care systems, increasing orphanhood and likely deteriorating businesses. The disease revealed men bias trend, but women have now closed up the gap forming 43% of the figure as at the end of 1998. According to UNAIDS (2000), in most badly affected countries, women outnumber the men. In sub Saharan Africa, 55% of HIV-positive adults are women (UNAIDS 2000). As at the end of 1998, a total of over 47 million people (both the living and the dead) had been infected with HIV since its beginning. The disease has claimed the lives of nearly 14 million adults and children out of which 2.5 million deaths occurred only in 1998, more than ever before in a single successive year.

HIV/AIDS on regional levels showed interesting features since its discovery up to the year 1998. In sub-Saharan Africa, the disease, which started between the late 70s and the early 80s, had 22.5 million adults and children living with HIV/AIDS. In 1998 only, 4.0 million

newly infected HIV cases were recorded from adults and children, with an adult (15-49 years of age) prevalence rate, of 8.0% using 1997 UN population numbers. The region also recorded 50% of HIV positive adults being women. Sub-Saharan Africa tops every aspect of HIV/AIDS among the ten (10) regions delineated by UNAIDS, as shown in Table 1.1 (Regional HIV/AIDS statistics and features, December 1998) .The Global and sub-Saharan African HIV/AIDS estimates for 1998 as shown in figure 1, also reveal the escalating issues in the sub region as against the global cases.

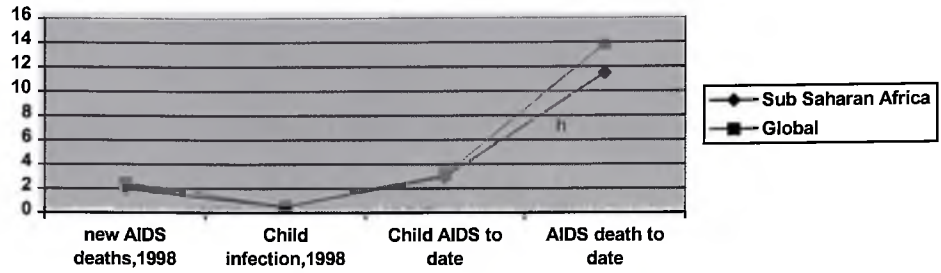
Table 1.1 Regional HIV/AIDS statistics and features

Region	Epidemic started	Adults & children living with HIV/AIDS	Adults & children newly infected with HIV/AIDS	Adult prevalence rate (15-49) age group	Percentage of HIV positive adults who are women	Main mod transmissi For adults with HIV/
ub-Saharan Africa	Late 70s – early 80s	22.5 million	4.0 million	8.0%	50%	Hetero
North Africa &middle East	Late 80s	210 000	19 000	0.13%	20%	IDU, Here
South & Southeast Asia	Late 80s	6.7 million	1.2 million	0.69%	25%	Hetero
East Asia &Pacific	Late 80s	560 000	200 000	0.068%	15%	IDU,Hete MSM
Latin America	Late70s to Early 80s	1.4 million	160 000	0.57%	20%	MSM,IDU Hetero
Caribbean	Late 70s – early80s	330 000	45 000	.96%	35%	Hetero, M
Eastern Europe &Central Asia	Early 90s	270 000	80 000	0.14%	20%	IDU,MSM
Western Europe	Late 70s – Early 80s	500 000	30 000	0.25%	20%	MSM,IDU
Northern America	Late 70-Early80s	890 000	44 000	0.56%	20%	MSM,IDU, Hetero
Australia &New Zealand	Late 70s-Early 80s	120 000	600	0.1%	5%	MSM,IDU
Total		33.4 million	5.8 million	1.1%	43%	

Source: UNAIDS, 1998.

Hetero: Heterosexual transmission. MSM: Sexual transmission among men who have sex men.(men sex men) IDU: Transmission through injecting and drug use.

Figure 1: HIV/AIDS estimates, global and Sub-Saharan Africa
(Infections and Deaths in Millions)



Source: UNAIDS, 1998.

As shown figure 1, child infections, which stood at 0.59% in the world, as of end 1998, had 0.53% for the Sub-Saharan African (SSA). The region also had 4.0 million out of the 5.8 million new HIV infections in 1998. SSA also scored 22.5 million out of the global case of 33.4 million people living with HIV by the end of 1998. On child AIDS death to 1998, SSA scored 3 million out of a global case of 3.2 million. On AIDS death to 1998, the region had 11.5 million out of the world's total of 13.9. However on general HIV infections which stood at 47.3 million worldwide (by the end 1998), 34 million came from the Sub-Saharan Africa region. It is recognized that HIV infection in Sub-Saharan Africa is primarily acquired through heterosexual activities, which is also the fastest mode of transmission among the three notable ones.

However, among the 34 most affected HIV/AIDS countries in the world as revealed by UN Population Division (1998), 29 are in the sub-Saharan Africa. They are *Benin, Botswana, Burundi, Burkina Faso, Cameroun, Central Africa Republic, Chad, Congo, Cote d'Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, Gabon, Guinea Bissau, Kenya, Lesotho, Liberia, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Sierra Leone, South Africa, Togo,*

Uganda, United Republic of Tanzania, Zambia and Zimbabwe. The remaining 3 are in Asia; *Cambodia, India and Thailand,* Latin America; *Brazil and Caribbean, Haiti.*

Moreover, of the 30 million persons estimated in 1997 by UNAIDS with HIV/AIDS, 26 million (88%) were residing in these 34 countries. It was also found that 91% of all AIDS deaths occurred in these 34 countries, with higher records from the Sub-Saharan countries (UNAIDS, 1998). All these show that the epidemic, although a pandemic, is more of a developing world disease than associated with the developed world, as illustrated in table 1, with reference to the positions occupied by Western Europe, North America, Australia and New Zealand.

Nonetheless, the southern part of the African continent holds the majority of the world's hard-hit countries. In Botswana, Namibia, Swaziland and Zimbabwe, current estimates show that between 20% and 26% of people aged 15-49 are living with HIV/AIDS. By the end of 1998, Zimbabwe was especially hardest-hit. The record also shows that South Africa, which lagged behind some of its neighbors in HIV infection at the start of the 1990s, caught up fast contributing one in seven new infections in sub Sahara Africa in 1988. As of end 2000, South Africa with a total of 4.2 million infected people had the largest number of people living with HIV/AIDS in the world (UNAIDS, 2000).

The story differs on the other side of the continent. One in ten adults or more were infected in Central African Republic, Cote d'Ivoire, Djibouti and Kenya by the end of 1998. HIV affects West Africa on a smaller scale than it does in southern and east Africa, but Sierra Leone and Cote d'Ivoire have current escalating rates of HIV in the West African Region. The general lower rates of HIV in West Africa could be attributed to the virus type and also the early-sustained prevention efforts adopted by some countries, such as Senegal.

In Ghana, a total of 43,587 people had AIDS by the end of 2000 (MOH/DCU, 2001). The MOH (1999) report shows a projection of 200 people being infected daily with HIV, which resulted in a prevalence rate of 4.0% in 1998 and 4.6% in 2000. A survey carried out by MOH in 1998 also shows that 380 000 people were living with HIV, out which 24,000 were estimated AIDS cases forming 7% and 356,000 representing 93% were people living with HIV.

In 1999, the number of people infected were about 430,000 (MOH/NACP, 1999). It is estimated that the number would rise steadily reaching more than a million in 2009 and about 1.4 million in 2014. The implication is that large numbers of Ghanaians will die over this period of time or the number of infected people would be higher. Already over 114,000 people have died of the disease since the1980s; and it is estimated that the number of annual new AIDS cases would rise from about 31,000 in 1999 to 51,000 in 2004 and 117,000 further in 2014, as against the initial cases of 42 in 1986 and 29,546 in 1998. It is also estimated that by the year 2009 about 200 Ghanaians in the age group, 15-49, will die from AIDS everyday (MOH / NACP 1999). All these projections have been made on the basis that 200 people are being infected daily in Ghana. Even at the prevalence rate of 4.6% and 200 infections per day, Ghana's rate is relatively lower than most West African (like its neighbouring) countries and Southern African countries such as Botswana, Namibia Swaziland, and Zimbabwe, which have prevalence rates of between 6-10% and 20-26% respectively. Ghana is however likely to exceed the 5% threshold seen by experts as marking the beginning of an AIDS explosion, considering its diffusion pattern (of south, middle, and the north modes) facilitating the spread of HIV to the three major sections in the country (Agyei-menash, 2001). These modes enable HIV to spread simultaneously at the three major different belts of the country, though at different rates. The table 1.2 shows HIV prevalence in

pregnant women between 1992-1999 for different sentinel sites in Ghana indicating, that some sentinel sites have already exceeded the 5% threshold.

Table 1.2. HIV Prevalence (%) in pregnant women in Ghana, 1992-1999

SITE	*1992*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*
KORLE-BU	-	-			2.0	2.2	2.2
ADABRAKA	0.7	-	1.3	2.2	2.1	3.4	2.0
ASSIN FOSU		2.5	1.2	1.6	1.2	3.6	2.0
CAPE COAST		3.5	2.4	2.6	0.8	3.4	3.2
KUMASI	4.6	2.4	3.2	3.8	5.5	6.8	4.9
MAMPONG		2.0	3.6	2.0	5.2	5.0	3.4
SUNYANI	4.0	3.0		2.2	2.0	3.4	2.8
WENCHI	4.0	-	3.2	2.6	2.4	2.0	2.2
TAKORADI		1.8		4.2	3.8	3.0	4.0
EIKWE		3.0		5.7	5.8	5.8	4.8
KOFORIDUA	3.2	2.4	3.8	2.6	4.2	2.4	1.0
AGOMANYA	18.0	9.4	10.5	12.8	13.4	13.2	8.2
TAMALE		1.0	1.0	1.6	1.0	-	0.8
NALERIGU		1.0	1.0	0.4	0.2	-	0.6
BOLGATANGA	-	2.0	1.6	1.0	2.8	3.0	1.6
BAWKU		2.4	2.4	-	1.6	1.8	1.6
WA	1.8	3.0	0.8	1.8	1.6	2.3	2.2
JIRAPA	O.4	2.5	0.3	3.0	1.4	-	0.6
NANDOM	-	2.0	2.9	-		-	
HAMILE	-	4.3	4.2	-	-		
HO		2.4	2.4	2.8	3.8	4.0	5.2
HOHOE		2.3	3.2	2.1	4.2	4.0	4.4
AMASAMAN							2.6
TEMA							2.6

Source: National AIDS Control Programme /Ministry of Health [2000]

In table 1.2, Agomanya consistently recorded higher prevalence rates far above the 5% rate implying HIV/AIDS has exploded in this area and if not checked would influence Ghana's rapid entry in to the explosion zone. The majority of the infected adults in Ghana develop AIDS from 2 to 12 years after infection (MOH 1999). Thus some develop AIDS more quickly while others more slowly. On an average, most adults die fairly quickly in a year's time after developing AIDS. HIV is predominantly transmitted in Ghana by sexual intercourse. It is estimated that 85% of the infections in Ghana are results of heterosexual relationships, while 10% and 5% have been due to mother to child and intravenous means respectively.

Data on HIV in Ghana is based on sentinel surveillance, carried out by persons in various regions through anonymous testing of blood samples collected from people especially pregnant women. The geographical pattern of the disease in Ghana shows a concentration in the southern sector. Out of the 115 cases of HIV/AIDS reported in 1986, more than 50% came from the Eastern Region (Nee Quaye et al, 1987), and there were no cases reported from the North and the Upper East Regions. A decade after, the pattern revealed Ashanti Region (which was second to Eastern Region in the first reported cases) as having the highest number of reported cases of AIDS. A pattern to note is the increasing number of cases in the Northern and the Upper East Regions which by 1986, reported no cases, but have been ranked sixth in 1997 and fourth in 1998 respectively with respective percentages of 14.4% and 12.5%.

The epidemic in Ghana could be said to be more of rural than an urban phenomenon (Oppong, 1998). It also shows a trend of female dominance even though current statistics indicate that there is a gradual convergence to a 1:1 female male ratio (Agyei-Mensah, 2001). Sixty three percent (63%) of the cumulative reported AIDS cases between 1986 1998 have occurred in women (Agyei-Mensah, 2001). Analysis of the age-sex distributions of the reported

cases shows 90% of the AIDS cases found in persons between the ages of 15 and 49. The peak ages for reported AIDS cases so far fall between 25 – 34 for females and 30 – 39 for males (Agyei-Mensah, 2001).

1.2 Problem Statement

Since the disease was first reported in the country, it was believed to be among commercial sex workers, people with travel abroad history and homosexuals. Nonetheless, people believe the disease has ethnic differential as a result of ethno-cultural, as well as religious practices. (e.g. forced widowhood inheritance and polygamy). Moreover, the disease is currently following location and functional attributes of places. For example 'entry points' (port cities and boarder towns) are developing more cases as well as places of vibrant economic activities that promote massive human interactions. The disease also has rural – urban differentials. On another note, some socio economic groups such as commercial sex workers, drivers, artisans, 'peace officers' among others are being identified by laymen as carriers of the disease. Studies on HIV/AIDS in Ghana also have mainly been biomedical. This study however is a geographical one among others conducted by Oppong (1998) and Agyei-Mensah (2001). The latter studies were largely based on analyses of national data. This study extends beyond these ones by interviewing HIV/AIDS patients in a locality (Sekondi-Takoradi) to have a better understanding of their background characteristics, including their travel history and other attributes.

It is therefore relevant to note that this study at the community level is different in approach since it involves interviewing of HIV/AIDS patients for a first hand information, making it an original work. This will enhance an in-depth understanding of the spread of the infection. Sekondi-Takoradi has been chosen for some specific reasons. It is a geographic unit that has

basic facilities promoting human interaction commercially, administratively and socio-politically. Sekondi-Takoradi is a port city, with a characteristic feature of the concentration and development of commercial sex activity, which has been noted by scholars as a risk element in the spread of HIV/AIDS. Nonetheless, Sekondi-Takoradi has a history of prevalence of commercial sex activity in pre-colonial and postcolonial periods, which predisposed residents to sexually transmitted infections (STIs). National records (NACP/MOH 2000) have also shown that HIV/AIDS is developing increasingly in Sekondi-Takoradi. Geographically, the area is a nodal town linking series of settlements, and a growth point for all these settlements. Is it the regional capital of the Western Region, and serves as the biggest commercial centre for all economic activities in the Western Region. The area is close to Abidjan, the capital city of La Cote d'Ivoire, and a country leading in the concentration of people living with HIV/AIDS in West Africa.

With regard to all these notions and concerns, the research focuses to study the distribution, frequency and the determining factors in the spread of HIV / AIDS in Sekondi–Takoradi, in the Western Region of Ghana. Findings from this research would help formulate effective and more efficient control measures to curb the escalating rates of HIV/AIDS' spread especially in Sekondi – Takoradi as a geographic unit and the country as a whole. The study would address some questions like:

- Which socio-economic group is more prone to the infection
- What has behaviour got to do in the spread of the disease?
- What has urban or rural settings got to do in the spread of HIV/AIDS?
- Has functions of places or towns influence the spread of HIV / AIDS?
- What is the magnitude of HIV /AIDS in the study area?

- What factors really facilitate the spread of the disease and at certain geographical settings
- What policy recommendations are in place to curb the spread of the disease?
- What is the disease implication for the youth, and the country as a whole?
- What are the effective ways of controlling highly behaviour-influenced diseases such as HIV/AIDS?
- Has the disease any spatial and temporal dynamics

1.3 Objectives

The main objective of this study is to investigate the patterns and the determinants of the spread of the HIV/AIDS in Sekondi-Takoradi.

The specific objectives for the study are as follows:

1. To investigate and discuss the magnitude of the HIV /AIDS in Sekondi -Takoradi
2. To find out and analyse the factors that influence the spread of the disease in the study area.
3. To analyse the socio-economic implications of HIV / AIDS on the population
4. To discuss policies concerning HIV/AIDS and suggest appropriate recommendations to reduce the spread of the disease.

1.4 Research Propositions

- The frequency of HIV infection is directly proportional to increase in heterosexual relationships
- The spread of HIV/AIDS is directly related to 'occupational interactions' induced by increase in mobility.

- Lower socio-economic status has implications for HIV/AIDS predisposition.
- Location and functions of places have direct influence on the spread of HIV/AIDS.

1.5 Methodology

This section on methodology discusses sources of data, research instruments, sampling design and methods of data analysis. Although this is a social research, the methodology could also be described as descriptive and analytic epidemiological approach.

1.5.1 Sources of data

Primary and Secondary sources of data were used in this research. Primary data were collected from selected communities in the study area and HIV/AIDS patients at the Effia-Nkwanta Hospital. Narratives from HIV/AIDS patients also form part of the primary data. Health officers, some religious leaders and other functionaries were informally interviewed and this has immensely gone into qualitative analysis.

Secondary data were also gathered from several sources. The libraries were very useful in this aspect. The Balme library, ISSER library, RIPS library, Noguchi Memorial Institute library, Department of Geography and Resource Development Library (all in the University of Ghana, Legon) among others were used. At these libraries Books, Journals, Newsletters and other forms of publications were reviewed. The Internet was also very useful for this study. It enabled the study to have access to quick information from all other corners of the globe concerning the spread of the disease. Data from the disease control unit (DCU) of the Ministry of Health was also used. HIV/AIDS cases from 1992 to June 2000 in Sekondi-Takoradi were reviewed from this unit. The HIV sentinel surveillance data 1992 –1999 was also used and duly acknowledged.

Information from Hospital reports, the records department and the STD/HIV units of the Effia-Nkwanta Hospital were valuable as secondary data.

1.5.2 Levels of the study

The study was conducted at the following levels:

1. Case histories. This was a review, based on documented HIV/AIDS cases at the Effia-Nkwanta hospital and the Public Health Unit (PHU).
2. Interview of AIDS patients at the Counselling Unit of the Effia Nkwanta Hospital
3. Community study of the knowledge and attitudes on HIV/AIDS
4. Other reviews. These include secondary data, published and unpublished.

These blended in the analyses of patterns of the disease, facilitating factors and risk elements as presented in this report.

1.5.3 Research Instruments

The main instruments used to gather information for this study include case review, interview, questionnaire and observation.

- Case histories were based on data at the hospital from the onset of reported HIV/AIDS cases.
- There was personal interview of HIV/AIDS patients. (See appendix I for patients' interview guide).
- There was a community study, based on the administration of questionnaire. (See appendix II for questionnaire).
- Review of census data and other published and unpublished works.

- Observation. This was useful at all stages of the study. It was very useful at the hospital where HIV/AIDS patients were interviewed. It helped in the identification of some of the symptoms of AIDS on patients at the Hospital as well as in the Sekondi-Takoradi township.

1.5.4 Sampling Design

The study sampled two groups of respondents for primary data. They are HIV/AIDS patients and ordinary respondents from the community. The AIDS patients' study (clinical survey) was conducted to specifically find out trends and factors facilitating the spread of the disease. The study at the community level was carried to find out the knowledge and attitude of the residents about the disease and risk elements predisposing the residents to HIV/AIDS infection. Both studies therefore played complimentary roles to validate findings to further the design of measures to curb the spread of the disease. This study operated within the sample frame of 359 298 people (2000 population census provisional report), being the total population of the study area (334.43 km2) as at the time of the research. Out of this total, a sample population of two hundred (200) people was interviewed from the community.

The target group for the community respondents was male-female adolescents and adults, in the age groups of 15-24, 25-49. The sample population for the study is heterogeneous, hence the stratified method of sampling was used to enable categorization in to two groups, based on major residential patterns and rural urban settings for the community respondents. Low class and High-class residential settings were identified as two major categories of people in the metropolis. The metropolitan assembly has demarcated three settings of residences: High, Middle and Low Classes. A reconnaissance survey revealed that both the middle and the low classes have basic and similar characteristics, which are very irreconcilable to that of the high

class. In behavioural terms also, the low class is just like the identified middle class. More so, this is a behavioural study, which envisages characteristics of two categories. For the sake of clearer analysis therefore, the study finds it suitable using two settings of High and Low classes categorisation, based on the two major residential settings, depicting income level and to an extent levels of education.

Simple random method was used to select eight (8) communities. Four (4) communities each was selected from the high class and low class categories respectively. They as follows:

Selected Low Class communities

1. Affia - 25 male respondents from 25 households in 22 houses.
2. Kwesimintsim - 25 male respondents from 25 households in 21 houses.
3. Tanokrom - 25 female respondents from 25 households in 20 houses.
4. Effiakuma - 25 female respondents from 25 households in 20 houses.

Selected High Class communities

1. Sekondi Ridge – 25 female respondents from 25 households in 25 houses.
2. Top Ridge (West line, West Tanokrom) – 25 male respondents from 25 households in 25 Houses.
3. Newsite – 25 female respondents from 25 households in 25 houses.
4. Windy Ridge – 25 male respondents from 25 households in 24 houses.

In each class 100 people were interviewed consisting of 50 males and 50 females. Since communities in each category were considered homogeneous, two each of the communities in a class provided 25 male respondents whiles the other two provided 25 female respondents each. That is to say, in a community, 25-males or 25-females were interviewed.

In all, 182 houses were visited. Households formed the basic units of interview in the selected communities. The Households were selected at random. One person at least was interviewed from each household, but a maximum of two households was selected in a housing unit where there was more than one household. Due to sensitive issues in the questionnaire, two female field assistants were chosen to interview female respondents. Akan, Ewe and English languages were used for all the interviews.

In the Clinical Survey, forty-one (41) HIV/AIDS patients were interviewed. An average of ten (10) patients per week (on HIV/AIDS counselling day), at the Effia-Nkwanta Hospital. Five health officers and other functionaries were also informally interviewed. All the interviews for the community and HIV/AIDS patients lasted for two months. (March - April 2001).

1.5.5 Methods of Data Analysis

Data has been analysed quantitatively and qualitatively in this study. SPSS was used for data transformation, interpretation and analysis. Simple correlations and cross-tabulations were used to establish relationships (like level of condom usage between the two residential classes). Other relevant statistical tools such as percentages, ratios, charts, tables and graphs have been employed where and when necessary in this report.

1.5.6 Problems of the study/ Reliability and validity of the data

Financial and time constraints did not permit a continuous and large sample of cases to be interviewed. HIV/AIDS patients were interviewed only on their counselling day. It could be argued against the study that, some of the patients who could offer other views as presented in this report were not present at the time of the study, but the counselling unit revealed that

patients on counselling are very consistent in attendance and therefore none missed out. More so the clinical survey adopted the simple random strategy.

Many of the 41 cases in the clinical survey were married. It is possible this could be due to wrong reporting from patients. The identification of one's status as single with HIV/AIDS presupposes promiscuity. As a result, many people were likely to have said they were married. This needs a further clarification with another data. The data presented in this study could be true, as it complements the data on marital status from recorded cases from the hospital.

CHAPTER TWO

2.0 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

This chapter discusses general factors that have contributed to the spread of HIV/AIDS in various settings. These factors are presented and discussed in relation to their roles. The chapter ends with the discussion of a model, comprising of all the factors and how they influence the transmission of HIV.

2.1 General factors in the spread of HIV

These include: Sexual behaviour and practices; Mobility, Prostitution and livelihood; Poverty and lower socio-economic status; Socio-cultural issues and gender inequality; Influence of sexually transmitted diseases on HIV/AIDS; Stigma on the disease; Polygamy; Inadequate knowledge of the disease; Multiple co-factors and the influence of conflicts and wars.

2.1.1 Sexual behaviour and practices as factors influencing the spread of HIV

Peter Piot (1998), in a paper titled 'Changing the way people behave', said in spite of the increasing rates, some countries still do not recognize HIV as a major threat to public health. He emphasized that change in behavior is helping some countries to control the high rates of HIV while this same element of behavior is worsening the spread of HIV in some other countries. Uganda, Thailand, and Senegal have been cited as countries, which have used sustained programs of controlled behavior to reduce the spread of HIV. In Uganda, delayed first sexual intercourse, increased condom use and

fewer sexual partners have been responsible for 40% drop in HIV prevalence among pregnant women. In Thailand also, young men cut their visits to sex workers by almost half between 1991 and 1995; and the number using condoms increased from 60% to nearly 95%. In Senegal, safer behaviour prevention efforts appear to have reduced the rates of STDs and stabilized HIV rates at low levels of less than 2% among sexually active adults.

Talking about facilitators of rapid proliferation of the pandemic, Gould (1993), discussed a simple model, that; "HIV needs people to exist, and it needs connections between people to move from one person to another". In his discussion he said, 'if we had simply an unconnected and unstructured sets of people, a person infected with HIV would eventually convert to AIDS and die and her virus would also disappear. But people are seldom-unstructured sets; they are connected by relations' – all sorts of relations in both the common and mathematically rigorous sense of the word. Relations connect sets of elements and thereby form structures and it is these connected up and structured sets of people that he calls *'backcloths'*. It is on a human backcloth that a virus exists as traffic and it needs the backcloth of connective tissue to move from person to person as 'traffic transmission'. Gould (1993) in this model is of the view that HIV is transmitted by heterosexual activities. He continued with his expositions that, 'the major connective yarn that forms the basic material to weave the human backcloth is obviously humans and their insatiable appetite for sex and sexual relations in a general sense'.

Quiggin et.al. (1989) in a paper titled 'Social context of AIDS in sub-Saharan Africa'; mentioned behavioral-change as responsible for the high rate of STDs' spread.

Pat Quiggin wrote, "life style played a dominant role in determining individuals' chances of being infected".

2.1.2 Mobility, Prostitution and livelihood

Anarfi (1995) shows that migration renders societies vulnerable to diseases, including HIV/AIDS. This fact was confirmed by Decosas (1995) when he wrote that 80% of Ghanaian prostitutes in Abidjan are infected with HIV, many of whom are returning home to seek cure.

Pappoe (1996) also demonstrates that currently 8 out of every 10 women working in the prostitution industry in the largest cities in the West African sub region are infected with HIV. This establishes a relation between prostitution and HIV infection.

UNESCO (1991) in a study on sexual behavior and networking in the transmission of HIV in Zambia in 1989, revealed that fish traders, businessmen, truck drivers and soldiers were in the risky category for STDs infection. Mushingeh (1990) also confirms this. A conclusion drawn from this is that, occupations involving mobility influence frequency of sexual partner change, which has implications for being infected with HIV.

Writing on sexual networking in selected communities in Ghana and the behavior of Ghanaian female migrants in Abidjan, Anarfi (1991) further expressed that, occupation is considered to exert some influence on the degree of sexual networking. The study shows that apart from prostitutes, wives of policemen, soldiers, sailors, miners, long distance drivers were found to be at higher risk of contracting STDs. It was also found

out that 75% of the women he reviewed were in prostitution of all kinds and car drivers and white sailors were identified as their clientele.

In Arhin's (1981) report on prostitution among Ghanaian women in Ivory Coast, as far back as 1971, half a million Ghanaians living there and 70% of them women, were in the prostitution industry. This shows that 350,000 were in prostitution. Comparing this with Decosas (1995) report, which revealed that 80% of Ghanaian prostitutes in Abidjan were infected with HIV means that 280,000 Ghanaian prostitutes in Abidjan had been living with HIV since 1995. This research establishes the implications of this for Ghana, especially in the case of Sekondi – Takoradi.

UNDP's (1997) project document on HIV and Development in the sub Sahara Africa shows that the HIV/AIDS epidemic on the African continent has been exacerbated by cross national currents and other dynamics. These include: mass movements of people across borders, as refugees seeking asylum. The document illustrates migration of the unemployed and under employed to other countries to seek work as an example. South Africa, for example, is a focal point of such migration (especially from southern African countries, which have high prevalence of HIV) as much as Cote d'Ivoire, which attracts many people in West Africa. There is also the movement of sex workers as well as pastorals in search of pasture. This document has established migration as a major contributor to the spread of HIV, detailing source regions as areas of high HIV prevalence. Sekondi – Takoradi has also been a central point of in-migration in Ghana. This study however discusses mobility in this context in relation to HIV infections.

Igbinovia (1986) discussing prostitution said that in order to make ends meet in a hostile urban environment, women have no choice but to resort to prostitution, which naturally, is a major facilitator of HIV/AIDS. In Igbinovia's analysis, prostitution has contributed so much to the HIV/AIDS surge in the Southern African region. In the Malawian case, all kinds and levels of prostitution were identified to the extent that laymen could think that prostitution is a sort of legalized profession. In this context, prostitutes move about in hotels, bars, migrate from city to city and to rural areas to transact their business. Bus and truck drivers are particularly notorious for frequently visiting prostitutes in Malawi. Gould (1994) reports that 75% truck drivers in Eastern and Central Africa were infected with HIV. This shows that some socio-economic groups are more prone to the infections, hence the socio – economic differentials in the spread of the disease.

Anarfi et. al. (1997) expressed that itinerant trading is the second major economic activity for women who constitute an important chain in the distribution of goods in West Africa. Historically they have played important roles in the political economy of Ghana. With the out-break of AIDS, these women, some of whom move far away from home sometimes for days or even weeks, stand the risk of being infected with HIV through their activities. Using a combination of methods including a survey and focus group discussion, these writers found that itinerant women traders appear highly vulnerable. This state of affairs occasioned by the extremely difficult condition in which the women work, is exploited for the sexual gratification of the men with whom they come into contact. Evident to this was the personal testimonies given by some of the traders (Anarfi et. al., 1997). Four (4) cases discussed in the document showed that itinerant women

traders practice indiscriminate sex with farmers and their male counterparts to get favor to purchase their commodities. This greatly exposes them to HIV infection. The record therefore indicates that people who move about a lot for one reason or the other are at the greatest risk of contracting HIV/AIDS in Ghana.

In their work on Itinerant Gold Mines: Mobility Sexuality And The Spread Gonorrhoea and Syphilis In Twentieth Century Ghana, Acheampong and Agyei-Mensah (2001) have demonstrated that prostitution is an issue of old, which has contributed vehemently to the spread of STDs (in present times including HIV) in pre-colonial, colonial and present Ghana. They also established that commercial sex activities and STD-transmissions have been associated with mobile women (as made explicit in the works of Little, 1973; Naanen, 1991; Weiss, 1993). Mobile men in the categories of sailors, porters, soldiers, migrant laborers and traders have also equally been responsible for the transmission of STDs including HIV, as in the case of truck drivers in present sub Saharan Africa. It is clear in their work that entry points and port cities (like Bole and Hamile, Tema and Sekondi-Takoradi respectively) have increasing rates of HIV as well as some urbanized towns as against other rural areas.

UNAIDS (1999) in 'AIDS epidemic update' reveals that HIV is driven by 'Loneliness' among migrant workers in South Africa. The update shows that more than a decade ago, 2.5 million South Africans were registered as migrant workers, and that number is likely to have increased. The document shows that 'Carltonvile is at the heart of South Africa's gold mining industry and was home to 88, 000 mine workers in 1998, of which 60% of them were migrants from other parts of Southern Africa or nearby countries like Lesotho, Malawi and Mozambique'. According to the update, the

mineworkers are well paid and therefore deal in drugs and casual sex. The update shows that some 400 to 500-sex workers service the Carltonvile mine. As a result HIV has been so much identified with Carltonvile. The city has become the hot spot of Gauteng Province. About 22% of adults in Carltonvile were infected in 1999 with HIV. The facilitating element over here is that, most migrant men live lonely lives in single–sex dormitories, often hundreds of miles away from their families. Therefore the freedom, loneliness and the presence of numerous sex workers facilitate the spread of HIV in Carltonvile. These migrant workers often visit home to see their wives, and as a result spread the disease among their wives.

2.1.3 Poverty and Lower socio-economic status

Adomako-Ampofo (1993) explained that women's disadvantaged positions have a direct influence on the kind of sexual relationships they enter and their clout to negotiate within these relationships. She furthered her discussion that poor and disadvantaged young women service the sexual needs of relatively better older males. She also emphasized that it is proven through research in sexual behavior (Adomako-Ampofo, 1991b; Asimeng, 1981; Konotey Ahulu, 1989) that most women who enter into relationships with sex being the medium of transaction, do so because of their disadvantaged or marginalized positions, which also predispose them to disease infection. This shows that marginalized groups are prone to 'sexual transactions', which expose them to diseases including HIV/AIDS. This study investigates the relationship between marginalized groups and HIV infection through sexual relationships.

It is clear in the work of Anarfi (1995) and Adomako-Ampofo (1991, 1993) on prostitution in Ghana, Cote d'Ivoire and the Netherlands that, harsh socio-economic conditions which twigs out of poverty highly influence commercial sex work, among most 'practitioners', to enable them cope with the hardships.

Anarfi et. al. (1997) pointed out that HIV infections in parts of the sub-Saharan Africa show the possibility of multiple infections under conditions of poor nutrition due to poverty.

Banda (1988) also identified level of socio-economic status as a major factor influencing STD transmission in Zambia. His study reveals that people of lower socio-economic status are infected with more STDs than people with high socio-economic status.

2.1.4 Socio-cultural issues and gender inequality

Helitzer–Allen (1994) has studied girls' initiation rites among the Lomwe of Southern Malawi in which the art of sex making is emphasized. It is evident in his study that those prepared for the initiation have to definitely experiment with sex. This however exposes them to HIV infections.

Awusabo-Asare (2000) also emphasized that research and intervention strategies on HIV/AIDS in sub-Saharan Africa are increasingly recognizing the socio-cultural, economic, environmental and political dimensions of the epidemic. These factors, he said, constitute a range of issues referred to as background factors, such as gender inequality, the general social organization of space and political issues. He again emphasized that the gender inequality manifests itself in areas such as the double sexual

standards for males and females and higher vulnerability of women than men. Carael et. al, (1997) and Mason (1994), also share this view. According to Awusabo-Asare (2000), other factors such as poverty, types of residence, mobility, displacement as a result of wars and social as well as political unrest have also been associated with the spread of HIV among certain categories of people.

The UNFPA (2000) discussed the vulnerability of females and their risk levels in contracting HIV, in the article, 'Preventing HIV infection'. UNFPA explained that, women are more physically and socially vulnerable than males in the issues of HIV. It also stated that:

- In sub-Saharan Africa, 55 per cent of HIV-positive adults are women.
- Worldwide, at least half of all new infections are among women.
- Men are eight times more likely to transmit HIV to a female partner through unprotected sexual intercourse than women are to transmit the virus to men.
- More than 70 per cent of HIV infections worldwide occur through heterosexual sex, between men and women.

The document also shows that lower status has more positive implications for being infected. In the text it said 'lower status means higher risk'. It explains it ass follows: 'Women often have less control over when, where and whether sex takes place'. Although many women can and do control their sexual lives, many more fear disapproval, violence or abandonment if they ask a husband or boyfriend to use a condom. When poverty impels a woman to seek income from sex, her risks of disease

and social sanction are even greater. It therefore emphasized that the underlying causes of HIV transmission are often linked to women's lower status (Poverty; Lack of information; Inability to negotiate safer sex; Early age of first intercourse; Polygamy; Men having multiple partners; Coercion by males who are older, stronger or richer; Harmful traditional practices; Less access to education; Fewer opportunities to earn income; Sexual abuse and exploitation and Violence against women).

The document also pointed out that biological, cultural and economic factors make girls vulnerable to HIV infection. It said:

- 'Girls are more likely than boys to be uninformed about HIV, including their own biological vulnerability to infection if they start having sex very young'
- 'Girls are more likely than boys to be coerced or raped, or to be enticed into sex by someone older, stronger or richer'.
- 'Girls have sex with older men, who are more likely to be infected than younger males and tend to have other high-risk partners'

According to Banda (1994), many studies are of the view that in a population where marriages are universal and maintain a stable state, STD transmission is not as high as in a population with high marital instability where divorce, separation and re-marriage are common. His study shows higher percentage records of STDs among his married respondents than the single respondents (never married, divorced, separated and widowed). He argued that, several explanations could be given this trend, one being the stigma associated with STDs which could make it difficult for singles to openly come out

and admit responsibility for being infected with STD; and the other way round for the married.

PIP/GHANA (2000), analyzed 'youth, HIV/AIDS and STDs in Ghana'. The document confirms that adolescent females are biologically and economically more vulnerable as compared to their male counterparts in Ghana. On the account of their vulnerability many adolescent females are unable to avoid sexual activity or negotiate for safer sex such as the use of condoms. Many sexually adolescents are therefore exposed to the risk of STDs and hence have higher chances of being infected with HIV.

2.1.5 Influence of Sexually Transmitted Diseases on HIV/AIDS

Caldwell and Caldwell (1996) discuss circumcision, chancroid and AIDS. Their study considered the likelihood of the role of 'foreskin' in the spread of HIV/AIDS. Their research shows that certain STDs particularly chancroid, which causes large soft sore on the genitals, tend to occur more frequently among uncircumcised men in poor areas where maintaining personal cleanliness is difficult. Their study proves that chancroid disappeared in the West around the beginning of the 20th century, apparently as societies became more affluent, making hygiene easier to maintain. Caldwell and Caldwell show that a recent research in Kenya finds that uncircumcised men with chancroid are at greater risk of being infected with HIV. The Kenyan study reveals, 2.5% circumcised men had HIV but without chancroid as against 13% circumcised men who had HIV and also had chancroid. Comparing this with uncircumcised men shows that 29% of the uncircumcised men had chancroid but who did not have AIDS, however 53% of the uncircumcised men who had AIDS also had chancroid. The crust of their argument is

that, chancroid increases the risk of contracting HIV because, the presence of genital sores make 'transmissions' during sexual intercourse more likely and more effective.

UNFPA (2000) shows that STDs generally increase vulnerability to HIV infection. The document demonstrates that the presence of one or more STD greatly increases the risk of becoming infected with HIV. Since characteristic symptoms are often absent in women, nearly half of women with an STD are unaware of the infection. Consequently, they do not seek or receive treatment. UNFPA has on record that new cases of STDs number 333 million each year and six out of ten women in many countries have sexually transmitted disease, although many are unaware and do not seek treatment.

Addler (2000) expresses that, 'the spread of the epidemic in societies where heterosexual intercourse is the main mode of transmission is largely dependent upon two main factors: the presence of other untreated sexually transmitted diseases (STDs), and sexual behaviour. Therefore, any attempts to reduce the spread of HIV must address these two factors'.

2.1.6 Stigma on the disease

According to Bullough and Bullough (1987), the evaluation and legal determination applied by society gives prostitution a special status of stigma. This was recounted by Anarfi (1995), that prostitution is highly stigmatized in Ghana, and as a result, prostitutes prefer practicing in cities of anonymity. This behaviour has developed into a culture of silence over STDs infection which is an element spreading HIV. This study considers prostitution having a link to the spread of HIV and therefore correlates the level of stigmatization and how it affects the spread of the disease in the study area.

PIP/GHANA (2000) gave an evidence that data on STDs, like abortion are not readily available in Ghana. This has been ascribed to the stigma society attaches to the disease and its victims. Persons who consequently get infected with an STD may either resort to self-medication or delay seeking treatment from a modern health facility until their situation deteriorates to unbearable limits.

The Daily Graphic (Ghana) of 'Tuesday, January 11 2000 edition' carries the story 'AIDS major killer in Berekum District', reported by Rosemary Ardayfio. In this report, over the last two years HIV/ AIDS has been identified as the leading cause of death in the Berekum district of Brong Ahafo region. Prevalence rates have been on the increase, with 2.8% in 1998 to 3.2% in (January) 2000. According to Anthony Ofosu (Dr.), the district medical officer, patients prefer to stay in prayer camps than reporting to clinics and hospitals. He emphasized the impact of stigma, making it difficult for people living with the disease and their relations to declare HIV status or report to the available health facilities. The Holy Family hospital and the District Health Administration has started a home-based program to take care of patients.

Saturday 15 January 2000 edition of the Daily Graphic (Ghana) shows Zimbabwe, one of the worst HIV-affected countries, where one in four Zimbabwean is HIV positive, introducing an AIDS levy. The paper reports that from January 2000, every Zimbabwean will pay 3% more of income tax to help fight the disease and also take care of about the one million orphans caused by AIDS. The criticism that arose demonstrates the high stigma on the disease. These are the words of a critic, " why should I pay more tax to look after the promiscuous?" The document shows that 40% of pregnant women have the virus and 200 people die every day from AIDS related complications.

UNAIDS' (1999) 'AIDS epidemic update December 1998' reveals HIV is driven by stigma, silence, shame and denial. The document established that most people do not talk about HIV, when they realize they are at risk, or have been infected, because of the stigma associated with the disease. Most people who contract the disease do not also say it until their condition comes to very critical states that demands clinical test. The document confirms that this kind of silence, shame and stigma spreads the disease so fast in indigenous areas mostly, where the culture of silence and stigma are so high.

2.1.7 Polygamy

Talking about marital unions and sexual networking, Berkeley (1989) said polygamy most especially in Africa, has also been identified as one of the risk factors associated with STDs. In his study among patients in a hospital (in Uganda) population with an overall HIV prevalence rate of 42%, those in polygamous union were found to be infected more than those in the monogamous marriages.

In the works of Tempo and Phiri (1993), it is clear that marriage systems and patterns facilitate the spread of HIV. Practices such as sororate and levirate, polygamy cannot be ruled out as factors facilitating the spread of HIV in Malawi.

2.1.8 Knowledge of the disease.

Awusabo-Asare and Anarfi (1997) examined the health seeking behavior of persons with HIV/AIDS in Ghana and in their historical analysis found that, diseases whose aetiology could not be really explained have been given supernatural explanations among the various ethnic groups in Ghana. HIV/AIDS has been put in this category. Such

an explanation of disease causation influences peoples' attitude to the disease and influences health seeking behavior of infected persons; and also in a way facilitates the spread. Their study indicates that some infected persons in Ghana felt they were be-witched and therefore used multiple care outlets, either serially or in chorus hoping one of them would provide a cure or relief as well as explain the source of their infection, which in a way exacerbates the spread if not well handled. Because of the supernatural explanation given to HIV infection in some settings, traditional healers have become noted as health care outlets. In Ghana, a number of traditional healers claim to have found a cure for AIDS. A well known one was Nana Drobo, who claimed he had a cure for AIDS. His issue became a national and international case between 1989 and 1993. He was invited to Japan to proof his cure, where he claimed he had healed an infected person from France. He died on his return in 1993 after accusing his hosts of forcing him to reveal the secrets of his cure. Musara (1991), Lindan et al (1991) and Irwin et al (1991), have also reported of cure for AIDS in East and Central Africa. This however influences to some extent casual sexual behavior, knowing that traditional healers could cure the disease.

2.1.9 Influence of Multiple co-factors

There is a school of thought that HIV/AIDS is influenced by multiple co-factors congruently. N'Galy and Ryder (1988) demonstrated this in their paper, when they analyzed the epidemiology of HIV infection in Africa. They discussed series of co-factors as responsible for the spread of the infection on the continent. Behavior, prostitute patronage, high prevalence of STDs, the presence of genital ulcers, and blood

transfusions caused by high prevalence of malaria and during child-birth were identified. They drew substantive examples from Zaire (now Democratic Republic of Congo), Kenya, Senegal, Uganda and Rwanda in support of their claims.

The AIDS Foundation of South Africa (1999) also points out the factors exacerbating the epidemic in South Africa, as follows:

- Social and family disruption as a consequence of apartheid and migrant labor
- High mobility and a good transport infrastructure
- High poverty and low education levels, resulting in more risk taking behavior and commercial sex work.
- A burdened and transforming health system
- An overwhelmed welfare system
- High level of sexually transmitted diseases
- Low status of women in society and in relationships, making is difficult for them to protect themselves in sexual relationships
- Shifting social norms which permit high numbers of sexual partners
- A resistance to change high and risky behaviors, often centered around notions of cultural resistance to condom usage
- A lack of clear and non-judgmental information and services for young people and denial about teenage sexual activity
- Significant denial of homosexuality in the black community and a history of poor governmental interventions for the gay community.

2.1.10 The influence of Wars and Conflicts

UNAIDS (1999) reveals that HIV is driven by conflicts and danger among survivors in Rwanda and soldiers in Cambodia. Before the political turmoil of the mid-1990s in Rwanda, studies had been done to understand the HIV epidemic in the country more than any other country (the update stated). The pre-war pattern was that, there were high rates of infections in the urban areas (more than 10% of pregnant women infected) than rural areas, which was the bulk of the population. The update has it that the war changed the shape of the epidemic. That a survey conducted in 1997 revealed a bridged gap between the urban and the rural areas, all scoring little over 11%, but with the urban having some few digits higher. In a broader spectrum, the disease became higher in the rural area than in the cities; and was mostly among the teenagers in the ages of 12, 13 and 14. These changes have been attributed to the mass movements during and after the ethnic conflict. HIV prevalence among people who spent the conflict years outside Rwanda in neighboring countries was lower than among people who survived the conflict in the country and at refugee camps. During the conflict, sex was being 'sold or given away' to survive. Rape was also on the increase. HIV rate was however high among camp dwellers. The post war survey concluded that wars and armed conflicts generated fertile conditions for the spread of HIV. Rape was also found to be responsible for the spread of HIV in Rwanda during the war.

The AIDS epidemic update (1998) again shows that, most of Cambodia's soldiers are teenagers with no education and do not really think about the future but live day by day. A long-term risk to them however is nothing, but see sex as a source of comfort in their kind of troubles. A survey shows that one in five soldiers visits a prostitute and also

has girlfriends. This practice of indiscriminate sex among soldiers has also contributed to the spread of the disease.

2.2 Conceptual Model

The study has adapted the framework of Hagerstrand's (1953) diffusion model. In his model, Hagerstrand examined the spread of a number of innovations among the population of a part of Sweden. Some of these innovations concerned agricultural practices, and other general issues like telephone service. Hagerstrand's model was built on the following six assumptions:

1. Only one person has the information at the beginning.
2. The method is accepted once when heard of.
3. Only the 'telling at pair-wise meeting' spreads the information.
4. The 'telling' takes place only at certain times with constant intervals.
5. At each of these times every knower tells one other person who may be knower or non-knower.
6. The probability of being paired with a knower depends on the geographical distance between knower and teller in a way determined by an empirical estimate derived from distance function fitted to migration movements and telephone contacts over space.

The model was applied successfully but he realized it has some limitations therefore in later analysis; he adjusted his simple method by introducing a 'resistance' to acceptance of the information and by introducing 'barriers'.

This model has been adapted because of some similarities it has with this study.

Conceptualizing the spread of HIV, this study considers the existence of initial case(s), which enter(s) a population just as information is disseminated and later on spreads through those who have the information willing or unwilling. In this study's framework, some factors and co-factors, which are classified as background and behavioral, institutional, proximate and interventional (some of which Awusabo-Asare, 2000, also described), have been considered determining the rate of spread of HIV.

Hagerstrand's model is quite different in the sense that, he talks about: only one person having the information at the beginning, whiles this study emphasizes simply, the initial presence of the disease, which could be one or multiple. He also talked about the dissemination of information through 'only pair-wise meetings', which would necessarily involve two or more people, but in this model it could just be one person using infected equipment. The model for this study does not have any specific or 'certain times' as conceived by Hagerstrand, as periods of spread.

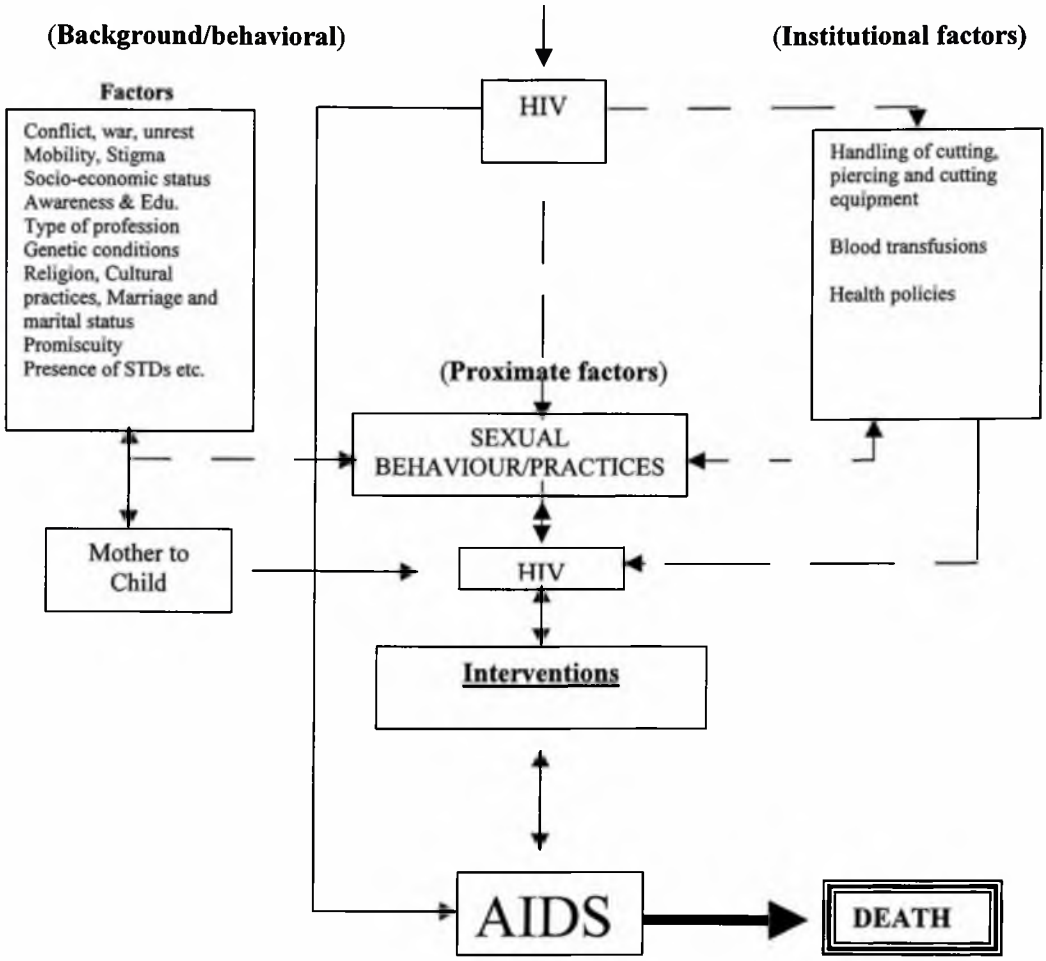
This study looks at conflict, war, unrests, mobility, stigma, poverty, housing, awareness and education, type of profession, genetic conditions, religion, culture, promiscuity and presence of STDs as background and behavioral factors influencing the spread of HIV. These factors do not have direct link with the transmission but work through another factor called proximate, which denotes 'sexual patterns and behavior' in this study. Proximate factors are the direct elements involved in the spread of HIV in Africa. Proximate factor could be outlined as: extra-marital relationships, pre-marital sexual relationships, the practice of casual sex, regularity and timely usage of condom in sexual unions and the patronage of commercial sex workers. The proximate factors relate to all other factors in the sense that, they influence one's sexuality or are the reasons for

one being in the type of sexual unions he/she finds him/herself. Institutional factors in this model are units where blood transfusion is administered, as well as handling of cutting and piercing instruments. Units like health facilities, ' the beauty industry' that has barbering, saloon and other categories in the institutional aspect; one could be directly infected with HIV through the use of infected instruments or through the administration of infected blood. When this happens, the infected person is likely to spread the disease, but only through the proximate factors, influenced by the background factors. The link therefore between the institutional factors and the proximate factors is stronger than the link between the institutional factors and the background factors since in sub-Saharan Africa, HIV is mainly spread through heterosexual means. The model also considers the transmission of HIV from mother to child essential. This medium of transmission is quite direct but experience and practical example (as demonstrated in chapter 5) has proved that not every infected mother transmits the infection to the child at birth, which there have been some cases where mothers were positive but the babies were not infected. This kind of infection could either be the result of influence of proximate or institutional factors.

The factor of intervention is very important since, interventions influence the immune system after infection and in a way have effects on the years between HIV and AIDS and death. Interventions could be in the form of regular counseling for patients, available drugs to fight opportunistic infections, prayers, miraculous healing and any other issues that either slows the spread, changes the positive status of the infected person, or delays the period from being positive to the full blown AIDS and death. It is worthy to recount here that at the stage of AIDS the infected person definitely dies within

some period, since no cure has yet been authentically found to combat the disease to restore health. This also implies that once an infected person gets to the period where AIDS is fully discovered, the person dies shortly if no interventions are made to keep the person in HIV status. This model of facilitating factors in the spread of HIV is shown in figure 2.

Fig 2. A Frame Work Showing Component of Facilitating Factors in the Spread of HIV/ AIDS



Source: Author's construct

CHAPTER THREE

3.0 THE STUDY AREA

This chapter discusses various characteristics of the study area. Issues of concern here include location and physical characteristics, population, settlements, housing and spatial development patterns, education, economic activities, recreation, culture and social activities, health and history of the development of STDs in Sekondi-Takoradi. Since this is a regional study, it is relevant that the characteristics of the area are understood to facilitate analysis of the problem. It is important also to know that a regional study like this offers the opportunity where primary information is sought from the people concerned, hence HIV/AIDS patients in this study. This chapter therefore helps us understand the interrelationships that exist among phenomena in the study area.

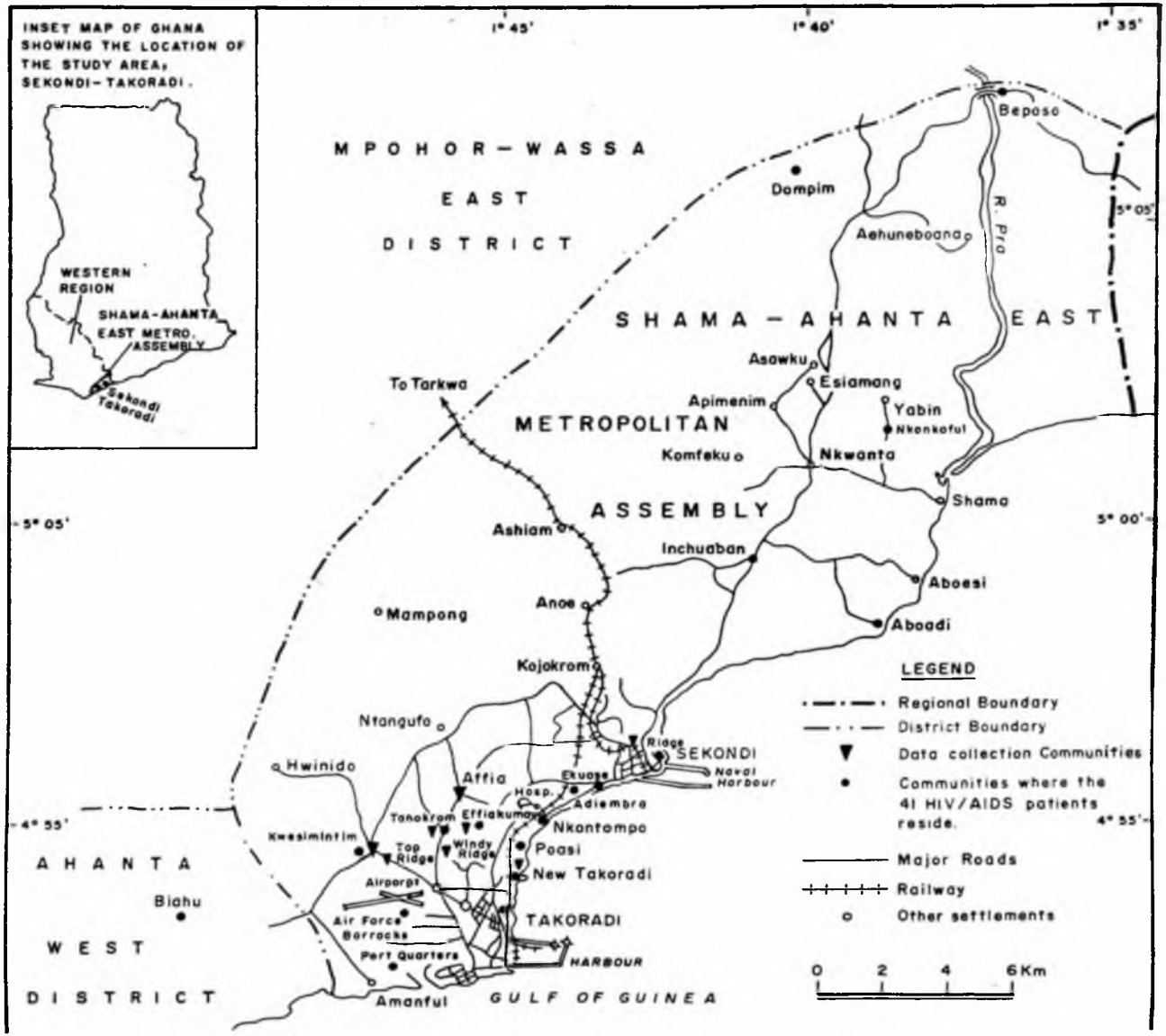
The study area for this research is the Sekondi – Takoradi metropolis. The area is known administratively as the 'Shama Ahanta East Metropolitan Assembly' (SAEMA) of the Western Region of Ghana. It was selected for this study for several reasons. In the first place, it is the capital city of one of the 'hardest hit' HIV/AIDS regions in Ghana, with the prevalence rate of over 4.0% since 1999 (with Sekondi-Takoradi contributing largely to this figure). Secondly, all the other regions highly affected by the disease have had this kind of study, leaving the western region behind hence the need to study at least one major city (Sekondi-Takoradi) in the region. Also, the study area has good combination of rural and urban settings needed for a geographic study of this nature, which makes use of spatial as well as temporal dimensions.

Moreover, the functions of the city among other things being administrative, commercial and social would pre-dispose its dwellers to certain behaviour, which could facilitate the spread of diseases such as HIV/AIDS. Sekondi Takoradi has very good road and rail networks helping to link people in Accra and Kumasi, areas with high HIV prevalence in Ghana. The presence of air and sea ports make the area a very dynamic and vibrant one where interaction of people of diverse kind is facilitated. One other factor prompting the selection of the area is the city's closeness to La Cote d'Ivoire, the leading country in West Africa with high HIV/AIDS cases. The people of Sekondi – Takoradi have easy access to the Abidjan city where they transact businesses of varied kinds. The Vanef STC has bus services to Abidjan every day from the study area. Sekondi – Takoradi has a remarkable history of commercial, social and security activities, during which time prostitution flourished in the area. To be able to understand a sexually transmitted disease of this kind and in Sekondi-Takoradi, it is important to have a coherent picture of some of the more important aspects of social life of the metropolis. These include housing, occupation, marital life, education, group associations and other indices of social maladjustment, which will be discussed.

3.1 Location

The location of the area points to issues that would help understand vividly the dynamics of the spread of HIV epidemic in the metropolis. The study area, which is the SAEMA, started as the Sekondi town council in 1903, extended to include Takoradi in 1946 and on the 25th of June 1962 was elevated to a city status. The area lies within latitude 4.51N-5.09N and longitude 1.35W-1.50W. It is the smallest of the eleven (11)

districts in the Western region. It covers an area of 334.43 sqkm. It shares boundaries with Ahanta West, Mpohor Wassa East and Komenda-Edina Equafo-Abrem Districts. The study area is shown in figure 3-1. The area is 280km west of Accra and 130km east of La Cote d'Ivoire by road.



3.2 Physical characteristics

The topography is very varied, which serves as an attraction for tourists. The coastline has capes and bays, which have been eroded, especially around Shama, Essamang, Nkotompo and New-Takoradi. The central area of Takoradi is low lying with an altitude of 6 meters below sea level allowing several lagoons to intersperse with ridges and hills between 30 to 60m high. The relief of Sekondi is a unique undulating one.

There are two main rivers .The Whin and the Ayire, which are perennial in nature. The equatorial type of climate characterizes the area. Temperatures are high with an average of 22 degree Celsius. The mean annual rainfall is about 1,380mm and covers an average of 122 rainy days mainly from the month of March to July. The second season, which is quite minor, starts from September to November. During the second season, the intensity of the rains is quite high but with a short duration, associated with line–squalls and thunderstorms. There are short but intense dry seasons which occur mostly in the months of August to September and December to February.

The main vegetation was the equatorial rain forest type, which have been degraded by slash and burn farming practice and the development of the wood industry coupled with the activities of chain –saw operators. The area is now mainly woodland

3.3 Population

The current population of the metropolis stands at 359,398 (2000 pop. census provisional results) with a male population of 183,416. The female population constitutes 51.0%, with a sex ratio of 95.9. The population grew rapidly from 152,607 to 249,371

between 1960 and 1984 respectively with a growth rate of 3.5% per annum. Based on this growth rate the population was expected to be over 400,000 people as of end 2000. Currently, the youth (15-40) constitutes 45% (162,000) of the population in the metropolis. The population density of the area stands at 1197 persons per square kilometer. This ratio is expected to increase, holding present conditions constant. The growth points in the area (in terms of increasing population) are basically Sekondi, Takoradi, Affia- Kwesimintsim. Facilities in these areas have been over stretched to the extent that farmlands are being converted for housing development.

3.4 Settlements, Housing and Spatial development patterns

The metro has forty - five (45) pockets of settlements and close to fourteen of these have population each exceeding over seven thousand (7000) people. The rural-urban dimensions are pronounced in the metropolis. The size of the total population dwelling in the urban area is currently 69.0% as against 31.0% rural. The urban portion of the metropolis constitutes about 32% of the land area while the rural composition is 68%. Although the rural area takes relatively large land size, it spatially accommodates little over 30% of the population while the urban takes nearly over 70% of the population. The landuse pattern is shown in Table 3.1

Using a different classification based on facility availability, three types of residential patterns could be identified. The first, second and third classes of residences. Residential areas cover 21% of the land in the metropolis, while farmlands cover the highest portion of 40.1 %. As a result of growing population and the need for the construction of more houses, farmlands are being converted for residential uses.

Table 3.1 Shama Ahanta East Metropolitan Assembly's (SAEMA) Landuse

LANDUSE	*ACRECAGE (in km)*	*PERCENT (%)*
Residential	70.2	21
Commercial	20.7	6.2
Educational	25.8	7.7
Industrial	40.1	12.0
Agricultural	134.8	40.3
Civic/ Cultural	31.8	9.5
Open Spaces	11.0	3.3

Source: SAEMA Physical Planning Department (2000)

The first class residences are mostly state owned. Examples are the Windy Ridge, Beach Road, Chapel Hill among others. These areas have good roads, adequate power supply and good water services. Plot sizes are large and population densities are generally low. Good landscape design and clean environment characterize the area. Some of the second-class areas are the Anaji estate, Assakae, Effiakuma Estate and Tanokrom. These second class areas of residence have fairly good facilities and services just as described in the first class. The second class is not well developed and too different from the third class. In the third class however, the areas are poorly serviced in terms of water, power and telecommunication facilities. Large areas of this class are not accessible to vehicular traffic. Plot sizes are very small. In sharp contrast to the second and first class areas, population densities are very high and the environments are very dirty. Some of the residential areas that fall within this category are: Kwesimintstim, Effiakuma, Adeambra and Fijai. The increase in population in the metropolis has placed tremendous pressure on housing. Generally demand for housing is very high, projected close to four thousand

(4000) units per year out of which about 20% is met. As a result, there is an overcrowding situation in the metropolis to the extent that most of the houses have high occupancy levels of eight (8) persons per room. Coupled with this, the SAEMA issues an average of 974 housing permits per year as against a rising demand as demonstrated above. These have however given way to increase in construction of houses with an estimated 40% of the houses being constructed illegally and are mostly unaccounted for. (SAEMA, 2000). Individuals provide the bulk of the housing units, with a sizeable number constructed for rental purposes. According to the GLSS 4 (1998), just a little over 24% of the households in the urban areas are owned by those who live in them. The government provides 4% of accommodation on rental basis while private employers provide 2%.

Real estate developers such as Regimauel Gray, State Housing Company (SHC) and the Social Security and National Insurance Trust (SSNIT) in the Metropolis have been providing housing schemes. Ghanaians living abroad have largely patronized these housing units as well as staff of some organizations. Individuals have really found it very difficult to acquire these housing units because of affordability. More over, the prices of rental units are also expensive as a result of expensive infrastructure cost in the light of high utility rates. These problems would explain the high room occupancy ratio and the presence of some social vices linked to inadequate housing.

In the 1930s, 1940s and the 1950s, Sekondi - Takoradi was noted for three types of overcrowding, (Busia, 1950). His study revealed that, there were too many houses built in a given area, too many persons living in a house and too many persons living in a room. This went on to the extent that in certain houses in Takoradi, landlords had to

convert latrines and kitchens into rooms so as to take more tenants. This situation prevailed because population kept on growing as against inadequate housing. It also made it difficult for parents to control their children, which resulted in high delinquency of the youth. Large numbers of people regularly slept on the streets at night and under open verandas.

3.5 Education

Institutions within the metropolis range from nursery, kindergarten, Primary, Junior Secondary, Senior Secondary, Teacher Training, Technical and Vocational Institutes to Polytechnic The schools are being managed by the SAEMA, Religious bodies and other units as indicated in table 3.2.

Table 3.2 Number of Schools and Management Units in Sekondi-Takoradi

MANAGEMENT UNIT	NUMBER OF SCHOOL			TOTAL
	Kindergarten	Primary	Junior Secondary School	
African Methodist Episcopal	3	4	2	9
Anglican	9	10	6	25
Catholic	17	19	8	44
Garrison	7	7	7	21
Islamic	8	10	2	20
Methodist	21	27	16	64
Metropolitan Assembly	37	47	49	133
Presbyterian	3	2	2	7
Seventh Day Adventist	-	-	-	
T.I. Ahmadiya	1	2	1	3
TOTAL	106	130	93	329

Source: SAEMA, 2000.

The Metropolitan Assembly controls the majority of the schools in the metropolis as shown in the table. There are also 12 senior secondary schools, 1 Teacher Training, 1 Technical College and 1 Polytechnic. The kindergartens take care of children from 4 to 6

years. Out of the 106 kindergartens indicated in the table above, forty (40) are found in Sekondi, twenty-six (26) in Shama and forty-one in Takoradi. A kindergarten is made up of two classes with maximum intake of 30 children. The total number of enrolled children by the end of 2000 stood at 11, 716. There are 702 teachers at the Kindergarten out of which 274 (39%) are trained and 428 (61%) are not trained*.

According to available statistics on enrollment, more males are enrolled in Primary and Junior Secondary schools than females. In pure analytical terms, this means that literacy levels will be higher among males than females, hence any issue that relates to level of literacy would mean that females will fall more victims. In the primary schools in the metropolis, were 4628 males and 4319 females enrolled as of end 2000. Also, in the twenty – two (22) Junior Secondary Schools, there were 1513 and 1487 males – females respectively by the end of 2000. Though statistics for senior secondary and other institutions were not available as at the time of this research, the trend is that, more males enroll in schools than females and a good proportion of the youth (162000) are students*.

The major Senior Secondary Schools and Polytechnic in the study area are: The Community Day Secondary, Shama Secondary, Diabene Secondary, Archbishop Porter Girls' Secondary, Ahantaman Secondary, Sekondi College, GSTS, St Johns fijai and Takoradi Polytechnic. Most Secondary schools in the metropolis do not have boarding facilities, especially for girls. There is however a great demand for girl-child education in the metropolis. The enrollment level for females as discussed earlier, is a figure which has shown an improvement on previous records, which are not available for this report,

* Data available at the physical planning department of the SAEMA

but revealed by the metropolitan office. In brief, among other problems affecting education is the likelihood of pre-disposition of students to vices of urban culture.

3.6 Economic Activities

All kinds of economic activities or businesses could be found in Sekondi-Takoradi. The main commercial activities range from buying and selling on small and large scales, manufacturing activities, transport services, 'galamsey' and other illegal as well as 'immoral' economic activities such as commercial sex activities prevail in the metropolis. The commercial zones in the metropolis cover a total of 6.2% of the urban landuse. The hub of commercial activities is located in the central business district of Takoradi. This place covers an area of about 350 acres and includes all sections bounded by the Accra, Cape Coast and Axim roads in the Sekondi-Takoradi metropolis. The Takoradi central market is the core of trading activities and spans an area of 9 acres. It has been observed that about 3 out of every 8 vehicular trip in Takoradi are to and from the Market circle. The Market circle area continues to experience congestion with an in – traffic waiting time of about 4 minutes. This situation is accounted for by booming commercial activities and the central location of the market. The core of the market is choked with wooden stalls and has made it difficult for easy movements. These stalls are also used for all kinds of nocturnal immoral and illegal activities. The SAEMA has detailed a number of measures to decongest the area. These include the establishment of satellite markets at Apremdu, Kokompe and Bogoso.The Kokompe light industrial area has been established to absorb industrial and hardware sellers from the central area.

According to available data, a total of 12.05% of the metropolis' land is under industrial activities. The study area is indeed the third largest industrial center in the country after Accra-Tema and Kumasi. Some of the major industries include WAMCO, Ghana Household Utilities Manufacturing Company (GHUMCO), as well as bulk petroleum installations. There is also the export-processing zone, demarcated into 100 plots of an average size of 2.5 acres. 2000 acres of farmland has also been converted into an industrial estate at Sofokrom to support the zone.

3.7 Recreation, Culture and Social Activities

The Essei Lagoon Beach Resort at Sekondi, the Tokoradi Sports Club and the Sekondi Gyandu Park are the main recreational centers in the metropolis. Most of the potential sites such as the Essikadu Railway Park, remain abandoned and undeveloped. Most of the communities are without children's playing ground and the existing open spaces are also encroached upon. In spite of these, there are so many drinking bars, restaurants and hotels in the area that offer recreational services to the public and tourists to the area.

There are football clubs as well as cultural groups. However, cultural activities have not featured as major sources of entertainment. A 25-acre land has been acquired at Fijai near Sekondi for the construction of a Cultural Center. The development of the complex is ongoing, and it includes a 3000-seater theatre, a craft village, a durbar ground, artiste hostels and an administrative block. The SAEMA revealed that an entertainment program code-named western carnival is yet to be institutionalized.

Religious activities are one of the major socio-cultural activities in the area. There are different kinds of faiths of Christianity. There are also indigenous traditional sets, as well as recognized Moslems groups. The heterogeneous population has brought about cultural diversities, whereby almost all cultural practices representing various ethnic groups in Ghana could be found. The major native indigenous ethnic group is the Ahantas. The main language spoken is Fante.

3.8 Health

The Effia-Nkwanta Hospital is the main health facility in the study area. It is also the regional hospital in the Western Region. It is also the regional reference hospital and accounts for all HIV/AIDS cases in the Western region. Sekondi – Takoradi is a sentinel surveillance site known as 'Takoradi'. This site is situated at the Effia-Nkwanta Regional Hospital. Other health facilities in the area include the European hospital, Polyclinics and Pharmacies. There are traditional and spiritual healing centers. Malaria has been the number one of reported cases of diseases just as any other tropical area. Accidents, fractures and burns have also remained high over the years. Reproductive health cases also feature prominently as causes of hospital attendance. The Table 3.3 (a and b) show the statistics from 1997 to 1999 of top ten reported diseases at the OPD and Admissions. Unfortunately, HIV/AIDS is mainly not reported in the area of study, but mostly detected during blood tests and when its symptoms are reported. This again clearly points to the fact that, HIV/AIDS is not a disease that can only be singled out of others but a combination of series of diseases as a result of weak immune system. This is why it did not appear as a reported case in the statistics presented in Table 3.3. One should not look at the data and conclude that, HIV/AIDS has not been an OPD case. It could also be

strongly argued out that, the principal symptoms of HIV/AIDS in Sekondi-Takoradi (Diarrhoeal Diseases and skin disorder) have prominently featured in the reported cases shown in the Table 3.3 hence AIDS has been fully covered. This is not also to say that all the diarrhoeal diseases and skin disorder cases shown in the table, are HIV/AIDS related

Table 3.3a Top Ten Causes of OPD Attendance: Effia-Nkwanta Regional Hospital

SERIAL NO.	DISEASE 1997	NO. OF CASES	%	SERIAL NO.	DISEASE 1998	NO. OF CASES	%	SERIAL NO.	DISEASE 1999	NO. OF CASES	%
1	Malaria	13186	33.7	1	Malaria	11968	36.0	1	Malaria	18014	36.
2	Accidents, Fractures and Burns	4588	11.7	2	Accidents Fractures and Burns	2144	6.5	2	Accidents, Fractures and Burns	3230	6.6
3	Upper Respiratory infection	2740	7.0	3	Pregnancy and related complications	1414	4.3	3	Pregnancy and Related complications	2017	4.1
4	Diarrhoeal Disease	1989	5.1	4	Gynaecological Disorders	1408	4.2	4	Diseases of Oral Cavity	1928	3.9
5	Skin Diseases and ulcer	1317	3.4	5	Upper Respiratory Tract infections	1088	3.3	5	Upper Respiratory Infection	1857	3.8
6	Rheumatism & Joint pains	1220	3.1	6	Diarrhoeal Diseases	835	2.5	6	Gynaecological Disorders	1275	2.6
7	Pneumonia	1125	2.9	7	Tuberculosis	552	1.7	7	Diarrhoeal Diseases	1046	2.1
8	Hypertension	811	2.1	8	Skin Diseases Ulcers	541	1.6	8	Hypertension	777	
9	Tuberculosis	713	1.8	9	Diseases of Oral cavity	533	1.8	9	Diseases of Skin & Ulcers	858	1.2
10	Anaemia	635	1.6	10	Hypertension	519	1.6	10	Tuberculosis	449	1.0

Source: Records Department-Effia Nkwanta Hospital

Table 3.3b Top Ten-Admission Cases- 1997-1999: Effia Nkwanta Regional Hospital

SERIAL NO.	DISEASE 1997	NO. OF CASES	%	SERIAL NO.	DISEASE 1998	NO. OF CASES	%	SERIAL NO.	DISEASE 1999	NO. OF CASES
1	Malaria	702	16.5	1	Malaria	725	11.7	1	Malaria	606
2	Pneumonia	269	6.3	2	Severe Anaemia	329	5.3	2	Malaria with Anaemia	418
3	Tuberculosis	230	5.4	3	Pneumonia	285	4.6	3	Pneumonia	293
4	Anaemia	212	5.0	4	Tuberculosis	225	3.6	4	Tuberculosis	207
5	Febrile Convulsion	150	3.5	5	Hypertension	133	2.1	5	Abortions	200
6	Hypertension	97	2.3	6	Appendicitis	101	1.6	6	Severe Anaemia	154
7	HIV	91	2.1	7	Diarrhoeal Diseases	98	1.5	7	Hernia	144
8	C.V.A.	84	2.0	8	Sickle Cell Diseases	78	1.3	8	Hypertension	142
9	Fracture Femur	62	1.5	9	C.V.A. with Hemiplegia	67	1.1	9	Appendicitis	106
10	Meningitis	56	1.3	10	H.I.V.	64	1.0	10	Sickle Cell Disease	90

Source: Records Department-Effia Nkwanta Hospital

Delving into the past shows that the density and overcrowding in the town increased the danger of contagious and infectious diseases. Sickness was general and frequent. Among the most common diseases were yaws, malaria, tuberculosis, pneumonia, dysentery and gonorrhoea (Busia, 1950). Health facilities available then were the welfare clinic (owned by the then government and Red Cross) and the Government General Hospital. However hospital health seeking was not good. Most people preferred to buy medicines from shops, drug stores or the market. Others also consulted

Mohammedans, native doctors and traditional priest. Some of the most common diseases treated at the General Hospital in 1947 are shown in the table 3.4.

Table 3.4 Diseases Treated At The General Government Hospital In 1947

Disease	*In-patients*	*Death*	*Out-patients*
Disease of the eye	38	-	1,465
Malaria	189	2	871
Gonorrhoea	240	-	475
Other Veneral Diseases	5	-	1
Yaws	1	-	685
Helminthes Diseases	115	-	181
Broncho-Pneumonia	7	6	3
Cober Pneumonia	92	18	10
T B of the respiratory system	56	26	9
Other T B	6	-	21
Nutritional Diseases	17	5	74

Source: Computed from Busia (1950)

In addition to the figures in table 3.4 there was a total of 3,012 attendances at the Veneral Disease Center (The Seamen's Clinic) at Takoradi. In Table 3.4, it could also be seen that, malaria has been an old time 'top and characteristic' disease of the study area. However for the purpose of this study one would again see that diseases related to sex have also been a hallmark of Sekondi–Takoradi. It is however relevant to briefly look at the development of this kind of diseases.

3.8.1 History of the development of STDs in Sekondi-Takoradi

This is discussed in the context of Busia's (1950) study where he looked at the collapse of sexual morality as an index of social failure. The high incidence of STDs in the area could strongly be attributed to the high level of prostitution that started in the past. In his study, Busia (1950) discovered that the collapse of sexual morality was among the indices of maladjustment to urban life. His data supports the general explanation of economic pressure and social isolations as important factors predisposing 'to the fraction of law and custom'. Evident to this problem was the frequency of pre-marital sexual relationships as well as the frequency of divorces due to adulteries, which is still a problem in present day Sekondi-Takoradi.

The most obvious index to this problem was the growing practice of prostitution, favored by the presence of large un-married males, who were Africans, Europeans, Indians and Syrians and the regular visits of seamen. In the course of his survey (Busia, 1950), 127 prostitutes residing in Sekondi-Takoradi were interviewed, but only 9 of them were indigenous Ahantas. Fifty-two of them came from other parts of the country principally Cape Coast and Axim; 55 from Nigeria and 11 from Liberia. The study shows that there were many prostitutes in the study area when business was really thriving. Many of them had no ties with home and had changed their identities. To make up for this loss of touch with home, their union provided security of befitting funeral celebration and burial. Fifty (50) of the 127 interviewed had been to school, 10 had completed primary and the remaining 40 had discontinued schooling at various levels between standards four and seven, because of the following reasons. Some had babies while in school. Their parents could not pay their school fees, provide food and clothing. Some

were driven to prostitution through sheer poverty and had to leave home and fend for themselves.

Some prostitutes made their living by remaining mistresses to Europeans, sleeping at their quarters. Many of them rented room in Takoradi where 'pilot' boys assisted them to get customers especially among seamen. Prostitution was a very lucrative trade during the 'wars', (when troops were quartered in Takoradi) such that prostitutes earned from £8-£15 a month or more. A 'pilot' boy usually received eight shillings out of every £1 he enabled a prostitute to earn.

However, public opinion regarded sexual immorality as a very serious evil. Disappointing comments were passed upon pre-marital relations, adultery, frequent divorce and prostitution. This is however a background to the strong stigma attached to sexually transmitted diseases especially HIV/AIDS, spreading so fast in the area but victims find very difficult to talk about. The more serious prevalence of prostitution was the one among schoolgirls and pre-marital adventures among schoolboys as well as other youngsters (Busia, 1950). The level of prostitution would however justify the huge number of sexually transmitted diseases reported as treated in the General Hospital in 1947, as shown in Table 3.4. However, most of the factors that contributed to the development of the prostitution business are still prevalent, and again promoting commercial sex activities in the Sekondi-Takoradi metropolis.

As can be seen in Table 3.3a and 3.3b, HIV/AIDS and its manifestations have become the number one dominant and current STDs in Sekondi –Takoradi. Sekondi Takoradi scores the highest number of HIV/AIDS cases in the Western region. The area's function as administrative, commercial, nodal centre and also as tourist destination

among others, have contributed a lot in the spread of HIV in the area. These functions encourage different levels of interaction between and among people of different socio-economic status hence in a way, spreading the disease. According to available data, between 1994 and 2000, the region recorded over 1192 cases of AIDS, with the study area leading in these diagnosed cases. It is however clear that, most of the cases that come to the hospital are fully blown AIDS cases, since the patients report to the hospital only when they are very sick and most often when they are beleaguered by the opportunistic diseases. HIV cases are only arrived at during screening of blood and other clinical tests.

CHAPTER FOUR

4.0 PATTERNS AND TRENDS OF HIV/AIDS IN SEKONDI –TAKORADI

In this chapter, trends and patterns in HIV/AIDS are discussed. Data on cases treated at the Effia-Nkwanta Hospital since 1992 to 2000 and patterns revealed by the data gathered on HIV patients in 2001 are all discussed. Focus is on the distribution of cases in years, ages, sexes, marital statuses, occupations, places of residence, symptoms and other socio-economic indices. The data in this fourth chapter also serve as a background to the facilitating factors analyzed in chapter five. To fully appreciate the trends and patterns of the disease in Sekondi Takoradi, regional and national trends are presented alongside that of the study area where necessary. It is however important to appreciate the two types of data presented in this chapter on reviewed HIV/AIDS cases within the period 1992 to 2000 and data on HIV/AIDS patients. The essence is for the two to complement each other to really establish the patterns.

4.1 Prevalence rates of HIV/AIDS in Sekondi-Takoradi from 1992 - 2000

The prevalence rate of HIV in Sekondi-Takoradi, which is currently over 4.0%, shows a fluctuating trend over the years (1992-2000). This fluctuation cannot solely be attributed to any specific issue, but involves late reporting to hospital with the symptoms, stigma and data handling, which be-deviled this elementary years of prevalence calculation. Prevalence rates have been between 1.8 to 4.0 within the period 1992 to 1999 as presented in Table 4.1 At these prevalence rates, HIV in Western Region has contributed 9.1% to the cumulative (AIDS) national total of 43587 by the end of 2000.

Table 4.1. HIV prevalence in pregnant women in Sekondi -Takoradi: 1992-1999

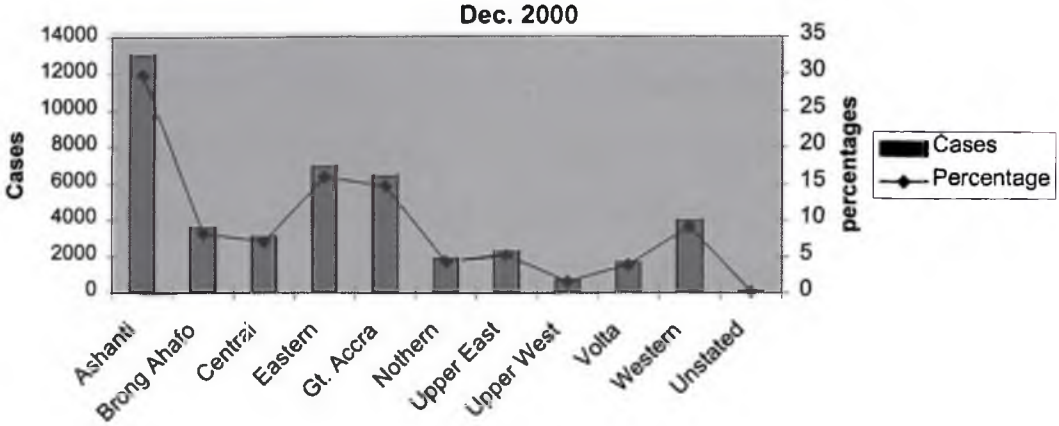
Year	1992	1994	1995	1996	1997	1998	1999
Prevalence Rates (%)		1.8	-	4.2	3.8	3.0	4.0

Source: NACP Sentinel Surveillance, 2000. *(No data was computed for 1993 and no records were made for 1992 and 1995)*

HIV in Western region cumulatively contributed 9.1% of the national value, which seems small a percentage to the total value, but making the region the fourth highest with HIV/AIDS currently in the country. The cases in the Western region are mainly reported from Sekondi-Takoradi. Ashanti region has the highest cases in the country representing 29.9%, followed by Eastern region with cases forming 15.9% and Greater Accra with cases representing 14.7 before Western region, where Sekondi-Takoradi metropolis contributes nearly half of all screened cases. This is also shown in figure 4-1, on reported cumulative AIDS cases in Ghana by regions.

The actual figures provided by the STD/HIV unit at the Effia-Nkwanta Hospital also show fluctuating trends but depicting relative increase in cases. As shown in Table 4.2 from 1992 to 1995 the total positive cases fluctuated, but started increasing from 1996 to 1999. This indicates that the number of people being infected currently with HIV is increasing.

Fig. 4-1 Reported cumulative AIDS cases by Region- March 1986 to Dec. 2000



Source: DCU/MOH 2000. (Figures have been rounded up to the nearest degrees in the chart)

Table 4.2 Shama Ahanta East Metro (Sekondi-Takoradi) HIV Tests, 1992 – 1999

YEAR	*TOTAL SCREENED*	*TOTAL POSITIVE*
1992	1899	178
1993	2583	367
1994	2916	341
1995	2433	290
1996	2365	191
1997	2731	292
1998	2866	465
1999	3257	472

Source: STD/HIV Unit, Effia-Nkwanta Hospital.

4.2 Age distribution

The age distribution of patients interviewed is shown in Table 4.3. The data portrays only the categories of the reproductive and productive age group, which is actually the target age group for the study. The patients interviewed, show high frequencies in the 25-29 and 35-39 age groups. The national average age group of high incidence (30-34) has recorded a lower percentage among the other groups shown in

Table 4.3. This could generate a lot of debate, but the fact here is, the peak group of the patients interviewed is the 35-39 age group, which is also shown in figure 4-2.

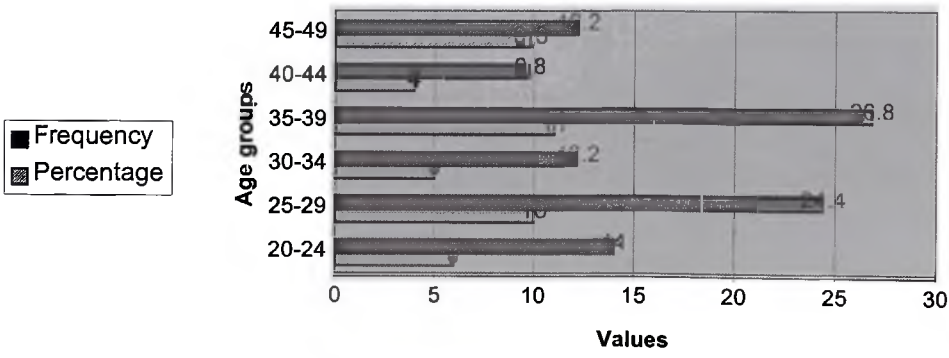
The age distribution computed for cases in Sekondi-Takoradi from 1996 to June 2000 reveals a presence of HIV/AIDS in the 15 to 49 age group. This pattern of prevalence with high incidence in the productive and reproductive age group is revealed everywhere in the country. The national cumulative reported AIDS cases from 1986 to 2000 and AIDS cases reported from January to December 2000 also show similar trends, with the peak cases in the age groups of 30-34 (9295) and 30-34(1270) respectively.

Table 4.3 Age distributions of HIV/AIDS patients interviewed

Age Group	Frequency	Percent (%)
20-24	6	14
25-29	10	24.4
30-34	5	12.2
35-39	11	26.8
40-44	4	9.8
45-49	5	12.2
Totals	41	100

Source: Field survey, 2001.

Fig. 4-2 Age distribution of Patients



Source: Field survey, 2001.

4.3 Sex Distributions of HIV/AIDS patients interviewed

The general trend as discussed in the introduction shows high percentage of females (63%) with the disease as against their male counterparts (Agyei-Mensah, 2001). This trend is similar to what has been found in the case of Sekondi-Takoradi as shown in Table 4.4. Females formed 68.3% while the males constituted 31.7% of the patients interviewed. The female dominance in the spread of the HIV has been attributed to series of issues. Among these are their inability to negotiate for safer sex and their 'second person identification' imbued in the African culture, causing them to be at the receiving end of any thing. Coupled with their lower economic status, most African women are easily lured to submit themselves to sex at the peril of their lives.

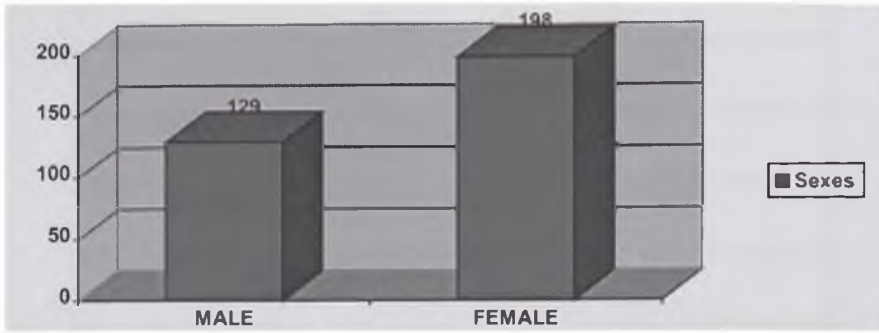
Table 4.4 Sex Distributions of HIV/AIDS patients interviewed

Sex	Frequency	Percent (%)
Male	13	31.7
Female	28	68.3
Totals	**41**	**100**

Source: Field survey, 2001.

The impression from the above table is that, there are more females living with HIV/AIDS than men in the study area. Females dominated each category of age groups shown in Table 4.3 with a ratio of little over 2:1. This pattern is also not different from the cases reviewed prior to the live interviews shown in figure 4-3.

Fig 4-3 **Sex Differentials of HIV/AIDS Cases In Sekondi - Takoradi 1996-June 2000**



Source: Disease Control Unit, MOH Takoradi

4.4 Marital status

In Ghana and most other countries, HIV prevalence is high among single people (separated, divorced, widowed and unmarried). On the contrary however, this study has found high cases of HIV/AIDS rather among married couples. This is quite different from documented prevailing trends, but the reasons for this pattern will be discussed in chapter five. The pattern as shown in Table 4.5 and figure 4-4, reveals as much as 48.8 percent of the patients in the married category, with the immediate following categories being the divorced and the re-married constituting 19.5% respectively. This pattern showing fewer 'singles' category as against the married confirms the fact that HIV is mainly an issue of heterosexuality in sub Saharan Africa.

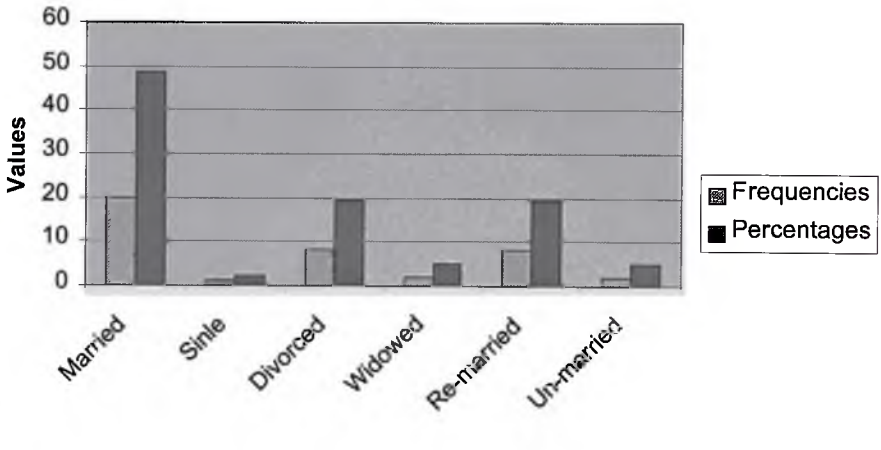
Case histories reviewed from 1996 to June 2000, shown in figure 4-5 also reveal high cases of HIV/AIDS among married couples, yielding 46%, followed by singles with 30%, then the divorced with 11%, un-married with 8% and the widowed, 5% respectively. This however points to the fact that, HIV/AIDS in Sekondi-Takoradi is an issue of high concern among married couples than other sorts of people.

Table 4.5 Marital status of HIV/AIDS patients interviewed in 2001

Status	Frequency	Percent (%)
Married	20	48.8
Single	1	2.4
Divorced	8	19.5
Widowed	2	4.9
Re-Married	8	19.5
Un-married	2	4.9
Totals	**41**	**100**

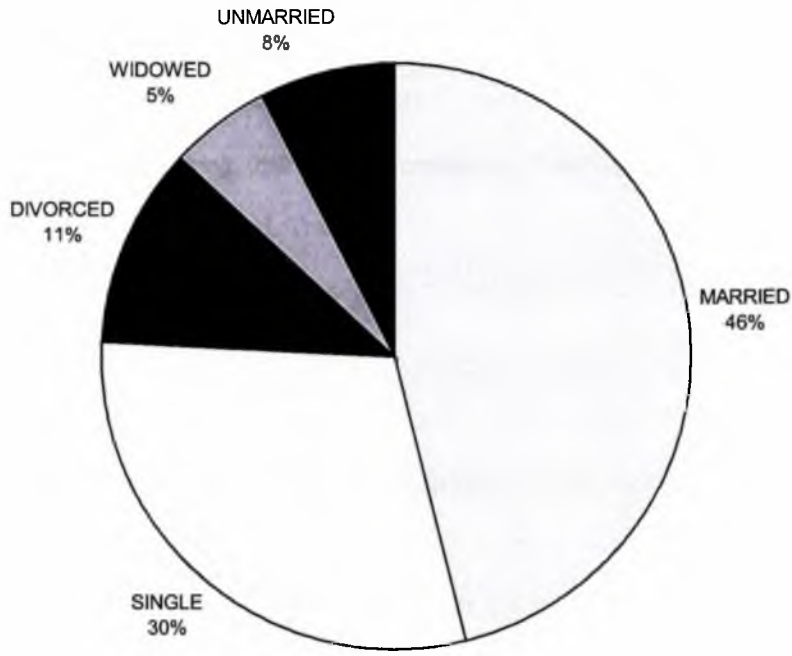
Source: Field survey, 2001.

Fig. 4.4 Marital Status of Patients



Source: Field survey, 2001.

Fig. 4-5 Marital Status of Reviewed Cases, January 1996- June 2000



Source: Computed from Disease control Unit, MOH Takoradi (2001).

4.5 Occupation differentials

In Ghana, HIV/AIDS is more easily identified among sex workers (Pappoe 1996). However one cannot point out to a specific group of people as characterized of HIV/AIDS. In spite of this contention, some strands of occupation could be identified as more prone to HIV infections than others.

As shown in Table 4.6 the sample of people living with HIV/AIDS in Sekondi-Takoradi are in varied kinds of occupations, ranging from farming, food vendoring, itinerant trading, retailing, hawking, fishing, fish mongering, teaching and some other people who claim they are unemployed. Traders of all kinds have mainly been affected. This does not imply that people in other categories of occupation are free from being infected, but as at the time of the research they were (traders) more prone to the infection. This is however not to frighten those in the trading grade of occupation. Available data shows that the disease is less found and reported among people with 'clerical professions, who are of higher socio-economic status in the study area'. One is therefore not far from the point that the disease is mainly among people of the lower socio-economic rating. This would rightly be understood when other socio-economic indices such as level of education and residential settings in this cram are studied. The Table 4.6 shows itinerant trading, retailing and hawking as a category of occupation with high incidence of the disease. This category pulls 29.2%. Eighty (80%) percent of the people in this group are women. This group of people travel from one area of the country to the other and sometimes outside the country to purchase foodstuff or other goods or as well sell them to their customers or clients. Food vendors and artisans follow the number one prevalent group (as shown in table 4.6) with 14.6% each, forming exactly half of the leading group.

Table 4.6 Occupations HIV/AIDS respondents.

Occupation	Frequency	Percent (%)
Unemployed	4	9.8
Farmer	3	7.3
Food vendoring	6	14.6
Itinerant trading, retailing and hawking	12	29.2
Laborer	2	4.9
Artisans	6	14.6
Housewife	1	2.4
Fishing	1	2.4
Fish mongering	4	9.8
Teaching	1	2.4
No response	1	2.4
Total	**41**	**100**

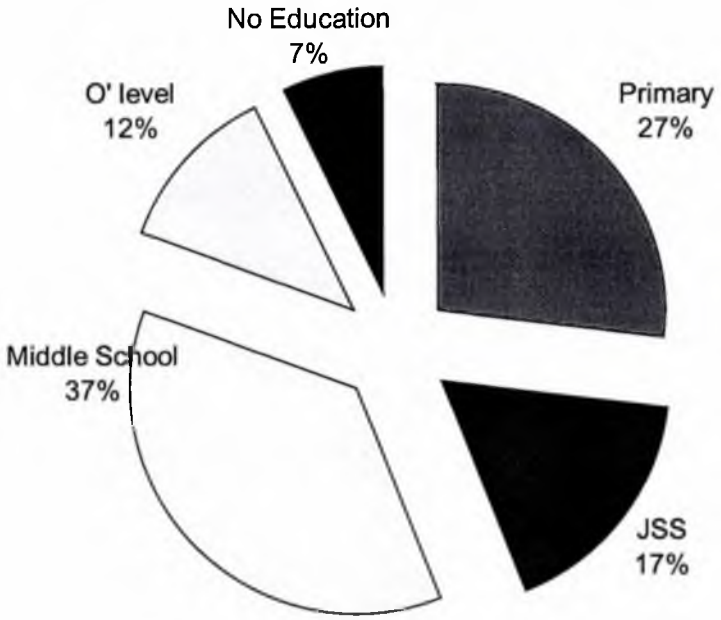
Source: Field survey, 2001.

4.6 Levels of Education of patients

As can be seen in figure 4-6, people living with HIV/AIDS range from people who have never been to school and those who have some form of education. Those who have some form of education vary from Primary levels, Junior Secondary, Middle School, and 'O' level. This is a matter of time, but as at the time of the study this was the pattern. About 36.6% of the patients had either finished or been to Middle Schools, while 26.8 % had up to Primary Level of education. 17.1% either finished or dropped out of Junior Secondary. 12.2% of the patients had up to Ordinary Level of education. 7.3% had

no education; they have never been to school. Figure 4-6. Shows a pictorial distribution of educational levels.

Figure 4-6 Level of education of sampled HIV/AIDS patients



Source: Field survey, 2001.

An issue worth noting in figure 4-6 is that, the current Senior Secondary as well as 'A' levels, HND and Degree holders have not been represented. This does not mean that they are free from being infected because of their high level of education. One cannot dispute the fact that level of education and awareness has a place to play in the spread of the disease. All kinds of arguments could be forwarded, but the fact here is clear, patients interviewed and presented in the graph (figure 4-6) are of lower educational rating.

Teacher training and other professional trainings were excluded from the ratings to avoid double representation, since these institutions admit candidates from the levels used.

4.7 Places of residence of patients

Patients interviewed living with the disease are widely distributed. Most of them reside in the Sekondi-Takoradi metropolis, while very few have at least two areas of residence. All those indicated living outside the study area do not really live in those communities permanently, but they shuttle between the study area and those communities indicated. Table 4.7 shows the details. Almost all the patients interviewed lived in the study area except four of them (representing 9.8%) who resided outside Sekondi-Takoradi. Other places of residence mentioned include Accra, Mankesim, Axim and Abidjan. This implies 90.2% of the people living with HIV/AIDS interviewed reside permanently in the study area. At least one HIV/AIDS person lives in one of twenty-two communities in the study area. Two each live in five different communities, three other patients in a community. Four of the patients also live a community while six at least live in one community, specifically, Kwesimintsim.

Table 4.7 Residences of people living with the disease in Sekondi-Takoradi.

Community	Frequency	Percentage (%)
Kwesimintsim	6	14.6
Takoradi	4	9.8
New Takoradi	3	7.3
Nsuaem	2	4.9
Biahu	2	4.9
Effiakuma	2	4.9
Inchuaban	2	4.9
*Mankesim	1	2.4
*Accra	1	2.4
Adeambra	1	2.4
Peasi	1	2.4
Lagos Town	1	2.4
Apremdo	1	2.4
Bogoso	1	2.4
Ekuase	1	2.4
Sekondi	1	2.4
Dompim	1	2.4
Nkontompo	1	2.4
Air force Base	1	2.4
Tanokrom	1	2.4
Port Quarters	1	2.4
Nkonkoful	1	2.4
Nginesa	1	2.4
*Axim	1	2.4
Abura	1	2.4
Aboadi	1	2.4
*Abidjan	1	2.4
Total	**41**	**100**

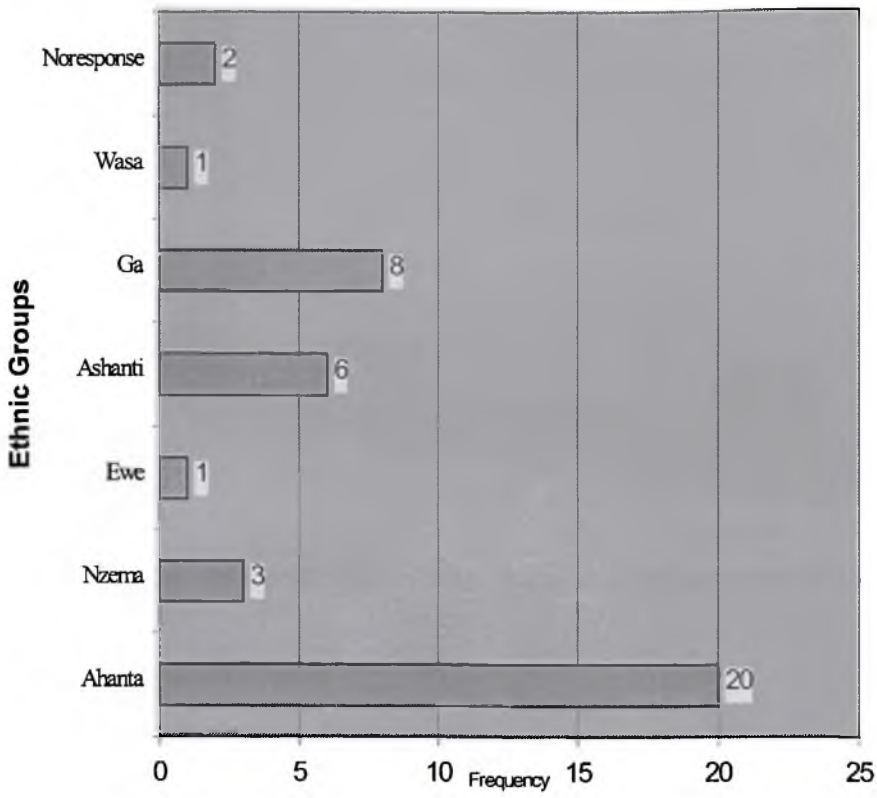
Source: Field survey, 2001.

(* Shows communities out side the study area but also serve as places of residence for the people interviewed living with HIV/AIDS).

4.8 Ethnic Differentials

Available records on HIV in Ghana show that the disease is more prevalent among Akan groups. The Krobos and the Ashantis in particular are the Akan groups most affected. The Ewes and the Gas in the southern section are in the middle level while the northern ethnic groups are the less affected. In Sekondi-Takoradi, the disease cuts across different ethnic groups. The majority of the patients interviewed are the Ahantas, followed by the Gas, the Ashantis, the Nzemas and the Ewe. This is not however to say that these are the only ethnic groups living with HIV/AIDS in Sekondi-Takoradi, but these are the ethnic origins given by the patients interviewed. It is relevant to say that there might be some people of other ethnic origins living in the community, with greater numbers living with the disease who have not reported to the hospital with their condition. It is also prudent to note that, only forty-one patients were interviewed. Other arguments could be raised, but the essence of showing ethnic origin is just to give an idea of the source regions and ethnic groups of the people interviewed. These variations are shown in figure 4-7.

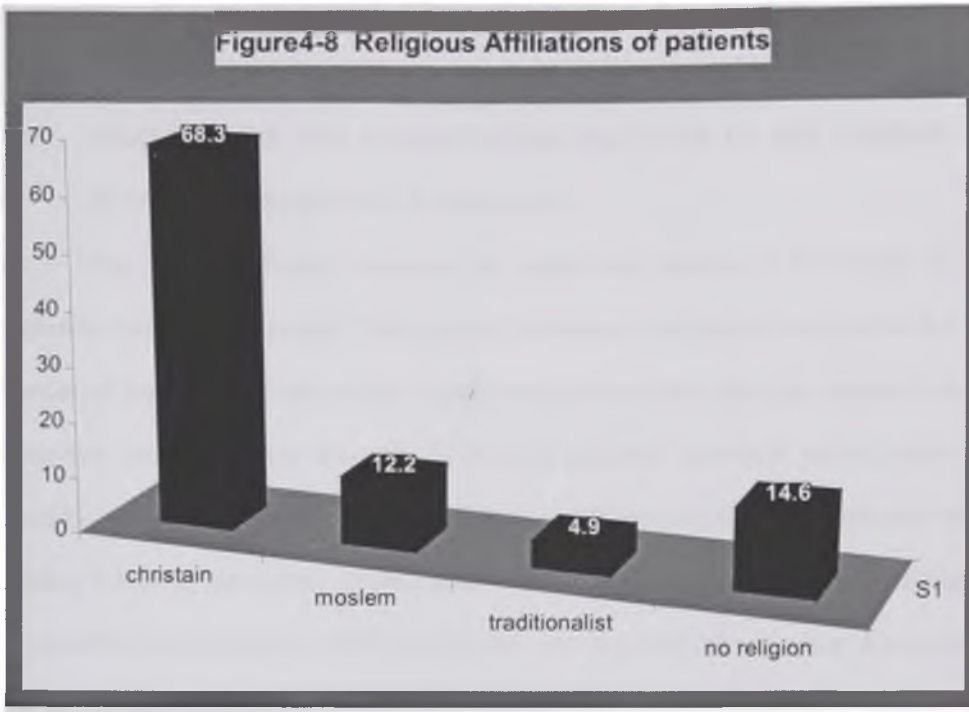
Figure 4-7 Ethnic origins



Source: Field Survey, 2001.

4-9 Religious Affiliations

The disease has no respect for religion. As indicated in figure 4-8, the three major groups of religions in Ghana were represented. There were Christians, Moslems and Traditionalists. Over 68.3% were Christians, 12.2% were Moslems while those belonging to traditional religion were 4.9%. 14.6% said they do not belong to any religion.



Source: Field survey, 2001.

4.10 Symptoms and opportunistic diseases suffered by patients

Symptoms identified in Sekondi-Takoradi are not different from the general symptoms associated with HIV/AIDS. The most common symptom found was early diarrhoea among patients. The others were: lower abdominal pains, loss of weight, cough, rash, sour mouth, fever, cold, general body pains, general weakness, TB, chronic severe head-ache, boil, waist pain, skin irritation and disorder, swells in the groin, shrinking-breast, frequent passing of urine. Every patient had at least three of the symptoms above. People living with HIV mostly reported short diarrhoea periods, with headache and one or two other symptoms from the onset. Those with full-blown AIDS cases however suffered from almost all of the symptoms concurrently.

CHAPTER FIVE

5.0 ANALYSIS OF THE FACILITATING FACTORS IN THE SPREAD OF HIV/AIDS IN SEKONDI –TAKORADI.

The previous chapter discussed the trends and patterns of HIV/AIDS in the Sekondi-Takoradi metropolis. This chapter focuses on the factors responsible for the spread of the disease. Data in this chapter mainly came from the (the clinical survey) interview with the forty-one (41) HIV/AIDS patients. Marriage, sexual behavior, mobility, the use of condom, inadequate knowledge of the disease, socio-economic status among others as have been 'hypothesized' have been found by this study as factors responsible for the spread of HIV/AIDS in Sekondi-Takoradi. Narratives of some people living with HIV are also presented in this chapter.

5.1 Marriage and Infidelity

The institution of marriage has been found by this study as a major element influencing the spread of HIV in the Sekondi-Takoradi metropolis. As demonstrated in chapter four, section 4.1.3, HIV is very high among married couples in Sekondi–Takoradi. Data collected from HIV/AIDS patients show that 68.3% are in marital unions, with 2.4% singles, 4.9% widows, 19.5% divorcees and 4.9% not married. In sub Saharan Africa, HIV is mainly spread through sexual activity, which is an important aspect of marital life. Since sex is very basic and plays a very important role in the institution of marriage, most people in the study area turn to equate sexual intercourse with marriage. Couples however think that once they are married, sex could be handled anyhow or think

about it without conventional precautions to reduce its subsequent effects. It is realized that sexual activities in marital unions are higher than as found among singles, both at the community level and among patients. This is also an explanation for the high percentage (68.3%) of married patients with the disease as against the low percentage (2.4%) of single patients.

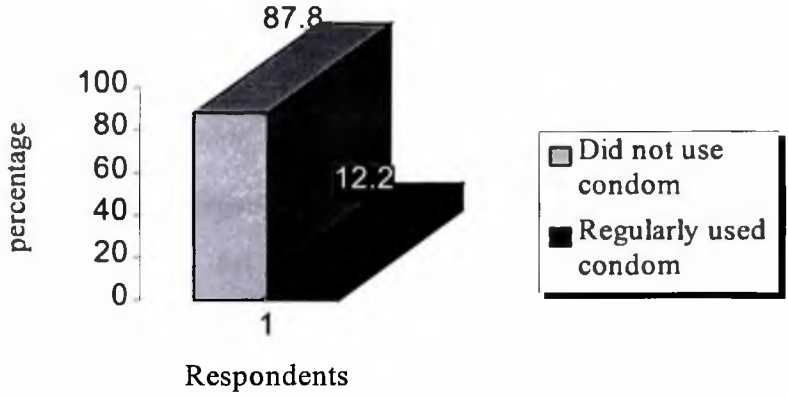
Most respondents (the patients) during the interviews claimed that once they are married they enjoy sex the way they would appreciate it. This came out when they were answering questions about regularity of condom use, which reflects respondent's low level of condom use. The main issue here is the high level of unprotected coital frequency in marital unions, pre-disposing couples to HIV infection when infidelity sets in. Data collected shows that recognized couples rarely use any form of contraceptive (See section 5.2). The use of contraceptives was thought of as a sign of infidelity. Tracing the historical development of Sekondi-Takoradi, sexuality is not a new thing to talk about. There had really been explicit sexual business transactions in the area (Busia, 1950). There were and there are still notable residences or houses where these activities go on. The 'society' seems to frown on contracting sexually transmitted diseases but not on the process. Some couples therefore find it quite easy to indulge in series of extra –marital relationships (see sections 5.4 and 5.5 for details), and therefore 'import' HIV into the marriage.

5.2 The use of condom

The 'use of condoms' is another major factor increasing the spread of HIV in Sekondi-Takoradi. Eighty seven percent (87.8%) of the forty one patients said they were

not using condoms whiles only 12.2 % said they regularly used it (see figure 5-1). This 12.2% were all male patients. They admit their condom on most occasions burst in the process, revealing misapplication, which they confirmed. The majority of the 87.8% who were females said that the decision to use condom or not was taken by their male partners. Those who were married said they were legally married so there was no need to use condoms unless for birth control measure but, even in that instance, they mostly practiced natural birth control measure. Others who were also in the majority said the use of condom denotes infidelity therefore its usage brings suspicion.

Fig. 5-1 Condom usage among patients



Source: Field survey, 2001.

5.3 The culture of divorce and re-marriage

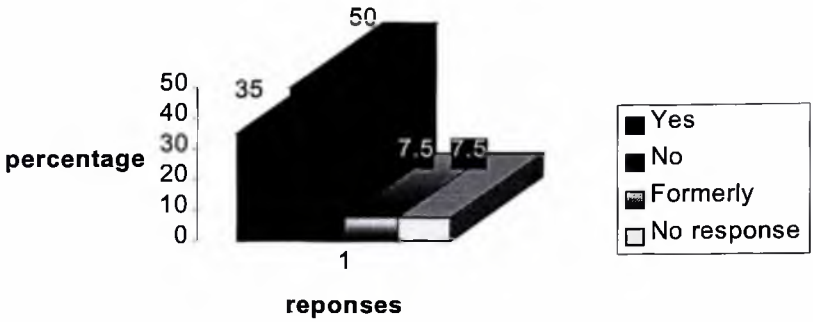
Divorce and re-marriage are very common in Sekondi-Takoradi. It is not a new development but an issue of old in the study area. As far back in the 1950s high rate of divorce and re-marriage had been noted (Busia, 1950). Banda's (1994) study on patterns and differentials of STDs in some selected parts of Ghana found that in populations of unstable marriage, STDs are common. His study revealed high prevalence of STDS

among married respondents than those in single respondents. This study confirms instability of marriages as one of the prime factors influencing the spread of HIV in Sekondi-Takoradi. The interview with patients revealed that most of the divorced that have not re-married have sexual partners who are also in other sexual relationships. Those who have re-married (19.5%) are in another high category of being infected, since any of the parties could bring the infection from a previous union. Divorcees (19.5%) and the re-married formed 39% of the patients interviewed (refer to Table 4.5). One hundred percent (100%) of these people had had sexual partners before their first marriages and soon after divorcing. As indicated in table 4.5, this group of people followed the married, as the second largest category of people living with HIV in the study area.

5.4 Sexual Behavior

As shown in figure 5-2, all the patients had ever had sex and most were in sexual unions to the extent that 86.8% had children. Over thirteen percent of the respondents (13.2%) did not have any child as at the time of the study and were not pregnant. It was evident during the interviews that majority had practiced some form of indiscriminate sex whiles others had multiple partners. Some were able to freely come out with it whiles others said them hesitantly. Thirty five percent (35%) of the patients had other partners apart from their wives or husbands. Fifty percent (50%) said they did not have other partners besides their wives and husbands. Seven and a half percent (7.5%) said they formerly had other partners but have stopped. Another 7.5% did not respond to say whether they had or were still in any extra-marital relationships.

Fig.5-2 Extra-Marital Relations



Source: Field survey, 2001

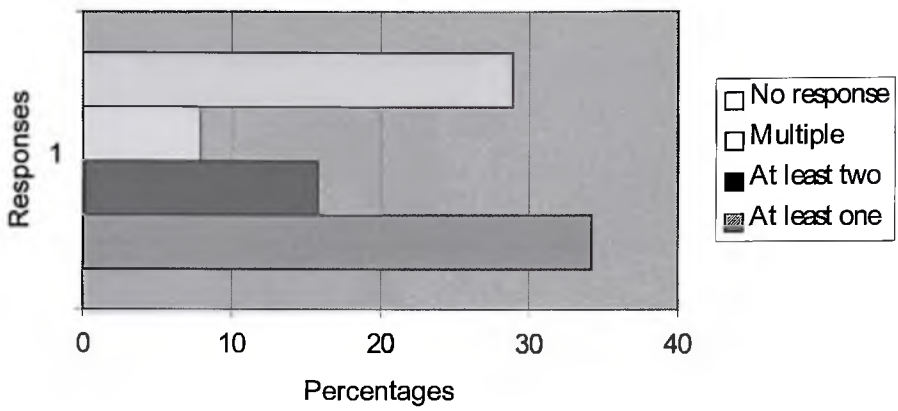
However, almost all the 'no responses' in this section imply difficulty on the part of the respondent to say yes than no. With this trend of responses coupled with other interviews granted, extra-marital relationships have been the trend of sexual misconduct that results in most of the divorce cases and increase in the spread of HIV. This finding confirms the history of the development of STDs as presented in section 3.8.1 about the prevalence of sexual misconduct in Sekondi-Takoradi.

5.5 Polygamy

Polygamy has been found in some studies as highly contributing to the spread of HIV. In this study, polygamy has not played a key role, Nonetheless, 4.9% of the patients stated that they were in polygamous marriages. Polygamy has not featured so much in the marriage culture of the residents of Sekondi-Takoradi but has a phase, where people are more interested in unrecognized extra-marital relationships which silently spreads HIV in the population. As indicated in figure 5-3, the interview revealed 34.2% patients with at

least one wife or husband, 15.8% with at least two partners and 7.9 had multiple partners. A good percentage (28.9%) however did not comment on their number of partners.

Fig. 5-3 Number of Partners



Source: Field Survey, 2001.

It is however necessary to state here that, the first proposition of the study, 'the frequency of HIV infection is directly proportional to increase in heterosexual activities' is valid, in terms of findings so far. Thus the spread of HIV/AIDS is really directly proportional to increase in heterosexual activities. This explains the prevalence among couples and those in sexual unions (either for economic gains or pleasure) where sexual intercourse is an important aspect of life.

5.6 Mobility

Mobility has been a strong factor in the spread of HIV/AIDS mainly in Sub Saharan- Africa (Anarfi, 1995). Mobility, both internal and external has also been found as another essential element in the spread of HIV in Sekondi-Takoradi. As in Table 5.1

Table 5.1 Travel history of respondents

Responses	*Frequency*	*Percentage (%)*
Yes	14	34.1
No	25	61.0
No response	2	4.9
Total	**41**	**100**

Source: Field survey, 2001.

Fourteen respondents representing 34.1% have made trips to towns outside Ghana. The 25 respondents representing 61.0% had not made any trips outside the country as at the time of the study but have been involved in internal mobility.

Internal mobility made by patients was mainly for the purposes of domestic small and medium-scale business transactions. Patients in this category were businessmen, retailers and women in foodstuff business. Patients who were involved in international mobility also did so for the purposes of transacting general goods business. All the respondents in trading, retailing and hawking division of occupations presented in Table 4.6 constitute 29.2% of the occupations of patients. Fifty percent (50%) of these patients were involved in internal movements while the other 50% were involved in international movements. Both males and females were equally represented. Studies have shown that itinerant business persons are at higher risk of sexual exploitations. Anarfi et. al. (1997)

confirmed this and cited itinerant women traders as highly vulnerable. Some of the patients interviewed were bold to say they had sexual partners whom they visit whilst on business trips.

Three main international destinations have been identified among patients. They are Nigeria, Togo and Cote d'Ivoire. These are countries that are in the HIV/AIDS prevalence explosion threshold in the sub region and are therefore more risky areas to practice sexual activites. It is however a confirmatory finding that, all the patients who have travelled to these countries and have sexual partners have HIV/AIDS (See Table 5.2 for external travels made by patients).

Table 5.2 Travel destinations of patients

Responses	*Frequency*	*Percentage*
Cote d' voire	11	26.8
Nigeria	1	2.4
Togo, Cote d' Ivoire, Nigeria.	1	2.4
No response	28	68.3
Total	**41**	**100**

Source: Field survey, 2001.

Nonetheless, the second proposition of the study has also found its grounds. Occupational interactions induced by mobility has indeed predisposed people who travel and get affected by the change syndrome. This also validates the trend of the infection among traders and business-persons as seen in the previous sections.

5.7 Inadequate knowledge of the disease.

Inadequate knowledge of the basic modes of transmission and symptoms of HIV/AIDs has been found as a contributing factor in the spread of the disease in the study area. There was 100% STD-awareness response from patients and there was another 100% response from patients stating that HIV is sexually transmitted. As indicated in Table 5.3, 92.7% of the patient-respondents were of the view that HIV/AIDS is real whiles 7.3% had a contrary view.

Table 5.3 Responses on the reality of HIV/AIDS by the patients

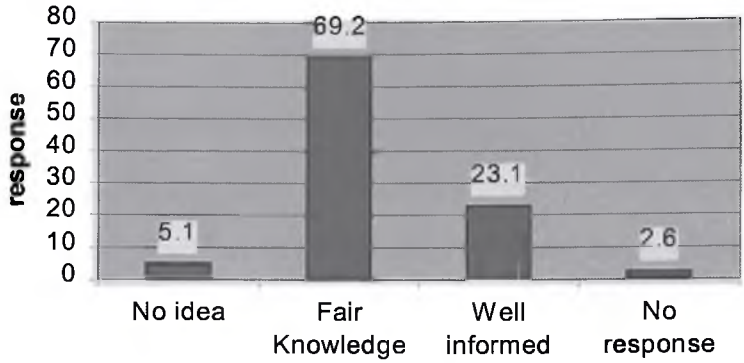
Responses	*Frequency*	*Percentages*
Yes	38	92.7
No	1	2.4
No response	2	4.9
Total	**41**	**100**

Source: Field survey, 2001.

When it came to knowledge on how HIV could be contracted (what causes HIV/AIDS) 4.9% had no ideas, 65.9% had fair knowledge and 22.0% were 'well informed' but 7.3% did not respond.

Patients who 'had no idea' actually did not know anything about how the disease is contracted. Patients classified as having 'fair knowledge' mentioned only sexual intercourse as what causes HIV/AIDS transmission without the other ways of transmission. Those classified as 'well informed' were able to mention, mother to child, sexual intercourse and intravenous means as modes of transmission. The respondents in the 7.3% 'no response' category did not make any comments, but rather remained silent. These responses are shown in figure 5-4.

Fig. 5-4 Knowledge of disease



Source: Field Survey, 2001.

It was realized that some of the patients could have been infected through infected blades and cutting instruments. This assertion is made because few of the female patients insisted and demonstrated that they have been faithful to their husbands, but they (their husbands) rather had girl friends. They claimed to have been sharing razor blades and other personal cutting instruments with their husbands. These patients were of the view that if anything happened, it might be through sex with their unfaithful husbands because they have been faithful. It is relevant to emphasize here that other modes of transmission could be as well effective in the spread of the disease since the people do not know much about the risk elements.

The 'beauty industry' is also vibrant in the study area. There are lots of hair cut studios and saloons where customers of different and varied status attend. These are places where people easily get cuts. Transmissions of HIV at these points in theory could go on as much as possible, but the evidence is quite complicated to uncover. The crust of this argument is that since there was just little knowledge about the disease among the

patients, it reflected in their poor level of condom use, sexual practices and involvement in other risk activities, pre-disposing them to HIV infection.

5.8 Socio-Economic Status

Lower socio-economic status was also found to have played an important role in the spread of HIV/AIDS in the study area. Lower socio-economic status, in this wise, is discussed in terms of level of education, type of occupation, income levels, ability to take decision and nature of places of residence. All the patients interviewed fall in the lower divisions of the categories of socio-economic status mentioned above. Education levels of people living with the disease are low, ranging from no education, primary, JSS, middle school and O level (see figure 4-3). It is a general credence that education levels, which to most extent influences a person's intelligent quotient, is proportional to personal judgments. In this assertion, it is clear that people with lower levels of education are more prone to risks and have less authority to control them than people with higher education. Respondents in this category have not 'schooled' enough to engage themselves in higher economic ventures, which would to some extent keep them away from being infected (all things being equal). It therefore presupposes that lower socio-economic status means more vulnerability and a validation for the third proposition of this study, that 'lower socio-economic status has implications for HIV/AIDS predisposition'.

One could also argue that, the highly educated patients report to other health facilities, or do not at all report to hospitals, or the data was collected at a time the highly educated did not and would not report to the hospital, but this was not the situation.

It is therefore evident that most people living with HIV/AIDS in the study area are in occupations of relatively lower socio-economic status, such as 'hawking, fish mongering, food vendoring, laboring and others. This is clearly evident in Table 4.6. The data further shows that 9.8% of the patient respondents were unemployed. Also 7.3% were farmers, 14.6% vendoring food and 29.2% in retailing and hawking. The data also shows that 4.9% were laborers, 14.6% artisans, 2.4% Housewives, 2.4% in fishing and 9.8% in fishmongering. 2.4% did not say anything about their occupation while there were 2.4% teachers. It is therefore made clearer here that high status professionals were not found to form a reasonable percentage of people living with the disease in the study area. This however does not mean that people in the lower job classification are the only people prone to the infection, but the nature of work coupled with their sexual habit and bargaining power in sex, pre-disposed them to HIV infection.

It is believed that mobility enhances more interactions and pre-disposes people to more promiscuity, which to a large extent translates to decadent sexual activities. This could explain why people who work in more stringent environments of specified time frame and space have relatively lower promiscuous activities irrespective of the high sexual instinct they might have. This would therefore account for the low level of people in 'higher class' occupations living with the disease in Sekondi-Takoradi as well as in Ghana and other areas with relatively stable political and socio-economic environment.

5.9 Mother to Child transmission

Although children were not part of the target group of this research and therefore were not interviewed, few children between the ages of 1 to 2 and a half years were found

to be living with HIV. Their case histories showed that they were infected by their mothers. There was however a contrary instance where a mother who tested positive had her child negative. If children were part of the target, mother to child infections would have formed 7.3% of the people living with HIV This has been presented only to show that mother to child infections are also prevalent in Sekondi-Takoradi.

5.10 Occupational Hazard

Occupational hazard has been identified as one of the probable facilitating factors in the spread of HIV in Sekondi-Takoradi. A ward assistant was found to be with the disease. She claimed she had lived 'a true Christian life' and had not practiced illicit sex. It was difficult to trace the history of the infection correctly. There was another case where a woman itinerant trader said she had been very faithful. The closest element, which could be associated with her infection, was a fatal accident she claimed she had when traveling to buy goods. At this incident there could have been blood contacts. Occupational hazard is therefore seen as a strong background factor to intravenous means of being infected and infections through blood contact.

5.11 Narratives of some people living with HIV/AIDS.

This section contains accounts given by some people living with HIV, at the Effia-Nkwnta Hospital. The names of the patients have been withheld.

5.11.1 Case one

This was a 22-year old unemployed female. She is a Christian and a fante who resides at Inchuaban. She had her education up to JSS three. She had been married for a year, but with no child. She reported lower abdominal pains, loss of weight, diarrhoea, cough, boils and skin diseases to the hospital in August 2000. She had never travelled abroad. She said 'I did not involve myself in any pre-marital and extra-marital relationships, but I know my husband is not faithful, he has several girl friends'. This patient had never used condom, but practiced natural birth control methods.

5.11.2 Case two

This case was a 37-year old male Moslem patient, who resided at Nsuem. This patient holds GCE/SCE 'O' level certificate. He got married in 1998, had a child in 2000 who died. He was a businessman, who was also very much involved in 'galamsey•'. He suffered restless-ness, high fever, and loss of weight, malaria, sour-mouth, and persistent headache. His condition got very serious in February 2001, but he reported to the hospital in April 2001. He made a lot of business trips to Nigeria, Togo and Abidjan. He said 'I had girl friends before marrying and still have some as business partners in the countries I visit'. He claimed he started using condoms only three years ago when he got married, but do not use it with his wife. This patient had entered the AIDS status at the time of the study.

• This word has been used to indicate illegal mining activity

5.11.3 Case three

This case was a female patient. She was 38 years old, a Fante and a divorcee. She was a petty trader and a Christian who said 'I don't joke with my prayers'. She had lived in Accra and was at Mankesim during the research period. She visited Takoradi twice every week. She ended her education after primary six. She suffered general weakness, loss of weight and diarrhoea. These conditions were reported to the hospital in February 2001. She consulted a herbalist when the persistent ill health started on her parents' insistence (she claimed). She said, 'I have never travelled abroad, but do not stay at one place. I rather move from place to place transacting business. She was married for eight years before divorcing. She had a boyfriend before marrying and took another one after divorcing, but was single at the time of the study. She claimed she used condom consistently, had two children and was no more working due to her ill health.

A further analysis of the factors discussed and the narrative shows that personal behaviour is a strong ultimate factor influencing the spread of HIV.

CHAPTER SIX

6.0 ANALYSIS OF RISK ELEMENTS AT THE COMMUNITY LEVEL

At the community level, several risk elements have been identified. These are similar activities and practices that have facilitated the spread of HIV among patients and could predispose the other residents to acquiring the disease. This chapter therefore discusses mobility, marital history, sexual behaviour, health seeking habit, knowledge of HIV/AIDS, stigma society has placed on the disease, as the risk elements in the spread of HIV in Sekondi-Takoradi. Some of these risk elements reflects as factors in chapter five. The difference between this chapter and chapter five is that the factors which were identified as spreading HIV have been found together with some others occupying the day to day life of other residents (non HIV/AIDS persons) of communities in the study area, making the residents vulnerable to HIV infection. Respondents in this chapter are the 200 people sampled from the community. The background of these respondents has been discussed here to help give a better understanding of the risk elements.

6.1 Background of community respondents

This section analyses age, sex, occupation, religion, marital status, type of marriage and level of education of the respondents. These respondents are not people identified as living with HIV/AIDS, but community residents whose HIV status was not declared and known to this study.

6.1.1 Age Distribution of Respondents

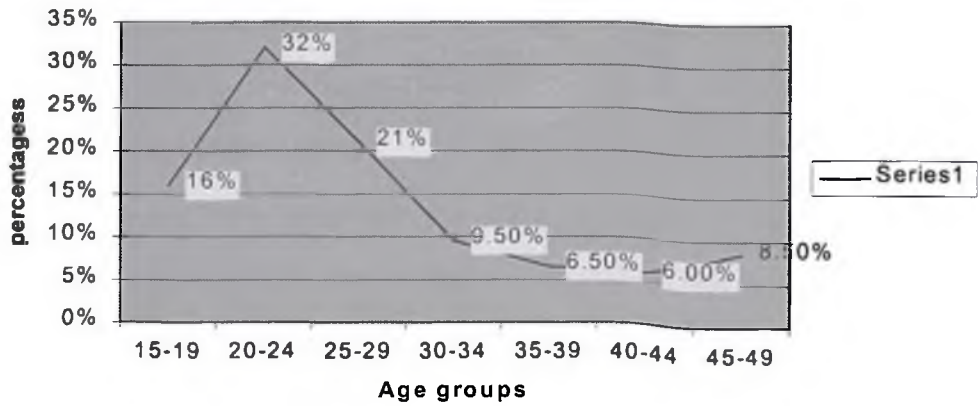
Table 6.1a Age distribution of community respondents.

Age group	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Frequency	32	64	43	19	13	12	17	200
Percentage	16%	32%	21%	9.5%	6.5%	6.0%	8.5%	100

Source: Field survey, 2001.

The target age group for the community as stated in the methodology range from 15 to 49 years. As shown in Table 6.1a, 16% of the respondents were in the 15-19 group, 32% in 20-24, 21.5% in 25-29, 9.5% in 30-35, 6.5% in 35-39, 6.0% in 40-45 and 8.5% in the last group, 45-49. This is also shown in figure 6-1. The majority of the respondents were in the 20-24 age group, forming about a third of all the respondents. Studying this age-pattern, 70% of the respondents were in the early half of the reproductive and productive groups specifically 15-19, 20-24 and 25-29. These groups are considered as the most sexually active age groups. The study would therefore benefit from their dominance since this research considers sexuality as a proximate factor in the spread of HIV.

Fig. 6-1 Age distribution of community respondents

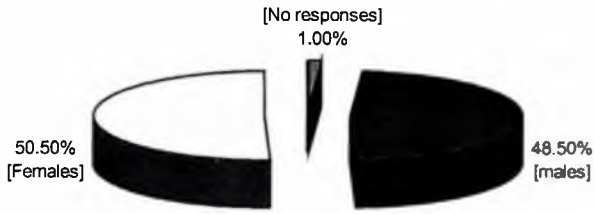


Source: Field survey, 2001.

6.1.2 Sex composition of Respondents

Both sexes were included for this study, therefore both males and females were interviewed. Figure 6-2 shows that 48.5% of the community respondents were males whilst 50.5% were females. One percent of the respondents did not indicate their sex, but were identified as females. Fifty percent each of the figures above were made of low and high-class respondents. The study envisaged 50-50 sex- respondents. However, the slight differences in the target would not mean much difference in responses, though it is evident that females had higher percentages. This does not mean that the ideas or views expressed in this chapter are mainly of females, but rather a coherent view of both sexes to help understand the trends and risk elements of HIV in Sekondi-Takoradi.

Fig 6-2 Pie graph showing sex composition of community respondents



Source: Field Survey, 2001

6.1.3 Occupation of respondents

Students dominated occupation with twenty eight percent (28.5%), followed by artisans who constituted 23.5%. Twelve percent of respondents were in trading of all kinds, with hawkers and retailers forming the majority. See table 6.1b for details. Other occupations of the respondents reveal various percentages of farmers, housewives, artisans, labourers and traders including hawkers and retailers.

Table 6.1b Occupations of community respondents

Occupation	Frequency			Percentage
	Low class	High Class	Total	%
Farmer	3	1	4	**2.0**
Housewife	2	1	3	**1.5**
Artisan	27	20	47	**23.5**
Labourer	5	1	6	**3.0**
Trading	15	9	24	**12.0**
Teaching	7	11	18	**9.0**
Clerical Officer	4	11	15	**7.5**
Watchmen		2	2	**1.0**
Security and Peace Officers	1	1	2	**1.0**
Unemployed	4	4	8	**4.0**
Students	28	29	57	**28.5**
Drivers	1	3	4	**4.5**
Other professionals	2	7	9	**2.0**
No response	1		1	**1.5**
Total	**100**	**100**	**200**	**100%**

Source: Field survey, 2001.

It is very obvious from the table (6.1b) that clerical and highly qualified professionals formed very little portion of these respondents as against the majority low socio-economic groups, which tends to be higher incident group of HIV infection. The category labelled 'other

professionals' includes medical doctors, agriculturist and civil engineers. The distribution in classes shows some interesting trends. For instance, it is clear that respondents in the high class have the upper hand over 'schooling' that those in the lower class. Availability of funds and the understanding of the value of education could precipitate this pattern. There are also more farmers in the low-class areas that in the high-class areas. Teachers and clerical officers such as bankers and other office clerks are more resident in high class than the low-class areas. This pattern depicts to a greater extent, income and living standards levels since those who live in the high-class residences are able to afford the higher rents and other residential facilities as well as utility bills.

6.1.4 Marital Status of respondents

Among these respondents 40.5% were married, 53.5% were singles, 2.5% divorced, 1.5% widowed, whiles 2.0% did not state their status. Monogamy has been the main practice of marriage with isolated cases of polygamy. The statistics show 34% of the respondents in monogamous marriages as against 2.5% polygamous marriages. This trend is in support of earlier reviews indicating polygamy's minimal place in the culture of the people. In spite of its small proportion in the community, polygamy is a risk element in the spread of HIV in Sekondi-Takoradi. This is because in polygamous marriages, there comes a time where couples have intercourse without condoms. When this happens and one of the partners (either the man or one of the two female partners) has the infection, the other partners definitely get infected. On a more dependable note that polygamy is a risk element in the spread of HIV in the metropolis is that, the study revealed that most couples (especially those with lower

socio-economic status) hardly use condoms. Therefore in the light of infidelity, sexually transmitted infections spread among other partners.

6.1.5 Education levels

The levels of education of these respondents as shown in table 6.2, indicate HND/Degree holders constituting 26.5% being the largest proportion whilst the lowest proportion was primary level representing 5% of the respondents.

Table 6.2 Levels of education among Community respondents

Level	Frequency	Percentage [%]
Primary	1	**.5**
JSS	38	**19.0**
MSLC	40	**20.0**
SSS	14	**7.0**
GCE Ordinary	27	**3.5**
GCE Advanced	19	**9.5**
HND/Degree	53	**26.5**
Vocational	3	**1.5**
No education	2	**1.0**
No response	3	**1.5**
Total	**200**	**100**

Source: Field Survey, 2001.

The pattern in the table [6.2] shows that the respondents are enlightened. Their contributions therefore could not be undermined.

6.16 Religious background of respondents

Christians were the majority of these respondents, followed by Moslems and then the traditionalists. This aspect of the study is very important in the sense that, each of these religious groups have ethics controlling sexual practices, but this did not play significant roles among the patients interviewed. However, appropriate religious culture could help inject some barriers in the spread of HIV, because, these three major religions abhor pre-marital and extramarital relationships. It does not therefore really matter which religion predominates, although there are some speculations of high prevalence rates of HIV among Moslems because of their polygamous marriage pattern. This has however not reflected among the patients interviewed as discussed in chapter five. Religious affiliations could be a foundation for controlling the spread of HIV in Sekondi-Takoradi.

6.2 Mobility

The study recognizes internal and external mobility as risk elements in the community. Hawkers, retailers and other traders mainly engage in movements in and outside the community. They either move with their goods or travel from one point to the other to sell their goods. Twelve percent of the respondents fall in this class. Though the percentage looks quite small, the intensity of movements [mostly daily as they testified] in this group of people is high especially among hawkers and itinerant traders. Some of the traders shuttle between markets, from town to town. These business activities coupled with individual sexual behaviour (discussed in section 6.3) highly predispose these traders to the HIV infection. External movements are rather quite high among residents in the community. The details are shown in Table 6.3.

Table 6.3 External mobility among respondents

Destination	Frequency	Percentage [%]
West African countries	26	**13**
Southern African countries	3	**1.5**
Europe and the Americas	16	**8**
Asian countries	3	**1.5**
All continents	4	**2**
No response	148	**74**
Total	**200**	**100**

Source: Field Survey, 2001 [All these travels were made within the last ten years]

As shown in table 6.3, 26% of the respondents have ever travelled outside the country as against 74% who have never travelled abroad. This implies more than a quarter of the respondents ever travelled abroad. Among those who have ever travelled, 26 of them representing 13% had travelled to at least one other West African country. These countries include: Nigeria, Gambia, Sierra Leone, Niger, Gabon, Mali and Cameroon. All these countries visited by the 26 respondents except Sierra Leone, have relatively high HIV prevalence rates, above the 15% explosion threshold. Another three respondents representing 1.5% had also been to South Africa, Uganda, Botswana, Zimbabwe, Namibia and the Democratic Republic of Congo. Another sixteen (16) of the respondents representing 8% were in Europe and the Americas. Respondents specifically visited USA, France, Italy, U.K and Germany. Two percent (2%) however travelled widely visiting every continent. The purposes of these trips were for business transactions, mere visits, conferences, and academic pursuit and for pleasure. Over 50% of these respondents travelled mainly to transact

business. However, those who stated they travelled just to 'visit' confirmed they did work briefly. The duration of all trips range from a full day's trip to one and a half years. Sixty percent (60%) of the respondents who ever travelled stayed at their destination for a full year whilst the other forty percent (40%) were engaged in a day or weekly or monthly return trips.

The essence of this factor as a high-risk element is obvious, giving reference to how this same factor facilitated the spread of HIV among patients, discussed in the fifth chapter of this study. The risk of travelling to an endemic HIV region is however worsened by individual sexual behaviour and practices. The latent risk element here is that, all the countries visited in Africa by the respondents have high HIV prevalence rates, which needs to be awakened by a proximate factor such as sexual behaviour. The respondent' risk level, however, depends immensely on their sexual behaviour and practices (since sex is the main mode of transmission in sub-Sahara Africa). Inferring from what pertained among patients who travelled to some of these countries, one could however, say that most of these travellers could be carriers of the HIV [all things being equal] and could be spreading the infection among their sexual partners, primarily and to others by any of the other modes wittingly or accidentally. Although mobility is a risk factor, it depends on purpose of travelling and individual's sexual behaviour. Anarfi (1995, 1997) and other scholars found that some migrants travel because of harsh socio-economic conditions, including females who ultimately resort to commercial sex work as a coping strategy.

6.3 Sexual behaviour Practices

Another risk element at the community level is people's sexual behaviour. Sexual behaviour in the study is considered as a proximate factor in acquiring and spreading HIV.

Among patients as discussed in the previous chapter, sexual behaviour has been responsible immensely for the spread of HIV in the area. At the community level, sexual practices have resulted in childbirth both from couples and the unmarried. Seventy-six (76) of the respondents representing 38.0% have children. One hundred and twenty one (121) respondents forming 60.5% did not have children as at the time of the study. Over 1.5% of the respondents did not state their childbearing status. This implies more than a third of the respondents have been sexually active to the extent of producing children. This percentage of sexuality is large enough to influence the spread of STIs, when infections set in as a result of infidelity. Just as seen in chapter five where some people living with HIV/AIDS confessed having other partners, twenty two (22) of the respondents representing 11% said they have at least one other partner besides their wives and husbands girlfriends and boyfriends. Sixty nine percent (69%) thus 138 respondents said they do not have other partners apart from their recognized wives and husbands, girlfriends and boyfriends. Forty respondents representing 20% did not respond having or not having other partners.

It could be argued also that these people [those in multiple sexual unions] were practicing polygamy, but the trend of responses indicates that only 2.5% of the respondents practice polygamy (refer to section 6.1.5). This behaviour is also not an issue that could be associated with a class of people. When crosschecked in classes, the difference was not much; 6% and 5% of the respondents came from the low class and high class respectively. Thus no one could effectively argue that extra-marital relationship is an issue of low class status stimulated by poverty. It would also not be very relevant to say it might be an issue associated with particular sets in the metropolis, as the general assertion, that 'the rich' take on more 'sexual partners'. The fact here is clear, that the practice of multiple relationships is

a feature among some people in the study area, which of course is a risk element in the spread of HIV.

There is so much risk associated with a single sexual act outside regular unions, this coupled with appropriate and regularity of contraceptive use, mean so much for an individual in terms of being infected with HIV. The multiplicity of partners would not have been too much of a problem, but quite a number of the respondents claim they do not appreciate the use of contraceptives, as will be seen in the next section. Since infidelity in sexual unions is a problem in the study area, the study finds multiple sexual practices a highly risky venture any person could take without contracting an STI especially HIV. This finding is in line with the pattern of sexual activities found by previous studies such as that of Busia (1950).

6.4 Condom usage among community members

This study has found (from the patients interviewed) that sexual misconduct was grossly responsible for the spread of HIV in the Sekondi-Takoradi metropolis. Inappropriate, irregular and low applications of condoms among people who now live with HIV in the metropolis exacerbated this factor, *sexual misconduct*. At the community level, 80 respondents representing 40% said they remember the first time they had sexual intercourse. Out of this, 64 respondents (32%) used condoms at this first time intercourse. Also thirty five and a half percent (35.5%) of the community respondents said they regularly use condoms, fifty eight percent (58%) never used condom, whilst six and a half percent did not tell whether they used condoms or not. See Table 6.4. The statistics in table 6.4 show that only a little more than a third of the respondents (35.5%) use condom but with different levels of regularity.

Table 6.4 Condom usage among respondents

Responses	Frequency	Percentages [%]
Yes	71	35.5
No	116	58.0
No response	13	6.5%
Total	**200**	**100**

Source: Field Survey, 2001.

As indicated in Table 6.5, forty-four of the respondents (thus 22% of the 35.5% using condom) regularly use condom whilst twenty-seven respondents said they sometimes use condoms. As much as 58% of all respondents do not use condom and have assigned various reasons discussed later in this section.

Table 6.5 Regularity of condom usage

Responses	Frequency	Percentage [%]
Very regular	44	22
Sometimes/irregular	27	13.5
Others	65	32.5
No response	64	32
Total	**200**	**100**

Source: Field Survey, 2001.

In table 6.5, the 'others and no response' were contributions from people who claimed they never had sex, some of whom were mainly teenagers. There were some other respondents in these categories that also said they use different methods of contraception, especially the

natural method. A few others just refused to respond and the rest were people who said they do not use condoms as seen in Table 6.4.

Since there is a general notion about females' dislike for condoms, female respondents were asked whether they appreciate the use of condom by their partners and the responses given are presented in the Table 6.6. In the Table 6.6, the large number (109) of 'no responses' is made of one hundred (100) males who were not supposed to respond, and nine females who did not respond. However, among these nine 'no responses' from the females and the responses captioned 'others' were some people who were not married and others who claimed they have never had sex and therefore did not have anything to say.

Table 6.6 Females' appreciation of condom use

RESPONSES	FREQUENCY	PERCENTAGE [%]
Yes	60	30
No	27	13.5
Other	4	2
No response	109	54.5
Total	**200**	**100**

Source: Field Survey, 2001.

However, 60 of the female respondents, which is 30% of the total sample, appreciate the use of condoms. Most respondents who appreciate the use of condoms assert that, although they appreciate the use of condoms, their male partners have always taken the final decision. These respondents (who responded yes for appreciating the use of condoms) had the following to say about condoms usage: 'It would prevent one from getting AIDS', 'protects the user against STDs', 'prevents unwanted pregnancies', 'it helps in family planning'. Few of the respondents, however, said they use the condom when they have less trust for their (new) partners or when they realize their partners have become unfaithful.

Again in Table 6.6, 27 of the female respondents representing 13.5% indicated that they do not use condoms. These respondents gave the following reasons: 'that the use of condom gives some infections and sometimes the condom does not make them feel the 'act of sex'; 'it delays the act and sometimes quenches the desire' when none is readily available. Other females in this category claim the use condom gives some infections and sometimes the condom gets stuck in the vagina, which becomes very uncomfortable. Some were of the view that God did not state that condoms should be used.

The implication is that, these people are prone to being infected by STIs particularly HIV at any sexual intercourse with any infected HIV person. With this large percentage that do not use condom and the others who do not use it regularly and in the wake of infidelity in most relationships in the metropolis, either for its pleasure or for economic constraint, the spread of HIV and other STIs could be increasing at a geometric rate. A cross tabulation between low and high-class residences on condom usage reveals the following as represented in Table 6.7.

Table 6.7 Cross tabulation of condom usage by classes of residence

Responses → / Class ↓	Yes	No	No responses	Column Totals
Low	36 [18%]	60 [30%]	5 [2.5%]	101 [50.1%]
High	35 [17.5%]	56 [28.0%]	8 [4.0%]	99 [49.5%]
Row Totals	71 [35.5%]	116 [58%]	13 [6.5%]	200 [100%]

Source: Field Survey, 2001.

There are slight differences at residential class levels in condom usage. Out of the 71 respondents using condoms as shown in table 6.4, 36 and 35 came from the low and high

class respectively. The low class has only one frequency (0.5%0 higher than the high class, which is not very significant in terms of actual figures. This technically means condoms usage in the low residential class is relatively higher than in the high residential class. A lot of factors could precipitate this pattern. This implies people in the lower socio-economic of factors could precipitate this pattern. This implies people in the lower socio-economic group are also catching up with the message on condom use in the metropolis. In the 'no' division of responses as indicated in Table 6.7, where as many as 116 respondents (58%) do not use condoms, sixty – (60) of these respondents were in the low-class as compared to fifty-six (56) from the high-class residences. Though the difference is not vast, it is still pertinent to say that people of low class status do not use condoms regularly, as those with high-class status, since there were more people in the low class residences than in the high-class settings who do not use condoms. This could also explain the high HIV prevalence in lower socio-economic groups in the metropolis. With regards to the data presented in Table 6.4, 6.5 and 6.7, it is evident that there is low application of condoms in sexual activities in communities in the Sekondi-Takoradi metropolis giving rise to the spread of HIV.

There is however, one important risk about condoms usage. It was evident during the interviews that most people who claim they use condom do not apply them well. They confess experiencing 'bursting of condoms' during sexual intercourse. This enables transmission of infections through contact with vagina fluids, with trifling knowledge of the parties involved.

6.5 Knowledge of HIV/AIDS

Inadequate knowledge of the basics issues of HIV/AIDS is one of the risk elements at the community level. Although sexual intercourse has been identified as the main mode of HIV

transmission in the metropolis, other modes of transmission would also be accounting for some significant level of infections, which is obvious in responses. Ninety-three and half percent (93.5%) of the respondents are aware there are STDs, 3.5% did not know anything about STDs and 3.0% were not sure whether they knew what STDs are. In a related development, 91.0% of the respondents said HIV/AIDS is real, 1,5% said it is not real, whilst 7.5% did not state their views about the reality of the disease.

Ninety-two and half percent (92.5%) of the respondents said they know HIV/AIDS is sexually transmitted, as in table 6.8. The responses here indicate that people in the community are aware that HIV/AIDS is sexually transmitted.

Table 6.8 Is HIV/AIDS Sexually transmitted

Responses	Frequency	Percentage [%]
Yes	185	92.5
No	3	1.5
Not sure	7	3.5
No response	5	2.5
Totals	**200**	**100**

Source: Field Survey, 2001.

Sixty-one and half percent (61.5%) of the respondents are of the view of being able to fairly identify people living with AIDS by some symptoms. As presented in Table 6.9, 15.0% of the respondents said they had no knowledge about how a person living with HIV/AIDS looks like. 8% of the respondents demonstrated that they are well informed about the symptoms of the disease. Majority of the respondent demonstrated having fair knowledge on the basic element in the spread of HIV. Four percent (4%) of them said they have no ideas

about how HIV is spread. Seventy and a half percent (70.5%) said the disease is spread through sexual intercourse. However, twenty-two percent (22%) were able to discuss sexual practices, intravenous and mother to child means of being infected with HIV.

Table 6.9 Knowledge of symptoms

Reponses	Frequency	Percentage [%]
No idea	31	15.5
Fair Knowledge	123	61.5
Well informed	16	8.0
No response	30	15.0
Totals	**200**	**100**

Source: Field survey, 2001.

Since sexual intercourse has been identified as the main medium of HIV transmission, most people have neglected the other modes of transmission, giving them less attention. It was apparent among the patients interviewed that few of them could have gotten the infection exclusively through intravenous means. The risk therefore is that, since less thought is given to the other modes of transmission, HIV would rather latently spread by these other modes in the community. A particular institution of concern heightening this risk is the 'beauty industry' involving barbering shops and saloons where client get cut by instruments that are hardly and inappropriately sterilized.

Some respondents were of the view that HIV/AIDS could be cured, whilst others contrary view. Some also were of the view that cures would be found in the future. As indicated in Table 6.9.1, 18.5% and 11.5% of the respondents said HIV/AIDS is curable and even if not now the cure may come in the future. They cited God, spirits, scientist and herbalists as people who could cure the disease. It is not surprising to get this response from Sekondi-Takoradi, where leaders of churches and other healing centres periodically report to

the regional HIV/AIDS unit at the Effia-Nkwanta hospital, with claims of found cures for the disease.

Table 6.9.1 Can HIV/AIDS be cured

Responses	Frequency	Percentage
Yes	37	18.5
No	137	68.5
May be in the future	23	11.5
No response	3	1.5
Total	**200**	**100**

Source: Field survey, 2001.

Herbalist, healing centres and some churches openly advertised their strength in curing HIV/AIDS. This would have some form of psychological influence on the residents, thinking churches and herbalist are curing the disease. This could pre-dispose residents incalculably to the infection

6.6 Stigma on the disease.

The stigma associated with HIV/AIDS is quite remarkable in the metropolis. Some respondents described people living with HIV/AIDS as immoral, social deviants, ignorant and careless; these people formed 40% of the respondents. Three and half percent (3.5%) of the respondents did not comment about their perception of people living HIV/AIDS. The 40% category of respondents were of the view that people living with HIV should be given separate apartments or send to a camp built for them. They were also of the view that, people living the disease could easily spread it deliberately or otherwise. They also said people

living with the disease are no more ordinary to deal with. Few respondents discussing control measures said people living with the disease should be killed. This indicates how strong the stigma is, to the extent of ignoring human rights. Stigma is however slightly lower among the high-class residents. This level of stigma in the metropolis could negatively influence on health seeking and drive people living with HIV to the 'dark', not declaring their status which would rather be very catalytic in the spread of the disease.

On other hand, 56% of the respondents perceive people living with HIV as normal and ordinary people to stay with. This category was of the view that if they are not given the needed care, it would cause the disease to be escalating at high rates. The viewpoints of these two categories of people drive towards one point, but with divergent opinions. It is seen that the two groups are concerned about the spread of the disease in the metropolis, but with different perceptions. However the group that glares so much on people living with the disease, most probably because of the way they think it is contracted (through illicit sex), is about the same proportion of the other [1:1]. This phenomenon could result in serious burgeoning and opposing debates, putting those with the disease in the lime light of discussion hence making most of them probably uncomfortable because of the opposing issues, hence culminating into the future unwillingness of people to know their HIV status. This argument has been raised because during the interview with patients some did not feel comfortable when their status was discussed. The contention of the study in this section therefore is that, HIV is driven by shame (refer to chapter two, section on stigma) therefore the level of stigma in Sekondi-Takoradi could escalate the spread of the disease.

6.7 Health seeking habit

The risk associated with health seeking is the two-way issue of reporting. As demonstrated in Table 6.10, 91% of the respondents said they seek medical attention from the hospital when they fall sick. One and half percent (1.5%) also visits the shrine and herbalists, 1.0% resort to spiritualist, whiles 4.0% practice self-medication. Two and half (2.5%) percent did not comment on this issue. This shows a good health-seeking habit in the sense that people would be given good medical attention and records of health seeking in particular diseases would be easily assessed since majority of the people attends hospitals rather than other source of health care. A good implication for HIV is that patients that undergo various tests at the hospital for medical check ups could be easily screened for any infections including HIV. However, if these people visit clinics or hospitals where less clinical ethics are observed, the transmission of HIV through intravenous means could be on the rise.

Table 6.10 Health care preferences

Preferences	Frequency	Percentage [%]
Hospital	182	91
Shrine/Herbalist	3	1.5
Spiritualist/churches	2	1.0
Self-medication	8	4.0
No response	5	2.5
Total	**200**	**100**

Source: Field survey, 2001

It appears in Table 6.10 that, other institutions apart from the hospital are insignificant in health seeking. Experience with HIV patients in the metropolis indicate that most people visit prayer camps, herbalists and other sources for health care concurrently with the hospitals for quicker relief since some respondents claim, doctors alone do not have answers to their health needs. Most respondents (176, representing 88.0%) said they however go to hospital because it is more reliable and it is a place where the scientific truth could be told. Other reasons for health seeking preference were given as 'to seek supreme divine cure' 'proximity' and 'low cost'; these others account for the other institutions (apart from hospital) in the preference table above.

6.8 Socio-economic hardships

The study has found that greater proportions of single respondents who are in sexual unions do so because of the general economic hardship in the metropolis, who are sexually active, finished school and had no jobs to do but decided to earn a living anyhow. Already, the Sekondi-Takoradi metropolis is noted for its vibrant commercial sex activities (an occupation singled out by studies as spreading HIV), to the extent that, there are identifiable residences for this transactions and some socio-economic groups identified as client to the sex workers. There are home and on-street sex workers, some of whom were met during the data collection in the metropolis. With the existence of this institution coupled with other pre-disposing factors seen in the preceding discussions, residents who do not have enough knowledge on HIV/AIDS could easily be infected in one way or the other as they go by their normal duties in the metropolis.

Table 6.11 Engaging other partners apart from wife/husband/regular partner

Responses	Frequency	Percentages [%]
Yes	22	11
No	138	69
No response	40	20
Total	**200**	**100**

Source: Field survey, 2001.

Table 6.11 shows respondents' sexual unions outside regular and legal unions. The respondents in the 'yes' and 'no response' categories are not too different in this analysis. Some of these respondents who said yes, in an informal discussion claimed cost of living is high and 'if you find someone to help you why resist'. These kinds of expressions came from two people who of course, were either brave or did not care so much about what people say about them. This is just to demonstrate that socio-economic hardship also has part to play in the spread of HIV in the study area and could account for some significant percentage of those being infected as well as extra-marital activities.

CHAPTER SEVEN

7.0 IMPLICATIONS OF THE DISEASE IN THE METROPOLIS AND POLICY INTERVENTIONS FOR CONTROLLING THE SPREAD

The mere mention of the prevalence of HIV/AIDS in Sekondi-Takoradi scares a lot of people. Most respondents in the community had little knowledge about the presence of a large number of people living with HIV/AIDS in the metropolis until pre-data collection briefing periods of the study. This chapter elaborates on the implications of the disease and its possible control measures in the metropolis.

7.1 The implications of the disease in the metropolis

The presence of the disease has influenced some changes in the health care system. At modern health facilities such as the Effia Nkwanta hospital, the disease has led to the creation of special units like the STD/HIV unit, which are not yet well equipped and furnished as a substantive unit because of its extemporize establishment. Some nurses have also been attached to these units with special training. It is therefore clear that the presence of the disease has redirected health budgeting towards extra expenditures which in most cases are not met. Moreso, the presence of the disease and its unavailable cure has given innovative traditionalists and herbalists the urge to try their hands at series of cure and ultimately claim discovery of potent drugs. This has made them popular in the metropolis. On a similar strand, churches and prayer camps have also sprung up claiming spiritual authority and direction over curing the disease. Some

representatives of these churches and healing centres visit the STD/HIV unit at the Effia-Nkwanta Hospital with their drugs they claimed God has directed them to prepare.

In view of the trends and patterns of HIV in Sekondi-Takoradi, which is very high in married couples with children, there will be a time where children of these couples would become 'parentless' hence orphans. The interview granted people living with HIV/AIDS indicate 86.8% having children as against 13.2% without children. If increase in this pattern persists, then in few years time there would be a lot of orphans caused by AIDS, all things being equal.

Another dimension of the implication is the overburdening of the social system. All the AIDS patients interviewed were no more working at the time of the research because of their condition. It was only the few who lived 'healthily' with the HIV still worked. Virtually, all of them were being taken care of by their families, to the extent that at least someone had to accompany each patient to the hospital leaving his or her work. In case the patient is the 'bread winner' of a family, then the doom of that family is spelt, because it would result in series of problems. This would soon be the situation in the metropolis among some families if the rate of spread of the infection is not reduced. The inheritance system and the welfare system provided by the extended family ties, which help in absorbing social stress, would all be destroyed with recurring effects, if the disease persists.

Since HIV/AIDS is more prevalent among traders in Sekondi-Takoradi, the implication is that if the pattern continues and degenerates, economic activities will be affected and hence reducing economic growth of the area and ultimately influencing that of the whole nation. The over 4.0% prevalence rate of HIV in the area, incident in the

productive and the reproductive ages is therefore quite high and mean so much for socio-economic and human development. In view of these tremendous effects of the disease on development, there is the need to inject barriers to the circle of development of the disease.

7.2 Controlling the spread of HIV/AIDS

A quick reference to chapter five and six shows that sexual intercourse has been the dominant and proximate factor facilitating the spread of HIV in the metropolis. Therefore any attempt to curb the spread of the infection would be immensely directed towards people's sexual behaviour and practices, but not relegating the other co-factors to the background and treating them as secondary but attacking all the alleged factors simultaneously.

There were several suggestions from respondents in the community. They suggested the following as actions to curb the spread. Increasing media awareness on the disease, mass education for the youth, educating congregations at church services, abstinence from sex, faithfulness to one's partner, faithfulness to God, promoting the use of condom and protected sex. Further more, Eradication of poverty, introduction of policy to regulate some activities of infected persons, introduction of free HIV test, intensification of moral and religious teachings, revitalization of cultural norms and discouraging pre-marital and extra-marital unions were also emphasized. The concerns of the community are not very different from the concerns of people everywhere, where sexual relationships have been identified as the main factor influencing the spread of the

HIV infection. It is however obvious that the community mainly understands the disease as being caused by heterosexual activities, which need restrain.

Programmes have been designed nationally and internationally to combat the spread of the disease, but are not really fully operational. UNDP and UNFPA have designed HIV and Development regional projects for sub-Sahara Africa. These programmes however need to be carried down into the communities to help reduce the spread of the infection. World leaders have also promised their commitment to the fight against the disease. The UN Secretary General, Mr. Kofi Annan has personally been involved in all international activities directed to combat the disease. In the recent UN general assembly's special section on HIV/AIDS (in June 2001), the Secretary General made several statements on the disease. In one of his speeches he said 'AIDS victims are humans with rights'. In this statement he was calling for an end to the stigmatization that goes with the disease. He was of the view that AIDS is spread under cover in the dark driven by stigma. He therefore said, ' AIDS can no longer do its work in the dark. … The world has started to wake up' He insisted that 'all AIDS victims regardless of their backgrounds should be addressed or the world could not come to grips with the galloping epidemic'. He concluded this statement by saying " let us remember that every person who is infected whatever the reason, is a fellow human being, with human rights and human needs"*.

Colin Powell, Secretary of state of the United States also declared at the UN special session on HIV/AIDS that, the US will continue to lead AIDS research and finance related studies. He also said, 'compassion not ostracism the key to ending the epidemic is prevention, prevention and more prevention' He complained, 'no war on the

surface of the earth is more destructive than the AIDS pandemic'. Powell again expressed that wining the battle against AIDS requires helping African women and girls to achieve sexual and economic equality to protect themselves from the deadly disease and that, sexuality must be spoken about frankly and girls and young women constructively educated *.

Other world leaders also discussed some approaches to reducing the spread. The Prime Minister of Mozambique, Mocumbi- Pascaoal Manuel talked about an on –going teenage marriage in his country, he emphasized that 'the battle against AIDS would fail if women and their rights are not brought to the forefront*'. The President of Botswana, Festus Mogae also said, 'reversing the AIDS epidemic required meaningfully addressing the structural determinants, such as poverty and gender inequality, which exacerbate the spread of HIV/AIDS* The President of the Republic of Ghana, J.A. Kufour also said at the UN special assembly on HIV/AIDS that, his government will allocate 15 % of budget to combat the AIDS epidemic. He furthered his discussion by saying poverty, underdevelopment and illiteracy have been identified as the major challenges to an effective HIV/AIDS response in developing countries**.

All these statements made by these leaders are very relevant and needed to fight the spread of the disease in the Sekondi-Takoradi metropolis. Since the factors in the spread have been duly recognized, the study would now be able to appropriately recommend effective ways of control, which would be multi-sectoral in approach and well outlined in the next chapter on recommendations and conclusion.

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* Daily graphic, Wednesday June 27 2001, page 5 ** Daily graphic, Tuesday June 26 2001, page 1

CHAPTER EIGHT

8.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS.

This is the concluding chapter of the study. It presents summary of the whole work and recommendations on how to reduce the spread of the disease in the Sekondi-Takoradi metropolis and Ghana as a whole.

8.1 Summary

The main objective of the study was to find out factors that influence the spread of the disease as well as factors acting as risk elements in the metropolis. The facilitating factors are sexual behaviour, lower socio-economic status and livelihood, low level of condom usage and misapplication, mobility, inadequate knowledge of the disease, stigmatization, mother to child transmission and occupational hard. The risk elements found in the community are mobility, marital history, sexual behaviour, condom usage and misapplication, health-seeking habits, knowledge of HIV/AIDS, stigma and background of respondents. The summary of the findings of the study are presented in Tables 8.1 and 8.2

Table 8.1 Summary of facilitating factors

FACTORS	DESCRIPTION AND CONTRIBUTION
Sexual Behaviour	Manifested as pre-marital and extra-marital sexual relations making the institution of marriage an outlet to HIV/AIDS. This factor also came out as the major cause of the spread of the disease.

Low level of condom usage and misapplication	Low level of condom usage was found among couples whilst singles mainly and people with other marital status misapply condoms, causing its frequent burst during intercourse.
Mobility	Internal and external mobility played significant roles in the spread. This factor mostly pre-disposed businessmen and women who engaged in sexual relations to HIV infection.
Low socio-economic status and Livelihood	The study made classifications based on residence, education, income and occupation. It was clear that majority of people living with the disease fall within the lower status, with low or no education, unemployed or in menial jobs.
Inadequate knowledge of the disease	This was demonstrated among patients. All that was being trumpeted was Sexual intercourse with sexworkers. Other modes of transmission and infection were put to the background.
Stigmatization	This factor is driving fast the spread in the study area. People living with HIV/AIDS are seen as immoral and deviants and therefore no one should relate to them. Few patients on knowing their status wanted to commit suicide because of the stigma on the disease.
Mother to child transmission	Two babies were found to be living with HIV/AIDS and it was definite they got the infection from their mothers.
Occupational hazard	This factor was evidenced in two of the cases interviewed, involving a ward assistant and an itinerant trader who had a bloody accident on a business trip.

Table 8.2 Risk elements/Factors in the community

FACTOR	DESCRIPTION
Mobility	This factor has been found in other studies and this one as a predisposing element to infection, coupled with other background issues. The risk here is that if everyone who travels gets infected, then as much as 26% of the respondents in the community (52 respondents) might be living with the disease all things being equal.
Marital History	Marital history came out as a strong factor in the spread. The largest proportion of people living with HIV/AIDS as found by this study were people in marital unions, those who have re-married and the divorcees. The risk here is the culture of marriage and re-marriage coupled with the increasing rate of divorce is predisposing people to the infection.
Sexual behaviour	This manifests as the high rate of extra-marital and pre-marital relationships in the study area. Respondents (22) who openly admitted doing this, have at least one partner in addition to their regular partners.
Condom usage	The use of condom is high among singles whiles it declines among couples. It came out that condom has been grossly mishandled among those who use it. Respondents clearly stated regular burst of condoms in sexual acts, which is a fertile ground for transmission of infections. However, out of the 71 (35%) respondents who claimed they use condom, only 44 of them (22% of the 35%) regularly use it. Most respondents in marital unions said the use of condom is a sign of infidelity and would really want to enjoy the act of sex so they do not use condom. The risk over here too is that, these people are in extra marital unions and may import infections into their marriages. This is one of the factors accounting for the high incident of infections among couples, which is likely to explode if not checked.
Health seeking habit	Respondents (91%) have good health seeking behaviour with the hospitals. Very few consult spiritualists and herbalists. Respondents who seek medical care also consult spiritualist and herbalist for what they termed 'quick relief'. A major risk element over here is that, if medical staffs do not sterilize equipment well, a good

	number of respondents who attend hospitals could be infected, with a negative implication on the health of the medical staff.
Knowledge of HIV/AIDS	Respondents are very much aware that there are STDs and HIV/AIDS is sexually transmitted. 61.5% of the respondent (123 people) had fair knowledge, 15.5% had no ideas, whilst 8% were well informed with 15% no responses. HIV/AIDS among respondent in only a disease of sexual misconduct. Only few of the respondents (those who were well informed) knew other methods of the transmission.
Stigma	This factor is driving the disease the world over. In Sekondi-Takoradi, stigmatization is very high causing people to hide their status and continuing with their usual activities without caution and restrain.
Background of respondents	The background of people is so important in the sense that, this study has found HIV/AIDS to be prevalent among people with lower socio-economic status. Thus age, sex, level of education, job status and income levels, marital status and social ties among others, have implications for one being infected with HIV/AIDS in the Sekondi-Takoradi Metropolis.

8.2 Conclusion

In conclusion, it is true to assert that HIV/AIDS is a threat to health in most developing countries and also becoming a number one cause of death, which demands efforts for its reversal. It is in line with its menace, the tendency to wipe out the productive and the reproductive human resources of the world, that the UN held a special session (in June 2001, in the United States) to combat its spread.

Sexuality, which is an issue in population explosion in Africa, is the number one influencing factor found in the spread of the disease in the study area just as most other

areas in sub-Sahara Africa. Alongside sexuality, socio-economic background, stigma, health seeking, knowledge of the disease, mobility, condom usage were also found as facilitating factors and risk elements in the spread of HIV in the study area. Nonetheless, mother to child transmission and occupational hazards also manifested as factors influencing the spread of the disease in the study area. In view of the socio-economic effects caused by the disease, it is essential to curtail its spread in the study area. Accordingly, stakeholders should endeavour to implement the recommendations made in the following sections to ensure that the spread of the disease is reduced and ultimately curbed.

8.3 Recommendations

In view of the findings, the study recommends that multi sectoral participatory approaches be used to combat the spread of the disease. There is therefore the need for strong-concerted efforts, towards education and at awareness creation in the metropolis. Existing groups and structures such as religious groups, educational institutions, the union of Artisans, GPRTU, GNAT, traders union, co-operatives, farmers and fishermen associations, health workers union, bakers association and chop bar operators association among others could be used. Techniques such as Participatory Rural Appraisal or Participatory Learning and Action [PRA/PLA], Appreciative inquiry, Regenerated Freirean Literacy through Community Empowering Techniques [REFLECT] and Stepping-Stones would be very appropriate in addressing the HIV/AIDS epidemic in the Sekondi-Takoradi metropolis because of their strengths at solving highly behavioural

problems in communities both nationally and internationally. All these techniques are participatory in nature, built on day-to-day activities of people.

It is very obvious that sexual relations have played significant roles in the spread of the disease in the Shama Ahanta metropolis. Since sexual activities are habitual and would be very difficult to curb totally, there is therefore the need to embark upon drastic education programmes and exercises on sexuality and reproductive health, suitably using participatory methods outlined above. In particular, sexual and marriage counseling centres or services should be made available and accessible to all kinds of people. People belonging to various associations should be made to have in-depth counseling on sexuality and related implications. This will help increase awareness and reduce the high level of sexual relations in the metropolis predisposing residents to the HIV infection.

Lower socio-economic status has been identified as a high-risk element in the spread of HIV infection in the study area. This manifested as low level of education, unemployment or menial jobs and low-income levels among others. These resultantly made people especially women to be sexually exploited.

Since this study shows that women have low bargaining power in sexual activities, they become more prone to the implications of these activities including HIV infection. It is prudent therefore to set up programmes on poverty reduction such as skill development, income generating activities and micro financing to help enhance livelihood of residents and to socio-economically empower them.

Mobility has also been found as a major predisposing factor, which influenced traders and businessmen and women with the infection and also acting as a high-risk element in the community since [internal and external travels] are quiet predominant

among residents. The issue here is not the movement but its negative effects on change of sexual habits as also indicated by Anarfi (1997) and other scholars. To track this, arrival and departure points should be targeted for thorough education. Passengers of any kind at the ports and lorry stations should be given at least 15 minutes lecture and reminder messages on ways of protecting themselves against the HIV. Tracts could also be used aboard whatever medium of transport. To this effect, NGOs and other stakeholders in the fight against HIV/AIDS could effectively play this role using participatory approaches to really get the attention of all passengers.

Perception on the use of condom also came out strongly as facilitating factor and risk element predisposing residents to HIV infection. Condoms as discovered, were grossly misapplied by many of the young men who claimed to be using it and admitted their 'condom-bursts' during sexual intercourse. On another count, some good percentage of couples saw the use of condoms as a mark of unfaithfulness. There is therefore the need for couples to be educated on the use of condoms and its effects to debunk the infidelity mark on its use between partners. All these call for a thorough awareness creation exercise purposely designed for this category of people.

Stigmatization and care for people living with HIV/AIDS need to be strongly looked at in the metropolis. Residents in the Sekondi-Takoradi metropolis need to understand how HIV/AIDS is caused and particularly the other modes of transmission apart from sexual intercourse. This is because according to this study, a person living with HIV/AIDS is strongly considered a social deviant and unwanted. People would not like to mingle with anyone identified as such. This is silently spreading the disease, as people living with the disease would not want anyone to know but still do their usual

businesses without maximum precautions [being cared for as HIV patients]. The community therefore needs to be educated on the fact that people living with HIV/AIDS are still their friends and relatives and the infection significantly spreads through blood contacts, intravenous means and sexual fluid contacts.

Counseling centres could be built, well equipped and attached to all hospitals to help in the awareness creation efforts. The community needs to be educated on how to care for people living with HIV/AIDS. This will also help to control the spread among other people that may come into contact with these people in one way or the other.

'The culture of re-marriage and divorce' should be persuaded against since it has also acted as a very good means of contracting the disease in the metropolis. This goes back to strengthening pre-marital and marital counseling to ensure that a partner is fully prepared psychologically, financially, morally and even physically for marriage. This coupled with polygamy, which has not played very significant roles in the spread of HIV in the study area also needs to be reviewed. If polygamy had been a wide-spread practice of the people, the spread would have been more devastating in the presence of extra-marital relations, infidelity and low condom usage among couples. One advantage that should be exploited is the high religious affiliation of the people. In fact every religion preaches against sexual immorality and mal-practices. Since illicit sexual practices are the main elements in the spread of the disease, religious groups could effectively be used in the fight against HIV/AIDS. The community should be reminded that, the fact that some religious sets are able to allegedly cure the disease through spiritual means does not mean that there is a cure for the disease. This should not therefore give them the pep-up to lose sight of the presence and implications of the disease.

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DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT, UNIVERSITY OF GHANA, LEGON.

M. Phil Thesis Questionnaire on the topic:

The spread of HIV / AIDS in Sekondi – Takoradi

INTERVIEW GUIDE FOR PATIENTS

Section A (Background Information)

1. Sex……
2. Age……
3. Occupation……
4. Religion……
5. Area / Place of residence……
6. Ethnic origin……
7. Level of education……
8. Marital status……

Section B (Diagnosis and Symptoms)

9. What are you suffering from?……Have you identified some symptoms about your condition?……

……

10. When did you first observe these symptoms?……

……

11. Who did you initially consult with this illness?……

……

12. (If not hospital) why did you go to where you went?……

……

13. What were you told was the sickness?……

Section C (Travel History)

14. How long have you lived in this community?……

15. Where were you initially residing (if you moved in from somewhere)?

.....

16 Have you ever traveled abroad (or to any West Africa country)?.....

17. If Yes, name (s) of country.....

18. (If Yes) what did you go there to do?.....

Section D (Marital History)

19. (If married how long have you been married?.....

20. Apart from your husband/wife, do you have any other partner? .....

21. How many wives/husbands/partners do have / have you had?.....

Section E (Knowledge of the disease)

22. Are you aware there are STDs (Sexually Transmitted Diseases)?.....

23. Do you know HIV/AIDS is a sexually transmitted disease?.....

24. Is HIV/AIDS real?.....

25. What do you think causes AIDS?.....

.....

.....

Section F (Sexual Behaviour)

26. Do you have children?.....

27. How many?.....

28. Do you recall the first time you had sexual intercourse?.....

.....

29. Did you use any preventive method?.....

30. Are you aware of condoms?.....

31. Do you regularly use it (also for females – female condoms?.....

32. [Females] do you appreciate the use of condom by you partner?.....

.....

33. Have you ever visited a commercial sex worker?.....

34. What turns you off from Sex?.....

Section G (Health Seeking Behaviour)

35. When you fall sick, where do you seek medi-care?.....

.....

36. Why do you go to where you to for medi-care?.....

.....

37. (If hospital) do you regularly visit the hospital with your present condition?

.....

38. Do you also seek other spiritual /traditional/other attention for cure?.....

39. If Yes, why? And where?.....

Comments.....

Section H (Other Socio-Economic Implications)

40. What is your family size?.....

41. Is your family aware you have this disease?.....

42. Do you still work for a living?.....

43. If No, who takes care of you?.....

44. Is the person a regular income earner?.....

45. If No, what work does the person do?.....

46. Are you the bread winner in your family?.....

47. How would you assess yourself in society with regards to your current status?

.....

48. What advice do you have for society, to help control the spread of the disease?

.....

.....

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The spread of HIV / AIDS in Sekondi – Takoradi.

QUESTIONNAIRE FOR COMMUNITY

Section A (Background Information)

1 Name of community.....

2. Age.....

3. Sex: Male [ ]

Female [ ]

4. Occupation:

Farmer [ ] Housewife [ ] Fisherman / Fishmonger [ ]

Artisan [ ] Labourer [ ] Trader / Retailer / Hawker [ ]

Teaching [ ] Clerical Officers (Accountants, Bankers etc) [ ]

Security Officer [ ] Police / Solder / Fire / CEPS Officer [ ]

Unemployed [ ] Other (state).....

5. Religion:

Christian [ ] Islam [ ]

Traditional [ ] Others (state)[ ]

6. Marital Status:

Married [ ] Single [ ] Divorced [ ]

Widowed [ ] Others(state).....

7. Type of married (if married)

Monogamy [ ] Polygamy [ ]

Others(state).....

8. Level of Education

Primary [ ] J. S. S [ ] M.S.L.C [ ]

'O' Level[ ] 'A' Level [ ] Graduate [ ]

Section B (Knowledge of the disease)

9. Are you aware there are STDs (sexually Transmitted Disease)?

   Yes [ ] No [ ] Not sure (indifferent)[ ]

10. Do you know HIV / AIDS AIS AN STD?

    Yes [ ] No [ ] Not sure (indifferent)

11. Do you think HIV / AIDS is real?

    Yes [ ] No. [ ] Not sure (indifferent) [ ]

12. (If Yes) how do you recognize a person living with HIV / AIDS? (Symptoms)

    .....

13. Is it easy to identify someone living with HIV / AIDS?

    Yes [ ] No. [ ]

14. What then do you think are risk elements in acquiring HIV / AIDS?

    .....

    .....

15. Can HIV / AIDS be cured?

    Yes [ ] No. [ ]

16. If Yes , by whom and where?.....

    .....

Section C (Perception of the community about those living with the disease)

17. How do you perceive somebody living with HIV / AIDS

    Immoral [ ] Social deviant [ ]

    Normal / Ordinary [ ] Others(state).....

18. Do you think an identified person living with HIV / AIDS should stay with others in the Community?

    Yes [ ] No. [ ]

19. If no, why?.....

Section D (sexual Behaviour)

20.Do you have children?

Yes [ ] No. [ ]

21. Do you remember the first time you had sexual intercourse?

Yes [ ] No. [ ] Not sure (indifferent)

22. Do you recall using any preventive method'?

Yes [ ] No. [ ]

23. Do you use condom?

Yes [ ] No. [ ]

24. How often do you use it?

Very regular [ ] Sometimes / irregular [ ] Other (state).....

25. (Female) do you appreciate the use of condom by your partner(s)

Yes [ ] No. [ ] Other (state).....

26. Your reason for the answer in question (25)..... ..

27. Apart from your husband / wife / partner do you have any girl / boy friend?

Yes [ ] No. [ ]

Section E (Health Seeking)

28. When you are sick, where do you seek medi – care?

Hospital [ ] Shrine / herbalist [ ]

Spiritualist / Churches [ ] Others (state).....

29. Why do you visit place selected above?

Distance [ ] Disease not for Hospital' [ ]

Reliability [ ] 'Seek supreme divine powers'[ ]

Low cost of treatment [ ] Others (sate).....

30. (If not hospital in 28),. Do you visit the Hospital at all?

Yes [ ] No. [ ] Sometimes [ ]

Section F (Travel History)

31. Have you ever traveled abroad within the last ten years?

Yes [ ] No. [ ]

32. If Yes, which country.....

33. What did you go to do?

Visit [ ] Work [ ] Other (state).....

34. If Yes in 31, how long did you stay at where you went?

Less than a year [ ] More than a year [ ]

Other (state).....

Section G (Control Measures)

35. What measures do you think should be adopted to 'fight the spread of HIV / AIDS' in your community?.....