DETERMINANTS OF DISCLOSURE ON HIV SERO-STATUS AMONG PEOPLE LIVING WITH HIV AND ON ANTIRETROVIRAL TREATMENT AT MOMBASA COUNTY REFERRAL HOSPITAL, KENYA

JOSHUA KAILONG MUREI
Q57/MSA/PT/27655/2014

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH IN EPIDEMIOLOGY AND DISEASE CONTROL IN THE SCHOOL OF PUBLIC HEALTH OF KENYATTA UNIVERSITY

NOVEMBER, 2018

DECLARATION

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

Signature ……..... Date ……

Joshua Kailong Murei
Department of Community Health

Supervisors:

This thesis has been submitted with our approval as University Supervisors.

Signature ……..... Date ……

Prof. Alloys Orago
Department of Pathology
Kenyatta University

Signature ……..... Date ……

Dr. AggreyAdem
Department of Mathematics and Physics
Technical University of Mombasa

DEDICATION

To the Almighy God who has been my strength and divine inspiration in every thing I do.

To my loving wife Naomi Cheruiyot who has been my greatest source of inspiration and strength. Has offered me unconditional support and encouragement

To my dear daughter Joy Cherop Kailong who fills my world with so much happiness and gives me every reason to work hard

To my dear parents William and Susan Togom and to my brothers David, Eliud and Thomas and my dear sisters Eusilah, Ruth and Judith for being there for me and encouraging me to work hard

ACKNOWLEDGEMENTS

My sincere gratitutes goes to my supervisors; Professor Alloys Orago who has mentored, guided and corrected every step of my thesis and Dr. Aggrey Adem, who assisted me greatly in the statistical analysis, interpretation and reporting of the findings. I sincerely express my gratitudes to Dr. Linnet Masese who guided in research topic, concept paper, proposal and thesis review.

I wish to thank the Chief Administrator Mombasa County Referral Hospital, Dr. Iqbal Khandwalla for granting me permission to undertake my study in the hospital. Thanks to Ms. Felvin Onyango and Ms. Winfred Jack who assisted in data collection.

I also acknowledge the support of my fellow classmates who contributed either directly or indirectly to the success of my research project, I am grateful for your constant encouragement throughout the research study.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABBREVIATION OF ACRONYMS

AIDS	-	Acquired Immune Deficiency Syndrome
ANC	-	Ante Natal Care
AOR	-	Adjusted Odds Ratio
ART	-	Anti Retroviral Therapy
ARVs	-	Anti Retro Viral drugs
CCC	-	Comprehensive Care Center
CDC	-	Centers for Disease Control and Prevention
CD4	-	Cluster of Differentiation 4
CSW	-	Commercial Sex Worker
CI	-	Confidence Interval
Df	-	Degrees of freedom
HAART	-	Highly Active Antiretroviral Therapy
HBCT	-	Home Based Counseling and HIV Testing
HCP	-	Health Care Provider
HIV	-	Human Immunodeficiency Virus
HTC	-	HIV Testing and Counselling
IDUs	-	Injection Drug Users
KAIS	-	Kenya AIDS Indicator Survey
KNBS	-	Kenya National Beureu of Statistics
Ksh.	-	Kenyan shilling
KUERC	-	Kenyatta University Ethical Research Commitee

MCH	-	Maternal and Child Health
MCRH	-	Mombasa County Referral Hospital
MOH	-	Ministry of Health
MSM	-	Men who have Sex with Men
MTCT	-	Mother To Child Transmission of HIV
NACC	-	National AIDS Control Council
NACOSTI	-	National Commission for Science Technology and Innovation
PLHIV	-	People Living With HIV
PMTCT	-	Prevention of Mother to Child Transmission of HIV
SPSS	-	Statistical Package for Social Sciences
UNAIDS	-	United Nations Programme on HIV/AIDS
USAID	-	United States Agency for International Development
USA	-	United States of America
STI	-	Sexually Transmitted Infection
TB	-	Tuberculosis
VCT	-	Voluntary Counselling and Testing
WHO	-	World Health Organization

DEFINITION OF TERMS

Disclosure: Disclosure in the context of HIV and AIDS refers to the act of informing any individual or organization of the HIV status ofan infected person or to the fact that such information has been transmitted by any means, by the person him or herself, or by a third party, with or without consent. Except in exceptional circumstances, when disclosure to another person is required by law or ethical considerations, a person with HIV has the right to privacy and to exercise informed consent in all decisions about disclosure of his/her status.

Stigma: HIV related stigma and discrimination refers to prejudice, negative attitudes and abuse directed at people living with HIV and AIDS (Erica, 2010). Stigma is the combination of label stereotypes, discrimination, categories and status, or lack thereof, guided by those with access to power (Link and Phelan, 2001). Stigma is what one would find at the intersection of culture, power and difference (Parker and Aggleton, 2003). It is something that society disdains at such a level that it removes any credibility the individual once had (Herek, 2002).

Preferred party: This is an appropriate person that an HIV positive person can share the disease status with trust and comfort. It can be a health worker, children, friend, partner or religious leader (Thompson *et al*; 2010).

Partner: The closest person to HIV positive client with whom they engage in sexual practices. It can either be the wife, friend or any person whom they engage in sex activities. They are the first to be at risk in an event of HIV infection (Anglemyer *et al*; 2013).

ABSTRACT

It is estimated that Kenya has 1.6 million people living with HIV and 88,000 new adult infections annually. The country has adult HIV prevalence rate of between 5.6 - 7.2% and incidence rate of 0.4 – 0.7%. Recent studies on HIV disclosure among adult sexual partners revealed HIV 70-80% disclosure rates. A number of studies on HIV and AIDS have been undertaken in Kenya. However, determinants of disclosure among persons living with HIV remain unclear. The objective of this study was to explore the level of HIV sero – status disclosure and preparedness, establish preferred disclosure party, find out disclosure perceptions and determine PLHIV knowledge on spouse HIV sero-status and disclosure outcomes among PLHIV on ART treatment at the Mombasa County Referral Hospital. A cross-sectional study design was employed and both quantitative and qualitative data collected. Univariate and multivariate analyses were performed using SPSS version 20, frequencies generated for categorical variables and comparison between proportions examined using Chi–square test. A sample size of 432 was arrived at using Cochrane's formula from a sample frame of 15,600 PLHIV at the MCRH. Simple random sampling was used to recruit the subjects into the study via administration of papers labeled and folded, where those who pick yes were enrolled into the study and the exercise continued for the entire study period. The subjects recruited were taken through the research purpose, objective, rights, risks, benefits and confidentiality before consenting. Structured questionnaires, in-depth interviews and focused group discussion tools were used to collect data. The quantitative results showed out of 432 participants recruited in the study; were 174 (40.3%) males and 258 (59.7%) females of which 32.9% were married. Majority participants were within 29-38 years range with a mean age of 35.0 years. About 40.5% had secondary education, 31.2% were employed with 17.8% getting a salary below Ksh. 10,000. About 61.1% were Christians and 36.6% Muslims. The overall disclosure rate among PLHIV was 79.2% while disclosure to spouses was 35.9%. Based on gender 53% female and 47% (P, 0<001) male had disclosed their status, while 31.7% of participants had disclosed to between 1-2 people. Key determinants of HIV disclosure were knowledge of partner HIV status and pre disclosure preparednes. Key determinants of disclosure were disease transmission (AOR 21.125; 95% CI 6.942-64.286), unfaithfulness in relationship (AOR 7.133; 95% CI 3.713-13.628) and consistent condom use (AOR 5.619; CI 2.659-11.873). Qualitative findings on disclosure perceptions showed 42.78% good, 32.97% low self esteem, 17.3% quilt and 6.22% shame, while results on disclosure outcome portray stigma (72.7%), discrimination (12.5%) and least being suicidal thoughts (2.2%). The study realized 46% of PLHIV were not aware of their spouse HIV status despite being on care. While 43% who had not disclosed their sero-status; 40% were not willing due to fear of economic loss, 35% loss of social support and 25% to blame. The knowledge of partner HIV status and pre disclosure preparedness are important determinants for HIV disclosure. Interventions that target HIV counseling and testing as well community perception on HIV disclosure should be empowered. The results of this study will help PLHIV and those not infected to seek HIV test and disclose their status in order to reduce risk of HIV transmission.

CHAPTER ONE: INTRODUCTION

1.1Background information

Human immunodeficiency virus and acquired immune deficiency syndrome (HIV and AIDS) is a disease spectrum of the human immune system (Markowitz *et al*; 2006). It is transmitted primarily via unprotected sexual intercourse, contaminated blood transfusion, hypodermic needles and from mother to child during pregnancy or breastfeeding (Markowitz *et al*; 2006). The prevention of HIV infection is significant given the disease has neither cure nor a vaccine (Ateka *et al*; 2006). The prevention practices involves the use of antiretrovirals (ARVs), prevention of mother to child transmission (PMTCT), safe sex practices, voluntary counseling and testing (VCT) inorder to reduce new HIV infections (Stirrat *et al*; 2006, Medley *et al*; 2004, Reece *et al*; 2010, Melonie *et al*; 2013, Martin *et al*; 2013, Anglemyer *et al*; 2011).

HIV and AIDS portray both physical and economic impacts to the society (Kallings *et al*; 2008). It is still a taboo for some communities to discuss HIV status, which place them at a higher risk of acquiring the disease (Kalichman *et al*; 2014). Disclosure is an important public health goals to prevent new HIV transmission as it motivate sexual partners to seek testing, change behaviour and ultimately decrease transmission of HIV (Carla *et al*; 2011, Endalew *et al*;

2013). It also provides opportunity for social support, improved access to necessary medical care (Atuyambe *et al*; 2014).

The disclosure practice enables patients to overcome blame, abandonment, physical and emotional abuse, discrimination, loss of economic support, and disruption of family relationships with the spouse (Kalings *et al*; 2008, Galletly *et al*; 2009, Garumma *et al*; 2012).The HIV testing and counselling (HTC) is vital in the disease prevention as well as control of the HIV epidemic (Farquar *et al*; 2004).

The prevalence of HIV infection in sub Saharan Africa is the highest in the world (Cohen *et al*, 2008). Most infected persons do not know their HIV status as well as their spouses (KNBS, 2014). Those who present to the hospital very late in the course of the disease have greater mortality compared to those who present earlier (Gachanja *et al*; 2016, Bonnet *et al*; 2004). The early diagnosis of HIV provides better interventions and promotes the quality of lives on the affected persons (Qiao *et al*; 2013).

1.2 Problem statement

Sub - Saharan Africa is the region most affected with HIV and AIDS, with estimated 68% (22.9 million) of all HIV cases and 66% of all HIV related deaths in 2010. This means that 5% of the adult populations are

infected. Kenya has a population of 1.6 million PLHIV (5.9% prevalence), 62,000 new infections and 36,000 AIDS related deaths with adult prevalence and incidenece rate of is 5.4% and 11% annually. Mombasa County has a prevalence of 11.1% (54,670) PLHIV and 1,600 annual incidences. The women are more affected (60% of all cases). Overall HIV disclosure rate globally stands at 39.5–97% while in Kenya, disclosure stands at 70-80% among sexual partners and 11- 26% in children.

The Kenyan government in its sustainable development plan is to attain zero new infection of HIV by 2030. The disclosure process is voluntary and HIV results are disclosed with consent to the patient, health workers or the third party. As a result of this; a number of PLHIV despite counseling and test are in relationships that they don't have knowledge of spouse HIV status due to varied perceptions on disclosure.

The hinderance to disclosure is fear to share the HIV status soon after diagnosis. The fear to disclose is associated with the negative outcomes like blame, violence, abandonement, abuse, discrimination, broken relationships and even loss of support. In the fight of HIV epidemic, delay of disclosure accounts a lot of harm than good to the person himself as well as the loved ones. Disclosure is vital in the fight against HIV/AIDS, thus a suitable approach, as well as a preffered party who can be trusted as well as supportive

should enjoined in order to facilitate disclosure, respect person rights and protect others from getting infected.

1.3 Justification

HIV disclosure among PLHIV is significant in the prevention and control of the disease. Therefore, more knowledge is vital because no previous study has been done to establish disclosure level among sexual partners in Mombasa County which is the fifth county countrywide in HIV prevalence (11.1%).

Mombasa County was specifically selected for this study because of being a cosmopolitan city, richness in tourism and trade activities. The county is also affected with drug and substance use which is a risk to new HIV infections among injection drug users (IDUs). Moreover, county has a high burden of HIV considering the risk of factors increasing diseases prevalence.

The study was meant to contribute in filling existing gaps on disclosure outcome, empower on current disclosure strategy (voluntary and result disclosed with patient consent) where the patient has anonymity to either disclose or not. Unlike active provider assisted strategy partner notification used in USA that has increased patient disclosure to 98%. The study targeted to bring up new interventions measures of promoting disclosure, create effient and effective disclosure strategy in order to reduce new HIV infections.

1.4 Research Questions

i. What is the level of HIV sero-status disclosure among PLHIV at MCRH?
ii. What is the preferred disclosure party among PLHIVat MCRH?
iii. What is the disclosure perception among PLHIV at MCRH?
iv. What is the PLHIV knowledge on sexual partner HIV sero-status at MCRH?
v. What are the HIV sero-status disclosure outcomes among PLHIV at MCRH?

1.5 Hypothesis

1.5.1 Null Hypothesis

There are no HIV sero-status disclosure determinants among PLHIV on treatment and care at MCRH

1.5.2 Alternative hypothesis

There exist HIV sero-status disclosure determinants among PLHIV on treatment and care at MCRH

1.6 Objectives of the study

1.6.1 General objective

To explore the determinants of HIV sero-status disclosure among PLHIVreceiving treatment and care at MCRH

1.6.2 Specific objectives

(i) To determine the level of HIV sero-status disclosure among PLHIV at MCRH

(ii) To establish PLHIV preferred HIV sero-status disclosure party at MCRH

(iii) To identify disclosure perception among PLHIV at MCRH

(iv) To determine PLHIV knowledge on spouse HIV sero-status and disclosure preparedness at MCRH

(v) To establish HIV sero-status disclosure outcomes among PLHIV at MCRH

1.7 The significance of the study and expected output

From the study; the findings found it prudent to prepare PLHIV well in order to facilitate timely disclosure. This acts synergistically that 42.18% were having a positive good perception about disclosure. The preferred disclosure party is best incorporated in the disclosure process to fasten full disclosure.

The study output advise on promotion of HIV test and counseling services through provision of self administered affordable HIV test kits at home, creation of HIV disclosure groups among PLHIV on care, empower PLHIV on disclosure techniques, community being educated on the significance of HIV disclosure so as to reduce negative reactions and outcome associated with

disclosure.The study can contribute to the scientific knowledge on HIV and AIDS disclosure. The study also will act as a reference on other studies

1.8 The Limitations of the study

The findings of this study could be affected by a number of limitations. The nature of data collection could be affected by non response bias. Some PLHIV still have negative perceptions about HIV and AIDS and therefore were not free in giving out information, but rather felt we were disturbing them. The study encountered small percentage of non response bias but was minized by the recruitment of more subjects into the study.

1.9 Theoretical framework

Figure 1.1 below illustrates the HIV disclosure determinants among PLHIV. Disclosure is a process that may takes varying time amongest different persons. The study explored partner HIV status knowledge and disclosure preparedness, HIV disclosure perceptions and preferred disclosure part as the independent variables. The negative disclosure outcomes (stigma, violence, blame, suicidal thouts, abandonment and discrimination) were the intermediate variable.

According to the protection motivation theory which postulates the crucial component of fear of an event is the magnitude of noxiousness, the probability of an event occurrence and the efficacy of a protective response. Each of these communication variables initiates corresponding cognitive appraisal processes

that mediate attitude change (Chaudoir *et al*; 2011). This theory proposes that fear of PLHIV to disclose to the spouses is determined by a set of control beliefs about the presence of contextual factors such as preparedness, perception and psychosocial factors or negative attitudes towards HIV disclosure. These factors interact with individual's socio-demographic characteristics and form a basis for disclosure.

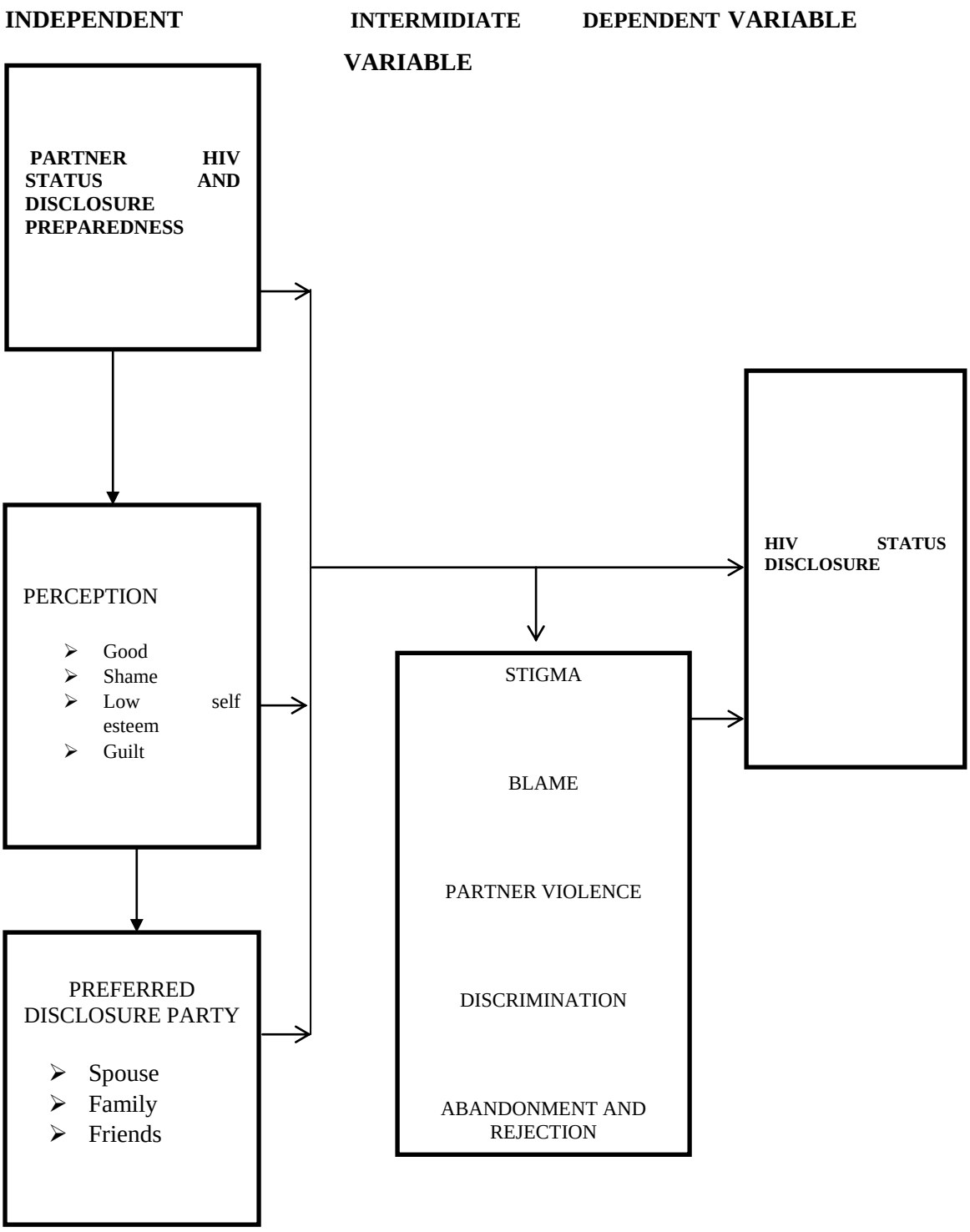

Figure 1.1: Multiple factors influencing HIV sero-status disclosure (Jamilla, 2012)

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

HIV infected patients find it hard to disclose their HIV status soon after diagnosis (Maman *et al*; 2003. For disclosure to happen, it depends on several factors which include age, socio economic status, level of education, marital status, social relations, knowledge, cultural factors and acquaintance on the importance of HIV disclosure (Bunnel *et al*; 2008). Global studies have revealed that younger people, people with low socio economic status and low education level are less likely to disclose their HIV status (Ndayala *et al*; 2005). It is therefore not surprising that although rates of HIV disclosure in sub-Saharan Africa range from 17%-86%, lower rates are observed among women who are tested for HIV in ANC settings (Anthony *et al*; 2015).

Though awareness of HIV and AIDS is comparatively high in Kenya, many PLHIV face high levels of stigma and discrimination which deters them, particularly vulnerable groups, from seeking HIV services (NASCOP, 2014). HIV and AIDS are considered the most stigmatized illnesses in the world (Simbayi *et al*; 2007). Concealing one‘s illness to avoid HIV and AIDS stigma interferes with treatment adherence and perpetuates a culture of non disclosure (Bachanas *et al*; 2001).

2.2 The status and level of disclosure among PLHIV

A study by Issifou (2015) in Togo on HIV disclosure to sexual partners among PLHIV on ART revealed 60.9% participants had disclosed their HIV status.

Other recent studies have demonstrated HIV disclosure among PLHIV to be between 39.5% - 97% (Salami *et al*; 2011, Pamela *et al*; 2013, Ndayala *et al*; 2015, UNAIDS, 2015, Patel *et al*; 2012). While a study carried out in Kenya, Tanzania and Namibia on disclosure of partner status showed 20% of patients had not disclosed their HIV status to their sexual partners (Pamela *et al*; 2013). However, disclosure level in Kenya stands between 74% on sexual partners and 11-26 in children (NACC, 2015)

2.3 The preferred party

It is usually the responsibility of the PLHIV to disclose their HIV status to a preferred party. However, Li *et al* (2008) explained that based on circumstances surrounding HIV patients, HCP should honestly inform the patient or family member about the condition of the disease. Lugalla *et al* (2012) demonstrates that timing and process of relaying information is crucial. According to Makin *et al* (2008) most PLHIV tend to disclose their HIV sero-status to closely related person while Boullon *et al* (2007) study shows that friends are closer confidants than immediate family members among gay men and relatives are preferred disclosure party than spouses.

2.4 Perceptions on HIV status disclosure

Many HIV positive individuals find it desirable to share information about their HIV status with their partners immediately. Others may take time weighing potential negative consequences (Galletly *et al*; 2009), while others are reluctant to disclose especially those in relatively new relationships (Akani

et al; 2006). According to USAID (2012) study; shame, blame, low self esteem and guilt are expressed by patients upon disclosure preparedness.

In a study examining disclosure amongest a wide range of HIV positive people in the United States of America, HIV positive male client told his HIV negative female partner that he was expecting to have a shorter lifespan (without explaining why), the female partner replied he should be HIV sero positive (Klitzman *et al*; 2003).

Maman (2003) study demontrates that the fear of HIV status disclosure is one of the main barriers to women seeking VCT services and the fear reflects unequal and limited power that many women have control over risk of infection. In some cases women fear of blame may be a reason for none disclosing their HIV status (Medley *et al*; 2004). Since HIV is a highly stigmatized condition, WHO and UNAIDS support human rights approach by encouraging beneficial disclosure of HIV status (WHO, 2011). The approach emphasizes on individuals to have control in disclosing their HIV status (UNAIDS, 2015). According to USAIDS (2012) study 43% and 50% PLHIV on care expressed quilt and low self esteem respectively towards HIV disclosure.

2.5 Knowledge of partner HIV statusby PLHIV

Disclosure is a dynamic process that the patient is taken through in order to facilitate their HIV sero-status disclosure (Ndayala *et al*; 2015). Patient

preparedness is essential because people seek support and information about HIV from a wide range of sources. Fear, stigma and lack of understanding inhibit people from sharing their status, thus placing their loved ones at the risk of getting the disease (WHO, 2014). Sexual partners of persons diagnosed to be HIV reactive require HIV counseling, testing and evaluation for therapy (Ashaba *et al*; 2017).

However, the disclosure timings vary among different people, some can disclose soon after diagnosis while others delay as a result of anticipated consequences; accusation of infidelity, abandonment, violence, stigma and discrimination (Medley *et al*; 2004). The sooner HIV disclosure is facilitated, it allow people to free their minds out of unwanted thoughts, help them to make sense of upsetting events, learn to regulate their feelings, habituate them to negative emotions and improve their connections with their social world all of which can lead to beneficial effects on health and well being (Chandra *et al*; 2003).

2.6 Global determinants of the HIV status disclosure

2.6.1 Stigma

Stigma associated with HIV is a barrier to disclosure because people perceive HIV positive status a negative impact on PLHIV and their children (Ateka, 2006). The potential for HIV stigma to limit children's marriage prospects is

particularly worrisome and a reason why some chose not to disclose their HIV sero-status to other people except the spouse (Farquhar et *al*; 2001).

However, stigma is still a challenge to a number of PLHIV because of disclosure outcomes like family breakage (Herek *et al*; 2012), lose of friends (Atuyambe *et al*; 2014), child discrimination (Greeff *et al*; 2008), divorce (Hatcher *et al*; 2014), lose of job (Issifou *et al*; 2015). A Research in Ethiopia revealed that among the PLHIV who have not disclosed their HIV status, 54% stated their reason as fear of negative outcomes from their partner (Deribe *et al*; 2010). Other studies by Gaillard *et al* (2002) show 94%, Anglemyer *et al* (2011) 32%, 50.4% UNAIDS (2012) and Owolabi *et al* (2011) 46% level of stigma.

2.6.2 Physical violence

Disclosure of HIV status supports risk reduction and facilitates access to prevention and care services (Kumar *et al*; 2006) and increase opportunity for social support (Lugalla *et al*; 2012). The Positive behavior from partner, friends and neighbors after revelation of participants' HIV sero-status motivates disclosure (Link *et al*; 2001).

However, HIV disclosure of positive status causes tension among partners, women being more vulnerable as disclosure can lead to either an extension of former violence or new conflict specifically associated with HIV sero-status disclosure (Manuela *et al*; 2016). A study among ANC clients in Nigeria found

that for 74% of the women who reported abuse from their partners started after HIV diagnosis (Ezechi *et al*; 2009). Other studies where sexual partners consider disclosure as a trigger to violence in relationships include Sangita *et al* (2012) 30%, Serovich *et al* (2001) 16%, Negin *et al* (2009) 17% and Issifou *et al;* (2015) 4%. While in Cohen *et al* (2008) 30% among injection drug users and Maman *et al* (2003) 15% among men who have sex with men.

2.6.3 Abandonment and rejection

The prevention and control of HIV infection depends on the success of strategies to prevent new infections and to treat currently infected individuals (Anthony *et al*; 2015). However, the risk of abandonment of the PLHIV is a potential risk to disclosure (Simukai *et al*; 2014). According to Gaillard *et al* (2002) 76.1% of the HIV positive pregnant women who had not disclosed their results two months after diagnosis said that they never intended to disclose to their partners for fear of abandonment.

According to Simukai *et al* (2014), 4 out of 10 PLHIV fear to disclose their HIV sero status due to fear of abandonment when they need their support most,while Medley *et al* (2004) study shows 25% women fear to disclose due to economic support.

Some people are willing to disclose their status given they can receive social support which they may lose after disclosure. According to Anthony *et al* (2015) study on factors related to HIV disclosure, 1 out of 16 respondents were

depending on the neighbors and friends for support after family member's abandonment on HIV disclosure, neighbors had been filling in the support gap through child care and food sharing.

2.6.4 Discrimination

While there are many advantages to and reasons for disclosing one's status, there are also risks and reasons for deciding not to disclose (Greeff *et al*; 2008). PLHIV prefer to disclose their status to someone with good relationship ties for fear of discrimination (Sangita *et al*; 2012). According to Mathews *et al* (2002) study on pregnant women, 26% expressed discrimination upon disclosure.

PLHIV may suffer stigma from co-workers and employers such as social isolation, discrimation like termination from work or refusal of employment (Galletly *et al*; 2009). A study by China labour bulletins (2013) found out a sero reactive person denied job as a teacher due to HIV status. While other encounter discrimination from the community members which could make them leave their homes and change their activities (Desgrees-du-lou *et al*; 2009). Some countries award entry and work permit after HIV test, deportation of people living with HIV which subject them to further discrimination (Mathews *et al*; 2002). Other studies by Angleymer *et al* (2011) and Owolabi *et al* (2011) show discrimination on household activities and healthcare respectively.

2.6.5 Suicidal thoughts

Receiving a diagnosis of HIV is a life changing event; some people can feel sadness, hopelessness and even anger (Jennifer *et al*; 2008). Those who accept their HIV status results and enroll for care on time have better interventions (Serovich *et al*; 2001).

Studies conducted before the introduction of HAART displayed increased risk of suicidal mind among HIV positive by 22% (Kalichman *et al*; 2014). Studies done after introduction of HAART shows suicide among HIV infected patients to be mediated by other factors like depression, alcohol, substance related disorders and not HIV (Kalichman *et al*; 2014).

However suicidal risk may be higher in HIV infected patients with cormorbid diseases (UNAID, 2015). Evidence suggests that risk for suicidal behavior increases during the initial weeks following a diagnosis of HIV disease and then declines as patients adjust to their HIV status (Schlebus *et al*; 2002). However, as patients' health and quality of life decline, risk of suicide may again increase, particularly among middle aged and older patients, who frequently experience poorer health related quality of life when progressing to AIDS (Roy *et al*; 2003).

In a study carried out on HIV patients in Australia records increased number of psychiatric or cognitive risk factors being consistent to the overall risk by cumulative burden of illnesses (Hamish *et al*; 2015). It also demonstrated that

those patients with a CD4 cell count of < 500 cells/µL to be at a higher risk of increased death by suicide, violence or accident (Hamish *et al*; 2015).

2.6.6 Blame

After HIV testing, most people fear to disclose their status for fear of being blamed of infidelity and promiscuity (Reece *et al*; 2010). When a patient is diagnosed HIV sero reactive, the close people get worried on possibities of being infected with the disease (Farquhar *et al*; 2001). The couples are also worried on chances of transmission which cause blame on who might have brought the disease (Medly *et al*; 2004). Some have been forced not to share their status at all for fear of mistreatment, mistrust or isolation (Makin *et al*; 2008).

According to Endalew *et al* (2013) study on Attitudes of patients on disclosure reveals that HIV positive patients fear among others social withdrawal and being disgraced by their families. But according to Manuela *et al* (2016) the key preventive role of health services is reducing blame for HIV transmission and raising awareness on HIV as a chronic disease. Other studies by Dalal *et al* (2009) show blame on unfaithfulness, Bonnet *et al* (2004) blame on family shame and Farguhar *et al* (2004) blame on infidelity.

2.7 Summary of literature review and the gap in knowledge

HIV disclosure among PLHIV stands at 70-80% among sexually active people in Kenya (USAID, 2012). The previous study by Farquhar *et al* (2001) in the

same region targeted the ANC women and the findings show disclosure rate of 36%, other studies by Bunnel *et al* (2008) and Anthony *et al* (2015) have related disclosure to persons age, socio economic status, level of education, marital status, social relations, knowledge, cultural factors. The study focuses on the level of PLHIV disclosure depending on duration on care and number of persons disclosed to. Previous studies by Makin *et al* (2008), Boullon *et al* (2007) findings shows sexual partner being the preferred party in disclosure. However the study focuses on different disclosure parties depending on the patient age as well as reasons for preference.

A study by USAID (2012) portrays disclosure perception as will give them shame, blame, low self esteem and guilt. While, Akani *et al* (2006) study shows clients on new relationships being reluctant to disclose. The study focuses disclosure perception in relations to disease transmission after being on care and its benefits.

Previous studies by (Simbayi *et al*; 2007) portray HIV and AIDS as the most stigmatizing illnesses in the world and presence of partner violence (Sangita *et al*; 2012, Serovich *et al*; 2001, Negin *et al*; 2009, Issifou *et al*; 2015, Cohen *et al*; 2008 and Maman *et al*; 2003), this study focuses disclosure outcomes on those who have disclosed their status as well as patient facilitated disclosure.

CHAPTER THREE: MATERIALS AND METHODS

3.1 The research study design

The study adopted descriptive cross sectional study. A cross sectional study examines the relationship between disease (s) and other variables of interest as they exist in a defined population at a single point in time or over a short period of time. The design is suitable for collecting data that will address the given research question (s). It has demerit in establishing temporal relationship between exposure and outcome. It is susceptible to non response bias that could result to bias of measurement of outcome (prevalence). However, this is resolved by calculation of mean or median levels.

3.2 The location of the study

The study was carried out in Mombasa County Referral Hospital. Mombasa is one of the oldest towns in the Kenyan coastal region and the smallest county (in size) in Kenya. Initially it was one of the former districts before, being reconstituted to a County in 2013. It is the smallest County in Kenya, covering an area of 229.7 km^2 excluding 65 km^2 of water mass. It borders Kilifi County to the North, Kwale County to the South West and the Indian Ocean to the East.

It's a rich tourist hub, with a population of 939,370 as per the 2009 census. The town is situated in an island and surrounded by Indian Ocean. It is separated from the mainland by two creeks: Tudor creek and Kilindini harbour. It is connected to the mainland to the north by the Nyali Bridge, to the south by the

Likoni ferry and to the west by the Makupa causeway, alongside which runs the Kenya - Uganda railway.

Mombasa has a cosmopolitan population, with the Swahili and Mijikenda being predominant. Other communities include the Akamba, Taita, Asians, and people from upcountry as well as tourist immigrants. The common religions are Islam, Christianity and Hinduism. The county has one referral hospital, three sub county hospitals, 15 private hospitals and 25 dispensaries. The top ten diseases causing morbidity and mortality in Mombasa County are malaria, acute respiratory infections, pneumonia, diarrhoea, anemia, STIs/HIV/AIDS, pregnancy complications, tuberculosis, hypertension and accidents (KNBS, 2009). Mombasa county has got the highest HIV/AIDS prevalence 58,100 (11%) compared to neighboring counties Kwale and Kilifi having 21,159 (5.7%) and 22,606 (4.4%) respectively (KAIS, 2012).

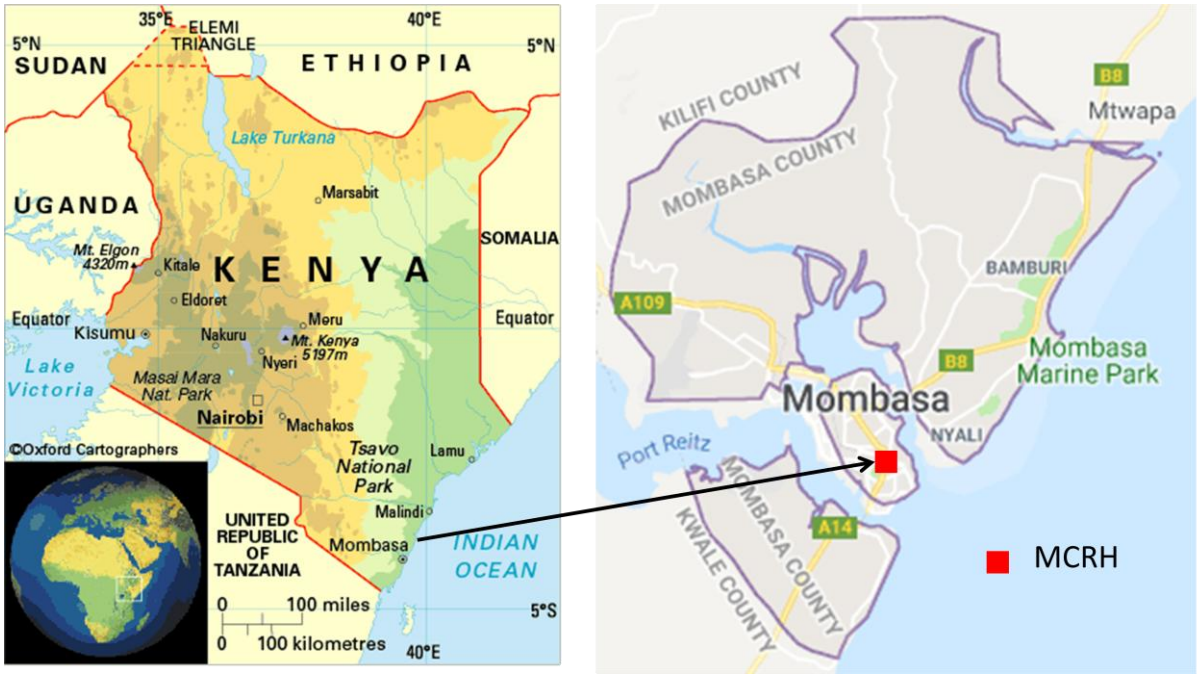

Figure 3.1: Study location map (KNBS, 2010)

3.3 The study variables

3.3.1 Dependent variable

HIV sero-status disclosure

3.3.2 Independent variables

(i) The PLHIV sexual partner HIV sero-status and disclosure preparedness

(ii) The PLHIVsero-status disclosure perception

(iii) The PLHIV preferred party for HIV sero - status disclosure

3.3.3 Intermidiate variable

HIV sero-status disclosure outcomes

3.4 The study population

The study population was composed of PLHIV on treatment and care at CCC, aged 18 years and above. The hospital had approximately15, 600 patients enrolled for CCC services (USAID, 2014).

3.4.1 Inclusion criteria

It included all PLHIV registered and accessing treatment and care, above the age of 18 years and willing to take part in the study via consenting at MRCH.

3.4.2 Exclusion criteria

The PLHIV not registered at MRCH CCC or registered but unwilling to be recruited in the study, patients seeking treatment in the same hospital for other ailments as well as PLHIV below 18 years of age.

3.5 Sampling techniques and sample size determination

3.5.1 Sampling techniques

The study employed probability sampling considering it allows for a much more representative sample and generalization of findings, it enables the estimation of sampling error and calculation of differential statistics. Simple random sampling was used to recruit the subjects into the study via their

routine clinic visits. The labeled (Yes and No) and folded papers were issued to the subjects. Those who picked a Yes paper were enrolled in the study. They were taken through the research purpose, objective, rights, risks, benefits and confidentiality before consenting. All patients who visited the clinic during entire period of the study and fulfilled the selection criteria were recruited. The recruitment continued daily (Monday – Friday) between 8am – 4pm until the required sample size was obtained. The entire process of data collection took approximate four months period (August – November 2016).

3.5.2 Sample size determination

Sample size was calculated using the Cochran's formula (Cochran's, 2010), where the population is at least 10,000. Given registered number of PLHIV at the clinic were approximate 15,600.

Cochran's formula (Cochran's, 2010)

$$n = \frac{z^2 p(1-p)}{\alpha^2}$$

Where:

n = Minimum required sample size

z = Reliability coefficient (1.96 at 95% confidence interval)

p = Estimated proportion of PLHIV who have disclosed their HIV status taken to be 49%.

α = Maximum likely error (5%)

Therefore, the minimum sample size will be given as;

$$n = \frac{1.96^2 \times 0.49 \times (1 - 0.49)}{0.05^2} = 384$$

Therefore, the minimum sample size will be 384.

Then addition of a 10% non response rate was added giving a final sample size of 432.

3.6 Construction and pre – testing of research instruments

3.6.1 Structured questionnaire

Structured questionnaires were administered face-to-face by the research assistants (Velvin and Winfred). The questionnaires collected information on the subject level of HIV status disclosure, HIV disclosure determinats, preferred HIV sero-status disclosure party, PLHIV disclosure perceptions and the knowledge on the partner HIV status.

3.6.2 In-depth interview

A structured interview guide was developed, then notes taken as well as recording device to be used during the interview sessions. Three Interviews were carried among PLHIV and the caregivers. Each interview took duration of 45 minutes maximum

3.6.3 Focus group discussion

With incorporation of other hospital health team, discussion questions were developed to enable the team brainstorm their views about ways of enhancing disclosure. Three discussions were carried out and took at least an hour each.

3.6.4 Pilot study or pre - testing of research instruments

To enhance the validity of data collection instruments, a pilot study was conducted at Tudor sub county hospital CCC patients. This was geared towards assessing the clarity of the instruments and making necessary modification prior.

3.7 Validity and reliability of data capture tools

Reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials (Mugenda and Mugenda, 1999). Internal reliability test for the likert scale items was conducted using the Cronbachs Coefficient Alpha analysis. The results of Cronbachs Coefficient Alpha yielded a high value ranging from 0.73 to 0.77 for the different items which was

considered acceptable. According to Streiner and Norman (2003), a Cronbachs Alpha value of 0.70 or more is satifactory. Also pretesting of research instruments among PLHIV at Tudor subcounty hospital was used to improve tools reliability and validity.

3.7 Data management

Two research assistants were given two days training by the principal researcher to familiarize them with data collection materials. The researcher got permission from the hospital administration after an application, and then introduced the research to the CCC head who later explained to other staff. The research assistant approached the patients to participate in the research voluntarily. Those willing to take part in the study were taken to CCC board room where they were given a written informed consent and a questionnaire to fill with the aid of the research assistants.

3.7.1 Data collection, storage and retrieval

Data was collected through administration of structured questionnaires, indepth interviews and focused group discussion. The collected data was locked up in a cabinet accessible to research team only. Then data was edited, transcribed and analyzed using password protected device.

3.7.2 Data analysis

3.7.2.1 Quantitative data processing and analysis

Data was edited for reliability, consistency and accuracy then coded and entered to Statistical Package for the Social Sciences (SPSS) version 20 for analysis. Frequency tables were generated for all categorical variables and comparison between proportions examined using descriptive statistic and cross tabulation. Disclosure of HIV status was be set as dependent variable (outcome) in analysis. A bivariate analysis was done to determine the presence of a statistically significant association ($p<0.05$) between independent variables and the dependent variable. Multivariate logistic regression models were built to identify independent determinants of HIV status disclosure. Both adjusted and un-adjusted odds ratio were reported with their corresponding 95% confidence intervals. All the analyses were two tailed and significance level set at 5%.

3.7.2.2 Qualitative data processing and analysis

All recorded interviews were transcribed and edited. The transcribed data was translated from Kiswahili language to English. After reading all transcripts, segments were created with a code. Two research assistants were recruited to develop the codes and do comparison. This provided some consensus and ensures code is not too off in the interpration of the data.

3.8 Logistical and ethical considerations

Ethical approval for the study was sought from Kenyatta University School of postgraduate, Kenyatta University Ethical Review Committee (KUERC). A research permit and authorization was sought from the National Commission for Science Technology and Innovation (NACOSTI). The permission to collect data was sought from County Government of Mombasa and MCRH administrator. The participants were assured confidentiality. The labeled papers (Yes and No) were in recruiting the subjects, numbers were used instead of their names for identity. Then subjects were provided with the purpose of the study, procedure, rights, confidentiality, potential harm, benefits and risks before consenting.

Patient protection was guaranteed and in the event of recruited subject illness during the study, the investigator would refer them for treatment in the hospital. The data was coded and only the chief research investigator and research assisstants could access. However, the study posed no risk on the subject though some questions were too personal like sexual life but all information was kept private and confidential by the research team. There were no financial benefits to the subjects taking part in the study.

CHAPTER FOUR – RESULTS

4. 1 Introduction

This chapter presents the results of the study starting from the socio demographic characteristics and then followed by other findings presented as per the study objectives

4.2 Socio demographic characteristics

The study enrolled 432 persons living with HIV where a total of 257 (59.5%) females and 175 (40.5%) male participants. Majority of the study participants were married 175 (36.3%) followed by widowed/divorced/separated 146 (33.8%). A large proportion of participants, 246 (57%) reported a monthly income of less than Ksh. 10,000. About 287 (66.4%) to participants had gone past primary education and almost half of them, 264 (61.1%) were Christians. Most of the study participants belonged to the age group of 29-38 years (32.2%) and the overall mean age was 42 years (Standard deviation 9.9). Men were significantly older [44.8 years (SD10.3)] than that of female (40.6 (SD 9.6)), $p<0.364$.

The study found out that about 80 (51%) of the participants had been in their marriage for an average of 1-2 years and 212 (49%) of the overall participants had children. About 97 (22.5%) participants had either lost a partner or a child in the last five years and upto 70 (72.2%) deaths were attributed to HIV/AIDS related complication

Table 4.1: Sociodemographic characteristics of respondents

Variable	Category	Frequency (F)	Proportion of respondents (%)
Gender	Male	175	40.5
	Female	257	59.5
Age (years)	18-28	126	29.2
	29-38	139	32.2
	39-48	131	30.3
	49-58	30	6.9
	>58	6	1.4
Education	No formal	54	12.5
	Primary	91	21.1
	Post primary	287	66.4
Occupation	Employed	254	58.8
	Unemployed	178	41.2
Income (Ksh)	<10,000	246	57
	10,001-20,000	77	17.8
	20,000-30,000	75	17.4
	30,001-40,000	19	4.4
	>40,000	15	3.4
Marital status	Single	111	25.6
	Married	175	40.5
	Separated	146	33.8
Married (years)	< 1	20	12.7
	1-2	80	51
	3-4	40	25.5
	>5	17	10.8
Have children	Yes	212	49.1
	No	220	50.1
Lost children / partner	Yes	97	22.5
	No	335	77.5
Cause of death	HIV complications	70	72.2
	Other causes	27	27.8
Religion	Muslim	158	36.6
	Christianity	264	61.1
	Hindu	3	0.7
	Atheist	7	1.6

4.3 Status and level of disclosure

The overall prevalence of HIV status disclosure to at least one person was 79% (342) and undisclosed group were 90 (21%) as shown in figure 4.1. The proportion of disclosure was higher among female (58.8%) compared to male (1.5%).

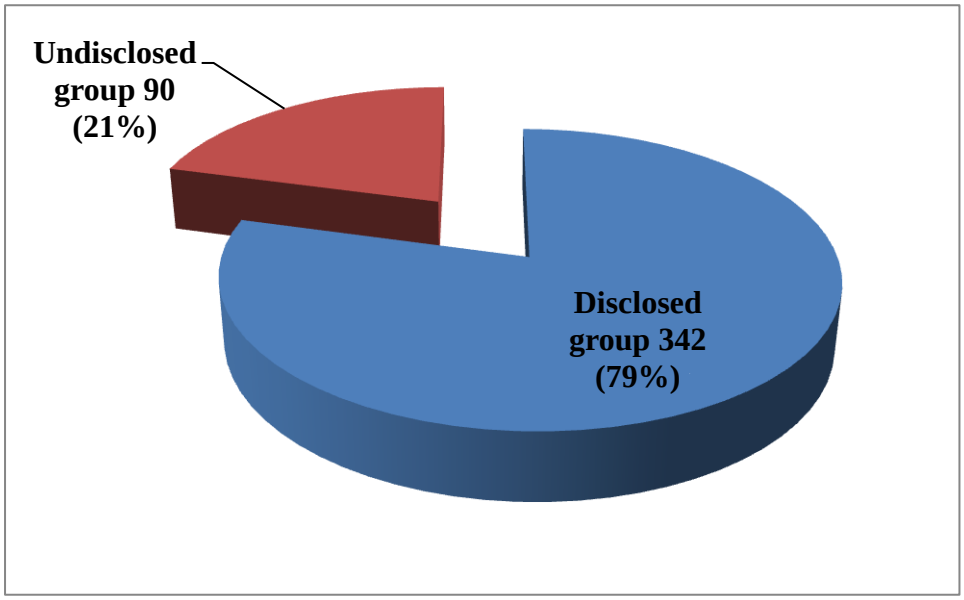

Figure 4.1: Proportion of HIV status disclosure

The level of disclosure varies depending on disclosed parties. The study findings show disclosure to 1-2 persons (52%), 3-4 persons (22%), >5 persons (5%) as shown in figure 4.2. This shows that half (52%) of the participants had managed to disclose their status to the closest person (s) only.

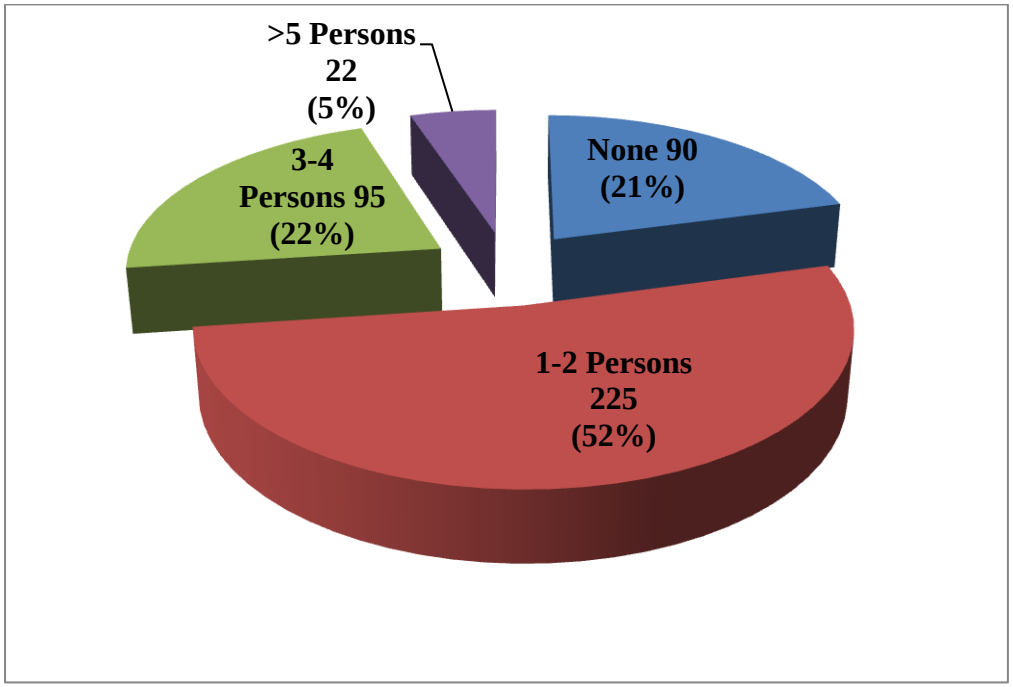

Figure 4.2: Number of persons HIV status disclosed to

The study found out that the great fear of disclosure among 90 (21%) undisclosed group include gossip 40 (44%), blame 25 (28%), lose of support 15 (17%) and violence 10 (11%) as shown in figure 4.3

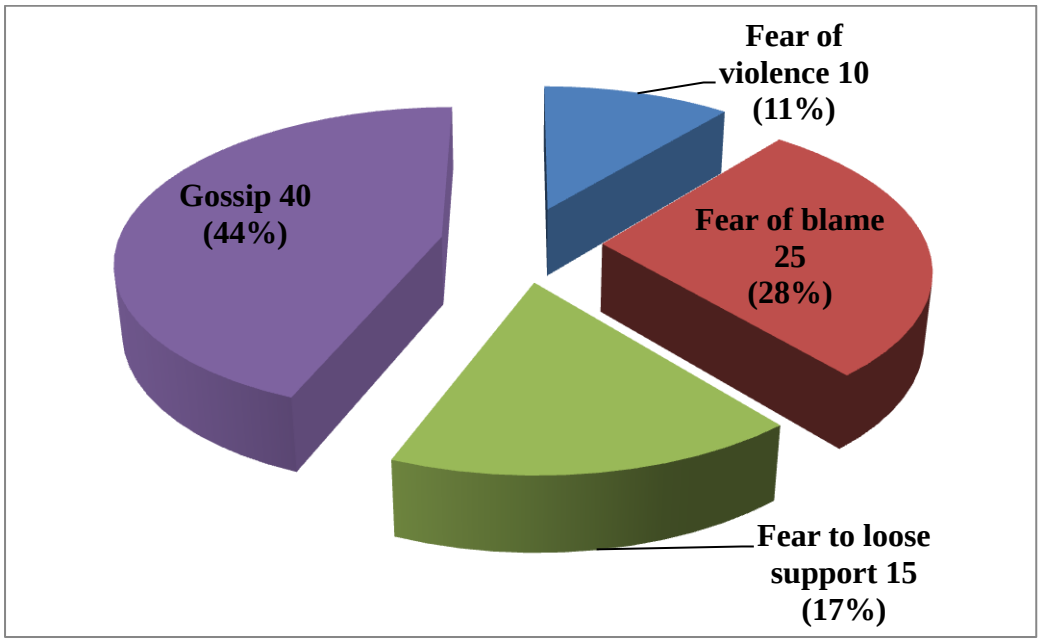

Figure 4.3: Reasons for non disclosure among undisclosed group

4.4 Disclosure perception

This study was interested to know the perception of persons living with HIV on disclosure to spouse and other sexual partners. This is important because for one to facilitate disclosure he/she should be having a clear perception towards it. The study realized 186(42.78%) to have good perception, 143 (32.97%) low self-esteem, 75 (17.03%) guilt and 28 (6.22%) shame. About 75% of the disclosed group had positive perceptions to disclosure (figure 4.4).

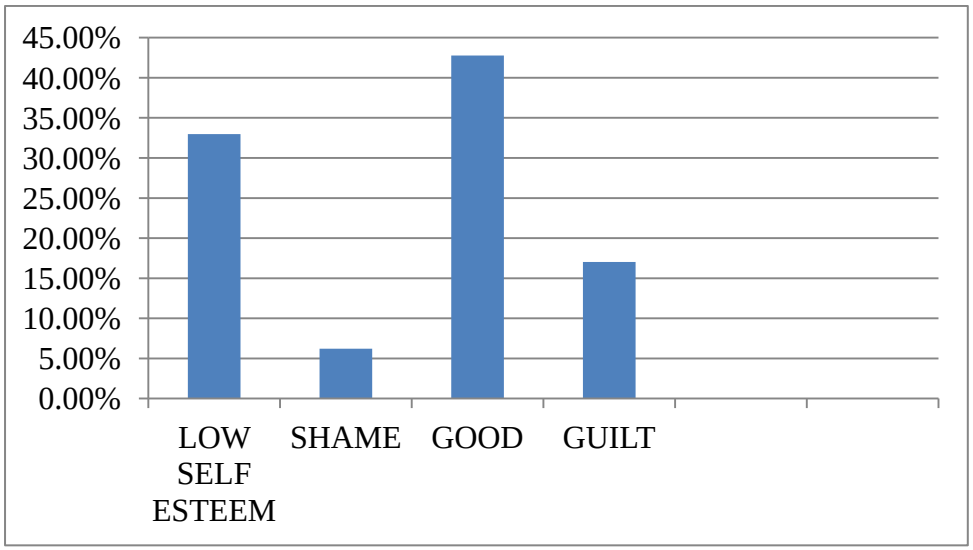

Figure 4.4: Children and spouse disclosure perceptions

4.5 Preferred disclosure party

Participants were asked to mention who was the most preferred person to disclose their HIV status. Among 432 study participants, 123 (24.5%) reported to most prefer disclosing their HIV status to their relatives [11.9% to brothers, 16.4% to sisters, 1.5% to aunts, 0.5% to sister-in-laws, 1.0% to brother-in-laws, 0.5% to nieces/nephews, 0.2% to grandfather and 0.5% to cousins]. A total of 101 (23.4.1%) participants disclosed their HIV status to their mothers and 85 (84.2%) were female, 94 (21.8%) to children and 79 (84%) were female, 78 (18.1%) to spouses and 48 (61.5%) were female, friends 75 (17.4%) to friends and 35 (60%) were female and 36 (8.3%) to fathers where there was a 50% tie between male and female groups. Results show that females can easily disclose to any party (mother and children being preferred) compared to male who can easily disclose to the father (table 4.2).

Table 4.2 Preferred disclosure party

Preferred disclosure party	**Frequency (%)**	**Male (%)**	**Female (%)**
Spouse	78 (18.1)	30 (38.5)	48 (61.5)
Mother	101 (23.4)	16 (15.8)	85 (84.2)
Father	36 (8.3)	18 (50)	18 (50)
Children	94 (21.8)	15 (16)	79 (84)
Other relatives	123 (24.5)	50 (40.7)	83 (59.3)
Friends	75 (17.4)	30 (40)	35 (60)
Totals	432 (100)	175 (40.5)	257 (59.5)

4.6 Disclosure outcomes

4.6.1 The benefits of disclosure

Among other benefits that comes with disclosure, the study found out 302 (70%) of the participants agree that disclosure reduce disease transmission to loved ones, re-infection or increase their spouse viral load, while 80 (18%) agree disclosure alleviates blame and 50 (12%) respondents agree disclosure enhance patient care (figure 4.5).

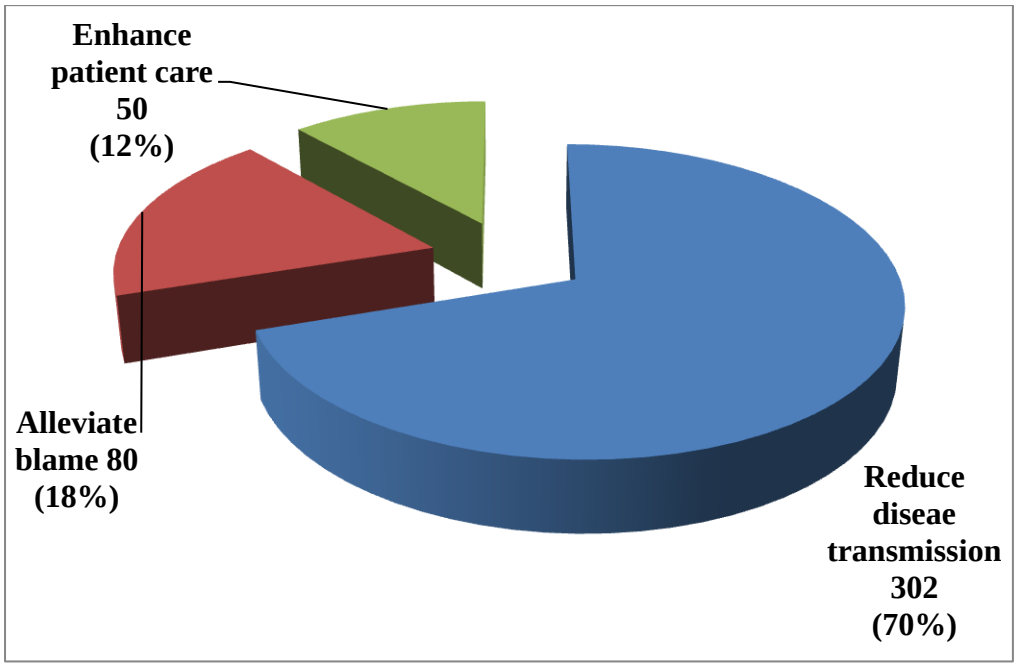

Figure 4.5 Proportion of disclosure benefits

4.6.2 The side effects of disclosure

The unwanted side effects associated with disclosure from the study results were Stigma 318 (72.7%), blame 20 (4.6%), rejection 20 (4.6%), physical violence 15 (3.4%) and suicidal thoughts 10 (2.2%) figure 4.6.

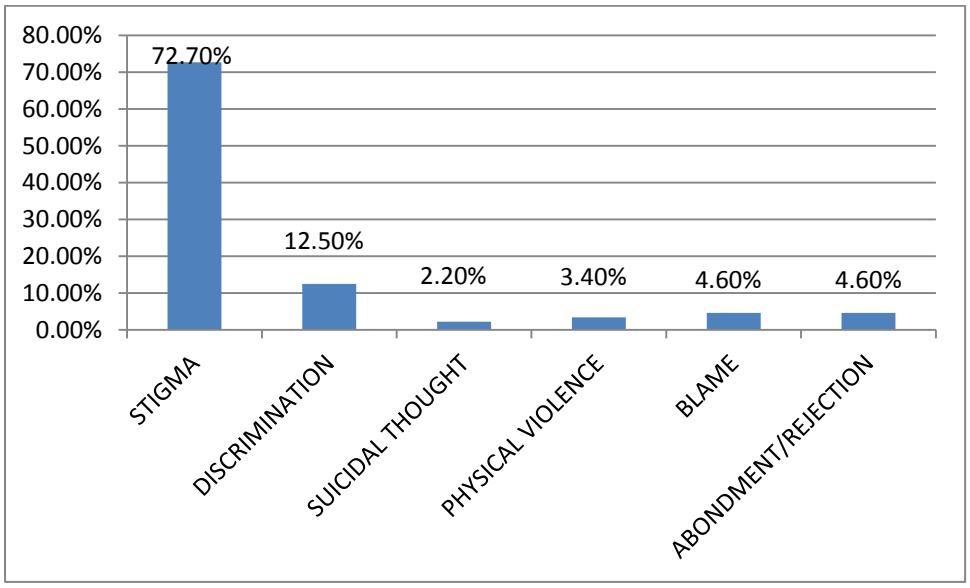

Figure 4.6 Proportion of negative disclosure outcome

4.6.3 Sexual partner characteristics

Participants were asked the characteristics of their sexual partner (s). Among 432 study population, age group of between 29-38 years were dominant 121 (28%), 162 (37%) had post primary education (67.9% female). About 147 (34%) were unemployed 117 (79.6%) were female. Upto 220 (50.9%) receives financial support from their sexual partners (82.7% female) and 80 (87.9%) male do not get any financial support from their sexual partners.

Table 4.3 Sexual partner characteristics

Variable	Category	Frequency (%)	Male (%)	Female (%)
Age	18-28	35 (11.3)	14 (40)	21 (60)
	29-38	121 (38.9)	38 (31.4)	83 (68.6)
	39-48	98 (31.5)	40 (40.8)	58 (59.2)
	49-58	50 (16.1)	15 (30)	35 (70)
	>59	7 (2.3)	2 (28.6)	5 (71.4)
Education	No formal	50 (16.1)	21 (42)	29 (58)
	Primary	99 (31.8)	42 (42.4)	57 (57.6)
	Post primary	162 (52.1)	52 (32.1)	110 (67.9)
Occupation	Employed	164 (52.7)	78 (47.6)	86 (52.4)
	Unemployed	147 (47.3)	30 (20.4)	117 (79.6)
Financial support	Yes	220 (70.7)	38 (17.3)	182 (82.7)
	No	91 (29.3)	80 (87.9)	11 (12.1)

4.6.4 Sexual partner HIV risk factors

The study found out 364 (84.3%) participants had a sexual partner. Currently, 53% (193) had multiple sexual partners (>1) while 67.3% (245) have had multiple sexual partners in the past. The number of sexual partners had declined among disclosed group 245 to 193 (15%) as compared to undisclosed group that is on the rise 34 to 41(5.4%). About 54 (12.5%) of the participants have no trust on their sexual partners being faithful (61% from undisclosed group). As a result of unfaithfulness; the common dispute was quarrel 24 (85.7%) and least being fight (3 cases) and hurt (1 case). Upto 312 (85.7%) participants use condom with the sexual partners. However, only 278 (89.1%) practice consistent use of condom and 50% of those who don't use condom consistently were from undisclosed group.

Table 4.4 Sexual partner (s) HIV risk behavior

Variable	Category	Frequency (%)	Disclosed (%)	Undisclosed (%)
Have sexual partner (s)	Yes	364 (84.2)	291 (79.9)	73 (20.1)
	No	68 (15.8)	51 (75)	17 (25)
Current number of sexual partner (s)	1	171 (47)	139 (81.3)	32 (18.7)
	>1	193 (53)	152 (78.8)	41 (21.2)
Previous number of sexual partners	1	119 (32.7)	85 (71.4)	34 (28.6)
	>1	245 (67.3)	208 (84.9)	37 (15.1)
Partner faithful in relationship	Agree	210 (57.7)	172 (81.9)	38 (18.1)
	Disagree	54 (42.5)	21 (38.9)	33 (61.1)
Faithfulness related violence	Yes	28 (13.3)	20 (71.4)	8 (28.6)
	No	182 (86.7)	152 (83.5)	30 (16.5)
Common disputes	Quarrel	24 (85.7)	18 (75)	6 (25)
	Fight	3 (10.7)	2 (66.7)	1 (33.3)
	Hurt	1 (3.6)	0	1 (100)
Condom use	Yes	312 (85.7)	253 (81.1)	59 (18.9)
	No	52 (14.3)	40 (76.9)	12 (23.1)
Consistent condom use	Yes	278 (89.1)	236 (84.9)	42 (15.1)
	No	34 (10.9)	17 (50)	17 (50)

Bivariate analysis on sexual partner (s) HIV risk behavior found out that consistent condom use ($p<0.000$), sexual partner faithfulness in relationship ($p<0.000$) and number of sexual partners in the past ($p<0.002$) to statistically significant in HIV disclosure. However, condom use ($p<0.483$), current number of sexual partners ($p<0.547$), faithfulness related violence in relationships ($p<0.122$), common relationship disputes ($p<0.261$) and having a sexual partner ($p<0.357$) to be not significant in HIV disclosure (table 4.5).

Table 4. 5 Bivariate analysis on sexual partner (s) HIV risk behavior

Variable	Category	Disclosed	Undisclosed	Df	Chi square	P - value
Have sexual partner (s)	Yes	291 (79.9)	73 (20.1)	1	0.850	0.357
	No	51 (75)	17 (25)			
Current number of sexual partner (s)	1	139 (81.3)	32 (18.7)	1	0.362	0.547
	>1	152 (78.8)	41 (21.2)			
Previous number of sexual partners	1	85 (71.4)	34 (28.6)	1	9.255	0.002
	>1	208 (84.9)	37 (15.1)			
Partner faithfulness in relationship	Agree	172 (81.9)	38 (18.1)	1	40.426	0.000
	Disagree	21 (38.9)	33 (61.1)			
Faithfulness related violence	Yes	20 (71.4)	8 (28.6)	1	2.392	0.122
	No	152 (83.5)	30 (16.5)			
Common disputes	Quarrel	18 (75)	6 (25)	2	2.683	0.261
	Fight	2 (66.7)	1 (33.3)			
	Hurt	0	1 (100)			
Condom use	Yes	253 (81.1)	59 (18.9)	1	0.493	0.483
	No	40 (76.9)	12 (23.1)			
Consistent condom use	Yes	236 (84.9)	42 (15.1)	1	24.052	0.000
	No	17 (50)	17 (50)			

The bivariate analysis results on level of disclosure found out that age ($p<0.009$), occupation ($p<0.000$), marital status ($p<0.002$), children ($p<0.000$) and lose of child / spouse ($p<0.000$) to be statistically significant in HIV disclosure while education ($p<0.558$), income ($p<0.873$), gender ($p<0.364$) and religion ($p<0.873$) were not significant (Table 4.6).

Table 4.6 Bivariate analysis of HIV disclosure level

Variable	Category	Disclosed	Undisclosed	Df	Chi square	P – value
Gender	Male	142	33	1	146.127	0.364
	Female	200	58			
Age (years)	18-28	93	33	4	13.569	0.009
	29-38	102	37			
	39-48	117	14			
	49-58	25	5			
	>58	5	1			
Education	No formal	44	10	2	6.187	0.558
	Primary	80	11			
	Post primary	218	69			
Occupation	Employed	218	36	1	16.579	0.000
	Unemployed	124	54			
Income (Ksh)	<10,000	192	54	4	1.472	0.832
	10,001-20,000	63	14			
	20,000-30,000	58	17			
	30,001-40,000	16	3			
	>40,000	13	2			
Marital status	Single	75	36	2	12.73	0.002
	Married	187	49			
	Separated	80	5			
Married (years)	< 1	15	3	3	0.427	0.935
	1-2	78	21			
	3-4	63	18			
	>5	31	7			
Have children	Yes	222	33	1	23.504	0.000
	No	120	57			
Lost children / partner	Yes	97	15	1	22.911	0.000
	No	115	75			
Cause of death	HIV complications	70	13	1	1.424	0.233
	Other causes	27	2			
Religion	Muslim	127	31	3	0.702	0.873
	Christianity	208	56			
	Hindu	2	1			
	Atheist	5	2			

Bivariate analysis on HIV disclosure preparedness found out that diagnosis period ($p<0.035$), knowledge on spouse HIV status ($p<0.003$), reason for test ($p<0.002$), disclosure counseling ($p<0.156$), HCP disclosure aid ($p<0.000$), disclosure support groups ($p<0.001$) were statistically significant to HIV disclosure while recruiting spouse on disclosure support group ($p<0.609$) to be not significant (table 4.7).

Table 4.7: Bivariate analysis on healthcare factors affecting disclosure

Variable	**Category**	**Disclosed**	**Undisclosed**	**df**	**Chi square**	**P – value**
Diagnosis period (years)	< 1	25	15	3	8.578	0.035
	1-2	120	25			
	3-4	167	40			
	>5	30	10			
Reasons for test	Sickness	60	8	3	14.973	0.002
	Partner loss / illness	182	34			
	Doctors advise	85	38			
	Self referral	15	10			
Knowledge on spouse status	Aware	185	33	1	8.656	0.003
	Unaware	157	57			
Disclosure counseling	Sufficient counseling	192	58	1	2.015	0.156
	Insufficient counseling	150	32			
Assistance of HCP in disclosure	Agree	122	11	1	18.288	0.000
	Disagree	220	79			
Disclosure support groups	Agree	295	65	1	10.105	0.001
	Disagree	47	25			
Recruit spouse	Agree	245	62	1	0.262	0.609
	Disagree	97	28			

Bivariate analysis on preferred disclosure party found out that participnats most preferred disclosaure party ($p<0.001$), important disclosure party ($p<0.000$) and reasons for disclosing to a specific party ($p<0.000$) being statistically significant to HIV disclosure. The results found out that disclosed group consider the spouse to be an important disclosure party 183 (98.4%) as compared to undisclosed group 3 (1.6%) as given in table 4.8

Table 4.8: Bivariate analysis on preferred disclosure party

Variable	Category	Disclosed	Undisclosed	Df	Chi square	P – value
Most preferred party	Sexual partner	43	5	4	19.516	0.001
	Friend	53	22			
	Children	69	25			
	Relatives	92	31			
	Parents	85	7			
Reasons for disclosure	Caring	125	12	3	39.814	0.000
	Financial support	82	10			
	Treatment support	65	26			
	Secretive	70	42			
Important disclosure party	Parent	85	32	4	28.042	0.000
	Children	47	20			
	Spouse	102	3			
	Relative	55	18			
	friend	53	17			

The baviariate analysis on positive disclosure outcome found out that disease transmission (p<0.000) and blame (p<0.000) to be statistically significant to HIV disclosure while patient care (p<0.926) being not statistically significant (table 4.9).

Table 4.9: Bivariate analysis on disclosure benefits

Variable	Category	Disclosed	Undisclosed	Df	Chi square	P – value
Positive disclosure outcomes						
Reduce disease transmission	Agree	338	72	1	52.272	0.000
	Disagree	4	18			
Patient care	Agree	260	68	1	0.009	0.926
	Disagree	82	22			
Alleviate blame	Agree	298	61	1	19.011	0.000
	Disagree	44	29			

About the negative disclosure outcomes, stigma (p<0.000) and rejection (0.022) were statistically significant to HIV disclosure while violence (p<0.121), abandonment (p<0.145), discrimination (p<0.160) and suicidal thoughts (p<0.926) were not statistically significant to HIV disclosure (table 4.10).

Table 4.10 Bivariate analysis on disclosure side effects

Variable	Category	Disclosed	Undisclosed	Df	Chi square	P – value
Negative disclosure outcomes						
Stigma	Yes	249	86	1	15.955	0.000
	No	75	4			
Violence	Yes	12	15	1	2.403	0.121
	No	26	65			
Abandonment	Yes	15	35	1	2.124	0.145
	No	20	25			
Rejection	Yes	15	59	1	5.276	0.022
	No	30	31			
Discrimination	Yes	43	68	1	1.979	0.160
	No	14	12			
Suicidal thoughts	Yes	8	35	1	0.048	0.827
	No	14	55			

From the logistic regression analysis below (table 4.11), it shows that employed participants are 2.635 more likely to disclose than unemployed ($p<0.000$). Those with children are 3.195 times likely to disclose than those without ($p<0.000$). Those who have either lost a child or partner are 4.217 times likely to disclose than those who have not ($p<0.000$). Those with knowledge of spouse HIV status are 2.035 times likely to disclose than those without ($p<0.003$). Those who agree to assiatance of HCP in disclosure are 3.983 times to disclose than those who disagree ($p<0.000$). Those who agree to join disclosure support groups are 2.414 times likely to disclose than those who

disagree ($p<0.001$). Those who agree that disclosure reduce disease transmission are 21.125 times likely to disclose that who disagree ($p<0.000$). Those who believe disclosure alleviates blame were 3.220 likely to disclose than who disagree ($p<0.000$). Those with stigma were 0.154 times likely to disclose than without ($p<0.000$). Those with past history of multiple sexual partners were 0.445 times likely to disclose than with only one partner ($p<0.002$). Those who had experienced unfaithfulness in relationships were 7.133 times likely to disclose than without experience ($p<0.000$) and those who used condom consistently were 5.619 times more likely to disclose than those not using condom consistently ($p<0.000$).

Table 4.11: Multivariate logistic regression on disclosure determinants

Variable	Category	Disclosed	AOR (95% CI)	P – value
Occupation	Employed	218	2.635(1.639,4.244)	0.000
	Unemployed	124		
Have children	Yes	222	3.195 (1.972, 5.179)	0.000
	No	120		
Lost children / partner	Yes	97	4.217 (2.276, 7.184)	0.000
	No	115		
Knowledge of spouse status	Aware	185	2.035 (1.261, 3.385)	0.003
	Unaware	157		
Assistance of HCP in disclosure	Agree	112	3.983 (2.041, 7.771)	0.000
	Diasagree	220		
Disclosure support groups	Agree	295	2.414 (1.386, 4.203)	0.001
	Disagree	47		
Reduce disease transmission	Agree	338	21.125 (6.942, 64.286)	0.000
	Disagree	4		
Alleviate blame	Agree	298	3.220 (1.869, 5.546)	0.000
	Disagree	33		
Stigma	Yes	249	0.154 (0.055, 0.435)	0.000
	No	75		
Number of sexual partners previously	1	139	0.445 (0.262, 0.755)	0.002
	>1	152		
Unfaithfulness in relationship	Yes	172	7.133 (3.712, 13.628)	0.000
	No	21		
Consistent condom use	Yes	253	5.619 (2.659, 11.873)	0.000
	No	17		

CHAPTER FIVE - DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussion

5.1.1 Level of HIV disclosure

The level of HIV status disclosure was found to be 79% (40% in male and 60% female). The level of disclosure was varied according to parties disclosed to by the participants. The majority (52%) had disclosed to between 1-2 persons only and the least disclosure rate was on over 5 people (5%). A study by Issifou (2015) in Togo on HIV disclosure to sexual partners among PLHIV on ART revealed 60.9% participants had disclosed their HIV status. Other recent studies done locally on HIV disclosure among PLHIV portray results of between 39.5% - 97% (Salami *et al*; 2011, Pamela *et al*; 2013, Ndayala *et al*; 2015, Musinguzi *et al*; 2014, Patel *et al*; 2012). There was a high prevalence of disclosure among women than men. However this was not statistically significant but attributed to high number of female participants that took part in the study.

Based on bivariate analysis from the participants Sociodemographic characteristics, the study found out participants age, occupation and marital status, having children, lose of child or spouse to statistically significant to HIV status disclosure. Other characteristics like education, gender, income and religion were not significant. The mid age participants (29-38) years recorded

the highest disclosure level. Disclosure was also high among employed than unemployed, married group than single, separated or widowed groups, participants with children than without and those who had lost either a child or spouse than those who had not.

The findings of this study revealed that participant's occupation was also significant in HIV disclosure. Similar results have been reported in other studies (Jamila, 2012 and Deribe *et al*; 2010). In this study, bivariate analysis shows that income did not determine HIV status disclosure. Similar to this study, Gachanja *et al* (2016) found that income was negatively associated with disclosure. Our findings don't support the link between education and disclosure despite those with post primary education being with the highest disclosed group as shown in other studies. The main reason for observed difference in HIV status disclosure among participants with no formal education could be explained by the fact that education increases the ability to analyze, internalize and act on health information messages such as those related to importance of disclosure to sexual partner. A multivariate logistic regeression analysis found out occupation to be significant.

The study found out the common reasons for lack of status disclosure among undisclosed to be fear of gossip (44%). A concurrent study by Manuela *et al*; (2016) on the risk of partner violence following HIV disclosure in Kenya shows gossip to contribute upto 42%. Other study by Melonie *et al*; (2013) on facilitating HIV disclosure among pregnant women found out 12% gossip

hinders undisclosed person and others studies by Motlaso *et al*; (2011) and Martin *et al*; (2013) found out that fear of blame was affecting undisclosed groups.

5.1.2 Disclosure perceptions

The researcher was interested to know the PLHIV perceived outcomes on disclosure. The expected outcomes being good, shame, low self esteem, guilt and blame. Our research findings recorded Good (37.3%), Shame (5.6%), Low self esteem (28.2%), Guilt and blame (14.6%). Guilt was predominant in women (42%). Most participants who chose good perception had already disclosed their sero - status or will disclose in few days, while those with negative perceptions said they don't know or can't disclose their sero - status. The participants said disclosure will affect their relatives, some will hate them and children precisely will be sad. The findings are in contrast to UNAIDS (2012) research in Gambia, whose findings records Shame (46%), Low self-esteem (20%), Guilt (19%), Blame by others (29%) and self blame (14%). Also in this study Guilt was prevalent in men (34%), compared to 45% in Sangita *et al*; (2012) study. However, in both studies, non disclosed participants perceived high incidence of stigma, gossip and discrimination upon disclosure.

5.1.3 Preferred disclosure party

The findings of this study recorded participants preferred disclosure party to be relatives (24.5%) followed by mother (23.4%) and children (21.8%).

According to Raymond *et al*; (2014), Mathew *et al* (2002) findings, spouse remains preferred disclosure party among sexually active groups. The female were comfortable sharing their HIV status results to all parties, priority being on mother (84.2%), children (84%), spouse (61.2%), friends (60%), relatives (59.3%) and father (50%). This finding implies that married couples prefer to tell their spouses because they expect emotional and economic support as an outcome of their disclosure. On the other hand this may cause the one spouse not disclosing for fear of being stigmatized, discriminated or abandoned. However, the rate of disclosure to spouses is still low threatening efforts for HIV prevention.

The male participants can easily share their status with father only (50%). Similar studies were recorded by USAID (2012) study on stigma and discrimination where 48% male prefer father as a disclosure confidant. While other studies by Jamilla (2012), Lugalla (2012) and Bouillon (2007) found father to be the least preferred party.

5.1.4 Disclosure outcomes

5.1.4.1 Benefits and side effects of disclosure

The study found out that the greatest benefit of HIV status disclosure is reduction in disease transmission, reinfection or increase spouse viral load (70%) followed by reduction of blame (18%) and better patient care (12%). Based on bivariate analysis, disease transmission and blame were statistical

significant to HIV status disclosure. The finding was also significant when multivariate logistic regression was conducted.

Stigma is still a barrier to most PLHIV in sharing their status because of the outcome. The findings showed 72.7% due to fear and stigma. The results show a decline in the level of stigma compared to Gaillard *et al* (2000) whose findings found 94.1% stigma in a study undertaken on ANC women in Mombasa. However, the finding agrees with other study done in south west Ethiopia and Nigeria (Garumma *et al*; 2012 and Simbayi *et al*; 2007). Other studies done in Tanzania by Stutterheim *et al*; (2009) and Turan *et al*; (2011) recorded a disclosure rate of between 46.4% and 32%). The bivariate analysis found out that stigma was significant in HIV status disclosure. But it was not significant in multivariate logistic regression analysis.

The study findings recorded 12.5% of PLHIV being not able to share their HIV sero status due to fear of discrimination both emotionally and financially. The respondents believe they will be seen to have brought disgrace and shame to the family or community. These findings were similar to other studies showing prevalence's of interpersonal discrimination as 22.8% (Kenya) and 43.0% (Malawi). However non presumed discrimination from healthcare services unlike other studies showing 4% in Nigeria, 7.0% in Burkina Faso and 12.7% in Malawi (Oswabi *et al*; 2011). Other studies with fear of discrimation include Mathews *et al* (2002) study done in South Africa, Lugalla *et al* (2012) in

Tanzania and also Sangita *et al* (2012) in India where 18 women from 58 were denied to carry out their usual household activities for being sero reactive.

The research findings recorded 1.2% of the non-disclosed respondents with fear of suicidal hallucinations. The fear was due to the disclosure outcome of their partners but not with the disease complication. However, higher rates of suicidal thought risks have been associated with diagnosis of sero positive HIV status like in recorded amongst person visiting clinic for the first time (Schlebush *et al*; 2002) where among 83.1% of the patients tested and turned HIV-positive, the risk of suicidal ideation was 20.5% at 72 hour and 28.8% in six weeks.

The study recorded 2.4% respondents expressing fear of physical violence in the event of disclosure. However, non from those who had disclosed had gone through violence but rather symptoms of sadness, tension and anxiety will were short lived. In other studies, there was no documented study that has established increased rates of violence among PLHIV individuals compared with non-infected individuals or those of unknown HIV status. However, studies indicate that certain personality disorders that are defined by impulsive or aggressive features, such as borderline and antisocial personality disorders, are more prevalent in certain groups of HIV-infected individuals, specifically intravenous drug users, compared with the general population (Thompson *et al*; 2010). From other studies, A study by Jenifer *et al* (2008) 16.1% of ANC women in Tanzania expressed fear of violence, Owollabi *et al*; (2011) study in

Nigeria recorded 17.6% fear on domestic violence among couples. However, the disclosure outcome in other studies shows 4% reported disputes (Simukai *et al*; 2014), 14.6% violence (Maman *et al*; 2002) and 12 from 52 women were beaten by in laws (Walcott *et al*; 2013).

The study found out that 3.6% of the respondents worry to disclose their HIV sero status due to fear of blame (blame for promiscuity and infidelity). Similar studies have been where people have expressed for blame include blame for unfaithfulness (Farquar *et al*; 2004), blame of causing family shame, source of infection (Bonnet *et al*; 2004) and infidelity (Dalal *et al*; 2009). A bivariate analysis found blame to be statistically significant in HIV status disclosure as well as significant in multivariate logistic regression analysis.

The research findins show 3.6% of the participants had fear of abandonment and rejection among PLHIV on disclosure. The worry was on spouses, friends, relatives as well as employers in the event of HIV sero status disclosure. In a similar study by Mamman *et al* (2002) in Tanzania 55% of respondents expressed fear of abandonment as well as 63% in Carballo-Dieguez *et al* (2013) study. However, unlike our findings in Burkina Faso, 2 out of 54 women separated with their spouses soon after disclosure (Issakia *et al*; 2010).

5.1.4.2 Sexual partner characteristics and risk behavior

From the sexual partner's sociodemopgraphic characteristics, the study found out 29-38 years age group to be predominant, 52.1% were having post primary

education. A comparable study by Makin *et al* (2008) reported that participants whose sexual partners with tertiary education were more likely to disclose their HIV status than those whose partners with low level of education. This finding is contrary to the study done among PLWHA in Burkina Faso, whereby participants with illiterate sexual partner reported to disclose less their HIV status compared to the more educated (Bouillon *et al*; 2007).

The findings of this found out that participants spouse occupation played an important role in status disclosure, because upto 70.7% were receiving financial support from the spouses. Similar results have been reported in other studies (Hamish *et al*; 2015 and Hatcher *et al*; 2014). In the present study, bivariate analysis shows that income was significant in HIV staus disclosure as well as in multivariate regression anaysis. A contrary study by Deribe *et al* (2010) findings shows that income is negatively associated with disclosure.

Majority of the participants were having a sexual partner and about 53% had more than sexual partners currently but the proportion has declined 67.3% previously before diagnosis. This usually results to issues of unfaithfulness in relationship. A similar study by Jamilla (2012) found out those participants with multiple sexual partners report low disclosure levels. Bivariate analysis stablished previous number of sexual partners and partner faithfulness was significant to status disclosure. However, number of sexual partners was not significant when multivariate regression was conducted but rather faithfulness in relationship was significant.

The study findings show high number of participants was using condom during sexual intercourse but 50% undisclosed group were not using a condom consistently. The bivariate nalysis found out that consistent condom use was statistically significant to status disclosure. The finding can be explained by the fact that participants using condoms consistently are self confident that they can not transmit HIV infections to their partners thus confidence in disclosure. However, condom use was significant when multivariate logistic regression conducted.

5.1.4.3 Health care factors affecting disclosure

The researcher was interested in establishing health determinants from the participants that affects disclosure. The study found out that participants with children had high disclosure rate compared to those ones without children. This was seen to be as a result of support and care they need from them. This findings agree with other study done in Nairobi and Mombasa (Ndayala *et al*; 2015 and NACC, 2012) suggesting that those participants with children were more likely to disclose their status. The bivariate analysis found that having a child was significant to status disclosure. The multivariate logistic regression too found the child to be significant in status disclosure.

The study findings show high number of participants knew their HIV status initially via illness or death of a partner or child. A similar study by Onovo *et al* (2015) show self referral for voluntary counseling and test uptake to be low

among the participants but rather sickness or death of loved one makes test inevitable. A bivariate analysis results show illness or death of a spouse or child to be significant in HIV disclosure. The multivariate logistic regression results also found illness or death of a spouse or child to be significant.

The study findings found that a good number of participants were not having knowledge on their spouse HIV status (49.5%). Similar studies have been recorded by (NACC, 2013 and Jamilla, 2012) that many participants have trust for their sexual partners and don't find it necessary to go for a test but to be iniated by other extrinsic factors like illness or death. A bivariate analysis as well as multivariate logistic regression found out that knowledge of spouse status was significant in disclosure.

The research finding found out that 30.8% participants agree to assistance from health care providers in facilitating disclosure and majority agree enrolling with disclosure support groups will assist them facilitate disclosure. A similar study by Chandra *et al* (2013) findings show highest number of participants prefers contract referral disclosure where the HCP provide assistance. A study by Kallings, (2008) in united states of America, found out majority of participants prefer contract referral where HCP allow the index patient a short period of time to contact, notify and refer sexual partners, then advise the contact of their exposure maintaining the anonymity of the index case. Bivariate analysis and multivariate logistic regression found out that assistance

of HCP in disclosure and disclosure support group was significant in disclosure.

5.2 Conclusion

This study reveals that the overall disclosure rate among PLHIV is 79.2% while 40.5% do not know the HIV status of their sexual partners. Disclosure rate was higher in female than males. The findings show that proper patient preparedness to disclosure and knowledge of spouse being important determinants to disclosure.

The study realized that the greatest disclosure benefit was reduction in new HIV infection transmission, reinfection and increase viral load to the sexual partners. Stigma was still a setback to many in facilitating disclosure. However, stigma level declines with counseling, duration of diagnosis and preferred disclosure party.

The presence of disclosure support group within amongst the PLHIV and healthcare providers' assistance is vital to many as they can share their experience on disclosure; explore disclosure methods and timing amongst themselves.

The study found out that faithfulness in relationships and behavior of consistent condom use among the participants with their sexual partners to promote trust among PLHIV and it makes disclosure easy.

5.3 Programmatic recommendations

1. To empower on policy development of areas that will enhance voluntary counseling and test among all persons without causing stigma to anyone.
2. Formation of social support groups amongst PLHIV and HCP to help enhance disclosure in all hospitals rendering CCC services between people who have disclosed and those who have not disclosed their HIV sero – status.
3. To incorporate in practice the component of HIV notification as a key intervention in fighting new incidence of HIV.
4. Facilities rendering CCC services should focus on third party involvement in HIV test and disclosure in order to reduce negative disclosure outcomes on PLHIV.
5. To empower HIV transmission risk awareness among all community members, behavior change in relationships and consistent use of protection during sexual intercourse.

5.4 Recommendations for further research

1. A similar research should be conducted in rural settings and compare the finding given it was carried out in an urban set up.
2. Similar study should be conducted on PLHIV who have been enrolled to HIV disclosure social support group.

3. A study be undertaken to compare the effectiveness of self administered and facilitated HIV disclosure.
4. Further research should be carried out to compare disclosure rate among different behavioral groups like MSM, CSW, IDUs

REFERENCES

Akani, C.I. and Erhabor, O. (2006). Rate, pattern and barriers of HIV serostatus disclosure in a resource-limited setting in the Niger delta of Nigeria. *Trop Doct, **36*** (2), 87-89.

Anthony, B., Anne, R.K., Anne, C., Susan, A., Brenda, T. and Cecily, B.(2015). Disclosure of HIV test results by women to their partners following antenatal HIV testing: a population-based cross-sectional survey among slum dwellers in Kampala Uganda. *BMC Public Health, **15*** (63), 89-95.

Anglemyer, A., Rutherford, G.W., Horvath, T., Baggaley, R.C., Egger, M. and Siegfried, N. (2011). Antiretroviral therapy for prevention of HIV transmission in HIV-discordant couples.*Cochrane Database Syst Rev, **11*** (5), 915-923.

Ashaba, S., Kaida, A., Coleman, J. N., Burns, B. F., Dunkley, E., O'Neil, K., and Psaros, C. (2017). Psychosocial challenges facing women living with HIV during the perinatal period in rural Uganda. *PLoS ONE, **12***(5), 252-256.

Ateka, G.K. (2006). HIV status disclosure and partner discordance: a public health dilemma. *Public health **120*** (6), 493-496.

Atuyambe, L.M., Ssegujja, E. and Ssali, S. (2014).HIV/AIDS status disclosure increases support, behavioural change and, HIV prevention in the long term: a case for an Urban Clinic, Kampala, Uganda. *BMC Health Services Research, **14*** (276), 111-117.

Bachanas, P.J., Kullgren, K.A., Schwartz, K.S., Lanier, B. and McDaniel, J.S. (2001). Predictors of psychological adjustment in school-age children infected with HIV. *J Pediatr Psycho, **26*** (6), 343-352.

Bonnet, F., Lewden, C., May, T., Heripret, L. and Jougla, E. (2004). Malignancy - related causes of death in human immunodeficiency virus-infected patients in the era of highly active antiretroviral therapy.*Cancer*, ***101*** (2), 217-324.

Bouillon, K., Lert, F., Sitta, R., Schmaus, A., Spire, B. and Dray-Spira, R. (2007). Factors correlated with disclosure of HIV infection in the French*:* Antilles and French Guiana: results from the ANRS-EN13-VESPADFA Study. *AIDS*, ***21*** (1), 89-94.

Bunnel, R., Opio, A. and Musinguzi, J. (2008). HIV transmission risk behaviors among HIV infected adults in Uganda; results of national representative survey, *AIDS*, ***22*** (3) 617-624.

Bourne, A., Dodds, C., Keogh, P., Weatherburn, P. and Hammond, G. (2009).*Relative safety II: risk and unprotected anal intercourse among gay men with diagnosed HIV.* Technical Report. Sigma Research, London.

Carballo-Diéguez, A., Balán, I.C. and Dolezal, C. (2013).HIV status disclosure among infected men who have sex with men (MSM) in Buenos Aires, Argentina.*AIDS Educ Prev*, ***25*** (6), 457-467.

Carla, M.O., Parijat, B. and Elisabetta, P. (2011). Facilitating HIV Disclosure Across Diverse Settings: A Review. *Am J Public Health*, ***101*** (6), 1011-1023.

Chandra, P.S., Deepthivarma, S. and Manjula, V. (2003). Disclosure of HIV infection in south India: patterns, reasons and reactions. *AIDS Care*, ***15*** (2), 207-215.

Chaudoir, S.R., Fisher, J.D. and Simoni, J.M. (2011). The disclosure process model: a review and application of the disclosure processes model. *Social Science & Medicine*, ***72*** **(10)**, 1618-1629.

China Labour Bulletin, (2013).*Teacher with HIV receives 45,000 yuan in employment discrimination case.*Hong Kong China.Xinhua news agency reported.

Cochran, J.J. (2010). Statistics Without Borders Assists with Haitian Data Collection Project. *Amstat News, **8*** (395), 18-19.

Cohen, M.S., Hellmann, N., Levy, J.A., DeCock, K. and Lange, J. (2008). The spread treatment and prevention of HIV-1: evolution of a global pandemic. *J Clin Invest,* **118** (4), 1244-1254.

Dalal, W., Feikin, D.R., Amolloh, M., Ransom, R., Burke, H., Lugalia, F., Ouma, A., Laserson, K.F., Mermin, J. and Breiman, R.F. (2009).Home-based HIV testing and counseling in rural and urban Kenyan communities. *J Acquired Immune Deficiency Syndrome, **62*** (2), 47-54.

Deribe, K., Woldemichael, K., Njau, B.J., Yakob, B., Biadgilign, S. and Amberbir, A. (2010).Gender differences regarding barriers and motivators of HIV status disclosure among HIV-positive service users.*Journal of Social Aspects of HIV/AIDS Research Alliance / SAHARA, Human Sciences Research Council, **7*** (1), 30-39.

Desgrees-du-Lou, A., Brou, H., Traore, AT., Djohan, G., Becquet, R. and Leroy, V. (2009).From prenatal HIV testing of the mother to prevention of sexual HIV transmission within the couple. *Social Science & Medicine, **69*** (6), 892-899.

Endalew, G.S., Amsale, C. and Tadese, A. E.(2013).Disclosure experience to partner and its effect on intention to utilize prevention of mother to child transmission service among HIV positive pregnant women attending antenatal care in Addis Ababa, Ethiopia. *BMC Public Health, **13*** (765), 137-148.

Ezechi, O.C., Gab-Okafor, C., Onwujekwe, D.I., Adu, R.A., Amadi, E. and Herbertson, E. (2009). Intimate partner violence and correlates in pregnant HIV positive Nigerians. *Arch Gynecol Obstet*, ***280*** (5), 745-752.

Farquhar, C., Kiarie, J.N., Richardson, B.A., Kabura, M.N., John, F.N., Nduati, R.W., Mbori- Ngacha, D.A. and John-Stewart, G.C. (2004). Antenatal couple counseling increases uptake of interventions to prevent HIV-1 transmission. *J Acquired Immune Deficiency Syndrome, **37** (*5), 1620-1626.

Farquhar, C., Mbori-Ngacha, D.A., Bosire, R.K., Nduati, R.W., Kreiss, J.K. andJohn, G.C. (2001). Partner notification by HIV-1 seropositive pregnant women: association with infant feeding decisions. *AIDS,**15*** (6), 815-817.

Gachanja, G., Burkholder, G. and Ferraro, A. (2016).HIV-positive parents' accounts on disclosure preparation activities in Kenya.*Journal of Social, Behavioral, and Health Sciences, **8*** (1), 18-37.

Gaillard, P., Melis, R., Mwanyumba, F., Claeys, P., Muigai, E., Mandaliya, K., Bwayo, J. and Temmerman, M. (2002). Vulnerability of women in an African setting: lessons for mother-to-child HIV transmission prevention programmes. *AIDS, **16** (*6), 937-939.

Galletly, C.L. and Dickson-Gomez, J. (2009).HIV sero-positive status disclosure to prospective sex partners and criminal laws that require it: perspectives of persons living with HIV. *Int J STD AIDS, **20*** (9), 613-618.

Galletly, C.L. and Pinkerton, S.D. (2006).Conflicting messages: how criminal HIV disclosure laws undermine public health efforts to control the spread of HIV. *AIDS Behavior, **10*** (5), 451- 456.

Garumma, T., Feyissa, L. A., Eshetu, G. and Mirkuzie, W. (2012). Stigma and discrimination against people living with HIV by healthcare providers, Southwest Ethiopia.*BMC Public Health, **12*** (522), 1124-1135.

Greeff, M., Phetlhu, R., and Makoae, L.N. (2008). Disclosure of HIV status: Experiences and perceptions of people living with HIV/AIDS and nurses involved in their care in Africa. *Qual Health Res, **18*** (3), 311-324.

Hamish, M., Kathy, P., Teo, F.,Mark, D.K., Jo, W., Catherine, C.O., Mark, J., Jennifer, H., David, A. C. and Matthew G., Law. (2015). Loss to follow-up in the Australian HIV Observational Database. *Antivir Ther*, ***20*** (7), 731-741.

Hatcher, A.M., Woollett, N., Pallitto, C.C., Mokoatle, K., Stöckl, H. and MacPhail, C. (2014). Bidirectional links between HIV and intimate partner violence in pregnancy: implications for prevention of mother-to-child transmission. *Journal of international AIDS Society, **17*** (192), 133-145.

Herek, G.M. (2012). Thinking about AIDS and stigma: A psychologist‘s perspective. *J law. Med ethics*, ***30*** (4)594-607.

Issakia, S. cartoux, M. zerbo, O. Tiendebeogos, S. Meda, N. Dabis, F. (2010). Living with HIV: Women experience in Burkina Faso, West Africa. *AIDS CARE, **13*** (1), 123-128.

Issifou, Y. and Bayaki, S. (2015). HIV Status Disclosure to Sexual Partners, among People Living with HIV and AIDS on Antiretroviral Therapy at Sokodé Regional Hospital, Togo. *PLoS ONE, **10*** (2), 119-125.

Jamilla A.M.B. (2012). HIV sero status disclosure and associated factors among People Living with HIV/AIDS attending a care and treatment center in Kisarawe District Hospital, Tanzania. Unpublished dissertation Submitted

for Master of Public Health at Muhimbili University of Health and Allied Sciences.

Jennifer, D.M., Brian, W.C., Forsyth, Maretha, J.V., Kathleen, J.S., Sharon, N. and Bridget, J. (2008). Factors Affecting Disclosure in South African HIV - Positive Pregnant Women. *IDS Patient Care STDS, **22*** (11), 907-916.

Kalichman, S.C. and Simbayi, L. (2014). Traditional beliefs about the cause of AIDS and AIDS- related stigma in South Africa. *AIDS Care, **16*** (5), 572-580.

Kallings, L.O. (2008). "The first postmodern pandemic: 25 years of HIV/AIDS". *Journal of Internal Medicine, **263*** (3), 218-243.

Katherine, W.T. (2009). '*Returned to risk: Deportation of HIV - positive Migrants'*.Human Rights Watch report.

Kenya AIDS Indicator survey, (2008). National Aids and STI control program (NASCOP), Ministry of health, Kenya.

Kenyan National AIDS Control Council (NACC), (2014). *Kenya AIDS response progress report,* Progress towards zero.

Kenya National Bureau of Statistics (KNBS) and ICF Macro, (2010).*Kenya Demographic and Health Survey 2008–09*, Calverton, Maryland.

Klitzman, R. and Bayer, R. Mortal Secrets, (2003). *Truth and Lies in the Age of AIDS.* Baltimore MD: Johns Hopkins University Press.

Kumar, A., Ira, W., Geeta, K. and Anne, O.C. (2006). Prevalence and correlates of HIV serostatus disclosure: a prospective study among HIV-infected post parturient women in Barbados. *AIDS Patient Care STDS, **20*** (10), 724-730.

Kretzschmar, M. and Wiessing, L.G. (1998).Modeling the spread of HIV in social networks of injecting drug users.*AIDS, **12*** **(**21), 801-811.

Li, L., Lin, C., Wu, Z., Lord, L. and Wu, S. (2008) To tell or not to tell: HIV disclosure to family members in China. *Developing World Bioethics, **8*** (3), 235–241.

Link, B.G. and Phelan, J.C. (2001). Conceptualizing stigma. *Annual Review of Sociology, **27*** (6), 363-385.

Lugalla, J., Yoder, S., Sigala, H., Madihi, C. (2012). Social context of disclosing HIV test results in Tanzania. Culture, Health & Sexuality: *An International Journal for Research, Intervention and Care, **14*** (1), 53-66.

Makin, J.D., Forsyth, B.W., Visser, M.J., Sikkema, K.J., Neufeld, S. and Jeffery, B. (2008). Factors affecting disclosure in South African HIV-positive pregnant women. *AIDS Patient Care and STD, **22*** (11), 907-916.

Maman, S., Mbwambo, J.K., Hogan, N.M., Weiss, E., Kilonzo, G.P. and Sweat, M.D. (2003). High rates and positive outcomes of HIV-serostatus disclosure to sexual partners: reasons for cautious optimism from a voluntary counseling and testing clinic in Dar es Salaam, Tanzania. *AIDS Behavior, **7*** (4), 373-382.

Manuela, C., Courtney, J., Charity, N. and Susannah, H. M. (2016). The risks of partner violence following HIV status disclosure, and health service responses: narratives of women attending reproductive health services in Kenya. *J Int AIDS Soc, **19*** (1), 207- 266.

Markowitz, William, N. and Steven, B. (2006).*Environmental and occupational medicine.* Philadelphia. 4th Ed.Lippincott Williams & Wilkins.

Martin, M., Sarah, N., Josephine, B., Rachel, K., Janet, S. and Shabbar, J. (2013). Stigma trajectories among people living with HIV (PLHIV) embarking on a life time journey with antiretroviral drugs in Jinja, Uganda. *BMC Public Health, **13*** (1), 804-809.

Mathews, C., Coetzee, N. and Zwarenstein, M. (2002).A systematic review of strategies for partner notification for sexually transmitted diseases, including HIV/AIDS. *Int J STD AIDS, **13*** (5), 285-300.

Medley, A., Garcia-Moreno, C., McGill, S. and Maman, S. (2004). Rates, barriers and outcomes of HIV serostatus disclosure among women in developing countries: implications for prevention of mother-to-child transmission programmes. *Bull World Health Organ, **82*** (4), 299-307.

Melonie, M.W., Abigail, M.H., Zachary, K. and Janet, M.T. (2013).Facilitating HIV status disclosure for pregnant women and partners in rural Kenya: a qualitative study.*BMC Public Health, **13*** (433), 1471-2458.

Motlatso, M. and Karl, P. (2011).HIV Sero-status Disclosure and Sexual Behaviour among HIV Positive Patients who are on Antiretroviral Treatment (ART) in Mpumalanga, South Africa.Human Sciences Research Council, Pretoria, South Africa, Pretoria and University of the Free State, Bloemfontein, South Africa. *J Hum Ecol, **35*** (1), 29-41.

Mugenda, O.M. and Mugenda, A.G. (1999). *Research Methods*: *Quantitative* and *Qualitative Approaches*. Acts Press, Nairobi.

Musinguzi, G., Bwayo, D., Kiwanuka, N., Coutinho, S., Mukose, A. and Kabanda, J. (2014). Sexual Behavior among Persons Living with HIV in Uganda: Implications for Policy and Practice. *PLoS ONE, **9*** (1), 247-255.

National AIDS Control Council and National AIDS and STI Control Program, (2012*). The Kenya AIDS epidemic updates 2011.*

National AIDS and STI Control Program, (2013). *Kenya AIDS indicator survey 2012.*

Ndayala, P., Ondigi, A.N. and Ngige, L. (2015). Nature and Extent of HIV Self Disclosure by Seropositive Adults in HIV Support Groups in Nairobi County, Kenya. *Research on Humanities and Social Sciences, **5*** (16), 2224-5766.

Negin, J., Wariero, J., Mutuo, P., Jan, S. and Pronyk, P. (2009). Feasibility, acceptability and cost of home-based HIV testing in rural Kenya. *Trop Med Int Health, **14*** (8), 849-855.

Njau, B., Watt, M.H., Ostermann, J., Manongi, R. and Sikkema, K.J. (2012). Perceived acceptability of home-based couples voluntary HIV counseling and testing in Northern Tanzania. *AIDS Care, **24*** (4), 413-419.

Onovo, A.A., Iboro, E.N., Aaron, A.O., Chukwuemeka, A.O., Ahmad, A., Patrick, D., Akinyemi, O. A. and Pamela, G. (2015).Partner HIV serostatus disclosure and determinants of serodiscordance among prevention of mother to child transmission clients in Nigeria. *BMC Public Health; **15*** (1), 827-835.

Owolabi, R.S., Araoye, M.O., Osagbemi, G.K., Odeigah, L., Ogundiran, A. and Hussain, N.A. (2011). Assessment of Stigma and Discrimination Experienced by People Living with HIV and AIDS Receiving Care / Treatment in University of Ilorin Teaching Hospital (UITH), Ilorin, Nigeria. *Nigerian journal of clinical medicine **2*** (2), 121-127.

Pamela, B., Medley, A., Pals, S., Kidder, D., Antelman, G., Benech, I., DeLuca, N., Nuwagaba-Biribonwoha, H., Muhenje, O., Cherutich, P., Kariuki, P.,

Katuta, F.and Bukuku, M.(2013). Disclosure, knowledge of partner status, and condom use among HIV-positive patients attending clinical care in

Tanzania, Kenya, and Namibia. *AIDS Patient Care and STDs, **27*** (7), 425-435.

Patel, R., Ratner, J., Gore-Felton, C., Kadzirange, G., Woelk, G. and Katzenstein, D. (2012). HIV disclosure patterns, predictors, and psychosocial correlates among HIV positive women in Zimbabwe. *AIDS Care, **24*** **(3)**, 358-368.

Qiao, S., Li, X. and Stanton, B. (2013). Theoretical models of parental HIV disclosure: a critical review. *AIDS Care, **25*** (3), 326-336.

Raymond, S. D., Alhaji, A.A., Peter, N., Patrick, N., Okechukwu P.O.,Dahiru, T., Luka, I., James, E.M., Mahmood, D. and Mohammed, A. (2014). HIV disclosure status and factors among adult HIV positive patients in a secondary health facility in North- Eastern Nigeria. *Pan African Medical Journal,**18*** (1), 4-12.

Reece, M., Hollub, A., Nangami, M. and Lane, K. (2010). Assessing male spousal engagement with prevention of mother-to-child transmission (pMTCT) programs in western Kenya. *AIDS Care,* **22** (6), 743-750.

Roy, A. (2003). Characteristics of HIV patients who attempt suicide. *Acta Psychiatrica Scand, **107*** (1), 41-44.

Salami, A.K., Fadeyi, A., Ogunmodede, J.A.andDesalu, O.(2011) Status disclosure among People Living with HIV/AIDS in Ilorin, Nigeria. *West Africa J Med, **30*** (5), 359-363.

Sangita, V.P., Shilpa, N.P., Rajendra, K.B., Carol, E.G., Mansi, M., Kalpita, S., Harsh, B., Ekta, M., Priyanka, C. and Kedar, M. (2012) HIV serostatus disclosure*:* Experiences and perceptions of people living with HIV/AIDS and their service providers in Gujarat, India. *Psychiatry J, **21*** (2), 130-136.

Ssali, S.N., Atuyambe, L., Tumwine, C., Segujja, E., Nekesa, N., Nannungi, A., Ryan, G. and Wagner G. (2010) Reasons for Disclosure of HIV Status by People Living with HIV/AIDS and in HIV Care in Uganda: An Exploratory Study. *AIDS Patient Care STDS, **24*** (10), 675-681.

Schlebusch, L. and Govender, R.D. (2002).“Age, gender and suicidal ideation following voluntary HIV counseling and testing*”. International Journal of Environmental Research and Public Health, **9*** (2), 521-530.

Serovich, J.M. (2001). A test of two HIV disclosure theories.*AIDS Education and Prevention, **13*** **(4)**, 355-364.

Simbayi, L., Kalichman, S., Strebel, A., Cloete, A., Henda, N. and Mqeketo, A. (2007). Internalized stigma, discrimination, and depression among men and women living with HIV or AIDS in Cape Town, South Africa. *Social Science & Medicine, **64*** (9), 1823-1831.

Simukai, S., Christina, Z., Tamara, S., Marleen, T. and Naeemah, A. (2014). Intimate Partner Violence after Disclosure of HIV Test Results among Pregnant Women in Harare, Zimbabwe**.** *PLoS One, **9*** (10), 109-447.

Stirratt, M.J., Remien, R.H., Smith, A., Copeland, O.Q., Dolezal, C. and Krieger, D. (2006).The role of HIV serostatus disclosure in antiretroviral medication adherence. *AIDS and Behavior, **10*** (5), 483-493.

Streiner, D.L. and Norman, G.R. (2003). *From Health Measurement Scales.A Practical guide to their development and use*.3rd edition. New York: Oxford University Press.

Stutterheim, S.E. (2009). 'HIV-related stigma and psychological distress: The harmful effects of specific stigma manifestations in various social settings', *AIDS, **23*** (17) 2353-2357.

Taratisio, N. and Masta, O. (2014) A Study of Factors Influencing VCT Service Utilization among the Youths: A Case Study of Kapsabet Division, Nandi County, Kenya. *World Journal of AIDS, **4*** (3), 6-15.

Thompson, M.A., Aberg, J.A., Cahn, P., Montaner, J.S., Rizzardini, G. and Telenti, A. (2010). *Antiretroviral treatment of adult HIV infection*: Recommendations of the International AIDS Society-USA panel.

Turan, J.M., Bukusi, E.A., Onono, M., Holzemer, W.L., Miller, S. and Cohen, C.R. (2011) HIV/AIDS stigma and refusal of HIV testing among pregnant women in rural Kenya: results from the MAMAS study. *AIDS Behav, **15*** (6), 1111-1120.

United States Agency for International Development, (2015).*The People Living With HIV Stigma Index*: South Africa.

United States Agency for International Development, (2012). *Stigma and discrimination: a deterrent to universal access experienced by people living with HIV in the Gambia.* The People Living with HIV Stigma Index.

Walcott, M.M., Hatcher, A.M., Kwena, Z. and Turan, J.M. (2013). Facilitating HIV status disclosure for pregnant women and partners in rural Kenya: a qualitative study. *BMC Public Health, **13*** (1), 1115-1120.

Wamalwa, E., Neyole, E., Poipoi, M., Ringera, W., Otomu, G., Bitok, M. and Mbaluka, R. (2015). Condom Use Determinants and Practices among People Living with HIV in Kisii County, Kenya. *Open AIDS J, **9*** (17), 104-111.

Wang, Wenjuan, Soumya, A., and Shanxiao, W. (2012). *HIV-Related Knowledge and Behaviors among People Living with HIV in Eight High HIV Prevalence Countries in Sub-Saharan Africa.* DHS Analytical Studies No. 29. Calverton, Maryland, USA: ICF International.

World Health Organization, (2011). *Guidelines on HIV disclosure counseling for children up to 12 years of age*. Geneva, Switzerland.

World Health Organization, (2014). *Gender Dimension of HIV Status Disclosure to Sexual Partners: Rates, Barriers and Outcomes*. A Review Paper. Geneva. Switzerland.

World Health Organization, (2011). Progress Report: *Global HIV/AIDS response*. Geneva, Switzerland WHO, UNICEF, UNAIDS.

APPENDICES

Appendix I: Informed Consent Form (English Version)

Hello,

My name is Joshua Kailong. I am a post graduate student at Kenyatta University in the department of Community Health. I am conducting research on **DETERMINANTS OF DICLOSURE ON HIV SERO-STATUS AMONG PEOPLE LIVING WITH HIV AND ON ANTIRETROVIRAL TREATMENT AT MOMBASA COUNTY REFERRAL HOSPITAL.**

The Aim of the Study

The aim of this study is to establish factors if any that could affect disclosure of HIV sero – status among PLHIV on treatment and care. At the end of this study, the findings will contribute to the existing knowledge and facilitate appropriate interventions to enhance disclosure of HIV sero-status in the community and thus reduce the HIV incidence.

Procedure

The participants will be introduced to the objective of the research; those willing to take part will sign a written informed consent. The interviewer will ask a number of questions about medical history, HIV status, number of sexual partners, preferred disclosure party, knowledge on sexual partner HIV status, preparedness to disclosure, their perception on disclosure, factors influencingdisclosure, stigma, blame, partner violence, abandonment and rejection, suicidal thoughts, discrimination, opportunistic infections in HIV such as Tuberculosis,Meningitis, Pneumonia, Candidiasis. The interview will take 25 minutes.

Confidentiality

All the information obtained from the interviewee will bekept in private and confidential. Only the research team with coded access will see the provided information. The collected information will be used for research purposes only. The interviewee name (s) or personal details will not be used at any time since the identity of each participant will be designated a number.

Right to refuse or withdraw

It is your choice to be in this study, skip any question they could feel not to answer. You have the freedom to withdraw from the study and in the event you do so it won't affect your care at the clinic. However, their participation was significant.

Benefit

Your participation in the study will provide vital informationin the research findings. However, no monetary or material benefits will accrue from your participation.however, on diagnosis of any medical condition the research team will ensure the interviewee receives appropriate care.

Risks

There is no suspected anticipated harm to the subjects as well as the family members as a result of their participation in the study. Some questions will be personal like their sexual life and sexual partners, but any information provided to the research team will remain private and confidential and not disclosourable to a third party.

Whom to contact

In case of any inquiry please they could contact the principal investigator, Mr. Joshua KailongMurei, cellphone number 0729506702 or Ms VelvinOtieno

0725059616 or GoretyAbdalla 0726772474, CGH, P. O. BOX 90231, 80100 Mombasa

Or The Chair Kenyatta University Ethical Review Committee (KUERC) Telephone number 8710901/12.

I ..... have read or been told about the contents of this form and understand. My questions have been answered. I agree to participate in this study.

Signature of participant.....

Signature of witness (if participant cannot write).....

Date.....

Signature of researcher / Research assistant.....

AppendixII: Informed Consent Form (Kiswahili Version)

FOMU YA IDHINI KWA MGONJWA

Jambo? Mimi naitwa Joshua Kailong, mwanafunziwashahadaya pili katika chuo kikuu cha Kenyatta, kitengo cha Afya ya jamii. Nafanya utafiti kuhusu vizuizi vinvyochangia wagonjwa wa ukimwi kukosa kuelezea hali zao licha ya kupata huduma na matibabu kwenye hospitali kuu ya rufaa ya Mombasa kounti.

Lengo la Utafiti

Lengo la Utafiti huu ni kufahamu vizuizi vinavyo changia wagonjwawaukimwi kukosakuelezeahaliyao licha ya kupewa mawaidha, kupata huduma na matibabu katika kliniki. Tamati ya Utafiti huu ni kupata mwongozo utakao changia ufahamu ulioko kuwezesha wagonjwa kuweza kueleza hali zao za ukimwi na hivyo kupungusa hatari za maambukizi mapya.

Utaratibu

Wahuzika wataelezwa malengo ya utafiti kisha washirikikupewa fursa ya kupitia fomu ya idhini kisha kutia sahii. Mhojaji atauliza maswali kuhusu historia ya kiafya ya mgonjwa, hali ya ukimwi, idadi ya wajumba aliyo nayo mgonjwa, mtu wa karibu ambaye mgonjwa anye mweleza hali yake kwa urahisi, matayarisho ambayo mgonjwa amepewa kwa ajili ya kueleza hali yake, maono ya jamii kuhusu kufichua hali ya ukimwi, sababu zinazozuia mgonjwa kueleza hali yake, changamoto, utaratibu ya kueleza hali yaukimwi, magonjwayanayoambatananaukimwikamakifuakikuu, meningitis, candidiasis, pneumonia nakadhalika. Mahojiano yatachukua muda wa dakika ishirini na tano hivi.

Siri

Kilaujumbe utakayonipa itawekwakwa siri.Watafiti pekee ndio wataweza kuona ujumbe wako. Ujumbe wako utatumika kwa utafiti pekee na bali si kwa njia nyingine. Majina yako na ujumbe mwingine hautatumika bali tutatumia nambari yako.

Haki ya kukataa au kujitoa kwenye utafiti

Ni haki yako kuwa katika utafiti, waweza kosa kujibu maswali ambayo haukufurahishwa nayo. Uko na uhuru ya kujitoa katika utafiti wakati wowote, watakaojitoa katika utafiti hawataathirika kamwe na huduma ya matibabuwanaopatakatikaklinikiyetu. Hata hivyo kuwepo kwako katika utafiti huu ni muhimu na tunakudhamini sana.

Busara

Kushiriki kwako katika utafiti utatuwezesha kupata ujumbe muhimu kwetu na hata wadhamini wengine. Hata hivyo, hakuna busara wowote wa kifedha utakaopata kwa kushiriki kwenye utafiti.

Changamoto

Kwa sasa hatuashirii kuwepo kwa madhara yeyote kwa mshiriki, familia yako kutokokana na kushiriki kwako kwenye utafiti. Hata hivyo maswali mengine ni ya kuchekesha, na ya kibinafsi kama uhusiano wako wa kimapenzi na idadi ya wachumba uliyo nayo.

Watu wa kuwasiliana nao

Endapo kutakuwa na maswali, tafadhali wasiliana na mtafiti mkuu Bw. Joshua Kailong Murei, Namba ya rununu 0729506702 au Bi Velvin Otieno, 0725059619 au Bi GoretyAbdalla 0726772474. Hospitali ya rufaayapwani, anwani 90231,80100 Mombasa au Mkuuwa Kenyatta University Ethical Review Committee (KUERC) nambari ya mawasiliano 8710901/12

Mimi ..... nimesoma au kuelezewa kuhusu ujumbe wa fomu hii na nimeelewa. Maswali yangu yamejibiwa, Nakubali kushiriki katikati utafiti.

Sahii ya mshiriki.....

Sahii ya shahidi (Kama mshiriki hajua kuandika).....

Tarehe.....

Sahii ya mtafiti / mtafiti msaidizi.....

Appendix III: Questionnaire (English Version)

This research is meant for academic purpose, any information given will be treated with confidentiality.Your identity will not be disclosed at any given time and the data will be used for academic purpose only. You are allowed to opt out at any point should you feel uncomfortable and feel free to ask any question for clarity.

Interviewer reads: Thank you for agreeing to meet with me today and participate in this research.

Participant ID NO

_____

Interviewer ID NO

_____

Interview Start Time:

_____

Interview End Time:

_____

Date of interview

_____/_____/_____

PART A: SOCIO - DEMOGRAPHIC DETAILS

1. What's the participant date of birth?
_____/_____/_____

2. Participants gender? ( ) = Male ( ) = Female

3. What's the participant's age?
_____

4. The participant's residence?
_____

5. What is your education level?

( ) =None ( ) =Primary ( ) =Secondary (Form 1-4)

( ) =College ( ) =University ( ) = Madrassa

( ) = Don't know ( ) = Declined

6. What is your occupation?

( ) =Employed ( ) =Self-employed( ) =Housewife ( ) = Unemployed

( ) =Peasant ( ) =Student ( ) = Others (specify) _____

8. How much is your monthly income?

_____Kenyan Shillings ( ) = Don't know ( ) = Declined

9. What is your religion?

( ) = Muslim ( ) = Christian ( ) = Hindu ( ) = None

( ) = Don’t know ( ) = Declined

10. What is your marital status now?

( ) =Married ( ) = Never married ( ) = Widowed ( ) = Divorced

( ) =Separated ( ) = Come we stay ( ) = Don’t know ( ) = Declined

11. If married, how long have you been living with your partner?

_____Number of day’s_____Number of week’s _____Number of months

_____Number of years ( ) = Don’t know ( ) = Declined

12. Do you have children?

( ) = Yes ( ) = No ( ) =Declined

If yes, how many

_____ Number of children ( ) = Don’t know ( ) = Declined

13. (For female) how many pregnancies have you carried?

_____ Number of pregnancies ( ) =Can’t remember ( ) =Declined

14. How many children have you lost if any?

_____ Number of dead children ( ) =Don’t know ( ) =Declined

15. What could be the cause of death?

( ) = HIV/ HIV related complications ( ) =Others (Specify) _____

( ) =Don’t know ( ) =Declined

16. Does your partner have an extra marital partner?

( ) = Yes ( ) = No ( ) = Don't know ( ) = Declined

PART B: HIV TESTING AND DISCLOSURE PREPAREDNESS

17. When did you find out that you have HIV?

_____/_____ (Month/ Year) ( ) = Don't remember ( ) = Declined

18. What made you get tested for HIV?

( ) =Sickness ( ) = Partner's illness/death ( ) = Child illness/death

( ) = Miscarriage ( ) = Doctors recommendation ( ) = Heard in the media/AIDS day

( ) =Family, friend or spouse encouraged me to get tested ( ) =Self initiative

( ) =Hospital visit for another reason ( ) = Home based care visits

( ) =Others (specify) _____ ( ) = Don't know ( ) =Declined

19. Have you been started on ARVs?

( ) =Yes ( ) =No ( ) = Don't know ( ) = Declined

20. For how long have you been using ARVs or Septrin or Dapsone?

_____/_____ Month/ Year ( ) = Don't know ( ) = Declined

21. Are you currently suffering from opportunistic infection?

( ) =Yes ( ) =No ( ) = Don't know ( ) =Declined

If Yes, which one?

( ) =Tuberculosis ( ) =Meningitis ( ) =Candidiasis ( ) =Pneumonia

( ) =Urinary Tract infection (UTI) ( ) =Others (specify) _____

22. Do you know the HIV status of your partner (s)?

( ) =Yes ( ) = No ( ) =Don't know ( ) =Declined

23. Have you shared your HIV positive test results with anybody?

( ) =Yes ( ) = No ( ) =Declined

If Yes, how many people?

_____Numbers of persons ( ) = Don't know ( ) =Declined

If Not, what has made you not to disclose your HIV status?

( ) =Stigma ( ) =Fear to lose a partner ( ) =Blames ( ) = Violence

( ) = Suicidal thoughts ( ) = Others _____ ( ) = Declined

24. When do you plan to disclose your status to your partner (s)?

_____ Day/Month/Year ( ) =Don't know

( ) =Can't disclose ( ) =Declined

If you can't disclose, can the health worker help in facilitating HIV disclosure?

( ) =Yes ( ) =No ( ) =Don't know ( ) =Declined

25. Do you think you have been well prepared for disclosure?

( ) =Yes ( ) =No ( ) =Don't know ( ) = Declined

26. Do you support health worker visiting your family, discuss, counsel and do HIV test (Home based care)?

( ) =Yes ( ) =No ( ) =Don't know ( ) =Never

27. Do you get health education on importance of HIV status disclosure during clinic visits?

( ) =Yes ( ) =No ( ) =Don't know ( ) =Declined

PART C: THE PREFFERED PARTY IN HIV DICLOSURE

28. Who can you simply disclose your HIV status to?

( ) =Spouse ( ) =Children ( ) =Friend

( ) =Relative ( ) =Don't know ( ) =Declined

29. Who do you want not to know your results?

( ) = Parent ( )= Children ( ) = Relative ( ) = Friend

( ) =Spouse ( ) =Sexual partner

30. Why do you consider him / her?

( ) =Caring ( ) =Financial support ( ) = Empathy

( ) =Don't know ( ) =Declined ( ) = Other_____

31. Do you need a health worker to help disclose your status to you loved ones?

( ) =Yes ( ) = No ( ) =Don't know ( )=Declined

32. If the hospital will develop a support group to facilitate disclosure, will you join?

( ) =Yes ( ) = No ( ) =Don't know ( ) =Declined

33. Can you also recruit your partner in the same group?

( ) =Yes ( ) =No ( ) =Don't know ( ) =Declined

34. What do you think will happen when you disclose your status?

( ) =Lose job ( ) =Negative family treatment ( ) = Lose friends ( ) =Partner violence ( )= Gossip ( ) =Family breakage ( ) =Stigma

( ) =Miss Hospital care ( ) =Your children discrimination ( )=Nothing
( ) = Don't know ( ) =Refused

( ) = Other (specify)

_____

PART D: SPOUSE, CHILDREN PERCEPTION ABOUT DISCLOSURE

35. Do you knowthe significance of HIV status disclosure?

( ) =Yes ( )= No ( ) =Don't know ( ) =Declined

36. Do you see the importance to tell others your HIV status?

( ) =Yes ( ) = No ( ) =Don't know ( ) =Declined

37. If yes, what could be the importance of HIV/AIDS status disclosure?

( ) =Better care ( ) =Prevent risk of transmission ( ) =Prevent future blames

( ) =Don't know ( ) =Declined ( ) =Others (Specify) _____

38. What is your partner perception about HIV status disclosure?

( ) =Good ( ) = Bad ( ) =Don't know ( )=Declined

Other (specify) _____

39. Do you think your partner can be supportive if you chose to disclose your status?

( ) =Good ( ) = Bad ( ) =Don't know ( ) =Declined

Other (specify) _____

40. What could be reaction of your children / relatives / parents to disclosure?

( ) =Good ( ) = Bad ( ) =Don't know ( ) =Declined

Other (specify) _____

41. Do you think you can still live positively with your partner after disclosure?

( ) =Yes ( ) =No ( ) =Don't know ( ) =Declined

PART E: FACTORS AFFECTING DISCLOSURE OF HIV SERO - STATUS

42. How many sexual partners have you ever had?

_____ Number of sexual partners ( ) =Don't know ( ) =Declined

43. How many sexual partners do you have currently?

_____Number of sexual partners ( ) =Don't know ( ) =Declined

44. How old is your partner?

_____ Number of partners years ( ) =Don't know ( ) =Declined

45. What is the level of education of your partner?

( ) =None ( ) =Primary ( ) =Secondary

( ) =College ( ) =Madrassa

46. What is the Occupation of you partner?

( ) =Employed ( )=Self-employed ( ) =Housewife ( ) =Unemployed

( ) =Student ( ) =Others (specify) _____

47. Has your partner become violent, fight, quarrel, and hurt because of unfaithfulness?

( ) =Yes ( ) = No ( ) = Don't know ( ) =Declined

48. Are you worried on risk of HIV transmission to your partner?

( ) =Yes ( ) =No ( ) =Sometimes

( ) =Don't know ( ) =Declined

49. Does your partner provide financial support in the family and pay school fees for your children?

( ) =Yes ( ) =No ( ) =Don’t know ( ) = Declined

50. How often do you have sex with your partner (s)?

( ) =Daily ( ) =Once a week ( ) =Once a month ( ) =Once a year

( ) =Don’t know ( ) =Declined

51. Do you regularly use a Condom when doing sex?

( ) =Yes ( ) =No ( ) =Don’t know ( ) =Declined

52. Can you decline sex if you realize that you’re missing a Condom? ( ) =Yes ( ) =No ( ) =Don’t know ( ) =Declined

53. Have you been educated measures to undertake incase of a Condom burst?

( ) =Yes ( ) = No ( ) =Don’t know ( ) =Declined

Interviewer reads: Thank you for taking the time to participate in this interview

Appendix IV: Questionnaire (Kiswahili Version)

DODOSO KWA MGONJWA

Utafiti huu una lengo ya kielimu, ujumbe wowote utakaotoa utachukuliwa kisiri na majina yako hayatatolewa kwa yeyote. Uko na kibali ya kushiriki, kujitoa na kuuliza maswahili wakati wowote.

Mhojajiasema: Asante kwakukubali kukutana nami leo na kushiriki kwenye Utafiti

Namba ya kitambulisho ya mshiriki

_____

Namba ya kitambulisho ya mhojaji

_____

Kuanza kwa mahojiano:

_____

Kumalizika kwa mahojiano:

_____

Tarehe ya mahojiano

_____/_____/_____

SEHEMU A: TAARIFA YAKIJAMII NA SEHEMU

1. Tarehe ya kuzaliwa kwa mshiriki_____/_____/_____

2. Jinsia ya mshiriki ( ) = Mume ( ) = Kike

3. Umri wa mshiriki

_____

4. Sehemu mshiriki anakoishi

_____

5. Kiwango cha elimu?

( ) =Sikusoma ( ) =Shuleyamsingi ( ) =Shuleya upili

( ) = Chuo cha kiufundi ( ) =Chuo kikuuu ( ) = Madrassa
( ) =Sifahamu ( ) = Sinajibu

6. Wafanya kazi gani?

( ) = Nimeajiriwa ( ) = Nimejiajiri ( ) =Mkewa nyumbani( ) = Sina ajira

( ) = Mtuwavibarua ( ) =Mwanafunzi( ) = Lingine (fafanua) _____

8. Wapata pesa ngapi kwa mwezi?

_____shilingi ya Kenya ( ) =Sifahamu ( ) = Sinajibu

9. Dini lako ni lipi?

( ) =Uislamu ( ) = Ukristo ( ) =Uhindu( ) = Sina dini
( ) = Sifahamu ( ) = Sina jibu

10. Kwasasaukondani yandoa?

( ) =Nimeoleka ( ) =Sijaoleka ( ) =Nimefiwa ( ) =Tumetengana

( ) =Nimepewa talaka ( ) =Tunaishi tu na mtu ( ) = Sifahamu ( ) = Sina jibu

11. Ukonamchumba mwinginenjeyandoa?

( ) = Ndio ( ) = La ( ) = Sifahamu ( ) = Sina jibu

12. (Kama umeoleka), Uko na muda upi ndani ya ndoa?

_____Namba ya siku_____Namba ya majumo _____Namba ya miezi

_____Namba ya miaka ( ) = Sifahamu ( ) =Sina jibu

13. Uko na watoto?

( ) = Ndio ( ) = La ( ) = Sinajibu

14. (Kwa wana wake), Umeweza kubeba mimba ngapi?

_____ Namba ya mimba ( ) =Sikumbuki ( ) =Sinajibu

15. Umefiwa na watoto wangapi?

_____ Namba ya watoto waliofariki( ) =Sifahamu ( ) =Sina jibu

16. Nini huenda kilisababisha vifo?

( ) = Madhara au magonjwa yanayoletwa na ukimwi ( ) =Sifahamu

( ) =Sababu zingine (fafanua) _____ ( ) =Sina jibu

SEHEMU B: KUPIMA UKIMWI NA MATAYARISHO YA KUONGEA MATOKEO

17. Lini ulichua umeathirika na ugonjwa wa ukimwi?

_____/_____ (Mwezi/ Mwaka)( ) = Sikumbuki ( ) =Sina jibu

18. Nini kilikufanya uende kupima hali yako?

( ) =Ugonjwa ( ) = Ugonjwa / kifo cha mpenzi( ) = Ugonjwa / kifo cha mtoto

( ) = Kutoka mimba ( ) = Ushauri wa daktari( ) = Mafunzo katika runinga

( ) =Wazia wa rafiki / ndugu ( ) =Uamuzi wangu ( ) = Sifahamu

( ) =Kutembelea hospitali ( ) = Kutembelewa na madaktari nyumbani

( ) =Sababu zingine(fafanua) _____ ( ) =Sina jibu

19. Unatumia madawa ya ARVs?

( ) =Ndio ( ) =La ( ) = Sifahamu ( ) = Sina jibu

20. Muda upi umetumia madawa ya ARVs, SeptrinauDapsone?

_____/_____ (Mwezi/Mwaka) ( ) = Sifahamu ( ) = Sina jibu

21. (Kwa sasa), Uko na ugonjwa nyingine inayoletwa na kushuka kwa kinga mwilini?

( ) =Ndio ( ) =La ( ) = Sifahamu ( ) =Sina jibu

Kama jibu ni ndio, ni ipi?

( ) =Tuberculosis ( ) =Meningitis ( ) =Candidiasis ( ) =Pneumonia

( ) = Ugonjwa wa sinaa ( ) = Sababu zingine (fafanua) _____

22. Unaelewa hali ya ukimwi ya mpenzi / wapenzi wako?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

33. Umewahi muhusisha yeyote na matokeo yako ya ukimwi?

( ) =Ndio ( ) =La ( ) = Sina jibu

Kama jibu ni ndio, umewahusisha watu wangapi?

_____ Namba ya wahusisha ( ) = Sifahamu ( ) = Sina jibu

Kama jibu ni la, ni nini kimekuzuia usimweleze yeyote hali yako ya ukimwi?

( ) =Stigma ( ) = Uoga wa kupoteza mpenzi ( ) = Sitaki lawama ( ) = Vita

( ) = Mawazo mabaya ( ) = Sina jibu ( ) = Sababu zingine (fafanua) _____

24. Unapanga lini kuwaeleza mpenzi / wapenzi wako hali yako ya ukimwi?

_____ Siku/Mwezi/Mwaka ( ) =Sifahamu

( ) = Siwezi kamwe ( ) =Sina jibu

Kama kamwe uwezi eleza, Ungependa kumuuzisha mhudumu wa afya kukuwesesha kueleza? ( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

25. Unadhani mhudumu wa afya amekuandaa vizuri kuweza kueleza hali yako ya HIV?

( ) =Ndio ( ) =La ( ) = Sifahamu ( ) = Sina jibu

26. Unakubaliana na wahudumu wa afya kuzuri nyumbani kwako na kushahuri familia yako juu ya kuelewa hali ya ukimwi na hata kujua hali zenu?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

27. Wapata mafunzo ya kiafya juu ya umuhimu wa kueleza hali yako kila ukitembelea kliniki ya CCC?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

SEHEMU C: MTU ANAYEFAA KUMBA UJUMBE WA UKIMWI

28. Ni nani unaye mwamini na waweza kumwelezea hali yako ya ukimwi kwa urahisi?

( ) =Mpenzi ( ) =Watoto ( ) =Rafiki ( ) =Ndugu

( )=Sifahamu ( ) =Sina jibu

29. Ni nani waona ni vyema zaidi aelewe hali yako ya ukimwi?

( ) = Mzazi ( ) = Watoto ( ) = Ndugu ( ) = Rafiki

( ) =Mpenzi wa ndoa ( ) =Mpenzi wa kando

30. Mbona yeye pekee?

( ) =Ni msiri ( ) =Anisaidia kifedha ( ) = Ananielewa tu

( ) = Sababu zingine (fafanua) _____( ) = Sifahamu ( ) =Sina jibu

31. Unahitaji usaidizi wa daktari kueleza hali yako ya ukimwi?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

32. Endapo hospitali itaunda kikundi cha waathiriwa wa ukimwi kufanikisha hali zao, utajiunga nayo?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

33. Waweza muhusisha mchumba wako katika hicho kikundi?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

34. Waogopa nini kitafanyika wakijua hali yako ya ukimwi?

( ) =Kupotesa kazi ( ) =Kukosa heshima kwa ndoa ( ) = Kupoteza marafiki

( ) =Vita vya kinyumbani ( ) = Fitina ( ) = Ndoa kuvunjika ( ) =Kufikwa mawazo

( ) = Kukosa huduma ya matibabu ( ) = Kubakuliwa na watoto ( ) = Hamna kitu kitafanyika ( ) = Sifahamu ( ) =Sina jibu

( ) = Sababu zingine (fafanua) _____

SEHEMU D: MAONO YA WATU KWA KUELEZEA HALI YA UKIMWI

35. Wafahamu faida za kuelezea hali yako ya ukimwi?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

36. Waona faidayakuelezaunaowapendahaliyakoya ukimwi?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

37. Kama jibu ni ndio, nini haswa faida ya kueleza ujumbe wako wa ukimwi?

( ) = Huduma bora( ) = Kupunga athari za maambukizi ( ) = Kuzuia lawama za halafu

( ) =Sababu zingine (fafanua) _____ ( ) =Sifahamu ( ) =Sina jibu

38. Nini maono ya mchumba yako juu ya kueleza hali ya ukimwi?

( ) =Nzuri ( ) = Hapendi ( ) =Sifahamu ( ) =Sina jibu

Sababu zingine (fafanua)

_____

39. Waonakamamchumbawakoatakushughulikiaendapo utamweleza hali yako ya ukimwi?

( ) =Ndio ( ) = La ( ) =Sifahamu ( ) =Sina jibu

Sababu zingine (fafanua)

_____

40. Nini hatua ya watoto/ ndugu / wazazi wako endapo utawaelezea hali yako ya ukimwi?

( ) =Nzuri ( ) = Mbaya ( ) =Sifahamu ( ) =Sina jibu

Sababu zingine (fafanua)

_____

41. Waona uenda ukaishi tu maisha ya kawaida baada ya kueleza hali yako ya ukimwi?

( ) =Ndio ( ) =La ( ) =Sifahamu ( ) =Sina jibu

SEHEMU E: MAZINGARA NA UKIMWI

42. Umekuwanawachumbawangapikwamaisha yako?

_____ Idadi ya wapenzi ( ) =Wengi ( ) =Sifahamu

43. Kwa sasa uko na wachumba wangapi?

_____ Idadi ya wapenzi ( ) =Wengi ( ) =Sifahamu

44. Mchumba wako ako na miaka mingapi?

_____ Idadi ya miaka ( ) =Sifahamu ( ) =Sina jibu

45. Mchumba wako ako na kiwango kipi cha masomo?

( ) =Hajasoma ( ) =Shule ya msingi ( ) =Shule ya upili

( ) =Elimu ya juu ( ) =Madrassa

46. Mchumba wako anafanya kazi ipi?

( ) =Ameajiriwa( ) = Amejiajiri ( ) =Kaziyanyumba ( ) =Vibarua

( ) =Mwanafunzi ( ) = Sababu zingine (fafanua) _____

48. Umewahi mshuku mpenzi wako kwa kuwa na uhusiano mwingine nje ya ndoa?

( ) =Ndio ( ) =La ( ) = Sifahamu ( ) =Sina jibu

49. Uko na uoga wa kuweza kumwambukiza mpenzi wako virusi vya ukimwi?

( ) =Ndio ( ) =La ( ) =Wakati mwingine

( ) =Sifahamu ( ) =Sina jibu

50. Mpenzi wako anatoa usaidizi wa kifedha juu na kulipa karo ya watoto?

( ) =Ndio ( ) =La ( ) = Sifahamu ( ) =Sina jibu

51. Mnashiriki kitendo cha ndoa na mpenzi wako baada ya?

( ) =Kila siku ( ) =Mara moja kwa wiki ( ) =Mara moja kwa mwezi ( ) =Mara moja kwa mwaka ( ) =Sifahamu ( ) =Sina jibu

52. Mwatumia mipira (kondomu) kila wakati wa mapenzi?

( ) =Ndio ( ) =La ( ) = Sifahamu ( ) =Sina jibu

53. Waweza kata kushiriki mapenziendapoutakosamipira (kodomu)?

( ) =Ndio ( ) =La ( ) = Sifahamu ( ) =Sina jibu

54. Umeelemisha hatua za kuchukua endapo mpira (kondomu) unayotumia ikipasuka?

( ) =Ndio ( ) =La ( ) = Sifahamu ( ) =Sina jibu

Interviewer reads: Thank you for taking the time to participate in this interview

Appendix V: Guide for in-depth interview (English Version)

Hello, my name is Joshua Kailong. I am a post graduate student at Kenyatta University. Today I am here to undertake an interview on determinants of disclosure on HIV sero-status. All comments and views are welcomed. I would like togetas many points as possible from you. With your permission, Iwill use a tape recorder to ensure accuracy of the data collection. I would like to assure you that all information you give me/us will be confidential and will be used for research purpose only. The information will be locked up in a cabinet that is only accessible to the research team. Your identity will be mapped to the research findings on dissemination and individual raw and analyzed data will be password to protected at all times.You are allowed to withdraw any moment you feel like doing so without any penalty and you may refuse to answer any question you do not want to.

However, your contributions are considered vital in the success of this study. Are you willing to participate in the interview? Thank for your acceptance.

Participant ID NO.....

Interviewer ID NO.....

Date of Interview.....

PART A: PARTICIPANT DEMOGRAPHIC INFORMATION
1. Date of birth..... 2. Sex of participant..... 3. Age of participant.....
4. Marital status..... 5. Residence area..... 6. Education level.....
7. Occupation.....8. Religion.....

PART B: PREPAREDNESS TO HIV/AIDS STATUS DISCLOSURE

9. What is your view about HIV status disclosure? How can it be done? When?

……

……..

10. What is the reason behind HIV disclosure rates still low? Why?

……

……..

- Has the clinic prepared you adequately?

  …….
- Have you been given different methods of disclosure?

  ……..
- What are doing about it?

  ……
- How soon can you disclose?

  ……..

11. Doyouunderstand the HIV status of your partner?

…….

- Have you gone together for a VCT?

  …….
- Are you ready to bring them to the clinic to get VCT services?

  ……

  ……..
- Are you ready to accept the HIV results of your partner? Children?

  ……

  ……..

PART C: PREFFERED PARTY

12. When is the right time to disclose your HIV status?

……

- Who can you disclose to?

Why?……

……

- Who can you not disclose to?

……..

13. Do you need the help of a health worker in facilitating disclosure? Why?

……

……

- Can given your partners contact to be invited and take part in disclosure process?

  ……

  …….
- Are you ready to receive a health work visit to you home? Why?

  ……

  …….
- Are you willing to join disclosure support group?

  …….....

PART D: FACTORS AFFECTING DISCLOSURE OF HIV STATUS

14. How many sexual partners do you have?

……

- When did you did sex last?

…….

- Did you use a Condom? How often do you use? Why?

  ……

  …….

15. Who can you discuss your HIV status to? Why?

……

……

- How many times have you shared your status?

  …….

16. What could be the possible eventualities of disclosing your HIV status?

……

…….

- Do you know it's a positive step to take?

  ……

- Can you now take the bold initiative?

  ……

PART D: PERCEPTIONS ON HIV DISCLOSURE

17. How do others say about HIV disclosure?

……

…….

- What of your spouse? Children? Friends?

  ……

…….
18. Does their perception motivate your disclosure? ……. • Can your spouse be the primary person to disclose to? ……. • If not, who can be the appropriate person to disclose to? ……..

Interviewer: Thank you for taking your time to talk to me

Appendix VI: Guide for in-Depth Interview Guide (Kiswahili Version)

MAHOJIANO YA KINDANI KUHUSU UGONJWA WA UKIMWI

Hamjambo mabibi na mabwana? Jinalanguni Joshua Kailong, Mwanafunzi washahadaya pili katika chuo kikuu cha Kenyatta. Leo niko hapa kuweza kufanya mahojiano ya kina nanyi juu ya vizuizi vinavyoathiri mgonjwa kuelezewa hali yake ya HIV kwa wapendwa wake. Maoni yoyote kutoka kwenu yakaribishwa. Kwa heshima yenu, naenda kutumia kifaa cha kunakili mjadala huu ndipo kuhakikisha ubora wa ujumbe mtakao tupa. Ningependa kuwaahidhi ya kuwa ujumbe wote mtakao tupa utawekwa kwa usiri na utatumika tu kwa ajili ya utafiti. Uko na kibali ya kujitoa kwenye utafiti wakati wowote au kutojibu maswaliambayohaukufurahishwanayo.

Hata hivyo, mchango wako ni wa busara kwenye utafiti wetu.Ungependa kushiriki katika utafiti? Asante kwa kuitikia.

Namba ya kitambulisho ya
mshiriki.....

Namba ya kitambulisho ya
mhojaji.....

Tarehe ya
mahojiano.....
....

SEHEMU A: UJUMBE WA MSHIRIKI
1. Tarehe ya kuzaliwa..... 2. Jinsiayamshiriki..... 3. Umri wa mshiriki.....

4. Hali ya ndoa..... 5. Eneo la kuishi mshiriki..... 6. Kiwango cha elimu.....

7. Ujira..... 8. Dini.....

SEHEMU B: UTAYARISHAJI KATIKA KUELEZEA HALI YA UKIMWI

9. Nini maoni ya juu ya kufichua hali yako ya ukimwi? Unaweza fanya vipi? Lini?

……
…….

10. Sababu ya wagonjwa wengi kukosa kuelezewa hali yao? Kwa nini?

……
……..

- Kliniki imewandaa vyema kuweza kuelezea hali zenu?
  ……
  …….
- Umeelimishwa njia tofauti za kuelezewa hali yako?
  ……
  …….
- Uko na hatua zipi juu ya kuelezewa hali yako ya ukimwi?
  ……
  …….
- Njia gani rahisi ya kuelezea?
  ……
  …….

11. Waelewa hali ya ukimwi ya umpendaye?

……

……

- Mumetembelea kitu cha VCT?

  ……

- Kama bado, uko tayari kuja naye kupimwa?

  ……..

- Uko tayari kubali matokeo yake? Na za watoto?

  ……

SEHEMU C: MTU WA KARIBU KUMWELEZA HALI YAKO YA UKIMWI

12. Ni wakati upi mwaka kuelezewa hali yako ya ukimwi?

……

……

- Ni nani waweza mwelezea? Kwa nini?

……..

- Ni nani huwezi mwelezea?

……..

13. Uenda wahitaji msaada wa mhudumu wa afya kuelezea? Kwa nini?

……

……...

- Waweza tupa mawalisiano ya mpenziyo tumuhusishe katika mpangilio huu?

  ……

…….

- Wakaribisha wahudumu wa afya kwako nyumbani kutoa ujumbejuuyaukimwinakupima?

  ……
  …..
- Uko tayari kujiunga na kikundi cha watu wanaotaka msaada wa kufichua hali zao za Ukimwi?

  ……
  ….

SEHEMU D: MAZINGARA INAYOATHIRI KUELEZEA HALI YA UKIMWI

14. Uko na wajumba wangapi?

……..

- Umeshiri kitendo cha ndoa lini mwisho?

  …….
- Ulitumia mpira? Huwa watumia kila mara?

  …….

15. Ni nani waweza jadili hali yako ya ukimwi kwa uwazi? Kwa nini?

……
……

- Ni mara ngapi umejadili hali yako?

  ……..

16. Ni njiaganimwafakaitakayokuwezesha kuelezeahaliyako?

……

- Unaelewa ni hatua bora kuelezea?

  ……

- Unaweza chukua hatu hiyo?

  …….

SEHEMU: FIKRA ZA WATU JUU YA KUELEZEA HALI YA UKIMWI

17. Nini maoni ya watu juu ya ukimwi?

…….

- Na nini maoni ya mpenzi wako? Watoto? Marafiki?

  ……
  …….

18. Unaona maoni yao yakikupa motisha kuelezewa hali yako?

……
……..

- Mpenzi wako anaweza kuwa mtu wa kwanza kumweleza ujumbe?

  ……
  …….

- Kama sio, ni nani anafaa kupewa ujumbe huu kwanza?

  ……
  …….

Mhojaji: Asante kwa kushiriki mahojiano yetu

Appendix VII: Guide for Focused Group Discusion (English Version)

Good morning / evening and welcome to our session. Thanks for taking the time to join us to talk about the barriers on HIV status disclosure among PLHIV and on care in our hospital. My name is Mr. Joshua Kailong Murei and assisting are Ms. Velvin and Ms. Gorety. I am from Kenyatta University and my assistants are CCC staff. You have been invited to participate in this study in order to share your views on how these barriers can be overcomed and thus reducing new cases or risks of HIV transmission. We are undertaking this research among the patients on care as well as incorporating the CCC staff. The findings of our study will be replicated to the facilities in country with the same services.

There are no wrong answers but rather differing points of view. Please feel free to share your point of view even if it differs from what others have said. Keep in mind that we're just as interested in negative comments as positive comments, and at times the negative comments are the most helpful.

You have probably noticed the microphone. We are going to tape record the session because we don't want to miss any of your comments. People often say very helpful things in these discussions and we can't write fast enough to get them all down. We shall be giving out numbers to be used and not the participant’s names. You may be assured of complete confidentiality. The reports will go back to CCC staff to help them plan future programs. Any question before we start?

Well, let's begin. We've placed name cards on the table in front of you to help us remember each other's names. Let's find out some more about each other by going around the table. Tell us your name and where you live.

1.	Tell your positive experience you have had with the CCC? …… ……
2.	How have you been involved in HIV status disclosure? …… ……
3.	Think back over months / years when you got the first counseling at the clinic, what is your memory? ……
4.	What needs tobe improved in our HIV counseling and disclosure method? …… ……..
5.	What can each one of us do to make HIV status disclosure better? …… …….
6.	Suppose you found out that your partner is using ARVs and has not disclosed her HIV status, what will you do? …….

8	Tell me one disappointment you have had as a healthworker when you find out that your patient hasn't managed to disclose his HIV status despite your counseling efforts? …… ……..
9	Have you ever changed friends since you enrolled with CCC? What made you change? …… ……..
10	Of all these things we have talked about, what is important to you? …… ……

Interviewer: "thanks so much for your time"

Appendix VIII: Guide for Focused Group Discussion (Kiswahili Version)

MJADALA LA KIKUNDI CHENYE MWONGOZO

Hamjambo na karibu kwenye maongezi yetu. Nachukua fursa hii kwa niaba ya chuo kikuu cha Kenyatta kuwakaribisheni nyote. Asante kwa kuchukua muda wenyu kushiriki katika maongezi yetu juu ya vizuizi vinavyoathiri wagonjwa wa ukimwi kuelezewa hali zao licha ya kuwa katika matibabu kwa hospitali yetu ya Rufaa. Jina langu ni Bw. Joshua Kailong Murei na wasaidizi wangu Bi. Velvinna naBi. Gorethy ambao niwahuhudumuwaafya kwenye kliniki hii. Lengo letu ni kupata maoni yako juu ya vizuizi, njia za kukabiliana nazo ndiposa kuzuia maambukizi zaidi za virusi vya ukimwi. Utafiti huu unawahusisha wagonjwa ambao wanapata huduma ya CCC katika hospitali yetu, sawa na wagonjwa wengine nchini wenye mahitaji sawa na zenu.

Katika mjadala wetu, hamna jibu lisilo sawa maoni tu huenda yakatofautiana. Tafadhali kuwa huru kuelezewa maoni yako hata kama mwenzako asha elezea. Zingatia ya kuwa tunahitaji maoni tofauti kutuwezesha kufanikisha utafiti huu.

Huenda umeona tuko na vyombo vya kunasa sauti. Tuna nakili sauti pia tutakapo kuwa tunaendelea na mjadala ndiposa tusipitwe na jumbe muhimu ambazo hatuwezi kuyaandika. Hatutatumia majina ya washiriki bali kila mshiriki atapewa namba ya kutumia. Ujumbe utakaotupa utawekwa ka usiri

kasha utatumiwa na hospitali au idara ya afya kuimarisha vita dhidi ya ukimwi nchini. Kuna yeyote aliye na swali kabla tuanze?

Basi hebu tuanze, mbele yenu kuna meza iliyo na namba tofauti, kila mmoja aje achukue namba ambayo atatumia kwa utambulisho wakati tutakapoendelea. Wakati tunachukua namba hizi, pata muda wa kumchulia jirani wako na kumkaribisha kwa zoezi hili.

1.	Tueleze jambo moja la kufurahisha juu ya CCC? ....
2.	Umewahi shiriki kuelezewa hali yako ya ukimwi? …… …….
3.	Chukua muda na ukumbe nyuma wakati ulipojiunga na kliniki, nini waikumbuka vyema? …… ….
4.	Ni nini yahitaji kuboreshwa kwenye utaratibu wa kuelezewa hali ya ukimwi? …… …….
5.	Ni nini kila mmoja wetu anaweza kufanya kuimarisha ujumbe wa ukimwi?

	…… ……..
6.	Endapo utakundua ya kuwa mchumba wako anatumia madawa ya ARVs na hajawahi kukueleza hali yake, utafanya nini? …….
8	Nipe changamoto moja kama mhudumu wa afya ulipoelewa mgonjwa wako ameshindwa kuelezewa hali yake licha ya kuwa na maongezi naye? …… ……
9	Umewahi badilisha marafiki bunde ulipojiunga na kliniki ya CCC? …… …….
10	Kati ya mambo haya yote tumejadiliana, ni gani muhimu kwako? …… ……..

Mhojaji: “Asante sana kwa muda wako”

Appendix IX: 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 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

Internal Memo

FROM: Dean, Graduate School

DATE: 7th September, 2016

TO: Mr. Joshua K. Murei
C/o Department of Community Health
Kenyatta University

REF: Q57/MSA/PT/27655/14

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

We acknowledge the receipt of your revised Research Proposal entitled **"HIV Sero-Status Disclosure Determinants among PLHIV and Receiving Therapy and Care at CGH, Mombasa County"** as per recommendations raised by the Graduate School Boerd of 8th July, 2016

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology & Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed supervision Tracking Forms per semester. The form has been developed to replace the progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

REUBEN MURIUKI
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Department of Community Health

Supervisor

1. Prof. Alloys Orago
   C/o Department of Pathology
   Kenyatta University

2. Dr. Aggrey Adem
   Statistics & Physics Department
   Technical University of Mombasa
   C/o Department of Community Health
   Kenyatta University

RM/cao

Appendix X: Research Authorization

NATIONAL COMMISSION FORSCIENCE, TECHNOLOGY ANDINNOVATION

Telephone: +254-20-2213471, 2241349,3310571,2219420
Fax: +254-20-318245,318249
Email:dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O.Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/17/92831/15750**

Date: **31st March, 2017**

Joshua Kailong Murei
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Disclosure determinants of HIV sero-status among people living with the virus and those receiving care and treatment at Coast General Hospital Mombasa County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Mombasa County** for the period ending **30th March, 2018.**

You are advised to report to **the County Commissioner, the County Director of Education and the County Director of Health Services, Mombasa County** before embarking on the research project.

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

DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Mombasa County.

The County Director of Education
Mombasa County.

Appendix XI: Research Permit

THIS IS TO CERTIFY THAT:
MR. JOSHUA KAILONG MUREI
of KENYATTA UNIVERSITY, 90421-80100
MOMBASA,has been permitted to
conduct research in *Mombasa County*

on the topic: *DISCLOSURE DETERMINANTS OF HIV SERO-STATUS AMONG PEOPLE LIVING WITH THE VIRUS AND THOSE RECEIVING CARE AND TREATMENT AT COAST GENERAL HOSPITAL MOMBASA COUNTY, KENYA.*

for the period ending:
30th March,2018

.....
Applicant's Signature

Permit No : NACOSTI/P/17/92831/15750
Date Of Issue : 31st March,2017
Fee Recieved :Ksh 1000

.....
Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officer will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one (1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEACH CLEARANCE PERMIT

Serial No.A 13574

CONDITIONS: see back page

Appendix XII: Data collection permission

MOMBASA COUNTY REFERAL HOSPITAL

P.O. BOX 90231,

MOMBASA

18/11/2016.

JOSHUA KAILONG MUREI (Q57/PT/MSA/,

DEPARTMENT OF COMMUNITY HEALTH,

KENYATTA UNIVERSITY,

P.O BOX 43844-00100,

NAIROBI.

SUBJECT: APPROVAL OF RESEARCH (DATA COLLECTION).

We acknowledge receipt of your application to undertake a research entitled **"Human immunodeficiency virus disclosure determinants among person living with the virus and receiving treatment at Coast General Hospital, Mombasa County".** With the submission of clearance from ethical approval review committee (KU/R/COMM/51/813) as well as approval of the hospital research department.

You may proceed with data collection exercise upon payment of the prescribed fee by the hospital research department.

Thank you,

COAST GENERAL HOSPITAL MOMBASA DATE 11/12/16

Dr. A. KANDHWALLA

THE HOSPITAL CHIEF ADMINISTRATOR.

Dr. I. KHANDWALLAH

Appendix XIII: Abstract for paper submitted for publication

It is estimated that Kenya has 1.6 million people infected with HIV and AIDS, with a record of 88,000 new adult isnfections annually. The country has HIV prevalence rate of between 5.6 - 7.2% and incidence rate of 0.4 – 0.7%. Recent studies on disclosure among children have revealed HIV disclosure rate of 11% - 26% and 70-80% among sexual partners. Disclosure of HIV positive status in Kenya has been focused on various areas. However, disclosure determinants among persons living with HIV remain unclear. The objective of the study was to explore the level of HIV serostatus disclosure, define determinants of disclosure among persons living with HIV, those receiving treatment and on care at Mombasa County Referral Hospital. A cross- sectional study design was employed where both quantitative and qualitative data were collected from consenting PLHIV. Univariate and multivariate analyses were performed using SPSS version 20, frequencies generated for categorical variables and comparison between proportions examined using Chi - square. A total of 432 participants were recruited in the study consisting of 174 (40.3%) males and 258 (59.7%) females of which 32.9% were married. Majority participants were within 29-38 years range, mean age was 35.0 years. About 40.5% had secondary education, 31.2% are employed with 17.8% getting a salary below Ksh. 10,000. About 61.1% were Christians and 36.6% Muslims. The overall disclosure rate among PLHIV was 79.2%, disclosure to spouse35.9%. Based on gender 53% female and 47% (P, 0<001) male had disclosed their status, while 31.7% of participants had disclosed to between 1-2 people. The common hindrance to disclosure were stigma (68.7%), fear to lose partner (10.2%), fear to be blamed (5.6%) and others (15.5%). Key determinants of HIV disclosure were knowledge of partner HIV status (AOR 0.35; 95% CI 0.24-0.55) and pre disclosure preparedness (AOR 0.445; 95% CI 0.07-0.357). Qualitative findings also showed that life with HIV and disclosure questions influenced HIV disclosure among PLHIV. Overall disclosure rate among PLHIV was high (79.2%) but 40.5% participants were not aware of their spouses HIV status. The knowledge of partner HIV status and pre disclosure preparedness are important determinants for HIV disclosure. Interventions that target HIV counseling and testing as well community perception on HIV disclosure should be empowered. The results of this study will help PLHIV and those not infected to seek HIV test and disclose their status in order to reduce risk of HIV transmission.