

**Factors influencing patients' satisfaction with HIV/AIDS care at  
Mbagathi District Hospital's Comprehensive Care Centre-Kenya**

**Caroline Wanjiru Mwihoti**

**A thesis submitted in partial fulfillment for the degree of Masters of  
Science in Public Health in the Jomo Kenyatta University of  
Agriculture and Technology.**

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## DECLARATION

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

Signature\_\_\_\_\_ Date: \_\_\_\_\_

**Caroline Wanjiru Mwihoti**

This thesis has been submitted for examination with our approval as University supervisors:

Sign..... Date.....

**Dr. Peter Wanzala**

**KEMRI, Kenya**

Sign..... Date.....

**Prof. Zipporah Ng'ang'a**

**SEKU, Kenya**

## **DEDICATION**

I dedicate this thesis to my mum Ms. Beth Njoki Mwihoti and my husband Mr. Charles Ndung'u Kairu for their love, support, patience and encouragement during this study.

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## **LIST OF ABBREVIATIONS / ACRONYMS**

<b>AIDS</b>	Acquired Immunodeficiency Syndrome
<b>AMPATH</b>	Academic Model Providing Access to Healthcare
<b>ART</b>	Antiretroviral Therapy
<b>ARV</b>	Antiretroviral (drug)
<b>CCC</b>	Comprehensive Care Centre
<b>COHES</b>	College of Health Sciences
<b>CPHR</b>	Centre for Public Health Research
<b>DTC</b>	Diagnostic Testing and Counseling
<b>GYN</b>	Gynecological services
<b>HIV</b>	Human Immunodeficiency Virus
<b>HAART</b>	Highly Active Antiretroviral Therapy
<b>HBC</b>	Home Based Care
<b>IBD</b>	Inflammatory Bowel Disease
<b>ITROMID</b>	Institute of Tropical Medicine and Infectious Diseases
<b>JKUAT</b>	Jomo Kenyatta University of Agriculture and Technology
<b>KDHS</b>	Kenya Demographic and Health Survey
<b>KEMRI</b>	Kenya Medical Research Institute
<b>KAIS</b>	Kenya AIDS Indicator Survey
<b>MSF</b>	Medicines Sans Frontiers
<b>PEP</b>	Post Exposure Prophylaxis
<b>PLWH/A</b>	People living with HIV/AIDS
<b>PMTCT</b>	Prevention of Mother to Child Transmission
<b>PITC</b>	Provider-initiated Testing and Counseling
<b>SPSS</b>	Statistical Package for Social Sciences
<b>TB</b>	Tuberculosis
<b>VCT</b>	Voluntary Counseling and Testing
<b>WHO</b>	World Health Organization

## **DEFINITION OF TERMS USED IN THIS STUDY**

**Patient satisfaction:** This is patients' perception towards the service or product in terms of meeting or exceeding their level of expectations

**Patient compliance:** This is a term used to describe the level at which the patients continue with the treatment program as recommended by the care provider

**Treatment Goal:** Treatment goal is a measurable target level of function that the patient would achieve within a stipulated time period

**Patient:** This refers to a person who is receiving medical treatment in a hospital

**Customer:** A customer is a regular user of a product

**Client:** A person who uses the services of a professional person

## ABSTRACT

Patient satisfaction is one of the indicators of quality health care that is given to the users of the service. Patient satisfaction can be used to benchmark delivery of quality services in health facilities more so in the realm of HIV/AIDS. This study was undertaken to investigate patients' satisfaction with the HIV/AIDS healthcare offered to them at Mbagathi District Hospital's Comprehensive Care Center (CCC) in Nairobi County Kenya. This was a cross-sectional study which had 440 HIV/AIDS clients as respondents. Data collection was carried out using questionnaire. Patient satisfaction likert score was computed using five elements of satisfaction that required the respondent to respond 'Yes' or 'No'. The maximum attainable score was 5. The patient satisfaction score was classified as full (5 marks) and partial/not satisfied (0 – 4 marks). Analysis of overall satisfaction score ranged from 0 to 5 with a high proportion of the participants (78.6%) scoring 5. Factors that were significantly associated with patient's satisfaction included; accessibility, medical visits for HIV related services, referrals of patients for further services, and characteristics of healthcare services that contribute to patient satisfaction. Results indicated that female gender was significantly associated with increased patient's satisfaction with health service delivery (81.9%) as compared to male gender satisfaction (73.2%). Marital status was significantly associated with patient's satisfaction with health care service delivery as divorced patients were more satisfied compared to married status. Findings of the study indicated there was high satisfaction by the respondents. Health providers should be sensitized to the finding of the various factors that affect patient satisfaction in order to keep patients satisfied with the services they receive. Increasing HIV/AIDS level of satisfaction is extremely essential and inevitable to diminishing the unbearable burden of accessing HIV/AIDS healthcare services in the CCCs.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background Information

At the end of 2013, there were 35 million people living with HIV. This number is rising as more people are living longer because of antiretroviral therapy, alongside the number of new HIV infections which, although declining, is still very high. Of the 35 million people living with HIV, 24.7 million are living in sub-Saharan Africa, the region hardest hit by the epidemic. Nearly one in every 20 adults is living with the virus in this region (UNAIDS, 2013). Kenya HIV prevalence is estimated to be 5.6% among Kenyans aged 15-64 years; women aged 15-64 years have higher HIV prevalence rates (6.9%) than men (4.4%) aged 15-64 years, and young women aged 20-24 years were at least three times more likely to be infected (4.6%) than young men of the same age group (1.3%). HIV prevalence in older adults aged 50-54 years is at 8.4% is lower among those aged 55-59 years (4.4%) and aged 60-64 years (4.0%) (KAIS, 2012).

There is no cure for HIV infection. However, effective treatment with antiretroviral drugs can control the virus so that people with HIV can enjoy healthy and productive lives (WHO, 2014). In 2013, 12.9 million people living with HIV were receiving antiretroviral therapy (ART) globally, of which 11.7 million were receiving ART in low- and middle-income countries. The 11.7 million people on ART represent 36% of the 32.6 million people living with HIV in low- and middle-income countries (WHO, 2014). It remains a challenge to achieve the universal access target of all infected persons reached with the treatment and ensure the quality of HIV/AIDS care and treatment services in many low-income countries with the hardest hit of HIV epidemics is ensured, (Reda and Biadgilign, 2012). Delayed access, suboptimal adherence, low retention rate, and poor outcomes of ART have been observed in these settings, especially in large drug injection-driven HIV epidemics (Milloy *et al.*, 2012). Recently, the UNAIDS Secretariat and WHO launched Treatment 2.0, an initiative designed to achieve and sustain universal access and maximize the preventive benefits of ART. Treatment 2.0 promotes the decentralization and integration of ART with other HIV and non-HIV health services in order to bring ART closer to patients, reduce financial, distance, and administrative barriers, and engage community in delivering treatment supports. To successfully adopt this model, understanding of contextual influences to utilization of quality services across levels of health

service administration is of great interest to program managers and policy makers, especially in resource-limited settings (WHO, 2011).

According to May (2001) effective patient care may increase patient's level of satisfaction with the service which has been found to be associated with compliance with the treatment of their illness. Consequently, patient satisfaction is undoubtedly a useful measure, and to the extent that it is based on patients' accurate assessments, it may provide a direct indicator of quality care (Mendoza, 2001). In recent years the World Bank and other donors have been advising developing countries to ensure that limited resources not only have an optimal impact on the population's health at affordable cost but also that health services are patient oriented (De Geydnt,1995). Patients's satisfaction is essentially an important issue in Africa particularly country like Kenya, where there is a dearth of adequate resources and skilled human capital to provide efficient health care services to the HIV/AIDS patients (Probst, 1997). The aim of the present investigation was to determine the HIV/AIDS patient's satisfaction with healthcare service at the CCC in Mbagathi District Hospital, Nairobi-Kenya and to identify the various factors associated with patient's dissatisfaction. Studies showed that patient satisfaction was one of the outcome measures of patient care in addition to mortality and morbidity and predicts treatment utilization and adherence (Roberts, 2002). The relationship between health care providers and patients (interpersonal skills) has also been reported to be the most influential factor for patient satisfaction (Cleary and McNiel, 1998). As patient satisfaction is considered to be a health care outcome and predictor of treatment utilization and adherence to the care and support, this study is therefore conducted to assess the level of satisfaction of PLWHA on the services at ART clinic. Numerous studies have been carried out on patient satisfaction in various sectors of the health services. However, the focus of this study was to investigate CCC patient's satisfaction at Mbagathi District Hospital. The Human Immunodeficiency virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) epidemic has affected the lives of nearly 40 million people around the world. There is currently no cure for HIV/AIDS, but a combination of ARV treatments can significantly improve patients' quality of life (UNAIDS, 2014)



## **1.2 Problem Statement**

HIV/AIDS healthcare providers are increasingly challenged by the service consumers to provide evidence for best practice considering the cost of treatment to the individual, tax payers, government and other donors. Equally important is the satisfaction of patients because they expect value for their time and effort to attend for treatment. In addition, patients also expect to benefit from the healthcare service to improve their quality of life. The scale-up of ART means more Kenyans living with HIV/AIDS especially those of lower social-economic status are accessing antiretroviral therapy (ART).

It is not known whether patients receiving HIV/AIDS healthcare at Mbagathi CCC are satisfied with the healthcare services. Patient satisfaction is considered an important component when measuring health outcomes and quality of care.

The study sought to understand the specific needs of clients on ART and the kind of support that service providers should provide to enable them to be satisfied with the healthcare provided. The findings of the study are intended to inform the design of materials and program activities for HIV care and inform the components of the ART training guide for service providers and that of the home-based care training manual.

## **1.3 Justification**

The aim of the study was to investigate patients' satisfaction with the healthcare service they received at the Mbagathi District Hospital's CCC. The CCC was among the first ART service provider established in Nairobi and hence had a wide range of clientele and also the numbers. This assisted in establishing an understanding as to whether the healthcare services for PLWH/A meets the expectations of the patients at the clinic. Measuring patient satisfaction help in strengthening communication and building relations between the health workers and patients, assessing the strengths and weaknesses of HIV program from the patients' perspective, focus quality improvement efforts and create baseline data against which to measure changes in patient satisfaction. These outcomes represent key opportunities to make

and monitor the changes required to achieve some important goals including improving patient satisfaction.

The results of the study are intended to provide information to health care systems that will help them provide services that are judged by patients as acceptable and beneficial. The Data could also be used by groups of providers seeking to improve the quality of care they deliver.

#### **1.4 Research Questions**

1. What is the level of patient satisfaction towards the HIV/AIDS care at the Mbagathi District Hospital's CCC?
2. What are the factors associated with patient satisfaction during treatment at Mbagathi District Hospital's CCC?

#### **1.5 Objectives**

##### **1.5.1 General Objective**

To determine factors that influence level of patients' satisfaction with the health care services provided by the Mbagathi District Hospital's Comprehensive Care Centre (CCC).

##### **1.5.2 Specific Objectives**

- i. To determine the level of patients' satisfaction with health care at Mbagathi District Hospital's Comprehensive Care Center
- ii. To determine the factors associated with patient satisfaction at Mbagathi District Hospital's Comprehensive Care Centre

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Patient Satisfaction**

Patient satisfaction is a multidimensional concept, based on a relationship between experiences and expectations. The term patient satisfaction as used herein means the positive emotional reaction to the consultation and the positive experience of the treatment in its various aspects. Satisfaction is defined as the patient/client perception towards the service or product in terms of meeting or even exceeding their expectations (Lamb, 2004). Satisfaction is an outcome measure (May, 2001). Beattie elaborated on the difference between patient satisfaction with outcome and their satisfaction with the care. The researchers indicated that the former relates to the results of the treatment that the patients have received while the latter focuses on their satisfaction with the services that they have received. In order to achieve the satisfaction most of the patients' concerns revolve around health care facilities like access, cost of the treatment and treatment time (Beattie *et al.*, 2002). The modern view of quality of care looks at the degree to which health services meet patients' needs and expectations (Donabedian, 1988), both as to technical and interpersonal care (Campbell *et al.*, 2000).

Evaluation of patient satisfaction is accepted as a valuable addition to other types of outcome measures (such as health status, quality of life or costs) in measuring the quality of general practice care (Grol *et al.*, 2000). Patient satisfaction with services is a cornerstone of quality care, and has emerged as an important focus of managed care organizations over the last decade (Cherin *et al.*, 2001). There is growing evidence that quality of care measured in terms of structure and processes of care can have an impact on patient satisfaction (Agins, 2002) and survival (Kitahata, 1998). When patients are fully satisfied with the service they had received, it influences them to seek future care from the same health facilities (Boshoff and Gray, 2004).

### **2.1 Patient Satisfaction - The Healthcare Perspective**

The study of patient satisfaction did not begin in earnest until the late 1970's and early 1980's. This might be attributed to the commercialization of medicine, and by increasing interest in

“individual experience” among social scientists. Patient satisfaction could be assessed by measuring the degree to which patients believe that care possesses certain attributes and the patient’s evaluation of those attributes. There are three independent models of satisfaction, each associated with one determinant. Thus, there is the “need for the familiar,” the “goals of help-seeking” and the “importance of emotional needs.” Furthermore, there is evidence that there are two states of satisfaction, stable ones related to health care generally and dynamic ones related to specific health care interactions (Sitzia and Wood, 1997).

## **2.2 Patient Satisfaction in Relation to Socio Demographic Characteristics**

Patient satisfaction is associated with age and education and nearly significantly associated with social and marital status. The associations may be due to response patterns on the part of the groups identified or they may be mediated by events and processes that occur during the medical care encounter (Hall, 1990). Satisfaction with managed care health care plans is very often situational or specific to a visit, rather than a global assessment of the plans. Satisfaction is “mentioned in connection with one or more major sources: convenience, positive relationship with physician, and limited out of pocket expenses.” In contrast, dissatisfaction is found to be associated with both global and specific situations (Halkitis *et al.*, 1998). When compared with the lack of attention and services to their social needs, HIV/AIDS patients are generally satisfied with the services dedicated to their health needs (Beedham, 1995). A study in South Africa on patient satisfaction with health care revealed high levels of satisfaction with health care providers. Fifty-one percent (n = 1953) of the respondents had attended a primary care facility in the year preceding the interview and were retained in the analysis. Both race and social economic status were significant predictors of levels of satisfaction with the services of the health care provider, after adjusting for gender, age, and type of facility visited. White and high social economic status respondents were about 1.5 times more likely to report excellent service compared with Black and low social economic status respondents, respectively (International Journal for Quality in Health care 2005).

### **2.3 Accessibility to Healthcare in Relation to Patient Satisfaction**

Patients report high expectations about the experience of receiving and, often co-producing health care that it should be timely and that their views and preferences will be considered at least equally important as those of health professionals. Patient perceptions of what constitutes high quality care are likely to be fluid and will change as they understand that performance is not uniformly high. Providing patients with a framework to help them understand a broader array of performance and quality measures would help. Patients expect to have good access to care and be respected (Hibbard, 2004). Under the view of the concept of quality of health care focusing on structure, process and outcome of care, patient satisfaction is part of the treatment result and at the same time a good indicator of quality of care. Components of satisfaction consist of: structural, technical and interpersonal aspects of care. The structural aspects include; access, physical setting, costs, convenience, and treatment by non-clinical staff/insurers. The technical aspects include knowledge, competence/quality of care, interventions, and outcomes. The interpersonal aspects includes: communication, empathy, and education. Expectations are critical as they form the basis for the subjective assessment of care that is the rating of satisfaction. There can be different expectations for different aspects of care and patients with lower expectations tend to be more satisfied (Donabedian, 1988).

### **2.4 Medical Visits for HIV Related Services in Relation to Patient Satisfaction**

In a publication entitled *Delivering Quality Service*, It states that consumers ultimately judge the quality of services on their perceptions of the technical outcome provided and how that outcome was delivered (process quality), many professional services are highly complex and a clear outcome is not always evident (Zeithaml, 1990). This is certainly true of many healthcare scenarios where the technical quality of the service - the actual competence of the provider or effectiveness of the outcome - is not easy to judge. The patient may never know for sure whether the service was performed correctly or even if it was needed in the first place. In addition, if a service user is coming into contact with the system for the first time then expectations, which for many have been formed through past experience, might be waiting formation. In both cases a patient might wish for the health professional to adopt a paternalistic role in the relationship ('doctor knows best') while they themselves remain a passive partner.

Donabedian sees quality of healthcare as a trilogy comprising 'structure, process and outcome' (Donabedian, 1980). Zeithaml *et al.*, (1990) argued that service users who cannot judge the technical quality of the outcome effectively will base their quality judgments on structure and process dimensions such as physical settings, the ability to solve problems, to empathize, time-keeping and courtesy. The zone of tolerance concept seems to be particularly applicable to the healthcare setting and could explain the findings of a study looking at the effect of 'good' and 'bad' surprises on satisfaction levels. The study was particularly concerned with the effect of social norms which the user might only become conscious of when transgressed; 'good surprises' being defined as care going well beyond what was expected and 'bad surprises' equivalent to the transgression of typical values. The results indicate that the majority of those relating a 'good' surprise (above the level of desired service) or no 'surprise' (within the zone of tolerance) expressed satisfaction while those who had experienced a 'bad surprise' (below the level of adequate service) were more likely to have expressed dissatisfaction. The satisfaction processes at play are likely to differ in the same individual depending on the severity of the condition he or she presents with (Nelson, 1993).

## **2.5 Characteristics of Healthcare in Relation to Patient Satisfaction**

Good communication (Beck *et al.*, 2002), comprehensive assessment of patients' needs and provision of information (Grol and Wensing 2002), shared decision-making (Balint,1957), supportive and well understanding physician-patient relationship, the physician's personal qualities or simply positive treatment results for the patient, have all been shown to improve patient satisfaction. The most commonly-cited reservation concerns the role that expectations, which are central to the consumer model, play in determining satisfaction with healthcare. The work of (Linder-Peltz, 1982) on the interaction between patient expectations and perceptions is seen to be particularly influential in this respect. Data concerning patients' healthcare values, expectations and sense of entitlement to care were collected from 125 first-time patients at a primary care clinic, immediately before seeing a physician. Post-visit satisfaction with a number of dimensions of care was also recorded. Two findings from this research suggest that disconfirmation theory might not be an entirely appropriate model for the healthcare setting. The first is that, in spite of being the most important antecedent social-psychological variable, patient expectations could only account for 8% of the variance in satisfaction and, together with

values and perceptions (of the service received), only 10% of the variation. This suggests that while there is evidence that patient's expectations and values are involved in evaluations they do not appear to be related in any simplistic fashion. According to this study there is little evidence to suggest that satisfaction is largely the result of fulfilled expectations and values. (Linder-Peltz, 1982) finding is that patient expectations have an effect on satisfaction independent of other variables.

## **2.6 Satisfaction of the Patients' in Relation to the Care Received.**

Physicians and hospitals experience growing pressure to increase the quality of their outcomes, enhance the safety of their patients and lower the cost of their care. Analysts expect greater attention and scrutiny to be given to the accountability function of patient satisfaction scores, and to ways in which patient satisfaction measurement can be further integrated into an overall measure of clinical quality (Probst *et al.*, 1997). Measurement of patient satisfaction is an important role in the growing push toward accountability among health care providers. Overshadowed by measures of clinical processes and outcomes in the quality of care equation, patient satisfaction measurement has traditionally been relegated to service improvement efforts by hospitals and larger physician practices, and to fulfilling accreditation requirements of health plans, while some plans tie satisfaction scores to financial incentives as a portion of their calculation of payment bonus to primary care physicians with capitation contracts (Calnan *et al.*, 1994).

Patients' preferences do not exactly overlap with good quality care; meeting their priorities is necessary but not sufficient. In many circumstances, rapid access to health care is necessary and important. However, given that access will inevitably be limited in a resource bounded system, it is unrealistic to have a service without limits. When it comes to providing care with respect and ensuring dignity especially for people who are frail, cognitively impaired, or terminally ill the perception of the patient or the patient's carer is of uncontested importance. However, respect and dignity are not given sufficient attention. Empowering patients giving them voice and demonstrating responsiveness is essential to improving these aspects of care. Although considerable evidence shows consistently low levels of patient involvement in healthcare processes, patients' understanding of involvement may differ from that of researchers and health

professionals (Joffe *et al.*, 2003). Patients' conception of what it means to be involved in their care varies widely from being made to feel welcome, to being able to share their anxieties, to weighing the pros and cons of treatments. We might meet some patients' perceptions of involvement without giving them information on treatment options or engaging them in decision making. Nevertheless, not informing patients' risks denies them an active role in self management (Edwards *et al.*, 2006).

Quality measurement must be sensitive to the complexity of tailoring actions to patients' preferences. Lastly, not all patients are capable of understanding the risks and the benefits of clinical choices. Measurements of quality therefore cannot be limited to data on patient experience, although they should be a central element. Satisfaction represents an important outcome as it is related to adherence and willingness to continue treatment. Patients' perception on the benefits of treatment has been found to be influenced by their predetermined expectations. This may have its side effects where the patients believe that their problems are worse; this perception may reduce their expectations of improvement and may reduce the motivation to manage their own problems (Metcalf and Klaber Moffett, 2005). However, Ferri *et al.* (1998) had indicated that patients' personal beliefs concerning effectiveness of the treatment are significant in determining their treatment compliance. In Kenya patient satisfaction was carried out to investigate the satisfaction of low back pain sufferers with the physiotherapy services they receive. It was found out that patients' reports of their health and quality of life, and their satisfaction with the quality of care and services, are as important as many clinical health measures (Kamau, 2005).

## **2.7 Factors Influencing Patient Satisfaction**

There are factors which affects patient satisfaction while others enable it.

### **2.7.1 Sources of Patient Dissatisfaction**

Various studies have been done to identify the factors which affect patient satisfaction. According to May (2001) areas frequently identified as the source of patient dissatisfaction include; lack of adequate explanation of the problem by the care providers, low understanding of what is wrong by the patients and the amount of time spent by the health care provider with



them. The lack of provision of continuity of care and attending to the patients' psychological needs were other source of their dissatisfaction with the service. Feigenbaum (2000) indicated that the most common cause of dissatisfaction among patients is associated with poor service or receiving inadequate care from the physicians or their staff.

### **2.7.2 Factors Enabling Patient Satisfaction**

Various factors have been found to correlate with the patients satisfaction, they include; adherence to the treatment program, self-rated improvement and reduced desire to seek additional diagnostic tests (May, 2001). Recently, Boshoff and Gray (2004) found that health providers, who are cheerful, and demonstrate kindness to the patients, can win their satisfaction. Further, care providers who are courteous, highly skilled and prompt in their services, have been found to satisfy the needs of the patients better. Such patients are more likely to return for future care to the health facilities with such care providers. According to Beattie *et al.* (2002) and Beattie *et al.* (2005a) there is strong relationship between patient satisfaction and the quality of the therapist-patient interaction. This is on the basis of the adequate time spent by the healthcare provider worker with the patient and demonstrating concerns when listening to them. Further, the researchers pointed out that when the care provider has good communication skills and provides clear explanation of the treatment it is an added advantage towards the patient satisfaction with the service. Later, Beattie *et al.* (2005a) found that overall patient satisfaction was more related to the degree at which healthcare providers answered the patients' questions and the respect they give them during the care. The same researchers found that patients acknowledged the value of their interaction with the health care provider especially when they discussed relevant information related to their problems with them. Beattie *et al.* (2005b) added that patients who receive treatment from only one health care provider during the entire period of care are more likely to be fully satisfied than those receiving care from different health care providers.

A study by Jennings *et al.*, (2005) indicated that when the experiences of the care provider match with the expectation of the patient, the latter scores high level of satisfaction. According to Matsuda *et al.*, (2005) patients who enjoy medical-aid funded personal assistant services, get more satisfied when the assistant has some of the following personal qualities; being reliable,

trusted, and respectful. Other qualities include; the assistant being loyal to the patient committed in his/her work and has ability to listen. The patient takes such an assistant not just an employee but also as a friend.

## **2.8 Comprehensive Health Services for HIV Care and Prevention**

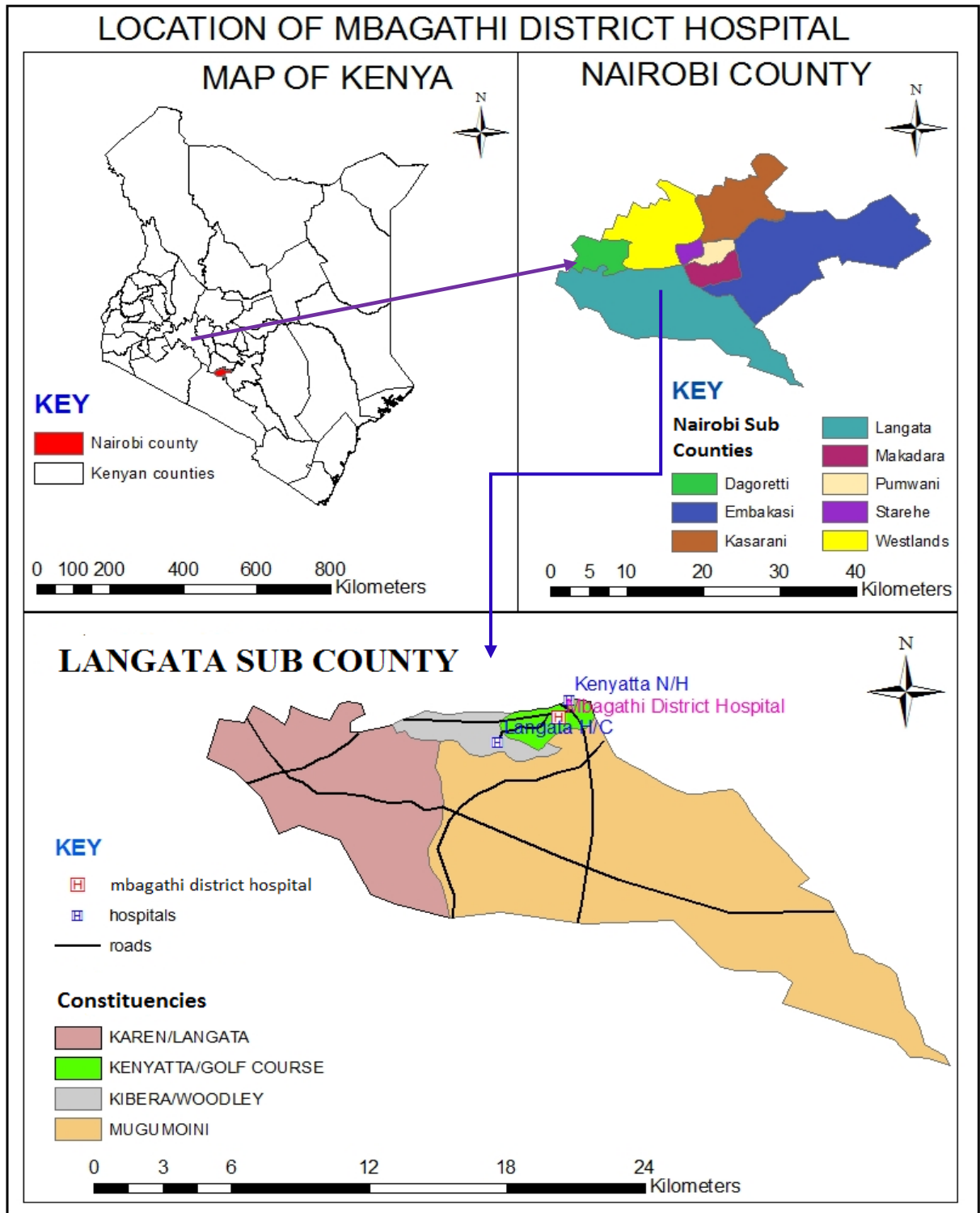
The Comprehensive Care Center is an outpatient medical facility that provides medical care for HIV/AIDS patients. Achieving accessible, quality healthcare for persons with HIV and AIDS is a critical need for patients living in Kenya and worldwide. Universal access to comprehensive health services is needed to reduce substantially HIV related morbidity and mortality worldwide. These services must effectively address seven needs: Voluntary and confidential counseling and testing for HIV infection, Prevention of HIV transmission, including sexual, parental, and mother to child transmission, Prophylaxis against opportunistic infections, Diagnosis and treatment of HIV related conditions including opportunistic infections and neoplasms, Antiretroviral treatment, Palliative care and Integrating nutritional services throughout the continuum of HIV/AIDS care (UNAIDS, 2006).

A comprehensive care project for people living with HIV/AIDS (PLWH/A) aims at improving quality of life and at increasing life expectancy. Care for people living with HIV/AIDS must be comprehensive and continuous and not simply restricted to treatment. Care focuses on the patient and provides the patient with not only physical but also social, psychological, emotional and spiritual care. Such comprehensive care; encourage disclosure of status, thus helping prevent ongoing transmission , promotes positive living, promotes good nutrition and encourages living a healthy lifestyle , manages opportunistic and sexually transmitted infections medically and provides treatment with antiretroviral therapy (WHO, 2002). Developing countries such as Kenya will have to develop healthcare system infrastructures capable of delivering these services, including skilled health providers and laboratory facilities, HIV related training programmes, aligned national and local government policies, and a capacity to do operational research to improve care.

## CHAPTER THREE: MATERIALS AND METHODS

### 3.0 Study Area

Mbagathi District Hospital is a public health facility funded mainly by the Kenyan Government. It also receives support from the international donor community, including the Clinton Foundation. As a provider of comprehensive HIV/AIDS care and treatment, a recipient of public funding and a target for international funding, Mbagathi District Hospital is critical for identifying HIV/AIDS patient's needs in Kenya. The hospital is a key health facility in Nairobi, and has been at the heart of providing comprehensive HIV/AIDS care in the face of the unfolding epidemic in Kenya. During the study period the hospital had 5,000 adults and 500 children on antiretroviral therapy and provided 150 consultations daily. The hospital offers VCT, PITC, DTC and PMTCT services, as well as TB care and counseling, among other services. The clinic is staffed by personnel from Kenyan Ministry of Health.



**Figure 3.1 Location of Mbagathi District Hospital in Langata Sub County, Nairobi County.**

### **3.1 Study Design**

This was a cross-sectional study of clients with HIV/AIDS attending Mbagathi District Hospital's Comprehensive Care Centre (CCC).

### **3.2 Study Population**

The study population consisted of HIV/AIDS positive clients  $\geq 18$  years who visited Mbagathi District Hospital's Comprehensive Care Centre.

### **3.3 Inclusion Criteria**

Subjects were eligible for enrolment if:

- i. Clients were  $\geq 18$  years of age;
- ii. Clients who had voluntarily given written informed consent to participate in the study.
- iii. Clients were able to communicate with the researcher using English or Kiswahili.
- iv. Clients who were enrolled for treatment at the clinic

### **3.4 Exclusion Criteria**

- i. Clients who visited the Comprehensive Care Centre but did not consent to get involved in the study
- ii. Clients above 18 years old who visited Mbagathi District Hospital's CCC but could not communicate in English or Kiswahili
- iii. Seriously sick clients (those patients that could not talk)

### **3.5 Sampling Method**

To obtain a sample which was representative of the target population, a systematic sampling of both males and females was applied. From 3000 patients who are attended to every month a sample of 440 patients was used. Sampling frame of every 7<sup>th</sup> patient was calculated. From a

group of ten first patients one patient was selected and there after the seventh patient was selected for the interview. Patients were interviewed while they waited to get medicine from the pharmacy. The questionnaires were administered by the principal investigator with help of two trained research assistants. There was a Kiswahili version of the questionnaire for those who did not understand the English questionnaire (Appendix 3).

### 3.6 Sample Size Determination

The minimum sample size was determined using the formula of Armitage, 2002.

$$N = \frac{Z^2 \alpha^2 P (1-p)}{\delta^2}$$

Where;

N=the minimum sample size required

$Z \alpha^2$  = confidence interval (1.96 the value corresponding to 95% confidence interval)

P = the proportion of the target population estimated to be satisfied (50 %). Given that there are no studies that have more than 50% as the estimated population.

$\delta^2$  = absolute precision

1-p = proportion of population not satisfied

$$\text{Thus; } N = \frac{(1.96)^2 \times 0.5 \times 0.5}{0.05^2} = 384$$

**Sample size = 384** (the minimum sample size)

The minimum expected sample size was 384. To cater for non-response or refusals, 440 respondents were interviewed.

### 3.7 Data Collection Methods

The data was collected by the researcher using a questionnaire from the willing patients receiving ART in the clinic (Appendix 2). The researcher was assisted by two trained research assistants who facilitated the data collection exercise. Immediately after completion of filling

the questionnaire the researcher checked the questionnaire for completeness and followed up any queries on unanswered questions. Data quality control and cleaning commenced in the field by the researcher ensuring that all the information on the questionnaires was properly collected and recorded and checked for completeness of data and internal consistency. All questionnaire data was entered into a computer using Microsoft access program. Closed-ended questions were coded and processed using SPSS. Answers to open-ended questions were post-coded before analysing the data using the SPSS programme.

Some of the questionnaire items were adopted from a study on designing a questionnaire for Surveys on patient satisfaction (Fitzpatrick, 1991). Use of a questionnaire allowed every participant to get a similar assessing tool to complete which resulted in standardized responses (Burns, 2000).

### **3.8 Dependent Variables**

Satisfaction was the dependent variable. To measure satisfaction patients were asked direct questions as well as indirect questions. Such questions were; whether they were satisfied with health services at the CCC or not, if they would recommend the clinic to family and friends, if the clients wished to look for services in other clinic that offered better services, how they rated the quality of care at the clinic compared to other clinics they knew and whether the service received had improved their health.

### **3.9 Independent variables**

Accessibility, respect of patients by healthcare providers, staff attitudes towards patients, clear information on HIV/AIDS, education on HIV/AIDS and communication between the patients' and healthcare providers, patients' compliance with treatment were the independent variables.

### **3.10 Scoring of variables**

#### **3.10.1 Overall Patient Satisfaction score**

Patient Satisfaction score was computed using five (5) elements of satisfaction which required the respondent to respond 'Yes' or 'No'. The following elements of satisfaction were assessed;

- Health care provider developed adherence plan with the patient (Yes=1, No=0)
- Satisfied with overall care received at the clinic (Yes=1, No=0)
- Staff member(s) stand out (Yes=1, No=0)
- Clearly understand the next plan of your care (Yes=1, No=0)
- The service/care received was valuable to improve the health of patient (Yes=1, No=0)

The overall score was generated by aggregating the scores. The maximum attainable score was 5. The Patient Satisfaction score was classified as Full (5 marks) and Partial/Not satisfied (0 – 4 marks).

#### **3.10.2 Referrals of Patients for Further Services Score**

Patient referral score was computed using six (6) elements whose responses and scores were structured as follows;

- My health providers asked about my life situation and made referrals when needed (Yes=1, No=0)
- Health providers asked about my emotional feeling and made referrals to mental health providers (Yes=1, No=0)
- Providers asked about my diet and made referrals to nutritionists (Yes=1, No=0)
- Health provider asked if I needed help to tell my sexual partners about my HIV status (Yes=1, No=0)
- Providers asked about my drugs and alcohol use (Yes=1, No=0)
- Frequency of getting the services my health provider referred me to (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)

The overall score was generated by aggregating the scores. The maximum attainable total score was 10. A percentage score was generated and classified as Low ( $\leq 50\%$ ), moderately high (50 – 69%), High (70 – 80%), and very high ( $>80\%$ ).



### **3.10.3 Medical visits for HIV related services score**

HIV medical visit score among the participants was assessed using the twelve (12) statements whose responses and scores were structured as follows;

- Frequency of interruption while seeing health provider (All the time=1, Most times=2, Sometimes=3, Rarely=4, Never=5)
- Frequency of careful checking of everything during treatment and examination (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)
- Frequency of advice on implication of lab rests on patient's health (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)
- Frequency of health provider ignoring complaints about medical care (All the time=1, Most times=2, Sometimes=3, Rarely=4, Never=5)
- Frequency of failure to understand health provider's answers to my questions (All the time=1, Most times=2, Sometimes=3, Rarely=4, Never=5)
- Health providers being accepting and non-judgmental on my life & health care choices (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)
- Hardship to get HIV medication prescriptions filled when needed (All the time=1, Most times=2, Sometimes=3, Rarely=4, Never=5)
- Health providers explained the side effects of HIV medications (Yes=1, No=0)
- Provider suggested ways to help remember to take HIV medication (Yes=1, No=0)
- Provider explained kinds and frequency of medical tests to be taken (Yes=1, No=0)
- Provider explained how to avoid getting sick (Yes=1, No=0)
- Provider explained how to avoid passing HIV to others and how to avoid re-infection (Yes=1, No=0)

The overall score was generated by aggregating the scores. The maximum attainable total score was 40. A percentage score was generated and classified as Low ( $\leq 50\%$ ), moderately high (50 – 69%), High (70 – 80%), and very high ( $>80\%$ ).

### **3.10.4 Accessibility score**

Accessibility score among the participants was assessed using the three (3) statements whose responses and scores were structured as follows;

- How frequent can you fix an appointment as you need? (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)
- How frequent are you advised on keeping appointments? (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)
- Availability of someone to discuss medical problem on phone (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)

The overall score was generated by aggregating the scores. The maximum attainable total score was 15. A percentage score was generated and classified as Low ( $\leq 50\%$ ), moderately high (50 – 69%), High (70 – 80%), and very high ( $>80\%$ ).

### **3.10.5 Waiting time for appointment**

Waiting time for appointment among the participants was assessed using the three (3) statements whose responses and scores were structured as follows;

- Frequency of staff being unfriendly on visits to clinic (All the time=1, Most times=2, Sometimes=3, Rarely=4, Never=5)
- Availability of HIV-specific education materials for reading (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)
- Frequency of upset by long waiting for appointment (All the time=1, Most times=2, Sometimes=3, Rarely=4, Never=5)

The overall score was generated by aggregating the scores. The maximum attainable total score was 15. A percentage score was generated and classified as Low ( $\leq 50\%$ ), moderately high (50 – 69%), High (70 – 80%), and very high ( $>80\%$ ).

### **3.10.6 Characteristics of Healthcare Score**

Quality of HIV care among the participants was assessed using the ten (10) statements whose responses and scores were structured as follows;

- Health providers' knowledge on newest advances on HIV medical standards (Excellent=5, Very good=4, Average=3, Fair=2, Poor=1, Not sure=1)
- Rating of quality of care at my clinic compared to other clinics I know (Much better=4, Better=3, The same=2, Worse=1, Not sure=1)

- Would recommend the clinic to a HIV-positive friends with similar needs (Yes=1, May be=0, Definitely not=0, Not sure=0)
- There was good coordination between departments (Yes=1, No=0)
- Felt treated poorly at the clinic (Yes=1, No=0)
- Frequency of getting services in the language wanted (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1)
- Frequency of not getting medical care needed because of not being able to pay (All the time=1, Most times=2, Sometimes=3, Rarely=4, Never=5)
- Frequency of wish to leave this clinic to find better care elsewhere (All the time=1, Most times=2, Sometimes=3, Rarely=4, Never=5)
- Staff and providers kept my HIV status confidential (All the time=5, Most times=4, Sometimes=3, Rarely=2, Never=1, I am hoping so=1, Not sure/think so=1, Not easy to tell=1, Don't know=1)
- My relatives/friends were fully informed of about my care and its continuity (Yes=1, No=0)

The overall score was generated by aggregating the scores. The maximum attainable total score was 33. A percentage score was generated and classified as Low ( $\leq 50\%$ ), moderately high (50 – 69%), High (70 – 80%), and very high ( $>80\%$ ).

### **3.11 Data Management and Analysis**

At the end of each day of data collection all the questionnaires used were collected and put in a folder for safe custody and initial analysis. The researcher validated information in each completed questionnaire as much as possible before tallying them. Data was entered in a computer for storage and back up mechanism instituted in flash disks and CDs. All personal identifiers was removed and data from the records was entered into a computer database using Microsoft Access Software and analysed with SPSS Statistical Package where Chi Square test was used to compare categorical variables. Continuous data was compared by T-test. A P-value $<0.05$  was considered significant.

### **3.12 Ethical Considerations**

Approval was sought from the Ethical Review Committee at Kenya Medical Research Institute (KEMRI) and also from the Medical Superintendent at Mbagathi District Hospital where the CCC is located. The research protocol and consent form was approved by KEMRI Scientific Steering Committee (Appendix 1). Informed consent was obtained from clients, a decision not to participate was strictly respected and clients assured that non-participation would not affect their health care in any way. To prevent psychological trauma during interview the respondents were not coerced into participating in the study. Strict confidentiality and privacy was ensured and maintained throughout the study. All information concerning individual subject remained anonymous and confidential.

### **3.13 Expected Application of the Results**

Patient satisfaction results are useful in gaining an understanding of patients' needs and their perception of the service received. Patient satisfaction with care is important indicator of the quality of services and the relationship of services to treatment outcomes. Patient satisfaction is an important direct feedback to providers on the quality of services and the relationship of services to treatment outcomes for many health care organizations. The results of the study are intended to help health care systems to achieve a balance in services they offer not only clinically effective and evidence based care, but which are also judged by patients as acceptable and beneficial. The Data could also be used by groups of providers seeking to improve the quality of care they deliver

### **3.14 Study limitations**

Since the study was conducted in a hospital, the results may be distorted by information bias. The researcher could not observe the way the care providers interacted with patients during the process of treatment due to patient's rights on confidentiality being implemented.

The researcher did not have a way of telling if the clients lied about being satisfied for fear of losing the services which are very vital to them.

## CHAPTER FOUR: RESULTS AND DISCUSSION

### 4.1 Socio Demographic Characteristics of the Respondents

There were more female respondents (62.7%) than males (37.3%), with (66.0%) aged 36 years or more comprised of (45.5%) aged 36 – 45 years and (20.5%) aged over 45 years. A high proportion of the participants (46.6%) reported to have ever been married, comprising of 46.6% currently married, 12.7% divorced, and 17.0% widowed. Level of education varied between no education to post graduate education, 3.6% had no education, 36.6% primary education, a high proportion of the respondents 43.2% had attained secondary education whereas 8.4% had tertiary education, 6.8% graduate education and 1.4% had post graduate education.

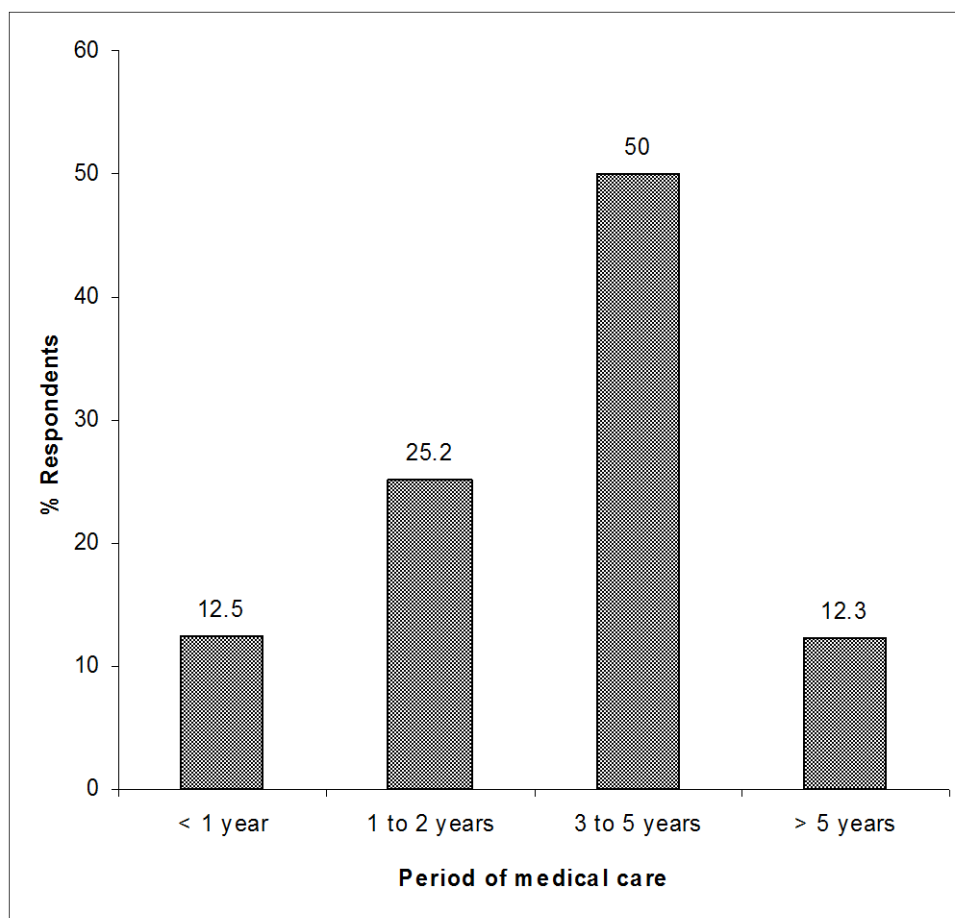
**Table 4.1a: Distribution of Selected Socio-Demographic Characteristics of the Respondents**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Sex</b>		
Male	164	37.3
Female as suggested	276	62.7
<b>Age group (yrs.)</b>		
< 20	14	3.0
20-25	24	5.5
26-30	55	12.5
31-35	57	13.0
36-45	200	45.5
Over 45	90	20.5
<b>Marital status</b>		
Married	205	46.6
Single	104	23.6
Divorced	56	12.7
Widowed	75	17.1

**Table 4.1b: Distribution of Selected Socio-Demographic Characteristics of the Respondents**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Level of education</b>		
None	16	3.6
Primary	161	36.6
Secondary	190	43.2
Tertiary	37	8.4
Graduate	30	6.8
Post graduate	6	1.4

Figure 4.1 presents distribution of respondents by period of medical care. Three-quarters of the respondents 75.2% were on medical care for 1 to 5 years



**Figure 4.1 Distribution of Respondents by Period of Medical Care**

#### **4.2 Accessibility to HIV Care among the Respondents**

Table 4.2 shows accessibility to HIV care among the respondents. A low percentage of the respondents (22.7%) called the clinic to make an appointment this is because the clients need not call. Clients are given an appointment date to visit unless one is sick and cannot wait for the appointment day. Out of those who called, majority (86.0%) got attended to by a health worker with one respondent (1%) indicating that doctor's response was very positive, (15.0%) of respondents found no one to assist. Majority of the respondents (76.4%) indicated they fixed appointments with the doctor. Virtually all the respondents (98.4%) indicated that they were frequently reminded to keep appointments with the doctor. Half of the respondents (50.0%)

reported availability of someone to discuss medical problem on phone whenever they called. Accessibility score ranged from very high to low with a high proportion of the respondents 43.4% scoring moderately high.

**Table 4.2a: Reported Ease of Access to HIV Care by the Respondents**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Ever called clinic to make appointment</b>		
Yes	100	22.7
No	340	77.3
<b>Responsiveness after making a phone call to the clinic</b>		
Got the service as wanted	84	84.0
Found no one to assist	15	15.0
Doctors response very positive	1	1.0
Not applicable	340	
<b>How frequent can you get to see healthcare providers when you need to?</b>		
All the time	22	5.0
Most times	167	38.0
Sometimes	147	33.4
Rarely	18	4.1
Never	86	19.5
<b>How frequent are you advised on keeping appointments?</b>		
All the time	188	42.7
Most times	242	55.0
Sometimes	3	0.7
Never	7	1.6



**Table 4.2b: Reported Ease of Access to HIV Care by the Respondents**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Availability of someone to discuss medical problem on phone</b>		
All the time	34	7.7
Most times	112	25.5
Sometimes	71	16.1
Rarely	10	2.3
Never	213	48.4
<b>Accessibility score</b>		
Very high	21	4.8
High	160	36.3
Moderately high	191	43.4
Low	68	15.5

### **4.3 Waiting Time for Appointment among the Respondents**

Table 4.3 presents assessment on waiting time for appointment among the respondents. About (66.8%) of the respondents reported that the hospital staff were friendly to them whenever they visited the clinic. Majority of the respondents (86.2%) indicated availability of HIV-specific education materials for reading at the clinic. About (63.0%) of the respondents indicated they got upset by long waiting at the reception before seeing a health worker. Waiting time score ranged from very high to low with a high proportion of the respondents 54.1% scoring high.

**Table 4.3a: Reported Waiting Time for Appointment by the Respondents**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Frequency of staff being unfriendly on visits to clinic</b>		
All the time	36	8.2
Most times	59	13.4
Sometimes	40	9.1
Rarely	11	2.5
Never	294	66.8
<b>Availability of HIV-specific education materials for reading</b>		
All the time	138	31.4
Most times	173	39.3
Sometimes	68	15.5
Rarely	29	6.6
Never	32	7.2
<b>Frequency of upset by long waiting for appointment</b>		
All the time	18	4.1
Most times	77	17.5
Sometimes	182	41.4
Rarely	19	4.3
Never	144	32.7
<b>Waiting time score</b>		
Very high	67	15.2
High	238	54.1
Moderately high	116	26.4
Low	19	4.3

#### 4.4 Experience of Patients during Treatment

Table 4.4 shows the Experience of patients during the HIV medical visit.

Most of the respondents (82.3%) reported that they had never been interrupted while seeing a healthy provider, Most of the respondents (96.1%) indicated that the doctors did careful checking during treatment and examination. Most of the respondents (96.1%) pointed out that the health providers advised them on implications of laboratory tests on their health, 3.4% indicating sometime, 44.8% most time, and 48.0% all the time. Over three-quarter (77.3%) of the respondents reported that their complaints about medical health have never been ignored by healthy providers. Approximately three-quarter of the respondents (75.5%) reported that they understood health provider's answers to their questions.

**Table 4.4a: Personal Experience of Patients during the Treatment**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Frequency of interruption while seeing health provider</b>		
All the time	10	2.3
Most times	10	2.3
Sometimes	33	7.5
Rarely	25	5.6
Never	362	82.3
<b>Frequency of careful checking of everything during treatment and examination</b>		
All the time	297	67.5
Most times	113	25.5
Sometimes	13	3.0
Rarely	4	0.9
Never	13	3.0

**Table 4.4b: Personal Experience of Patients during the Treatment**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Frequency of advice on implication of laboratory tests on patient's health</b>		
All the time	211	48.0
Most times	197	44.8
Sometimes	15	3.3
Rarely	2	0.5
Never	15	3.4
<b>Frequency of health provider ignoring complaints about medical care</b>		
All the time	27	6.1
Most times	43	9.8
Sometimes	16	3.6
Rarely	14	3.2
Never	340	77.3
<b>Frequency of failure to understand health provider's answers to my questions</b>		
All the time	43	9.8
Most times	38	8.6
Sometimes	16	3.6
Rarely	11	2.5
Never	332	75.5

**Experience of Patients during Treatment (*Continuation from 4.4*)**

Table 4.5 shows continuation of Experience of patients during the HIV medical visit.

Most of the respondents (93.7%) were of the view that health providers were accepting and non-judgmental on life and health care, 4.1% indicating sometime, 30.7% most time while 58.9% indicated all the time. When probed on whether they experienced hardship to get HIV medication prescriptions filled as needed, majority of the respondents (90.7%) reported that they did not encounter any hardship. About (95.0%) indicated the health providers explained the side effects of HIV medications, (94.1%) indicated that the provider suggested ways to help

them remember to take HIV medication, (93.0%) indicated that the provider explained kinds and frequency of medical tests to be taken, 93.4% indicated that provider explained to them how to avoid getting sick, (93.0%) indicated that provider explained how to avoid passing HIV to others and how to avoid re-infection. Analysis of HIV medical visit score ranged from very high to moderately high with 64.3% of the respondents scoring very high.

**Table 4.5a:** Experience of Patients during Treatment (*continued from table 4.4*)

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Health providers being accepting and non-judgmental on my life &amp; health care choices</b>		
All the time	259	58.9
Most times	135	30.7
Sometimes	18	4.1
Rarely	1	0.2
Never	27	6.1
<b>Hardship to get HIV medication prescriptions filled when needed</b>		
All the time	8	1.8
Most times	4	0.9
Sometimes	20	4.5
Rarely	9	2.0
Never	399	90.7
<b>Health providers explained the side effects of HIV medications</b>		
Yes	418	95.0
No	22	5.0
<b>Provider suggested ways to help remember to take HIV medication</b>		
Yes	414	94.1
No	26	5.9
<b>Provider explained kinds and frequency of medical tests to be taken</b>		
Yes	409	93.0
No	31	7.0

**Table 4.5b:** Experience of Patients during Treatment (*continued from table 4.4*)

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Provider explained how to avoid getting sick</b>		
Yes	411	93.4
No	29	6.6
<b>Provider explained how to avoid passing HIV to others and how to avoid re-infection</b>		
Yes	409	93.0
No	31	7.0
<b>HIV medical visit score</b>		
Very high	283	64.3
High	144	32.7
Moderately high	13	3.0

#### **4.5 Referrals of Patients for Further Services**

Table 4.6 presents referrals among the respondents.

Majority of the respondents (76.8%) indicated that the health providers asked them about their life situations and referred appropriately, (88.2%) reported that the health providers asked about their emotional feeling and made referrals to counselors, (83.2%) of the respondents pointed out that the providers asked about their diet and made referrals to nutritionists, (85.2%) specified that the health provider asked if they needed help to inform their sexual partners about their HIV status, (91.4%) stated that the providers asked about their drugs and alcohol use. Majority (90.5%) of the respondents indicated that they frequently got the services their health provider referred them to. Analysis of referrals score ranged from very high to low with a relatively high proportion of the participants 64.5% scoring very high.

**Table 4.6a: Referrals of respondents by healthcare providers**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>My health providers asked about my life situation and made referrals when needed</b>		
Yes	338	76.8
No	102	23.2
<b>Health providers asked about my emotional feeling and made referrals to mental health providers</b>		
Yes	388	88.2
No	52	11.8
<b>Providers asked about my diet and made referrals to nutritionists</b>		
Yes	366	83.2
No	74	16.8
<b>Health provider asked if I needed help to tell my sexual partners about my HIV status</b>		
Yes	375	85.2
No	65	14.8
<b>Providers asked about my drugs and alcohol use</b>		
Yes	402	91.4
No	38	8.6
<b>Frequency of getting the services my health provider referred me to</b>		
All the time	212	48.2
Most times	147	33.4
Sometimes	39	8.9
Rarely	4	0.9
Never	38	8.6
<b>Referrals score</b>		
Very high	284	64.5
High	80	18.2
Moderately high	47	10.7
Low	29	6.6

## 4.6 Characteristics of Healthcare Services

Table 4.7 presents the characteristics of healthcare services.

Most of the respondents (62.3%) indicated the clinic is better than others on the quality of care they received. About (91.6%) of the respondents stated they would recommend the clinic to other HIV-positive friends with similar needs. Similarly, (93.0%) was in terms that there was good coordination between departments. 20.2% of the respondents felt that they were treated poorly at the clinic.

**Table 4.7: Reported Characteristics of Healthcare Services**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Would you recommend your clinic to your HIV-positive friends with similar needs?</b>		
Yes	403	91.6
Maybe	18	4.1
Definitely not	11	2.5
Not sure	8	1.8
<b>Was there good coordination between departments</b>		
Yes	409	93.0
No	31	7.0
<b>Felt treated poorly at the clinic</b>		
Yes	89	20.2
No	351	79.8

## 4.6 Characteristics of Healthcare Services (*Continuation*)

A greater majority of the respondents (98.0%) indicated that they frequently got services in the language they wanted, 0.9% indicating sometime, 16.8% most time, and 80.2% all the time.



Similarly, a greater majority of the respondents (83.8%) reported that they frequently got medical care needed because they needed not to pay. Most respondents (85.3%) stated no intention of leaving the clinic to find better care elsewhere. A greater majority of the respondents (86.9%) indicated that the staff and providers kept their HIV status confidential. Most respondents (89.5%) indicated that their relatives/friends were fully informed about their care and its continuity. Analysis of quality of HIV care score ranged from very high to moderately high with a high proportion of the participants 54.8% scoring very high. Table 4.8 presents continuation of views of respondents on quality of HIV.

**Table 4.8a: Characteristics of Healthcare Services**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Frequency of getting services in the language wanted</b>		
All the time	353	80.2
Most times	74	16.8
Sometimes	4	0.9
Never	9	2.0
<b>Frequency of not getting medical care needed because of not being able to pay</b>		
All the time	2	0.5
Most times	8	1.8
Sometimes	55	12.5
Rarely	6	1.4
Never	369	83.8
<b>Frequency of wish to leave this clinic to find better care elsewhere</b>		
All the time	2	0.5
Most times	12	2.7
Sometimes	41	9.3
Rarely	10	2.3
Never	375	85.3

**Table 4.8b: Characteristics of Healthcare Services**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Staff and providers kept my HIV status confidential</b>		
All the time	259	58.9
Most times	117	26.6
Sometimes	6	1.4
Never	11	2.5
I am hoping so	2	0.5
Not sure/think so	11	2.5
Not easy to tell	2	0.5
Don't know	32	7.3
<b>My relatives/friends were fully informed of about my care and its continuity</b>		
Yes	394	89.5
No	46	10.5
<b>Overall characteristics related to satisfaction score</b>		
Very high	241	54.8
High	172	39.1
Moderately high	27	6.1

#### **4.7 Patient Satisfaction with Healthcare Received**

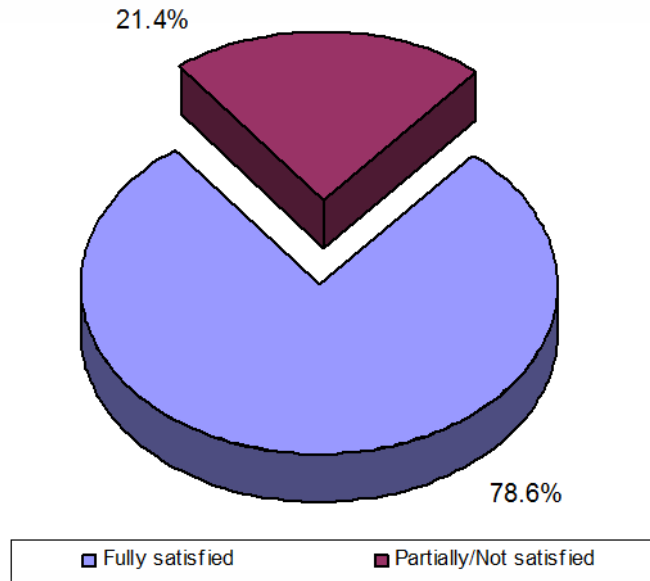
Table 4.9 shows patients' satisfaction outcome. Majority of the respondent (97.3%) stated that the health care provider had adherence plan with them, (96.8%) indicated that they were satisfied with overall care received at the clinic, (81.1%) reported that the clinic staff member(s) stood out, 98.6% indicated that they clearly understood their next plan of care, where as 98.0% reported that the service/care received was valuable to improve their health. Analysis of Overall Satisfaction score ranged from 0 to 5 with a high proportion of the participants 78.6% scoring 5.

**Table 4.9a: Patients Satisfaction with Healthcare Received**

<b>Variables</b>	<b>N=440</b>	<b>Frequency</b>
<b>Health care provider develop adherence plan with the patient</b>		
Yes	428	97.3
No	12	2.7
<b>Satisfied with overall care received at the clinic</b>		
Yes	426	96.8
No	14	3.2
<b>Staff member(s) stand out</b>		
Yes	357	81.1
No	83	18.9
<b>Clearly understand the next plan of your care</b>		
Yes	434	98.6
No	6	1.4
<b>The service/care received was valuable to improve the health of patient</b>		
Yes	431	98.0
No	9	2.0
<b>Overall Satisfaction score</b>		
0 (Not satisfied)	4	0.9
1(Not satisfied)	1	0.3
2(Not satisfied)	3	0.7
3(Not satisfied)	5	1.1
4 (Partially satisfied)	81	18.4
5 (Fully satisfied)	346	78.6

#### **4.8 Overall Patient Satisfaction with Healthcare**

This was illustrated by five (5) features that were used to measure level of patient satisfaction. Majority of the participants 78.6% were fully satisfied by the kind of services provided at the clinic, (Figure 4.2).



**Figure 4.2: Distribution of overall patient satisfaction with healthcare**

#### **4.9 Patients' Satisfaction in Relation to Different Characteristics**

##### **4.9.1 Relationship between Patients' Satisfaction with Healthcare and Social Demographic characteristics**

Gender and marital status were significantly associated with patients' satisfaction with health service delivery. Being female was significantly associated with increased patients' satisfaction with health service delivery (OR=1.66; 95% CI: 1.04 – 2.63; p=0.031). Being divorced was significantly associated with patients' satisfaction with health service delivery (OR=4.31; 95% CI: 1.48– 12.49; p=0.007) compared to married status, (Table 4.10).

**Table 4.10: Patients' Satisfaction with Healthcare in Relation to Selected Demographic Characteristics**

Variables	Fully satisfied (n=346)		Partially/Not satisfied (n=94)		OR <sup>ψ</sup>	95% CI <sup>φ</sup>		p value*
	n	%	n	%		Lower	Upper	
<b>Gender</b>								
Male	120	73.2	44	26.8	Reference			
Female	226	81.9	50	18.1	1.66	1.04	2.63	<b>0.031</b>
<b>Age in years</b>								
< 20	11	78.6	3	21.4	0.73	0.18	2.95	0.662
20-25	17	70.8	7	29.2	0.49	0.17	1.37	0.174
25-30	42	76.4	13	23.6	0.65	0.28	1.49	0.304
30-35	46	80.7	11	19.3	0.84	0.35	1.98	0.684
35-45	155	77.5	45	22.5	0.69	0.36	1.31	0.258
Over 45	75	83.3	15	16.7	Reference			
<b>Marital status</b>								
Single	82	78.8	22	21.2	1.23	0.70	2.18	0.467
Divorced	52	92.9	4	7.1	4.31	1.48	12.49	<b>0.007</b>
Widowed	58	77.3	17	22.7	1.13	0.60	2.11	0.702
Married	154	75.1	51	24.9	Reference			
<b>Level of education</b>								
None	12	75.0	4	25.0	1.50	0.20	11.54	0.697
Primary	130	80.7	31	19.3	2.10	0.37	11.97	0.405
Secondary	153	80.5	37	19.5	2.07	0.36	11.72	0.412
Tertiary	25	67.6	12	32.4	1.04	0.17	6.50	0.965
Graduate	22	73.3	8	26.7	1.37	0.21	9.01	0.740
Post graduate	4	66.7	2	33.3	Reference			

\* Significant at p<0.05 bolded; <sup>ψ</sup> Odds ratio; <sup>φ</sup> 95% Confidence Interval

#### **4.9.2 Association between Patients' Satisfaction and Accessibility, Waiting Time, HIV Medical Visit, Referrals, and Characteristics of healthcare**

Patients' satisfaction was significantly associated with accessibility, HIV medical visit, referrals, and overall quality of HIV care. Waiting time was not significantly associated with Patients' satisfaction. High accessibility score was significantly associated with reduced patients' satisfaction on health service delivery compared to low accessibility score, (OR=0.45; 95% CI: 0.21 – 0.97; p=0.041). With regard to HIV medical visit, 79.2% was significantly associated with increased patients' satisfaction on health service delivery compared to 30.8%, (OR=8.54; 95% CI: 2.54 – 28.71; p=0.001). HIV medical visit (81.9%) was significantly associated with increased patients' satisfaction on health service delivery compared to 30.8%, (OR=10.21; 95% CI: 2.92 – 35.71; p<0.001). With regard to referrals, 84.9% was significantly associated with increased patients' satisfaction on health service delivery compared to (58.1%), (OR=3.96; 95% CI: 1.77 – 8.87; p=0.001). On overall quality of HIV/AIDS care, (84.6%) was significantly associated with increased patients' satisfaction on health service delivery compared to (37.0%), (OR=9.37; 95% CI: 3.98 – 22.06; p<0.001). 76.7% was significantly associated with increased patients' satisfaction on health service delivery compared to 37.0%, (OR=5.61; 95% CI: 2.38 – 13.22; p<0.001).

**Table 4.11: Patients' Satisfaction with Healthcare in Relation to Accessibility, Waiting Time, HIV Medical Visit, Referrals, and Characteristics of healthcare**

Variables	Fully satisfied (n=346)		Not/partially satisfied (n=94)		OR <sup>ψ</sup>	95% CI <sup>φ</sup>		p value*
	n	%	n	%		Lower	Upper	
<b>Accessibility score</b>								
Very high	14	66.7	7	33.3	0.34	0.11	1.07	0.064
High	116	72.5	44	27.5	0.45	0.21	0.97	<b>0.041</b>
Moderately high	158	82.7	33	17.3	0.83	0.38	1.78	0.625
Low	58	85.3	10	14.7	Reference			
<b>Waiting time score</b>								
Very high	58	86.6	9	13.4	1.72	0.46	6.35	0.417
High	187	78.6	51	21.4	0.98	0.31	3.07	0.969
Moderately high	86	74.1	30	25.9	0.76	0.24	2.48	0.655
Low	15	78.9	4	21.1	Reference			
<b>HIV medical visit score</b>								
Very high	224	79.2	59	20.8	8.54	2.54	28.71	<b>0.001</b>
High	118	81.9	26	18.1	10.21	2.92	35.71	<b>&lt;0.001</b>
Moderately high	4	30.8	9	69.2	Reference			
<b>Referrals score</b>								
Very high	241	84.9	43	15.1	3.96	1.77	8.87	<b>0.001</b>
High	54	67.5	26	32.5	1.47	0.61	3.52	0.391
Moderately high	34	72.3	13	27.7	1.85	0.69	4.90	0.219
Low	17	58.6	12	41.4	Reference			
<b>Characteristics of healthcare score</b>								
Very high	204	84.6	37	15.4	9.37	3.98	22.06	<b>&lt;0.001</b>
High	132	76.7	40	23.3	5.61	2.38	13.22	<b>&lt;0.001</b>
Moderately high	10	37.0	17	63.0	Reference			

\* Significant at p<0.05 bolded; <sup>ψ</sup> Odds ratio; <sup>φ</sup> 95% Confidence Interval

### 4.9.3 Multivariate Analysis

Multivariate analysis was performed in order to identify independent predictor(s) of patients' satisfaction on health service delivery at Mbagathi District Hospital Comprehensive Care Center. Six factors associated with patient satisfaction at  $p < 0.05$  during bivariate analysis were considered for multivariate analysis. They include; Sex, Marital status, Accessibility score HIV medical visit score, Referral score, and Overall Quality of HIV care score. Upon fitting the factors using Binary logistic regression and specifying 'backward conditional' method with removal at  $P < 0.05$ , five iterations were performed. The first iteration yielded the estimates as shown by the full model. The final iteration (fifth) yielded the estimates as shown by the reduced model. Three predictors were retained in the final analysis as shown in Table 4.12.

Adjusting for other factors, the analysis revealed that marital status was a predictor of patient satisfaction. Divorced status was associated with patients' satisfaction on health service delivery (AOR=5.81; 95% CI: 1.88 – 17.99;  $p=0.002$ ) compared to married status. A divorced client was 5.81 times more likely to be satisfied with health service delivery compared to one who was married. With regard to HIV medical visit, very high score was associated with patients' satisfaction on health service delivery (AOR=7.19; 95% CI: 1.91 – 27.06;  $p=0.004$ ) compared to moderately high score. A patient who scored very high was 7.19 times more likely to be satisfied with health service delivery compared to one who scored moderately high. Similarly, a high score was associated with patients' satisfaction on health service delivery (AOR=8.21; 95% CI: 2.09 – 32.31;  $p=0.003$ ) compared to moderately high score. A patient who scored high was 8.21 times more likely to be satisfied with health service delivery compared to one who scored moderately high. With regard to overall quality of HIV care, very high score was associated with patients' satisfaction on health service delivery (AOR=10.84; 95% CI: 4.18 – 28.12;  $p < 0.001$ ) compared to moderately high score. A patient who scored very high was 10.84 times more likely to be satisfied with health service delivery compared to one who scored moderately high. Similarly, a high score was associated with patients' satisfaction on health service delivery (AOR=5.49; 95% CI: 2.11 – 14.28;  $p < 0.001$ ) compared to moderately high score. A patient who scored high was 5.49 times more likely to be satisfied with health service delivery compared to one who scored moderately high.



**Table 4.12a: Predictors of Patients' Satisfaction**

Variables	AOR <sup>ψ</sup>	95% CI <sup>φ</sup>		p value*
		Lower	Upper	
<b>Full model</b>				
<b>Sex</b>				
Female	1.32	0.79	2.22	0.286
Male	Reference			
<b>Marital status</b>				
Single	1.79	0.93	3.46	0.083
Divorced	6.34	1.95	20.61	<b>0.002</b>
Widowed	1.30	0.65	2.60	0.465
Married	Reference			
<b>Accessibility score</b>				
Very high	0.83	0.22	3.11	0.780
High	0.52	0.22	1.23	0.136
Moderately high	0.88	0.38	2.07	0.778
Low	Reference			
<b>HIV medical visit score</b>				
Very high	7.45	1.87	29.64	<b>0.004</b>
High	8.04	1.97	32.81	<b>0.004</b>
Moderately high	Reference			
<b>Referral score</b>				
Very high	2.22	0.85	5.77	0.102
High	1.08	0.39	2.97	0.884
Moderately high	1.38	0.44	4.33	0.576
Low	Reference			
<b>Characteristics of healthcare score</b>				
Very high	6.71	2.41	18.67	<b>&lt;0.001</b>
High	4.01	1.46	11.04	<b>0.007</b>
Moderately high	Reference			

## Reduced model

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### Marital status

Single	1.56	0.84	2.90	0.160
Divorced	5.81	1.88	17.99	<b>0.002</b>
Widowed	1.20	0.62	2.34	0.584
Married	Reference			

### HIV medical visit score

Very high	7.19	1.91	27.06	<b>0.004</b>
High	8.21	2.09	32.31	<b>0.003</b>
Moderately high	Reference			

### Characteristics of healthcare score

Very high	10.84	4.18	28.12	<b>&lt;0.001</b>
High	5.49	2.11	14.28	<b>&lt;0.001</b>
Moderately high	Reference			

\* Significant at  $p < 0.05$  bolded; <sup>ψ</sup> Adjusted odds ratio; <sup>φ</sup> 95% Confidence Interval

## **4.10.0 DISCUSSION**

### **4.10 .1 Socio Demographic Factors Affecting Patient Satisfaction with HIV/AIDS Healthcare**

The study confirmed that two of the socio demographic characteristics namely sex and marital status affected patient satisfaction with healthcare at the clinic; being female and divorced significantly affected patient's satisfaction. Patient Satisfaction with HIV/AIDS Care and Treatment in the Decentralization of Services Delivery in Vietnam, where factors related to higher satisfaction included female , older age, and living with spouses or partners (Tran and Nguyen, 2012). In rural of China, age and income were also found to be significantly related to patient satisfaction (Yan, *et al.*, 2011). In France, older patients reported higher complete satisfaction with both health workers and services (Preau *et al.*, 2011).

### **4.10.2 Level of Patient satisfaction**

In this study majority( 78.6%) of the patients indicated that they were satisfied with the quality of service provided. From the aspects used to measure patient satisfaction level it was clear that majority of the respondents (97.3%) reported that the health care providers had adherence plan with them. Buck and Ciccone, (2004) found that lack of adherence to the treatment program may result in worsening of the condition and utilize more health facilities. Therefore, there is a need for the healthcare providers to develop strategies for ensuring that the patients comply with their treatment.

Majority also stated they were satisfied with overall care received at the clinic, that the clinic staff member(s) stood out, that they clearly understood their next plan of care and a high majority (98.0%) stated that the service/care received was valuable to improve their health. Other studies have identified different factors associated with patients' satisfaction with treatment. Patients with negative predetermined feelings of the benefit of their treatment may influence the outcome of their care (Metcalf & Klaber 2005). Such feelings may reduce the motivation of the patients in managing their ailment.

Most of the patients (98.6%) understood the next plan in their care which was positively associated to their satisfaction. According to Buck and Ciccone, (2004) when the patient's

treatment program has been formulated, there is a need for the healthcare providers to monitor the progress of the former. The patient can keep a diary at home for documenting the duration and the success or problems encountered during the program. The diary should be reviewed by the healthcare providers every time the patient returns to the clinic for reassessment. The patient's progress is discussed, solutions to the problems developed and the patient is encouraged to continue with the program. Schoo *et al.*, (2005) added that when such a measure is taken it helps the patient become self-reliant in taking responsibility for their treatment care, such a measure would help in stimulating the patient to adhere to the treatment program (Buck and Ciccone, 2004). Patients in this study clearly understood the next plan of their care and this influenced their satisfaction with the healthcare at the clinic. Satisfied patients as compared to unsatisfied patients are more likely to cooperate and maintain relationships with their health care providers, continue using health care services, as well as adhere to their medication regimens (Aharony and Strasser, 1993 and Shommer and Kucukarslan, 1997).

#### **4.10.3 Exposure Factors Associated with Patient Satisfaction**

Accessibility and treatment experience by the clients were significantly associated with patient's satisfaction with health service delivery. Waiting time was not associated with patient satisfaction in this study ( $p=0.417$ ). Organizational factors, particularly patient waiting time, have been studied and waiting times result in lower patient satisfaction (Probst *et al.*, 1997).

##### **4.10.3.1 Accessibility to the Healthcare by the Patients**

Calling the clinic to make an appointment had a strong association with patients satisfaction with the healthcare provided. Most of those satisfied had not called to make appointment, the patients need not call for appointment as the services are always available for them. HIV/AIDS patient's satisfaction was influenced by accessibility in that patients reported being satisfied with healthcare because they easily got the care whenever they needed it; a study by (Jennings *et al.*, 2005) indicated that when the experiences of the care provider match with the expectation of the patient, the latter scored high level of satisfaction. In the study the clients mostly came expecting to find health workers to serve them and sure enough they found them. This contributed to them being satisfied.

#### **4.10.3.2 The Treatment Experience by the Patients of the HIV Medical Visit**

Most of the respondents who were satisfied indicated that the health care providers were accepting and non-judgmental. Healthcare providers' attitude of being accepting and non-judgmental on the patient's life and health care choices was associated with the overall satisfaction with care received by patient. According to Matsuda *et al.*, (2005) patients who enjoy medical-aid funded personal assistant services, get more satisfied when the health worker has some of the following personal qualities; being reliable, trusted, and respectful. Other qualities include; the health worker being loyal to the patient committed in his/her work and has ability to listen. The patient takes such health worker not just an employee but also as a friend. In respondents stating that the health workers were accepting and non-judgmental, it is in agreement with the qualities of the health workers that contribute to patient satisfaction. There was significant association between patient satisfaction and interruption while seeing health care provider. Majority of the patients indicated that there were no interruptions while being attended to by the healthcare provider. A study conducted in rural Bangladesh to assess the patient satisfaction and quality of health care and found that almost all patients expected respect and politeness from the provider, irrespective of whether they used fixed facilities or outreach services (Mendoza, *et al.*, 2001). Thorough examination by the healthcare providers was also significantly associated with overall patient satisfaction; majority of patients indicated that healthcare providers examined them thoroughly. Professionalism in the medical field requires adherence to a high code of ethics. Under these ethics, physicians are expected to act for good of their patients and put this good of others above their own interest and that of the profession. Other qualities of professionalism include humanism, excellence, accountability, compassion and respect (Fehser, 2002).

The results of this study (96.1% of respondents) demonstrated that advice on implication of laboratory tests on patients' health was significantly associated with overall satisfaction. Failure of the patient to understand health providers' answers to questions was significantly associated to overall patients' satisfaction. Majority of patients indicated that they understood healthcare providers' answers. Effective communication includes items such as explanation by the healthcare providers about the condition and treatment, advice and instruction given to the patient on their continuous healthcare. According to Beattie *et al.*, (2005a) patient satisfaction

is more related to the degree at which the healthcare providers answered the patients' questions. Such explanations help the patients to take some responsibility for their own care. The healthcare providers ability to explain to patients on how to avoid getting sick was significantly associated with patient satisfaction, providers' explained their treatment thoroughly and most of the patients were satisfied with the healthcare providers' explanation of the HIV/AIDS condition and treatment. Similar studies have looked into the interaction between health care providers and the patients and they have revealed different findings which includes; Buck and Ciccone (2004) found that for the patient to comply with the treatment there is need for the health care provider to communicate to their patients and make them aware and understand about their illness. A person who can communicate effectively is the one who is able to produce clear and unambiguous message. The same person should also be in a position to detect any ambiguities in other people's speech (Shaffer, 2002). Patients understand explanations about their problems and treatment better when they discuss them with the healthcare providers (Harding and Watson, 2002). This understanding can be enhanced further when the care providers have good communication skills with their patients (Beattie *et al.*, 2005b). Tread (2000) concluded that patients' understanding of their problem and treatment would result in a sustainable treatment outcome.

In this study it is clear the patients were able to communicate with healthcare providers effectively and this contributed to patients' overall satisfaction with the healthcare services. It is therefore important for healthcare providers to discuss with the patients about their problems and the required interventions. May (2001) cautioned that when the explanations are not adequate, patients may have a low understanding of their problems and that has been frequently identified as the source of their dissatisfaction. Earlier, Ferri *et al.*, (1998) found that patients who do not understand their problems scored low on compliance with treatment. This is an indication that patients need to be given adequate explanations about their conditions and treatments all the time in order to understand them clearly. Other factors have been found to affect the understanding of the instructions given to the patients. When too much information is given to the patients they tend to forget half of it (Sluijs, 1991). This indicates that patients need to be given specific information relevant to their problems. The results of this study demonstrated that the majority of the patients acknowledged that the healthcare providers involved them in making decisions about their healthcare. Failure of the patient to understand

health providers' answer to questions was positively significantly associated to overall satisfaction. This study established that the healthcare providers involved the patients in making decisions concerning their healthcare, they inquired about patients' life situations like nutritional needs, alcohol and drugs use and made referrals where necessary, this was significantly associated to patient satisfaction. The findings of the study further demonstrated that, almost all the patients agreed that healthcare providers listened to their concerns. Other studies have found that some healthcare providers do not involve their patients in the decision making of their treatment program. Instead, they unilaterally decide on information to be given to the patients (Kerssens *et al.*, 1999. In most cases such information is not tailored to meet the patients' need which is one of the strategies to ensure that they comply with the treatment; Talvitie and Reunanen, 2002). Bassett and Petrie (1999) revealed that the treatment goals set by the care providers without consulting the patients have been found to result in a low compliance with treatment. Mead (2000) summarized that if there is no agreement on expectations between healthcare provider and the patient, the treatment outcome may not be successful. Thus, lack of interaction between healthcare providers and the patients may result in unsuccessful treatment outcomes.

The findings in this study demonstrated that most of the patients were comfortable with the time the healthcare providers spent with them during treatment. There was significant association between checking of everything during treatment and examination and overall satisfaction. This finding is in agreement with (Beattie *et al.*, 2002 and 2005a) who found strong relationship between healthcare providers and the patient interactions when adequate time is spent in the treatment of the latter. May (2001) also indicated contact time as a factor in patient satisfaction. Liu *et al.*, (2005) concluded that when healthcare providers spend some time with patients, other than understanding their concerns they also create an environment for establishing good rapport. Most of the respondents in this study had received their treatment for more than three years. Thus patients suffering from chronic impairments may need longer follow-up care in order to achieve better treatment outcomes. According to (Williams *et al.*, 2003) people suffering from chronic pain may require longer treatment duration to continuously accommodate the learnt skills in their daily program.

#### 4.10.3.3 Characteristics of Healthcare

Rating (perception) of the quality of care at the CCC compared to others known to patients was significantly associated with overall satisfaction. Majority of the satisfied patients (85.3%) have never wished to leave the clinic to find better care elsewhere they also rated the clinic as much better compared to others they knew. Not wanting to leave the clinic for better care elsewhere and respondents' rating of the clinic compared to others are factors that were significantly associated to their patient satisfaction. According to a survey by the (David M., 2005) patients who are treated with respect are more likely to report higher levels of satisfaction. This is in agreement with Beattie *et al.*, (2005a) who found that quality of professional interaction between the care providers and the patients in matters relating to their treatment and being treated with respect has a strong bearing towards the patient satisfaction. These findings indicate that there is an association between treating the patient with respect and their satisfaction with the service. There are various ways of expressing respect to the patients. The care providers should be the first ones to greet the patient when they go for their care. During discussion between care provider and the patients, the former should address their clients by name whenever possible (Baker, 1998a). Health care providers should review the patients' notes to remember their information before entering examination room. This would impress the patients as it indicates readiness of the care providers and it also establishes trust if the patient knows that the healthcare provider is knowledgeable about their condition. Consedine, (2004) stated that the assistance given by the senior member of a profession guide their juniors in monitoring the quality of the professional service they extend to the clients.

There are different opinions on the use of written information as a means of communication with the patients among different authors. The results of similar studies indicated that patients understand better when the guidelines are presented in a language they can understand, and their understanding is enhanced by repeating the same instructions orally (Ferri, *et al.*, 1998; Bassett and Petrie 1999; Harrison and Hong 2003; Koumantakis *et al.*, 2005; Schoo, *et al.*, 2005). Contrary to these findings, (Smith *et al.*, 2005) states the uses of written guidelines do not reinforce the understanding of exercises to the patients. Instead, they recommended supervision and repetition of the instructions to the patients. Harding and Watson, (2000) and



Potter *et al.*, (2003) advocated the use of simple explanations in assisting the patient to better understand about their ailments. When such information is given, the patients are able to assess the benefits and the risks involved in their care (Mead, 2000). Thus a combination of written guidelines with oral explanations may assist patients in understanding their problems, benefits and risks involved in the treatment. The results of similar studies have demonstrated that patients who are involved at an early stage in decision making of their care may collaborate well with the healthcare providers throughout the intervention period. This may enhance development of healthcare providers' patient relationship which is an important factor in decision making process for the patient to comply with the treatment program (Baker *et al.*, 2001).

Majority of the patients indicated that they they will recommend the clinic to friends and that they do not wish to leave the clinic for same services elsewhere. According to (Ferri *et al.*, 1998) when a patient fails to comply with the treatment program, future management for the same ailment may be more costly. Compliance is a term used to describe the level to which the patient continues with the treatment program as recommended by the health care provider (Ferri *et al.*, 1998; Harrison and Hong, 2003). These findings have been supported by several studies which have indicated that when patients are involved in the development of their care, they get encouraged to have a strong motivation towards the compliance with the treatment program (Basset and Petrie 1999, Harding and Watson 2003, Osmotherly and Higginbotham 2004). Earlier Painting *et al.*, (1998) had stated that patients who associate their improvement on their own effort are more likely to maintain treatment adherence. Hence, involving the patients in the management of their care may influence them to comply with the treatment program. Majority of the patients (83.3%) indicated that cost of healthcare was not an issue as they were treated for free. Fortunately for the patients at the clinic they do not pay for anything apart from fare to and from the clinic which some of them suggested will be glad if they are provided since they spend a lot. Another factor, which affects the treatment compliance, is the cost of care. When the outpatient registration fee was introduced in Kenya in 1989, utilization of the health facilities reduced (Collins *et al.*, 1996). Health facilities usage increased by 41 % when the Government of Kenya suspended the implementation of the program of cost sharing in the public hospitals, (Mwaba *et al.*, 1995). The cost of treatment is one of the patients'

concerns in getting satisfaction with the health services (May, 2001). Literature supports that the cost of the care can affect its compliance.

#### **4.10.3.4 Referrals of Patients Affected Patient Satisfaction**

In this study health care providers asking about patients' life situation and making referrals when needed (76.8%) was significantly associated with satisfaction. This is in contrast with (Mead, 2000) that indicated that the patients' complaints are often not listened to or even not believed by the health care providers. This was supported by Beattie *et al.*, (2005a) who found that there is a strong relationship between patients' satisfaction and the quality of their interaction with the healthcare providers. This interaction is on the basis that healthcare providers demonstrate concerns when listening to the patient. These findings imply that patients' satisfaction depends on the quality of interactions between healthcare providers and the patients where the former shows genuine interest in the sufferers' concerns. Interactions between healthcare providers and the patients bring the former closer to the sufferers' problems (Potter *et al.*, 2003) and (Liu *et al.*, 2005). Such interaction may result into a sustainable treatment outcome by the patient (Tread, 2000). Otherwise if the patients' concerns fail to be heard it may amount into a breach of their right (Talvitie and Reunanen, 2002).

## **CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Conclusions**

#### **From the study;**

- The patient socio demographic characteristics gender (female) and marital status (divorced) influenced patient satisfaction at the clinic in that being female ( $p=0.031$ ) contributed to satisfaction than being male and also the divorced ( $p=0.002$ ) in this study were more satisfied with healthcare compared to other marital status.
- Majority of the patients (78.6%) were satisfied with clinic services.
- Patients' satisfaction was significantly associated with accessibility, HIV medical visit, referrals, and Characteristics of healthcare. Waiting time was not significantly associated with Patients' satisfaction. Contrary to the expectation, a high accessibility score was significantly associated with reduced patients' satisfaction on health service delivery 72.5% compared to low accessibility score 85.3%, (OR=0.45; 95% CI: 0.21 – 0.97;  $p=0.041$ ).
- There was positive association between treatment related factors ( $p=0.004\%$ ) and patient satisfaction at the clinic and also positive association between socio demographic characteristics (0.002%) of the patients and patient satisfaction.

### **5.2 Recommendations**

- Patient's satisfaction is one of the imperative crucial components for the great success of any healthcare services. Principally, it is extremely more important and significant key issue in the ART units because of their vital role in the lives of hundreds of thousands of HIV/AIDS patients. The overall recommendation is that the CCC should strive to maintain the high standard it has in order to keep patients satisfied with the services they receive.
- A specific recommendation relates to the need to encourage the staff to treat patients with courtesy and respect. Patients should not be expected to be grateful for whatever is done to/for them. They are customers whose concerns need to be taken into account, the indigent status of some of them being irrelevant.

- Another specific recommendation is for CCC to review the working arrangements and procedures at the different service delivery stations. The fact that some patients expressed dissatisfaction with some aspects of the services indicates that the CCC needs to do more in the drive towards improving service stations in order to improve efficiency, minimize patient waiting times and provide for patient comfort.
- Increasing HIV/AIDS patient's level of satisfaction and fulfilling their expectations may possibly pave the way to diminish the intolerable burden of HIV/AIDS pandemic in the near future.

### **5.3 Further research**

- It is recommended that similar studies to be carried out in other public hospitals in Kenya to establish patients level of satisfaction with the care they receive using larger sample sizes to improve general usability of the results.

## REFERENCES

- Agins, B. (2002).** Experience and Quality: From the HIV Perspective. Quality of HIV Care – Closing the Gap, Washington, D.C., Forum for Collaborative HIV Research. (December 10-11)
- Aharony, L., Strasser, S. (1993).** Patient satisfaction: what we know about and what we still need to explore. *Med Care Rev* ; **50**: 49-79.
- Armitage, P., Berry, G. and Matthew, J. (2002).** Statistical method in medical research, EDS Blackwell Publishers.
- Balint, M. (1957).** The doctor, his patient and the illness. New York: International University Press Inc.
- Baker, S. M., Marshak, H. H., Rice, G. T. and Zimmerman, G. J. (2001).** Patient participation in physical therapy goal setting. *Phy Ther*, **81** (5): 1121, 1125- 1126.
- Baker, S. K. (1998a)** Keys to a positive first impression. [Online] Available <http://www.aafp.org/fpm/980100fm/baker.html>
- Baker, S. K. (1998b).** Improving service and increasing patient satisfaction. [Online] Available <http://www.aafp.org/fpm/980700fm/keane.html>
- Bassett, S. F. and Petrie, K. J. (1999).** The effect of treatment goals on patient compliance with physiotherapy exercise programs. *Phy*, **85** (3): 135-136.
- Beattie, P. F., Pinto, M. B., Nelson, M. K. and Nelson, R. (2002).** Patient satisfaction with outpatient physical therapy: Instrument validation. *Phy Ther*, **82** (6): 562-563
- Beattie, P., Turner, C., Dowda, M., Michener, L. and Nelson, R. (2005a).** The MedRisk instrument for measuring patient satisfaction with physical therapy care: A psychometric analysis. *J of O & S Phy. Therapy*, **35** (1): 29-31

- Beattie, P., Dowda, M., Turner, C., Michener, L. and Nelson, R. (2005b).** Longitudinal continuity of care is associated with high patients satisfaction with physical therapy. *Phy Ther*, **85** (10):1050 – 1051.
- Beck, R. S., Daughtridge, R. and Sloane, P.D. (2002).** Physician-patient communication in the primary care office: a systematic review. *J Am Board Fam Pract*, **15**(1):25-38.
- Beedham, H. (1995).** HIV and AIDS Care: Consumers' Views on Needs and Services. *J of Adv Nursing*; **22**: 677-686.
- Boshoff, C. and Gray, B. (2004).** The relationship between service quality, customer satisfaction and buying intentions in the private hospital industry. *South Africa. Bus. Management*, **35** (4): 29, 33.
- Buck, M. & Ciccone, C. D. (2004).** Evidence in practice. *Phy Ther*, **84** (5): 469, 472-473.
- Burns, R. B. (2000).** Introduction to research methods fourth edition. London: Sage.
- Calnan, M., Katsouyiannopoulos, V., Ovcharov, V., Prokhorskas, R., Ramic, H., and Williams, S. (1994).** Major determinants of consumer satisfaction with primary care in different health systems. *Fam Pract*; **11**: 468-478.
- Campbell, S.M., Roland, M.O. and Buetow, S.A. (2000).** Defining quality of care. *Soc Sci Med*, **51**(11):1611-1625.
- Cherin, D.A., Huba, G.J., Steinberg, J., Reis, P., Melchior, L.A., Marconi, K. and Panter, A.T. (2001).** Satisfaction with services in innovative managed care programs for groups of traditionally underserved individuals with HIV/AIDS: empirical models. *Home Health Care Serv Q.* **19**:103–125.

**Cleary, P. D. & McNeil, B. J. (1998).** Patient satisfaction as an indicator of quality of care. *Inquiry*; **25**:25-36.

**Crowther, J. (1997).** *Oxford advanced learner's dictionary*. New York: Oxford University Press.

**Collins, D., Quick, J. D., Musau, S. N., Kraushaar, K and Hussein, I. M. (1996).** The fall and rise of cost sharing in Kenya: Impact of phased implementation. [Online]. Available [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list\\_uids=10155878&dopt=Abstract](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10155878&dopt=Abstract)

**Consedine, M. (2004).** Clinical supervision. [Online]. Available [http://www.tidal-model.co.uk/clinical\\_supervision.htm](http://www.tidal-model.co.uk/clinical_supervision.htm)

**David M. (2005).** Johns Hopkins Medical Institutions. Patients treated with respect more likely to follow medical advice. [Online] Available accessed 21/03/2012 <http://www.sciencedaily.com/releases/2005/09/050902070215.htm>

**De Geydnt, W. (1995).** Managing the quality of health care in developing countries. Washington, DC, The World Bank.

**Donabedian, A. (1980).** Explorations in quality assessment and monitoring: Vol 1: The definition of quality and approaches to its assessment. *Ann Arbor, MI: Health Administration Press*.

**Donabedian, A. (1988).** The quality of care. How can it be assessed? *J of the Am. Med. Ass*, **260**: 1743-1748.

**Edwards, A., Elwyn, G. (2006).** Inside the black box of shared decision making: distinguishing between the process of involvement and who makes the decision. *Health Expect*; **307-20**.

- Feigenbaum, B. (2000).** Keeping patients satisfied. [Online]. Available <http://www.expresshealthcaremgmt.com/20010316/hyderabad4.htm>
- Fehser, J. (2002).** Teaching professionalism: A student perspective. [Online]. Available [http://www.mssm.edu/msjournal/69/v69\\_6\\_page412\\_414.pdf](http://www.mssm.edu/msjournal/69/v69_6_page412_414.pdf)
- Ferri, M., Brooks, D. and Goldstein, R. S. (1998).** Compliance with treatment-an ongoing concern. *Phy Canada*, **50** (4):287-290.
- Fitzpatrick, R. (1991).** Surveys of patient satisfaction. II. Designing a questionnaire and conducting a survey. *Bri Med J* **302**: 1129-1132
- Grol, R, and Wensing, M. (2000).** Patients evaluate general/family practice. The EUROPEP instrument. *EQuiP, WONCA Region Europe*
- Hibbard, H. (2004).** "Development of the Patient Activation Measure (PAM): Conceptualizing and Measuring Activation in Patient and Consumers," *Health Services Research* 39, no. 4, Part 1: 1005–1026
- Halkitis, P. and Dooha, S. (1998).** The Perceptions and Experiences of Managed Care by HIV-Positive Individuals in New York City. *AIDS and Pub Pol J*; **13**(2): 75-84.
- Hall, J. and Dornan, M. (1990).** Patient Sociodemographic Characteristics as Predictors of Satisfaction with Medical Care: A Meta-Analysis. *So Sci*; **30** (1):21-26.
- Harding, V. and Watson, P. J. (2000).** Increasing activity and improving function in chronic pain management. *Phy*, **86** (12): 621-623.
- Harrison, D. and Hong, C. S. (2003).** Compliance and client-centered care: are they in conflict? *Bri Med J*, **10** (3): 93.



**Jennings, B. M., Heiner, S.I., Loan, L., Hemman, E. and Swanson, K. M. (2005).** What really matter to health care consumers, *J of Nur Admin*, **35** (4): 178-179.

**Joffe, S., Manocchia, M., Weeks, J.C. and Cleary, P.D. (2003).** What do patients value in their hospital care? An empirical perspective on autonomy centred bioethics. *J of Med Ethics* **29**:103-8.

**Kamau, P. W. (2005).** Patient satisfaction with physiotherapy services for low back pain at selected hospitals in Kenya. University of the Western Cape.  
[www.ftvs.cuni.cz/hendl/metodologie/disertace/fyzioterap172masters.pdf](http://www.ftvs.cuni.cz/hendl/metodologie/disertace/fyzioterap172masters.pdf)

**Kerssens, J. J., Sluijs, E. M., Verhaak, P. F. M., Knibbe, H. J. J. and Herman, I. M. J (1999).** Back care instructions in physical therapy: A trend analysis of individualised back care programmes. *Phy Ther*, **79** (3): 293-294.

**Kenya AIDS Indicator Survey (KAIS) 2012, 2014.** Prevalence of HIV/AIDS, Coordinated by Ministry of Health, **2**: 25-33

**Kitahata, M., Holmes, K., Wagner, E. and Gooding, T. (1998).** Caring for persons with HIV infection in a managed care environment. *Amer J of Med* **104**: 511-51

**Kitahata, Mary, K., Tegger, Edward H. and King K. (2002).** Comprehensive health care for people infected with HIV in developing countries. *Bri Med J* **325**: 954-957

**Koumantakis, G. A., Watson, P. J. and Oldham, J. A. (2005).** Trunk muscles stabilization training plus general exercise versus general exercise only: Randomized controlled trial of patients with recurrent low back pain. *Phy Ther*, **85** (3): 219.

**Lamb, Jr. C. W., Hair, Jr. J. F., MacDaniel, C., Boshoff, C. and Terblanche, N. S. (2004).** *Marketing. Second South African edition*, Cape Town: Oxford University Press Southern Africa.

**Linder-Pelz, S. (1982).** Social psychological determinants of patient satisfaction: a test of five hypotheses. *So Sci Med*; **16**: 583-589.

**Linder-Pelz, S. (1982).** Toward a theory of patient satisfaction. *So Sci Med*; **16**: 577-582.

**Liu, K. P. Y., Chan, C. C. H. and Chan, F. (2005).** Would discussion on patients' needs add value to the rehabilitation process? *Intl Jnl of Rehab Res*, 28. **1**: 5-6.

**Locker, D., Dunt, D. (1978).** Theoretical and methodological issues in sociological studies of consumer satisfaction with medical care. *Soc Sci Med*; **12**: 283-292.

**Matsuda, S. J, Clark, M. J, Schopp, L. H., Hangglund, K. J. and Mokolke, E. K. (2005)** Barriers and satisfaction associated with personal assistant services: Results of consumer and personal assistant focus group. *OTJR: Occ.,Par. & Health*, **25** (2): 68, 71-72.

**May, S. J. (2001).** Part 1: Patients satisfaction with management of back pain. *Phy*, 87 (1):4-9

**Mead, J. (2000).** Patient partnership. *Phy.*, **86** (6): 282-283

**Mendoza, Aldana J., Piechulek, H. and Al-Sabir, A. (2001).** Patient satisfaction and quality of health care in rural Bangladesh. *Bull W.H.O.*; **79**:512-517.

**Metcalf, C. J. and Klaber, and Moffett J. A. (2005).** Do patients' expectations of physiotherapists affect treatment outcome? Part 2: Survey result. *Int Jnl of Therapy & Rehab*, **12** (3): 116-118.

**Milloy, M. J., Montaner, J. and Wood, E. (2012).** Barriers to HIV treatment among people who use injection drugs: implications for 'treatment as prevention'. *Curr Opin HIV AIDS* **7**: 332-338.

**Mwaba, G., Mwanzia, J. and Liambila, W. (1995).** User's charges in government health

facilities in Kenya: Effects of attendance and revenue. [Online]. Available  
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list\\_uids=10143454&query\\_hl=2](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10143454&query_hl=2)

**Naumann, E & Giel, K. (1995).** Customer satisfaction measurement and management. Cincinnati, Ohio: Thomson executive Publisher.

**Neil G. M., Geetesh C. Solanki, Matthew J. S. and Ratilal L. International Journal for Quality in Health Care (2005).** Volume 17, Number 6: pp 473–477 10.1093/intqhc/mzi062

**Nelson, E. & Larson, C. (1993).** Patients' good and bad surprises: how do they relate to overall patient satisfaction. *Qual Rev Bull*; **3**: 89-94.

**O’Cottrell, S. B. (2000).** Draft policies for clinical supervision. [Online]. Available, [http://www.clinicalsupervision.com/supervision%20policy.htm#\\_Confidentiality\\_&\\_Professional](http://www.clinicalsupervision.com/supervision%20policy.htm#_Confidentiality_&_Professional)

**Oliver, R. (1980).** A cognitive model of the antecedents and consequences of satisfaction decisions. *J Market Res*; **17**: 460-469.

**Pascoe, G. (1983).** Patient satisfaction in primary health care. *Eva. and Pro Plan*; **6**: 185-210.

**Potter, M., Gordon, S. and Hamer, P. (2003).** Identifying physiotherapist and patient expectations in private practice physiotherapy. *Phy Canada*, **55** (4): 200-201.

**Preau M, Protopopescu C, Raffi F, Rey D, Chene G, et al. (2011).** Satisfaction with care in HIV-infected patients treated with long-term follow-up antiretroviral therapy: the role of social vulnerability. *AIDS Care*.; **24**(4):434-43. doi: 10.1080/09540121.2011.613909.

**Probst, J.C., Greenhouse, D.I., Selassie, A.W. (1997).** Patient and physician satisfaction with an outpatient care visit. *J Fam Pract*; **45**: 418-425.

**Reda, A. A., Biadgilign, S. (2012).** Determinants of Adherence to Antiretroviral Therapy among HIV-Infected Patients in Africa. *AIDS Res Treat*: 574656.

**Riddle, D. L., Rothstein, J. M. and Echternach, J. L. (2003).** Application of the HOAC: An episode of care for patients with low back pain. *Phy Ther*, **83** (5):480-481.

**Roberts, K.J. (2002).** Physician-patient relationships, patient satisfaction and ARV medication adherence among HIV infected adults attending a public health clinic. *AIDS patient care* **16**:43-50.

**Schommer, J.C. and Kucukarslan, S.N. (2002).** Measuring patient satisfaction with pharmaceutical services. *Am J Health Syst Pharm*; **54**: 2721-2732.

**Shaffer, D. R. (2002).** Developmental psychology childhood and adolescence, sixth edition. Mexico, Wadsworth Thomson Learning.

**Sluijs, E. M. (1991).** Patient education in physiotherapy: Towards a planned approach. *Phy*, **77** (7):507-508

**Smith, J., Lewis, J. and Prichard, D. (2005).** Physiotherapy exercise program: Are instructional exercise sheet effective? *Phy The and Pra*, **21** (2): 98-99.

**Sitzia, J. and Wood, N. (1997).** Patient Satisfaction: A Review of Issues and Concepts. *So Sci & Med*, **45**: 1829-1843.

**Schoo, A. M. M., Morris, M. E. and Bui, Q. M. (2005).** Predictors of home exercise adherence in older people with osteoarthritis. *Phy Canada*, **57** (3): 184-185.

**Talvitie, U. and Reunanen, M. (2002).** Interaction between physiotherapists and patients in stroke management, *Phy*, **88** (2): 85-87.

**Tran, B. X. and Nguyen, N.P.T. (2012).** Patient Satisfaction with HIV/AIDS Care and Treatment in the Decentralization of Services Delivery in Vietnam. *PLoS ONE* **7**(10): e46680. doi:10.1371/journal.pone.0046680

**Tread, F. V. (2000).** Physiotherapists approaches to low back pain education, *Phy*, **86** (8): 430-432.

**UNAIDS (2010)** Unite for universal access: Overview brochure on 2011 High Level Meeting on AIDS

**UNAIDS (2013).** Gap Repor 2013. Geneva: UNAIDS

**WHO Working Group. (2002).** Draft: scaling up antiretroviral therapy in resource limited settings: guidelines for a public health approach. Geneva: W.H.O.

**WHO (2002).** Scaling up antiretroviral therapy in resource-limited settings: guidelines for a public health approach.; p. **9**.

**World Health Organization (2004).** Rapid HIV tests: guidelines for use in HIV testing and counseling services in resource-constrained settings. Geneva.

**Worlds Health Organization (2008).** Client satisfaction evaluations. Workbook 6. [[http://www.unodc.org/docs/treatment/client\\_staisfaction\\_evaluation.pdf](http://www.unodc.org/docs/treatment/client_staisfaction_evaluation.pdf)].

**World Health Organization (2011).** Treatment 2.0: Catalyzing Next Phase of Scale-up, Decentralized, Integrated and Community-Centered Service Delivery. Geneva.

**Yan Z., Wan D. & Li L. (2011).** Patient satisfaction in two Chinese provinces: rural and urban differences. *Int J Qual Health Care* **23**: 384–389.

**Young, G.J., Meterko M. & Desai K. R. (2000).** Patient satisfaction with hospital care: Effects of demographic and institutional characteristics. *Med care* 2000; **38**:325-334.

**Zelthaml, V., Parasuraman, A. & Berry, L. (1990).** Delivering quality service. New York: The Free Press.

## **APPENDIX 1**

### **Consent form**

**TITLE OF STUDY:** FACTORS INFLUENCING PATIENTS' SATISFACTION WITH HIV/AIDS CARE AT MBAGATHI DISTRICT HOSPITAL'S COMPREHENSIVE CARE CENTRE-KENYA

#### **INVESTIGATORS AND THEIR AFFILIATIONS**

Caroline Wanjiru, Jomo Kenyatta University of Agriculture and Technology

Dr. Peter Wanzala, Centre for Public Health Research, Kenya Medical Research Institute

Prof. Zipporah Ng'ang'a, South Eastern Kenya University

#### **PART A**

You are invited to participate in a study on factors influencing patients' satisfaction with HIV/AIDS care at Mbagathi District Hospital's Comprehensive Care Centre-Kenya

The objective of this study is to determine factors that influence level of patients' satisfaction with the health care services provided by the Mbagathi District Hospital's Comprehensive Care Centre (CCC). You have been selected as a possible participant in this study. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Mwihoti Caroline Wanjiru from the Institute of Tropical Medicine and Infectious Diseases, Jomo Kenyatta University of Agriculture and Technology.

#### **Purpose of the study**

The objective of this study is to determine factors that influence level of patients' satisfaction with the health care services provided by the Mbagathi District Hospital's Comprehensive Care Centre (CCC).

#### **Study Procedures**

If you agree to take part in this study:

We shall ask you a detailed questions regarding yourself and on your experiences and expectations while using the CCC clinic, whose answers we shall note on paper.

The information that you will provide during the study will be kept confidential. Only the interviewer and the researcher will have access to the questionnaires. The information will be destroyed after the study.

### **Risks of Study Participation**

This study has no known risks. Although we shall write your details on paper, no other person will be allowed to read this information except the ones directly involved in this study.

### **Benefits**

By participating in this study you will help to increase our understanding of the various aspects of healthcare that are likely to influence patients' satisfaction with healthcare, in terms of health care provision in the CCC. Your participation in this study is voluntary and you have the right to refuse to participate or to answer to any question that you feel uncomfortable with. If you change your mind, you have the right to withdraw at any time. If anything is not clear or if you need further information, we shall provide it to you.

### **Study Costs**

Taking part in this study will not involve any payment for those procedures we perform.

### **Research Related Injury**

There are almost no chances of you getting an injury in the course of our study.

### **Confidentiality**

The questionnaire will be administered strictly by me and the research assistant and only within the clinic. The information gathered will only be handled by the principal investigator and will be treated as confidential and only used for the purpose of the study. The questionnaire will be protected from unauthorized access by any one by keeping them on a lockable cabinet. I will not divulge any information to anybody. Any publications or presentations arising from this study will not include any information that will make it possible to identify you as a subject. However, your record for the study may, may be reviewed by officials from the Institute of Tropical Medicine and Infectious Diseases (ITROMID, KEMRI) or Jomo Kenyatta University

of Agriculture and Technology. If the records are reviewed, the officials will protect your privacy.

### **Voluntary Nature of the Study**

Participation in this study is voluntary. Your decision whether or not to participate in this study will not affect your current or future relations with this hospital or the other institutions involved. If you decide to participate, you are free to withdraw at any time without affecting those relationships.

### **Contacts and Questions**

The researcher conducting this study is Mwihoti Caroline Wanjiru. You may ask any questions you have now, or if you have questions later, you are encouraged to contact her through telephone number: 0733-563 641, E-mail [wmwihoti@yahoo.com](mailto:wmwihoti@yahoo.com)

If you have any questions or concerns regarding the study and would like to talk to someone other than the researcher(s), you are encouraged to contact the following:

The Director, Institute of tropical medicine and infectious diseases (ITROMID),  
Jomo Kenyatta University of Agriculture and Technology,  
P. O. Box 62000 00200 Nairobi.  
Tel. 067 – 52711,  
E-mail: [itromid@nairobi.mimcom.net](mailto:itromid@nairobi.mimcom.net)

Or,

The Director, ITROMID-KEMRI OFFICE,  
Kenya Medical Research Institute  
S.L.P 54840-00200 Nairobi.  
Tel: 020-2722541/4  
Email: [itromid@nairobi.mimcom.net](mailto:itromid@nairobi.mimcom.net)

Or

The Chairman KEMRI National Ethical Review Committee



P.O BOX 54840 – 00200 NAIROBI, KENYA.

TEL: (254) (020) 2722541, 2713349, 0722-205901, 0733-400003;

E-mail: info@kemri.org

## **PART B: CONSENT FORM**

Please read the information sheet (PART A) or have the information read to you carefully before completing and signing this consent form. If there are any questions you have about the study, please feel free to ask them to the investigator prior to signing your consent form.

### **Declaration of the volunteer**

I Patient Number.....hereby give consent to Miss. Mwihoti to include me in the proposed study entitled patients' satisfaction with health care at Mbagathi District Hospital's comprehensive care center for HIV/AIDS patients – Nairobi

I have read the information sheet concerning this study, I understand the aim of the study and what will be required of me if I take part in the study. The risks and benefits if any have been explained to me. Any questions I have concerning the study have been adequately answered.

I understand that at any time that I may wish to withdraw from this study I can do so without giving any reason and without affecting my access to normal health care and management.

I realize that I will be interviewed once. I consent voluntarily to participate in this study.

Patient Number.....

Signature or left thumb print \_\_\_\_\_ Date \_\_\_\_\_

Name of person taking consent.....

Signature ..... Date .....

Name of Investigator .....

Signature of Investigator \_\_\_\_\_ Date \_\_\_\_\_

## **FOMU YA KUSHIRIKI KATIKA UTAFITI**

**KICHWA:** UTAFITI WA KUJUA NI NJIA ZIPI ZA UTOAJI HUDUMA YA AFYA ZINACHANGIA KURIDHIKA KWA WAGONJWA NA HUDUMA YA AFYA KATIKA KLINIKI YA WAGONJWA WA UKIMWI HOSPITALI YA WILAYA YA MBAGATHI, NAIROBI-KENYA .

### **WATAFITI**

Caroline Wanjiru Mwihoti, Jomo Kenyatta University of Agriculture and Technology

Dr. Peter Wanzala, Centre for Public Health Research, Kenya Medical Research Institute

Prof. Zipporah Ng'ang'a, South Eastern Kenya University

Umealikwa kushiriki katika utafiti wa kujua ni njia zipi za utoaji huduma ya afya zinachangia kuridhika kwa wagonjwa na huduma ya afya katika kliniki ya wagonjwa wa ukimwi Hospitali ya wilaya ya Mbagathi, Nairobi-Kenya . Madhumuni ya utafiti huu ni kujua ama kuhakiki ni aina gani ya huduma za afya ambazo zinachangia kuridhika na huduma ya afya katika wagonjwa wanaozuru hospitali ya wilaya ya Mbagathi-Nairobi. Kama mmoja wa washiriki katika utafiti huu tunakusihii usome fomu hii na uulize maswali yoyote uliyonayo kabla hujakubali kushiriki katika utafiti huu.

Utafiti huu unafanywa na Mwihoti Caroline Wanjiru kutoka idara ya utafiti ya madawa na magonjwa ya kuambukiza katika chuo kikuu cha kilimo Na teknolojia cha Jomo Kenyatta.

### **KUSUDI LA UTAFITI**

Kujua ni aina gani ya huduma za afya ambayo inachangia kuridhika katika wagonjwa wanaozuru Hospitali ya Wilaya ya Mbagathi- Nairobi.

### **UTARATIBU WA UTAFITI**

Kama utakubali kushiriki katika utafiti huu utaulizwa maswali kukuhusu na matarajio yako pamoja na mazoea yako kuhusu matumizi ya huduma za afya katika kliniki ya wagonjwa ya CCC Hospitali ya wilaya ya Mbagathi. Majibu yako yatanakiliwa kwa karatasi.

Habari zote utakazopeana zitabanwa. Ni mhoji na mtafiti tu ambao watakuwa na amri ya kuona karatasi hizo za majibu baada ya utafiti habari zote zitaharibiwa.

## **MADHARA YA KUSHIRIKI KWA UTAFITI**

Utafiti huu hauna madhara yanayofahamika. Hata kama kutanakili jina lako kwa karatasi, hakuna mwingine yeyote atakayepata ruhusa kuyaona ila wale wanaohusika kwa utafiti huu.

## **MANUFAA**

Kwa kushiriki katika utafiti huu na kujibu maswali yetu, utatusaidia kufahamu ni njia zipi za utoaji huduma ya afya zinachangia kuridhika kwa wagonjwa na huduma ya afya katika kliniki ya wagonjwa wa ukimwi. Kushiriki kwako katika utafiti huu ni kwa hiari na unahaki ya kukataa kushiriki au kujibu swali lolote. Unaweza badili fikira zako, unahaki pia kuacha wakati wowote kama kuna jambo halieleweki au ukitaka habari zaidi tutakupa.

## **GHARAMA YA UTAFITI**

Kushiriki katika utafiti huu hautakugarimu malipo yeyote kwa taratibu zote utakazo fanyiwa.

## **MAJERUHI KUTOKANA NA UTAFITI**

Hakuna uwezekano kuwa utapata majeraha yeyote katika wakati wa utafiti huu.

## **KUBANWA KWA UTAFITI**

Utapewa chombo cha maswali na mtafiti na msaidizi wale pekee. Utafiti utafanywa katika kliniki na sio nje. Ujube utakaotolewa uta hifadhiwa na mtafiti pekee na hautaonyeswa mtu yeyote. Pia ujube utatumiwa kwa utafiti na sio kwa sababu ingine yeyote. Chombo cha maswali kitahifadhiwa katika kabati iliofungwa kwa ufunguo. Siri itahakikishwa kwa mahali zitawekwa. Vitabu na makala yatakayotokana utafiti huu hayatajumuisha habari ambayo itafanya mhojiwa ajulikane. Hata hivyo, nambari yako ya usajili, katika utafiti huu inaweza kuajiliwa na maafisa kutoka Idara ya madawa na magonjwa ya kusambaa (ITROMID, KEMRI) au wale kutoka chuo kikuu cha kilimo na teknolojia cha Jomo Kenyatta. Hata hivyo, maafisa hao watahakikisha kuwa jina lako limebanwa.

## **UTAFITI NI WA HIARI**

Kushiriki katika utafiti huu ni wa hiari. Uamuzi wako kushiriki au kutoshiriki katika utafiti huu hautaathiri husiano wako sasa au katika nyakati zijazo na hospitali hii au vitengo vingine vinavyohusika ikiwa utakubali kushiriki, unahaki kuacha kushiriki wakati wowote bila kuhujumu husiano wako.

### **MASWALI NA WATAO YA JIBU**

Mtafiti anayefanya utafiti huu ni Mwihoti Caroline Wanjiru. Unaweza kuuliza maswali yeyote uliyonayo sasa ama ikiwa utakuwa nayo baadaye, unahimizwa umjulishe kwa nambai ya simu: 0721-563 641 au barua pepe [wmwihoti@yahoo.com](mailto:wmwihoti@yahoo.com)

Ikiwa unamaswali yeyote kuhusu utafiti huu na ungependa kuuliza swali kwa mtu mwingine isipokuwa mtafiti, unahimizwa ujulishe.

Mkurugenzi (ITROMID)

JOMO KENYATTA

S.L.P 62000-00200, NRB

Simu; 067-52711

Barua Pepe: [itromid@nairobi.mimcom.net](mailto:itromid@nairobi.mimcom.net)

Au

Mkurugenzi, ITROMID-KEMRI OFFICE,

Kenya Medical Research Institute

S.L.P 54840-00200 Nairobi.

Simu: 020-2722541/4

Barua pepe: [itramid@nairobi.mimcom.net](mailto:itramid@nairobi.mimcom.net)

Au

The Chairman KEMRI National Ethical Review Committee

S.L.P 54840 – 00200 NAIROBI, KENYA.

Simu: (254) (020) 2722541, 2713349, 0722-205901, 0733-400003;

E-mail: [info@kemri.org](mailto:info@kemri.org)

## **FOMU YA KUPEANA HIARI**

Tafadhali soma fomu A ama hakikisha kwamba umesomewa na kuelewa kabla ya kutia sahihi fomu hii ya kupeana ruhusa. Kama una maswali yeyote kuhusu utafiti huu, tafadhali uliza mtafiti maswali hayo kabla ya kutia sahihi fomu hii ya kupeana ruhusa.

### **Arifa ya mhojiwa wa hiari**

Mimi Mgonjwa Nambari.....napeana ruhusa kwa Bi. Mwihoti anijumuishe kwa utafiti “Utafiti wa kujua ni njia zipi za utoaji huduma ya afya zinachangia kuridhika kwa wagonjwa na huduma ya afya katika kliniki ya wagonjwa wa ukimwi Hospitali ya wilaya ya Mbagathi, Nairobi-Kenya”.Nimesoma habari zote kuhusu utafiti huu, nimeelewa lengo la utafiti huu na yanayohitajika kwangu kama nitashiriki katika utafiti huu. Madhara na manufaa ya utafiti huu yameelezwa kinaga ubaga kwangu. Maswali yote niliokuwa nayo yamejibiwa vilivyo.

Nimeelezwa/nimeelewa kwamba wakati wowote naweza kuacha kushiriki na sitasindikizwa kutua sababu yoyote au haitahujumu kupata kwangu kwa matibabu kwa kawaida.

Najua kwamba nitahojiwa mara moja. Ninapeana ruhusa kwa hiari nishiriki katika utafiti huu.

Nambari Ya Mgonjwa .....

Sahihi/alama ya kidole gumba (kushoto) Tarehe \_\_\_\_\_

Jina la anayepewa ruhusa

Sahihi ..... Tarehe.....

Jina la mtafiti.....

Sahihi ya mtafiti \_\_\_\_\_ Tarehe\_\_\_\_\_

## APPENDIX 2: English Questionnaire

### A STUDY ON FACTORS INFLUENCING PATIENTS' SATISFACTION WITH HIV/AIDS CARE AT MBAGATHI DISTRICT HOSPITAL'S COMPREHENSIVE CARE CENTRE-KENYA

Questionnaire serial number			
Research assistant's name			
Date of interview	Day	Month	Year
Patient No.			

#### A. SOCIODEMOGRAPHIC DATA

1. Gender                                      a) Male ( )      b) Female ( )
  
2. Where do you fall within the following age brackets?  
a) Below 20 ( )      b) 20-25 yrs ( )      c) 25-30 yrs ( )  
d) 30-35 yrs ( )      e) 35-45 yrs ( )      f) Over 45 yrs ( )
  
3. Marital status      a) Married ( )      b) Single ( )      b) Divorced ( )      c) Widowed ( )
  
4. Level of Education  
a) None ( )      (b) Primary ( )      c) Secondary ( )  
d) Tertiary ( )      (e) Graduate ( )      f) Post Graduate ( )

#### B. ACCESS TO HIV CARE

5. I have received medical care here for  
Less than 1 year ( )      1 to 2 years ( )      3 to 5 years ( )      more than 5 years ( )
  
6. Did you ever call the clinic to make an appointment or speak with someone about care?

Yes ( ) No ( ) (If No, go to Question 6)

If Yes, what was it like when you called the clinic?

---

7. When I needed an appointment, I could schedule one soon enough for my needs.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

8. My providers told me how important it was to keep my appointments.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

9. If I had a medical question, I could get someone on the phone to discuss it with me.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

### **C. WAITING FOR YOUR APPOINTMENT**

10. While I checked in and waited for my visit, the staff were unfriendly to me.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

11. HIV-specific educational materials were available for me to read.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

12. I was upset by how long I had to wait for my appointment.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

### **D. YOUR HIV MEDICAL VISIT**

13. When I saw my providers, my visits got interrupted (by phone calls or other patients)

All of the Time ( )      Most Times ( )      Sometimes ( )      Rarely ( )  
Never ( )                      Does Not Apply ( )

14. When I go for medical care they are careful on checking everything when treating and examining me

All of the Time ( )      Most Times ( )      Sometimes ( )      Rarely ( )  
Never ( )                      Does Not Apply ( )

15. My providers made sure I understood what my lab test results (such as CD4 and viral load) meant for my health.

All of the Time ( )      Most Times ( )      Sometimes ( )      Rarely ( )  
Never ( )                      Does Not Apply ( )

16. If I had a complaint about my medical care, my providers would ignore it.

All of the Time ( )      Most Times ( )      Sometimes ( )      Rarely ( )  
Never ( )                      Does Not Apply ( )

17. When I asked my providers questions about my HIV care, it was hard to understand their answers.

All of the Time ( )      Most Times ( )      Sometimes ( )      Rarely ( )  
Never ( )                      Does Not Apply ( )

18. I found my providers to be accepting and non-judgmental of my life and health care choices.

All of the Time ( )      Most Times ( )      Sometimes ( )      Rarely ( )  
Never ( )                      Does Not Apply ( )

19. It was hard for me to get my HIV medication prescriptions filled when I needed them.

All of the Time ( )      Most Times ( )      Sometimes ( )      Rarely ( )  
Never ( )                      Does Not Apply ( )



20. My providers explained the side effects of my HIV medications in a way I could understand.

Yes ( )                      No ( )                      Not Sure ( )

21. My providers suggested ways to help me remember to take my HIV medications.

Yes ( )                      No ( )                      Not Sure ( )

22. My providers explained to me what kinds of medical tests I should be getting and how often I should get them.

Yes ( )                      No ( )                      Not Sure ( )

23. My providers explained to me how to avoid getting sick.

Yes ( )                      No ( )                      Not Sure ( )

24. My providers talked to me about how to avoid passing HIV to other people and how to protect myself from getting infected again with HIV.

Yes ( )                      No ( )                      Not Sure ( )

### **E. REFERRALS**

25. My providers or case managers asked me about my life situation (housing, my finances, etc.), and made a referral if I needed help.

Yes ( )                      No ( )                      Not Sure ( )

26. My providers or case managers asked me how I was feeling emotionally and made a referral to a mental health provider, counselor or support group if I needed help.

Yes ( )                      No ( )                      Not Sure ( )

27. My providers asked me about how I am eating and made a referral to a nutritionist if I needed help.

Yes ( )                      No ( )                      Not Sure ( )

28. My providers asked me whether I needed help to tell my sexual partners about my HIV status and made a referral if I needed help.

Yes ( )                      No ( )                      Not Sure ( )

29. My providers asked me about my drug and alcohol use and made a referral if I needed help

Yes ( )                      No ( )                      Not Sure ( )

30. I was able to get the services that my provider referred me to.

All of the Time ( )      Most Times ( )      Sometimes ( )      Rarely ( )  
Never ( )                      Does Not Apply ( )

#### **F. CHARACTERISTICS OF THE HEALTHCARE**

31. I would rate my providers' knowledge of the newest developments in HIV medical standards as . . .

Excellent ( )    Very Good ( )    Average ( )    Fair ( )    Poor ( )  
Not Sure ( )

32. I would rate the quality of care at this clinic in comparison to other clinics I know about as

Much Better ( )    Better ( )    The Same ( )    Worse ( )    Much ( )    Worse ( )  
Not Sure ( )

33. I would recommend this clinic to my HIV-positive friends with similar needs.

Definitely Yes ( )      Maybe ( )      Definitely Not ( )      Not Sure ( )

34. There was a good co-ordination between the departments

Yes ( )                      No ( )

35. At any point, did you feel treated poorly at your clinic?

Yes ( ) No ( ) (If "No," Skip to Question 28)

If "Yes," please help us understand why) \_\_\_\_\_

36. I got services in the language I wanted.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

37. I did not get the medical care I needed because I could not pay for it.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

38. I thought about leaving this clinic to find better care somewhere else.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

39. The staff and my providers kept my HIV status confidential.

All of the Time ( ) Most Times ( ) Sometimes ( ) Rarely ( )  
Never ( ) Does Not Apply ( )

40. My relatives/friends were fully informed about my care and its continuity

Yes ( ) No ( )

### G. OUTCOME

41. Did the health care provider develop adherence plan with you

Yes ( ) No ( )

42. I was satisfied by the overall care I received at the clinic

Yes ( ) No ( )

43. Did any staff member stand out, if yes who and why

Yes ( ) Who \_\_\_\_\_ No ( )

---

44. I clearly understand the next steps in my plan of care

Yes ( ) No ( )

45. The service/care received was valuable to improving my health

Yes ( ) No ( )

**Thank you for Participating in the study.**

### Appendix 3: Kiswahili Questionnaire

**SOMO KUHUSU MAMBO MUHIMU YA HUDUMA YA AFYA AMBAYO  
HUSHAWISHI WAGONJWA WA UKIMWI KURIDHIKA NA UBORA WA AFYA  
KATIKA KLINIKI YA KUHUDUMIA WAGONJWA WA UKIMWI KATIKA  
HOSPITALI YA WILAYA YA MBAGATHI**

Nambari ya Dodoso			
Jina La Mtafiti			
Tarehe ya Mahojiano	Siku	Mwezi	Mwaka
Nambari ya Mgonjwa			

#### A. HABARI KUHUSU MSHIRIKI

1. Jinsia                      a) Mwanaume ( )              b) Mwanamke ( )
  
2. Umri wako uko katika kitengo kipi katika orodha ifuatayo?  
a) chini 20 ( )              b) Miaka 20-25 ( )              c) Miaka 25-30 ( )  
d) Miaka 30-35 ( )              e) Miaka 35-45 ( )              f) Zaidi 45 ( )
3. Hali ya ndoa      a) Nimeoa/Nimeolewa ( )      b) Sinjaoa/olewa ( )      b) Talaka ( )      c)  
Nimefiwa na mchumba ( )
  
4. Kiwango cha elimu  
b) Hamna ( )              (b) Msingi ( )              c) Sekondari ( )  
d) kitengo cha mafunzo ( )              (e) chuo kikuu ( )              f) Zaidi ya Chuo kikuu ( )

#### B. UPATIKANAJI WA HUDUMA YA AFYA YA UKIMWI

5. Nimepokea huduma ya afya hapa kwa muda ufuatao  
Chini ya mwaka 1 ( )      Mwaka 1 hadi 2 ( )      Miaka 3 hadi 5 ( )      Zaidi ya miaka 5 ( )

6. Uliwahi kupiga simu kuhifadhi mda wa kuhudumiwa ama kuongea na mhadumu wa afya kuhusu

afya yako?

Ndiyo ( ) La ( ) (Kama La, enda kwa swali la 6)

Kama ndiyo, Ilikuwaje ulipopiga simu? \_\_\_\_\_

7. Nikitaka Kuhudumiwa katika kliniki naweza enda wakati wowote na nihudumiwe.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hikufanyika ( ) Si muhimu ( )

8. Wa hudumu wa afya walinieleza umuhimu wa kutii siku ya kurudi kliniki.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hikufanyika ( ) Si muhimu ( )

9. Nikiwa na swali kuhusu afya yangu, naweza kupiga simu na kujibiwa na mhadumu wa afya.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hikufanyika ( ) Si muhimu ( )

### **C. WAKATI WA KUNGOJA KUHUDUMIWA**

10. Nilipoingia katika kliniki, wahudumu hawakuwa wakarimu kwangu.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hikufanyika ( ) Si muhimu ( )

11. Vitabu vya kuelimisha kuhusu ukimwi zilipatikana pale ili niweze kujielimisha.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hikufanyika ( ) Si muhimu ( )

12. Nilikasirika juu ya kuwekwa sana ili nione wahudumu wa afya.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hikufanyika ( ) Si muhimu ( )

#### D. NILIPOKUWA NA HUDUMIWA

13. Nilipokuwa naona wahudumu wa afya, Nilikatizwa na simu ama wagonjwa wengine

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hikufanyika ( ) Si muhimu ( )

14. Ninapoenda kupokea matibabu, wahudumu wa afya wanachukua mda kunichunguza na kunitibu

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hikufanyika ( ) Si muhimu ( )

15. Wahudumu wa afya walihakikisha kuwa majibu yangu ya maabara kama vile kiwango cha CD4 na

virusi ya meelezewa vyema na inahusu afya yangu kivipi.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hi kufanyika ( ) Si muhimu ( )

16. Nilikwa na malalamishi kuhusu huduma wa hudumu wa afya hawatilii maanani.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Hi kufanyika ( ) Si muhimu ( )

17. Nilipouliza wahudumu wangu wa afya maswali kuhusu huduma yangu ya Ukimwi ilikuwa ngumu

kuelewa majibu yao.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Haikufanyika ( ) Si muhimu ( )

18. Nilipata wahudumu wangu wa afya wakinikubali na kutohukumu maisha yangu na uamuzi wangu

kuhusu afya yangu.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Haikufanyika ( ) Si muhimu ( )

19. Ilikuwa vingumu kupata dawa zangu za Ukimwi wakati nilipozihitaji.

Wakati wote ( ) Wakati mwingi ( ) Saa zingine ( ) Nadra ( )

Haikufanyika ( ) Si muhimu ( )

20. Wahudumu wangu wa afya walinieleza madhara ya dawa zangu za Ukimwi kwa njia ambayo

nilielewa.

Ndiyo ( )

La ( )

Sina uhakika ( )

21. Wahudumu wangu wa afya walinieleza jinsi ya kuweza kukumbuka kumeza dawa zangu za Ukimwi.

Ndiyo ( )

La ( )

Sina uhakika ( )

22. Wahudumu wangu wa afya walinielezea ni kupimwa kupi kwa afya nahitajika kupata na kwa mda

gani

Ndiyo ( )

La ( )

Sina uhakika ( )

23. Wahudumu wangu wa afya walinielezea jinsi ya kuzuiya kuwa mgonjwa.

Ndiyo ( )

La ( )

Sina uhakika ( )

24. Wahudumu wangu wa afya walinieleza jinsi ya kuzuiya kuambukiza watu

wengine virusi vya Ukimwi na jinsi ya kijichunga nisiambukizwe tena na virusi vya Ukimwi.

Ndiyo ( )

La ( )

Sina uhakika ( )

## E. RUFAA

25. Wahudumu wangu wa afya ama wachunguzi waliniuliza kuhusu hali yangu ya maisha(Makao,hali ya fedha ,nk) na kufanya rufaa kama nilihitaji msaada.



Ndiyo ( )

La ( )

Sina uhakika ( )

26. Wahudumu wangu wa afya ama wachunguzi waliniuliza nilivyojihisi kimawazo na kufanya rufaa kwa mtalamu wa afya ya kiakili, Mshauri au kikundi cha msaada kama nilihitaji msaada.

Ndiyo ( )

La ( )

Sina uhakika ( )

27. Wahudumu wangu wa afya waliniuliza jinsi ninavyokula nakufanya rufaa kwa mshauri wa lishe kama nilihitaji msaada.

Ndiyo ( )

La ( )

Sina uhakika ( )

28. Wahudumu wangu wa afya waliniuliza kama nilihitaji usaidizi kuwaambia washirika wangu wa ngono kuhusu hali yangu ya HIV na kufanya rufaa kama nilihitaji msaada.

Ndiyo ( )

La ( )

Sina uhakika ( )

29. Wahudumu wangu wa afya waliniuliza kuhusu utumiaji wa madawa za kulevya na pia utumiaji wa pombe na kunirufaa kama nilihitaji msaada.

Ndiyo ( )

La ( )

Sina uhakika ( )

30. Niliweza kupokea huduma nilizoelekezwa.

Wakati wote ( )

Wakati mwingi ( )

Saa zingine ( )

Nadra ( )

Haikufanyika ( )

Si muhimu ( )

## F. MFANO WA HUDUMA

31. Naweza sema kiwango cha elimu kuhusu mambo mapya kuhusu Ukimwi ya wahudumu wa afya katika kliniki ni . . .

Nzuri sana ( )

Nzuri ( )

Nzuri kidogo ( )

Wamejaribu ( )

Mbovu ( )

Sina uhakika ( )

32. Naweza kusema ubora wa huduma ya afya kaitika kliniki hii nikilinganisha na kliniki zingine

nazijuazo ni

Afadhali kabisa ( )

Afadhali ( )

zafanana ( )

Mbaya ( )

Mbaya kabisa ( )

Sina uhakika ( )

33. Ninaweza kuelekeza hii kliniki kwa rafiki wangu wenye Virusi vya Ukimwi

Ndiyo kabisa ( )      Labda ( )      Siwezi kamwe ( )      Sina uhakika ( )

34. Kulikuwa na uhusiano mzuri kati ya sehemu mbali mbali .

Ndiyo ( )                      La ( )

35. Wakati wowote ulihisi kutendwa mabaya katika kliniki?

Ndiyo ( )      La ( ) (Kama “La,” Enda kwa swali 28)

Kama “Ndiyo,”Tafadhali tusaidie kuelewa ni kwa nini) \_\_\_\_\_

36. Nilipata huduma kwa lugha niliyotaka.

Wakati wote ( )      Wakati mwingi ( )      Saa zingine ( )      Nadra ( )

Hikufanyika ( )              Si muhimu ( )

37. Sikupata huduma ya afya niliyotaka kwa sababu singeweza kulipiya.

Wakati wote ( )      Wakati mwingi ( )      Saa zingine ( )      Nadra ( )

Hikufanyika ( )              Si muhimu ( )

38. Nilifikiri kuhama hii kliniki kutafuta huduma ya afya mahali pengine.

Wakati wote ( )      Wakati mwingi ( )      Saa zingine ( )      Nadra ( )

Hikufanyika ( )              Si muhimu ( )

39. Wahudumu wote waliimarisha hali yangu ya Kuwa na Ukimwi kuwa usiri.

Wakati wote ( )      Wakati mwingi ( )      Saa zingine ( )      Nadra ( )

Hikufanyika ( )              Si muhimu ( )

40. Jamii na marafiki walielezewa kikamilifu kuhusu huduma yangu ya afya na jinsi itakavyo  
endelea

Ndiyo ( )                      La ( )

## G. MATOKEO

41. Je, wahudumu wa afya walikusaidia kupanga jinsi utakavyo hakikisha umeimarisha afya yako

Ndiyo ( )                      La ( )

42. Niliridhika na toleo na huduma ya afya niliyopewa katika kliniki

Ndiyo ( )                      La ( )

43. Kulikuwa na mfanyi kazi aliyependeza, kama ndiyo nani na kwa nini

Ndiyo ( ) Nani \_\_\_\_\_ La ( )

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44. Naelewa kabisa kifuatacho katika mpangilio wa huduma yangu ya afya

Ndiyo ( )                      La ( )

45. Huduma niliyo pata imeimarisha afya yangu

Ndiyo ( )                      La ( )

**Asante kwa kushiriki katika utafiti huu.**