PROVIDING HEALTHY DOCKWORKERS FOR AN EXPANDING PORT: THE GHANA PORTS AND HARBOURS AUTHORITY-Ghana Social Marketing Foundation Programme

BY

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DECLARATION

I hereby declare that apart from references I have made to other scholars’ works which I have duly acknowledged, this research work is the outcome of a study I conducted under the supervision of Dr. Kwadwo Kwabia of the Regional Maritime University, Accra.

May I be quick to add that despite benefitting from various contributions, any shortcomings are entirely mine—albeit, unintentional.

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DEDICATION

I dedicate this study to the memory of people who have died of the Acquired Immune Deficiency Syndrome (AIDS)
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Samuel Adu Yaw Akyea
ABSTRACT

Despite an historic mobilisation of efforts by the world community, the Human Immuno-Virus (HIV) and the Acquired Immune Deficiency Syndrome (AIDS) continue their deadly march.

According to UNAIDS, the number of people living with HIV in year 2007 totalled 33.2 million, made up of 30.8 million adults and 2.5 million children below the ages of 15 years. Even more worrying is the fact that a total of 2.5 million new infections were recorded in 2007. In Ghana, the HIV prevalence rate has fallen from 3.7% in 2003 to 1.7% in 2007. Despite this gain there are about 200,000 people living with HIV and AIDS in Ghana,

The study was to find out the impact of workplace HIV and AIDS prevention programs on employees. The study was about the PORTSHIELD program which is a workplace HIV and AIDS interventionist program launched jointly in 2003 by the Ghana Ports and Harbours Authority (GPHA) and the Ghana Social Marketing Foundation. Impact of the program was measured by the extent of employee knowledge of methods of HIV and AIDS prevention and, how that knowledge has influenced employees sexual behaviour and attitudes towards HIV.

The study took place in Tema with the focal point being the Ghana Dock Labour Company (GDLC) premises in the Port of Tema. The target population for the study were
the Ghana Dock Labour Company Employees, The Transit Truck Drivers who convey goods between the Port of Tema and the landlocked countries of Burkina Faso, Mali and Niger, and commercial sex workers in some identified Red Light ‘Districts of Tema.

Questionnaire was administered on thirteen (13) employees out of the population of two hundred (200) Ghana Dock Labour Company Limited employees. Three people were also interviewed from a population of ten(10) transit truck drivers whilst a sample size of seven(7) was drawn from the estimated Sex worker target population of thirty.

Based on the results from the samples, it was concluded that all employees of the Ghana Dock Labour Company have knowledge of the basic HIV prevention methods of Abstinence, condom use and faithfulness to one’s partner.

Secondly it could be concluded that the PORTSHIELD program has had impact on the employees’ attitude towards HIC prevention. However, there was a marked difference between the impact of PORTSHIELD on male employees and female employees: whilst all female employees responded emphatically that the program has influenced their behaviour to a very large extent, 7% of male employees said the program has influence them to only a little extent

January 2011
Samuel Adu Yaw Akyea
CHAPTER 1—INTRODUCTION TO THE STUDY

1.1 Background

The two health problems of the Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (HIV and AIDS) have become very topical issues of our time. Just to show how serious the problem the HIV and AIDS is, the researcher has re-produced statements and declarations by some eminent personalities and organizations at the forefront of the battle against the disease.

Speaking at the African Summit on HIV and AIDS, Tuberculosis and Other Infectious Diseases in Abuja, Nigeria in 2001, the then Secretary-General of the United Nations, Mr. Kofi Annan talked of how HIV and AIDS is taking its biggest toll among young adults—the age group that normally produces most, and has the main responsibility for rearing the next generation. He concluded that HIV and AIDS have become “our biggest development challenge” [1]

In a November 2004 meeting in Accra, the Commission on HIV and AIDS and Governance in Africa (CHGA), under the chairmanship of the Executive Secretary of the Economic Commission for Africa (ECA), Dr. K. Y. Amoako, noted that the impact of the HIV epidemic “cuts across all sectors of economic activity and all areas of social life” [2]

At that meeting, Prof. Sakyi A. Amo of the Ghana Aids Commission described it as a pandemic and called for all champions of industry to summon their strength and commitment to respond adequately to the pandemic at the workplace by developing appropriate policy frameworks for HIV and AIDS.

According to the United Nations Development Program (UNDP), HIV has inflicted the “single greatest reversal in human development” in modern history [3].
The International Labour Organization (ILO), has estimated that by 2010 the total labour force will be over 9 per cent smaller in 35 countries of sub-Saharan Africa affected by the [HIV and AIDS] epidemic, with losses surpassing 20 per cent of the total labour supply in the most affected countries. By 2015, the losses would reach 12 per cent and the labour supply would be as much as 30-40 per cent smaller in the highest prevalence countries[^4].

Again, according to a December 2002 Pew Research Center for The People and The Press survey, almost nine in ten (89%) Ghanaians said that HIV and AIDS and other epidemics are “very big” problems in Ghana. In that survey, more than four in five (84%) Ghanaians also felt that HIV, AIDS and other infectious diseases are the greatest threat to the world[^5].

From the above, there is no doubt that HIV and AIDS have been identified as major health problems. A recent United Nations report found that 77% of young men and 71% of young women aged 15-24 knew that a healthy looking person could be infected with HIV. Awareness of the epidemic in Ghana is relatively high, even though there are concerns that awareness has not yet translated into widespread behavior change[^6].

First though, what are HIV and AIDS? According to UNAIDS[^7], HIV stands for 'human immuno-deficiency virus'. HIV is a virus that infects cells of the human immune system and destroys or impairs their function. Infection with this virus results in the progressive deterioration of the immune system, leading to 'immune deficiency'. The immune system is considered deficient when it can no longer fulfill its role of fighting off infections and diseases. Immune-deficient people are more susceptible to a wide range of infections, most of which are rare among people without immune deficiency. Infections associated with severe immunodeficiency are known as 'opportunistic infections', because they take advantage of a weakened immune system.

AIDS stands for 'acquired immunodeficiency syndrome' and is a surveillance definition based on signs, symptoms, infections, and cancers associated with the deficiency of the immune system that stems from infection with HIV.
As a resident of Tema, the researcher has observed the complex and, yet, the simplicity of the ‘port’. The port is complex because it is typified by a lot of interactive economic activities. From the head porter, through the Stevedore, the freight forwarder, the food vendor, trucker and ship agents, all are engaged in income-earning activities which, at first glance, may appear unrelated to one another.

The simplicity of the ‘port’ arises from the fact that the potpourri of all the human activities are geared towards one thing: shipping! Indeed, “ship go, man go” is a popular saying which typifies the centrality of ships to life at the port.

The brisk economic activities at the port, in part result in Dockworkers earning relatively high incomes. Moreover, the incomes come in short intervals, at times daily, or, at most weekly. One outcome of such ‘permanent’ casual labour earnings is that the Dockworkers have high disposable incomes which may ‘tempt’ the male Dockworkers into seeking unrestrained pleasures “after a hard day’s work”. One such pleasures is ‘sex’

Indeed in a Quality Assessment Study, based on the leisure profile of ‘port workers’ which formed the basis of the PORTSHIELD program, Okello and Ighure[8] wrote:

“The study revealed that a lot of sex transactions occur in the port and harbor areas, particularly in Tema where a number of communities were identified as ‘red light communities’. It was observed that sex workers patronized some of the clubs and hotels where workers often went for leisure, particularly those located around the port areas. Some hotels in the vicinity of the port were also reported to serve as sex workers’ rendezvous. It was observed that sex workers consisted of some traders in the food market, hawkers of various items and workers living around the port areas and the metropolis. The main clients of the sex workers are: sailors, truck drivers, freight forwarders, dockworkers and other port employees, often in the younger age groups.”

Another important point is the role of transport or mobile workers in the spread of HIV and AIDS. As early as 1927, W. O. Kermack and A. G. McKendrick created a mathematical model
for determining the spread of epidemics. The model identified the role of ‘human contact’ in the spread of diseases.

The model states that in a given population, the spread of an epidemic is a function of the number of individuals not yet infected with the disease at a time, the number of individuals who have been infected with the disease (and are therefore capable of spreading the disease to those not yet infected) and those individuals who have been infected and then recovered from the disease, dead, removed or isolated. Thus, human mobility or migration, may be seen as a source of spreading diseases.

Referring to it as “Sex by the Side of the Road”, an international AIDS conference has identified what they called the HIV Vulnerability along Road Transport Corridors in Africa. Some of the identified corridors are the Mombasa-Kampala Transport Corridor and the Abidjan-Lagos Corridor. These corridors contribute heavily to the economic growth of their countries but are characterized by migration delays at borders, low knowledge of HIV & STIs, high HIV and STI prevalence rates among truck drivers and commercial sex-workers (CSW) at borders, hot spots for sex work; sex with non-regular partners and low condom use.

In West Africa, along major transport corridors in the region, travel increases opportunities to have sexual relationships with multiple partners, thus creating an environment that is conducive

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\[ S(t) \] is used to represent the number of individuals not yet infected with the disease at time \( t \), or those susceptible to the disease

\[ I(t) \] denotes the number of individuals who have been infected with the disease and are capable of spreading the disease to those in the susceptible category

\[ R(t) \] is the compartment used for those individuals who have been infected and then recovered from the disease. Those in this category are not able to be infected again or to transmit the infection to others.

The flow of this model may be considered as follows:

Using a fixed population, \( N = S(t) + I(t) + R(t) \), Kermack and McKendrick derived the following equations:

\[
\begin{align*}
\frac{dS}{dt} &= -\beta SI \\
\frac{dI}{dt} &= \beta SI - \gamma I \\
\frac{dR}{dt} &= \gamma I
\end{align*}
\]

The model assumes the following:

1. The population leaving the susceptible class is equal to the number entering the infected class.
2. The rate of infection and removal is much faster than the time scale of births and deaths and therefore, these factors are ignored in the model.

to the transmission of HIV/AIDS among truck drivers and commercial sex workers in the
countries along the Abidjan-Lagos corridor. High HIV prevalence rates were reported for major
cities along the corridors of the five participating countries. For example, HIV prevalence rates
for commercial sex workers were in Cote d’Ivoire, 84% in Abidjan in 1993, and at 40% in
Accra/Tema in Ghana in 1991. This rate was at 80% in Togo, in 1992, in Lome., about 54% in
Cotonou in Benin in 1996, and in Nigeria in 1993 the prevalence was at 30% in Lagos.\textsuperscript{[10]}

The Ghana Ports and Harbours Authority have reported an increase in the transit cargo business,
with the total volume of transit cargo traffic standing at 887,325 metric tonnes in 2006.\textsuperscript{[11]} The
increased transit cargo volumes are accompanied by increased human movement of personnel
from the cargo receiving countries, namely Cote d’Ivoire, Mali, Burkina Faso and Niger.

It has been found that in areas of already high HIV prevalence, interaction between transporters,
sex workers and community members can intensify the situation. A 2007 study that mapped the
Mombasa-Kampala corridor found extensive co-mingling among transporters, traders, sex
workers and local residents. Even in relatively low prevalence areas, commercial centres,
transport hubs and communities living along transport corridors can become ‘hotspots’ for STI
and HIV infection.

Morris, C. and Ferguson, A in a 2007 study of “Sexual and treatment-seeking behaviour for
sexually transmitted infection in long-distance transport workers of East Africa”, published in
Sexually Transmitted Infections, 83:242-245, found out that found on average 2400 trucks
parked overnight at 39 ‘hotspots’ between Mombassa and the border towns with Uganda, with
the hot spots having an estimated sex worker population of 5600 women

The Transit truck drivers and their mates who transport cargo to and from the port of Tema often
have long waits to load or discharge their cargoes. With disposable incomes to facilitate
‘business’, these truckers—both Ghanaian and non-Ghanaian, are likely to entice the opposite
sex with money for sexual favours
In an August 23, 2008 Ghana News Agency (GNA) report produced in the Ghanaian Chronicle Newspaper, entitled “New Sex Trade at Tema Port”[12], a social worker complained about a new development in Tema, where teenage girls trooped to have casual sex with drivers and their mates, who came to the Tema Harbour to cart transit cargoes to the landlocked countries. Due to the relevance of the story to this study, the full report is reproduced below:

The report explained that that the men, who usually fix their sleeping beds under their articulated trucks, have sex with these girls in the open. It said there existed a form of ‘open brothel’ at the Black Star Line Lorry Park, within the Tema harbor vicinity. The report said that investigations revealed that the drivers' mates offer three cedis (Ghc3.00) to those girls, who allow raw sex without condom, while those who insist on the use of condoms are given one-and-half Ghana cedis(Ghc1.5), adding that a lot of the girls wait for their turn to use the same beds.

The study said that in some of the East African countries where HIV and AIDS is wiping out large numbers of the population, it was such long distance drivers, who were said to have contributed to the increase in the infection. The report concluded that perhaps given the position of Tema and its role in the West African transit trade, perhaps it was not surprising that the HIV prevalent rate in Tema had gone up to about 6.4 per cent, according to recent reports.

Again, the 2003 HIV Sentinel Survey Report found an average HIV prevalence rate of 3.6 percent among the general population, an increase from 2.3 per cent in 2000, with the prevalence rates higher in border regions, in mining areas and along major transportation routes[13].

The above observations give concern to follow the progress of a PORTSHIELD program when it was jointly launched by the Ghana Social Marketing Foundation (GSMF) and the Ghana Ports and Harbours Authority (GPHA), in December 2003. The aims of the PORTSHIELD are as follows:

1. Encouraging the adoption of positive sexual behaviour among harbour workers. The positive sexual behaviour includes abstinence, faithfulness and condom use

2. Increasing the number of targeted workers who report consistent condom usage with non-regular partners

3. Increasing accessibility and availability of condoms in the port and its vicinity.

4. Increasing the number of targeted workers who seek treatment for symptoms of STIs

The PORTSHIELD program was launched in two segments; with segment one covering the Tema and Takoradi main ports and the second segment for the Tema and Sekondi Fishing Harbours. However, the focus of this study was on the port of Tema, otherwise referred to as the Tema Main Harbour. The decision to select the Tema Harbour for the study was just for convenience, curiosity and interest.

1.2 The Research Problem

The Port of Tema handles 80% of the nation’s import and export cargo and is poised to become the Gateway of West Africa. But, surely, if the dockworker base necessary to provide the requisite manpower for all the expansion and intended Gateway program is threatened by a high dockworker HIV and AIDS, then it stands to reason that the Gateway Concept would not succeed. Therefore a healthy dockworker population is vital to ensure the complementary human resources needed for the expanding port. Thus, the PORTSHIELD program which is a workplace HIV and AIDS interventionist program is very, very important.

However, how the program has influenced the knowledge, attitudes, practices and the sexual preferences of the targeted group, the Dockworkers, is unknown. The problem which occasioned this study therefore, was the need to verify the impact of the PORTSHIELD program on the target population.
1.3 Objectives of the Study

UNAIDS has a list of twenty-five (25) standard HIV and AIDS Interventions used to measure resource needs and resource availability in low-and middle-income countries. These are categorized under Prevention Intervention, Care Services and Orphan Support. Workplace Prevention Program is one of the seventeen (17) interventions under the Prevention Intervention category. The PORTSHIELD Program is a workplace prevention intervention.

The study attempted to establish the extent to which the PORTSHIELD program has impacted on the sexual behavior of Dockworkers and truckers who use the Port of Tema. The findings of the study were used to make recommendations for improving the services of the PORTSHIELD program and extending it to similar communities and locations within the country.

1.4 The Research Questions

The study sought to achieve the objectives mentioned above by finding out from respondents whether they were aware of the PORTSHIELD program at the Ghana Dock Labour Company Limited (GDLC) in Tema. Beyond awareness, the study found out from respondents their degree of involvement in the program, and what impact (if any) the program has had on their sexual behaviors towards HIV and AIDS prevention.

Further, the study solicited ideas from respondents on how to improve the PORTSHIELD program. Appendix 1 has the questionnaire developed for the study.

1.5 Justification of the Study

Men and women who are HIV positive eventually become ill with symptomatic HIV-related diseases, and in the absence of treatment they eventually become unable to work, and without anti-retroviral drugs, they die eventually. The death of men and women due to HIV and AIDS deprives their families, society and the economy of many years of productive life. For instance,
in a study on the economic impact of AIDS on households, Bollinger and Stover(1999)[15] listed the following:

1. Loss of income of the patient (who is frequently the main breadwinner)
2. Household expenditures for medical expenses may increase substantially
3. Other members of the household, usually daughters and wives, may miss school or work less in order to care for the sick person
4. Death results in a permanent loss of income from loss of labor on the farm. And funeral and mourning costs. Children may also be removed from school in order to save on educational expenses and increase household labor, resulting in a severe loss of future earning potential.

The study is justified on the grounds that it will identify the impact that the PORTSHIELD program has made on the Dockworkers. This is particularly important as similar programs are earmarked for the Tema Fishing harbor and the Sekondi-Takoradi fishing harbours.

Secondly, the study as a review of the PORTSHIELD program can identify challenges and problems which must be addressed to ensure that the Tema Dockworker population’s knowledge, aptitude and practices lead to HIV and AIDS prevention. That way, the Dockworker population would ceteris paribus enjoy longer productive lives to enhance Ghana’s economic productivity and availability of the critical dockworker human resource, for Ghana’s gateway concept.

1.6 Scope Of Study

The PORTSHIELD Program was intended to cover both the Ports of Tema and Takoradi. Further, the program was to be extended to the Fishing Harbours of both cities. However, this study was limited to the Port of Tema. Also, the study focused mainly on workers of the Ghana Dock Labour Company Limited (GDLC). The workers of the GDLC are mostly available during the day, and they can be readily located in the vast sheds in front of the GDLC compound. The study also included transit cargo truckers and some commercial sex workers.
A trucker’s business is mobile by nature and the respondents (drivers) were more itinerant and non-permanent. However, serious efforts were made to identify as many regular Truckers as possible.

The researcher conducted a number of pre-survey visits to the Ghana Dock Labour Company (GDLC) premises. Officials of the GDLC, appointed a Focus Team Leader and a peer educator for the PORTSHIELD program in GDLC to assist me. The official explained the purpose of my study to the GDLC employees. The researcher then administered questionnaire on identified samples from the population of Ghana Dock Labour employees. The purpose was to solicit responses to determine the impact (if any) that the PORTSHIELD program has made on their sexual preferences.

The researcher administered a second questionnaire on the managers of GDLC. The purpose of the questionnaire was to review the program effectiveness of the PORTSHIELD program. The researcher sought to identify, for instance, whether meetings were held regularly, the number of peer educators that have been trained, whether there was voluntary counseling and testing for HIV, etc., . The review was done against the objectives of the PORTSHIELD program, which was launched in year 2003.

The researcher also interviewed some sex workers and transit truck operators. For the French-speaking transit truck drivers, the researcher engaged the services of an unofficial ‘interpreter’ to explain the researcher’s questions to the interviewees, and translate the responses to the researcher.

Finally, the researcher interviewed some sex workers in Tema to seek their awareness of HIV and AIDS and if such awareness has influenced their attitudes and preferences towards sex.

The researcher collected and collated the responses from the above samples and analyzed them. The necessary inferences and conclusions were then drawn from the data collected. The researcher also made some recommendations on how to improve the PORTSHIELD program.
The researcher measured the effectiveness of prevention activities by respondents’ attitude towards condom use, treatment seeking behavior for sexually-transmitted diseases and the number of sexual partners.

1.7 Terminologies, Acronyms and their Definitions

A number of abbreviations or acronyms are used in HIV and AIDS studies. Some of the commonly used ones in this study are explained or defined below.

1. HIV: The Human immunodeficiency virus is the virus which, over time causes an infected person to have AIDS (See below)

2. AIDS: Acquired immunodeficiency syndrome is when a person’s immune system is completely broken down, making a person become prone to all manner of opportunistic infections till eventually, the person dies

3. HIV Sero-positivity: This is used to refer to an outcome of an HIV test, when a person has tested positive, i.e. is infected by the virus that causes AIDS

4. HIV Sero-negativity: This is used to refer to an outcome of an HIV test, when a person has tested negative, i.e. the person is free from the virus that causes AIDS, as at the time of the test

5. GAC: Ghana Aids Commission is the umbrella body tasked with overseeing and coordinating all activities related to HIV/AIDS control and prevention in Ghana.

6. HSS: HIV Sentinel Surveillance is the survey which closely monitors and tracks the level, spread and trends of the epidemic as well as the risk behaviours that predispose the growth of epidemic.

7. GSMF: The Ghana Social Marketing Foundation
8. GPHA: Ghana Ports and Harbours Authority

9. GDLC: The Ghana Dock Labour Company

10. HIV incidence (the number of new HIV infections in a population per year) is the key parameter that prevention efforts aim to reduce, since newly infected persons contribute to the total number of persons living with HIV; they will progress to disease and death over time; and are a potential source of further transmission.

11. HIV Prevalence Rate: This is the percentage of people who tested positive to an HIV test, out of the population. It is normally used to refer to national rates. However, it may be used to also refer to sub-units like regions, districts, towns or even among a given social group.

12. Transit Car Park: A car park dedicated to serving transit cargo. Here, loaded trucks awaiting documentation, are allowed to park for the period during which documents are being prepared.

13. UNAIDS : Joint United Nations Program on HIV and AIDS

14. ABC : This is catchy slogan used in HIV/AIDS prevention and education programs. It refers to the basic three means of avoiding HIV infection through A-Abstinence from sex; B, being faithful to one's partner and C, using Condom during sexual intercourse

15. Red Light Community: A red light community may simply be defined as a community or a part of a community where activities related to illicit sex exist.

16. Sex worker: A person who has sex with someone other than his or her regular partner for financial rewards

17. ART: Anti-retroviral therapy, it's a therapy consisting of a cocktail of drugs administered to people with HIV to prevent them from getting HIV
18. PLWHA: People living with HIV/AIDS, it's a non-profit and non-governmental organization of people with HIV and AIDS

19. - STI: Sexually Transmitted Infection refers to all infections that are transmitted during sexual act

20. WHO, the World Health Organization

21. UNFPA, the United Nations fund for Population Activities

22. FAO, the Food and Agricultural Organization

23. UNDP, the United Nations Development Program

24. UNICEF, the United Nations Children (Emergency) Fund

25. ILO, the International Labour Organization

26. UNIC, United Nations Investment Center

27. UNESCO, the United Nations Education, Scientific and Cultural Organization

28. UNHCR, the United Nations High Commission on Refugees

29. M-SHAP Multi-Sectoral HIV and AIDS Program

30. NACP National AIDS/STI Control Program

31. NSF National Strategic Framework

32. NSPS National Social Protection Strategy
33. NHIS National Health Insurance Scheme
34. OVC Orphans and Vulnerable Children
35. PEPFAR President’s Emergency Plan for AIDS Relief
36. PMTCT Prevention of Mother to Child transmission
37. SW, Sex Worker (also CSW Commercial Sex worker)

1.8 Organization of the Report write-up

The report write-up has been organized into five chapters.
Chapter One is the introduction. The Chapter is devoted to the Background to the Research, the Research Problem, Objective of the Study, Justification and Scope of the Study and terminologies used in the study.

Chapter Two reviews existing literary works on the research problem.

Chapter Three deals with the methodology. This includes the study area, the sample selection methods and techniques used in the data collection, and the data collected.

Chapter Four discusses the data collected from the field and also interprets them.

Chapter Five is devoted to summarizing the findings of the study, and making recommendations to address the identified weaknesses and shortcomings of the PORTSHIELD program.
CHAPTER 2—LITERATURE REVIEW

2.1 Introduction

This chapter discusses the literature on the spread of the HIV and AIDS pandemic in Africa, particularly the situation in Ghana, and discusses the factors accounting for the current distribution. The impact of the disease on labour, firms and on Ghanaian society is given particular attention. Finally, the chapter discusses Workplace HIV prevention.

2.2 The HIV and AIDS Pandemic: The Statistics

The Joint United Nations Program on HIV/AIDS (UNAIDS) and the World Health Organization (WHO) gave some sobering statistics on the global spread of the HIV and AIDS pandemic in year 2007. According to UNAIDS and WHO\(^{[16]}\), there were a total of 33.2 million people living with HIV in 2007. Out of the number there were 30.8 million adults of which, 15.4 million or 50% were women. Among children, 2.5 million children under the age of 15 years were recorded as living with HIV.

Another important determinant of the progress made against the spread of HIV is the number of people newly infected with HIV. Again, according to UNAIDS, a total of 2.5 million people were newly infected with the disease in 2007. The number is made up of 2.1 million adults and again, 420,000 children under 15 years.

AIDS deaths also claimed 2.1 million lives in 2007, with 1.7 million adults and 330,000 children dying from Acquired Immune Deficiency Syndrome.

Giving a breakdown of the figures, UNAIDS say that “every day, over 6800 persons become infected with HIV and over 5700 persons die from AIDS”, and gives “inadequate access to HIV prevention and treatment services”, as mostly responsible for these deaths.
Regionally, there are wide variations in the spread of the disease. Using 2001 as the base line year and comparing with 2007, in Sub-Saharan Africa, the number of adults and children living with HIV increased from 20.9 million in 2001 to 22.5 million in 2007. However, the number of children and adults newly infected with HIV fell from 2.2 million to 1.7 million; but more people died, with the number of adults and children dying from the disease increasing from 1.4 million in 2001 to 1.6 million in 2007.

Adult HIV prevalence rate however fell from 5.8% in 2001 to 5% in 2007.
The adult prevalence rates for other regions are far, far lower. For instance, Middle East and North Africa, and South and South-East Asia regions have a prevalence rate of 0.3%; East Asia 0.1%; Oceania 0.4%; Latin America 0.5%; Eastern Europe and Central Asia 0.9%; Western and Central Europe 0.3% and North America 0.6%.

Sub-Saharan Africa continues to be the region most affected by the AIDS pandemic. More than two out of three (68%) adults and nearly 90% of children infected with HIV live in this region, and more than three in four (76%) AIDS deaths in 2007 occurred there.

Despite the dire statistics of Sub-Saharan Africa, the report seem to suggest some gains in the fight against the pandemic, in some African countries like Ghana, Kenya, Côte d’Ivoire, Malawi and Zimbabwe, and in rural parts of Botswana, where HIV prevalence rates has fallen. Additionally, statistically non-significant declines in prevalence in young pregnant women have occurred in both urban and rural areas of Burkina Faso, Namibia and Swaziland, urban parts of Botswana, Burundi and Rwanda, and rural parts of the Tanzania.

UNAIDS/WHO concludes that the examination of global and regional trends suggests the pandemic has formed two broad patterns: generalized epidemics sustained in the general populations of many sub-Saharan African countries, especially in the southern part of the continent; and epidemics in the rest of the world that are primarily concentrated among
populations most at risk, such as men who have sex with men, injecting drug users, sex workers and their sexual partners.

2.3 HIV and AIDS in Ghana: The Prevalence and Contributing Factors

This section reviews the literature on the factors attributable to the spread of HIV in Ghana. However, first, it is important to understand how HIV prevalence rates are measured in Ghana. According to the Ministry of Health[^17], Ghana uses the Sentinel surveillance systems for HIV, designed to provide information on trends to policy makers and programme planners.

Data are collected on HIV infection among pregnant women attending antenatal clinics (ANCs) using the unlinked anonymous method recommended by the World Health Organization (WHO). During a period of 8 to 10 weeks each year, all women attending the selected ante-natal clinics for their first visit for their current pregnancy are selected for the sample. The standard sample size at each clinic is 500. All women attending the clinic have blood drawn for testing for anemia. After the names are removed from the blood samples, the samples are tested for HIV. This unlinked anonymous method provides an accurate unbiased estimate of HIV prevalence in the sample.

The data are useful for understanding the magnitude of the HIV/AIDS problem in certain geographic areas and among special populations and for monitoring the impact of interventions. These data also can be used to prepare an estimate of national HIV prevalence suitable for advocacy purposes.

The HIV sentinel surveillance system in Ghana is implemented by the National AIDS/STI Control Program, Disease Control Unit, Ministry of Health, in collaboration with Regional and District Directors of Health Services, site supervisors and on-site laboratory staff of participating districts, and the Public Health Reference Laboratory (PHRL).

There is some criticism on the reliability of the Sentinel Survey as a means of measuring HIV prevalence rates. It is argued that antenatal attendance is not universal among Ghanaian pregnant
women. Thus, prevalence estimated from such antenatal attendance may not represent prevalence in the general population (Zaba, Boerma & White, 2000) [18]

Fobih, Soyiri (2006)[19] agree with this criticism of using antenatal attendance for measuring HIV prevalence rates. Argues that the number of pregnant women attending antenatal clinics constitutes a small proportion of women of reproductive age (15-49). Moreover, the number excludes sexually active women outside the reproductive age and men – who seldom attend antenatal clinics. Hence prevalence calculated from the sentinel system may be an underrepresentation of prevalence in the general population.

Akwara, et al (2005)[20] share in the criticism of the limitation of using the sentinel survey results as a measure of HIV prevalence. They argue that ANC surveillance data do not capture information on HIV prevalence in non-pregnant women, nor in women who either do not attend a clinic for pregnancy care or receive ANC at facilities not represented in the surveillance system. They also state that pregnant women are at a higher risk for HIV infection than women who may be avoiding both HIV and pregnancy through the use of condoms, or women who are less sexually active and are, therefore, less likely to become pregnant or to expose themselves to HIV.

Buve et al (2001)[21] also agree that rates among pregnant women may not be a good proxy for male HIV rates and cite a World Health Organization (WHO) study of four cities in sub-Saharan Africa which showed a higher risk overall in women compared with men.

Notwithstanding the above limitations, in Ghana, Akwara, et al (ibid), compared the prevalence of HIV among pregnant respondents age 15-49 of the 2003 GDHS and ANC sentinel surveillance sites and found that the 2003 GDHS and the 2003 ANC sentinel surveillance data are comparable for pregnant women. The high patronage of antenatal centres and services is suggested as the reason for the agreement between the Ghana Demographic and Health Survey rates—which measures larger samples of the population—and the ANC sentinel surveillance data.

[c] Prevalence of HIV among pregnant respondents age 15-49. 2003 GDHS tested for a sample of 414 whilst the 2003 ANC sentinel surveillance tested for 13427. In the 2003 GDHS, the prevalence rate was 3.6%, whilst the median HIV prevalence rate for ANC sentinel surveillance was also 3.6%.
data. This is evidenced by the fact that of the female respondents who reported a live birth in the five years before the survey, 93 percent reported at least one ANC visit for their last pregnancy, GSS et al. (2004)\(^\text{[22]}\)

So, for the purpose of this research, the HIV prevalence rates obtained from the Sentinel Survey (HSS) and Demographic and Health Survey (DHS) results would be used interchangeably.

Findings from the sentinel surveillance of women attending antenatal clinics show that by 1994, 2.7% of all pregnant women who visited these designated sentinel sites were HIV positive. This number rose to 4.6% in 1998 and, according to the National Aids Control Program, NACP (2003)\(^\text{[23]}\), the number was expected to rise exponentially by 6.4% in 2004, 8.2% in 2009 and 9.5% in 2014.

However, Ghana’s HIV prevalence rate has fluctuated over time, standing at 2.6% in 2000, 3.6% in 2002 and 3.1% in 2004. Lately, the rate has been falling steadily, with the rate standing at 1.9% in 2007 and 1.7% in 2008\(^\text{[24]}\). These falling HIV prevalence which widely deviate from the earlier projected figures, suggest a slowing of the spread of infection in the general population.

The Ghana Demographic and Health Survey (GDHS) of 2003 is a major source of literature review on HIV infection distribution among the Ghanaian populace. The survey (among other things) measures the HIV prevalence rate among people aged between 15-49 years—a demographic group thought to be the most active segment of the population. The 2003 Ghana Demographic and Health Survey included HIV testing of over 9,000 people. The survey gives the incidence of HIV and AIDS as stated below.

The first conclusion from the 2003 GDHS is that there is a regional variation in the spread of the disease. The survey shows that 2.2 percent of Ghanaian adults are HIV positive. However, the Eastern Region recorded the highest prevalent rate of 3.7%. So what factors are responsible for the differences in HIV prevalence rates in the various regions.
In the Eastern Region, Atimpoku, Agomanya and Somanya are high HIV-prevalent areas. Migration has been suggested as one of the leading causes of the spread of HIV in such areas. Way back in the 1980s, Konotey-Ahulu (1989) reported that at the early stages of the AIDS epidemic in Ghana in the mid-1980s most of the people identified as HIV carriers had a history of migration. CHUS (2003) say that some parts of the Eastern region include high rates of in-migration and out-migration which may contribute to HIV transmission. Fohih, Soyiri (2006) argue that the populations of these areas [Atimpoku, Agomanya and Somanya] are made up of significant proportions of migrants returning from Côte d'Ivoire, which is known to have one of the highest rates of infection in West Africa.

The Western region is noted for its mining towns, which attract migrant and temporary workers. Both the Western and Brong-Ahafo regions are on the border with Côte d'Ivoire. According to UNAIDS, the capital, Abidjan, had an HIV prevalence rate of 6.4% in Abidjan in 2002 (UNAIDS, 2004:28). The Western Region of Ghana also has areas known for having a high volume of human movement through trans-border trading activities with Côte d'Ivoire (GHS, 2003:23).

Other studies have also pointed to the link between population movement and migration on one hand, and the spread of diseases on the other. For example, Prothero (1977, 1994, 1996) for example, has reported significant interactions between disease and population mobility in tropical Africa in recent decades. Similarly, Hunt (1996) points to migration as a key predictor for the higher AIDS prevalence rates in the African countries with a higher concentration of labor migrants. In Uganda and Burkina Faso, Wawer and others (1991) linked truck drivers (who got infected through contacts with sex workers) to the spread of AIDS to their partners (girlfriends and wives).

As noted earlier, the Kermack-McKendrick epidemic model assumes that a disease [in this case, HIV/AIDS] is transmitted from one individual to another by direct contact. So given the high population mobility in the border towns, mining areas, urban areas and others, perhaps it is not surprising that migration has played a role in the high prevalence rates of the affected areas.
The second conclusion from the Ghana HIV prevalence data is that the incidence of the disease falls more on women than on men. HIV prevalence rate for women aged 15-49 years was 2.7% whilst that for men of the same group was 1.5%. Thus HIV was more prevalent in females than males but both urban and rural residents have similar levels of infection. This high incidence of HIV on women is confirmed by UNAIDS, which state that women account for more than half (56%) of adults estimated to be living with HIV/AIDS in Ghana.\(^{31}\)

Even among females, younger women were found to be particularly affected by HIV. The UNAIDS again, corroborates this finding, stating that..."young women are particularly affected; among young people ages 15-24, the estimated number of young women living with HIV/AIDS was more than twice that of young men.\(^{32}\) Again according to Asante, Fenny, and Ahiadeke,(2007)\(^{29}\), the risk of infection for females is higher than for males, with females estimated to make up 63% of HIV infected cases in Ghana. (However, by the age of 40, HIV prevalence among men is higher than that among women).

In general, the female physiology and its vulnerability to illness, heterosexual sex, economic and cultural reasons have been given for the higher HIV prevalence rate among women than men.

In an internet Issue Paper on HIV and AIDS in Africa, poverty has been ascribed as one of the underlying reasons for the higher HIV prevalence in females than males; with two aspects of poverty being responsible for the higher female prevalence\(^{33}\).

Cohen, the author argued that firstly, poverty—especially rural poverty, and the absence of access to sustainable livelihoods, are factors in labour mobility which itself contributes to the conditions in which HIV transmission occurs. Mobile populations, which often consist of large numbers of young men and women, are isolated from traditional cultural and social networks and in the new conditions they will often engage in risky sexual behaviours, with obvious consequences in terms of HIV infection.
Secondly, many of the poorest are women who often head the poorest of households in Africa. Inevitably such women will often engage in commercial sexual transactions, sometimes as CSW but more often on an occasional basis, as survival strategies for themselves and their dependents. The effects of these behaviours on HIV infection in women are only too evident, and in part account for the much higher infection rates in young women who are increasingly unable to sustain themselves by other work in either the formal or informal sectors.

People who are poor are more likely to focus on taking actions which lead to their daily survival than on their health and may resort to soliciting or, risky behavior such as prostitution for their survival.

Bamgbose (2002)\textsuperscript{34} found out that in Nigeria many young women become sexually involved with numerous male friends or clients in exchange for financial support. The prevalence of HIV throughout Africa is consistently higher among prostitutes compared with the general population. For instance, Morison et al\textsuperscript{35} found that the prevalence of HIV among sex workers was 75% in Kisumu, 69% in Ndola, 55% in Cotonou, and 34% in Yaounde. Again, Rodier, et al (1993)\textsuperscript{36} have, in the 1990s, found that 36% of street prostitutes and 15.3% of prostitutes working as bar hostesses in Djibouti were HIV-infected.

In Ghana, in a study to delineate the population attributable fraction (PAF) of transactional sex in prevalent cases of HIV infection in the male adult population of Accra, the researchers found out that approximately four-fifths (80%) of prevalent cases of HIV in adult males were acquired from Sex Workers\textsuperscript{d}. The study therefore concluded that transactional sex is the driving force in the dynamics of HIV in Accra, Ghana, Asamoah-Adu, et al(2004)\textsuperscript{37}.

Another reason for the higher HIV prevalence rates among women was their inability or lack of success in negotiating for safe sex when in unions. Agyeman, Anarfi and Awusabo-Asare\textsuperscript{38}.

\textsuperscript{d} HIV prevalence was 4.9% (8/162) among clients of mobile SW, 15.8% (53/335) among clients of home-based SW, 17.5% (10/57) among personnel and 32.1%(9/28) among boyfriends. A condom was used in 90% of intercourses, according to clients. Non-use of a condom was clustered in selected locations and independently associated with older age of client, frequency of intercourse with SW in the last year and current urethritis. Among the male population of Accra aged 15–59 years, 84% of prevalent cases of HIV were attributable to transactional sex.
found in a 1991 study that 62% of the women believed that they had no right to refuse to have sex with a promiscuous partner.\(^e\)

Another significant finding of the survey is the role of education in the HIV prevention. The survey found out that HIV prevalence increases with education up to the primary level, and then falls among those with some higher education. This finding is consistent with other study findings. Adih and Alexander (1999)\(^{[39]}\) in a study to identify condom use among the youth in Ghana, found out that for a sample size of six-hundred (600) Respondent's education 65.78% of those with secondary or higher education have ever used condom; compared to 64.11% for those with elementary education. More significantly, 44.51% of respondents with secondary education or higher, reported using condom at last sex, compared with 33.18% of those with elementary education.

Another striking finding of the 2003 GDHS is the role of marriage or unions in HIV prevalence rates. The survey found out that women who are widowed or divorced or separated have significantly higher rates of HIV infection than those who are currently in a marital union or have never been in a marital union. In the survey, the prevalence rate of HIV infection among males who were in Union was 2.3%, whiles that for females was 2.9%. However, the infection rate for females who have been widowed was 6.7% and those divorced or separated being 6.2%. Similarly males who have been divorced or separated had a prevalence rate of 3.3%.

Sexually Transmitted infections also contributed significantly to HIV. Men who have STIs or STI symptoms registering a prevalent rate of 2.2%, against 1.9% rate for those who have no STI or STI symptoms. For females, those who have STI or symptoms of STI recorded a 4.9% prevalence rate compared with 3.0% rate for those without STI and STI symptoms.

\(^e\) 400 women were surveyed (prostitutes, long-distance traveling traders, and partners or wives of men from various professions and of men with HIV/AIDS) to examine the extent of women's control over their sexuality within unions which, because of cultural and economic constraints, place them at risk of contracting sexually transmitted diseases (STDs) and AIDS. Most women (80%) would refuse sexual relations with a man with STDs, suggesting that they were worried about the health-related aspects of sex, but accepted partner promiscuity. In reality, 42% of women never refused sex. 39% of the partners of women who had ever refused sex were angry about not receiving sex. 16% of partners demanded it nonetheless.
Condom use was also identified as a source of HIV prevention. Women who did not use condoms during sex in the last 12 months [preceding the survey] were twice as likely to be HIV infected than women who used condoms.

Since the 2003 survey, Ghana has made significant progress in HIV prevention, with the national HIV prevalence of Ghana falling to 1.9% in (2007) and reducing further to 1.7% in 2008(UNAIDS 2008,ibid). The question is: what are some of the interventions which have led to the lowering HIV prevalence rates?

2.4 Ghana’s Response to HIV and AIDS

Ghana’s response to the HIV and AIDS pandemic has been varied. The response may be categorized into three, namely, the initial stage, the middle stage and the knowledge stage.

The period between 1980 and 2000 may be seen as the initial stage of Ghana’s response to HIV/AIDS. According to Prof. Michael H. Merson [40] of the Duke University, USA, the period was characterized by what may be regarded as an unsure policy direction where government’s action was more exploratory. He remarked that through much of the 1980s, it seemed almost incomprehensible to most policy makers and the public at large that overlapping sexual and needle-sharing networks had somehow led to tens of thousands of people around the world being infected with HIV. Many governments, including in heavily affected sub-Saharan Africa, denied that HIV or its associated risk behaviours existed in their countries.

In addition to the denial, the early stages of the disease was marked by stigmatization [41] those infected (and affected) by the disease. This stigma which exists when a person is identified by a label that ostracizes the person and associates them with undesirable stereotypes that result in unfair treatment and discrimination[42], brought about a pervasive silence surrounding the
HIV/AIDS epidemic in sub-Saharan Africa leading to limited public discussion and continued stigmatization of those who are infected\[43\]

Prof. Sakyi Awuku Amoa of the Ghana Aids Commission has said that, initially, in the 1980s, the HIV/AIDS epidemic was managed as a disease rather than a developmental issue. The national response then was medically oriented and directed by the Ministry of Health\[6\].

The National Advisory Commission was established in 1985 to advice Government on HIV/AIDS issues. In 1987, the National AIDS Control Program (NACP) was established within the Ministry of Health. The NACP was charged with the responsibility of implementing and coordinating HIV/AIDS programs. The NACP developed both short term and long term plans, including initiating a National HIV/AIDS/STI Policy.

A Popleline document\[44\], corroborates the above. It states that the first response to AIDS in Ghana was a technical committee on AIDS formed in 1985 to advise the government. This committee was to work with both the Ministry of Health and consultants from the World Health Organization (WHO) to develop a short-term plan for AIDS prevention and control. In 1987, antibody-testing and blood-screening facilities were introduced in Ghana, and by the end of 1988, a medium-term plan was developed with the WHO’s Global Program on AIDS.

It continues that The National AIDS/STI Control Program (NACP) was established in the Disease Control Unit of the Ministry of Health, and is responsible for the prevention, management, and control of HIV in Ghana. Activities of the NACP include educational campaigns through mass media, workshops, video shows and other channels to inform the public on how to reduce HIV related risky behaviors, especially through the use of condoms. The period is also marked by an intensification of condoms distribution by private-sector organizations like Planned Parenthood Association of Ghana and the Ghana Social Marketing Foundation.

\[6\] Prof. Sakyi Awuku Amoa is the Director-General of the Ghana Aids Commission. He was making a presentation on Ghana’s response to HIV/AIDS to the School of Business, University of Calgary, Canada on October 6, 2006
The period between 2000 and 2006 may be described as the second stage in the evolution of Ghana’s response to the pandemic. Prof. Sakyi Awuku Amoa again states that, later (in the 2000’s) the complex, multi-faceted and multi-dimensional nature of the epidemic necessitated a need for a developmental, holistic, coordinated and multi-sectoral approach.


The Ghana Aids Commission Act, 2002 (ACT 613), empowered the Commission to formulate HIV/AIDS policy and direct and co-ordinate national activities in the fight against HIV/AIDS.

The Commission was also to formulate comprehensive policies and strategies and establish program priorities; provide high level advocacy for HIV/AIDS prevention and control; provide effective leadership in national planning, supervision and support of HIV/AIDS programs; expand and co-ordinate the national response to HIV/AIDS; mobilize, control and manage resources available for the achievement of its object and monitor their allocation and utilization; foster linkages among stakeholders; promote issues relating to research, documentation and dissemination on HIV/AIDS; and monitor and evaluate HIV/AIDS programs.

The multi-sectoral national response of the ‘middle stage’ of the response evolution was based on defining the national HIV/AIDS prevention, care and treatment mitigation strategies and implementation plans through participatory processes; empowering stakeholders from the community up to the national level with financial and decision-making authority; using existing decentralized administrative structures to monitor and supervise HIV/AIDS activities; Channeling funds to Ministries, Departments, Agencies, communities and civil society organizations for HIV/AIDS intervention activities.

Section 1, and Section 2 (a) – (h), Ghana Aids Commission Act 2002(ACT 613)
The national response was targeted the following goals: to reduce the prevalence rate among the 15-49 age group by 30% by 2005; to create an enabling environment for People Living With HIV and AIDS (PLWHAs); to improve service delivery and mitigate the impact of HIV/AIDS on individuals and families.

The first National Strategic Framework (NSF I), which was developed for the period 2001-2005, successfully guided the implementation of the national response, leading to some major achievements. The implementation of National Strategic Framework I triggered the enactment of several policies and guidelines to create an environment conducive to the delivery of effective HIV/AIDS services. It stimulated the preparation of policy documents, such as the 2004 National HIV/AIDS and STI Policy, the National HIV/AIDS Workplace Policy, the 2002 Guidelines for Anti-retroviral Therapy (ART), the Policy on HIV/AIDS for Faith-Based Organizations (FBOs), the 2003 National Guidelines for the Development and Implementation of HIV Voluntary Counseling and Testing, National Policy Guidelines on Orphans and Vulnerable Children, 1999 Draft National Guidelines for Blood Safety and the National Monitoring and Evaluation Plan of 2001-2005.

National Strategic Framework I provided broad guidelines for sector Ministries, Departments, Agencies (MDAs) and District Assemblies (DAs), Non-governmental Organizations (NGOs), and civil society to develop specific HIV/AIDS plans and activities appropriate to their circumstances. The high level of consultation during the preparation and the implementation of activities promoted in National Strategic Framework I encouraged the development of a national consensus on combating the epidemic. This consultation process also generated social and political support from national, traditional and religious leaders.

Over the five-year period there was increased awareness, community participation and support from development partners.

The National Response for 2001 to 2006 focused on Awareness Creation; Support and Care for PLWHAs; Voluntary Counseling and Testing; Treatment and Care; Research, Monitoring and Evaluation.
The first priority intervention for the national response was in the area of Prevention of new infections through the Promotion of safe sex; condom promotion; management of sexually-transmitted infections (STIs); blood safety; infection control; voluntary counseling and testing (VCT).

Other interventions included the Prevention of Mother To Child Transmission (PMCT), Clinical care and support including nursing care, antiretroviral therapy and home based care.

The national response also targeted Reducing stigma and discrimination, developing human and institutional capacity.

The period from 2006 onwards may be seen as the third stage of Ghana’s response to the HIV and AIDS pandemic. The period is characterized by the availability of more information on the disease, more global resource commitment towards fighting the disease and a gradual waning of the stigma associated with the disease.

A new project Multi-Sectoral HIV/AIDS Program-MSHAP started in January 2006. The objectives of the 2006-2010 program are maintaining the new infection rate at the current levels among vulnerable groups; preventing the spread of HIV/AIDS among the general population through a multi-sectoral approach and Mitigate the impact of the epidemic on the health and socio-economic systems as well as infected and affected persons.


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h JUNTA is made of ten(10) UN agencies represented in Ghana. They are the WHO, UNAIDS, UNFPA, FAO, UNDP, UNICEF, ILO, UNIC, UNESCO and UNHCR.)
providing sustainable quality HIV services to all those in need by 2010. The targets consist of both process and impact indicators for 2008 and 2010.

JUNTA established three main Country Program Outcomes (CPOs)¹ in order to achieve the JUNPS 2008/2009 aim of contributing to the strengthening of national responses to HIV for the attainment of Universal Access to Prevention, Treatment Care and Support by 2010. The CPOs were the reduction in the further spread of HIV infection amongst most vulnerable and high-risk groups; improvement in actions leading to equal access to quality services and treatment for vulnerable and high risk groups, and an improved management and coordination of the national response. Various actions steps were undertaken to achieve the CPOs.

For instance in order to reduce the further spread of HIV infection amongst most vulnerable and high-risk groups, the program undertook a scaling up of prevention interventions in young people, women and children and, in the work place; increasing access to and uptake of quality HIV and AIDS prevention services.

In order to improve the Management and Coordination of the National response steps were taken towards achieving sustainable social and political will at all levels, through effective advocacy; increasing effective functioning of the Ghana AIDS Commission, as the national coordinating body for the national response; strengthening the decentralized structures and systems to respond to HIV and AIDS; and strengthening the Monitoring and Evaluation.

JUNPS 2008² provided the impact areas where specific targets were expected and their indicators. Not only that, JUNPS provided the impact targets and the process targets expected to lead to the achievement of the particular target. These targets were also viewed against baseline year data, usually 2003 and 2005.

For instance in the area of Treatment, one of the CPOs expected to lead to Universal Access in Ghana by 2010 is the percentage of women, men and children with advanced HIV infection who are receiving antiretroviral combination therapy. JUNPS plans an increase in this percentage from 6.5% in baseline year (2005) to 42.5 in 2008 and 66% in 2010. In order to achieve this

¹ Under a United Nations Development Assistance Framework (UNDAF), countries receiving UN assistance to fight HIV and AIDS develop some desired outcomes which are expected to be attained after implementing intervention programs. These outcomes are country-specific and are referred to as Country Program Outcomes (CPOs).
target, three process targets must be achieved. The number of centers providing ART services, for example, must increase from 5 in 2005 through 50 in 2008 to 128 centers in 2010.

Similarly, the number of centers providing VCT services must increase from 145 in 2005 to 190 in 2008 and then 238 in 2010. Also, the number of clients tested for HIV at VCT sites and receiving their sero-status results within 12 months must increase from 42,206 in 2005 to 200,000 in 2008 and to 300,000 clients in 2010.

Another example is that, in order to increase the percentage of HIV positive pregnant women who receive a complete course of antiretroviral therapy to prevent mother to child transmission in the last 12 months, from 0.45% in 2005 to 24.8% in 2008 and 47.6% in 2010, then the process target of increasing the number of centers providing PMTCT services from 135 (2005) to 190 in 2008 and 238 in 2010.

The table below shows the Universal Access Targets for Ghana

Table 2.1 Universal Access Targets for Ghana

<table>
<thead>
<tr>
<th>Programmatic Area</th>
<th>Indicator</th>
<th>Baseline Year</th>
<th>2008</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact Target</td>
<td>National HIV prevalence among people aged 15-49</td>
<td>2.20% (2003)</td>
<td>2.10%</td>
<td>1.90%</td>
</tr>
<tr>
<td>Impact Target</td>
<td>HIV prevalence among young people aged 15-24</td>
<td>1.9% (2005)</td>
<td>1.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Process target</td>
<td># of centers providing PMTCT services</td>
<td>135 (2005)</td>
<td>190</td>
<td>238</td>
</tr>
<tr>
<td>Impact Target</td>
<td>% of people aged 15-49 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission</td>
<td>Female-38% Male-44% (2003)</td>
<td>Female-46% Male-54%</td>
<td>Female-50% Male-60%</td>
</tr>
<tr>
<td>Impact target</td>
<td>% of women, men and children with advanced HIV infection who are receiving antiretroviral combination therapy</td>
<td>6.5% (2005)</td>
<td>42%</td>
<td>66%</td>
</tr>
</tbody>
</table>
### Process Targets

<table>
<thead>
<tr>
<th>Process target</th>
<th># of centers providing ART services</th>
<th>5 (2005)</th>
<th>50</th>
<th>138</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process target</td>
<td># of centers providing VCT services</td>
<td>145 (2005)</td>
<td>190</td>
<td>238</td>
</tr>
<tr>
<td>Impact Target</td>
<td>% of HIV positive pregnant women who receive a complete course of antiretroviral therapy to prevent mother to child transmission in the last 12</td>
<td>0.45% (2005)</td>
<td>24.8%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Impact target</td>
<td>Ratio of current school attendance among orphans to that among non-orphans, aged 10-14</td>
<td>0.79 (2003)</td>
<td>0.9</td>
<td>0.95</td>
</tr>
</tbody>
</table>

Source: Ghana Joint UN HIV and AIDS Program of Support (JUNPS)

#### 2.5 Impact of HIV and AIDS on Labour

This section discusses the impact of HIV/AIDS on labour and the economy. It must be noted that the impact of the disease is multi-sectoral and inter-related and, since the interaction between health and education are an important determinant of the quality—and quantity of labour—this section shall also discuss how the pandemic affect the education and health sectors and its impact on the general society. First, let us discuss the impact of the disease on labour.

There are two main sides to the labour market: the supply side and the demand side. The supply side is made up of those who are selling or offering their human effort, and the demand side consists of firms and enterprises ready to offer financial rewards in return for the use of labour. Thus, the discussion focuses on two fronts, namely, the worker as a supplier of labour, and firms as renters of labour. To proceed, it is important to make the assumption that the supply of labour in developing countries (even, unskilled labour) in developing countries is not inexhaustible.

Cohen (ibid) supports this assumption by stating that empirical data has exposed the fallacy of analysis suggesting that ‘unskilled’ labour lost through epidemic diseases such as HIV can be
easily replaced. Cohen argued that the so-called unskilled labour has accumulated what he called “location-and task-specific skills” that are very hard to replace.

The first impact of HIV on the supply of labour is that increased mortality from HIV and AIDS would reduce the labour force. In the paper, “Human Capital and the HIV Epidemic in Sub-Saharan Africa”, Cohen used the year 2002 HIV and AIDS figures to make a forecast. With about 28 million people in Sub-Saharan Africa living with HIV, further 28 million are presently living with the virus and most of them will die within the next ten years. This means that some 50 million people will have died from HIV-related illnesses, including AIDS, before the end of the present decade (2010).

The UNAIDS data tend to support this loss of labour by looking at the life expectancy in some affected Sub-Saharan countries. UNAIDS estimates that life expectancy is now less than 40 years in Malawi, Botswana, Mozambique and Swaziland, while for the region as a whole it is 47 years compared with an estimated 66 in the absence of AIDS.\(^{46}\)

Though, in recent times, the average life expectancy in Sub-Saharan Africa of 51.9 years for males and 53.9 years for females is an improvement over the 2002 average of 47 years, Africa’s figure compares poorly to life expectancies in other regions. For instance, the life expectancies of the world’s regions are as follows: more developed regions, 73.0 and 80.2; Less developed Regions of Latin America, Caribbean and Africa, 63.8 and 67.4, and the Least developed Nations, 53.6 and 56.0 for males and females. Even in the less developing countries’ where average expectancy of 63.8 for males and 67.4 years for females, Africa’s own life expectancies are 51.9 for males and 53.9 for females.[UNFPA 2008, ibid]

Another impact of HIV and AIDS may be seen in changes in the labour dynamics of affected countries. Thus, the worker population profile distribution would change in terms of age, skills and work experience as a result of the epidemic. There has been extensive study on the subject in the Southern African region.

\(^{46}\) Cohen argued that especially, in Agriculture among traditional societies, some specific skills may be attributed and located in particular regions and among some particular people. So, though such people may be termed “unskilled”, their skills may not be immediately replaceable.
McIntosh [47] argues that increasing worker mortality from HIV and AIDS would result in rising number of widows and orphans, who would seek to enter the labour market to seek a livelihood.

McIntosh explains that as people living with AIDS (generally in the age group 20-49 years) exit the labour market, the tendency for early entry of poorly prepared and unskilled children into the active labour force becomes greater. The early withdrawal of people with AIDS from the workplace will increase the need to retain older persons in the labour force who may not have the necessary stamina to meet the corresponding rigorous labour market demands.

Also, from the supply side, visits to hospital and absenteeism by HIV/AIDS patients would mean that such people would reduce their man-hours worked at a given period. In a study of The National Railways of Zimbabwe (NRZ), absenteeism rate greater than 15% were recorded. k

The result of the absenteeism and visits to health care facilities mean that people with HIV and AIDS would have lesser earnings, and thereby reduce the household income. McIntosh echoes Cohen's point when he stressed that HIV and AIDS patients have little opportunity to obtain decent jobs forcing other family members, including children, to work. As a consequence, the number of ill-prepared children engaged in income-earning activities in high prevalence countries increases significantly.

Countries have introduced some interventions like anti-retroviral therapy for HIV-infected people to reduce HIV-related illness and controlling the virus from developing into a full-blown AIDS but such programs have their own problems. For instance, according to UNAIDS [48] no

single country in the world has since 2004 being able to achieve a hundred percent coverage for the administration of Anti Retroviral Therapy (ART) for persons with advanced HIV\textsuperscript{1}

HIV and AIDS also impact the quality of the labour force. Firstly, skilled and experienced employees are lost to the epidemic, taking with them institutional memories. The more this happens, the lower is the standard of labour inputs to enterprise production and development.

Even temporarily agreeing with the argument that the reserve of unemployed and informal sector labour will only be drawn on to replace lost formal sector employment where this labour is transferable, McIntosh (ibid) emphasizes Cohen's point that "if more highly skilled and experienced people are lost, labour quantity may be preserved but the labour quality would not".

Now, let's focus attention on the people who are in need of labour to rent and discuss the impact of HIV and AIDS on enterprises. First, there is the need to understand that labour demand is a derived demand\textsuperscript{m}, meaning that labour is demanded not for its sake, but for the skills and productivity they bring along.

The impact on HIV and AIDS on enterprises are both direct and indirect. The indirect costs are be seen in sick leave granted to sick employees, loss of productivity when at work and supervisory time used in ‘unproductive’ paperwork and learning curve as new replacement

\textsuperscript{1} The UNAIDS provided data on the percentage of persons with advanced HIV receiving antiretroviral therapy. According to the data, by 2007, Costa Rica and the Laos People Democratic Republic had 95% coverage. Pakistan and Somalia had the lowest coverage of 3% each

\textsuperscript{m} Producers have a derived demand for employees. The employees themselves are not demanded; rather, the skills and productivity that they bring are. Derived demand is a term in economics, where demand for one good or service occurs as a result of demand for another. This may occur as the former is a part of production of the second.

When supply for a particular good or service increases, the derived demand for factors of production needed in producing this good or service also increases. Therefore this drives up the price for the factors of production and a firm’s average cost curve increases as it has incurred a variable cost eg: increase in wages. Adversely, when supply for a good or service decreases so does the derived demand for its inputs. This causes the price of factors of production to decrease, decreasing a firms average cost curve.

employees go through training. The direct costs to enterprises are payments for retirement benefits, death and disability benefits, medical care, recruitment and training.

Rosen, et al (2004)[49] found out that companies granted additional sick leave days of between 11.2 to 68.4 days per year for sick HIV and AIDS employees.\(^n\)

The study also showed that the percentage loss in worker productivity when employee was at work ranged between 22 to 63% for one year. Over two years, the percentage loss in worker productivity when on the job was 11% for the less prevalent group but rose to 4% on the high prevalence group. This suggests that as sick employee stay on the job, their productivity reduces over time.

The study again found that there was a reduction in productivity of between 20-55% for management employees, as a result of new employees' learning curve.

For the direct costs, the study found out that the cost of an HIV infection as a percentage of annual operating expenses ranged between 0.01 and 0.64% but the cost of infection as a percentage of wages was higher, of between 0.4 to 5.9%

The study concludes that HIV/AIDS is adding between 0.4 and 5.9% to the annual wage bill of large companies in South Africa and Botswana. The study concluded that AIDS is raising the cost of labor in southern Africa and diminishing the competitiveness of African business in the global marketplace. A Zimbabwean study on the economic impact of AIDS seems to corroborate the above findings.

Bollinger et al (1999)[50] showed in that Zimbabwean study that the major expense for a firm of 11,500 employees was health care costs. The total costs of AIDS to the company in 1996 were

\(^n\) The study was on the impact of AIDS on six South African business entities
estimated at Z$39 million (Zimbabwean Dollars), equal to about 20 percent of the company’s profits. More than half of this amount resulted from increased health care costs.

In Ghana, Nibila et al (2001) found out that company cost rise significantly with the rise in HIV/AIDS cases in these organizations. In the study, it was found that on the average, it costs one company US$5 - US$54.3 per episode of illness for the employees who are sick. (This contrasts sharply with the average estimated medical expenditure of US$10 per employee per annum). The study suggested that if the company had decided to put the patients on anti-retroviral therapy the cost would have been almost 40 percent of the total health care expenditure of company.  

A Kenyan study of a commercial agro-estate also estimated medical expenditure to have risen to over 400% above that of projected expenditure without AIDS. Additional costs may be incurred from frequent absenteeism due to illness or attendance at funerals, as well as time spent on training.

Where enterprises undertake HIV/AIDS intervention responses, the cost of these interventions are also significant. For instance, one Zimbabwe study found out that for a Best Practice Company Response to HIV and AIDS, the estimated prevention cost ranged from a low of US$0.25 to a high of US$66 per employee.

Finally, let us take a brief look at how HIV and AIDS impact labour. This is because the epidemic’s impact on the education and health systems could also affect the quality of future labour inputs in the workplace.

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9 The company offers significant health benefits to its employees. The study estimated that there are currently more than 3,400 workers who are infected with HIV and 64 who died from AIDS in 1996.

9 The study objectives were to: establish whether evidence exist to suggest the effect of HIV/AIDS on particular businesses; ascertain the workplace policies on HIV/AIDS in different settings, and review existing workplace HIV/AIDS and make recommendations for improvement and or extension to other business houses.

The study was undertaken on three companies drawn from the manufacturing, banking and cargo handling industries in the Greater Accra Region. Each company’s workforce comprised both casual and permanent workers. Together, the three firms have a worker population of 8500.

9 Best Practice Company Response to HIV and AIDS consisted of (peer) education around STI/HIV/AIDS, STI treatment and condom distribution. The study excluded such innovations as ‘couples/worker & spouse’ workshops, campfire counselling meetings, and routine provision of improved nutrition for all employees through the company canteen.
On education, teacher and pupils death from HIV would reduce the number of population inflows into the labour pool, all other things being equal. Even for the living, it is fair to hypothesize that children who have to live daily, carrying within them grief, trauma and/or experiences from seeing close relatives, friends and teachers fall sick, suffer and die of AIDS, would be in a more vulnerable state of mind in responding to learning than their 'normal' counterparts. For instance, a Kenyan study found that school performance was significantly poorer among children orphaned by AIDS. Also the World Bank states that studies from several countries confirm significantly less enrolment rates in orphans than non-orphans.

Frequent teacher and pupil absenteeism would mean inadequate preparation for the world of labour. Such poorly prepared persons would require further training and may not generate the necessary productivity in a business.

On health, poor nutrition, diseases and high mortality are some of the impact of HIV and AIDS on children orphaned by AIDS. On the impact of HIV and AIDS on Health and nutrition, Foster and Williamson (2004; S275-S284) argue that the impact is negative. (Let us remember that Health and nutrition are key determinants of quality of the labour force).

Even where foster parents are used, it has been identified in Nigeria and Sierra Leone that fostered children experienced higher mortality than other children because of poorer care, malnutrition and reduced access to modern medicine. However, the evidence on foster parenting is mixed. For instance, a two-year follow-up of orphans in Tanzania found no significant difference in mortality compared to other children.

Also, a four-year follow-up of orphans in Uganda found a higher though non-significant mortality in under-fives compared to non-orphans without HIV infection.

The conclusion on the literature could be summed thus: HIV and AIDS have very serious negative effects on labour supply, demand for labour and on the general economy.

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1 It is suggested that perhaps failure to find evidence of increased morbidity and mortality in orphans may be because orphan prevalence is not high and extended families still have sufficient capacity to cope with orphans.
The aggregate effects of all the identified impact of HIV and AIDS on the general economy is that the economy becomes poorer by getting less revenue but also spending big on HIV and AIDS prevention and treatment programs. In 2006, Ghana, for instance, spent US$22.982 million on AIDS treatment, HIV prevention and allied services. \[60\] This is obviously monies which could be spent on other sectors of the economy.
CHAPTER 3—METHODOLOGY

3.1 Introduction

This chapter describes how the research was undertaken: it explains how data was collected or generated, and how the collected data was analyzed. The chapter also discusses the methodological problems encountered in the study and how they were resolved. Thus, Chapter Three answers the two main questions of how the data was collected or generated, and how the collected data was analyzed.

3.2 Pre-Survey

In March 2008, the researcher paid five round-visits to the following areas: the Transit truck village and Black Star line car park at the Port premises, Community One, Community Seven and Community Eight. A round visit consisted of going to an area during the day and in the nighttime, too. The purpose of the visits were to assist the researcher gain some familiarity with those areas, map out the red-light districts and also gain acquaintances and potential interviewees for the intended study.

The researcher again, made four visits to the GDLC premises, two in February 2009 and two in March 2009. During the visits, the researcher engaged in informal chats with the dockworkers. The initial impression gathered was that the dockworkers leisure profile has changed from an earlier lifestyle of seeking sexual pleasures after a “hard day’s work”.

Some admitted that they occasionally sought sexual pleasures outside their marital homes but said the rising cost of living has made them change their behavior. Others said they now kept ‘permanent’ girlfriends because of the fear of contracting HIV through heterosexual habits. A popular slogan among the dockworkers was” you for learn sense”. However, at this pre-survey
stage, it was not clear if this “learning sense”—as they put it—was the result of the apparent rising in cost of living or the impact of the PORTSHIELD program.

The researcher also approached some officials of the GDLC and informed them of the intended study. The GDLC officials appointed one person, who was a peer educator and a Focus Team Leader for the PORTSHIELD program to assist me in “whatever way possible”. The peer educator was of tremendous assistance.

3.3 Study Area

The research took place in and around the Port of Tema. The Port of Tema is located about 28 kilometers east of the capital city of Ghana, Accra. It handles 80% of the nation’s import and export cargo. The port has 12 berths besides two others, one dedicated oil berth and the other operated by the Volta Aluminum Company (VALCO). The port also includes a dry dock and slipway facility which is operated by the PSC Tema Shipyards Limited.

There are currently nine (9) private stevedoring companies operating in the port. These are: Golden Gate Stevedoring Limited, Carl Tiedemann Stevedoring Company Limited, Speedline Stevedoring Services Limited, Advanced Stevedoring Company Limited, Atlantic Port Services Limited, Dashwood Stevedoring Company Limited, Odart Stevedoring Company Limited, Gemini Maritime Services Limited, Fountain View Stevedoring Company Limited. There is also the Ghana Dock Labour Company (GDLC), whose role to supply labour to the various stevedoring companies operating at the Port of Tema.[61]

The Port of Tema ‘houses’ a Ghana Customs, Excise and Preventive Service(CEPS), the Ghana Police Service, the Ghana Immigration Services, Port Health and other allied services for the smooth operation of the port’s activities. Also present in the port are other organizations like the Ghana institute of freight forwarders (GIFF) and the Customs Union Brokers Association (CUBA). Both the GIFF and CUBA are agencies for the clearing of Cargo at the Port of Tema.
Buying and selling, provision of food, provision of transport services, and other human-related activities are performed at the Port of Tema.

The port has a temporary park for loaded transit trucks. The yard holds loaded transit trucks for some days whilst awaiting the completion of their transit procedures.

Outside the port—and also within the study area of Tema—are Communities One, Seven and Eight. These communities have a very active nightlife, where the sex trade is practiced.

3.4 Target population

The Target Population was defined as the workers of the Ghana Dock Labour Company (GDLC), truckers in Transit Truck Park, and sex workers in the identified red light districts of Tema.

The Ghana Dock Labor Company (GDLC) is a subsidiary of the Ghana Ports and Harbours Authority (GPHA). The GDLC’s role is to supply labour to the various stevedoring companies operating at the Port of Tema.

The population of GDLC for the study was defined as all employees of the Ghana Dock Labour Company which, at the time of the study stood at 3000. The GDLC employees are casual workers who are engaged as and when a vessel in the Tema port require casual stevedoring labour.

The workers are engaged on two shifts of twelve-hour duration each. The first shift is the 6am to 6pm shift whiles the second shift starts at 6pm and ends at 6am of the following day.

So, the GDLC employees visit the workplace in anticipation of gaining work on the ships. The highest number of employees the researcher encountered at the GDLC offices was two-hundred
and fifty (250) people, representing 8.3% of the population. So, for all practical purposes the expected population of the GDLC employees was estimated at 200 people. It is from this population that the GDLC sample was drawn.

The second group of target population was the Transit Truck drivers. These drivers and their mates convey goods from the Tema harbour to the landlocked countries of Niger, Mali and Burkina Faso. The transit drivers usually wait a few days in Tema for the completion of customs formalities at the Port. During the waiting period, some of the drivers and their mates stay in the Tema Township but others stay at the Transit Cargo Quarters outside the port. The researcher targeted a population of ten (10) people.

The third target population was the commercial sex workers. These workers were drawn from the identified red light districts of Communities One, Seven and Eight in Tema. In a typical night, the researcher counted about thirty (30) sex workers operating in the red light districts. Thus, the sex worker population was estimated at thirty (30) females.

The fourth target population is the GDLC management. The target population size is ten (10).

3.5 The Sample

The first sample of twenty people was drawn from a sub-population of forty GDLC employees.

The researcher, assisted by the GDLC Peer Educator, ringed-off an area in the employees shed and counted forty people. Each person was then asked to pick at random from a bowl containing sealed envelopes with a “Yes” or “No” written in each envelope. The “Yes” people would be selected, but the “No” persons would not be chosen as the sample for the study. After each participant opened their envelopes, twenty people were selected.

The rationale for this probability sampling was to give a fair unbiased chance for each person to partake in the study. Thus, each element in the mini-population of forty had an equal probability of selection.
The Peer Educator briefed the selected sample group on the importance of the study after which the researcher handed out the questionnaire.

The second set of sample was drawn from the transit truck drivers. The researcher sampled three (3) males, made up of two drivers and one driver’s mate from the population of ten (10) transit truck drivers.

The third sample was drawn from the sex worker population. The researcher has early on identified Communities One, Seven and Eight in Tema as Red Light Communities. The researcher identified females who were willing to talk about HIV and AIDS. The researcher sampled seven (7) females made up of two (2) from Community Eight, Three (3) from Community Seven and two (2) from Community One.

These first three sampled provided data for the analysis of the impact of the PORTSHIELD program on the Knowledge, Attitude and Preferences of HIV and AIDS.

The second set of sample was drawn from the population of GDLC management. The sample size was three (3). The data obtained from this sample was used to review the PORTSHIELD program.

### 3.6 Data Collection

Twenty (20) questionnaires were given out to the sample of GDLC employees. These questionnaires were self-administered by the respondents. Seven (7) of the respondents from the GDLC sample did not return the questionnaire. Some of the seven (7) respondents reported having misplaced the questionnaire or that the questionnaire was irredeemably mutilated or other. After persistent requests, the researcher received thirteen (13) completely filled out questionnaires.

The interview for the transit truck drivers and commercial sex workers consisted of asking questions to seek the interviewees’ views on HIV and AIDS, condom use and some of the problems related to their “work”
The third portion of the study involved a review of the PORTSHIELD program. The PORTSHIELD program rests on some key foundations, namely: Research, Monitoring and Evaluation, Advocacy, Condom Distribution, Referral for Counseling and Treatment, Educational Material distribution. According to the GSMF, the following are the mechanisms for the implementation of the PORTSHIELD program:

1. Research, Monitoring and Evaluation
Both qualitative and quantitative studies were conducted by GSMF and Commercial Markets Strategies (CMS) at the inception of the program to assess the knowledge, attitudes and practices of workers in both Tema and Takoradi Ports. Specific issues that increase vulnerability are captured in the qualitative study and are addressed through inter-personal programs. Follow-up research is conducted after implementation to measure impact.

2. Advocacy
Advocacy meetings are held with all stakeholders in the ports and harbours, facilitated by the Ghana Port and Harbour Authority (GPHA). Components of the Portshield program are discussed with all the stakeholders to help them understand the mechanics of the program as well as to offer them a channel for any input they have.

3. Peer Education and Communication
GSMF International combines an interpersonal approach with mass media activities. 184 peer educators have been trained and equipped for both ports. These peer educators were selected to represent all stakeholders at the harbours to ensure that the information is disseminated effectively. The mass media programme complements the peer educator activities. A radio serial drama titled ‘Harbour Life’ is aired on popular radio stations in Tema and Takoradi. The drama depicts typical issues in the lives of the target population, i.e. the people who work/live at the harbours. The drama is laced with invaluable lessons on behaviour change with regard to HIV/AIDS.
4. Educational material distribution

Educational materials are developed in both English and French to address the language barrier for truckers from neighboring Francophone countries. The materials include posters, stickers and 8 types of HIV/AIDS leaflets. Each leaflet addresses a peculiar issue relating to HIV/AIDS.

5. Condom Distribution

A condom distribution program is in place for the ports and harbours in general, but special emphasis is placed on long distance truckers to ensure that condoms are readily accessible to them, due to the peculiar nature of their job. Hotels in port communities patronized by truckers and others are targets for condom and IE&C material distribution.

6. Referral for Counseling and Treatment

Peer educators emphasize the importance of Voluntary Counseling and Testing (VCT) during their advocacy activities. The program provides an opportunity for harbour workers to know their HIV status. People with symptoms of STIs are referred to counseling and treatment centers by peer educators.

The researcher used two questionnaires for the study (Appendix 1 and Appendix 2). The researcher used the International Labour Organization (ILO) guidelines on the success of workplace HIV prevention program to aid him in designing the questionnaire, in the main; the guideline seeks that a good workplace HIV prevention program must have the following characteristics:

1. Recognition of HIV/AIDS as a workplace issue
2. No discrimination against workers on the basis of real or perceived HIV status
3. Gender equality because more equal gender relations are vital to the prevention of HIV transmission and to the management of its impact
4. Healthy work environments to minimize occupational risk and ensure the workplace is adapted to the capabilities of workers living with HIV/AIDS
5. Social dialogue because, policies are best implemented through cooperation and trust between employers, workers and governments.
6. No screening for purposes of exclusion from employment or work processes
7. Confidentiality to protect workers personal data
8. Continuation of employment relationship as long as workers are medically fit
9. Prevention through information, education and addressing socioeconomic factors
10. Care and support including access to social security, occupational safety

The ILO code therefore served as an interviewer’s guide for the researcher. The next chapter analyses the data obtained from the study.

3.7 Challenges to the Study and Controls

The researcher encountered a number of challenges whilst undertaking the study. The following were the problems:

1. Respondents unwilling to provide information about their personal sexual behavior
2. Difficulty in identifying less itinerant transit drivers at the Port of Tema
3. The researcher’s inability to speak French, thus making communication with the Francophone Transit Truckers, difficult.
4. Respondents thinking that the researcher has received some financial rewards for undertaking the study; of which by virtue of their participation, become entitled to
5. Respondents’ general suspicion of the true intentions of the researcher in undertaking the study.
6. Time constraints: researcher combining the study with full-time academic work
7. Difficulty in getting information from sex workers in the red-light areas of Tema

The main unanticipated challenge to the study was a prolonged industrial action by the Dockworkers of the GDLC:

Below are the steps the researcher took to address these challenges:

1. An official of the GDLC, who is also a focus team leader for PORTSHIELD, explained the purpose of the study and also distributed the questionnaire to the respondents
2. The researcher engaged the services of an unofficial interpreter. The ‘interpreter’ who lives in Tema, has travelled extensively across Togo and appreciates the culture of the French-speaking
Transit-cargo truckers. Whilst his French was not perfect, it was passable enough for the truckers to provide reasonable responses.

3. The Researcher feigned interest in some of the Sex workers in the red-light areas of Tema to solicit information. At times when the sex workers became furious for “wasting their time”, the researcher provided some money in appreciation for their time.

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CHAPTER 4—FINDINGS

4.1 Introduction

This chapter produces and analyses the data obtained from the study. The analysis is based on the research objectives spelt out in the first chapter.

In all, two sets of data are analyzed in this chapter. The first set of data to be analyzed is the data obtained from interview with the sex workers and the transit truck drivers, and the questionnaire responses from the thirteen (13) respondents from the GDLC employees’ sample. The final data to be analyzed is the response from the PORTSHIELD program review questionnaire.

The results are first presented in tables, and then the researcher would interpret the findings.

4.2 Sex Workers and Transit Truck Drivers Data

Data obtained from the sex workers and Transit truck drivers are presented and analyzed in this section.

Table 4.1 Background of Respondents

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (M or F)</td>
<td>M=3</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>F=7</td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>Up to 20</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>20-39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>39-49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50-60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Over 60</td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td>Drivers</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Traders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sex Workers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.1 represents the background characteristics of the sex workers and transit drivers interviewed. The result showed that both the sex workers and the transit truck workers interviewed were relatively young, with the oldest interviewee being forty-nine (49) years of age.

A second finding was that none of the sex workers considered commercial sex work as an occupation. They all listed trade as the occupation.

Table 4.2 Sex Workers and Transit Truck Drivers’ Knowledge of HIV and AIDS

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of HIV and AIDS</td>
<td>Yes =10</td>
<td>10</td>
</tr>
<tr>
<td>How did you know of HIV and AIDS</td>
<td>Radio</td>
<td>Television</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Knowledge of HIV prevention method</td>
<td>Abstinence</td>
<td>Condom Use</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>
4. Television and Posters were also very important sources of knowledge of HIV and AIDS
5. Newspaper was not an important source of HIV and AIDS information for the interviewees.
6. The ‘other’ source respondent was a driver’s mate who said he was told of HIV and AIDS by his ‘Master’ the Driver

Table 4.3 Condom Use by Sex Workers and Transit Truck Drivers

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of where to obtain condom</td>
<td>Yes =9, No =1</td>
<td>10</td>
</tr>
<tr>
<td>Would recommend condom use to partner</td>
<td>Yes=10, No=0</td>
<td>10</td>
</tr>
<tr>
<td>When last had sex</td>
<td>In the month, Over a month, Over six months, None</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>9, 0, 0, 1</td>
<td></td>
</tr>
<tr>
<td>If yes, did you use a condom</td>
<td>Yes= 8, No=1, Not applicable =1</td>
<td>10</td>
</tr>
<tr>
<td>If no, why</td>
<td>Customer insisted and paid higher money instead=1</td>
<td>1</td>
</tr>
<tr>
<td>Were you not afraid of contracting HIV</td>
<td>No, I bathed immediately=1</td>
<td>1</td>
</tr>
</tbody>
</table>

The results from Table 4.3 indicate that the sample was a sexually active group with 90% of the respondents having had sex in the last month preceding the study.

Notwithstanding the knowledge of HIV and AIDS and that condom use was a means of preventing the spread of the disease, a respondent thought that bathing immediately after having sex was a means of HIV prevention,
The respondents knew where to obtain condoms and that they would also recommend condom use to their partners. However, financial incentive appears to be a decider of whether a condom will be used or not for sex. One female respondent stated that she allowed a male customer to have unprotected sex with her because the customer insisted on that and paid a higher price for the sex.

That females may receive financial inducement for having unprotected sex has long been established. Awusabo-Asare et al (1993) identified financial inducement as a major reason for women having sex without using a condom. The study concluded that women's poor economic status caused them to be at risk of acquiring STDs and HIV/AIDS

4.3 GDLC Employees' Sample

This section analyzes the data obtained from the GDLC sample.

Table 4.4 Background of GDLC employees sampled

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (Male or Female)</td>
<td>Male =9, Female=4</td>
<td>13</td>
</tr>
<tr>
<td>Age (years)</td>
<td>20-29, 30-39</td>
<td>40-49, 50-59, 60-69</td>
</tr>
<tr>
<td></td>
<td>7, 3</td>
<td>3, 0, 0</td>
</tr>
<tr>
<td>Educational level</td>
<td>Primary, Secondary/Technical</td>
<td>Polytechnic and above, Other</td>
</tr>
<tr>
<td></td>
<td>2, 9</td>
<td>1</td>
</tr>
<tr>
<td>Length of service (in years)</td>
<td>0-3, 3-5, 5-7</td>
<td>7 and above</td>
</tr>
<tr>
<td></td>
<td>5, 4</td>
<td>1</td>
</tr>
<tr>
<td># of Port visits (days per week)</td>
<td>1-3, 3-5, 5-7</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>3, 3</td>
<td>7</td>
</tr>
</tbody>
</table>

From the responses from the questionnaire, the respondents were young with the oldest person being 49 years. 92% of the sample have received formal education, with one person having
attained a ‘Polytechnic or above’ education. Also, the respondent have worked over a year and they actively visited the Port in search of jobs during the period of the study.

Table 4.5  HIV Education for GDLC Sample

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heard HIV and AIDS message</td>
<td>Yes</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
</tr>
<tr>
<td>Last time heard HIV and AIDS message</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A week ago</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8</td>
</tr>
<tr>
<td>A month ago</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5</td>
</tr>
<tr>
<td>3 months ago</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4</td>
</tr>
<tr>
<td>6 months ago</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4</td>
</tr>
<tr>
<td>1 year ago</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2</td>
</tr>
<tr>
<td>Source of Message</td>
<td>Radio</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Television</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Newspaper</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Posters</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Workplace</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>21</td>
</tr>
<tr>
<td>Heard of ABC of HIV and AIDS prevention</td>
<td>Yes</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12</td>
</tr>
<tr>
<td>Received HIV education at Port</td>
<td>Yes</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
</tr>
<tr>
<td>Form of education received</td>
<td>Video</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Lecture</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Newspaper</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Poster</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Peer education</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
</tr>
<tr>
<td>Knowledge of PORTSHIELD</td>
<td>Yes</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
</tr>
<tr>
<td>Peer HIV and AIDS discussion</td>
<td>Yes</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
</tr>
</tbody>
</table>

From the results above, all the respondents have heard HIV and AIDS message, with the ‘Workplace’ being the main source of HIV and AIDS education, followed closely by ‘Radio’.
Again, all the respondents have received HIV and AIDS education from the Port, with Lectures being the main means of HIV and AIDS education in the Port.

The results also show that all the respondents knew of the PORTSHIELD program, and have had discussions with peer educators.

### Table 4.6 Impact of Knowledge of HIV and AIDS on GDLC employees sexual behaviours

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV and AIDS discussion with partner</td>
<td>Yes = 12</td>
<td>No=1</td>
</tr>
<tr>
<td>Would recommend condom use to colleague</td>
<td>Yes =13</td>
<td>No= 0</td>
</tr>
<tr>
<td>Extent of influence on sexual behaviour</td>
<td>To a large extent</td>
<td>To a little extent</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

From the above table, over 92% of GDLC employees would discuss HIV and AIDS with their partners and all respondents would recommend condom use for colleagues. Finally, 69% of respondents said the PORTSHIELD program has (positively) influenced their sexual behaviours “to a very large extent”
This section analyzes the results of a questionnaire administered on the GDLC Management to review the execution of the PORTSHIELD program. It starts with a tabulation of the responses in Table 4.4.1 below.

### PLATE 4.1 PORTSHIELD Program Execution Review

<table>
<thead>
<tr>
<th>Question 1</th>
<th>When did you last organize an HIV and AIDS education for employees?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>2008</td>
</tr>
<tr>
<td>Frequency</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 2</th>
<th>What form did the education take?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>POSTER</td>
</tr>
<tr>
<td></td>
<td>EDUCATION</td>
</tr>
<tr>
<td></td>
<td>HIV</td>
</tr>
<tr>
<td></td>
<td>DISCUSSION</td>
</tr>
<tr>
<td>Frequency</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 3</th>
<th>How many people attended the training?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 4</th>
<th>How many peer educators do you have</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 5</th>
<th>When did the peer educators last met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>February 2009?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 6</th>
<th>How does GDLC management demonstrate support for the PORTSHIELD program?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>Organising meetings, peer education, lectures, posters, counseling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 7</th>
<th>Has any employee reported of STIs to your clinic?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
<td>No</td>
</tr>
</tbody>
</table>

54
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 8</td>
<td>If yes, when</td>
</tr>
<tr>
<td>Answer</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Question 9</td>
<td>What happens when employees report of STIs?</td>
</tr>
<tr>
<td>Answer</td>
<td>They are referred for counseling</td>
</tr>
<tr>
<td>Question 10</td>
<td>Do you have designated areas where employees can obtain condoms?</td>
</tr>
<tr>
<td>Parameter</td>
<td>No</td>
</tr>
<tr>
<td>Question 11</td>
<td>Are those points clearly marked and visibly placarded?</td>
</tr>
<tr>
<td>Answer</td>
<td>Not</td>
</tr>
<tr>
<td>Question 12</td>
<td>Do you undertake HIV testing?</td>
</tr>
<tr>
<td>Answer</td>
<td>Yes</td>
</tr>
<tr>
<td>Question 13</td>
<td>If yes, how?</td>
</tr>
<tr>
<td>Parameter</td>
<td>Voluntary</td>
</tr>
<tr>
<td></td>
<td>Non-rotational</td>
</tr>
<tr>
<td></td>
<td>Rotational</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>Voluntary</td>
</tr>
<tr>
<td>Answer</td>
<td>Voluntary</td>
</tr>
<tr>
<td>Question 14</td>
<td>Do you have employees willingly submitting to HIV testing</td>
</tr>
<tr>
<td>Answer</td>
<td>Yes</td>
</tr>
<tr>
<td>Question 14</td>
<td>What happens when an employee tests HIV sero-positive?</td>
</tr>
<tr>
<td>Answer</td>
<td>None tested</td>
</tr>
<tr>
<td>Question 14</td>
<td>What are the main problems facing the PORTSHIELD program?</td>
</tr>
<tr>
<td>Answer</td>
<td>Time and financial resources</td>
</tr>
</tbody>
</table>
From the above data, GDLC management organizes meetings, arrange for peer education, lectures, and counseling for people who test positive for sexually transmitted diseases (STIs). Management organized two (2) HIV and AIDS education in 2008 which was attended by 20 GDLC employees. There are also 10 peer educators and they last met in February of 2009.

Results from Plate 4.1 above also shows that GDLC employees submit to voluntary HIV testing, but thus far, no employee has tested HIV sero-positive. Given the high level of HIV and AIDS awareness and methods of preventing infection, perhaps the fact that no employee has tested HIV sero-positive may be interpreted as an indication of the positive impact of the PORTSHIELD program on employee behaviour. It is unclear though, what form of management action would be taken should an employee test positive.

Finally, management thinks that time and financial resources were the main challenges facing the PORTSHIELD program.
CHAPTER 5—CONCLUSIONS

5.1 Introduction

This chapter is devoted to summarizing the major conclusions from the study and making some recommendations

5.2 Summary of the Major Findings and Conclusions

The first major finding and conclusion of the study is that GDLC employees are aware of the PORTSHIELD program at the workplace. This is evidenced by the fact that of the thirteen (13) Ghana Dock Labour Employees surveyed, all said they were aware of the existence of the PORTSHIELD program.

Further, GDLC employees’ knowledge of HIV and AIDS was gained largely from the workplace (PORTSHIELD) education on HIV and AIDS, and Radio. Thus, from the survey, 87% of respondents said they gained the knowledge on HIV and AIDS from the workplace PORTSHIELD education and from listening to Radio. (The Researcher will further discuss the Use of Radio for mass Education in the recommendations section)

GDLC employees also recognize condom use as the major means of HIV prevention. The employees also knew where to obtain condoms and would readily recommend condom use as a means of HIV prevention to their partners, This is evidenced in the study where all thirteen people sampled answered “Yes “ to the question of condom use and its recommendation to sexual partners
On the issue of peer-to-peer workplace discussion on HIV and AIDS, not all GDLC employees would discuss HIV and AIDS with their peers at the workplace. Form the study, one person (7.6%) of the population said they would not discuss HIV and AIDS with their peers at the workplace.

Another major finding from the study is that the PORTSHIELD program has impacted positively on the sexual preferences of GDLC employees. However, there is a marked difference between the program’s influence on female and male GDLC employees. For instance, of the nine (9) male GDLC employees sampled, one (1) respondent said the PORTSHIELD program has influenced his sexual behavior “to a little extent”; three (3) answered, “to some extent”, and five (5), “to a large extent”. This is in sharp contrast to the female GDLC employees, where all four (4) females sampled said the PORTSHIELD program has influenced their sexual behavior “to a large extent”.

The second set of conclusions relate to the population of Sex Workers and Transit Truck Drivers.

The first conclusion about Sex Workers and Transit Truck Drivers is that they are aware of the existence of HIV and AIDS. Just like the GDLC employees, all the ten (10) people sampled had knowledge of the existence of HIV and AIDS.

This high level of HIV and AIDS awareness among the GDLC employees, sex workers and Transit Truck Drivers is consistent with findings of the Pew Research Center for the People and Press survey in 2002, which found out that 89% of Ghanaians say that HIV and AIDS are very big problems in Ghana.

Again, just like the GDLC employees, the knowledge of HIV and AIDS was gained from Radio, but, unlike the GDLC employees, the population of Sex Workers and Transit Truck drivers has also gained the knowledge from Television and from Posters.

The researcher was curious about how an itinerant group like Transit Drivers could cite Television as a major source of their knowledge of HIV and AIDS. The drivers replied that they
are exposed to lots of HIV and AIDS education on the Francophone television stations of their home-countries. The researcher was in no position to corroborate the assertion.

Another conclusion is that whilst all sex workers are aware of the dangers of having sex without using condoms, some are willing to compromise by agreeing to have sex without the use of condoms. Two of the instances when a sex worker would not insist on condom use are when the client insisted and also when the client was willing to pay a higher price.

The last set of conclusions relate to the findings from the PORTSHIELD program execution review.

First, it was evident that management has provided support for the program by providing time for HIV and AIDS education, training of peer educators and organizing lectures. Secondly, the PORTSHIELD program has been effective in 2008. However, apart from the peer educators meeting in February 2009, the PORTSHIELD program has not been very active in 2009.

Notwithstanding this, 61% GDLC employees have heard HIV and AIDS education at the workplace at least “in the last one month”. The researcher probed further and discovered that there existed a network of informal discussion of HIV and AIDS matters in the workplace.

Finally the researcher measured the effectiveness of the PORTSHIELD program execution using the International Labour Organization (ILO) guidelines on the success of workplace HIV prevention program (page 45) and concluded thus:

1. The PORTSHIELD program indeed recognizes HIV and AIDS as a workplace issue
2. There was no evidence of discrimination against GDLC employees on the basis of real or perceived HIV status. However, since no employee has tested HIV sero-positive it was impossible for the researcher to make an emphatic conclusion on the matter
3. No evidence of employees being screened s for purposes of exclusion from employment
or work processes. Indeed, GDLC employees underwent voluntary HIV testing

5.3 Recommendations

The Researcher makes the following recommendations for the improvement of the PORTSHIELD program, and also for HIV and AIDS prevention education in general.

1. Mass educators to use radio as a means of mass education and information propagation.

2. Education on HIV prevention should address some of the dangerous misconceptions about the diseases. For instance, some people still hold on to the unscientific belief that taking a bath—and washing one’s genitals—after unprotected sexual intercourse, would prevent that person from being infected with HIV (even when the other sexual partner was HIV-positive).

3. HIV and AIDS prevention programs should focus on how to empower females, especially sex workers, to say ‘no’ to clients who insists on having sex without condoms. Also, the educators must find ways of encouraging female sex workers to resist monetary incentives to them to have unprotected sex.

Here, the recommendations of Awusabo-Asare, et al (ibid) is apt. They recommend that increasing females' access to education which leads to good employment opportunities would be one way to grant women the right to control their sexuality and therefore protect themselves from STDs and HIV/AIDS. Information, education, and communication campaigns which stress the reciprocal relationship between equal partners and which provide information on the risk of AIDS need to target both sexes.

4. The PORTSHIELD program must also assist the Transit Truck Drivers to perform their unofficial mentoring functions for their mates. This is because during the period of the Driver Mate’s apprenticeship, the Driver can heavily influence the behavior of their mates.
5. The managers of the PORTSHIELD program should device ways of invigorating the program.

5.4 Concluding Remarks

Ghana’s fight against the HIV and AIDS pandemic has posted some quite progressive statistics. The United Nation General Assembly Special Session on HIV and AIDS (UNGASS)\textsuperscript{[65]} has provided the following data on Ghana: Ghana now has a 100% blood safety record. This means that all blood donated are tested for HIV before transfusion.

Ghana also has about 15% of its 87,000 adults and children with advanced HIV infection receiving antiretroviral therapy (ART). Again, the percentage of HIV-positive pregnant women who received anti-retroviral drugs to reduce the risk of mother-to-child transmission has increased progressively from 1% in 2004, through 7.5% in 2005, 9% in 2006 to 21% in 2007. In 2006, 2% of households with orphaned and vulnerable children (OVCs) aged 0-17 years received free basic external support in caring for the child. Finally, 98% of female and male sex workers reported the use of a condom with their most recent client.

Notwithstanding the above successes, there is the lingering concern about the sustainability of Ghana’s forward march against HIV and AIDS. This is occasioned by the fact that Ghana’s anti-HIV and AIDS activities are very heavily donor-funded. For instance, out of the US$22.982 million that Ghana spent in 2006 on anti-HIV and AIDS activities, a whopping 78.6% was donor funded\textsuperscript{[66]}. The question then is what happens when these foreign funds dry up, especially in the face of the global financial crisis?

On the continent of Africa, a major source of HIV/AIDS funding is the President’s Emergency Plan for AIDS Relief (PEPFAR) of the United States of America, initiated by former American President George W. Bush. Under its first five-year phase from 2004 to 2008 PEPFAR expended nearly $19 billion\textsuperscript{[67]}, the majority of which was targeted at a dozen sub-Saharan African
countries. More than half of these resources went towards the provision of antiretroviral treatment (ART) and other AIDS-related care to an estimated 2 million Africans living with HIV/AIDS.

It is unclear if the new American administration under President Barrack H. Obama, with the domestic economic challenges and inward-looking policy imperatives, would sustain other such funding.

In conclusion, perhaps, it is time Ghana (and Africa) focuses on mobilizing local resources towards HIV and AIDS funding.

---

5 PEPFAR’s initial 14 focus countries, 12 of which are in Africa, included Botswana, Côte d’Ivoire, Ethiopia, Guyana, Haiti, Kenya, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, and Zambia. Vietnam was added in 2005 as a fifteenth country—and the only Asian focus country
Appendix 1.0 RESEARCH QUESTIONNAIRE 1

REGIONAL MARITIME UNIVERSITY
M.A PORTS AND SHIPPING ADMINISTRATION

Questionnaire

Dear Respondent,

This questionnaire is meant to solicit data for a Dissertation titled “Providing Healthy Dockworkers For An Expanding Port: The GPHA-GSMF Portshield Study”, in partial fulfillment for the award of M.A degree in Ports and Shipping Administration.

Please be assured that the sole purpose of collecting the information is for the preparation of the dissertation. Hence, any information given will be treated with the greatest confidentiality, and that no information, either in whole, or a part thereof, shall be divulged to third parties.

Please tick, and state where applicable.

1. Sex: Male[ ] Female [ ]

2. Age: [ ] 20-29 [ ] 30-39 [ ] 40-49 [ ] 50-59 [ ] 60 and above

3. Educational level (Tick as many as apply): [ ] Primary School [ ] Secondary School [ ] Technical School [ ] Polytechnic [ ] other tertiary education [ ] Others (specify)............................................................

4. How long have you worked in the Tema Port?
   [ ] 0-1 years [ ] 1-3 years [ ] 3-5 years [ ] 5-7 years [ ] 7 years and above
5. How many days in a week do you visit the Port? [ ] 1-3 days [ ] 4-5 days [ ] 5-7 days

6. Have you ever heard of any HIV/AIDS prevention message? [ ] Yes [ ] No

7. If yes, when was the last time you heard of any HIV/AIDS prevention message? [ ] a week ago [ ] up to a month ago [ ] up to three months [ ] up to 6 months [ ] up to a year ago

8. How was the message communicated to you? (Tick as many as apply)
   [ ] Radio [ ] TV [ ] Newspaper [ ] Posters [ ] Workplace lecture/ seminar [ ] Other (please specify)..............................................

9. Have you received any HIV/AIDS prevention education at the Port?
   [ ] Yes [ ] No

10. What form did the education take? (state) ...............................................................

11. Which part of the message do you still remember?.................................

12. At the workplace do you discuss HIV/AIDS among yourselves?
   [ ] Yes [ ] No.

13. Have you ever talked about HIV/AIDS with your partner? [ ] Yes [ ] No

14. Have you ever heard of the PORTSHIELD program? 1. Yes 2. No

15. Have you ever heard of the ABC of HIV/AIDS prevention?
   [ ] Yes [ ] No.

16. Would you recommend condom use to your colleagues? [ ] Yes [ ] No
17. Do you know where to obtain a condom? [ ] Yes [ ] No

18. To what extent has the Portshield program influenced your sexual behavior?
   [ ] To a large extent [ ] To some extent [ ] To a little extent [ ] Not at all

19. What do you think should be done to improve the Portshield program.

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

Thank you very much.
Appendix 2.0 : RESEARCH QUESTIONNAIRE 2: PORTSHIELD PROGRAM
EXECUTION REVIEW

REGIONAL MARITIME UNIVERSITY
M.A PORTS AND SHIPPING ADMINISTRATION

Questionnaire

Dear Respondent,

This questionnaire is meant to solicit information on management support for the PORTSHIELD Program for a Dissertation titled "Providing Healthy Dockworkers For An Expanding Port: The GPHA-GSMF Portshield Study", in partial fulfillment for the award of M.A degree in Ports and Shipping Administration.

Please be assured that the sole purpose of collecting the information is for the preparation of the dissertation. Hence, any information given will be treated with the greatest confidentiality, and that no information, either in whole, or a part thereof, shall be divulged to third parties.

Please state or mark as appropriate

1. When did you last organize an HIV and AIDS education for employees? Please state Month and Year: ......................................................

2. What form did the education take? Please state:
   ........................................................................................................................................................................
   ........................................................................................................................................................................
   ........................................................................................................................................................................

3. How many people attended the said training? Please state......................

4. How many peer educators do you have? Please state..............................

5. When did the peer educators last met? State Month and year.....................
6. How does GDLC management demonstrate support for the PORTSHIELD program? Please state:

7. Have any employee reported of STIs to your clinic? Yes / No

8. If yes, when? State Month and Year

9. What happens when employees report of STIs? Please state:

10. Do you undertake HIV testing? Yes / No

11. If yes, how? Voluntary ☐ Involuntary ☐ Rotational ☐ Other ☐

12. Do you have employees willingly submitting to HIV testing? Yes / No

13. What happens when an employee tests HIV sero-positive? Please state

14. Do you have designated areas where employees can obtain condoms? Yes / No

15. Are those points clearly marked and visibly placarded? Yes / No

16. What are the main problems facing the PORTSHIELD program? Please state

Thank You Very Much
LIST OF REFERENCES

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