

**RESEARCH TOPIC:**

**KNOWLEDGE, ATTITUDE AND PRACTICE OF H.I.V. POSITIVE POST-NATAL MOTHERS ON BREASTFEEDING IN IJARA DISTRICT, NORTH EASTERN PROVINCE.**

**A PROPOSAL SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF SCIENCE IN NURSING DEGREE OF THE UNIVERSITY OF NAIROBI**

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**H32/9341/05**

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## DECLARATION:

I declare that this is my original work and has not been presented for examination purposes in any other college or institution of higher learning.

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# CERTIFICATE OF APPROVAL

This Research proposal has been submitted in partial fulfillment for the reward of degree of Bachelor of Science in Nursing with my approval as the university of Nairobi supervisor

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## **DEDICATION:**

I wish to dedicate this work to my dear grandparents. Stephen King'ang'i and Racheal King'ang'i as well as my loving parents Edwin Ngugi and Jane Ngugi for their continued support in my education, May God bless you mightily.

## **ACKNOWLEDGEMENTS:**

I wish to thank my lecturers, Mrs.lucy bitok and Prof.A.Karani who taught me research, my supervisor Mrs.Odhiambo who has been very supportive and also my fellow students who gave me the moral support and assisted me in one way or another,I am very grateful and may God bless you mightily.

## **ABSTRACT/EXECUTIVE SUMMARY:**

This research will be carried out in the North Eastern Province of Kenya to assess the knowledge, attitude and practice of HIV positive post-natal mothers towards breastfeeding.

It is a descriptive cross-sectional study conducted using qualitative and quantitative methods of data collection which will be semi-structured questionnaires containing both open-ended and closed-ended questions, as well as focus group discussions.

The study population will be HIV positive post-natal mothers of Ijara District in North Eastern Province. This area is home to approximately 1 million people, the majority of who are ethnic Somalis entrenched in nomadic and semi-nomadic lifestyles.

The broad objective of this study is to assess the Knowledge, attitude and practice of HIV positive post-natal mothers towards breastfeeding and the specific objectives are: To determine the knowledge of HIV positive post-natal mothers towards breastfeeding, To explore the attitude of HIV positive post-natal mothers towards breastfeeding and To identify factors that facilitate or impede HIV positive post-natal mothers' practice of breastfeeding.

The inclusion criteria will be all HIV positive post-natal mothers who have resided in Ijara for more than 6 months, respondents between 15-49 years of age and respondents who have informed consent. Exclusion criteria will be visitors to the study area who are HIV positive and post-natal, respondents below the age of 15 years or above 49 years of age, respondents who don't have informed consent and respondents who have consented but want immediate gain, whether financial or material.

The sample size will be determined using Fischer's formula and the sampling procedure will be based on multi-stage sampling. Eight BScN students will be trained as research assistants and they will be trained on ethical considerations, how to establish enumerator-participant's relationship and how to answer the questionnaire.

The data collection instruments will be pre-tested in Mandera district first to validate and verify clarity of questions and improve reliability of the study tool. Mandera district will be used because it is similar to Ijara in terms of socio-economic and environmental factors.

After data is collected it will be screened for completeness and then analyzed using S.P.P.S (Statistical Package For Social Sciences). The data will then be presented in the form of pie charts, graphs, and tables for easy understanding of the relationship between knowledge, attitude and practice of HIV+ve post-natal mothers towards breastfeeding.

The study will be beneficial to health workers in this region as they will be able to know the determinants of knowledge, attitude and practice of breastfeeding among HIV positive mothers in the region and hence, they will be able to counsel them accordingly.

The study will take a duration of approximately 6 months and the expected budget is Kshs.229, 500

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# LIST OF ACRONYMS

AIDS-acquired immune deficiency syndrome

ARV-Antiretroviral

ART-Antiretroviral therapy

HIV-Human Immunodeficiency virus

MTCT-Mother to child transmission

PMTCT-Prevention of mother to child transmission

SPSS-Statistical package for social sciences

UN-United Nations

UNAIDS-Joint United Nations Programme on HIV/AIDS

UNICEF-United Nations Children's Fund

WHO-World Health Organization

# CHAPTER ONE: INTRODUCTION

## BACKGROUND INFORMATION

Breastfeeding is the norm in most of the world and for good reasons. It is the best nutrition for babies, it protects against deadly childhood diseases, it delays return to fertility, it costs nothing, and it promotes bonding and social/emotional development in babies. The rise in HIV/AIDS cases, especially in Africa, puts new focus on breastfeeding as a route of transmission from mother-to-child (Pathfinder international, 1999)

The advent of HIV has complicated the practice of breastfeeding in our mothers today. There is enough evidence that exclusively breastfed infants are more protected against childhood morbidity and mortality, from respiratory and gastro-intestinal infections than those who are exclusively formula-fed. (Mpora et al., 2009). Infant feeding guidelines on the prevention of mother-to-child HIV transmission recommend that HIV infected mothers be counseled about the breast milk transmission of HIV and be given 3 options for feeding:-Exclusive breastfeeding for 6 months with abrupt cessation; Replacement feeding with commercial infant formula and replacement /home-modified formula (cow, goat or camel milk or soy protein) ( NASCOP 2002).

According to W.H.O (2009), breastfeeding should continue until the infant is 12 months of age, provided the HIV positive mother or baby is taking ante-retroviral drugs during that period. The magnitude of mother-to-child transmission and the potential for prevention has made P.M.T.C.T an essential element of the worldwide HIV/AIDS control strategy (W.H.O. 2003). However, the superiority of breastfeeding in reducing child mortality is unquestionable, as it greatly reduces the risk of enteric infection and of defective nutrition, particularly in resource-poor settings (Bhandari, et al., 2003)

**STATEMENT OF THE PROBLEM:**

Almost 600,000 children are infected by HIV annually, over 1,600 each day. Transmission from mother to child is affected by various factors, not all of which have been fully elucidated. These can be divided into viral, maternal, obstetrical, foetal and infant factors. (Krishnu, u et al., 2001)

The risk of HIV infection during breastfeeding appears to be greatest in the first few months after birth, and is lower among infants who are fed breast milk exclusively than among those who receive breast milk with supplements (Gill S, etal., 2000)

According to the District Strategic plan For Ijara district (2005-2010), HIV/AIDs is an emerging factor that is exacerbating the levels of poverty in the district. The district has a fast rising infection rate due to the influence of other districts and it also has a low awareness of the pandemic due to illiteracy and denial of the disease and some prevention measures like condom use due to religion. The scourge has a negative impact in the labour force with those infected being the most economically active (District Strategic Plan 2005-2010)

## **JUSTIFICATION OF THE STUDY:**

HIV/AIDS has the potential to create severe economic impacts in many African countries. It is different from most other diseases because it strikes people in the most productive age groups and is essentially 100% fatal.

The loss of young adults in their most productive years will affect overall economic output. The direct costs of HIV/AIDS include expenditures for medical care, drugs, and funeral expenses. Indirect costs include lost time due to illness, recruitment and training costs to replace workers, and care of orphans. If costs are financed out of savings, then the reduction in investment could lead to a significant reduction in economic growth. (Bollinger, L et al., 1999)

One study found that the impact of HIV/AIDS on households in Kenya is profound. Smallholder rural households lost between 58-78 percent of household income following the HIV/AIDS death of an economically active adult in a three-adult household. The corresponding loss for an urban household ranges between 54-66%. These figures assume that only one member of the household dies as a result of AIDS. The household income loss is even greater, however, if the second adult and one infant of the same household dies of AIDS. In this case, the rural household lost between 116-167 percent of its income while urban households lost between 108-142 percent of its household income. Given these large income losses, households will be forced to adopt coping mechanisms, including withdrawing children from school or sending them to stay with relatives. Consequently, education of these children may be affected. (Bollinger L et al., 1999)

## **RESEARCH OBJECTIVES**

### **BROAD OBJECTIVE:**

To assess the knowledge, attitude and practice of breastfeeding among HIV positive post-natal mothers in ijara district, North Eastern province.

### **SPECIFIC OBJECTIVES:**

To determine the knowledge of HIV positive post-natal mothers on breastfeeding

To explore the attitude of HIV positive post-natal mothers on breastfeeding

To identify factors that facilitates or impedes HIV positive post-natal mothers' practice of breastfeeding

## **RESEARCH VARIABLES:**

### **DEPENDENT VARIABLE:**

Breastfeeding among HIV positive post-natal mothers

### **INDEPENDENT VARIABLE:**

Knowledge, attitude and practice of breastfeeding

### **CONFOUNDING VARIABLES:**

Family's level of income

Mother's level of education

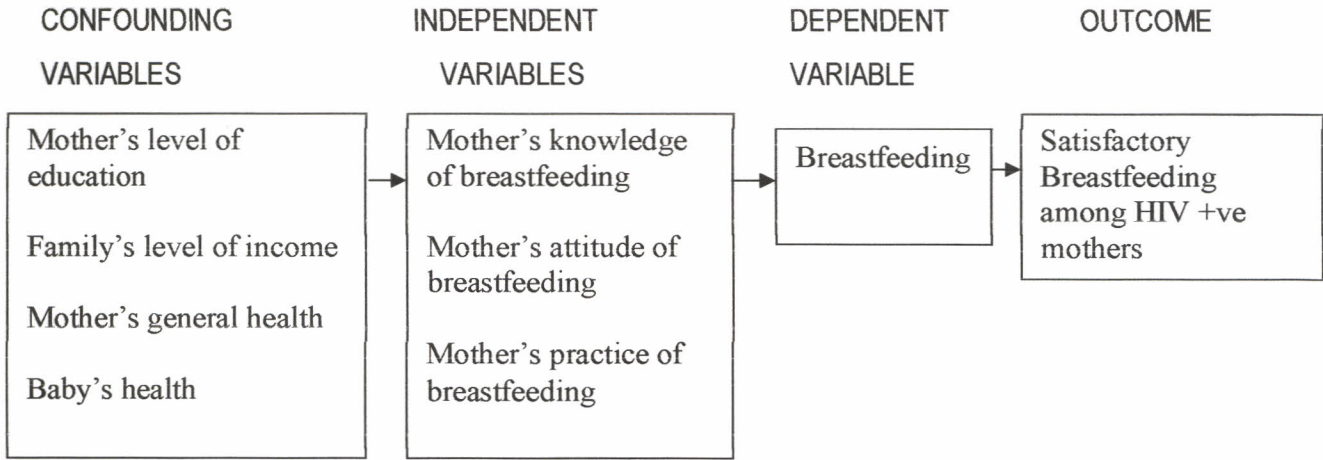
## **STUDY QUESTIONS:**

Do the post-natal HIV positive mothers have the relevant knowledge on breastfeeding?

What is the attitude of post-natal HIV positive mothers towards breastfeeding?

What is the practice of HIV positive post-natal mothers on breastfeeding?

## CONCEPTUAL FRAMEWORK



# CHAPTER TWO

## LITERATURE REVIEW:

### KNOWLEDGE OF BREASTFEEDING:

Breastfeeding is the ideal food for growth and development of infants and it provides substantial benefits to both children and mothers. It significantly improves child survival by protecting against diarrheal diseases pneumonia and other potentially fatal infections, at the same time enhancing quality of life through its nutritional and psychosocial benefits. In contrast, artificial feeding increases risks to child health and contributes to mental health in various ways including prolonging the interval between births and helping to protect against ovarian and breast cancers (Riordan et al., 1999). According to UNICEF, every year one million infants die and millions of others are impaired because they inadequately breastfed (Datta p 2009).

Mother to child HIV transmission, also called prenatal transmission, is the transmission of HIV from a HIV positive woman to her baby during pregnancy, in the birth process or by breastfeeding.

Ever since the human immunodeficiency virus was first identified in breast milk and the post-partum transmission of the virus was reported, Policy makers have responded to the HIV epidemic and in particular the child HIV problem caused by mother to child transmission by issuing recommendations and policy guidelines.

In the year 2000, UNICEF/WHO/UNAIDS recommendations included avoidance of all breastfeeding by HIV positive mothers when replacement feeding was feasible, acceptable, affordable sustainable and safe.

Most of the thirty-three million people living with HIV are in the developing world. HIV infection in pregnancy has become the most common complication of pregnancy in some countries. More than 70% of all HIV infection is as a result of hetero-sexual transmission and over 90% infection in children result from mother to child transmission.

Almost 600,000 children are infected by HIV annually, over 1,600 each day. Transmission from mother to child is affected by various factors, not all of which have been fully elucidated. These can be divided into viral, maternal, obstetrical, foetal and infant factors. (Krishnu, u et al., 2001)

In 2003, an estimated 630,000 children became infected with HIV, the vast majority of them during their mother's pregnancy, labor and delivery, or as a result of breastfeeding (UNAIDS 2004).

Despite important clinical interventions aimed at reducing mother-to-child transmission, including giving women information and the choice of whether or not to breastfeed, or for how long, it has not been considered a priority to elicit or document women's knowledge or experiences of these interventions (Gill S, et al., 2000)

In Africa, where children under the age of five are killed by preventable diseases like diarrhea, the issue of HIV transmission through breastfeeding poses an added huge problem. Research has however shown that exclusive



infant feeding, be it breast or formula, reduces the risk substantially. It is imperative that mothers be informed about safer of infant feeding so that infection is kept to a minimum (Casing F, et al., 2000)

For mothers in Sub-Saharan Africa, an appropriate choice of infant feeding is fundamental to optimizing infant survival and minimizing infant morbidity. Promotion of exclusive breastfeeding has the potential to prevent 8% of child mortality or save 37 million disability adjusted life years (Fadnes et al., 2009).

The basic principle of 'informed choice' promoted through the international guidelines on HIV and infant feeding requires that an HIV positive mother be provided with adequate information about the recommended feeding options to make her choice (WHO 2003). Hence, in recommending an infant feeding method to HIV positive women, the risks implied in breastfeeding must be carefully balanced with the competing risks of not breastfeeding (Kuhn, et al., 2004)

In a south-African study, infants who were exclusively breastfed were significantly less likely to become infected in the first three months than those who also received supplemental foods and liquids, but had a risk similar to that among infants who received only infant formula. (Coutsoudis, A et al., 1999). A 2<sup>nd</sup> study conducted in Malawi, found that the risk of HIV transmission fell from 0.7% per month among infants aged 1-5 months to 0.3% among those aged 12-17 months. Moreover, mothers aged 25 or older and those with four or more births were less likely to transmit the virus through breastfeeding than were other women (Coutsoudis A et al., 1999). Rates of HIV transmission through breast milk are variable calculated in studies in Africa as between 12-43% (McIntyre, 1997) According to a study conducted in Uganda, in many respects, HIV positive mothers fed their infants less favorably than mothers in the general population, with detrimental effects on both the child's nutrition and the risk of HIV transmission. Mixed feeding and pre-lacteal feeding were widespread. Breastfeeding duration was shorter among HIV positive mothers. Higher education level and being socio-economically better off were associated with more beneficial infant feeding practices (Fadnes et al., 2009)

Mother to child transmission rates for HIV are estimated at 25-45% in the primarily breastfed population of Sub-Saharan Africa. In Kenya, an estimated 300,000 newborn babies are at risk of HIV infection every year, with between 75,000 and 135,000 infants actually infected (Oguta T, et al., 2004)

#### **ATTITUDE OF BREASTFEEDING:**

A study conducted in Kilimanjaro, Tanzania suggests that HIV-related stigma and fear of rejection is a major condition when HIV positive mothers decide how to feed their infants. Women often end up breastfeeding despite their knowledge of the risk of HIV transmission through breast milk. The cost of not breastfeeding including being ashamed and rejected by close kin and neighbors seems to be an even greater burden to carry. Their

recommendations were that the choice and implementation of infant feeding choice for HIV positive mothers will to a large extent depend on how social cultural perspectives of options suggested are taken into consideration. The risk of being deprived of social life should be considered as well as the risk of HIV transmission in the medical sense (Leshaban, S 2004).

### **PRACTICE OF BREASTFEEDING:**

Lactation and breastfeeding exist within constraints of each culture in which the physical function and behaviour are practiced. Just as the breastfeeding course flows and ebbs in a mother's life, so it has experienced flows and ebbs in different cultures through the years. Though clearly playing a beneficial role in women's and infant's health, breastfeeding as a human behaviour reflects its importance in society over time by how, when, where and for how long it is practiced. The theoretical constructs that allow us to examine the family-identifying its members, their unique roles, their relationships and how each contributes to a sum greater than its parts –also enables us to identify issues specific to the breastfeeding family, regardless of race, parental age or socio-economic status (Riordan et al., 1999)

Mother to child HIV transmission is responsible for about 90% of pediatric HIV infection in Nigeria (odebiyi, A 2004).

According to a study done in Zimbabwe, it was noted that early mixed feeding was associated with a four-fold increased risk of post-natal HIV-1 transmission at 6 months compared to exclusive breastfeeding. Exclusive breastfeeding, moreover, has protective properties and prevents common infections in babies (Piwoz, et al., 2005)

In the context of the HIV/AIDS pandemic, breastfeeding is both a protector and a hazard for infant health in low-resource settings. An unanticipated finding from a trial in Nairobi, Kenya added the maternal dimension to this predicament. This study observed a 3-fold increased risk of mortality among HIV positive women randomized to breastfeed-compared to formula-feeding (Kuhn et al., 2005)

According to a study done in Kenya, at 24 months, 20% of formula-fed babies become infected with HIV, compared to 36% of breastfed babies (Denison,2001) Without intervention to prevent mother to child transmission,30-45% of infants in developing countries become infected during pregnancy, delivery and breastfeeding (Decock,B et al.,2002). In the absence of any intervention, a third to a half of mother to child transmission occurs through breastfeeding (WHO 2004).

# CHAPTER THREE:

## MATERIALS AND METHODS

### DESIGN:-

A cross-sectional descriptive study will be conducted seeking to assess the knowledge, attitude and practice of breastfeeding among HIV positive mothers.

### STUDY AREA:-

The study area is the North Eastern province of Kenya. Spanning the length of the Somali border, North Eastern Province is home to approximately 1 million people, the majority of whom are ethnic Somalis entrenched in nomadic and semi-nomadic lifestyles. In this remote region, just 42% of people has any access to health care services and fertility rates approach 9 children per woman. (APHIA, ) Ijara is one of the eleven districts that form North Eastern Province and was carved out of Garissa District in 2000. The district borders Fafi District to the North, Lamu District to the South, Tana Delta District to the South West, Tana River to the West and the Republic of Somalia to the East. The district lies approximately between latitude 1° 7'S and 2° 3'S and longitude 40° 4'E and 41° 32'E. The district covers an area of 10,000 km<sup>2</sup> and is subdivided into seven administrative divisions namely Masalani, Ijara, Sangailu, Hulugho, Kotile, Ruqa and Bodhai; nineteen locations and twenty seven sublocations

### STUDY POPULATION:-

The study population will include all HIV positive women of reproductive age (15-49 years) and who are post-natal or have recently given birth

### INCLUSION CRITERIA:-

All HIV positive mothers residing in Ijara, North Eastern province who are post-natal or have recently given birth

Respondents who have informed consent

Respondents must be between 15-49 years of age

**EXCLUSION CRITERIA:-**

Visitors to the study area who are HIV positive and post-natal or have recently given birth.

Respondents below the age of 15 years or above 49 years of age.

Respondents who don't have informed consent.

Respondents who have consented but want immediate gain, whether financial or material

## SAMPLE SIZE

Population projections for women aged 19-45 years in Ijara district is 19,209. (District strategic plan 2005-2010)

The 2007 Kenya AIDS Indicator Survey (KAIS) showed an estimated HIV prevalence of 8.8% among women age 15-49 years. (Kenya Demographic and Health Survey 2008).

Therefore, population estimated to be HIV positive women of reproductive age in Ijara district:

8.8% of 19209

=1,690 women

In Kenya, the prevalence of HIV among women aged 15-49 years is 8.8% according to Kenya Demographic and Health Survey; 2008. 8.8% will be used to determine the sample size using Fischer's formula:

$$n = Z^2 Pq / d^2$$

n = desired sample size if the target population is more than 10000

z = standard normal deviate at the required confidence level

P = Proportion in the target population estimated to have characteristics being measured which in this case is 8.8%

q = 1 - p

d = level of statistical significance set

Therefore;

$$n = 1.96(8.8)(1-0.08)/0.05$$

$$n = 172.48$$

= 172 participants

Since the population is less than 10,000, Fischer's formula written below will be used to calculate the sample size;

$$n_f = n \frac{N}{1 + (n/N)} \quad (\text{Mugenda A. and Mugenda O. 1994 pg 44})$$

$$1 + (n/N)$$

Where:  $n_f$  = desired sample (when target population is < 10,000)

n = desired sample size (when target population is > 10,000)

N = estimated population

Therefore:

$$\begin{aligned}
 n &= \frac{172}{1 + (172/1690)} \\
 &= \frac{172}{1 + 0.1} \\
 N &= 156.4
 \end{aligned}$$

Therefore, the sample size will be 156 participants

### **SAMPLING FRAME AND PROCEDURE:**

The sampling procedure will be based on systematic sampling.

The sampling frame (estimated population) is 1,690 HIV positive women of reproductive age.

The pre-determined sample size is 156 participants.

Every nth participant qualifying for the study will be determined as follows:

Sampling frame (target population)

Sample size

1,690

156

=10.83

Nth value approximated =11

Since the Nth value of 11 participants is too large, snowballing will also be used as a sampling procedure, whereby HIV positive post-natal mothers included in the study will also invite others with similar characteristics.

### **RESEARCH INSTRUMENTS:**

#### **ENUMERATORS (CRITERIA FOR SELECTION AND TRAINING)**

Five Bsc.Nursing students will be trained as research assistants. They will be trained on how to answer the questionnaire, how to establish enumerator-participant's relationship. They will also be trained on ethical considerations. At the time of data collection, the chiefs of the locations will be informed and the principal researcher will introduce himself to them and the purpose of the study and then the research assistants will also introduce themselves. After introduction, the chiefs will inform the health centers who will then act as the first contact with the community.

### **PRE-TESTING:**

Data collection instruments will be pre-tested in Mandera district first to validate and verify clarity of questions and improve reliability of the study tool. Mandera district is selected because it is similar to Ijara in terms of socio-economic and environmental factors. The already semi-structured and pre-tested questionnaire will be used to collect data through self-administration with assistance from research assistants to those unable to complete the questionnaire on their own.

### **DATA COLLECTION METHODS:**

#### **STUDY ASSUMPTIONS:**

Respondents will give accurate information

Respondents will be willing to participate in the study

Participants selected will not feel intimidated due to their HIV status

#### **STUDY LIMITATIONS:**

The study uses sampling procedure and this makes it difficult to include every mother who is HIV positive in the study. To ensure a representative sample, participants will be recruited from all parts of the district and emphasis made to get participants of all socio-economic status

Respondents may not be willing to disclose information. To ensure they give genuine information, the reason of the study will be discussed with participants and assured that confidentiality will be maintained

#### **DATA MANAGEMENT, ENTRY AND ANALYSIS:**

Data collected will be entered into the computer immediately to prevent distortion and enhance objectivity.

Completeness and consistency will be checked for all questionnaires before data analysis is commenced and any incomplete or inconsistent questionnaire will be discarded. (data cleaning). Analysis will be done using application of computer software S.P.S.S version no.17 where descriptive statistics will be used to summarize descriptive data while differences in proportions will be calculated using confidence interval and summary chi-square statistic while correlation data will be summarized using linear regressions.

P-values of  $>0.05$  will be considered statistically significant. Confounding factors will be analyzed using stratified analysis to ensure they don't affect the results of the factors under study.

**DATA PRESENTATION:**

Data obtained after processing and analysis will be presented in form of pie charts, graphs and tables for easy understanding of the relationship between knowledge and attitude of breastfeeding and practice of the same among HIV positive mothers.

**ETHICAL CONSIDERATIONS:**

Collection of data from participants requires that ethical aspects are observed to protect the rights of participants and to ensure information given in questionnaires remains confidential.

In this case questionnaire serial number will be used instead of name of respondent. Consent from respondent will be sought first before the answering of the questionnaire and those who will agree will participate in answering the questionnaire when purpose of the study has been explained.

Letters from relevant authorities will be obtained to give permission for the study to be carried out. The completed proposal will be submitted to the research and ethics committee for approval and sharing of the results of the study will be made first before they are published. Sponsoring team will be disclosed to participants to avoid fears of competing interests. There is no personal interest of the researcher in the study.



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# GHANT CHART

MONTHS	DEC 2009	JAN 2010	FEB 2010	MAR 2010	APR 2010	MAY 2010	JUNE 2010	JUL 2010	AUG 2010
ACTIVITY									
Proposal development	█	█	█						
Ethical clearance				█					
Training research assistants					█				
Pretesting study tool						█			
Actual study							█		
Data processing								█	
Data analysis									█

# BUDGET

ITEM	QUANTITY	UNIT COST KSHS.	TOTAL COST KSHS
<b>SERVICES.</b>			
Internet services			2500
Proposal writing and printing.	48Pgs*1copy	@3	144
Proposal binding.	3 Copies	@100	300
Questionnaire photocopying.	5Pgs*350copies	@3	5250
Report photocopying.	10Pgs*4Copies	@3	120
Proposal photocopying	48Pgs*3Copies	@3	432
Computer project hire.	1 day	@5000	5000
<b>PERSONNEL TRAINING.</b>			
Enumerators.	8*5days	@300	12000
Principal investigator.	1*5days	1000	5000
Supervisor.	1*1day	@1000	1000
<b>FOOD/ ACCOMMODATION ALLOWANCES.</b>			
Enumerators.	8*15days	@700	84000
Principal Investigator.	1*15days	@1000	15000
Supervisor.	1*5days	@1000	5000
<b>TRANSPORT AND SUBSISTENCE.</b>			
Enumerators.	8*15days	@200	24000

Principle investigator.	1*15days	@500	7500
Supervisor.	1*5days	@500	2500
<b>STATIONERY.</b>			
Foolscaps	1 Ream	@400	400
Ball pens	15 Pieces	@20	300
Pencils	15pieces	@20	300
Sharpener	10 Pieces	@20	200
Rubber	10 Pieces	@20	200
Stapler	4 Pieces	@200	800
Stapler pins	2 Packets	@100	200
Folders	9 Pieces	@100	900
E drive (USB) 2Gb	1 Piece	@1000	1000
TOTAL	-	-	169,142.00
Miscellaneous	10%*total	10*169142/100	16,914.20
<b>GRAND TOTAL.</b>			186,056.20

1 KSH=US \$ 80

# LETTERS SEEKING APPROVAL:

NGUGI RACHEAL NJERI  
UNIVERSITY OF NAIROBI  
SCHOOL OF NURSING SCIENCES  
PO BOX 19676-00200  
NAIROBI, KENYA

TO:  
THE PERMANENT SECRETARY  
MINISTRY OF HIGHER EDUCATION  
JOGOO HOUSE B,  
P.O. BOX  
NAIROBI

Dear Sir/madam,

RE: PERMISSION TO CARRY OUT A STUDY IN IJARA DISTRICT, NORTH EASTERN PROVINCE

I am a fourth year nursing student in the University of Nairobi. I humbly request for your approval to conduct a research on the Knowledge, attitude and practice of HIV positive post-natal mothers on breastfeeding. The research will be harmless to the participants and the research findings will form the basis for government and non-governmental organizations to establish guidelines for breastfeeding among HIV positive patients in North-Eastern Province. Your due approval is highly appreciated.

Yours Faithfully,

Ngugi Racheal Njeri

Sign:

NGUGI RACHEAL NJERI  
UNIVERSITY OF NAIROBI  
SCHOOL OF NURSING SCIENCES  
PO BOX 19676-00200  
NAIROBI, KENYA

TO:  
THE MEDICAL OFFICER OF HEALTH,  
P.O. BOX  
NAIROBI.

RE: PERMISSION TO CARRY OUT STUDY.

I am a fourth year student from the University of Nairobi. I wish to carry out a study in North Eastern Province on the Knowledge, attitude and practice of HIV positive post-natal mothers on breastfeeding.

The study has been approved by the University of Nairobi. It is being carried out purely for academic purposes and the results will be discussed with the community before they are published.

The research findings will form the basis for government and non-governmental organizations to establish guidelines for breastfeeding among HIV positive patients in North Eastern Province. Your due approval is highly appreciated.

Yours faithfully,  
Ngugi, Racheal Njeri  
Sign:.....

NGUGI RACHEAL NJERI  
UNIVERSITY OF NAIROBI  
SCHOOL OF NURSING SCIENCES  
PO BOX 19676-00200  
NAIROBI, KENYA

TO:

THE PROVINCIAL COMMISSIONER,  
NORTH EASTERN PROVINCE,  
PO BOX  
MANDERA,

**RE: PERMISSION TO CARRY OUT STUDY IN YOUR PROVINCE**

I am a fourth year student from the University of Nairobi. I wish to carry out a study in your province on the knowledge, attitude and practice of breastfeeding among HIV positive women.

The study has been approved by Nairobi University and the ministry of Science and Technology. It is being carried out purely for academic purposes and the results of the study will be discussed with the community before they are published

Your assistance will be highly appreciated. Thanks in advance

Yours faithfully;

Ngugi, Racheal Njeri

Sign:



NGUGI RACHEAL NJERI  
UNIVERSITY OF NAIROBI  
SCHOOL OF NURSING SCIENCES  
PO BOX 19676-00200  
NAIROBI, KENYA

TO:  
THE DISTRICT COMMISSIONER,  
NORTH EASTERN PROVINCE,  
P.O. BOX  
IJARA

Dear Sir/Madam,

RE: PERMISSION TO CARRY OUT A STUDY IN YOUR DISTRICT

I am a fourth year student in the University Of Nairobi undertaking a bachelor's degree in Nursing Sciences. I would like to carry out a study on the Knowledge, attitude and practice of HIV positive post-natal mothers on breastfeeding.

I hereby request the district commissioner via your office to grant me permission to carry out the research and assist me where necessary during the process. I herein attach authority letters to conduct this research from the Ministry of Higher Education and from the Provincial Commissioner. Your assistance will be greatly appreciated,

Thanks in advance.

Yours Faithfully,

Ngugi Racheal Njeri

Sign.....

# RESPONDENTS CONSENT FORM:

## KNOWLEDGE, ATTITUDE AND PRACTICE OF BREASTFEEDING AMONG HIV POSITIVE POST-NATAL MOTHERS LIVING IN IJARA, NORTH EASTERN PROVINCE.

I am a fourth year student from University of Nairobi and wish to take a few minutes of your time to ask you some questions on matters related to knowledge ,attitude and practice of breastfeeding among HIV positive post-natal mothers.

This study has been approved by the Research and ethics committee and the Ministry of Science and Technology.

It is purely for academic purposes but the results of the study will be shared with the community

I kindly request you to give information as truthfully as possible. In case of any problem, you are free to ask questions for clarification. The information you give will be treated with utmost confidentiality.

I hereby willingly participate in providing information as indicated.

It has been explained to me in terms of research content, likely benefits and risks likely to occur and being aware of all this, I accept and am willing to participate.

RESPONDENT'S SIGN:

DATE:

INTERVIEWER'S SIGN:

DATE:

# QUESTIONNAIRE:

## DEMOGRAPHIC DATA:

Age in years [ ]

Marital status:

Single [ ]

Married [ ]

Separated [ ]

Divorced [ ]

Widow [ ]

Others (please specify).....

What is your religion?

Muslim [ ]

Hindu [ ]

Christian [ ]

Others (specify).....

How many children do you have?.....

Educational Level

Primary level [ ]

Secondary level [ ]

Graduate level [ ]

Others (specify).....

## QUESTIONS ON KNOWLEDGE OF BREASTFEEDING

Have you heard of PMTCT programs?

Yes [ ]

No [ ]

If yes, whom did you hear it from?

Nurse/health worker [ ]

Colleague/friend [ ]

Media (e.g. newspaper, radio, television) [ ]

Others (please specify).....

Have you been educated on infant feeding methods recommended for HIV positive mothers?

Yes [ ]

No [ ]

If yes, who taught you about the various infant feeding methods available for HIV positive mothers?

Nurse/health worker at local clinic [ ]

Community health workers (CHEWs) [ ]

Friend/colleague [ ]

Others (please specify) [ ]

If No, what infant feeding method have you chosen for your newborn?

.....

Please give a reason for the above

.....

.....

QUESTIONS ON ATTITUDE OF BREASTFEEDING

In your own opinion, do you think breastfeeding is an appropriate feeding method for HIV positive mothers?

Yes [ ]

No [ ]

Please give a reason for your response in the above question

.....

.....

Would you recommend to a friend to practice breastfeeding as an infant feeding method when they are HIV positive?

Yes [ ]

No [ ]

If No, please give a reason for the above

.....

.....

Does your culture influence your choice of whether or not to breastfeed?

Yes [ ]

No [ ]

If yes, please explain how it does this

.....  
.....

QUESTIONS ON PRACTICE OF BREASTFEEDING

Are you breastfeeding your newborn?

Yes [ ]

No [ ]

When did you initiate breastfeeding for your newborn?

Immediately after birth [ ]

After some days [ ]

Not at all [ ]

Others (specify) [ ]

Please give a reason for your response in the above question

.....  
.....

For how long do you plan to breastfeed your newborn?

The 1<sup>st</sup> four months [ ]

The 1<sup>st</sup> six months [ ]

The 1<sup>st</sup> one year after birth [ ]

Please give a reason for your response in the above question

.....

In your own opinion, do you think it is advisable for a breastfeeding mother to supplement breast milk with other foods before the age of 6 months?

Yes [ ]

No [ ]

Please give a reason for your response in the above question

.....