

**FACTORS INFLUENCING EFFECTIVE UTILIZATION OF HIV/STI  
COMPREHENSIVE HEALTH SERVICES BY SEX WORKERS IN NAIROBI, KENYA.**

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## **DECLARATION**

This research project report is my original work and has not been presented for any award in any other university.

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## **DEDICATION**

This research project is dedicated to my mentor, Mr. Philip Waweru Mbugua of National Organization of Peer Educators (NOPE, Kenya), who believes in me and my work.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>CBD</b>	Central Business District
<b>CCCs</b>	Comprehensive Care Centres
<b>CSW</b>	Commercial Sex Worker
<b>DISCs</b>	Drop in Service Centres
<b>FGD</b>	Focus Group Discussion
<b>HIV</b>	Human Immunodeficiency Virus
<b>IDUs</b>	Intravenous Drug Users
<b>KNASP</b>	Kenya National AIDS Strategic Plan
<b>MARPs</b>	Most at Risk Populations
<b>MOTs</b>	Modes of Transmission Study
<b>MSM</b>	Men who have Sex with Men
<b>NOPE</b>	National Organization of Peer Educators
<b>STI</b>	Sexually Transmitted Infections
<b>SW</b>	Sex Worker
<b>UNAIDs</b>	United Nations Agency for International Development
<b>FHI</b>	Family Health International
<b>WHO</b>	World Health Organization
<b>NGO</b>	Non-Government Organizations

## **ABSTRACT**

The great majority of HIV infections globally are due to sexual transmission. The links between sex work and HIV/AIDS have been a central concern in prevention and care efforts in many countries. In the wake of HIV, there has been a renewed engagement with sex workers as subjects of research. In Kenya, a majority of women exchange sex for money, gifts or favors and this makes them vulnerable to HIV/STI infection. Like in most developing countries, sex work is stigmatized and with the legislative restriction, sex workers fear seeking treatment from recognized health facilities. The study sought to establish the factors that have contributed to minimal utilization of these services by sex workers in Nairobi. The research was designed as a cross sectional descriptive study. The target population was sex workers operating in Nairobi's CBD, Ngara, Eastleigh and Industrial Area. The study focused more on Nairobi sex workers who are mostly brothel based, street and bar based within the catchment area of non-state owned facilities. From the target population of thirty thousand possible respondents, the researcher purposively interviewed specific respondents located in Nairobi's CBD, Ngara, Eastleigh and Industrial Area. A sample size of 382 respondents was appropriate to adequately represent a cross-section of the population at 95% confidence level. The study collected both primary and secondary data. Data collected was mainly quantitative and it was analyzed by descriptive analysis techniques. Variables for quantitative data were created using statistical tools such as Statistical Package for Social Sciences (SPSS), which helped to reduce data to manageable summaries. On the other hand, qualitative data was analyzed using content analysis. The study concludes that sex workers are aware of the risks involved in this profession as concerns HIV and STIs and thus they take the step of using condom as one of the ways of preventing HIV and STIs. The situation of being a sex worker affects the ability to access assistance on HIV/AIDS Prevention. Awareness of comprehensive HIV/STI services affects their utilization of service. Type of sex work affects utilization of HIV/STI comprehensive health services among sex workers. Distance of comprehensive health centers influences the utilization of health services. Possible and appropriate sustained activities to bring behavior change regarding stigma and discrimination related with HIV/AIDS and VCT is necessary using Discs alongside other available health facilities. Interventions designed to prevent HIV infection among sex workers must take into account the context in which sex workers are working, and the specific practices of individual sex workers. There is need for awareness creation among sex workers through emphasis on the power of sex workers to help stop the spread of HIV. Possible and appropriate activities should be focused on lower educational status and unmarried individuals.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

HIV prevention strategies depend on the twin efforts of care and support for those living positively with HIV, and targeted prevention for all people at risk or vulnerable to the infection. Among populations-at-risk of HIV, female sex workers and their clients account for 14% of new HIV infections in Kenya (MOT, 2008).

In the early years of the epidemic, the concern focused on the role of commercial sex work in HIV transmission. Evidence had shown that preventing transmission among those with high rates of partner exchange is a cost-effective intervention as it can also help avert the spread to members of the wider population (MOTS, 2008). However, there has been a growing recognition that HIV/AIDS initiatives must consider the linkages of the intricate issues underlying sex work beyond the specific commercial sex setting.

In Kenya, an estimated 6.9% of women nationally said they had exchanged sex for money, gifts or favors over the previous year, according to the 1999 Demographic and Health Survey. Sex workers are generally perceived as defying acceptable social norms and roles for women and men. Women who ask for compensation for sex break traditional norms expected of women in many societies, and those who engage in transactional sex are still labeled as prostitutes.

According to the same document, women involved in sex work are seen as both the most vulnerable group to HIV infection and yet the most effective partners in the fight against HIV. Community interventions to prevent sexually transmitted infections in sex workers have been taking place in Kenya in small groups since 1982. Condom use 100% of the time, treatment of sexually transmitted infections and reduction in the number of partners were all recommended to slow the spread of HIV.

However, these interventions have not adequately addressed the needs of sex workers despite them (sex workers) contributing significantly to the transmission of HIV. Kenya has taken the first important step towards the adoption of a multi-sectoral approach to HIV/AIDS control. This is by identifying the vulnerable groups as key stakeholders in the national response to HIV and AIDS. However, engagement of sex workers is still inadequate, and existing initiatives are not

yet uniformly consistent with regard to replication of international best practices in the area of behaviour change and risk minimization (Morris and Ferguson, 2006).

As members of society, sex workers must have access to the same comprehensive health services as other members of society in accordance with their rights as human beings. Kenya recently developed and disseminated national guidelines for HIV/STI programs for sex workers. In response to the HIV epidemic, civil societies have shifted focus to reach out to high risk populations with preventive and harm reduction interventions. However, there has been minimal utilization of these services by sex workers.

## **1.2 Statement of the Problem**

The overall research problem addressed in this study is that despite the rigorous implementation of targeted HIV prevention interventions for at risk and hard to reach populations, little has been done to analyze factors that lead to minimal utilization of comprehensive HIV/STI prevention services by SWs.

Studies around the globe have pointed out the difficulties associated with integrating sex workers into the HIV control and prevention efforts that are designed for the general population (Rushing et al, 2005; Ghimire and Teiflingen, 2009). Sex workers experience barriers to accessing comprehensive health services because their behaviors are criminalized and stigmatized.

Preliminary results from a mapping exercise conducted in October 2011, by the University of Manitoba, indicated an average population of 30,000 female SWs in Nairobi. However, according to reports drawn from the non-state-owned facilities, approximately 6,000 FSWs have accessed comprehensive HIV/STI services.

Findings of previous studies show lack of confidentiality in the government hospitals as a barrier to utilisation of sexual health services by sex workers, Simbayi et al, (2007). Sex workers opt to self-medicate rather than risk embarrassment and hostility from care providers. This study therefore becomes more useful in assessing similarities and/or differences in regards to factors that contribute to service utilization in state owned facilities to those that are non-state owned facilities.

### **1.3 Purpose of the Study**

The study sought to investigate the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya.

### **1.4 Objectives of the Study**

To achieve its goal, the study focused on the following four specific objectives:

- i. To investigate the extent to which social stigma influences effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi.
- ii. To explore how awareness of comprehensive HIV/STI services influences utilization of service by sex workers in Nairobi.
- iii. To assess the type of sex work and how it influences effective utilization of HIV/STI comprehensive health services by sex workers
- iv. To establish the relationship between distance of HIV/STI comprehensive health centers and utilization of health services by sex workers

### **1.5 Research Questions**

This study sought to answer the following research questions:

- i. To what extent does social stigma influence effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi?
- ii. What is the relationship between awareness of HIV/STI comprehensive services for sex workers and utilization of service by sex workers in Nairobi?
- iii. To what extent does the type of sex work influence effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi?
- iv. What is the relationship between distance of HIV/STI comprehensive health centers and utilization of comprehensive health services by sex workers in Nairobi?

### **Scope**

The study examined the factors that influence effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi.

### **1.6 Significance of the Study**

This study was meaningful in providing an insight into the various factors that influence effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi,

Kenya. As a consequence, this study would pave way for possible approaches towards necessitating the realization of the social pillar of Kenya's Vision 2030 as well as contribute towards reversing the spread of HIV/AIDS.

This study would be significant to stakeholders in the health sector including development partners; Ministry of Health, National AIDS Control Council, National HIV/STI Control Program, by providing an opportunity to be able to include other factors that contribute to utilization and/or non-utilization of health care services by sex workers in non-state owned facilities. The findings of this study would guide in policy formulation and national strategies that would lead to effective programming.

The study would highlight other important relationships that require further research; this would be in the areas of access, utilization and availability of comprehensive health services for SWs in developing countries. The results of this study would also be invaluable to researchers and scholars, as it would form a basis for further research. The study would be a source of reference for future researchers on other related topics.

### **1.7 Delimitation of the Study**

This study was limited to locations that have been identified as high HIV transmission areas and/or MARPs hot spots. Special focus was drop in service centers catchment areas located in Nairobi; Nairobi's CBD, Ngara, Eastleigh and Industrial Area.

The study involved collecting information from sex workers targeted to access comprehensive health services at these drop in centers. According to population council size estimation of sex workers, Nairobi had approximately 30,000 female sex workers. Those accessing comprehensive HIV/STI services at non-state owned facilities are sex workers totaling to at least 6,000. This study was undertaken between the months of July and August 2013.

### **1.8 Limitations of the Study**

This study might have been hampered by several methodological challenges. First, the study populations are usually small and unrepresentative due to problems gaining access to sex workers and establishing trust. This presents possibilities of over reliance on individuals who attend sexual health clinics voluntarily, who may be poorly representative of the local SWs population, particularly the more vulnerable groups. Second, there was likely to be reporting bias

in response to questionnaires or structured interviews on topics such as condom use and drug habits. Third, the heterogeneity of SWs with respect to adherence to safer sex, drug misuse and local factors such as pimping and policing means that generalizability of results may be limited. Finally, SWs represent an unstable population both temporally and geographically, which means prospective studies are difficult to conduct without the loss of significant numbers of subjects, which itself may bias results.

### **1.9 Assumptions of the Study**

The researcher assumed that the respondents would be honest, cooperative, factual (objectivity) and trustworthy in their response to the research instruments and would be available to respond to the research instruments in time. It was also the assumption of the researcher that the authorities in the health centers would grant the required permission to collect data from employees and their clients. The study further made the assumption that there would be no serious changes in the composition of the target population that would affect the effectiveness of the study sample.

### **1.10 Definition of Significant Terms**

**Effective Utilization:** The process by which at risk populations, in this case sex workers are aware and have access to affordable HIV/STIs services

**HIV/STI Comprehensive Health Services:** Refers to a complete package of services for sex workers that meet the minimum package as outlined in the NASCOP guidelines.

**Most at Risk Populations:** Population groups whose behavior puts them at the greatest risk of acquiring HIV; in Kenya sex workers (both female and male), IDUs, and MSM are primarily considered MARPs. In addition, women and girls, young people and children, refugees and internally displaced persons, and people who migrate among others, may also be at higher risk of acquiring HIV. (KNASP III 2009/10 – 2012/13)

**Sex work:** this is the exchange of money for sexual services. Persons who engage in sex work exchange sexual acts for something of value



including cash, material items, etc that would otherwise not be extended to them by their sexual partners.<sup>5.i</sup> Sexual partners that exchange something of value for sex are referred to as clients of sex workers.

**A Drop-In Services Centers (DISC):**

is a free standing and independently operated facilities where project beneficiaries voluntarily visit for utilization and uptake a range of biomedical, behavioral and structural interventions.

**Health**

is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 1946).It is the general condition of a person's mind and body usually meaning free from illness, injury or pain.

**1.11 Organization of the Study**

The study is organized in five chapters. Chapter one covers background of the problem, problem statement, purpose of the study, objectives and research questions. It also covers significance of the study, basic assumptions, limitations and delimitations of the study and finally organization of the study. Chapter two covers literature reviewed from works that have been done in the same area of study. It reviews what other scholars in the field have found out. Chapter three spells out the research methodology. This includes introduction, research design, target population, sample size and sample selection, research instruments, data collection procedures and data analysis procedures. Chapter four covers data presentation, processing and interpretation, while chapter five covers summary and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter builds on the background research problem and the research questions identified in the previous chapter. Literature relevant to the study is summarized and discussed thematically; the chapter discusses relevant literature from a broader and richer perspective to bring out the factors influencing effective utilization of HIV/STI comprehensive health services. The specific areas covered here are global overview of HIV/STIs situation, vulnerability of HIV/AIDs among sex workers, utilization of HIV/STI comprehensive health services by sex workers, social stigma, awareness of comprehensive health services, sexual orientation, distance of HIV/STI comprehensive health centres and finally the conceptual framework is drawn.

#### **2.1 Global Overview of HIV/STIs Situation**

HIV is seen as one of the preventable diseases which continue to pose serious health and socio-economic challenges that are also a threat to the realization of the Millennium Development Goals. Data on HIV prevalence rates among sex workers are not available in many countries and nearly all information that is available to UNAIDS has been obtained from studies in urban areas (McKeganey, 1994; Carrl, 2002; World Bank, 2004; Hanan, 2009). In almost all countries where such data are available, prevalence rates among sex workers in general are higher than rates among women presenting in antenatal clinics. HIV prevention programmes among sex workers have reported success in reducing HIV and STI incidence. Various countries, such as, Cote d'Ivoire, Benin, Bangladesh, the Philippines, India, Dominican Republic, Nicaragua, Thailand, South Africa, and Ukraine, have provided evidence that targeted, comprehensive HIV prevention programmes combining STI treatment, condom promotion and provision, and prevention education interventions delivered through outreach, peer education, and sex worker empowerment approaches have made sex work safer.

Interventions designed to prevent HIV infection among sex workers must take into account the context in which sex workers are working, and the specific practices of individual sex workers (Center for Health and Gender Equity, 1999). Prevention interventions often include distribution or promotion of condoms; provision of health services, especially to treat STIs; discussion groups or classroom-based HIV and sexual health education; networking to promote better laws,

awareness of comprehensive HIV/STI services and health services for sex workers; dissemination of information through printed materials and street theatre; and economic development programmes for sex workers seeking other types of employment (UNAIDS 1999; UNAIDS 2000). This chapter presents a global overview of HIV/STIs situation, vulnerability of HIV/AIDS among sex workers, utilization of HIV/STI comprehensive health services by sex workers, social stigma, sexual orientation, distance of HIV/STI comprehensive health centres and finally the conceptual framework.

Acquired immune deficiency syndrome or acquired immunodeficiency syndrome (AIDS) is a disease of the human immune system caused by the human immunodeficiency virus (HIV). According to Sepkowitz (2001) the human immunodeficiency virus (HIV) pandemic is the world's leading public health emergency, with a particular severe impact on sub-Saharan Africa. The illness interferes with the immune system, making people with AIDS much more likely to get infections, including opportunistic infections and tumors that do not affect people with working immune systems. The virus and disease are often referred to together as HIV/AIDS. The disease is a major health problem in many parts of the world, and is considered a pandemic, a disease outbreak that is not only present over a large area but is actively spreading.

Globally, there is evidence that the number of new HIV infections is declining and fewer people are dying of AIDS-related illnesses as a result of access to life prolonging treatment. Between 1999 and 2009, incidence of HIV infection went down by 19 per cent in the whole world. In 33 countries, 22 of them in Sub-Saharan Africa, the HIV incidences fell by 25 per cent during the same period. In addition, at least 5 million people are receiving treatment, which is 30 per cent more than was the case in 2008. This has reduced AIDs-related deaths by 19 per cent, from 2.2 million in 2001 to 1.8 million in 2009, and in effect increased the number of people living with the HIV virus (UNAIDS 2010).

Equally significant is that infection through mother-to-child transmission has gone down from an average of 500,000 children in 2001 to 370,000 in 2009. However, this is still considered high and is mainly attributed to poor access to antenatal and post-natal services. The positive gains in checking the advance of HIV and AIDs are due to positive behaviour change such as correct and consistent use of condoms, reduction of sexual partners and delayed sexual debut (UNAIDS,

2010). Moreover, countries that have focused HIV investments where it is mostly needed have been able to record significant reduction within a short period.

Even with these gains, the HIV and AIDS situation is still very gloomy. While an estimated 33.3 million people are infected, at least 10 million of those who need treatment cannot access it due to prohibitive costs and complexities such as low testing levels. In 23 countries, including five in Eastern and Central Asia, HIV incidence increased by 25 per cent between 2001 and 2009. In addition, there is concern of rise in HIV infection among networks of men who have sex with men and injecting drug users (UNAIDS 2010:63, Economist June 4th 2011: 90).

Although it is indisputable that investment in behaviour change programmes through increased and comprehensive knowledge in low and middle income countries reduces HIV incidence and prevalence in most countries, there is reluctance by some countries to focus prevention efforts where they are most needed and likely to produce maximum impact. For example, in Eastern Europe and Central Asia, prevention programmes do not focus on epidemic patterns by concentrating campaigns on people at higher risk such as those who inject drugs, sex workers and their clients, and men who have sex with men. Even for countries with generalized epidemics, a notable proportion of new infections take place among these population groups, yet they are largely ignored in prevention campaigns (UNAIDS 2010).

## **2.2 Vulnerability of HIV/AIDS among Sex Workers**

Deeply entrenched social standards marginalize sex workers and seriously limit their access to quality health services, particularly STI management, an essential component in HIV prevention. Sex workers frequently lack the personal or social status to negotiate safe sexual practices, being under the threat of violence or loss of clients. Studies show a correlation between income level and HIV prevalence among sex workers possibly due to the inability of poorer sex workers to negotiate condom use (David 1997). Condom use is less regular with the intimate partners of sex workers than with their clients thus even where barrier methods are used sex workers and their intimate partners may remain at risk. There is a widespread view that occasional engagement in transactional sex, or sexual barter, constitutes 'sex work'. Whilst women and girls remain the largest group involved in sex work, the numbers of boys and men acknowledged to be involved is growing. Although far less numerous, transgender individuals, - both transvestites and trans-

sexuals are also active in sex work, often because this represents their only option to generate a livelihood.

There is acute discrimination against those involved in sex work. Those who engage in sex work are generally viewed by society in a discriminatory way. For many, it may be the only employment or survival option. While some may freely choose sex work as their occupation, many more young girls, young boys and women are coerced through violence, trafficking, debt-bondage or the influence of more powerful adults (UNAIDS, 2010). A wide variety of groups and individuals are directly involved in sex work in commercial sex establishments, or indirectly involved, for example as restaurant servers and escorts. Sex work may be formal or informal. In some instances, sex work is only a temporary informal activity. Women and men who have occasional commercial sexual transactions or where sex is exchanged for food, shelter or protection (survival sex) would not consider themselves to be linked with formal sex work. Occasional sex work takes place where sex is exchanged for basic, short-term economic needs and this is less likely to be a formal, full-time occupation. Commercial sex work may be conducted in formally organized settings from sites such as brothels, nightclubs, and massage parlours; or more informally by commercial sex workers who are street-based or self-employed.

Women who engage in commercial sex in sub-Saharan Africa are at high personal risk of physical and sexual violence, unwanted pregnancy, and sexually transmitted infections (STIs). Sex workers are frequently stigmatized in ways that predispose them to economically marginal living conditions and that make continued sex work necessary in order to maintain household income. When they have no alternative source of income, they are less likely to refuse clients who obviously have a sexually transmitted infection or insist on condom use. In several regions, significantly higher rates of sexually transmitted infections (STIs) and HIV infection are found among sex workers and their clients in comparison to other population groups (Veinot, 2009). HIV infection has been found to spread among sex workers before it spreads into the general population. Given the role of STIs as a factor in HIV transmission, high rates of STIs among sex workers are indicators of the potential for rapid spread of HIV among sex workers, their clients, families and extended sexual networks.

Since the beginning of the AIDS epidemic, sex workers in developing countries have been one of the groups most vulnerable to HIV infection due to their large numbers and rapid change of

sexual partners. High rates of other sexually transmitted diseases (STDs) and sexual practices such as dry sex or sex during menses further increase the probability of HIV transmission in sex workers. Sex workers also are often in a poor position to negotiate safe sex because of social, economic, cultural and legal factors. The impact of HIV/AIDS varies considerably in the countries of the region, depending on the size and duration of the outbreak. Most countries have generalized epidemics. Adult prevalence exceeds 20 percent in some countries, including Botswana (24.8 percent), Lesotho (23.6 percent), and Swaziland (25.9 percent), according to the Joint United Nations Program on HIV/AIDS (UNAIDS). Others have concentrated epidemics with disease hotspots, such as Burundi, where the prevalence of 38 percent among sex workers is 16 times higher than that of the general adult population. In West Africa, general prevalence is markedly lower than in East and Southern Africa, but epidemics among most-at-risk populations (MARPs) are common (Morris et al, 1996). Due to this variation, the strategic approaches to combat this disease must be designed to respond to the epidemiology of the disease in individual countries and sub-regions.

According to UNAIDS (2002) sub-Saharan Africa has a heterogeneous epidemic with differing patterns in the three regions. In Southern Africa, prevalence has stabilized at high levels in most countries, while prevalence in East Africa has declined since 2000 and stabilized at lower levels than in Southern Africa. In West Africa, prevalence rates are markedly lower than on the rest of the subcontinent, at under 2 percent across the region, except in Cameroon (5.3 percent), Côte d'Ivoire (3.4 percent), Gabon (5.2 percent), and Nigeria (3.6 percent). Within countries, the impact of HIV/AIDS also varies a great deal, with urban centers often being the most affected. Across all three regions, heterosexual sex is the primary form of transmission, though in countries with more concentrated epidemics, other forms of transmission can play a significant role, including sex work, migration, men having sex with men, and mother-to-child transmission.

In the countries of East Africa, HIV prevalence has either decreased or remained stable over the past several years. In this region, the intensity of national epidemics varies from country to country, and heterosexual sex is the primary form of transmission (UNAIDS, 2002). Multiple and concurrent partnerships are a particular challenge, as they place normally low-risk individuals – those who are married or in committed relationships – at an elevated risk. Prevalence in Kenya, Tanzania, and Uganda exceeds five percent (6.3 percent, 6.2 percent, and

5.4 percent, respectively). Hotspots within countries are common, and prevalence varies as much as 15-fold across different provinces in Kenya and regions in Tanzania. Rwanda has had particular success reducing adult prevalence, now at 2.8 percent, though prevalence remains high among young, pregnant women (15 to 19 years of age) at 5.1 percent. Due to ongoing conflict in the Democratic Republic of the Congo (DRC) and a military coup in Madagascar, the future of the HIV/AIDS epidemic in those two nations is uncertain. Madagascar has been one of the lowest prevalence countries in East Africa, with an adult prevalence of 0.1 percent, while the DRC has been in an ongoing state of civil war for nearly two decades, limiting collection of HIV-related data and propagating the spread of the epidemic through widespread rape and violence.

UNAIDS (2010) indicated that in many countries, the epidemic appears to have stabilized, though concentrated epidemics persist in MARPs such as female sex workers and men who have sex with men (MSM). In Senegal, for example, national prevalence is less than 1 percent, yet it is as high as 30 percent among commercial sex workers in the urban center of Ziguinchor. Some countries have also seen declines in prevalence among young adults; in Ghana, prevalence among young adults (15 to 24 years of age) has significantly decreased from 3.2 percent in 2002 to 1.3 percent in 2009. Provision of antiretroviral drugs (ARVs) for the prevention of PMTCT services has improved but remains much lower in West and Central Africa (23 percent coverage) compared to East and Southern Africa (68 percent coverage). Due in part to its large population size, Nigeria has the second largest HIV disease burden in the world, at 3.3 million, though prevalence is stable (3.6 percent). As in other countries, concentrated epidemics in MARPs have been reported.

The Kenya National HIV and AIDS Strategic Plan 2005/6 – 2009/10 (KNASP) identified sex workers as one of the special vulnerable groups for effective engagement in HIV and AIDS response (National AIDS Control Council, 2000). Sex work contributes to new HIV infections in the general population as the clientele of both female and male sex workers are often married people who further pose serious risks to their spouses. Many HIV and AIDS interventions have not adequately addressed the needs of sex workers despite them (sex workers) contributing significantly to the transmission of HIV. Targeting this group will be an effective way of reducing HIV incidence rates.

There is increasing evidence now that targeted programs to reduce transmission of HIV infection within core groups are feasible and effective. Targeted interventions have led to successful risk reduction and decreased levels of infection. The Thai 100 Percent Condom Program has been associated with an increase in condom use among sex workers, from 14 percent to 94 percent. It should be stressed that there are important underlying principles for successful projects, including non-discrimination and respect for human rights. Prejudice, violence, arrest and harassment and compulsory testing for STD and HIV further stigmatize sex workers and jeopardize the successful implementation of prevention programs (National AIDS Control Council, 2000).

#### **2.4 Utilization of HIV/STI Comprehensive Health Services by Sex Workers**

Among interventions that target sex workers, certain best practices stand out. The 100% Condom Programme in Thailand is a targeted approach to preventing HIV in the commercial sex market enabling sex workers to insist that their partners routinely use condoms and improving their access to STI treatment. The Programme has also had a large-scale public health impact. Rates of curable STIs fell by more than 95% in the 1990s. No cases of chancroid or LGV have been reported in recent years and syphilis is on the verge of eradication. A significant reduction in HIV prevalence has also been documented among most population groups. It is estimated that approximately 5.7 million HIV infections were avoided in 2002. This figure mainly includes sex workers and their partners, and also takes account of secondary infections in the general population where the risk of infection is lower (UNAIDS, 2002).

Before the mid-1980's, HIV/AIDS was largely unknown in Kenya and was seen as a disease that affected "others", especially the American gay community. Then it became a disease of Ugandans, at the time known as "slim", because of the of weight loss among its sufferers. Initially, the most common mode of exposure to the disease was through men who have sex with men followed by injecting drug users. By the mid-1990s, however, transmission was mainly through heterosexual contact. In September 1984, the East African Medical Journal carried an article alerting the medical community of the advent of the AIDs pandemic in Kenya. The article, which was based on the case of a 43-year old Ugandan national residing in Nairobi, concluded that no race "may be exempted from this highly lethal syndrome". With that, HIV and AIDS became a reality in Kenya. Since then, HIV and AIDs has continued to pose grave social,



economic and health challenges, not just to Kenya but the entire Sub-Saharan Africa and the whole world in general.

Although HIV and AIDs prevalence has fallen and new infections are going down around the globe, the number of people living with the virus has increased from 28.6 million in 2001 to 33.3 million in 2009. At 2.6 million people annually, the rate of new global infections is still alarming and is worse in Sub-Saharan Africa, which accounts for 1.8 million people, or about 70 per cent of the total number of the world's new infections. (UNAIDs 2010: 20). To date, a cure or vaccine remains elusive. But there is at least a better understanding of the epidemiology of HIV and AIDS compared with ten years ago. For example, it is now generally acknowledged that in the United States of America the HIV and AIDS started among gay men, injecting drug users and commercial sex workers. It then spread to women, mainly through their infected husbands, then to remote and rural areas, transmitted by long-distance truck drivers, migrant workers and return of people with AIDs to their places of birth (Singhal and Rogers 2003:39). This knowledge is important in formulating strategies to combat the disease.

Community development interventions empower community members to undertake actions for local structural change actively. These interventions promote the potential social competencies of individuals, groups, and institutions so they can overcome structural barriers that, for example, deny sex workers and gay men access to resources and participation in social, economic, political and cultural relations. For effective results, community development interventions should promote interactions between individuals and their social networks to enhance social integration, social capital, and social inclusion. People living with increased vulnerability to HIV infection are as varied as the general population, differing in age, gender, education, and sexual orientation, in addition to having different occupations and professions. In Africa, studies have shown that only a few countries are managing to control the transmission of HIV and other STIs in commercial sex districts. Their efforts to this end are hampered by various constraints such as the insignificant number of official agencies and non-governmental organizations involved in response activities, and the fact that the groups concerned (which often exist on the fringes of society) have only limited access to basic health care and services (International Centre for Research Women, 2008). Positive prevention and ARV treatment for those sex workers who require it also impact on the chain of transmission, given that a number of studies and

observations seem to indicate that sex workers infected with HIV tend to continue working in the commercial sex industry.

According to ActionAid (2009) HIV prevalence among female sex workers in sub-Saharan Africa varies widely but in some countries it is more than 20 times higher than the HIV prevalence of the general population. This is particularly the case in West Africa, where HIV prevalence is much lower among the general population than in Eastern and Southern Africa, but where more than a third of sex workers are reported to be living with HIV. As many as a fifth of men in West Africa had visited sex workers in 2007 which means that they can act as a potential 'bridge' for HIV transmission to the rest of the population, either through their wives or other sexual partners.

Many HIV and AIDS interventions have not adequately addressed the needs of sex workers despite them (sex workers) contributing significantly to the transmission of HIV. Targeting this group will be an effective way of reducing HIV incidence rates. Kenya has taken the first important step towards the adoption of a multi-sectoral approach to HIV/AIDS control. This is by identifying the vulnerable groups as key stakeholders in the national response to HIV and AIDS. However, engagement of sex workers is still inadequate, and existing initiatives are not yet uniformly consistent with regard to replication of international best practices in the area of behaviour change and risk minimization (Morris and Ferguson, 2006).

In India, the Avahan HIV/AIDS prevention Initiative has facilitated the scaling-up of a number of interventions targeting sex workers and other high-risk populations in 6 Indian states with a high rate of HIV/AIDS. Avahan helps NGOs to carry out community-based initiatives, promotes community mobilization and runs specialized treatment clinics for sex workers. These clinics treat the symptoms of STIs, offer regular check-ups for sex workers, and treat opportunistic infections. Community services and clinical teams promote condom use and distribute condoms free of charge. Local advocacy efforts, with input from the police, are intended to facilitate prevention efforts. In 2 years, clinics have been established in over 350 locations in 77 districts. These clinics have community intermediary services designed for sex workers. Using mapping techniques, about 400 000 sex workers have been identified, of whom more than 90% have been contacted by community peers and two thirds have attended a clinic at least once. More and more clinics recommend routine check-ups. Preliminary results indicate a decline in the

incidence of ulcerative STIs and lower prevalence of the STIs that most commonly occur among sex workers compared with previous years and other districts in the same region. Other Asian countries (Burma, Cambodia, China, Laos, Mongolia, the Philippines and Viet Nam) have reported a decline in rates of HIV and other STIs among high-risk groups following similar interventions (ActionAid, 2009).

Kenya recently launched its third National AIDS Strategic Plan (KNASP III) which defines Most at Risk Populations (MARPS) as population groups whose behavior puts them at the greatest risk of acquiring HIV; in Kenya sex workers (both female and male), intravenous drug users (IDUs), and SWs. In addition, women and girls, young people and children, refugees and internally displaced persons, and people who migrate, among others, may also be at higher risk of acquiring HIV according to the same document (Kenya National Bureau of Statistics and ICF Macro, 2010).

Comprehensive Health also offers testing and counseling for HIV, the virus that causes Acquired Immune Deficiency Syndrome (AIDS). In designing HIV-prevention interventions for vulnerable groups, their access to quality, comprehensive health services, such as management of sexually-transmitted diseases and HIV voluntary counseling and testing (VCT), must be ensured. Sex workers, MSM, and IDU should receive medical services from providers preferred/chosen by themselves -- private, if affordable, or at public services with health workers adequately trained to deal with these clients' specific needs and interests (e.g. able to show respect, uphold confidentiality, etc.). At the same time, respect and confidentiality cannot replace discussing sensitive topics of interest and health, like sexuality and sexual practices, domestic violence, and sexual orientation (Mallory, 2005). When inter-personal confidence between vulnerable groups and health providers is promoted and well-established, there is hardly any topic that cannot be the subject of interesting and health-promoting interpersonal dialogue. Effective providers and counselors need to be able to talk frankly about sensitive issues to address the real practices and behaviors that make HIV transmission more likely.

Actually, ingrained stigma and discrimination are constant impediments to appropriate interaction between health providers and vulnerable populations. An alternative is care delivery at specialized clinics, normally run by local NGOs (in countries like Brazil and Mozambique, these services are provided by the public health system). However, despite the assurance of a

stigma-free environment and the reinforcement of social integration, these NGO services tend to be project-dependent and generally not sustainable in the long run. People living with increased vulnerability to HIV infection are as varied as the general population, differing in age, gender, education, and sexual orientation, in addition to having different occupations and professions (Cates, 2008). Community development interventions empower community members to undertake actions for local structural change actively. These interventions promote the potential social competencies of individuals, groups, and institutions so they can overcome structural barriers that, for example, deny sex workers and gay men access to resources and participation in social, economic, political and cultural relations. This study investigates the influence of social stigma, awareness of comprehensive health services, behavioral factors and distance of HIV/STI comprehensive health centres on effective utilization of HIV/STI comprehensive health services by sex workers.

#### **2.4.1 Social Stigma**

Stigma and discrimination against HIV-infected people and most vulnerable populations of sex workers is a factor that influences the utilization of comprehensive health services. The concept of vulnerability illuminates how inequity, stigma, discrimination, and violence can accelerate the spread of AIDS, as well as the reasons why some individuals or groups are automatically more vulnerable to HIV infection. On the one hand, children, youth, women, and truck drivers, are generally not stigmatized by society, despite the fact that they face high individual, programmatic and social vulnerability to HIV/AIDS (Adamchak et al, 2009).

While it is well understood that these particular groups are more susceptible to HIV infection because of their behavioral, cognitive, and programmatic environments, they are among the most stigmatized and discriminated-against populations in society. They become stigmatized only when they are thought to be living with HIV or to have developed AIDS (Carrl, 2002). On the other hand, male and female sex workers, MSM, and IDU are victims of strong social stigma, independent of their HIV status, and this ingrained and harmful stigmatization considerably increases their vulnerability to HIV infection.

Studies explain that stigma is the main barrier to the involvement of sex workers in HIV/AIDS control and prevention mechanisms (Scambler and Paoli, 2008). For instance, Ghimire and Teiflingen (2009) in a study of sex workers in Nepal show that few female sex workers visit state

owned health facilities. Such health workers turn to private clinics belonging to non-governmental organisations and pharmacies for treatment. Ghimire and Teiflingen further explain that a combination of personal and service related factors acted as barriers in accessing health services by sex workers. These included; lack of confidentiality, discrimination and negative attitudes held by healthcare providers, poor communication between service providers and fear of exposure to the public as a sex worker were the major barriers in seeking sexual health services. Maintaining confidentiality is particularly problematic at comprehensive health centres, where patients have to queue for several hours underneath signs for 'HIV-positive people. Among some brothel-based FSWs who felt unsafe leaving the confines of their brothel, the threat of physical or sexual abuse by 'rowdies' or gangs presented additional barriers to service utilisation.

The recent scale-up of HIV testing, treatment and care services across many regions of the developing world aims to increase the longevity and quality of the lives of PLWHAs and also forms a key strategy for HIV prevention. For both male and female sex workers, focus should be put on negotiation skills for condom use, avoiding or organizing against police harassment, and establishment of self-help groups (Cates, 2008). On the other hand, social stigma and prejudice make clients of male sex workers much more difficult to reach than those of SW. Male sex workers can be trained to be the main providers of HIV prevention messages to their clients.

#### **2.4.2 Awareness of Comprehensive Health Services**

Early diagnosis and treatment of HIV-infected individuals is essential in promoting the long-term health and survival of people infected with HIV. Individual vulnerability derives from personal behaviors, knowledge, and attributes that affect the possibility of preventing HIV infection. Such behaviors and attributes are linked to the social environment where individuals live, and they reflect a level of self-awareness and the potential power to change one's personal behavior (Hanan, 2009). Key factors related to individual vulnerability that can be effectively addressed by prevention interventions with sex workers include awareness and behavioral factors, personal characteristics, and social relations. The majority of HIV/AIDS prevention programs have achieved little progress beyond raising basic awareness about HIV transmission and, to a lesser extent, promoting the use of condoms.

The widening awareness and commitment of governments, donors, and NGOs to fight the AIDS epidemic has created an opportunity to overcome barriers, laws, and attitudes that keep vulnerable groups isolated. This new climate can bring those groups out of the darkness of “illegality” and “immorality,” and into the light, where problems can be solved on a human and realistic level as indicated by Harcourt and Donovan (2005). Experience has shown clearly that strategies that promote sex worker “rehabilitation” or “reintegration into society” offer a clear path to failure, since they reinforce nothing but self-stigma and prejudice. These strategies usually backfire and simply drive sex workers away and further underground, which enhances their vulnerability. Unfortunately, this approach has been used too often in HIV prevention strategies targeting sex workers implemented either by government or civil society organizations and not run by sex workers themselves. It reveals an ingrained prejudice against sex work, while little or nothing is offered in terms of effective and sustained financial alternatives to sex workers’ life needs. Often, when sex workers return to their original families, they fall victim to even stronger discrimination and physical violence for the rest of their lives.

Prevalence among women is two to four times greater than among men of similar age cohorts throughout the region indicates International Centre for Research Women (2008). Limited autonomy in making decisions about sex, including condom use, also increases risk, particularly for young women who engage in sexual relations with older men. In Uganda, one in five young women (15 to 19 years of age) reported her first sexual encounter was forced or coerced. Sexual violence further compounds the risk of infection for women, and it has been officially documented as a major factor in the epidemic in Lesotho. In the DRC, prevalence as high as 25.6 percent has been found among women who suffered sexual violence in areas of armed conflict, whereas prevalence for women overall is 1.8 percent.

### **2.4.3 Type of Sex Work**

The pathways that lead people into sex work are varied. At one end of the spectrum are those who work autonomously, undertake sex work by choice and are well organized with respect to their sexual health and accessing services (Kennedy, 2008). These workers may have entered sex work for a specific reason (e.g. to fund higher education costs, pay debts or to cover family expenses), may be intermittent or opportunistic in their involvement in sex work and succeed in exiting the industry at a time of their choice. Others make a career decision to work in the sex

industry and may enjoy a high level of job satisfaction and independence. In contrast, are those who are driven into sex work through drug addiction or coercion, and have little autonomy. These workers, including women sold for the purposes of trafficking, are highly vulnerable and have little prospect of leaving the industry unassisted. Between these extremes lie the majority, who work in the industry due to varying degrees of economic necessity and choice.

There are significant differences between indoor work and street work, in terms of harm and risk to health. Street sex work is more likely to be linked with drugs and many in the developed countries like the UK have entered the industry primarily out of the need to maintain expensive drug addictions to heroine and crack cocaine. In this setting, sex may either be exchanged directly for drugs, or drugs may be supplied by the pimp in exchange for earnings. As a result, they are likely to be exposed to much higher levels of violence and abuse from clients and pimps than those who work indoors (Mallory, 2005). Pressure from clients for unprotected sex combined with drug dependency and competition among workers for clients lead street workers to offer, or be persuaded to accept unprotected vaginal or anal sex for more money. Furthermore, street workers are often homeless, living in squats or drug dens, which may in turn have an adverse impact on health through the acquisition of tuberculosis and other respiratory diseases.

In contrast, workers who are based in off-street premises, whether in flats, saunas or massage parlors, are less exposed to the risk of violence and will generally work with a maid or a manager who can vet clients, look after money and provide security. Indoor workers are more likely to have autonomy in working hours and the disposal of their income, and are less likely to be supporting an addictive drug habit or to be under the control of pimps. As a result, these workers are not compelled to agree to unsafe sexual practices for higher earnings, and use condoms with all clients (McKeganey, 1994). Trafficked women and children who have been groomed and coerced into sex work are important exceptions to the paradigm that indoor sex work offers greater protection. Here the individuals concerned are hidden from view to avoid detection by police and social services, and may frequently be moved between locations or across international borders.

Finally, sex work is not gender specific. The existence of a market for male sex workers who offer services to male or (less commonly) female clients is well recognized. Transexual and transgendered individuals also participate in the sex industry, and have their own particular

needs. Many people are unable to access mainstream SRH services or programmes for reasons of poverty, language, disability and geographical inaccessibility; or are denied access because of stigma, discrimination or restrictive laws and policies (Stirling, 2003). Overcoming inequalities in access requires that the SRH needs of marginalized people are identified, and interventions are targeted towards meeting their needs in a culturally considerate manner.

Because of high infection rates and large numbers of sexual partners, sex workers have been considered a core group for HIV transmission. In addition, men who have both commercial and non-commercial sex partners play a major role in bringing HIV infection into the general population. These “bridge” populations may be as important as core groups in direct prevention programs (Sepkowitz, 2001). Military personnel, long-distance truck drivers and migrant workers are easily identified as potential clients for commercial sex and targets for prevention activities. But in many developing countries, male purchase of commercial sex is a social norm, and married men purchase sexual services on a regular basis. In Zimbabwe, 38 percent of male students and 25 percent of working-class men reported having had sex with a sex worker.

#### **2.4.4 Distance of HIV/STI Comprehensive Health Centres**

According to WHO (2006) distance and long travel times to health facilities remain key barriers to access in many communities. Health care facilities in slum and rural areas are fewer and more dispersed than in urban areas. As a result, people in such regions typically travel great distances to obtain services that cannot be obtained in their local communities. It is not uncommon for persons requiring specialized health services or diagnostic testing to travel for many kilometers to the nearest hospital. People from remote communities may travel for hours to obtain routine hospital-based services. The problem is compounded by harsh planning and development problems that make road travel dangerous or impossible for days at a time.

Mobile health facilities which bring services directly to people are one method of addressing physical barriers to access for the most isolated and often the poorest populations. According to UNAIDS (2000) availability of services is a perception translated to mean that services were within reasonable physical reach. The poorest wealth category identified the availability of free public care as enabling to the use of both preventive and curative services. Referral information, linkages, systems for voluntary HIV counseling and testing and medical services must be part of any prevention or support program for vulnerable groups. The International Planned Parenthood



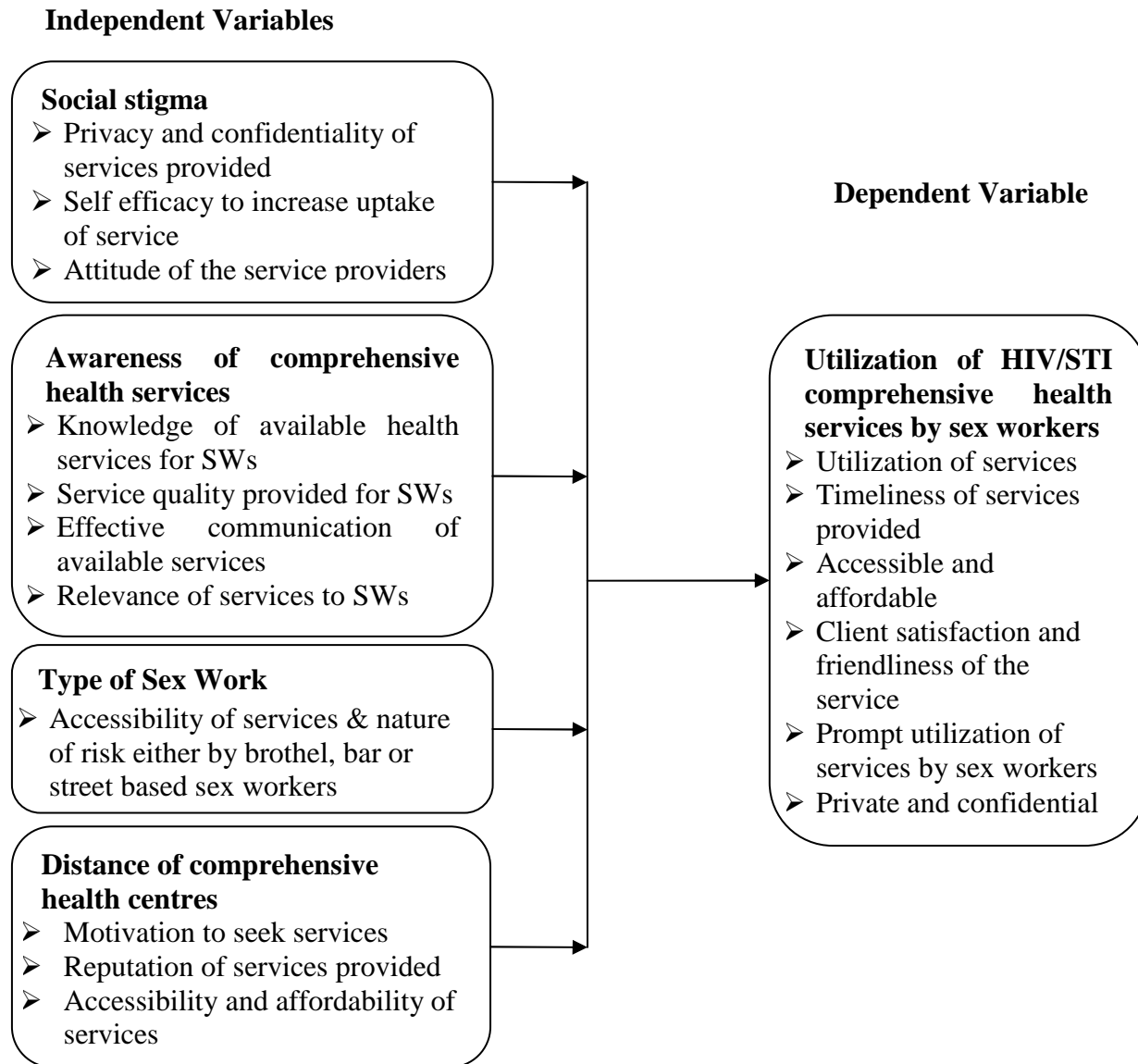
Federation (IPPF) has used mobile health units, sometimes in the form of canoes and planes, to reach isolated populations across countries in Latin America and the Caribbean, and provide them with education, supplies and services. The initiative resulted in a reduction of total births and increase in births attended by a trained professional.

Mobile health units have also been used to deliver free condoms, STI testing and treatment, and prenatal care to sex workers in Brazil. The clinics are based in red-light districts so that workers do not have to lose earnings as a result of time spent travelling to clinics. In India, an NGO called SANGRAM (Sampada Grameen Mahila Sanstha) uses a peer based model to reach out to sex workers. Peer educators, who are themselves sex-workers, undertake a variety of activities including raising awareness about HIV and AIDS, distributing condoms, and assisting people in accessing medical care (UNAIDS 2000). The adequacy of services is judged in light of perceived quality, the way services are organized, and the availability of commodities. The inadequacy of health services was noted for preventive and curative care as well as at the different levels.

Identifying groups that have unmet needs for SRH services can be difficult because there are often a number of simultaneous factors that prevent access (Veinot, 2009). Also, targeting services towards specific groups can be difficult because people may not identify themselves as belonging to these groups. For instance MSM who do not consider themselves as being gay or bisexual are unlikely to respond to HIV/STI services designed for these communities. With this in mind, Profamilia, an NGO in Columbia, launched an initiative to increase access to quality services and information for MSM. It provided sexual health services in environments sensitive to all sexualities, and used a variety of media to promote messages including vouchers at clinics, advertisements in magazines, and websites.

## **2.5 Conceptual Framework**

A conceptual framework is a brief explanation of the relationships between the variables identified for study in the statement of the problem, objectives and research questions. In this research, the conceptual framework is the concise description of the phenomenon under study accompanied by visual depiction of the variables under study (Mugenda, 2008). The independent variables include social stigma, awareness of comprehensive health services, sexual orientation and distance of HIV/STI comprehensive health centres, while the dependent variable is utilization of HIV/STI comprehensive health services by sex workers.



**Figure 1: Conceptual Framework**

## 2.7 Summary

Utilization of healthcare services is an important determinant of health, and has particular relevance as a public health and development issue in low income countries. It is clear that sex workers are not ‘universally’ at high risk of becoming infected with HIV, and that the situation varies widely between regions. However, it is also apparent that in many of the countries where AIDS is taking its heaviest toll, large numbers of sex workers are being infected with HIV, and this is a major issue. Improving the situation will require greater efforts by governments, groups, and individual members of society to help sex workers. It is particularly important that sex

workers gain access to HIV prevention and treatment programmes. Such programmes not only save sex workers' lives; they can also help to stem the wider impact that HIV is having on societies around the world.

## **2.8 Study Gap**

It has been suggested that healthcare should be universally accessible without barriers based on affordability, physical accessibility, or acceptability of services. Accordingly, increased use of health services is a major target in many developing countries. However, sex work and same sex relationships are highly stigmatized within African society, and FSWs and men who have sex with men (MSM) frequently experience discrimination from their families, neighbours and even the state. This study therefore sought to establish the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter sets out various stages and phases that were followed in carrying out the study. Specifically the following subsections are included; research design, target population, sample design, data collection instruments, data collection procedures and finally data analysis.

#### **3.2 Research Design**

The research was designed as a cross sectional descriptive study. Cross-sectional studies, also known as surveys, are a useful way to gather information on important health-related aspects of people's knowledge, attitudes, and practices. Data was collected using both quantitative and qualitative methods including documents review, questionnaire administration to sex workers, key informant interview and FGD. Since it was a study on human behavior, research study used was both qualitative and quantitative.

This study utilized quantitative research methodology often within the same study which involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection procedures. This research design was considered appropriate because variables involved do not involve any manipulation but to establish the current status of the phenomena (Borg and Gail, 1983). The design enabled the researcher to investigate the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya.

#### **3.3 Target Population**

The target population was the sex workers operating in Nairobi's CBD, Ngara, Eastleigh and Industrial Area. The study focused more on the section and particularly on the Nairobi sex workers who were mostly brothel based, street and bar based seeking comprehensive health services in the DISCs located in these areas since they were the ones conversant with the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi Kenya. Some were single parents while others had steady sexual partners. There were over 30,000 sex workers operating in Nairobi and these professionals are divided into three categories namely; Category A which consists of street based sex workers, Category B which consists of brothel-based sex workers while Category C has bar-based sex workers. So the

researcher intended to examine a sample of respondents drawn from the population of 6,000 sex workers operating in Nairobi’s CBD, Ngara, Eastleigh and Industrial Area. Mugenda and Mugenda (1999) explain that the target population should have some observable characteristics, to which the researcher intends to generalize the results of the study. This definition assumes that the population is not homogeneous.

**Table 3.1: Target Population**

<b>Category</b>	<b>Target Organization</b>	<b>Population</b>	<b>Percentage</b>
<b>A</b>	Street based sex workers	10,500	35
<b>B</b>	Brothel-based sex workers	7,500	25
<b>C</b>	Bar-based sex workers	12,000	40
<b>TOTAL</b>		<b>30,000</b>	<b>100</b>

### 3.4 Sampling Procedure

From the target population of six thousand possible respondents, the researcher purposively interviewed specific respondents in the drop in service centres located in Nairobi’s CBD, Ngara, Eastleigh and Industrial Area. These respondents being the sex workers seeking comprehensive health services in the drop in service centres located in these areas. Purposive sampling technique produce estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population. Based on Krejcie and Morgan’s (1970) table for determining sample sizes, for a given population of 30,000, a sample size of 382 respondents would be appropriate to adequately represent a cross-section of the population at 95% confidence level.

**Table 3.2: Sample Size**

<b>Category</b>	<b>Target Organization</b>	<b>Population</b>	<b>Sample Size</b>	<b>Percentage of Sample</b>
<b>A</b>	Street based sex workers	10,500	134	35
<b>B</b>	Brothel-based sex workers	7,500	96	25
<b>C</b>	Bar-based sex workers	12,000	153	40
<b>TOTAL</b>		<b>30,000</b>	<b>382</b>	

### **3.5 Data Collection Techniques**

The study collected both primary and secondary data for the purpose of investigating the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya. Primary data was collected using a questionnaire while secondary data was obtained from annual reports of the health institutions. The questionnaire designed in this study comprised of two sections. The first part was designed to determine fundamental issues including the demographic characteristics of the respondent, while the second part consisted of questions where the variables were focused.

The questionnaire was designed in line with the objectives of the study. To enhance quality of data obtained, Likert type questions were included whereby respondents indicated the extent to which the variables were practiced on a five point Likerts scale. The structured questions were used in an effort to conserve time and money as well as to facilitate in easier analysis as they were in immediate usable form; while the unstructured questions were used so as to encourage the respondent to give an in-depth and felt response without feeling held back in revealing of any information. The survey also used focus group discussions for in-depth investigations into the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya. FGDs are considered an effective way of collecting data on people's deep feelings and motivations. Further, the method is socially oriented and captures real-life data in a social environment, flexible, has high face validity, its speedy results and inexpensive.

### **3.6 Reliability and Validity**

The researcher carried out a pilot study to pretest the validity and reliability of data collected using the questionnaire. The researcher selected a pilot group of 5 individuals from the target sample of the responding population to test the validity and reliability of the research instrument. The pilot study allowed for pre-testing of the research instrument. The clarity of the instrument items to the respondents is necessary so as to enhance the instrument's validity and reliability. The aim was to correct inconsistencies arising from the instruments, which ensured that they measured what was intended.

#### **3.6.1 Validity**

Validity indicates the degree to which an instrument measure what it is supposed to measure. This will give the accuracy and meaningfulness of inferences. It is the extent to which

differences found with a measuring instrument reflect true differences among those being tested. It also refers to the data that is not only reliable, but also true and accurate. The instruments were subjected to appraisal and amendment by use of simple language, peers review and experts (supervisors) whose recommendations were taken to improve the face and content validity.

### **3.6.2 Reliability**

According to Shanghverzy (2003) reliability refers to the consistency of measurement and is frequently assessed using the test–retest reliability method. Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures. The research utilized the Cronbach’s alpha of 0.70 to check internal reliability. The higher the alpha, the more reliable the research instrument (Mugenda and Mugenda, 2003).

The alpha is denoted as:

$$\text{Alpha} = \frac{Nr}{1+r(N-1)}$$

Where  $r$ = the means inter – item correlation

$N$ = number of items in the scale

Finally, the researcher dropped the pre-tested questionnaires physically at the respondents’ place of work. The researcher left the questionnaires with the respondents and picked them up later. Each questionnaire was coded and only the researcher knew which person responded. The coding technique was only used for the purpose of matching returned, completed questionnaires with those delivered to the respondents.

### **3.7 Ethical considerations**

According to Mugenda (2003) ethical issues are present in any kind of research. This is because the research process creates tension between the aims of research to make generalizations for good of others and rights of participants to maintain privacy. Ethics therefore pertain doing good and avoiding harm (Herroelen, 2008). For the purposes of this study, permission to carry out the study was sought from MARPs Technical Working Group (TWG) under National STI and AIDS Control Programme (NASCOP). The researcher also assured confidentiality to the respondents

and affirmed that the study is made for purposes of accomplishing academic goals. The researcher also acknowledged all sources of information from other scholars.

### **3.8 Data Analysis**

Before processing the responses, the completed questionnaires were edited for completeness and consistency. The data was then coded to enable the responses to be grouped into various categories. Data collected was both quantitative and qualitative. As such quantitative data was analyzed by descriptive analysis techniques while qualitative data was analyzed through content analysis. The descriptive statistical tools such as SPSS helped the researcher to describe the data and determine the extent used. The findings were presented using tables and charts, percentages, means and other central tendencies. Tables were used to summarize responses for further analysis and facilitate comparison. For this study, the researcher was interested in investigating the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya. This generated quantitative reports through tabulations, percentages, and measure of central tendency.

### **3.9 Operational Definition of Variables**

Operational definition of variables involves operationally defining a concept to render it measurable. It is done by looking at the behavior of the dimensions, indicators, properties denoted by concepts translated into observable and measurable elements to develop an index of the concepts. Measures can be objective or subjective.



**Table 3.3: Operational Definition of Variables**

Research Objective	Variable	Indicators of the Variables	Data Collection Methods	Measurement scale	Level of Analysis
To investigate the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers	<b>Dependent Variable</b> Utilization of HIV/STI comprehensive health services by sex workers	<ul style="list-style-type: none"> <li>➤ Utilization of services</li> <li>➤ Timeliness of services provided</li> <li>➤ Accessible and affordable</li> <li>➤ Client satisfaction and friendliness of the service</li> <li>➤ Prompt utilization of services by sex workers</li> <li>➤ Private and confidential</li> </ul>	Questionnaire	Ordinal/Interval	Descriptive
To investigate the extent to which social stigma influences effective utilization of HIV/STI comprehensive health services by sex workers	<b>Independent Variable</b> Social stigma	<ul style="list-style-type: none"> <li>➤ Privacy and confidentiality of services provided</li> <li>➤ Self efficacy to increase uptake of service</li> <li>➤ Attitude of the service providers</li> </ul>	Questionnaire	Ordinal/ Interval	Descriptive
To explore the relationship between awareness of comprehensive HIV/STI services and utilization of service by sex workers	<b>Independent Variable</b> Awareness of comprehensive HIV/STI services	<ul style="list-style-type: none"> <li>➤ Knowledge of available health services for SWs</li> <li>➤ Service quality provided for SWs</li> <li>➤ Effective communication of available services</li> <li>➤ Relevance of services to SWs</li> </ul>	Questionnaire	Ordinal/ Interval	Descriptive
To assess the type of sex work and how it affects effective utilization of HIV/STI comprehensive health services by sex workers	<b>Independent Variable</b> Type of sex work	<ul style="list-style-type: none"> <li>➤ Accessibility of services</li> <li>➤ Nature of risk versus uptake of service</li> </ul>	Questionnaire	Ordinal/ Interval	Descriptive
To establish the relationship between distance of HIV/STI comprehensive health centers and utilization of health services by sex workers	<b>Independent Variable</b> Distance of HIV/STI comprehensive health centers	<ul style="list-style-type: none"> <li>➤ Motivation to seek services</li> <li>➤ Reputation of services provided</li> <li>➤ Accessibility and affordability of services</li> </ul>	Questionnaire	Ordinal/ Interval	Descriptive

### **3.10 Summary**

Research methodology is the framework underlying the strategy of a research. This chapter highlighted the various steps and approaches that were used in carrying out the study. This was the methodology upon which this study was built on. As such the researcher discusses research design, target population, sample design, data collection instruments, data collection procedures and finally data analysis.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

#### **4.1 Introduction**

The purpose of this research was to investigate the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya. This chapter focuses on data analysis, interpretation and presentation. Having identified the problem of study in chapter one, reviewed existing literature and shown gaps of knowledge in chapter two, chapter three explained the methods that the study used to collect data. This chapter presents analysis and findings of the study as set out in the research methodology. The results are presented on the extent to which social stigma, awareness of comprehensive HIV/STI services, type of sex work and distance of HIV/STI comprehensive health centers affects utilization of health services by sex workers in Nairobi Kenya. The data was gathered from questionnaire as the research instrument. The questionnaire was designed in line with the objectives of the study. The study employed various statistical tools for extracting information on the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi.

#### **4.2 Background Information**

This section concerns itself with outlining the background information on response rate realized from the study. The study targeted sex workers who were mostly brothel based, street and bar based seeking comprehensive health services in the DISCs located in Nairobi's CBD, Ngara, Eastleigh and Industrial Area. As such the other themes presented in this section include gender distribution of the respondents, age brackets, length of engaging into sex worker, highest academic qualification, average number of casual clients served per day, presence of regular partner(s) (boyfriend, husband or lover) and whether they use a condom during sex with their clients.

##### **4.2.1 Response Rate**

The study targeted brothel based, street and bar based sex workers operating in Nairobi's CBD, Ngara, Eastleigh and Industrial Area seeking comprehensive health services in the DISCs located in these areas. From this population a sample of 382 respondents was selected in collecting data with regard to factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya.

**Table 4.4: Response Rate**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Responded	323	84.6
Not responded	59	15.4
<b>Total</b>	<b>382</b>	<b>100.0</b>

From the study, 232 out of 382 sample respondents filled in and returned the questionnaire contributing to 84.6%. This commendable response rate can be attributed to the data collection procedure, where the researcher personally administered questionnaires and waited for respondents to fill in, kept reminding the respondents to fill in the questionnaires through frequent phone calls and picked the questionnaires once fully filled. This response rate was good and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. The questionnaires that were not returned were due to reasons like, the respondents were not available to fill them in at that time and with persistence follow-ups there were no positive responses from them. The response rate demonstrates a willingness of the respondents to participate in the study.

#### **4.2.2 Distribution of the Respondents by Gender**

In this study the respondents sampled were expected to comprise both male and female respondents. As such, the study required the respondents to indicate their gender by ticking on the spaces provided in the questionnaire. Table 4.2 shows the distribution of the respondents by gender.

**Table 4.5: Gender of the Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	109	33.9
Female	214	66.1
<b>Total</b>	<b>323</b>	<b>100.0</b>

From the study, female respondents were more than male sex workers at 66.1% and 33.9% respectively. This shows that the sex work profession has both male and female members. This means that the views expressed in this study are gender sensitive and hence are representative of all. The results are further displayed in figure 4.

### 4.2.3 Age Bracket of the Respondents

Sex work profession draws people from different age groups. Accordingly, HIV/STIs prevalence is equally common across all age groups and thus the effectiveness of utilization of comprehensive health services may vary among these age groups. In order to avoid biasness, this study thus had to investigate the composition of the respondent in terms of age brackets to understand the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya. The findings are presented in table 4.3.

**Table 4.6: Age Bracket of the Respondents**

<b>Age Bracket</b>	<b>Frequency</b>	<b>Percentage</b>
15 - 19 Years	3	1
20 - 24 years	94	29
25 – 29 years	136	42
30 – 34 years	78	24
35 – 39 years	10	3
40 years and above	3	1
<b>Total</b>	<b>323</b>	<b>100</b>

From the study, 42% of the respondents indicated that they were aged between 25 – 29 years, 29% of them were ranging between 20 - 24 years, 24% of them indicated that their ages fell between 30 – 34 years, another proportion of them shown by 3% indicated that they were aged between 35 – 39 years, while 1% of them indicated that their ages were between 15 - 19 years and 40 years and above in each case. These findings are an indication that the commercial sex profession draws people of different ages who are most at risk of transmitting HIV/STIs and hence are deemed to be frequent users of the comprehensive health service.

### 4.2.4 Length of Active involvement in Commercial Sex Work

The length of service/working in a given occupation determines the extent to which one is aware of the issues sought by the study. The study therefore sought to establish the length of time that the respondents had been working in the sex work profession. The results on this question are presented in Table 4.4.

**Table 4.7: Length of Active involvement in Commercial Sex Work**

<b>Length in Years</b>	<b>Frequency</b>	<b>Percentage</b>
1-5 yrs	126	39
6-10 yrs	149	46
10 to 15	39	12
Over 15 yrs	10	3
<b>Total</b>	<b>323</b>	<b>100</b>

Majority of the respondents (representing 46% of the proportion) enormously reiterated that they have been involving in commercial sex work for a period of 6-10 yrs, 39% of them indicated that they have been engaging into sex work for a period of 1-5 yrs, another proportion (12%) of the respondents indicated that they have been engaging into sex work for a period of 10 to 15 years while only 3% of the respondents indicated that they have been engaging in sex work for a period of over 15 years. These results show that majority respondents had enough work experience in the profession. The respondents are conversant with the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya.

#### **4.2.5 Highest Academic Qualification**

The commercial sex work draws people with in different academic qualifications. This difference might contribute to differences in the utilization of HIV/STI comprehensive health services and hence the responses given by the respondents. The study therefore sought to establish the highest academic qualifications attained by the respondents.

**Table 4.8: Level of Education**

<b>Level of Education</b>	<b>Frequency</b>	<b>Percent</b>
Certificate (KCPE, KCSE)	65	20
Diploma	71	22
Bachelor's degree	178	55
Post graduate	6	2
Others	3	1
<b>Total</b>	<b>323</b>	<b>100</b>

From the study, an overwhelming majority (55%) of the respondents indicated that they had acquired a Bachelor’s or undergraduate degrees level of education, 22% of the respondents had acquired college diplomas, 20% of them indicated that they had college certificates, 2% of the respondents were postgraduate degree holders, while only 1% of the respondents indicated that they had other academic qualifications such as professional courses like CPA as well as no formal education at all.

#### 4.2.6 Number of Casual Clients Served

The study also sought to establish the average number of casual clients served by the respondents per day. This was in an effort to establish how busy the respondents are in their profession which could be a determinant of the level of exposure to the risk of HIV/STIs hence the need to seek comprehensive health services.

**Table 4.9: Average Number of Casual Clients Served by the Respondents Per Day**

<b>Number of Clients</b>	<b>Frequency</b>	<b>Percent</b>
Less than 4 clients	52	16
4-6 clients	107	33
7- 9 clients	145	45
10-12 clients	13	4
Over 12 clients	6	2
<b>Total</b>	<b>323</b>	<b>100</b>

According to the results depicted in Table 4.6, 45% of the respondents unanimously reiterated that they usually serve between 7 and 9 clients per day, 33% of them indicated 4 to 6 clients per day, 16% of the respondents serve less than 4 clients per day, 4% of the respondents indicate 10 to 12 clients while a small proportion of the respondents (2%) indicated that they usually serve more than 12 clients per day. This implies that the population involved in the study is actively involved in the sex work and their exposure to the risk is high since majority of them serve a large number of clients. Therefore the opinions given would serve as a representative of the situation of commercial sex workers and the various factors that influence their effective utilization of HIV/STI comprehensive health services.

#### 4.2.7 Regular Sex Partner(s)

The respondents were also required to indicate whether they have regular partner(s) (like boyfriend, spouse or lover). The results are as shown in Table 4.7.

**Table 4.10: Whether the Respondents have Regular Sex Partner(s)**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	233	72
No	90	28
<b>Total</b>	<b>323</b>	<b>100</b>

From the study, 72% of the respondents reiterated that they have regular partner(s) (like boyfriend, spouse or lover) as compared to 28% of those who indicated that they do not have regular partner(s) (like boyfriend, spouse or lover).

#### 4.2.8 Use of Condom during Sex with the Clients

The study further required the respondents to indicate whether they use condom during sex with their clients. The results are as depicted in table 4.8.

**Table 4.11: Use of Condom during Sex with the Clients**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Yes	300	93
No	23	7
<b>Total</b>	<b>323</b>	<b>100</b>

According to the results of the study, an overwhelming majority (93%) of the respondents reiterated that they always use condom during sex with their clients, while only 7% of them indicated that they do not condom during sex with their clients. This is a clear indication that most of the respondents are aware of the risks involved in this profession as concerns HIV and STIs and thus they take the step of using condom as one of the ways of preventing HIV and STIs.

#### 4.3 Utilization of HIV/STI Comprehensive Health Services by Sex Workers

The main focus of this study is to highlight factors that influence utilization of HIV/STI combination prevention services at facilities set aside to address sex workers health needs.



Accordingly the general objective of this study was to investigate the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya. With this regard the respondents were required to indicate how often they visit HIV/STI comprehensive center for medical services related to their sex work.

**Table 4.12: Regularity of Visiting HIV/STI Comprehensive Center for Medical Services**

<b>Regularity</b>	<b>Frequency</b>	<b>Percent</b>
Never	3	1
Rarely	42	13
Occasionally	187	58
Often	81	25
Always	10	3
<b>Total</b>	<b>323</b>	<b>100</b>

Majority of the respondents (shown by 58%) unanimously recapped that they occasionally visit HIV/STI comprehensive center for medical services related to their sex work, 25% of the respondents often visit HIV/STI comprehensive center for medical services related to their sex work, 13% of them rarely visit HIV/STI comprehensive center for medical services related to their sex work, 3% indicated that they always visit HIV/STI comprehensive center for medical services related to their sex work, while only 1% of the respondents indicated that they never visit HIV/STI comprehensive center for medical services related to their sex work.

The respondents were also required to rate the importance of the various kind of health facilities they use for issues related to STIs, HIV/AIDS and other reproductive health issues.

**Table 4.13: Health Facilities Used for Issues Related to STIs, HIV/AIDS**

<b>Health facilities</b>	<b>Frequency</b>	<b>Percent</b>
Public Health Facility (Government)	13	4
Private Health Facility	74	23
Drop in Service Center (DISCs) run by NGOs	236	73
<b>Total</b>	<b>323</b>	<b>100</b>

From the study, majority of the respondents indicated that their most preferred health facility were Drop in Service Centers (DISCs) run by NGOs as indicated by 73% of them, 23% of the respondents preferred private health facility, while only 4% of them preferred Public Health Facility (Government health facilities).

On the reasons of their choice of most preferred health facilities, majority of the respondents indicated that confidentiality, privacy and non-discrimination by staff were the main reasons for their choice of most preferred health facilities, while others indicated that affordability, distance (proximity) and effective communication were the main reasons for their choice of most preferred health facilities.

On the kind of assistance sought from the most preferred health centers, majority of the respondents rated that they sought access to male/female condoms, lubricants, HIV testing and counseling, STI treatment, family planning methods, post abortal care (PAC), ART/CCC from the private health facilities and DISCs (NGO), while male/female condoms, HIV Testing and Counseling, STI treatment and family planning methods were sought from the government health facilities.

#### 4.4 Social Stigma

In order for the study to achieve its main objective the first specific objective of the study was to investigate the extent to which social stigma influences effective utilization of HIV/STI comprehensive health services by sex workers. In this regard the respondents were required to rate the extent to which various people influence their effective utilization of HIV/STI comprehensive health care services.

**Table 4.14:Extent to which People influence Utilization of Comprehensive Services**

<b>Individuals</b>	<b>No extent</b>	<b>Little extent</b>	<b>Moderate Extent</b>	<b>Great extent</b>	<b>Very great extent</b>	<b>Mean</b>	<b>Std. Dev.</b>
Family Members	18.8	10.4	35.4	35.4	33.3	3.2972	1.6102
Friends/Peers	0	12.5	18.8	43.8	25	3.6828	1.2500
Authorities (Police, City council askaris)	0	8.3	62.5	25	4.2	3.2500	.67566
Health Care providers	2.3	27.1	6.8	41.4	22.6	3.5489	1.17722

From the study, majority of the respondents indicated that friends/peers influence their effective utilization of HIV/STI comprehensive health care services to a great extent as shown by a mean score of 3.6828 and that health care providers influence their effective utilization of HIV/STI comprehensive health care services to a great extent as shown by a mean score of 3.5489, while family members influence their effective utilization of HIV/STI comprehensive health care services to a moderate extent as shown by a mean score of 3.2972 and authorities (police, city council *askaris*) influence their effective utilization of HIV/STI comprehensive health care services to a moderate extent as shown by a mean score of 3.2500.

The study further sought to establish the extent to which being a sex worker affect their ability to access assistance on HIV/AIDS Prevention. Table 4.12 shows the results.

**Table 4.15: Extent to which being a Sex Worker affects Access to HIV/AIDS Prevention**

<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
To a very great extent	19	6
Great extent	68	21
Moderate extent	149	46
Little extent	78	24
No extent	10	3
<b>Total</b>	<b>323</b>	<b>100</b>

From the study, 46% of the respondents rated that which being a sex worker affect their ability to access assistance on HIV/AIDS Prevention to a moderate extent, 24% of them indicated to a little extent, 21% of them indicated to a great extent, another 6% of the respondents indicated to a very great extent, while 3% of the respondents rated that which being a sex worker affect their ability to access assistance on HIV/AIDS Prevention to no extent. These results are further displayed in figure 5.

The study also required the respondents to rate the various factors that mainly affect their ability to access HIV/STI comprehensive health services. Table 4.13 shows the results.

**Table 4.16: Factors that affect Ability to Access HIV/STI Comprehensive Health Services**

<b>Factor</b>	<b>Frequency</b>	<b>Percent</b>
Lack of confidence due to nature of work	39	12
Fear of exposure to the public as a sex worker	187	58
Negative attitudes held by healthcare providers	97	30
<b>Total</b>	<b>323</b>	<b>100</b>

Majority of the respondents, shown by 58% of the population interviewed, indicated that fear of exposure to the public as a sex worker is the factor that mainly affect their ability to access HIV/STI comprehensive health services, 30% of them indicated that negative attitudes held by healthcare providers is the factor that mainly affect their ability to access HIV/STI comprehensive health services, while 12% of the respondents indicated that lack of confidence due to nature of work affect their ability to access HIV/STI comprehensive health services.

#### **4.5 Awareness of Comprehensive HIV/STI Services**

The second objective of the study was to explore the relationship between awareness of comprehensive HIV/STI services and utilization of service by sex workers. As such the respondents were required to rate the level of awareness of availability of comprehensive HIV/STI services for sex workers in Nairobi.

**Table 4.17: Level of Awareness of Availability of Comprehensive Services for Sex Workers**

<b>Level of Awareness</b>	<b>Frequency</b>	<b>Percent</b>
None (They don't know at all)	39	12
Very little awareness	110	34
Moderate awareness	155	48
High awareness	19	6
<b>Total</b>	<b>323</b>	<b>100</b>

According to the study, 48% of the respondents indicated that there is a moderate level of awareness of availability of comprehensive HIV/STI services for sex workers in Nairobi, 34% of them rated the level to be very little, 12% of the respondents rated that the sex workers don't know at all the availability of comprehensive HIV/STI services for sex workers in Nairobi, while

6% of them indicated that there is a high level of awareness on the availability of comprehensive HIV/STI services for sex workers in Nairobi.

The study also sought to establish the extent to which their awareness of comprehensive HIV/STI services affects their utilization of service. The results are as depicted in table 4.15.

**Table 4.18: Extent to which Level of Awareness Affects their Utilization of Service**

<b>Extent</b>	<b>Frequency</b>	<b>Percent</b>
To a very great extent	3	1
To a great extent	194	60
To a moderate extent	58	18
To a little extent	68	21
<b>Total</b>	<b>323</b>	<b>100</b>

From the study, 60% of the respondents indicated that their awareness of comprehensive HIV/STI services affects their utilization of service to a great extent, 21% of the respondents indicated that their awareness of comprehensive HIV/STI services affects their utilization of service to a little extent, 18% of the respondents indicated to a moderate extent, while 1% of the respondents indicated that their awareness of comprehensive HIV/STI services affects their utilization of service to a very great extent.

The study sought to establish the respondents' level of agreement with the statement that the widening awareness and commitment of governments, donors, and NGOs to fight the HIV/AIDS has created an opportunity to overcome barriers that keep vulnerable groups isolated.

**Table 4.19: Commitment of Various Stakeholders Has Overcome Barriers**

<b>Agreement</b>	<b>Frequency</b>	<b>Percent</b>
Strongly agree	6	2
Agree	165	51
Neutral	130	40.2
Disagree	22	6.9
Total	323	100

From the study, 51% of the respondents agreed that the widening awareness and commitment of governments, donors, and NGOs to fight the HIV/AIDS has created an opportunity to overcome barriers that keep vulnerable groups isolated, 40.2% of the respondents were neutral that the widening awareness and commitment of governments, donors, and NGOs to fight the HIV/AIDS has created an opportunity to overcome barriers that keep vulnerable groups isolated, 6.9% of the respondents disagreed that the widening awareness and commitment of governments, donors, and NGOs to fight the HIV/AIDS has created an opportunity to overcome barriers that keep vulnerable groups isolated, while 2.0% of the respondents strongly agreed that the widening awareness and commitment of governments, donors, and NGOs to fight the HIV/AIDS has created an opportunity to overcome barriers that keep vulnerable groups isolated.

The respondents were required to indicate the various HIV/STI services they are aware of that target sex workers. Table 4.7 shows the results.

**Table 4.20: Respondents Awareness of Various HIV/STI Services that Target Sex Workers**

<b>Services</b>	<b>Frequency</b>	<b>Percent</b>
HIV counseling and testing	252	78
Correct and consistent Condom use	216	67
ARV/CCC/PEP	268	83
Hygiene (lubricators and douching)	174	54
Post Abortal Care (PAC)	145	45
STI Treatment	284	88
FP Methods	258	80

From the study, 83% of the respondents indicated that they were aware of ARV/CCC/PEP that target sex workers, 67% indicated correct and consistent condom use, 80% of the respondents indicated family planning methods, 78% of them were aware that there are HIV counseling and testing that target sex workers, 54% of the respondents were aware that there exist hygiene (lubricators and douching), 45% indicated awareness of post abortal care (PAC), while 88% of the respondents indicated that they were aware of STI Treatment that target sex workers.

#### **4.6 Type of Sex Work**

The third objective of the study was to assess if the type of sex work affects effective utilization of HIV/STI comprehensive health services by sex workers. Accordingly the respondents were

required to indicate the extent to which the type of sex work affects their utilization of HIV/STI comprehensive health services.

**Table 4.21: Extent to which Type of Sex Work affects Utilization of HIV/STI Services**

Type of Sex Work	No extent	Little extent	Moderate extent	Large extent	Very large extent	Mean	Std dev
Brothel Based	12.5	12.5	18.8	18.8	37.5	3.3750	1.2041
Street Based	6.3	18.8	25	43.8	6.3	2.7500	1.1254
Bar Based	10.4	29.2	6.3	39.6	14.6	3.1870	1.2990

Majority of the respondents indicated that bar based sex work affects their utilization of HIV/STI comprehensive health services to a moderate extent as shown by a mean score of 3.1870, brothel based sex work affects their utilization of HIV/STI comprehensive health services to a moderate extent as shown by a mean score of 3.3750 and street based sex work affects their utilization of HIV/STI comprehensive health services to a moderate extent as shown by a mean score of 2.7500.

The respondents were further requested to indicate the extent to which the type of sex work puts one at higher risk of HIV/STI infection. Table 4.19 shows the results.

**Table 4.229: Extent to which Type of Sex Work Puts One at Risk of HIV/STI Infection**

Type of Sex work	No extent	Little extent	Moderate Extent	Great extent	Very great extent	Mean	Std. Dev.
Brothel Based	27.1	37.5	6.3	14.6	14.6	3.7701	1.1842
Street Based	2.1	16.7	10.4	60.4	8.3	3.6252	1.0026
Bar Based	2.3	27.1	6.8	41.4	22.6	3.5489	1.17722

Majority of the respondents indicated that brothel based sex work puts one at higher risk of HIV/STI infection to a great extent as shown by a mean score of 3.7701, street based sex work puts one at higher risk of HIV/STI infection to a great extent as shown by a mean score of 3.6252

and bar based sex work puts one at higher risk of HIV/STI infection to a great extent as shown by a mean score of 3.5489.

The study also sought to establish the extent to which the respondents access information or services from HIV/STI comprehensive health care centers.

**Table 4.230: Extent of Accessing Information from HIV/STI Comprehensive Centers**

<b>Type of sex work</b>	<b>No extent</b>	<b>Little extent</b>	<b>Moderate Extent</b>	<b>Great extent</b>	<b>Very great extent</b>	<b>Mean</b>	<b>Std. Dev.</b>
Brothel Based	2.3	27.1	6.8	41.4	22.6	3.5489	1.17722
Street Based	4.2	16.7	37.5	37.5	4.2	3.2083	.93153
Bar Based	6.3	12.5	18.8	31.3	31.3	3.6875	1.2500

From the study, majority of the respondents indicated that bar based access information or services from HIV/STI comprehensive health care centers to a great extent as shown by a mean score of 3.6875 as well as brothel based as shown by a mean score of 3.5489, while street based access information or services from HIV/STI comprehensive health care centers to a moderate extent as shown by a mean score of 3.2083.

#### **4.7 Distance of HIV/STI Comprehensive Health Centers**

Distance of HIV/STI comprehensive health centers affects the utilization of health services by sex workers. As such the fourth objective of the study was to establish the relationship between distance of HIV/STI comprehensive health centers and utilization of health services by sex workers. In this regard the respondents were required to rate the distance of the nearest comprehensive health center where health services can be sought by sex workers.



**Table 4.241: Distance of Nearest Comprehensive Center where Health Services are Sought**

<b>Proximity of the comprehensive health center</b>	<b>Frequency</b>	<b>Percent</b>
Just next door	10	3
Fairy near (A few minutes' walk)	81	25
Average distance (A distance that I can walk)	178	55
Far from here (Far but possible to walk or take a vehicle)	39	12
Very far (I can no walk but I only take a vehicle)	16	5
<b>Total</b>	<b>323</b>	<b>100</b>

From the study, an overwhelming majority (55%) of the respondents reiterated that the distance of the nearest comprehensive health center where health services can be sought by sex workers is average distance (a distance where one can walk), 25% of them indicated the comprehensive health center where health services can be sought by sex workers is fairy near (a few minutes' walk), 12% of the respondents recapped that the comprehensive health center where health services can be sought by sex workers is far but distance possible to walk or take a vehicle, 5% of them indicated that the comprehensive health center is very far where one can't walk but only take a vehicle, while 3% of them indicated that the comprehensive health center where health services can be sought by sex workers is just next door.

The study further sought to ascertain the extent to which distance of comprehensive health centers influences the respondents' utilization of health services. Table 4.22 shows the results.

**Table 4.252: Extent to which Distance of Centers influence Utilization of Services**

<b>Extent</b>	<b>Frequency</b>	<b>Percent</b>
To a very great extent	47	14.7
To a great extent	184	56.9
To a moderate extent	92	28.4
<b>Total</b>	<b>323</b>	<b>100.0</b>

From the findings, 56.9% of the respondents indicated that distance of comprehensive health centers influences the utilization of health services to a great extent, 28.4% of the respondents indicated that that distance of comprehensive health centers influences the utilization of health services to a moderate extent, while 14.7% of the respondents indicated that distance of

comprehensive health centers influences the utilization of health services to a very great extent. On whether there are mobile health facilities which bring services directly for sex workers to access their health services, all the respondents unanimously reiterated that indeed there are mobile health facilities which bring services directly for you to access their health services.

The respondents were required to indicate the extent to which various aspects affect the ability to utilize the comprehensive health services in the nearest comprehensive health center.

**Table 4.263: Aspects that affect the Ability to Utilize Comprehensive Health Services**

<b>Health services</b>	<b>No extent</b>	<b>Little extent</b>	<b>Moderate Extent</b>	<b>Great extent</b>	<b>Very great extent</b>	<b>Mean</b>	<b>Std. Dev.</b>
Availability of health facilities (Laboratories, drugs, condoms)	0	0	54.2	41.7	4.2	3.5000	0.5897
The way services are organized	0	8.3	62.5	25	4.2	3.2500	0.6756
Perceived quality	0	16.7	54.2	29.2	0	3.1250	0.6796
HIV/STI services designed for sex workers	2.3	27.1	6.8	41.4	22.6	3.5489	1.1772

According to Table 4.23, majority of the respondents recalled that HIV/STI services designed for sex workers affects the ability to utilize the comprehensive health services in the nearest comprehensive health center to a great extent as shown by a mean score of 3.5489 as well as availability of health facilities (laboratories, drugs, condoms) shown by a mean score of 3.5000, while the way services are organized and perceived quality affects the ability to utilize the comprehensive health services in the nearest comprehensive health center to great extents as shown by means score of 3.2500 and 3.1250.

#### **4.8 Correlation Analysis on Factors Influencing Utilization of Comprehensive Services**

To quantify the strength of the relationship between the variables, the researcher used Karl Pearson’s coefficient of correlation. The researcher used the Karl Pearson’s coefficient of correlation (r) to study the correlation between the study variables and the findings as in the table 4.24 below.

**Table 4.274: Coefficient of Correlation of Factors affecting Use of Comprehensive Services**

	Utilization of HIV/STI comprehensive health services	Social stigma	Awareness of comprehensive HIV/STI services	Type of sex work	Distance of HIV/STI comprehensive health centers
<b>Utilization of HIV/STI comprehensive health services</b>	1	-.159	.129	.294	-.483
<b>Sig. (p-Values)</b>		.365	.435	.063	.103
<b>Social stigma</b>	-.159	1	.097	.362	.461
<b>Sig. (p-Values)</b>	.365		.461	.004	0.097
<b>Awareness of comprehensive HIV/STI services</b>	.129	.097	1	.213	.213
<b>Sig. (p-Values)</b>	.435	.461		.102	.102
<b>Type of sex work</b>	.294	.362	.213	1	.123
<b>Sig. (p-Values)</b>	.063	.004	.102		.335
<b>Distance of HIV/STI comprehensive health centers</b>	-.483	.461	.213	.335	1
<b>Sig. (p-Values)</b>	.103	0.097	.102	.009	

From the findings, there was a positive correlation between utilization of HIV/STI comprehensive health services and distance of HIV/STI comprehensive health centers as shown by a correlation figure of 0.483, it was also clear that there was a negative correlation between the utilization of HIV/STI comprehensive health services and type of sex work with a correlation figure of 0.294, it was also clear that there was also a positive correlation between social stigma and utilization of HIV/STI comprehensive health services with a correlation value of 0.159 and a positive correlation between utilization of HIV/STI comprehensive health services and awareness of comprehensive HIV/STI services with a value of 0.129. This shows that there was positive correlation between utilization of HIV/STI comprehensive health services and awareness of comprehensive HIV/STI services and type of sex work, while there was a negative correlation between utilization of HIV/STI comprehensive health services and social stigma and distance of HIV/STI comprehensive health centers.

## **CHAPTER FIVE**

### **SUMMARY OF THE FINDINGS, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This is the final chapter in this study which gives the summary of the findings, the discussion, conclusions, recommendations of the study based on the objective of the study and suggestions for further research. It comes after identifying the background, problem at hand and the objectives in chapter one, literature review was done in chapter two, chapter three set out the methodology that the study used to collect data and chapter four analyzed the data obtained from the study. The chapter finally presents the suggestions for further studies.

#### **5.2 Summary of the Findings**

The summary of findings provides highlights of what the study sought to investigate; the extent to which social stigma influences effective utilization of HIV/STI comprehensive health services by sex workers; to explore the relationship between awareness of comprehensive HIV/STI services and utilization of service by sex workers, to assess type of sex work and how it affects effective utilization of HIV/STI comprehensive health services by sex workers and to establish the relationship between distance of HIV/STI comprehensive health centers and utilization of health services by sex workers.

##### **5.2.1 Background Information**

This study found that majority of the respondents are actively involved in the sex work and their exposure to the risk is high since majority of them serve a large number of clients and 72% of the respondents indicated that they have regular partner(s) (like boyfriend, spouse or lover). In addition, 93% of the respondents indicated that they always use condom during sex with their clients and 58% of them indicated that they occasionally visit HIV/STI comprehensive center for medical services related to their sex work; 73% of them indicated that their most preferred health facility were Drop in Service Centers (DISCs) run by NGOs, 23% of the respondents preferred private health facility, while only 4% of them preferred Public Health Facility (Government health facilities).

### **5.2.2 Social Stigma**

With regard to social stigma, the study found that the situation of being a sex worker affect the ability to access assistance on HIV/AIDS Prevention to a moderate extent as indicated by 46% of the respondents. The study further found that friends/peers and health care providers influence their effective utilization of HIV/STI comprehensive health care services to a great extent as shown by a mean score of 3.6828 and 3.5489 respectively, family members influence their effective utilization of HIV/STI comprehensive health care services to a moderate extent as shown by a mean score of 3.2972 and authorities (police, city council askaris) influence their effective utilization of HIV/STI comprehensive health care services to a moderate extent as shown by a mean score of 3.2500. In addition, 58% of the respondents indicated that fear of exposure to the public as a sex worker is the factor that mainly affect their ability to access HIV/STI comprehensive health services, 30% of them indicated that negative attitudes held by healthcare providers is the factor that mainly affect their ability to access HIV/STI comprehensive health services, while 12% of the respondents indicated that lack of confidence due to nature of work affect their ability to access HIV/STI comprehensive health services.

### **5.2.3 Awareness of comprehensive HIV/STI services**

The study also found that awareness of comprehensive HIV/STI services affects their utilization of service to a great extent as indicated by 60% of the respondents. There is a moderate level of awareness of availability of comprehensive HIV/STI services for sex workers in Nairobi according to 48% of the respondents. 51% of the respondents agreed that the widening awareness and commitment of governments, donors, and NGOs to fight the HIV/AIDS has created an opportunity to overcome barriers that keep vulnerable groups isolated, 83% of the respondents indicated that they were aware of ARV/CCC/PEP that target sex workers, 67% indicated correct and consistent condom use, 80% of the respondents indicated family planning methods, 78% of them were aware that there are HIV counseling and testing that target sex workers, 54% of the respondents were aware that there exist hygiene (lubricators and douching), 45% indicated awareness of post abortal care (PAC),while 88% of the respondents indicated that they were aware of STI Treatment that target sex workers.

#### **5.2.4 Type of Sex Work**

On type of sex work the study established that bar based sex work, brothel based sex work and street based sex work affects their utilization of HIV/STI comprehensive health services to moderate extents as shown by mean score of 3.1870, 3.3750 and 2.7500 respectively. In addition, majority of the respondents indicated that brothel based sex work puts one at higher risk of HIV/STI infection to a great extent as shown by a mean score of 3.7701, street based sex work puts one at higher risk of HIV/STI infection to a great extent as shown by a mean score of 3.6252 and bar based sex work puts one at higher risk of HIV/STI infection to a great extent as shown by a mean score of 3.5489. Majority of the respondents indicated that bar based sex workers access information or services from HIV/STI comprehensive health care centers to a great extent as shown by a mean score of 3.6875 as well as brothel based as shown by a mean score of 3.5489, while street based access information or services from HIV/STI comprehensive health care centers to a moderate extent as shown by a mean score of 3.2083.

#### **5.2.5 Distance of HIV/STI Comprehensive Health Centres**

The study finally found that the distance of the nearest comprehensive health center where health services can be sought by sex workers is average distance (a distance where one can walk) as indicated by 55% of the respondents. Distance of comprehensive health centers influences the utilization of health services to a great extent according to 56.9% of the respondents. HIV/STI services designed for sex workers affects the ability to utilize the comprehensive health services in the nearest comprehensive health center to a great extent as shown by a mean score of 3.5489 as well as availability of health facilities (laboratories, drugs, condoms) shown by a mean score of 3.5000, while the way services are organized and perceived quality affects the ability to utilize the comprehensive health services in the nearest comprehensive health center to great extents as shown by means score of 3.2500 and 3.1250.

From the correlation analysis, there was positive correlation between utilization of HIV/STI comprehensive health services and awareness of comprehensive HIV/STI services and type of sex work, while there was a negative correlation between utilization of HIV/STI comprehensive health services and social stigma and distance of HIV/STI comprehensive health centers.

### **5.3 Conclusion**

The study concludes that sex workers are aware of the risks involved in this profession as concerns HIV and STIs and thus they take the step of using condom as one of the ways of preventing HIV and STIs. It was ascertained that confidentiality, privacy, non-discrimination by staff, affordability, distance (proximity) and effective communication are the main reasons for their choice of most preferred health facilities. Further, access to male/female condoms, lubricants, HIV testing and counseling, STI treatment, family planning methods, post abortal care (PAC), ART/CCC from the private health facilities and DISCs (NGO) are the kinds of assistance sought from the most preferred health centers, while from the government health facilities male/female condoms, HIV Testing and Counseling, STI treatment and family planning methods are sought.

On social stigma, the study also concludes that the situation of being a sex worker affect the ability to access assistance on HIV/AIDS Prevention. The various factors that influence the effective utilization of HIV/STI comprehensive health care services include friends/peers, health care providers, family members and authorities (police, city council askaris). The study made it clear that fear of exposure to the public as a sex worker is the factor that mainly affects their ability to access HIV/STI comprehensive health services. Other factors include negative attitudes held by healthcare providers and lack of confidence due to nature of work.

The study also concludes that awareness of comprehensive HIV/STI services affects their utilization of service. There is a low level of awareness of availability of comprehensive HIV/STI services for sex workers in Nairobi. From the findings it is clear that the widening awareness and commitment of governments, donors, and NGOs to fight the HIV/AIDS has created an opportunity to overcome barriers that keep vulnerable groups isolated. The study deduces that sex workers are aware of ARV/CCC/PEP that target sex workers, correct and consistent condom use, family planning methods, availability of HIV counseling and testing that target sex workers, existence of hygiene (lubricators and douching), 45% indicated awareness of post abortal care (PAC) and aware of STI Treatment that target sex workers.

The study also deduces that type of sex work affects utilization of HIV/STI comprehensive health services among sex workers. On this, bar based sex work, brothel based sex work and street based sex work have an influence. Brothel based sex work puts one at higher risk of

HIV/STI infection as compared to street based and bar based sex work. The study ascertained that bar based sex workers are better placed to access information or services from HIV/STI comprehensive health care centers than their brothel based and street based counterparts.

The study finally deduces that distance of comprehensive health centers influences the utilization of health services. As such comprehensive health centers where health services can be sought by sex workers are strategically located to enhance utilization of HIV/STIs health services among sex workers. HIV/STI services designed for sex workers affects the ability to utilize the comprehensive health services in the nearest comprehensive health center as well as availability of health facilities (laboratories, drugs, condoms), the way services are organized and perceived quality.

#### **5.4 Recommendations**

After successful completion of the study, the researcher makes the following recommendations that would influence policy and programming:-

1. HIV/STI combination prevention interventions for Sex Workers - The study thus recommends that for appropriate programming, possible and appropriate sustained interventions that combine behavioural, biomedical and structural is needed to close the tap on new infections among these population.
2. Meaningful dialogue between policy makers and sex workers - Engaging key policy makers to negotiate for policy changes that also reflect on the needs of sex workers is key. The study recommends that interventions designed to prevent HIV infection among sex workers must take into account the context in which sex workers operate, which include unfavorable policy environment. This would also put into consideration the engagement of sex workers in policy and programme development and implementation as part of the overall empowerment-building process and for greater programme effectiveness.



### **5.5 Suggestions for Further Research**

This study has investigated the factors influencing effective utilization of HIV/STI comprehensive health services by sex workers in Nairobi, Kenya and has identified social stigma, awareness of comprehensive health services, type of sex work and distance of HIV/STI comprehensive health centres as being the major factors. There are other different areas across the country where sex work is highly practiced and other factors that would influence effective utilization of HIV/STI comprehensive health services by sex workers. To this end, therefore, a further study should be carried out to establish other factors affecting effective utilization of HIV/STI comprehensive health services by sex workers in Kenya.

## REFERENCES

- ActionAid (2009) *The Sound of Silence: Difficulties in Communicating on HIV/AIDS in Schools. London: ActionAid Alliance.*
- Adamchak S, Reynolds H, Janowitz B, Grey T, Keyes E, FP and HIV/AIDS Integration: Findings from 5 Countries, World Bank Strengthening HIV/AIDS and SRH Linkages BBL Presentation on November 19, 2008, FHI/USAID, 2008.
- Carrl-Hill, R(2002). *The Impact of HIV/AIDS on Education and Institutionalizing Preventive Education. Paris: International Institute of Education/UNESCO.*
- Cates W, (2008) SRH/HIV Linkages: What's the Rationale? World Bank Strengthening HIV/AIDS and SRH Link-ages BBL Presentation on November 19, 2008, FHI/USAID.
- D'Costa LJ, Plummer FA, Bowmer I, (1985) Prostitutes are a major reservoir of sexually transmitted diseases in Nairobi, Kenya. *Sexually Transmitted Diseases*;12:64–67.
- D'Cruz-Grote, D (1996). Prevention of HIV infection in developing countries". *Lancet* 1996, 348: 1071-1074.
- David, M (1997). *Gender Relations and AIDS. Sainte-Foy, Canada : Centre de CoopérationInternationale en Santé et Développement (CCISD).*
- Day, S (2000). *The politics of risk among London prostitutes. In: Caplan, P (ed.). Risk Revisited. London: Pluto Press.*
- DeCarlo, P, P Alexander and H Hsu (1996). *What are sex workers' HIV prevention needs? San Francisco: Center for AIDS Prevention Studies, University of California at San Francisco.*
- Gathinji HW, Bwayo J, Karuga PM, (1993). *The socio-economic status of prostitutes at a truck drivers' stop and their interaction with male clients. International Conference on AIDS. 6–11 June 1993.*
- Government of Kenya (2003): *Kenya Health Demographic Survey.*

- Hanan, A (2009) HIV/AIDS Prevention Campaign: A Critical Analysis. *Canadian Journal of Media Studies*. Vol 5 (1).
- Harcourt, C. & Donovan, B. (2005). The many faces of sex work. *Sexually Transmitted Infections*, 81, 201-206 different for women? Takoma Park, Maryland (USA): Center for Health and Gender Equity.
- Hawken MP, Melis RD, Ngombo DT, (2002). Part time female sex workers in a suburban community in Kenya: a vulnerable hidden population. *Sexually Transmitted Infections* 2002;78:271-73.
- International Centre for Research Women (2008) *Can we Measure HIV/AIDS-Related Stigma and Discrimination? Current Knowledge About Quantifying Stigma in Developing Countries, Paper No 4*. USAID January 2008, New York.
- Kennedy C. (2008) Linking Sexual & Reproductive Health and HIV: Evidence Review and Recommendations, World Bank Strengthening HIV/AIDS and SRH Linkages BBL Presentation on November 19, 2008, The Cochrane/WHO/IPPF/UNFPA.
- Kenya National Bureau of Statistics and ICF Macro (2010) *Kenya Demographic and Health Survey 2008 – 2009*. Calverton, Maryland: KNBS and ICF Macro.
- Kenya National AIDS Control Council - *Kenya Analysis of HIV Prevention Response and Modes of HIV Transmission Study (2008)*
- Kiai, W. (2009) An Analysis of the Planning and Implementation of HIV and AIDS Communication Interventions. Unpublished PhD Thesis, University of Nairobi.
- Leonard, L, I Ndiaye, A Kapadia, G Eisen, O Diop, S Mboup and P Kanki (2000). HIV Prevention among Male Clients of Female Sex Workers in Kaolack, Senegal: Results of a peer education program. *AIDS Education and Prevention* 12(1): 21-37.
- Mallory C, Gabrielson M (2005) Preventing HIV infection among women who trade sex. *Clin Excell Nurse Pract*;9:17-22.

- Maticka-Tyndale E, Lewis J, Clark JP, Zubick J, Young S; (1990) Social and cultural vulnerability to sexually transmitted infections: the work of exotic dancers. *Can J Public Health*;90:19-23. MedlineWeb of Science
- McKeganey NP. (1994) Prostitution and HIV: What do we know and where might research be targeted in the future? *AIDS*; 8:1215-1226.
- Morris M, Podhisita C, Wawer MJ, Handcock MS. (1996) Bridge populations in the spread of HIV/AIDS in Thailand. *AIDS*;10:1265-1271.
- National AIDS Control Council (2000). Kenya National HIV/AIDS Strategic Plan 2000–2005. Nairobi: NACC.
- Plummer FA, Nagelkerke NJ, Moses S, (1991). The importance of core groups in the epidemiology and control of HIV-1 infection. *AIDS* 1991; 5:S169-S176.
- Population Council. (2008) Women living with HIV have unmet family planning needs. FRONTIERS Operations Research Summary, No 75.
- Ronald A, Plummer F, Ngugi E, (2000) The Nairobi STD program. An international partnership. *Infectious Disease Clinic of North America*;5:337–52.
- Sepkowitz KA (2001). AIDS—the first 20 years. *N. Engl. J. Med.*344 (23): 1764–72.
- Stirling B. (2003) Cost-effectiveness analysis of three HIV prevention interventions in Kenya: a mathematical modeling approach. PhD thesis. Toronto: University of Manitoba.
- UNAIDS (1999). Summary Booklet of Best Practices. Geneva: Joint United Nations Programme on HIV/ AIDS.
- UNAIDS (2000). Innovative Approaches to HIV Prevention: Selected case studies. Geneva: Joint United Nations Programme on HIV/AIDS.
- UNAIDS (2002) Technical Update on Sex Work and HIV/AIDS. UNAIDS Gender and AIDS Resource Packet.

Veinot, T.C. (2009), Interactive acquisition and sharing: understanding the dynamics of HIV/AIDS information networks, *Journal of the American Society for Information Science and Technology*, Vol. 60 No. 11, pp. 2313-32.

Wilson D, Sibanda B, Mboyi L, (1990).A pilot study for an HIV prevention programme among commercial sex workers in Bulawayo, Zimbabwe. *Soc Sci Med*;31(5):609-618.

World Bank (2004) *Crafting Institutional Responses to HIV/AIDS: Guidelines and Resources for Tertiary Institutions in Sub-Saharan Africa*. Washington: World Bank.

World Bank. (1997) *Confronting AIDS: Public Priorities in a Global Epidemic*. Oxford: Oxford University Press.

## APPENDICES

### Appendix I: Letter of Transmittal

I am an MA student at the University of Nairobi and in my final year of study. As part of the requirement for the award of the degree of Master of Arts in Project Planning and Management, I'm undertaking a research on **FACTORS INFLUENCING EFFECTIVE UTILIZATION OF HIV/STI COMPREHENSIVE HEALTH SERVICES BY SEX WORKERS IN NAIROBI.**

In this regard, I'm kindly requesting for your support in terms of time, and by responding to the attached questionnaire. Your accuracy and candid response will be critical in ensuring objective research.

It will not be necessary to write your name on this questionnaire and for your comfort, all information received will be treated in strict confidence. In addition, the findings of the study will surely be used for academic research purposes and to enhance knowledge in the field of conflict resolution.

Thank you for your valuable time on this.

Yours faithfully

Ruth NjambiKimani.

MA-PPM Student

University of Nairobi (UON)

**Appendix II: Questionnaire**

**FACTORS INFLUENCING EFFECTIVE UTILIZATION OF HIV/STI COMPREHENSIVE HEALTH SERVICES BY SEX WORKERS IN NAIROBI**

This questionnaire consists of two major parts; Part A on general information and Part B on factors influencing effective utilization of HIV/STI comprehensive health services by sex workers. Kindly answer all the questions to the best of your ability. Indicate with a tick or filling in the space(s) provided.

**PART A: GENERAL INFORMATION**

1. Which is your gender? (Tick whichever appropriate)
 

Male	[ ]	Female	[ ]
------	-----	--------	-----
  
2. Your age bracket (Tick whichever appropriate)
 

10 – 14 Years	[ ]	15 - 19 Years	[ ]	20 - 24 years	[ ]
25 – 29 years	[ ]	30 – 34 years	[ ]	35 – 39 years	[ ]
Over 40 years	[ ]				
  
3. How long have you been engaging into sex worke?
 

1-5 yrs	[ ]	6-10 yrs	[ ]
11-15	[ ]	Over 16 yrs	[ ]
  
4. What is your highest academic qualification?
 

Certificate (KCPE, KCSE)	[ ]	Diploma	[ ]
Bachelor’s degree	[ ]	Post graduate	[ ]
Others (Specify.....) [ ]			
  
5. On average, what is the number of casual clients per day?
 

Less than 3 clients	[ ]	4-6 clients	[ ]
7- 9 clients	[ ]	10-12 clients	[ ]
Over 13 clients	[ ]		
  
6. Do you have a regular partner(s) (boyfriend, husband or lover)
 

Yes	[ ]	No	[ ]
-----	-----	----	-----
  
7. Do you use a condom during sex with your clients?
 

Yes (Always)	[ ]	Yes (Sometimes)	[ ]	No (Never used)	[ ]
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**PART B: FACTORS INFLUENCING EFFECTIVE UTILIZATION OF HIV/STI COMPREHENSIVE HEALTH SERVICES BY SEX WORKERS**

8. How often do you visit HIV/STI comprehensive center for medical services related to your sex work?

Never	Rarely	Occasionally	Often	Always

9. What kind of Health Facility did you use for issues related to STIs, HIV/AIDS and other reproductive health issues? *(Indicate in order of most to least preferred)*

<b>Nature of Facility</b>	<b>1 – Most Preferred</b> <b>3 – Least Preferred</b>
Public Health Facility (Government)	
Private Health Facility	
Drop in Service Center (DISCs) run by NGOs	
Other (Specify)_____	

- b) What is the reason of your choice of most preferred facility?

<b>Reason</b>	<b>In order of main reason (1 – Important)</b>
Affordability	
Distance (Proximity)	
Non-Discrimination by staff	
Effective communication	
Confidentiality	
Privacy	
Other_____	

10. What kind of assistance was sought from the health centers identified in question 9 above? (Check all that apply)

<b>Services</b>	<b>GoK Facility</b>	<b>Private Facility</b>	<b>DISCs (NGO)</b>	<b>Others</b>
<b>Access to male/female condoms</b>				
<b>Lubricants</b>				
<b>HIV Testing and Counseling</b>				
<b>STI treatment</b>				
<b>FP Methods</b>				
<b>Post Abortal Care (PAC)</b>				
<b>ART/CCC</b>				
<b>Others_____</b>				

### **SOCIAL STIGMA**

11. To what extent do the following people influence your effective utilization of HIV/STI comprehensive health care services?

<b>Individuals</b>	<b>To a very great extent</b>	<b>To a great extent</b>	<b>To a moderate extent</b>	<b>To a little extent</b>	<b>To no extent</b>



Family Members					
Friends/Peers					
Authorities (Police, City council askaris)					
Health Care providers					
Others (Specify)_____					

12. To what extent does being a sex worker affect your ability to access assistance on HIV/AIDS Prevention?

To a very great extent	To a great extent	To a moderate extent	To a little extent	To no extent

13. Which of the following factors, in order of strength, manly affect your ability to access HIV/STI comprehensive health services? **(1-Strong, 3-Least)**

- Lack of confidence due to nature of work (SW) [ ]
- Fear of exposure to the public as a sex worker [ ]
- Negative attitudes held by healthcare providers [ ]
- Others (Specify.....) [ ]

14. Give any other issue on stigma that affects your effective utilization of HIV/STI comprehensive health services?

.....  
 .....

**AWARENESS OF COMPREHENSIVE HIV/STI SERVICES**

15. How would you rate the level of awareness of availability of comprehensive HIV/STI services for sex workers in Nairobi?

None (They don't know at all)	Very little awareness	Moderate awareness	High awareness	Very high awareness

16. To what extent does your awareness of comprehensive HIV/STI services affect your utilization of service?

To a very great extent	To a great extent	To a moderate extent	To a little extent	To no extent

17. The widening awareness and commitment of governments, donors, and NGOs to fight the HIV/AIDS has created an opportunity to overcome barriers that keep vulnerable groups isolated. Do you agree with this statement?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

18. Which of the following HIV/STI services are you aware of that target sex workers?

Services	Tick where appropriate
HIV counseling and testing	
Correct and consistent Condom use	
ARV/CCC/PEP	
Hygiene (lubricators and douching)	
Post Abortal Care (PAC)	
STI Treatment	
FP Methods	
Others (specify.....)	

19. What other information would you like to share about awareness as a factor that influence the utilization of HIV/STI comprehensive health services?

.....  
 .....

**TYPE OF SEX WORK**

20. To what extent does the type of sex work affect your utilization of HIV/STI comprehensive health services?

Type of Sex Work	To a very great extent	To a great extent	To a moderate extent	To a little extent	To no extent
Brothel Based					
Street Based					
Bar Based					

21. To what extent does the type of sex work put one at higher risk of HIV/STI infection? Use a scale of 1 to 5 where 1= no extent, 2= little extent, 3= moderate extent, 4= great extent and 5 is to a very great extent.

Type of Sex work	1	2	3	4	5
Brothel Based					
Street Based					
Bar Based					
Others (specify.....)					

22. To what extent do you access information or services from HIV/STI comprehensive health care centers?

Type of sex work	To a very great extent	To a great extent	To a moderate extent	To a little extent	To no extent
Brothel Based					
Street Based					
Bar Based					

23. Give any other information on how the type of sex work influences your effective utilization of HIV/STI comprehensive health services?  
 .....

**DISTANCE OF HIV/STI COMPREHENSIVE HEALTH CENTERS**

24. How would you rate the distance of the nearest comprehensive health center where health services can be sought by sex workers?

- Just next door [ ]
- Fairy near (A few minutes' walk) [ ]
- Average distance (A distance that I can walk) [ ]
- Far from here (Far but possible to walk or take a vehicle) [ ]
- Very far (I can no walk but I only take a vehicle) [ ]

25. To what extent does distance of comprehensive health centers influence your utilization of health services?

To a very great extent	To a great extent	To a moderate extent	To a little extent	To no extent

26. Are there mobile health facilities which bring services directly for you to access their health services?

- Yes [ ] No [ ] I don't know [ ]

27. To what extent do the following aspects affect your ability to utilize the comprehensive health services in the nearest comprehensive health center? Use a scale of 1 to 5 where 1= no extent, 2= little extent, 3= moderate extent, 4= great extent and 5 is to a very great extent.

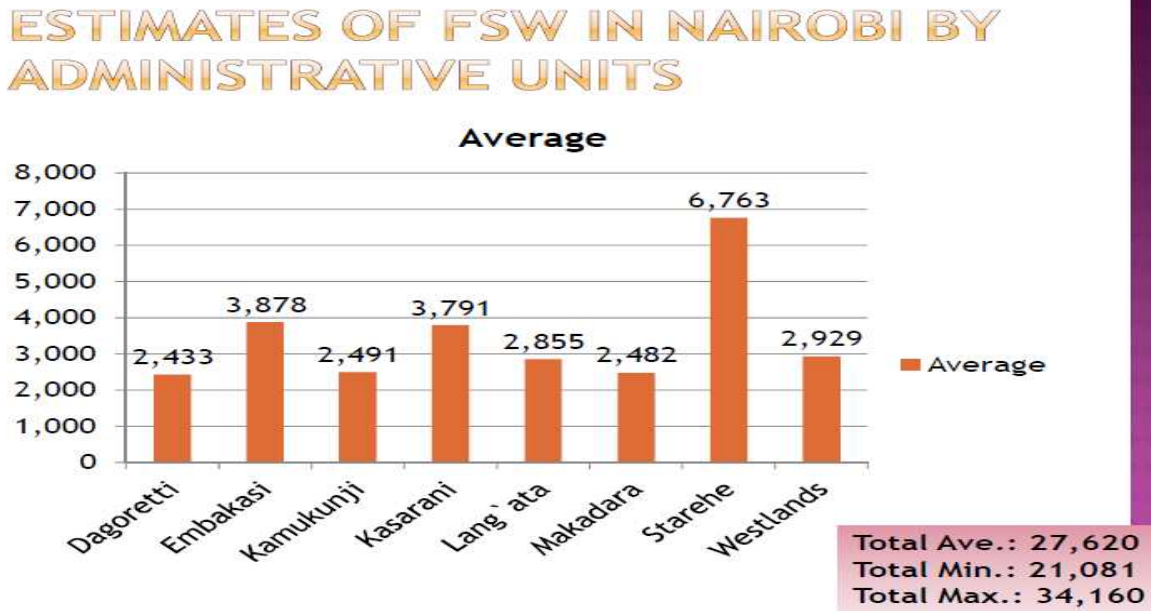
Health services	1	2	3	4	5
Availability of health facilities (Laboratories, drugs, condoms)					
The way services are organized					
Perceived quality					
HIV/STI services designed for sex workers					
Others (specify.....)					

28. What suggestions would you make to enhance utilization of comprehensive health services among sex workers?  
 .....  
 .....

**THANK YOU!!**

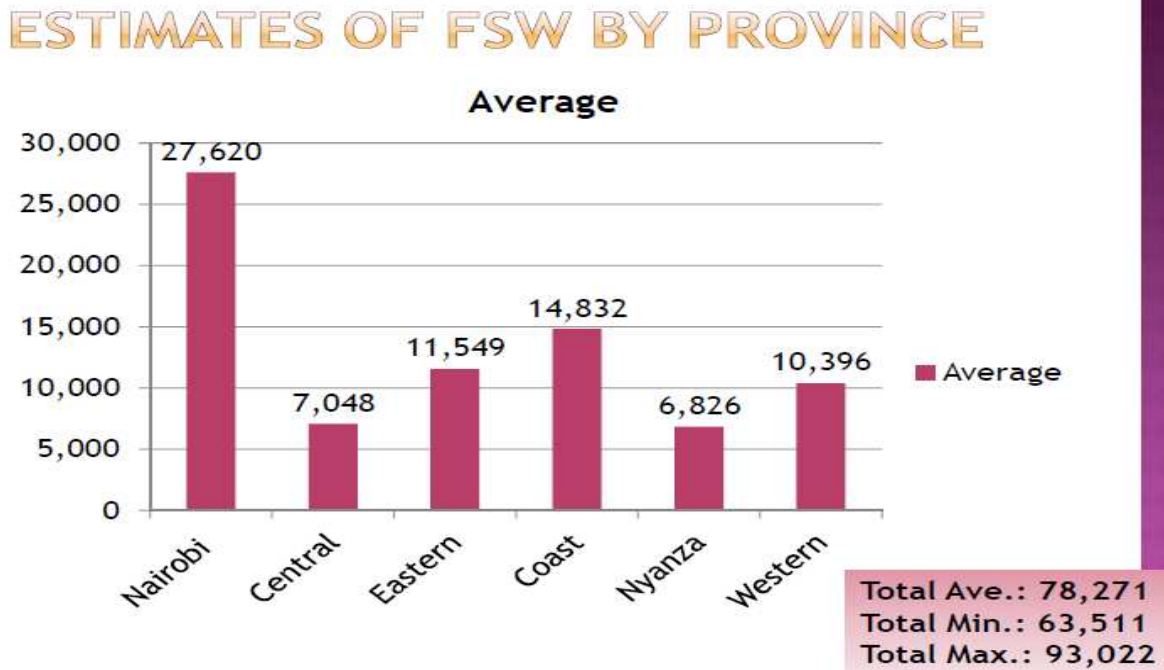
### Appendix III: Target Population

Figure 2: Estimates of Female Sex Workers in Nairobi by Administrative Units



Source: Uon/World Bank, 2012

Figure 3: Estimates of Female Sex Workers by Province



Source: Uon/World Bank, 2012

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