ASSESSMENT OF REFERRAL PRACTICES AND FACILITATION ACTIVITIES OF HIV TESTING AND COUNSELING SITES IN NAIROBI CITY COUNTY, KENYA.

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157/7449/2002

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PUBLIC HEALTH IN THE SCHOOL OF PUBLIC HEALTH AND APPLIED HUMAN SCIENCES OF KENYATTA UNIVERSITY.

FEBRUARY 2020
DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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To my dear parents, the late Dr. and Mrs. Malaba who espoused higher education and would have loved to witness the award of this degree.
ACKNOWLEDGMENT

I thank my supervisors Dr John P. Oyore and Dr. Christine Wasanga for their guidance throughout the study period and for sharing their wealth of experience. I also acknowledge my former employer, Global Communities, for the valuable attachment period, which enabled me to determine the study topic as well as utilize the knowledge gained to implement ongoing programs. The providers of HIV testing and counseling services in Nairobi County are appreciated and congratulated for their cooperation during the data collection period. I am grateful to my dear family members, relatives and friends for their persistent nudging and emotional support offered to me during the many years, days and nights of the study period. Finally, I would like to thank God for enabling the initiation and completion of all the study activities undertaken.
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OPERATIONAL DEFINITION OF TERMS

**Client initiated HTC :** This refers to a situation whereby an individual, couple or group actively seeks out HIV testing and counselling at a site where these services are provided and/or accessible (NASCOP, 2008).

**HIV testing services (HTS):** This refers to the full range of services that a client is offered together with HIV testing, including pre and post-test counselling; linkage to appropriate HIV prevention, care and treatment services and other clinical support services; and coordination with laboratory services to support quality assurance and delivery of correct results (NASCOP, 2015).

**Integrated HTC sites:** These are HTC sites that are co-located on the grounds of a health facility such as a hospital or a health clinic. The sole function of an integrated HTC centre is the provision of HTC services; other health services are generally not offered, though some related services such as family planning (FP) may be offered. The integrated HTC site may be a separate facility on the grounds of a functioning health facility, or it may be attached to the health facility such as a group of rooms in a specific ward (NASCOP, 2008).

**Initiating facility :** An organization, service, or community unit that initiates a referral process by preparing an outward referral to communicate the client’s condition and
status; an initiating facility is also known as a “referring facility” (MOH, 2014).

**Referral** : A referral, in the context of HIV, is the process by which immediate client needs for comprehensive HIV care and supportive services are assessed and clients helped to gain access to services, such as setting up appointments or giving directions to facilities (FHI, 2005).

**Referral system** : This is defined as a comprehensive health care system used to manage client health care needs by referring clients from an initiating facility to an organization, service or community unit that can better provide the level of care needed (MOH, 2014).

**Provider initiated HTC:** This refers to a situation in which the HTC service provider offers an HIV test to a client or patient regardless of their reason for attending the facility. This makes HTC part of routine care in health facilities in Kenya (NASCOP, 2008).

**Referral facilitation activities:** Actions carried out by HTC service providers to ease client referrals from HTC site to HIV care and treatment sites (NASCOP, 2008).

**Referral practices** : Actions and tools used during the process of helping a
client gain access to services not provided by the HTC site such as use of standard forms to document referrals, having a list of service providers within the catchments area who can provide additional services to HIV positive clients and establishing formal working relationships with referral network partners, among others (MOH, 2014).

**Stand-alone HTC sites:** These are HTC sites within the community that are not attached to other specific health services. Generally, these sites are operated by non-governmental organisations (NGOs), faith-based organisations (FBOs), or other community-based organisations (CBOs), though the Government of Kenya (GoK) does provide support to some stand-alone HTC sites (NASCOP, 2008).

**Receiving facility:** An organization, service, or community unit that accepts a referred client or specimen from an initiating facility (MOH, 2014)
## ABBREVIATIONS AND ACRONYMNS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>AMNC</td>
<td>Australian Nursing and Midwifery Council</td>
</tr>
<tr>
<td>ART</td>
<td>Antiretroviral Therapy</td>
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<tr>
<td>ARV</td>
<td>Antiretroviral</td>
</tr>
<tr>
<td>CBO</td>
<td>Community Based Organization</td>
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<tr>
<td>CDC</td>
<td>Centre for Disease Control and Prevention</td>
</tr>
<tr>
<td>CRNMC</td>
<td>College of Registered Nurses British Colombia</td>
</tr>
<tr>
<td>DASCO</td>
<td>District AIDS and STIs Coordinator</td>
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<tr>
<td>FBO</td>
<td>Faith Based Organization</td>
</tr>
<tr>
<td>FHI</td>
<td>Family Health International</td>
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<td>GOK</td>
<td>Government of Kenya</td>
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<tr>
<td>GST</td>
<td>General System Theory</td>
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<td>HBTC</td>
<td>Home Based Testing and Counselling</td>
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<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<tr>
<td>HTC</td>
<td>HIV Testing and Counselling</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>KAIS</td>
<td>Kenya AIDS Indicator Survey</td>
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<td>KASF</td>
<td>Kenya AIDS Strategic Framework</td>
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<td>KNASP</td>
<td>Kenya National AIDS Strategic Plan</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MSM</td>
<td>Men who have sex with Men</td>
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<tr>
<td>NACC</td>
<td>National AIDS Control Council</td>
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<td>NASCOP</td>
<td>National AIDS and STIs Control Programme</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>OI</td>
<td>Opportunistic Infections</td>
</tr>
<tr>
<td>PITC</td>
<td>Provider Initiated Testing and Counselling</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of Mother to Child Transmission</td>
</tr>
<tr>
<td>PwP</td>
<td>Prevention with Positives</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Scientists</td>
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<tr>
<td>STI</td>
<td>Sexually Transmitted Infections</td>
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<td>TB</td>
<td>Tuberculosis</td>
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<td>USA</td>
<td>United States of America</td>
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<td>VCT</td>
<td>Voluntary Counselling and Testing</td>
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<td>WHO</td>
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ABSTRACT

Knowledge of one’s HIV status through HIV Testing and Counselling remains the first step towards HIV prevention, appropriate care, support and treatment services. The knowledge needs to be coupled with means of accessing and obtaining essential post test services including appropriate care and treatment for all individuals who test HIV positive. Through linkages with care, treatment and support programs, HTC is expected to contribute to lessening the impact of the HIV epidemic on children, adults, families and communities only if all clients who test HIV positive are offered and/or linked to all the requisite prevention, care and treatment services. Therefore the aim of the study was to identify frequency of referrals, referral practices and facilitation activities of HTC providers in Nairobi County for individuals who test HIV positive. The objectives of the study were to determine the frequency of referrals for HIV positive clients by type of HTC site, identify the referral practices by HTC type and establish referral facilitation activities for clients to test HIV positive by type of HTC type in Nairobi County. A cross-sectional comparative study design was employed. The study took a census approach and a total of 92 sites participated in the study. A structured questionnaire was administered to 92 authorized personnel at the HTC sites. The Statistical Package for Social Sciences version 22.0 was used for quantitative data analysis. Key variables of the study were cross tabulated with the main institutional variables and aggregates computed. The relationship between the HTC site type and the varied referral practices and facilitation activities was assessed using the chi square test of association. The results were presented in form of tables, bar charts, and pie charts. Findings showed that 94% the sites referred all the clients who tested HIV positive. However, there was no association between type of HTC site and referrals (X^2 = 0.0039, P =0.95). Majority of the sites had a documented referral system. Nevertheless, there was no relationship between the type of HTC site and a documented referral system (X^2 = 0.432, P =1). Only 44% of the sites had conducted referrals for HIV positive clients considered to be emergency cases, with 45% reporting accompanying clients. None of the referral facilitation activities studied had an association with the type of HTC site. The study concluded that there are gaps in the frequency of referrals, referral practices and facilitation activities of HTC providers for clients who test HIV positive in Nairobi County. The study recommends actions for both policy and practice modifications. In order to increase frequency of referrals, NASCOP should institute compliance measures to ensure HTC providers adhere to policy requirements for referral and linkage of all individuals who test HIV positive. The HTC sites should institute review of frequency of referrals and institute corrective measures to ensure linkage of all individuals who test HIV positive. In order to enhance referral practices, the National AIDS and STIs Control Program should refine and disseminate standardized guidance on referral practices for HTC sites. HTC sites should adhere to standard documentation for referrals, institute formal collaborative relationships with referral network partners and designate staff to manage referrals and follow ups. In order to improve referral facilitation activities, NASCOP should refine and disseminate standard guidance on referral facilitation activities related to accompaniment, transportation and follow up for clients who test HIV positive. On the other hand HTC sites should establish site specific activities that will ensure accompaniment, provision of transport and/or bus fare and follow up to intensify linkage of individuals who test HIV positive and are regarded as emergency cases, into requisite HIV care and treatment services.
CHAPTER ONE: INTRODUCTION

1.1 Background to the study

The Human Immunodeficiency Virus (HIV) pandemic is one of the greatest global public health challenges (UNAIDS, 2016). While tremendous success has been registered internationally in the fight against HIV/AIDS in the past 15 years, emerging trends such as slow decline in new HIV infections among adults threaten to reverse the gains made (UNAIDS, 2016). Concerted efforts have been commended for averting 8 million AIDS-related deaths, preventing 30 million new HIV infections and placing 15.8 million individuals on antiretroviral therapy (UNAIDS, 2015). Through the leadership of UNAIDS, the Fast-Track targets were established under the Sustainable Development Goals (SDG) -era to accelerate progress towards ending the epidemic by 2030 (UNAIDS, 2014).

It is estimated that globally, in 2017, a total of 36.9 million people were living with HIV and 1.8 million people became newly infected (UNAIDS, 2018). In Kenya, the first case of HIV was diagnosed in 1984 (NACC, 2005). Since then, HIV spread rapidly in the 1990s impacting all levels of society (NASCOP, 2005). Recent estimates by the National AIDS Control Council (NACC) and the National AIDS and STI Control Programme (NASCOP) indicate that 1.5 million people are living with HIV in Kenya by the end of 2015 (NACC &NASCOP, 2016). Further, the country has an average 5.9% adult HIV prevalence rate and an estimated 71,034 new infections (Ibid).
The government of Kenya declared HIV a national disaster in 1999 and subsequently established the NACC to coordinate a multi-sectoral national response (NASCOP, 2014).

NACC facilitated the development of the Kenya National AIDS Strategic Plans (KNASP) I, II and III and the current Kenya AIDS Strategic Framework (KASF) to provide a multisectoral response for addressing HIV and AIDS in alignment to the Constitution of Kenya.

The World Health Organization (WHO) recognizes HIV testing and counselling (HTC) as a key intervention for expanding access to HIV prevention, care and treatment (WHO, 2009). In Kenya as in other countries, HTC is considered central to all HIV programs because it is recognized as the main entry point into HIV prevention, care, support and treatment services (NASCOP, 2015).

The national guidelines for HTC in Kenya stipulate the three primary components of HTC including the pre-test, the HIV test and the post-test session; these elements constitute the minimum service package of HTC (NASCOP, 2015). The guidelines emphasise the need for provision of referrals to appropriate follow up services, which should be provided to the clients during post-test counselling (Ibid). Specific referral requirements indicated in the guidelines include: having a directory of all available HIV/AIDS services in the vicinity for referral of clients and patients; having standardised referral forms; use of name-based referrals to facilitate referral and follow up; referral of clients who present with specific diseases and conditions for appropriate services such as tuberculosis, prevention of mother to child
transmission (PMTCT), management of sexually transmitted infections (STIs) or comprehensive care; and, referral of HIV positive clients and patients for additional counselling services when appropriate.

In addition to the national HTC guidelines, both the WHO and NASCOP require that HIV positive clients be provided with the following services either by referral or direct service provision: HIV literacy and psychosocial support; clinical assessment; management of opportunistic infections (OIs); provision of co-trimoxazole; Antiretroviral therapy (ART); prevention with positives (PwP) interventions; condoms; PMTCT; screening for tuberculosis; malaria prevention and treatment; management of STIs; palliative care and symptom management; and, safe drinking water interventions (NASCOP, 2015; WHO, 2009).

In addition, the Kenya Ministry of Health developed a referral strategy, to provide guidance on and ensure efficient linkages cross all levels of care within the health service delivery system (MOH, 2008). The strategy outlines how to build an effective referral system (Ibid).

1.2 Statement of the Problem

Kenya is among the countries that have considerably expanded HTC by adoption of new approaches which encourage its uptake (WHO, 2009). Consequently, more people are being tested for HIV, which makes follow up to ensure complete referrals critical for those found to be HIV positive.
The 2007 Kenya AIDS Indicator Survey (KAIS) showed that nationwide, 1.42 million people were HIV infected at the time (NASCOP, 2009). However, the survey indicated that only 12.1% of all HIV–infected adults were on daily cotrimoxazole. Further, of all HIV infected adults who were eligible for Antiretroviral Therapy (ART), 59.5% were not taking daily Antiretrovirals (ARVs) \((Ibid)\). The disparity between individuals who had been tested positive for HIV and those on HIV care and treatment points to gaps in referrals and linkages between HTC and HIV care and treatment services.

The national guidelines for HIV testing services (NASCOP, 2015) and The Referral Strategy (MOH, 2008) require referral of individuals who test HIV positive to appropriate follow up services. However, there is a paucity of data on the frequency of referrals, actual referral practices and facilitation activities of HTC providers for clients who test HIV positive in Kenya, hence the need to conduct the study in Nairobi County.

1.3 Justification

There is need to conduct this study because understanding the frequency of referrals for HIV positive clients, referral practices, referral facilitation activities that deter or enable referrals shall contribute to the establishment and/or strengthening of referral mechanisms. The findings will enable re -design of referral mechanisms to facilitate higher rates of entry into critical care and treatment by clients who test HIV positive. Consequently, with timely access to lifesaving antiretroviral therapy there will be a reduction in HIV-related mortality and morbidity.
1.4 Research Questions
This study answers the following three questions:
1. What is the frequency of referrals for clients who test HIV positive by type of HTC site in Nairobi County?
2. What are the referral practices by HTC type for clients who test HIV positive in Nairobi County?
3. What referral facilitation activities are carried out for clients who test HIV positive by type of HTC site in Nairobi County?

1.5 Hypothesis
The study’s hypothesis is that the type of HTC site does not influence HTC referral practices and facilitation activities for individuals who test HIV positive.

1.6 Purpose of the Study
1.6.1 Broad Objective
The broad objective of this study is to identify frequency of referrals, referral practices and facilitation activities of HTC providers in Nairobi for individuals who test HIV positive.

1.6.2 Specific objectives
The specific objectives of the study are to:

1. Determine the frequency of referrals for HIV positive clients by type of HTC site in Nairobi County.
2. Identify the referral practices by type of HTC site for clients who test HIV positive in Nairobi County.
3. Establish referral facilitation activities for clients who test HIV positive by type of HTC site in Nairobi County.

1.7 Significance and Anticipated Output
Globally, countries have adapted the test and treat strategy following confirmation of the efficacy of placing individuals who test HIV positive on treatment sooner rather than later, by various randomized studies. The referral and linkage of HIV positive individuals from HTS to HIV care and treatment is a critical component of the test and treat strategy. The study reviewed the HTC sites referral practices and facilitation activities against the stipulated client referral requirements. The findings are key to the identification of areas of compliance and gaps. The recommendations address the systematic means of ensuring the country enlists at least 90% of all individuals who test HIV positive into life prolonging HIV care and treatment.

1.8 Limitation and Delimitation of the Study
The study was limited to the frequency of referrals, referral practices and facilitation activities of HTC sites. The study did not ascertain whether HIV positive clients referred to HIV care and treatment by the HTC sites completed referrals by receiving follow on services at the referred points.

1.9 Theoretical Framework
This study adopted the General System Theory (GST). The theory was proposed in the 1940s by the biologist Ludwig von Bertalanffy and it defines systems as dynamic complexes of elements standing in mutual interaction as wholes (www.nwlink.com). Bertalanffy argues that the wholeness of systems is maintained by the mutual interaction of its parts, which can be subsystem(s) of another system. Further, systems are said to be open to, interact with their environments and they can
acquire qualitatively new properties through emergence, thus they are in a continual evolution (Ibid).

Further characteristics of systems are outlined as: a whole that functions as a whole by virtue of the interaction of its parts; anything greater than the sum of its parts because it consists of these parts plus the way the parts relate to each other and besides plus the qualities that emerge from these relationships; is a set of particular interactive relationships, an entity relatively well identified, that maintains dynamically in operation a certain whole; is the unavoidable outcome of organized intentions; can be physical, biological, psychological, sociological, or symbolic; and can be static, mechanical, mechanically self-regulating, or organically interactive with the environment (www.parachy.org).

Other characteristics of systems include: can be organized hierarchically according to its level of organized complexity; can be a categorical combination like the man-machine system that composes a factory; is a set of elements standing in interaction, where its wholeness depends on the parts, and the parts depend on the whole where one and one equals two plus (some interactions); is a complex of components that becomes an entity through the mutual interaction of its parts, from atom to cosmos; is an organized relationship of the parts of a whole; and is a manifestation of an organization or an organized arrangement (Ibid).

This theory guided the researcher in understanding the health system, within which the patient or client referral system subsists, according to the researcher. The GST provides the framework that correlates with the WHO’s definition of a health system.
as consisting of all people and actions whose primary purpose is to improve health (WHO, 2000). The referral system, in the context of this study, has components with interrelationships that need to be organized appropriately and function as required to meet the needs of individuals who test HIV positive at HTC sites and need to be linked to appropriate HIV care and treatment services. In addition, the referral system is regarded as a subsystem that is part of complex components that form the health system.
1.10 The Conceptual Framework

The following is the conceptual framework for the study.

- **Independent Variables**
  - Referral practices
    - Referrals
    - Documentation
    - Collaboration
    - Follow up
    - Referrals managers
    - Regular meeting with stakeholders
  - Facilitation activities of HTC providers
    - Referral for emergency cases
    - Accompaniment
    - Transportation
    - Provision of bus fare
    - Communication with referral point
  - Other factors
    - Distance to care centers
    - Attitude of HIV positive clients to referrals
    - Services provided by the HTC site

- **Dependent Variable**
  - Number of people counselled, tested and found positive for HIV
  - Type of HTC site
    - Integrated HTC site
    - Stand-alone HTC site
  - Intervening Variables
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter discusses literature review in sections that are aligned to the study objectives. The chapter introduces the context of HIV and AIDS in Kenya, including critical policy and implementation guidance on HTC and referrals. The referral practices and facilitation activities for individuals who test HIV positive were reviewed. The chapter concludes by identifying the gaps in existing literature related to the study.

2.2 Overview of HIV Testing and Counselling, access to Care and Treatment

An estimated 1.8 million new HIV infections were recorded in 2017 globally, and a total of 36.9 million people were living with HIV (UNAIDS, 2018). Annual AIDS-related deaths are less than 1 million owing to increased access to lifesaving antiretroviral therapy (Ibid). Notably, three out of four people living with HIV know their status, with 21.7 million people on ART (Ibid). Countries have agreed to ensure that an additional 2.8 million people access ART each year; however, some of these may not know their HIV status (Ibid). Several countries including Kenya have committed to achieving the 90-90-90 treatment target by 2020. The ambitious targets are stated as: by 2020, 90% of all people living with HIV will know their status, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy, and, 90% of all people with diagnosed HIV infection will have viral suppression (UNAIDS, 2014). It is anticipated that achievement of the 90-90-90 targets will enable the world to eradicate AIDS by 2030, culminating into increased health and economic benefits.
The WHO underscores the significance of strengthening linkages between HTC and HIV treatment sites and advocates for establishment of explicit referral mechanisms. Various international guidelines take cognisance of the importance of better-quality referral mechanisms for ensuring entry to HIV services.

HIV testing and counselling has experienced very rapid growth since it was launched in Kenya in 2001 (NASCOP, 2015). The program started with three pilot sites in 1998 and by 2014 the sites had increased to an estimated 5,980 sites countrywide (NASCOP, 2014). In Kenya, individuals are tested for HIV through Provider Initiated Testing and Counselling (PITC), Voluntary Counselling and Testing (VCT), Home Based Testing and Counselling (HBTC) and PMTCT (NACC, 2014). The NACC acknowledges that there has been a significant increase in the number of Kenyans who have gone for counselling and testing over the years (Ibid).

2.3 HIV prevalence and linkage to care and treatment

Kenya’s national adult HIV prevalence stabilized at 4.9% in 2017 (NACC, 2018). The NACC estimates that about 52,800 new infections among adults occurred in 2017 and that 1.5 million people were living with HIV by the end of 2017 (Ibid). The Kenya HIV Estimates Report 2018 further indicates that the adult ART coverage was at 75% in 2017, which points to gaps in linkage to ART for PLHIV (Ibid). The NASCOP cites lack of analysis of referrals and linkage data as a critical gap that needs to be addressed to reverse the trends in linkage to care among people living with HIV (NASCOP, 2010).
The KASF underscores the responsibility of HTC interventions to link HIV positive individuals to care and further notes the importance of follow up to ensure enrolment and retention in care and treatment (NACC, 2015). Further, all HIV testing services are required to provide appropriate, comprehensive and effective referral and linkage to all clients (NASCOP, 2015). For instance, clients who test HIV negative and at risk of HIV infection should be linked to HIV prevention interventions, while those who test HIV positive should be linked to care, treatment and support services. The national HIV treatment guidelines define a comprehensive package of support and care for people living with HIV including ART, co-morbidities/non-communicable diseases management, prevention and treatment of opportunistic infections, reproductive health services, home/community and palliative care (NASCOP, 2016). Besides, other complementary interventions to prevent illnesses among people living with HIV such as provision of clean water, hygiene education, nutrition counselling and support, cervical cancer screening and management, cotrimoxazole, isoniazid and malaria prophylaxis are recommended (NASCOP, 2015).

Valdiserri et al., (1999) suggests that timely testing for HIV does not necessarily guarantee prompt entry into medical treatment. Other studies have reported 1-5 years delays between learning about a HIV positive result and seeking primary care (Sameet et al., 1998; Siegel et al., 1997). Early HIV diagnosis of HIV infection remains preferable to late diagnosis since it has the potential to facilitate entry into stable care systems, optimize clinical outcomes and improve health care system planning capabilities (Valdiserri et al., 1999).
In addition, Valdiserri suggests that a potentially significant public health benefit of early diagnosis and treatment of HIV is the substantial possibility of further reducing the spread of the virus (*Ibid*). Valdiserri utilized a framework used to classify barriers to prenatal care to classify socio-demographic, attitudinal, behavioural and systems-related influencers of early HIV diagnosis and entry into care (*Ibid*). Specifically, on client referral mechanisms, Valdiserri indicates that attributes of a referral system including formal linkages, are among the important determinants of whether care will be promptly accessed and obtained following a HIV infection diagnosis (*Ibid*).

An evaluation of publicly funded HTC activities in the United States of America (USA) in 1993 revealed that referral to care services for HIV positive persons was not always adequate (CDC, 1994). Another 1995 study of HIV infected men and women diagnosed in a clinic for treating sexually transmitted infections (STI) revealed that 25% of 142 individuals had never received medical care due to psychological denial, lack of interest and some cited they had never been referred for care (Kilmarx *et al*., 1998). Based on this evidence and other studies, case management (individually linking clients with needed services) was advocated for, to improve referral of HIV positive clients into required medical, psychological and social services in USA (Schwartz *et al*., 1994; Scott *et al*., 1995).

Valdiserri recognizes the role of HTC in a country’s overall HIV prevention as another system wide factor that impacts on early diagnosis and treatment of HIV infection (Valdiserri *et al*., 1999). He notes that countries which characterise HTC as primarily diagnostic may inadvertently discourage asymptomatic infected
individuals who perceive themselves as being at low risk from seeking testing (*Ibid*). He further suggests that in countries where antiretroviral therapy is scarce, promoting HTC as mainly diagnostic may dissuade individuals from seeking testing because of the misperception that testing is an end in itself (*Ibid*).

Nsigaye *et al.*, (2009) conducted a study to evaluate referrals systems effectiveness in promoting and monitoring access to ART in Tanzania. The study determined that psychosocial issues remain important barriers in accessing HIV services despite addressing economic barriers such as cost of transport (*Ibid*). It was noted that a low proportion of clients accessed HIV care services following a national HTC campaign; indicating that increasing opportunities for HTC may not necessarily translate into effective access to HIV care and treatment (*Ibid*). This study concluded that HIV diagnosis does not always ensure that infected persons are subsequently able to access HIV treatment, including ART (*Ibid*).

Lawn *et al.*, (2008) indicates that early mortality rates among PLWHA are strongly associated with their degree of immunodeficiency at the time they enrol into ART programmes. Promotion of HTC and early diagnosis, longitudinal HIV pre-ART care and minimization of health systems delays in ART initiation are recommended as some of the strategies to reduce HIV –related mortality (*Ibid*). It is noted that longitudinal care of PLWHA from the time of HIV diagnosis until requirement for ART is often poor in Africa (*Ibid*). This is reflected in the fact that clients who are diagnosed with HIV infection relatively early are often lost to follow up only to later re-enter medical services with advanced disease (*Ibid*).
The WHO issued the test and treat guidelines in 2015, initiating a key public health approach to universal testing and treatment as a means of preventing transmission of HIV (WHO, 2015). Consequently, the focus of linkage efforts shifted from just registering HIV positive individuals in care to their actual initiation into ART.

Various studies have demonstrated the critical link between early HIV diagnosis, timely linkage to ART and improved health outcomes among people living with HIV. A study by Philbin, *et al.*, 2016 showed that the time interval between newly diagnosed HIV positive adolescents and referral and actual linkage into HIV care determined how long the adolescents engaged in long term HIV care. Three important lessons were elucidated from the study including: the importance of linking HIV positive individuals soonest possible after testing to increase the speed and likelihood to uptake ART services; the need for HTS providers to closely collaborate with ART providers to enable rapid linkage to HIV care and treatment; and, early and active patient engagement are critical to reduce drop out from HIV care and treatment.

Referrals involve diverse practices and facilitation activities for effectiveness and efficiency. For instance, a cluster randomized trial in Uganda demonstrated that two brief counselling sessions for adults who tested HIV positive during home-based HIV counselling and testing (HBHCT) increased the rate of ART initiation, obtaining CD4 counts and adherence to cotrimoxazole prophylaxis (Ruzagira *et al.*, 2017). Sharma, *et al.*, 2015, showed that facilitated linkage led to high initiation to ART among individuals who undertook community testing. A comparison of linkage to care rates across various interventions revealed that interventions without
facilitated linkage achieved lower proportions of HIV positive individuals visiting a HIV treatment clinic. Further, the study attributed higher linkage rates at community HTC, comparable with or higher than, facility-based HTC to individualized follow up to encourage linkage (*Ibid*).

2.4 Referral practices

2.4.1 Referral record and documentation

The Kenya Health Sector Referral Strategy outlines some requirements of organization and management of referrals. These include: each facility should have a designated person(s) for management of referral services; a team must be designated to manage and support the referral transport; a standardised referral form should be used for all referral cases; the referral form should accompany the client and give a clear designation of which facility the patient is being sent; a standardised referral feedback form should be used to manage referral cases; and, information on referral should be tracked by each service point in a referral register to keep track of all referrals made and received and to monitor referral patterns and trends ((MOH, 2008).

Some scholars have insisted that anything that has not been documented has not been done. Indeed, documentation in clinical settings provides evidence that a patient received proper care and/or referral to the next point of care and treatment. Documentation allows for demonstration of how the service was provided to the patient with a standard of care that meets the institutional and board standards. Ward (2014) argues that in some cases, documentation can be both for practice and liability in that the medical record might be the only evidence presented in a lawsuit.
In some cases, the failure to document in a timely manner can put a patient at risk for getting repeat testing, a double dose of medication, and/or discontinuation of medical care, among other risks.

The WHO (2006) notes that documentation should provide factual, current, comprehensive and consistent information about the assessment and care of the patient. Effective documentation provides a record demonstrating and giving proof of individualized nursing care and the patient's response to that care. It provides improved quality of care for the patient and accessible details if a mistake occurs. It also helps to evaluate the performance of care and to see if the standards of care have been met (Hardon et al., 2007). The patient record is a principal source of information that informs further care of the patient.

Standardized documentation has also become an easy monitor; a substitute for actual accounts of relational nursing practice and the complex, specific human concerns experienced by specific patients in their recovery trajectories. However, Benner, Hooper-Kyriakidis, and Stannard (1999) agree with the need to standardize and streamline documentation as picking from a list is easier than typing in a word, and there is less chance the same thing will be labeled two different ways. This implies that although standardization is important in some ways, it is also important for the health providers to keep alive the expression of meaningful concerns about a patient.

A study by Nsigaye et al., (2009) cited that nurses regarded referral forms to be useful for two main reasons. First, they enabled registration of HIV positive clients into care as they included critical background information. Secondly, the forms pointed to preparedness of patients regarding knowledge of follow on clinic
procedures and appointments that were required once the patient presented at the clinic.

Some scholars, including Say (1999) argue against over emphasis on the importance of documentation, citing that the more standardized documentation becomes detailed, lengthy, auditable and traceable, the more it may become the only important performance measures of nursing practice.

**2.4.2 Collaboration**

The International Monetary Fund, IMF (2008) states that because the HIV/AIDS epidemic poses a severe threat to global health, development, and security, it calls for concerted collaborative efforts for any meaningful success. IMF (2008) and Nsagha *et al.*, (2011) point out that while much has been achieved in recent years, further and expanded efforts are required to provide funding to help countries cope with and fight the epidemic, raise awareness of HIV/AIDS as a major development risk, and improve access to treatment and affordable anti-retroviral medication.

Nsagha *et al.*, (2011) argues that because HIV/AIDS is a major public health pandemic affecting the development, survival and life of individuals, formal and non-formal collaboration through consultative meetings, among other mechanisms is essential among service providers. Indeed, the Family Health International (FHI), a leading health organization, recognizes that rarely can a single facility, agency or community group meet the needs of people living with HIV/AIDS (FHI, 2005). The available literature therefore underlies the need for collaboration by various stakeholders in the provision of comprehensive HIV prevention, care and treatment services for individuals who test HIV positive.
2.5 Referral facilitation activities

2.5.1 Transportation

Regarding transportation, Macintyre and Hotchkiss (1999) states that a referral system that provides a means of transportation may reduce delays in seeking care, encourage some clients who turn out HIV positive to go to referral centers, and enabled the monitoring of access to HIV treatment among diagnosed persons with special regard to individual attitudes that make them reject referrals. Similar systems to monitor referral uptake and linkages between HIV services could be readily implemented in other settings. Evidence from projects involved in referring HIV-diagnosed persons to HIV clinics in Tanzania has suggested rates of referral uptake as low as 14% because although ART initiation diagnoses are made conveniently close to patients’ homes, the HIV treatment clinic may be far away; after the mobile VCT service has moved on, there is no-one left for patients to consult; and transportation costs bar clients who turn out HIV positive to reach these services as allowances that are rarely provided at the point of diagnosis (Nsigaye et al., 2009).

2.6 Summary of reviewed literature

The reviewed literature highlighted the importance of timely referrals. Further, the chapter revealed that referral practices and facilitation activities such as referrals, documentation, collaboration may have some link to effective referrals. The Kenya Ministry of Health has prescribed a referral strategy that provides requirements for an effective referral system that must be instituted by health care providers when executing referral for patients. The researcher used the prescribed referral practices and facilitation behaviours as part of the basis of the study questionnaire and data analysis.
While the literature review provided critical pointers to prevalence of HIV globally and in Kenya and critical attributes of referral practices and facilitation activities, the literature review was limited on some referral practices and facilitation activities such as referral for emergency cases, accompaniment and communication. This study sought to assess the referral practices and facilitation activities of HIV testing and counselling sites in Nairobi County, in Kenya.
CHAPTER THREE: MATERIALS AND METHODS

3.1 Research Design
This study employed the cross-sectional comparative study design. This was appropriate since the study focused on various HTC sites’ referral practices and facilitation activities at the time of the study without regard for what may have preceded or precipitated the status of the issues under investigation. It was presumed that the HTC sites were providing HTC services for different durations of time, may have counsellors trained by different training institutions at various times, offering varied services and implementing various approaches of HTC. Comparisons of the different referral practices and facilitation activities were also made on the two types of HTC sites: stand alone and integrated.

The cross-sectional comparative study design enabled the researcher to gather information on prevalence of referral practices and facilitation activities among HTC providers but failed to distinguish newly occurring and long-established referral practices and facilitation activities.

3.2 Variables
The variables of interest in this study were the type of HTC site (stand alone or integrated), referral practices and facilitation activities of the HTC sites which included actual referrals, documentation, collaboration, follow up, accompaniment of referred clients to referral points, transportation and communication.
3.2.1 Independent variables
The independent variables were the type of HTC site, referral practices and facilitation activities of the HTC sites.

3.2.2 Dependent variables
The dependent variable was the type of HTC site, which are two; integrated and stand alone.

3.3 Location of study
The study took place in Nairobi County, Kenya. Data from the KAIS 2012 report indicated that Nairobi had 56.1% adults that had ever been tested for HIV/AIDS, representing the highest number in Kenya (NASCOP, 2009). According to the Kenya HIV Estimates report of 2015, Nairobi County ranked first nationally, among the counties contributing to the highest total number of people living with HIV in Kenya, followed by Homabay and Kisumu in the second and third places respectively (MOH, 2016).

3.4 Study Population
The study was carried out among HTC providers based in 92 HTC sites registered by NASCOP in Nairobi County. The unit of analysis was the HTC sites which allowed the study to focus on the HTC institutions as they relate to referrals for HIV positive individuals. Authorized HTC site personnel in Nairobi responded to study questions given that they were charged with overall supervision and management of HTC testing services at the sites. Each HTC site designated one key respondent to respond to the research questions. A total of 92 key staff including HTC counsellors, heads of departments or HTC site managers, medical doctors, medical director,
senior nurse and laboratory technicians among others, participated in the study. Section 4.2.2 provides additional details on the respondents.

3.4.1 Target Population
The target population of this study included all the 92 HIV testing sites registered by NASCOP to provide services in Nairobi County. They comprise of both stand alone and integrated sites.

3.4.2 Sample Population
Given the quantitative nature of the study, a census approach was used to obtain information from the entire study population.

3.5 Construction of Research Instruments
A questionnaire developed by the researcher was employed and it addressed the hypothesis, research questions and objectives of the study. Only closed questions were included in the questionnaire. The NASCOP and WHO guidelines for referrals, the Kenya Health Sector Referral Strategy, documented best practices in HIV testing referral systems were used as references for questionnaire construction.

3.6 Pre-test
A pre-test of the tools was conducted on a different sample group from the study population three weeks before actual data collection. A total of 30 HTC sites and providers participated in the pre-test. The respondents were randomly selected from Ngong’ Division, Kajiado District which is adjacent to Nairobi and has similar characteristics to the study area. As anticipated, the pre-test identified potential practical challenges of the research, uncovered unforeseen problems that may have
affected the research, and enabled refinement and/or reconstitution of questions, among others.

3.7 Validity
Content validity was ensured by HTC expert review and University supervisors’ expert review of the instrument before the data collection process.

3.8 Reliability
The accuracy and precision of data collected was ensured by conducting the test-retest technique and reliability analysis test which involved administering the same instrument twice to the group of respondents that participated in the pilot. The duration between the test and retest was one week. Data from both testing periods was correlated. Because the coefficient was high, the researcher concluded that the instrument could yield data with high test-retest reliability. Also, the research assistants were trained before data collection and supervised during data collection to minimize variations among them. Checking for data integrity, accurate entry and coding of questionnaires was conducted.

3.9 Data Collection Techniques
The study used a questionnaire which was administered to the respondents through face to face interviews. Authorized HTC site personnel in Nairobi responded to study questions. Authorized HTC site personnel who responded to the study instrument included HTC counsellors, heads of departments or HTC site managers, medical doctors, medical director, senior nurse and laboratory technicians among others, participated as further elaborated in section 4.2.2. Interviews were conducted at 92 HTC sites in Nairobi, which represents 100% response rate.
3.10 Data Analysis

A data form was developed on statistical package for social scientists (SPSS) version 22.0 and used for the data entry. To ensure that the data entered was correct, a small sample of the questionnaire data was entered separately, and comparisons made to ensure consistency. Data codes were keyed in separately to facilitate labelling of the data during data cleaning. Simple frequency tables and cross tabulations were used for checking for logical relationships between the variables. Key variables of the study were cross tabulated with the main institutional variables and aggregates (counts, column and row percentages) computed. Graphical representations of the results were also used in the analysis. To assess the association between different variables, chi square test of association and Fisher’s exact tests were used where applicable.

3.11 Ethical Considerations

Permission to conduct the research was sought and received from the Ministry of Education, Science and Technology, Kenyatta National Hospital/University of Nairobi Ethics and Research Committee, Kenyatta University graduate school and NASCOP under which HTC sites fall. All study participants provided written consent forms to participate. Codes were used for identification instead of site name to protect the identity of the sites.
CHAPTER FOUR: RESULTS

4.1 Introduction
This chapter presents the results of the quantitative findings of the research. The chapter covers the following aspects: the characteristics of the HTC sites, frequency of referrals for clients who tested HIV positive, referral practices and referral facilitation activities of HTC providers.

4.2 Characteristics of the Study Population
The characteristics of the study population were documented using the location of the HTC site, job title of respondents, year when the site was established and began its operations, type of organization that oversees the site, type of HTC site, services provided, types of HTC the site implements, number of HTC providers at the site and their roles, whether the site has a copy of the national guidelines for HIV testing and counseling in Kenya, and the last time the HTC site was accredited by NASCOP. Overall, the data was collected from 92 HTC sites (72 integrated, 20 stand-alone) in Nairobi County. The findings are presented as appropriate for each of the characteristics.

4.2.1 Location of HTC sites
Information on the location of the sites is vital in explaining the geographical distribution of the HTC sites and their consequent access to individuals seeking such services. 39% of the HTC centres were in Nairobi North, 38% in Nairobi West and 23% in Nairobi East.
Table 4.1 Characteristics of the HTC sites

<table>
<thead>
<tr>
<th>Demographic Characteristics of the HTC sites</th>
<th>Freq</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year of establishment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980 - 1999</td>
<td>15</td>
<td>16.3</td>
</tr>
<tr>
<td>2000 - 2004</td>
<td>21</td>
<td>22.8</td>
</tr>
<tr>
<td>2005 - 2009</td>
<td>42</td>
<td>45.7</td>
</tr>
<tr>
<td>2010 - 2011</td>
<td>9</td>
<td>9.8</td>
</tr>
<tr>
<td>Unknown</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td><strong>Type of Organization that oversees the site</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faith Based Organization</td>
<td>24</td>
<td>26.1</td>
</tr>
<tr>
<td>Government entity</td>
<td>21</td>
<td>22.8</td>
</tr>
<tr>
<td>Individual</td>
<td>16</td>
<td>17.4</td>
</tr>
<tr>
<td>Local Non-Governmental Organization</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>International Non-Governmental Organization</td>
<td>9</td>
<td>9.8</td>
</tr>
<tr>
<td>Community Based Organization</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td>Others (Professional Association, Trust and society)</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td><strong>Designation of respondents</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HTC Counselor</td>
<td>29</td>
<td>31.5</td>
</tr>
<tr>
<td>Experienced counselor</td>
<td>18</td>
<td>19.6</td>
</tr>
<tr>
<td>HOD HCT/ Site Manager</td>
<td>15</td>
<td>16.3</td>
</tr>
<tr>
<td>VCT Counselor</td>
<td>7</td>
<td>7.6</td>
</tr>
<tr>
<td>Clinical Officer</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td>Nurse</td>
<td>3</td>
<td>3.3</td>
</tr>
<tr>
<td>Clinical Officer &amp; Head of Counseling</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Data clerk</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Designated Officer</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Psycho-social counselor/therapist</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Others (Lab-tech &amp; experienced counselor, Medical Director/HTC provider, In charge of VCT, HTC Supervisor, Medical Doctor, Head of counseling, and Senior Nursing Officer)</td>
<td>7</td>
<td>7.7</td>
</tr>
<tr>
<td><strong>Services provided by the site</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type of HTC Site</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stand alone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Services provided by the site</th>
<th>Type of HTC Site</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Integrated</td>
<td>Stand alone</td>
</tr>
<tr>
<td>HTC</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>PMTCT</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>TB diagnosis and treatment</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>STI diagnosis and treatment</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>ART</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>In patient care</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>In and Outpatient care</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>HTC, PMTCT, TB diagnosis, ART</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>HTC, PMTCT, STI diagnosis, OPD</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>All the above</td>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>


4.2.2 Designation of respondents

Majority of the respondents were HTC counsellors (32%), 20% were experienced counsellors, and 16% were heads of departments or HTC site managers. The other respondents, 32%, consisted of medical doctors, medical director, senior nurse and laboratory technicians among others, as shown in Table 4.1 above.

4.2.3 Year of establishment

The year when the site was established is a pointer to experience or lack thereof in HTC service provision. It was noted that the different sites were established between 1980 and 2011. Majority of the sites (46%) were established between 2005 and 2009 while the minorities were established in 1980s and 1990s. 5% of the respondents were unaware of the year of establishment of the site. These results are shown in Table 4.1 above.

4.2.4 Type of organization that oversees the site

The study sought to determine the organization overseeing the operations of each HTC site. From the results in Table 4.1, the majority (26.1%) of the sites were being overseen by faith-based organizations (FBOs), followed by 22.8% which were being overseen by government entities, 17.4% were being overseen by individuals, 12% were overseen by local non-governmental organizations, 9.8% by international non-governmental organizations, 6.5% by community-based organizations, 3.3% by professional associations, and 1.1% each by a trust and society.

4.2.5 Type of HTC site

The study sought to establish the types of HTC sites, whether they were stand alone or integrated. From the census enumeration results shown in Figure 4.1 below, it
was observed that about 78% of the sites were integrated and about 22% were stand alone.

![Figure 4.1: Type of HTC site](image)

**4.2.6 Services provided by the sites**

The study sought to understand the array of services provided to clients by the various sites. Most of the sites provide HTC services (37%) while only 1% of the sites provided PMTCT, and in and out patient care services. An estimated 10% of the sites provide a range of services that include HTC, PMTCT, TB diagnosis and treatment, STI diagnosis and treatment, palliative care, ART, general outpatient care and in-patient care. The findings are illustrated in Figure 4.2.
In addition, the association between the type of HTC site and the services provided by the sites was checked by running a chi-square test of association. The results suggested a statistically significant association ($\chi^2 = 29.3$, $p-value = 0.002$) between the type of HTC site and the services provided by the sites.

4.2.7 Types of HTC implemented

Regarding the types of HTC conducted by the various sites, 39% of the sites provided client initiated, home based, couple and paediatric testing and counselling. 25% provided client-initiated testing and counselling only, while 17.39% offered client initiated, provider-initiated couple and paediatric testing and counselling. An estimated 12% provided varied types of testing and counseling including client initiated, provider initiated, mobile, home based, moonlight, couples, paediatric, self and work place. These findings are summarized in Figure 4.3 below.
Figure 4.3 - Types of HTC services

4.2.8 Possession of the national guidelines for HTC in Kenya

The study sought to determine whether the sites had copies of the national guidelines for HIV testing and counseling in Kenya. The guidelines are important tools for HTC sites since they provide the standards for effective and efficient HTC services. From the data, 82.6% of the sites had a copy of the guidelines, which is a pointer to standardized operations in line with the recommendations of NASCOP.

Figure 4.4 - Possession of the national guidelines for HTC
In addition, the existence of an association between possession of national HTC guidelines and type of HTC was sought. Results from Fisher’s exact chi-square test of association suggested that there is no sufficient evidence to conclude existence of an association between the type of HTC and possession of national HTC guidelines ($\chi^2 = 0.508$, $p$-value = 0.324). A cross tabulation of the type of HTC and possession of national HTC guidelines is shown in Table 4.2 below.

Table 4.2 Cross classification of possession of national guidelines for HTC and type of HTC site

<table>
<thead>
<tr>
<th>Possession of national guidelines for HTC</th>
<th>Type of HTC Site</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Integrated</td>
<td>Stand alone</td>
</tr>
<tr>
<td>Yes</td>
<td>58</td>
<td>18</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>20</td>
</tr>
</tbody>
</table>

4.2.9 Accreditation by NASCOP

The researcher also sought to find out the last time the sites were accredited by NASCOP. Results obtained showed that about 46% of the sites had never been accredited. This was followed by about 16% of the sites which had been accredited one month before the study. 7.78% of the sites had been accredited in the preceding two years, one year and three months respectively. 4% and 1% of the sites had been accredited 6 and 9 months prior to the study respectively.
Similarly, the association between possession of the national guidelines for HTC services and accreditation by NASCOP was sought. From the results, there seemed to be a significant association between possession of the national guidelines for HTC services and accreditation by NASCOP ($\chi^2 = 13.80$, $p$-value $< 0.0001$). Almost all sites that have ever been accredited had a copy of the national HTC guidelines. However, it is notable that about 67% of the sites that had never been accredited were in possession of the national guidelines, which indicates the sites’ proactiveness in following stipulated standards of HTC service provision.

**Table 4.3 Crosstab of possession of the national guidelines and accreditation by NASCOP**

<table>
<thead>
<tr>
<th>Possession of the new national Guidelines for HTC</th>
<th>Accreditation by NASCOP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never been accredited</td>
</tr>
<tr>
<td>Yes</td>
<td>27 (66.85%)</td>
</tr>
<tr>
<td>No</td>
<td>14 (34.15%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41 (100%)</strong></td>
</tr>
</tbody>
</table>
4.3 Frequency of Referrals

4.3.1 Clients tested
In the last 3 months prior to the study, a total of 22,175 clients had been tested by the 92 HTC sites that participated in the study. Female clients constituted 56% of the total while male subjects were comprised 44%. Out of the total number of clients tested, 8.36% tested HIV positive as tabulated in Table 4.4.

<table>
<thead>
<tr>
<th>Gender</th>
<th>No. tested</th>
<th>% of the total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>9,795</td>
<td>44.17%</td>
</tr>
<tr>
<td>Female</td>
<td>12,380</td>
<td>55.83%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22,175</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>HIV positive clients</td>
<td>1,853</td>
<td>8.36%</td>
</tr>
</tbody>
</table>

4.3.2 Frequency of referrals for HIV positive clients by type of HTC site
Frequency of referrals for HIV positive clients among HTC providers in Nairobi was one of the major questions of this study. From the results shown in Table 4.5 below, most of the HTC sites (94%), both integrated and stand alone, had referred all the clients who tested HIV positive to requisite care and treatment. Only a few sites (6%) had not referred all the clients who tested HIV positive. The fields with missing data were excluded from the analysis. From the results, there also seemed to be no association between the type of HTC site and referrals. Indeed, a chi square test of the association confirmed that the type of HTC site does not influence the referral of individuals who tested HIV positive ($\chi^2 = 0.0039$, $p-value = 0.95$).
Table 4.5 Crosstab of referrals by type of HTC site

<table>
<thead>
<tr>
<th>Type of HTC Site</th>
<th>Referrals for all the individuals who tested HIV positive</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Integrated</td>
<td>Count</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>94.37%</td>
</tr>
<tr>
<td>Stand alone</td>
<td>Count</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>94.74%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>94.44%</td>
</tr>
</tbody>
</table>

Reasons for non-referral were sought for the 6% of the sites that were not referring clients who tested positive. Some of the reasons included distance to the referral centre, client discomfort, the site having all the requisite follow on services, referrals not being emphasized by the HTC sites supervisors, and unwillingness of the clients to start HIV care and treatment.
4.4 Referral practices by HTC site

4.4.1 Documentation

4.4.1.1 Referral records

96.7% of sites had records indicating the referred clients and the services they were referred for. Of the 96.7% of the sites, the main referral documentation was in form of referral registers and forms. Letters, cards and others made up the least forms of referral documentation as shown in Figure 4.6 below.

![Figure 4.6 - Types of referral documents](image)

4.4.1.2 How referrals were documented in the preceding 3 months

There were various ways in which the sites had documented referrals. These included own developed referral forms (33%), followed by referral letters, NASCOP referral forms and MOH/MOMS/MOPHS referral forms (16% each), verbal with no documentation (7%) and other (1%).
4.4.1.3 Name based or anonymous referrals

Most of the sites conducted name-based referrals (45%), while 27% conducted both name-based and anonymous referrals, 17% practiced anonymous referrals, while other forms of referrals including verbal were prevalent among 5% of the sites.

Figure 4.7 – Referral documentation

Figure 4.8- Name based or anonymous referrals
4.4.1.4 Documented referral system

The findings indicate that 86% of the HTC sites have documented referral systems in place, 13% do not have and 1% of the sites categorized their responses under others. Having a referral system in place should be one of the basic prerequisites for accreditation of a HTC site.

![Bar chart showing 86% Yes, 13% No, 1% Others for documented referral system](image)

**Figure 4.9 – Documented referral system**

The exact chi square test of association was used to describe the association between the type of HTC site and documented referral system. The results ($\chi^2 = 0.432, p-value = 1$) showed that there is no relationship between type of HTC site and documented referral system. Below is a tabulation of the results.

<table>
<thead>
<tr>
<th>Table 4.6 Crosstab of HTC site type and documented referral system</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of HTC site</strong></td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>Integrated</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Stand alone</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
4.4.2 Collaboration

4.4.2.1 List of collaborators

The results showed that while 80.43% of the HTC sites had a list of collaborating partners, 14.13% did not and 5.43% did not respond to the question.

![Figure 4.10 – Sites with list of collaborators](image)

Among the 80.43% of the sites with a list of collaborators, the lists contained key information consisting of name of referral organization, type of service provided, referral contact person and location of the referral service (86.96% of the sites). Others contained only the name of the referral organization (11.59% of the sites) while in 1.45% of the sites the lists only captured the type of service provided.

4.4.2.2 Formal working relationships with collaborators

Other than just having a list of collaborating institutions, 79% of the HTC sites had formal working relationships with collaborating organisations and institutions that provide services to meet the needs of HIV positive clients.
Table 4.7 - Formal working relationships with collaborators

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>73</td>
<td>79.35%</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>15.22%</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>5.43%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

A formal test of the association between having collaborators and the type of HTC site showed that having collaborations with other organisations and institutions that provide services to meet the needs of clients who test HIV positive did not depend on the type of HTC site ($\chi^2 = 0.632$, $p$-value = 0.475).

4.4.2.3 Meetings with collaborators

The forging of meaningful working linkages through regular meetings was recorded among 86.3% of the HTC sites which reported to having collaborations with other partners to exchange information on referrals, their challenges and successes. Of those who cited regular meetings, the frequency of the meetings was also sought, and below are the results.

Table 4.8 - Frequency of meetings with collaborators

<table>
<thead>
<tr>
<th>Regularity/Frequency of meeting</th>
<th>Counts</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>4</td>
<td>6.35%</td>
</tr>
<tr>
<td>Weekly</td>
<td>4</td>
<td>6.35%</td>
</tr>
<tr>
<td>Bi-weekly</td>
<td>5</td>
<td>7.94%</td>
</tr>
<tr>
<td>Monthly</td>
<td>48</td>
<td>76.19%</td>
</tr>
<tr>
<td>3-6 months</td>
<td>2</td>
<td>3.17%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>63</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>
4.4.3 Follow-up

4.4.3.1 Follow up for referrals

Majority of the sites follow up client referrals through phone calls (25%) and written feedback (23.81%). In 13% of the sites, follow up is not conducted at all.

![Figure 4.11 – Ways of following up referrals](image)

4.4.3.2 Designated referral managers

Most sites constituting 58.7% had a designated person who manages referral services while 35.87% did not have a focal person to manage client referrals.

![Figure 4.12 – Designation of referral managers](image)
Table 4.9 tabulates the results of the relationship between the HTC site type and designation of a referral manager.

**Table 4.9—Cross tab of the HTC site type and designation of referral manager**

<table>
<thead>
<tr>
<th>Type of HTC site</th>
<th>Designated person(s) who manages referral services?</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated</td>
<td>%</td>
<td>41</td>
<td>28</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>13</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Stand alone</td>
<td>%</td>
<td>72.20%</td>
<td>27.80%</td>
<td>100.00%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>13</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>%</td>
<td>54</td>
<td>33</td>
<td>87</td>
</tr>
</tbody>
</table>

A formal test of association between type of HTC site and designation of referral manager to oversee referrals for clients showed no association between the two variables ($\chi^2 = 0.9938$, $p - value = 0.319$).

4.5 Referral facilitation activities by HTC type

4.5.1.1 Referral for emergency cases

In all sites visited, only 40 of them (43.5%) had ever conducted referrals for HIV positive clients who were considered emergency cases. Half of the sites visited neither had emergency cases nor ever referred the emergency cases for care and treatment.
4.5.2 Accompaniment

About 45% of the 40 sites had accompanied emergency cases to the referral point.

Also notable is that majority of the sites did not accompany the emergency cases to the referral facility.

Table 4.10 – Accompaniment of emergency cases to referral point

<table>
<thead>
<tr>
<th>Type of HTC site</th>
<th>Accompaniment of emergency cases to referral point</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Integrated</td>
<td>Count</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>38.71%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>6</td>
</tr>
<tr>
<td>Stand alone</td>
<td>%</td>
<td>66.67%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>45%</td>
</tr>
</tbody>
</table>

The results of Fisher’s association test between the HTC site type and the accompaniment of emergency cases to referral point were not significant ($\chi^2 = 2.573$, $p – value = 0.511$).

4.5.3 Transportation

As indicated in Table 4.11, majority of the HTC sites (70.7%) do not provide transport to the referred HIV positive clients. This includes 57.5% of the sites which do not provide transport for emergency cases to enable them travel to referral points. Only 15.2% of the sites provide transportation. A test of association showed that provision of transport does not depend on the type of the HTC site ($\chi^2 = 6.619$, $p – value = 0.084$).
Table 4.11 – Provision of transport to referred HIV positive clients

<table>
<thead>
<tr>
<th>Transport provision</th>
<th>Transport for all referred clients</th>
<th>Transport for emergency cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Counts</td>
<td>Percentage</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>15.20%</td>
</tr>
<tr>
<td>No</td>
<td>65</td>
<td>70.70%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>4.30%</td>
</tr>
<tr>
<td>No response</td>
<td>9</td>
<td>9.80%</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.5.4 Provision of bus fare

Provision of bus fare to HIV positive clients by the HTC sites, to facilitate their movement to referral sites is only done by 4.3% of the sites. Similarly, only 10% of the sites provided bus fare to facilitate movement of emergency cases to the referral points. A test of association showed that provision of bus fare does not depend on the type of the HTC site ($\chi^2 = 1.203$, $p\text{-value} = 0.656$).

Table 4.12 – Provision of bus fare to referral point

<table>
<thead>
<tr>
<th>Bus fare provision</th>
<th>Bus fare for all referred clients</th>
<th>Bus fare for emergency cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Counts</td>
<td>Percentage</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>4.30%</td>
</tr>
<tr>
<td>No</td>
<td>80</td>
<td>87.00%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2.20%</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>6.50%</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.5.5 Communication with referral point

About 63.2% of the sites reported that they communicated with the referral facilities to alert them of client referrals. These results are shown in Figure 4.14 below. There
was no association between communication with the referral point and the type of the HTC site ($\chi^2 = 0.0014, p-value = 1$).

![Figure 4.14 – Communication with referral point](image)

### 4.6 Factors affecting the effectiveness of referrals

The factors studied ranged from individual level to facility level. Apart from follow up, majority of the HTC sites respondents either agreed or strongly agreed that the factors outlined affected effectiveness of referrals. Majority of the respondents ‘disagreed’ that follow up affect the effectiveness of referrals. The respondents ‘somewhat agreed’ that standardized referral forms, having a documented referral system, regular meeting with stakeholders and having referrals manager affect the effectiveness of referrals. These results are tabulated in Table 4.13 below.
Table 4.13 – Factors affecting effectiveness of referrals

<table>
<thead>
<tr>
<th>Factors affecting effectiveness of referral</th>
<th>Opinion of the respondent at the HTC site</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td></td>
<td>N (%)</td>
</tr>
<tr>
<td>Referrals</td>
<td>24 (27.59%)</td>
</tr>
<tr>
<td>Documentation</td>
<td>13 (14.94%)</td>
</tr>
<tr>
<td>Collaboration</td>
<td>8 (9.2%)</td>
</tr>
<tr>
<td>Follow-up</td>
<td>1 (1.18%)</td>
</tr>
<tr>
<td>Accompanying clients</td>
<td>12 (13.79%)</td>
</tr>
<tr>
<td>Transportation</td>
<td>9 (10.34%)</td>
</tr>
<tr>
<td>Communication</td>
<td>13 (14.94%)</td>
</tr>
<tr>
<td>Clients going to the referral centre</td>
<td>19 (21.34%)</td>
</tr>
<tr>
<td>Form of records</td>
<td>15 (17.24%)</td>
</tr>
<tr>
<td>How referrals are made in the last 3 months</td>
<td>6 (6.9%)</td>
</tr>
<tr>
<td>Use of standardized referral forms</td>
<td>8 (9.2%)</td>
</tr>
<tr>
<td>Having a documented referral system</td>
<td>3 (3.53%)</td>
</tr>
<tr>
<td>Regular meeting with stakeholders</td>
<td>7 (8.05%)</td>
</tr>
<tr>
<td>Having referrals manager</td>
<td>8 (9.2%)</td>
</tr>
</tbody>
</table>
CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter discusses the results and compares findings with other similar studies. It also presents conclusions and recommendations based on the study objectives. Suggestions for further research are also provided.

5.2 Discussion
5.2.1 Frequency of referrals for HIV positive clients in Nairobi
The study determined that 8.3% (n = 1,853) of all individuals tested by the 92 HTC sites that participated in the study had tested HIV positive three months prior to the study. The Kenya HIV Estimates of 2018 indicated that Nairobi had an adult HIV prevalence of 6.1% (NACC & NASCOP, 2018). However, linkage into appropriate care and treatment for clients who tested HIV positive was not at 100%, as 6% (n = 5) of the sites, 4 integrated and 1 stand-alone did not refer all the clients who tested HIV positive. Given that Nairobi County is among the counties with the highest adult HIV prevalence, it is critical for the country to strengthen efforts towards attainment of 100% linkage to ART for individuals who test HIV positive (Ibid). The WHO notes that effective and comprehensive HTS services should ensure appropriate linkage for individuals who test HIV positive (WHO, 2016).

A chi square test of association determined that the type of HTC site did not influence the referral of individuals who tested HIV positive. This finding is consistent with that of McNaughten et. al., 2015, who found no differences in patient referrals by HTC model. In contrast, Reddy et. al., 2016 found that the type
of testing site was strong predictor of linkage to HIV care in Tanzania, as individuals who tested at community based (stand-alone) sites were more likely to delay or fail to enter into HIV care than those who tested at integrated sites. Meehan et al., 2018 also found that linkage to HIV care was associated with the type of HIV testing service and determined that clients diagnosed with HIV at mobile HTC sites had significantly reduced odds of linking to HIV care compared to those at stand-alone HTC sites.

The HTC providers in 6% of the sites that did not refer all clients who tested HIV positive cited the reasons for non-referral including: distance to the referral centre, client discomfort, integrated service delivery, referrals not being emphasized by the HTC sites supervisors, and unwillingness of the clients to start care. These reasons are consistent with the findings from the study by Nsigaye et al., 2009, which cited insufficient training, poor use of data for decision-making and client factors such as financial burden, convenience and health facility preference as deterrents for effective linkage between HTC sites and treatment services.

5.2.2 Referral practices of HTC providers in Nairobi

This study defined the scope of referral practices to include documentation, collaboration and follow up of referred HIV positive clients. According to the Guidelines on Use of Antiretroviral Drugs for Treating and Preventing HIV Infections in Kenya, linkages and referrals should be documented in the client’s health record as well as in the referral and linkage register (NASCOP, 2016). From the results of this study, it was observed that 96.7% of sites (n=89) had records indicating the referred HIV positive clients and the services they were referred for.
Referral registers and forms were the main referral documentation kept by the HTC sites. Letters, cards and others were the least maintained forms of referral documentation.

Having a referral system in place is considered as part of a critical mechanism that ensures seamless continuum of care. 86% (n=78) of the HTC sites reported to have documented referral systems in place. The various ways in which the sites were documenting referrals included own developed referral forms, referral letters, NASCOP referral forms and MOH/MOMS/MOPHS referral forms.

Collaboration with other service providers is necessary to ensure continuum of care as recommended by Family Health International (FHI, 2005). As no single facility, agency or community group can meet the needs of people living with HIV/AIDS, HTC sites must establish a referral network to meet, maintain or re-establish contact with clients for on-going care and support (Ibid). Philbin et. al., 2016 cited the need for close collaboration between HTS providers and HTC treatment providers as a prerequisite to rapid linkage and care.

This study showed that 80.43% of the sites had a list of collaborating partners which contained key information consisting of name of referral organization, type of service provided, referral contact person and location of the referral service. Other than just having a list of collaborating institutions, 79% of the HTC sites had formal working relationships with collaborating organisations and institutions that provide services to meet the needs of HIV positive clients.
The forging of meaningful working linkages through regular meetings was recorded among 86.3% of the HTC sites which reported to having collaborations with other partners to exchange information on referrals, their challenges and successes. Of those who cited regular meetings, majority (76%) reported to have meetings with collaborators monthly. Only a minority reported to having meeting in three to six months. This shows the dedication of the HTC sites to maintain a working relationship with their collaborators.

In general, a formal test of the association between having collaborators and the type of HTC site showed that having collaborations with other organisations and institutions that provide services to meet the needs of clients who test HIV positive did not depend on the type of HTC site.

Follow up of referred HIV positive clients is important in ensuring they ultimately access critical care and treatment services. In the Kenya context, the HTC provider is responsible for linkage to HIV care and treatment (NASCOP, 2016). NASCOP requires HTC sites to book appointments with the referral facilities and follow up to ensure patients register at HIV care and treatment sites if HIV care and treatment are unavailable at the site where individuals are tested, or due to client preference (Ibid). Further, HTC sites are required to: provide the patient with referral information, referral form and contact details of the receiving facility; coordinate referrals; maintain linkage registers; track and report linkage progress monthly (Ibid).

From the results of this study, majority of the sites follow up their referrals through phone calls (25%) and written feedback (23.81%). But more worrying is the fact that
in 13% of the sites, follow up is not conducted at all. The study by Van Zyl, *et al.*, 2015 demonstrated that using a call center to encourage linkage after HTC resulted in high linkage to ART.

A considerable number of sites (59%) had a designated person who manages referral services. The lack of referrals manager in 41% of the sites may explain why follow up is not done in number of sites. The test of association between type of HTC site and designation of referral manager to oversee referrals for clients showed no association.

While this study revealed no direct association between the type of HTC site and the different referral practices, other studies by Naik *et al.*, 2015 and Petersen *et al.*, 2017 indicated that various facilitated linkage strategies including repeated support from counsellors, telephone messaging and tracing persons who did not link to care resulted in more than 50% linkage rates.

**5.3.3 Referral facilitation activities of HTC providers in Nairobi**

This study focused on referral facilitation activities that include accompaniment of referred clients to referral points, offering transportation and ensuring constant communication with the client and the facility to which the client is referred. Referral facilitation activities were studied in the context of HIV positive clients who are emergency cases.

From the results of this study, only 40 of the sites (44%) had ever conducted referrals for HIV positive clients who were considered emergency cases. Half of the
sites studied had neither had emergency cases nor ever referred emergency cases for care and treatment. Of the 40 sites that have ever had emergency cases, about 45% had accompanied the emergency cases to the referral point. The lack of accompaniment of emergency cases may lead to loss of follow up. A study by Sharma et. al., 2015 determined that home and campaign HTC interventions, coupled with facilitated linkage such as patient accompaniment, registered the highest number of clients linked to HIV care compared to those that did not facilitate linkage.

This study also determined that 71% of the HTC sites did not provide transport to the referred HIV positive clients. Further, only 4.3% of the sites provided bus fare to HIV positive clients to facilitate their movement to referral sites. Though many HTC sites did not provide transport and bus fare for the clients who tested HIV positive and were emergency cases, a commendable number of the sites (63.2%) reported that they communicated with the referral facilities to alert them of client referrals. The study found no association between the HTC site type and the facilitation activities. Also, none of the facilitation activities had a significant association with the HTC site type. Sharma et. al., 2015 cites incentivized monetary recruitment and use of a call center to encourage linkage after HTC as successful referral facilitation practices and further recommends follow up of individuals who test for HIV at community HTC to encourage linkage.

The study by Govindasamy et. al., 2014 cites referral-facilitating factors such as provision of incentives as having a desirable impact of increasing linkage to HIV
care. This finding is corroborated by Naik *et. al.*, 2015, which links increase in the uptake of HIV care to the provision of transport vouchers.

### 5.3 Conclusion

The attainment of the 90-90-90 targets is hinged on timely identification of all individuals living with HIV and linking them to appropriate care and treatment. Kenya, like other that are grappling with the HIV epidemic, has aligned its HIV response to the Test-and-Treat strategy. This study revealed policy and practice gaps in frequency of referrals, referral practices and facilitation activities of HTC providers in Nairobi. Given the importance of HTC as the entry into HIV care and treatment, the referral practices and facilitation activities of HTS providers need to enable at least 95 per cent of individuals who test HIV positive to be linked to critical HIV care and treatment. HTC sites need to institute all the requisite referral practices and facilitation activities in order to reduce missed opportunities for linkage of individuals who test HIV positive into care and treatment in Nairobi County.

### 5.4 Recommendations

Based on the findings of this study, the researcher recommends the following for ensuring effective referrals for individuals who test HIV positive in HTC sites in Nairobi:

- **5.4.1 Determine the frequency of referrals for HIV positive clients by type of HTC site in Nairobi County**

  Policy recommendations to NASCOP:
- Institute compliance measures to ensure HTC providers and sites adhere to policy requirements for referral and linkage of all individuals who test HIV positive.

**Practice recommendations to HTC sites:**
- Review potential client level and HTC site barriers that lead to non-referral of individuals who test HIV positive and institute site specific responsive measures to increase and/or facilitate 100% referral.
- Institute periodic review of data on frequency of referrals for individuals who test HIV positive; and institute corrective measures that require all HTC providers to ensure referral and linkage of all individuals who test HIV positive to HIV care and treatment.

**5.4.2 Identify the referral practices by type of HTC site for clients who test HIV positive in Nairobi County**

**Policy recommendations to NASCOP:**
- Refine and disseminate guidance on referral practices in order to standardize actions between HTC sites and HIV care and treatment services. The guidance should clearly outline referral practices such as standard forms to document referrals, how to build a list of referral network partners, mechanisms of establishing formal collaborations within the referral network partners, designating managers to oversee patient follow up and means of conducting client/patient follow ups.

**Practice recommendations to HTC sites:**
- Document referrals in health record, referral linkage register and MOH referral form as guided by NASCOP.
- Document site-specific referral system to ensure clarity and standardization that enables seamless continuum of care for clients who test HIV positive.
- Institute collaborative and formal working relationship with referral network partners who provide complementary services to individuals who test HIV positive.
- Identify and designate a health care worker to manage referrals including collaboration with receiving sites, patient follow up and tracking.

5.4.3 Establish referral facilitation activities for clients who test HIV positive by type of HTC site in Nairobi County

Policy recommendations to NASCOP:
- Refine and disseminate guidance on referral facilitation activities related to accompaniment, transportation and follow up of clients who test HIV positive.

Practice recommendations to HTC sites:
- Establish HTC site specific referrals facilitation activities related to accompaniment, provision of transport and/or bus fare and follow up to enhance linkage of individuals who test HIV positive and are regarded as emergency cases. The referrals facilitation activities must be appropriate for context, unique patient profiles and capabilities of the respective HTC site.

5.5 Further Research
There is need to determine the extent to which referred HIV positive clients complete the referrals made to HIV care and treatment in Nairobi County. Such a study should ascertain the clients’ perspectives on aspects such as acceptability of referrals, the practices and facilitation activities of the HTC sites in Nairobi County.
REFERENCES


to promote and monitor access to antiretroviral therapy in rural Tanzania”. Journal of International AIDS Society 12:31


WHO (2005). Progress on global access to HIV antiretroviral therapy: A report on “3 by 5”.


WHO (2015). Guideline on when to start antiretroviral therapy and pre-exposure prophylaxis for HIV. Geneva


www.bertalanffy.org

www.nwlink.com

www.parachy.org


https://netstorage-tuko.akamaized.net/images/0fgjhs5gdp14k9r7e.jpg
APPENDICES

Appendix I: Map of Nairobi

Source: https://netstorage-tuko.akamaized.net/images/0fgjhs5gdp14k9r7e.jpg
Appendix II: Questionnaire

Part A: Information Sheet
Thank you for taking time to participate in this study. First I would like to go through this sheet with you, as it provides details about the study. In doing so, you will be able to give voluntary, informed consent to participate. Once we have read through the information and I have answered any questions you may have, we will kindly request you to sign the consent form (Part B) to indicate that you fully understood what this study is about and you are willing to participate.

Aim of the Study
The study aims to identify referral practices and facilitation activities of HTC providers in Nairobi for individuals who test HIV positive.

Benefits for Participating
HTC providers will have the opportunity to reflect on referral practices and referral facilitation activities rendered to clients who test HIV positive at their sites. Information collected from this interview will be used to derive lessons learnt, address challenges, and hopefully inform HTC providers on implementing referrals for HIV positive clients.

Risks for Participating
There are no known risks for HTC sites, managers or designated officers that participate in the study.

What your participation will involve
In order to participate in this study you must:
- Understand that you will make the decision whether or not to participate;
- Be currently working for an active HTC site
- Upon accepting to participate, be prepared to be asked questions on referral practices and facilitation activities conducted by this site for HIV positive clients;
- Understand the interview will take approximately 30 min to 1 hour to complete;
- Understand that all the information you provide will be treated with strict confidentiality and will only be used for the purposes of this study.

Confidentiality:
As stated earlier, all the information you provide will be treated with strict confidentiality and will only be used for the purposes of this study. All written responses will only be handled by the student carrying out the study. No one apart from the student and two University Supervisors will have access to the information you provide without your direct permission. No names will be mentioned in any written reports.

Part B: Consent
I have understood the information provided to me concerning this study as described in Part A. By signing this sheet I confirm that I have fully understood the information given to me and agreed to participate in the exercise. If you have any questions about the study, please contact the student at your own discretion:
Serah Malaba
MPH Student – Kenyatta University
P.O Box 22453 – 00100, Nairobi
Tel: 0733 624637
serahmalaba@yahoo.com
**Consent Form for Completion by other Participants**

I have understood the information concerning this exercise and my concerns have been addressed.

I understand I may withdraw without giving any reason and without exposing the HTC site, myself or my family to any risks.

Tick as appropriate in the section below and the sign

Do you agree to participate in this study? *(Check appropriate box)*

Yes ☐

No ☐

Participant signature (initials): ___________________ Date: ___________________

Interviewer signature (initials): ___________________ Date: ___________________
## Referral Practices and Facilitation Activities of HIV Testing and Counselling (HTC) Providers for HIV Positive Clients in Nairobi

### Part I: Profile of HTC Site

<table>
<thead>
<tr>
<th>Location of the HTC Site:</th>
<th>Nairobi West [ ]</th>
<th>Nairobi North [ ]</th>
<th>Nairobi East [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Job title of respondent: ________________________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Name of the site as registered: __________________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Year when the site was established_______________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Year when the site began its operations __________________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The type of Organization that oversees the Site (Tick the option that corresponds to the description provided)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Faith Based Organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Professional Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Local Non Governmental Organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] International Non-Governmental Organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Community Based Organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Government entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Trust</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Individual</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Other (explain)………………………</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Type of HTC Site</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Integrated</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Stand alone</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] Others (Specify)_________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 7 | What services are provided by this site?  
(Tick all that are mentioned) | [ ] HTC  
[ ] PMTCT  
[ ] TB diagnosis and treatment  
[ ] STI diagnosis and treatment  
[ ] Palliative Care  
[ ] ART  
[ ] General outpatient care  
[ ] In patient care  
[ ] In and outpatient care  
[ ] Other (explain)……………………… |
|---|---|---|
| 8. | Types of HIV testing and counselling that the site implements? (Read and tick the appropriate type of HTC provided) | [ ] Client initiated (VCT)  
[ ] Provider initiated (PITC)  
[ ] Mobile HTC  
[ ] Home Based HTC  
[ ] Moonlight HTC  
[ ] Couple HTC  
[ ] Paediatric HTC |
| 9 | Number of HIV Testing and Counselling providers that the site has | ________________ |
| 10 | Roles carried out by HIV Testing and Counselling providers | [ ] Mobilization  
[ ] Counselling and Testing  
[ ] Condom Education  
[ ] Referrals  
[ ] Data collection and reporting  
[ ] Psychological support  
[ ] Other (specify)………………………… |
| 11 | Whether the site has a copy of the current national Guidelines for HIV Testing and Counselling in Kenya (verify) | [ ] Yes  
[ ] No |
### Part ii: Referral Practices of HTC Providers in Nairobi for Clients who Test HIV Positive

| a) Referral |
|-------------------|-----------------|
| 13. How many clients did this site test in the last 3 months? | Total male | Total female | Total HIV Positive |
| 14. Were all the individuals who tested HIV positive referred? *(If referrals are never conducted, skip to the next question)* | [ ] Yes | [ ] No | [ ] Referrals are never conducted | [ ] Other (specify) …………………… |
| 15. If not all HIV positive clients were referred, what were the reasons for not referring some of the HIV positive clients? | ……………………………………… |
| 16. What are the reasons for ‘not referring at all’ clients who test HIV positive at this site? | ……………………………………… |

### b) Documentation

<p>| 17. Do you have records showing the referred clients and the services they were commonly referred for? <em>(verify)</em> | [ ] Yes | [ ] No |</p>
<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
</table>
|18 | If yes, in what form are these records? *(verify)*                                                                                                                                                    | [ ] Register  
[ ] Forms  
[ ] Cards  
[ ] Letters  
[ ] Other (specify)                                                                 |
|19 | If no, how do you know that clients who tested HIV positive here were referred?                                                                                                                      | ......................................................................................................... |
|20 | How were the referrals for the individuals who tested HIV positive made in the last 3 months?                                                                                            | [ ] NASCOP Referral forms  
[ ] MOH/MOMS/MOPHS referral forms  
[ ] Own developed referral forms  
[ ] Referral letters  
[ ] Not documented/verbal  
[ ] Other (specify)                                                                 |
|21 | Were the referrals name-based or anonymous?                                                                                                                                                          | [ ] Name based  
[ ] Anonymous  
[ ] Both anonymous and name based  
[ ] Other (specify)                                                                 |
|22 | What were reasons for this? *(Name based, anonymous referrals, both name-based and anonymous or other)*                                                                                          | .........................................................................................................  
.........................................................................................................  
......................................................................................................... |
|23 | Does this HTC have a standardized referral form that is issued by all its counsellors when referring clients who test HIV positive? *(If no, skip to qn. 25)*                                                   | [ ] Yes  
[ ] No  
[ ] Other (specify)                                                                                                               |
|24 | If yes, what information is captured in the standardized referral form?                                                                                                                               | [ ] Date of referral  
[ ] Type of service needed  
[ ] Name of client  
[ ] Name and contact information of the HTC site  
[ ] Other (specify)                                                                 |
|25 | If no, how does this site document referrals?                                                                                                                                                    | [ ] Written feedback  
[ ] Verbal feedback  
[ ] Telephone feedback  
[ ] Client-tracking form  
[ ] Not done  
[ ] Other (specify)                                                                 |
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 26 | Does this site have a documented referral system | [ ] Yes  
[ ] No  
[ ] Other (specify)……………………… |
|   | c) Collaboration |   |
| 27 | Does this site have a list of organizations/institutions/departments that provide services to meet the needs of clients who test HIV positive? | [ ] Yes  
[ ] No  
[ ] Other (specify)……………………… |
| 28 | If yes, what information is captured in the list? *(Tick all the mentioned)* | [ ] Name of the organization  
[ ] Type of service provided  
[ ] Referral contact person  
[ ] Location of service  
[ ] Other (specify)……………………… |
| 29 | Has this site established working relationships with other organizations with other organizations/institutions/departments that provide services to meet the needs of clients who test HIV positive? | [ ] Yes  
[ ] No  
[ ] Other (specify)……………………… |
| 30 | If yes, does this site meet regularly with such organizations to exchange information on referrals, challenges and successes? *(If yes, continue to qn. 31, if no skip to qn. 32)* | [ ] Yes  
[ ] No  
[ ] Other (specify)……………………… |
| 31 | How regular are the meetings? | [ ] Daily  
[ ] Weekly  
[ ] Bi-weekly  
[ ] Monthly  
[ ] Other (specify)……………………… |
### Part iii: Referral Facilitation Activities Carried out by HTC Providers in Nairobi for Clients who Test HIV Positive

<table>
<thead>
<tr>
<th>a) Accompaniment</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 Has this site ever conducted referrals for HIV positive clients who were considered as emergency cases? <em>(For example, someone who comes in and tests positive and is seriously ill or faints or a pregnant woman tests positive and goes into labour)</em> If no, skip to qn.</td>
</tr>
<tr>
<td>35 If yes, were such emergency cases accompanied to the referral point by a service provider from this site?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b) Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 Does this site provide transport to referred HIV positive clients to the referral point?</td>
</tr>
<tr>
<td>37 Does this site provide HIV positive clients with bus fare to the referral point?</td>
</tr>
</tbody>
</table>
c) Communication with referral point

| 38 | Does this site call the referral points to alert them of HIV positive client referrals? | [ ] Yes | [ ] No | [ ] Other (specify)………………………… |

Part iv: Rating of Referral practices and facilitation activities

39. To what extent do you agree with the following statements, kindly tick appropriately your level of agreement with each statement:

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree (1)</th>
<th>Agree (2)</th>
<th>Somehow agree (3)</th>
<th>Disagree (4)</th>
<th>Strongly disagree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Referrals affects effectiveness of referrals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Documentation affects referrals</td>
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</tr>
<tr>
<td>3.</td>
<td>Collaboration affects referrals</td>
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<tr>
<td>4.</td>
<td>Follow-up affects referrals</td>
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<tr>
<td>5.</td>
<td>Accompanying clients to referral centers affects referrals</td>
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<tr>
<td>6.</td>
<td>Transportation affects referrals</td>
<td></td>
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</tr>
<tr>
<td>7.</td>
<td>Communication affects referrals</td>
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<td></td>
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<tr>
<td>8.</td>
<td>Clients going to the referral centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Form of records</td>
<td></td>
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<tr>
<td>10.</td>
<td>Using standardized referral forms</td>
<td></td>
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<tr>
<td>11.</td>
<td>Having a documented referral system</td>
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<tr>
<td>12.</td>
<td>Regular meeting with stakeholders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Having a referrals manager</td>
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<td></td>
</tr>
</tbody>
</table>

Thank you very much. Your participation and the information you have provided is very important.
Appendix III: Kenyatta University Graduate School Approval of Research Proposal

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 45644, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

Internal Memo

FROM: Dean, Graduate School
TO: Malaba Joy Serah
     C/o Public Health Dept.

DATE: 31st March, 2011
REF: 157/7449/02

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that your M.P.H Research Proposal was approved by the Graduate School Board on 28th March, 2011.

Thank you.

JOHN M. ODONGI
FOR: DEAN, GRADUATE SCHOOL

cc. Chairman, Public Health Department
Supervisors:

1. Dr. John Paul Oyore
   Department of Public Health

2. Dr. Christine M. Wasanga
   Department of Psychology

JMO/bwk

Committed to Creativity, Excellence & Self-Reliance
Appendix IV: National Council for Science and Technology Research Authorization

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Our Ref: NCST/RRI/12/1/MED-011/68

Serah Joy Malaba
Kenyatta University
P.O Box 43844
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Referral practices and facilitation activities of HIV testing and counselling (HTC) sites for HIV positive clients in Nairobi.” I am pleased to inform you that you have been authorized to undertake research in Nairobi Province for a period ending 31st July, 2012.

You are advised to report to the Provincial Commissioner and the provincial Director of Education of Nairobi Province before embarking on the research project.

On completion of the research, you are expected to submit one hard copy and one soft copy of the research report/thesis to our office.

P.N. NYAKUNDI
FOR: SECRETARY/CEO

Copy to:
The Provincial Commissioner
Nairobi Province

The Provincial Director of Education
Nairobi Province
Appendix V: Kenyatta National Hospital Ethics Committee Approval

Ref. KNH-ERC/ A/221

Serah Joy Malaba
School of Health Sciences
Kenyatta University

Dear Serah


This is to inform you that the KNH/UON-Ethics & Research Committee has reviewed and approved your above cited research proposal. The approval periods are 17th August 2011 – 16th August 2012.

You will be required to request for a renewal of the approval if you intend to continue with the study beyond the deadline given. Clearance for export of biological specimens must also be obtained from KNH/UON-Ethics & Research Committee for each batch.

On behalf of the Committee, I wish you a fruitful research and look forward to receiving a summary of the research findings upon completion of the study.

This information will form part of the database that will be consulted in future when processing related research study so as to minimize chances of study duplication.

Yours sincerely

[Signature]

PROF A N GUANTAI
SECRETARY, KNH/UON-ERC

c.c. The Deputy Director CS, KNH
The HOD, Records, KNH
Supervisors: Dr. John Paul Oyore, Dept. of Public Health, Kenyatta University
Dr. Christine M. Wasanga, Dept. of Psychology, Kenyatta University
Appendix VI: NASCOP Research Approval

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION, MALABA JOY SERAH

I wish to introduce Ms Malaba Joy Serah who is a postgraduate student at Kenyatta University. She is pursuing a Masters in Public Health.

Ms Malaba is conducting research for a proposal entitled “Referral Practices and facilitation activities for HIV Testing and Counseling (HTC) sites for HIV positive clients in Nairobi”. The student has a permit from the National Council of Science and Technology (NCST) as well as ethical approval from the Kenyatta National Hospital/University of Nairobi’s Ethics and Research Committee.

NASCOP has provided her with both the authorization and list of HTC sites in Nairobi to facilitate sampling of the sites.

Ms Malaba would like to conduct interviews with HTC Managers or in charges in 30 minutes to 1 hour interviews and you are requested to accord her your assistance and participation.

All site/facility protocol must be observed.

Thank you.

Dr. Nicholas Muraguri
Head, NASCOP

Cc:
- Provincial director of Public Health & Sanitation
- All DASCOs