

**DETERMINANTS OF UNMET NEED FOR CONTRACEPTION
AMONG HIV POSITIVE WOMEN IN KENYA**

BY

**HELLEN ATIENO OBUL
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DECLARATION

This research project is my own original work and has not been presented to any university for an award of a degree.

Signature.....Date

Hellen Obul

This research project is submitted with our approval as University Supervisors.

Signature Date

Dr. Samwel Wakibi

Population Studies and Research Institute
University of Nairobi

Signature..... Date

Dr. George Odipo

Population Studies and Research Institute
University of Nairobi

DEDICATION

I dedicate this work to my husband (Zedekia Sidha), son (Jason Sulwe), father (Peter Obul) and mother (Patricia Obul), who have provided me with overwhelming support to see me pursue education to the highest level I could.

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Lastly, I give thanks and Glory to God for giving me the strength and wisdom to complete this work.

ABSTRACT

Kenya, with a high HIV prevalence rate for women (6.9%), stands a high risk for Mother-to-child transmission (MTCT) of HIV. Efforts to prevent MTCT can focus on reducing the fertility level of HIV-positive women. The total fertility rate remains high at 4.62 births per woman (KDHS, 2009). The unmet need for family planning is defined as the proportion of married women or those living in consensual unions of reproductive age, presumed to be sexually active, but are not using any method of contraception. These women would either like to postpone the next pregnancy (unmet need for spacing), or do not want any more children (unmet need for limiting), (Westoff 1988).

The study examines the levels of unmet need for contraception among HIV positive women in Kenya as well as the determinants of unmet need for contraception among these women of ages 15-49 years. The study uses data from the 2008/09 Kenya Demographic and Health Survey (KDHS). The data were filtered to yield 318 women of age 15-49 years old who tested HIV positive at that time of the survey. The study established that 18% of the HIV positive women interviewed had experienced some level of unmet need for contraception.

The findings of this study established that Women's age is very significant in determining unmet need for contraception (OR=3.313, $p<0.043$). The odds of having an unmet need for contraception increase as the number of living children increases (OR=4.452, $p<0.003$). Women with primary and no education are more likely to have had a higher unmet need for family planning than women with secondary or higher education, (OR=1.577, $p<0.035$). Married women were more likely to have unmet need for contraception (OR=1.000, $p<0.000$) compared to women who were not married at that time of the survey. Maternal level of education and marital status were among the strong determinants of unmet need for contraception, among WLHIV, therefore there is need to improve these women's knowledge and access to modern methods of contraception. Male involvement in PMTCT and Family planning programs is one of the strategies that can be used to enhance men's participation in family planning and other reproductive health services. (Gallen et al., 1986)

ACRONYMS

PMTC-Prevention of Mother to Child Transmission

WLHIV- Women Living with HIV

WHO –World Health Organization

DHS –Demographic Health Survey

KAIS- Kenya AIDS Indicator Survey

TFR- Total Fertility Rate

CPR- Contraceptive Prevalence Rate

SPSS – Statistical Package for the Social Sciences

USD-United States Dollars

HIV/AIDS- Human Immunodeficiency Virus /Acquired Immunodeficiency Syndrome

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CHAPTER ONE

INTRODUCTION

1.0 Background

As one of the first countries in Africa to develop a Population Policy and establish a Family Planning Program as the main policy strategy to reduce the population growth rate, Kenya has been well placed to initiate a fertility transition through government-led actions (Koome et al., 2005; Ian et al., 2009). In the 1980s and 1990s, Kenya achieved a rapid fertility decline, because of the official commitment of the government, substantial funding and technical support from a range of bilateral and multilateral development partners.

Family planning has numerous health benefits for women, their sexual partners, and their children. Family planning helps to: Prevent unintended pregnancies and the number of unsafely performed abortions, thereby reducing maternal deaths and disabilities. Prevent high-risk pregnancies among adolescents under age 18, women over age 35 and Women with health conditions including HIV/AIDS. Other benefits include spacing of births, resulting in lower rates of new born, infant, and child mortality as well as more time to breastfeed, an improving infant health. (Susheela Singh et al).

Unmet need for family planning is defined as the percentage of women who do not want to become pregnant but are not using contraception. An analysis of the contribution of family planning to the MDGs by Moreland and Talbird (2006) showed that satisfying unmet family planning needs in Kenya could avert 14,040 maternal deaths and 434,306 child deaths by the MDG target date of 2015 (Republic of Kenya, 2007b).

Kenya has one of the highest national HIV prevalence rates (5.6%) in the world. The 2012 Kenya AIDS Indicator Survey (KAIS) showed a reversal of the declining trend, with an estimated HIV prevalence of 5.6 percent among adults age 15-64 years. These results indicate proportionately more women (6.9 percent) than men (4.4 percent) age 15-64 are infected. An estimated 1.6 million adults of age 15-64 are infected with

HIV/AIDS, with about 1 million rural and 600,000 urban residents infected (NASCO, 2012).

The 2007 Kenya AIDS Indicator Survey (KAIS) reported that of women self-reporting a positive HIV test, 76.3% did not want a child ever in the future and 10.5% did not want a child in the next two years. Analysis of these two groups of women showed that only 52.0% were using modern contraception.

With a Total Fertility Rate (TFR) of 4.6 births per woman, Mother-to-Child Transmission (MTCT) of HIV is a major concern in Kenya (KDHS, 2009). It is estimated that the current under-five mortality rate in Kenya is 74 deaths per 1,000 live births, if there was no AIDS (Population Reference Bureau, 2006). HIV testing of pregnant women and the distribution of antiretroviral drugs during delivery and following birth are two primary approaches currently used to prevent MTCT (PMTCT). Efforts to decrease the level of MTCT can also focus on reducing fertility among HIV positive women.

In Kenya, where the HIV prevalence rate for women is 6.9%, there is a high risk for Mother-to-child transmission (MTCT) of HIV. Efforts to prevent MTCT can focus on reducing the fertility level of HIV-positive women. This Research project examined the level of unmet need for contraception among HIV-positive women age 15-49 years and the factors associated with the unmet need. Efforts to reduce the level of MTCT require improved access to family planning services for all women, especially the poor, and an increase in HIV testing and counselling.

1.1 Statement of the Problem

The Kenyan government has put in place various strategies and policies to facilitate the use of Family Planning services as a step towards reducing the fertility rates, increasing CPR and reducing the unmet family planning needs (Republic of Kenya 2007b; Ian et al., and the Republic of Kenya 2008). Despite these policy measures TFR still remains high at 4.6 percent , while CPR for all methods is 46 percent.

An analysis of the contribution of family planning to the MDGs by Moreland and Talbird (2006) showed that satisfying unmet family planning needs in Kenya could avert 14,040 maternal deaths and 434,306 child deaths by the MDG target date of 2015 (Republic of Kenya, 2007b). In USAID/HPI (2007), it was noted that the cost savings in providing services to meet MDGs outweigh the additional costs of family planning by a factor of almost 4 to 1. Specifically, the social sector cost savings and family planning costs in Kenya for 2005-2015 are estimated at \$271 millions, with maternal health taking \$75 million, while water and sanitation, immunization and education each taking \$36 million, \$37 million and \$115 million, respectively. This compares with the total cost of family planning estimated at \$71million, which implies that total savings will be \$200 million (Moreland and Talbird, 2006; USAID/HPI, 2007).

Unmet need has a direct impact on total fertility rates. It is believed that if unmet need were eliminated, fertility would decline substantially (Omrana, 2001). Henceforth, unmet need provides a powerful rationale for funding and organizing effective family planning programs. Sinding et al. (1994) argued that family planning programs should attempt to meet unmet need rather than pursue government targets reflecting demographic considerations.

According to the World Bank report in 2009 , the Unmet need for contraception (% of married women ages 15-49) in Kenya was 25.60 while the Contraceptive prevalence (% of women ages 15-49) in Kenya was 45.50 , (Republic of Kenya 2007a; Republic of Kenya 2009; Ian et al., 2009). Most interventions of PMTCT of HIV have focussed prevention of secondary transmission by means of peripartium ART. However a strategy

focussing on contraceptive rather than a single dose ART could avert 28.5% at the same level of expenditure.

The prevention of unintended pregnancies has important consequences for women and their families. It serves to lengthen birth intervals and reduce infant and maternal morbidity and mortality. Therefore family planning for WLHIV plays a role in reducing the number of HIV infected infants, the number of orphans, and familiar consequences of maternal illness, death or both. Preventing unintended pregnancy among HIV positive constitute a critical role in reduction of fertility among women in Kenya, it is also a cost effective approach to primary PMTCT.

Several social cultural, economic and demographic factors have been known to influence the uptake of contraception among women. Although previous studies have focussed on determinants of contraceptive use among HIV positive women. In African countries few studies have examined the unmet need for family planning among the special group of women who are HIV infected.

If an HIV-positive woman does not want to have a child in the future or if she wants to space her births, unmet need for contraception may still put her at risk of pregnancy. While in some studies knowledge of HIV status among infected women resulted in an increase in contraceptive use, other studies found a lack of persistent use of contraception beyond one year or no significant difference compared with HIV-negative women (Allen et al., 1992; Allen et al., 1993; Kamenga et al., 1991; Nebie et al., 2001; Rutenberg and Baek, 2005). In Uganda, a study found that 73% of women exhibiting behavior that put them at risk of pregnancy did not want any more children (Nakayiwa et al., 2006). In Lesotho, only 35% of currently married women use a modern contraceptive method, despite increases in contraceptive use in the late 1990s (MOHSW et al., 2005; Tuoane et al., 2004).

The purpose of this study therefore is to fill the gap in knowledge by examining the characteristics of and factors associated with unmet need for contraception among HIV

positive women that can inform effective interventions in meeting the contraceptive needs of HIV positive women in Kenya.

1.2 Research Questions

- (i) What is the level of unmet need for contraception among HIV positive women in Kenya.
- (ii) What factors influence the unmet need for contraception among HIV positive women in Kenya.

1.3 Study Objective

1.3.1

This study seeks to identify factors contributing to the unmet need for contraception among HIV positive women in Kenya.

1.3.2

To identify factors that influence the unmet need for contraception among HIV positive women in Kenya.

1.4 Justification of the Study

The family planning goal as stipulated in Kenya National Reproductive Health Strategy aspires to make available quality and just family planning services to all who need them in order to reduce the unmet needs of family planning. Two converging trends however place the country on the brink of a reproductive health care disaster. First a youthful population placing tremendous demand on the health care system and the HIV epidemic which is the major attributable cause of death for both children and adults (Reproductive Health Communication strategy 2010-2012). This emphasizes the public health significance of providing effective family planning services to PLHIV. The country also strives to achieve the Millennium Development Goals (MDGs) target of achieving the health related goals in particular that of MDG 4 (Reduce child mortality) and MDG 5 (Improve maternal health by 2015). It is vital that the advances made in policy development and adoption should of necessity translate into implementation to halt the declining trends.

From a reproductive health and rights-based perspective, all women should have access to methods that allow them to avoid unintended pregnancies. HIV-positive women have particular needs for contraception to avoid unwanted pregnancy, to protect their own health, and to eliminate the risk of transmitting HIV to an infant. In 2004, the UN described a four-element strategy that corresponds to four opportunities to prevent mother-to-child transmission (PMTCT); the prevention of unintended pregnancies among HIV-positive women constitute one of the four elements. While all four elements are essential to meeting UN General Assembly Special Session (NGASS) goals, comparatively little programmatic or policy-related attention has been paid to issues around the prevention of unintended pregnancies among HIV-positive women, an intervention that requires close collaboration between practitioners and advocates in the fields of both reproductive health/family planning and HIV.

Thus this study is timely for Kenya because it has added to existing knowledge about factors influencing the unmet need of contraception among Women Living with HIV/AIDS (WLHIV). It has also generated information that will help in the formulation

of evidence based decisions by program implemented to strengthen the uptake of family planning services among WLHIV.

Documenting factors influencing the unmet need for contraception among WLHIV is not only essential so as to effectively meet their family planning needs, but also to ensure a proper continuum of care, contribute to the better maternal health outcomes to prevent new infections in infants born to HIV positive mothers and safeguard their reproductive rights. (Egessa R, 2010).

1.5 Scope and Limitation of the study

The study focused on Women Living with HIV (WLHIV) targeting adult women aged between 15 to 49 years, since this is the conventional reproductive period. More importantly women in this age group are the most severely affected manifesting highest HIV prevalence, four times their male counterparts (KAIS 2007). Data for this study was obtained from the 2008/9 Kenya Demographic and Health Survey (KDHS). The study sought to find out how many HIV positive women were not using contraception at the time of the survey and the social demographic and cultural factors influencing their non-use. The major limitation of this study is that it did not address men and factors influencing their unmet need for contraception in the context of being HIV positive,

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents previous studies on unmet need for contraception. Literature on demographic factors, socioeconomic and sociocultural factors of unmet need were examined. This literature review was guided by the objectives of the study and focused mainly on the maternal age, number of living children, region of residence, wealth quintile, maternal level of education, and marital status.

2.1 Theoretical Perspectives

Bongaarts and Potter (1983) in a study of fertility and behaviour examined the criticism of Ross and Heaton (1997) about the access to contraception. They reveal that access to contraception is not a reason for unmet need any more, and for most women with an unmet need, access is not as important as what survey data indicate. Unmet need will remain a problem unless programs improve the quality of information given to clients and consider social factors underlying contraceptive nonuse.

Bahrani (1998) in a study of unwanted fertility in Shiraz city in the south of Iran states that using unreliable methods has been the most important reason in unwanted fertility. Based on this study a high proportion of unmet need in the city of Shiraz is due to failure of contraceptives. The reason for not using contraception has been the fear of side effects and disapproval of the husband.

Unmet need for family planning has been receiving much attention worldwide during the last four decades and many studies and inquiries have been done on it. These studies can be categorized in three groups: Studies which define and measure unmet need for family planning. Studies which identify causes and determinants of unmet need. Studies which find out individual, social and economic consequences of unmet need.

The level of unmet need for Africa is the highest of all. Among African countries, Sub-Saharan Africa has the highest level of unmet need, in a way that in some countries one

married woman in every three has an unmet need. In most of these countries the proportion of unmet need is even more than a contraceptive prevalence (Ashford, 2003, online, Govinda et al. 2000). According to the World Bank report in 2009 , the Unmet need for contraception (% of married women ages 15-49) in Kenya was 25.60 while the Contraceptive prevalence (% of women ages 15-49) in Kenya was 45.50, (Republic of Kenya 2007a; Republic of Kenya 2009; Ian et al., 2009).

Communication between spouses about the fertility and family planning decision making has been one of the controversial discussions in this area of research. Lack of communication between wives and husbands creates barriers contraception use (Casterlin and Sinding 2000). These barriers come into existence because either wives frequently misperceive their husband's attitudes or husbands are more strongly opposed to contraception than their wives (Biddlecom, 1997).

The World Health Organization/United Nations Population Fund Global Call to Action emphasizes family planning as one of four critical elements of a comprehensive prevention of mother-to-child transmission (PMTCT) of HIV strategy (WHO 2004). Integrating family planning into HIV care and treatment is being promoted by international public health agencies, local organizations, and some governments, including the government of Kenya, to ensure that HIV-positive individuals have access to comprehensive contraceptive counselling and services (Republic of Kenya 2007a; Republic of Kenya 2009; Ian et al., 2009).

Recent reviews of literature showed bi-directional linkage between sexual and reproductive health and HIV related policies and programs. To more fully reap the benefits of contraception as an HIV prevention strategy greater integration of Family Planning programs is needed particularly in a generalized epidemic setting where women of childbearing age are disproportionately affected.

2.2 Determinants of Unmet need for contraception among HIV positive women

2.2.1 Demographic Factors

2.2.1.1 Age

Utomo et al, (1983) in their study of factors affecting the unmet need for contraception among women irrespective of their HIV status following analysis showed that older age was one of the four major independent factors associated with the unmet need for contraception.

In a study to examine demographic and socioeconomic factors that affect the use of contraceptives by women in city slums in Kenya showed that the use of family planning was found to be highest among women aged between 20 – 39 years compared to those below 20 years and above 39 years. Whereas 49 percent of the women that were using contraceptives were aged 20- 29 years, 41 percent were aged between 30 - 39 years, while no woman aged 50 years and above was found to be using any form of family planning services. On the other hand, 4 percent and 6 percent of the women who were using family planning services were less than 20 years and between 40 – 49 years of age, respectively Okech and Wawire (2011). Therefore the unmet need for limiting and spacing of birth increased with an increase in the woman's age.

2.2.1.2 Number of Living Children

Most contraceptive studies indicate that the number of living children is a major determinant of unmet need for contraception. Among HIV positive women this determinant has also been found to be true. The higher the number of living children the higher the levels of unmet need among these women. For instance in a study in Zambia two studies observed the respondents favored reduced family sizes of couples living with HIV (Rutenberg et al 2006).

2.2.2 Cultural Factors

Individual factors that determine the person's unmet need for contraception are mediated by the characteristics of the community in which the individual lives. It is important to examine beyond individual factors when examining the unmet need for contraception

among women (Tsui and Stephenson 2002). Cultural norms and expectations are varied and include among others fatalism attributed to HIV infection, fear of infecting the unborn child, gender roles designated by society such as the role of women in childbearing and the demand for bigger families (Srikanlhan and Reid 2008).

2.2.3. Socio Economic Variables

2.2.3.1 Wealth Quintile

In sub Saharan Africa contraceptive prevalence rate is more than five times higher among women in the highest wealth quintile compared with those in the lowest wealth quintile a far larger differential than in any other region of the world (UNFPA 2002). Cost and accessibility have been identified as barriers to use of family planning for poor rural women (Taiyuan et al., 2004). Although the level of HIV prevalence is lower among women in the poorest wealth quintile (19.6 percent) than those in the other Quintiles, the risk of MTCT among poor women is of concern because they have higher levels of unmet need of contraception (MOH SW et al 2008).

2.2.3.2 Education level

Numerous studies indicate that female education is a major determinant of completed family size and the length of the interval between births. The estimated reduction of fertility rates due to increase in education typically dwarf the effects of most other variables including variables included to measure the availability of Family Planning programs . Based on such estimates some analysis has concluded that programs to increase women's educational attainment might be the most effective way to stimulate reductions in fertility in developing countries.

Rob et, al (2007) in their study of contextual influences on modern contraceptive use among HIV positive women, in six sub-Saharan African countries that included Kenya, Malawi, Tanzania, Ivory coast, Burkina Faso and Ghana showed that higher educational attainment was more likely to be associated with unmet need of contraceptives in all the six countries. For example in Burkina Faso higher educational attainment was more

likely to be associated with unmet need for contraception as opposed to their counterparts.

A study about knowledge as an important predictor of unmet contraceptive uses among young people irrespective of their HIV status showed that condom knowledge at logistic regression was associated with a 33 percent increased odds of ever using them among both male and female participants (Ryan et al., 2007).

Another survey conducted in 14 countries among 7000 HIV positive women between 14 to 40 years showed that knowledge gap in family planning methods restricts women's contraceptive choices and hence uses and that women fail to take advantage of new contraceptive methods due to lack of knowledge (Rosetta, 2006).

2.2.3.3 Region of Residence

Kenya's provinces vary significantly in terms of HIV prevalence. In a study to determine HIV sero status and its association with the use of reproductive services in Kenya, it was revealed that contraceptive use in Women Living with HIV did in fact vary according to region of residence. For regional level analysis comparisons were drawn from high (Nyanza and Nairobi), and Low (cost, rift valley, western, central, and Eastern) HIV prevalence regions

2.3 Summary of Literature Review

From a reproductive health and rights-based perspective, all women should have access to methods that allow them to avoid unintended pregnancies. HIV-positive women have particular needs for contraception to avoid unwanted pregnancy: to protect their own health, and to eliminate the risk of transmitting HIV to an infant.. Family planning in itself can reduce injury, illness and death associated with childbirth, abortions and Sexually Transmitted Infections including HIV/AIDS. Further Family Planning contributes to a reduction in population growth, poverty reduction and preservation of the environment as well as demand for public goods and services (Shane, 1991).

2.4 Conceptual Framework

It is possible to formulate a more realistic microeconomic model for contraception and unmet need using fertility theories. The matter of discussion is demand for contraception rather than demand for children. The demand is based on the economic framework that balance the expected returns of having an additional child at a certain time, the associated monetary and non-monetary costs, given preferences, family resources and contraceptive methods available.

Unmet need is related to the perceived cost of contraception. According to Bhushan (1997) there are three categories of cost regarding contraception: Costs related to availability (geographical and physical, qualitative and cognitive aspects of availability) Cost related to health concerns and fear of side effects (discontinuation, fear of side effects among never users) Cost related to social, cultural and familial disapproval of family planning (disapproval of family, religion and customs). A person's intention to behave in a particular way and his/her behaviour depends upon two sets of factors: personal and social influences. Personal factors include the individual's own positive or negative evaluation of the behavior, while social influence is the effect of other individuals' attitudes on one's behavior.

The study was conceived within the Bongaarts framework which was formulated for quantifying the roles of the proximate determinants that explain fertility difference. Of the eight proximate determinants namely: Proportion of married women, contraception, abortion, post-partum amenorrhea, frequency of intercourse, spontaneous intrauterine mortality, sterility and duration of fertile period. Only four are key in explaining the difference in fertility; Proportion of married women, contraception abortion and post-partum amenorrhea. These were further grouped into 3 broad categories of exposure factors, deliberate marital fertility, cultural and natural factors. He stated that these key proximate determinants are also influenced by other existing factors in society namely the explanatory or indirect variables. The influence of these variables on fertility can only be there if these variables operate through a proximate framework.

In this study, Bongaarts framework was modified to fit the study objective since one of the key proximate determinants, contraceptive use is the dependent variable. Using this modification, it was hypothesized that contraceptive use is assumed to be influenced by a set of independent factors. An interrelationship between HIV status, demographic, socio-economic and socio-cultural factors and use of contraceptive was assumed.

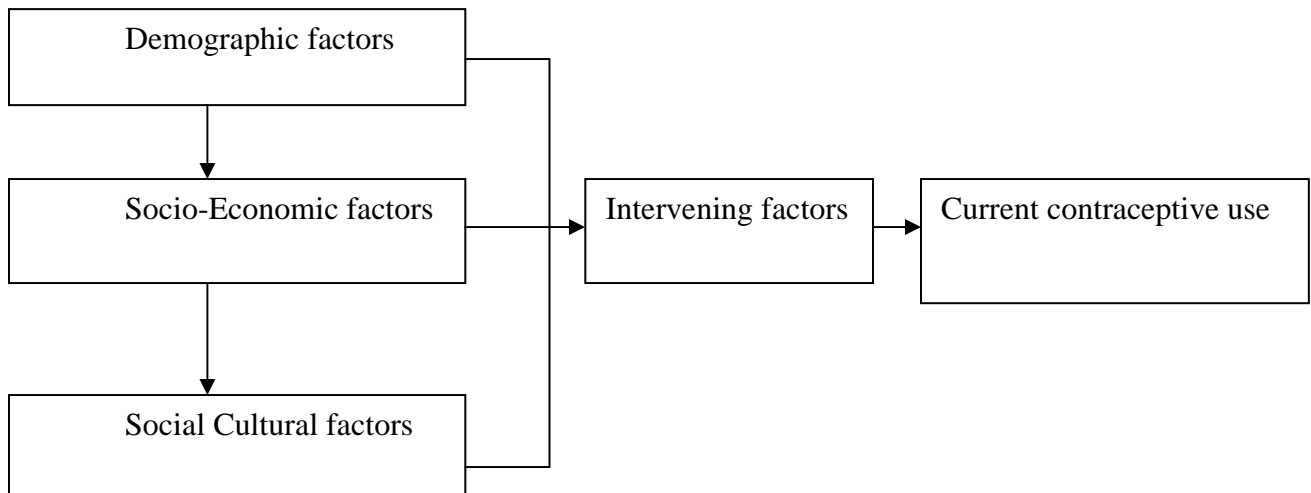


Figure 2.0 Conceptual model contraceptive

Source: Bongaarts 1978 “A framework for analysing the proximate determinant of fertility; 22.4: Operational Framework

The demographic variables included in this study were age and number of living children, education level, wealth quintile, and region of residence will be considered under Economic variables. Cultural variable included marital status. The study examined the effects that each have on unmet need for contraception.

The outcome variable or the dependent variable for this study is unmet need for contraception. The study operational framework is shown below

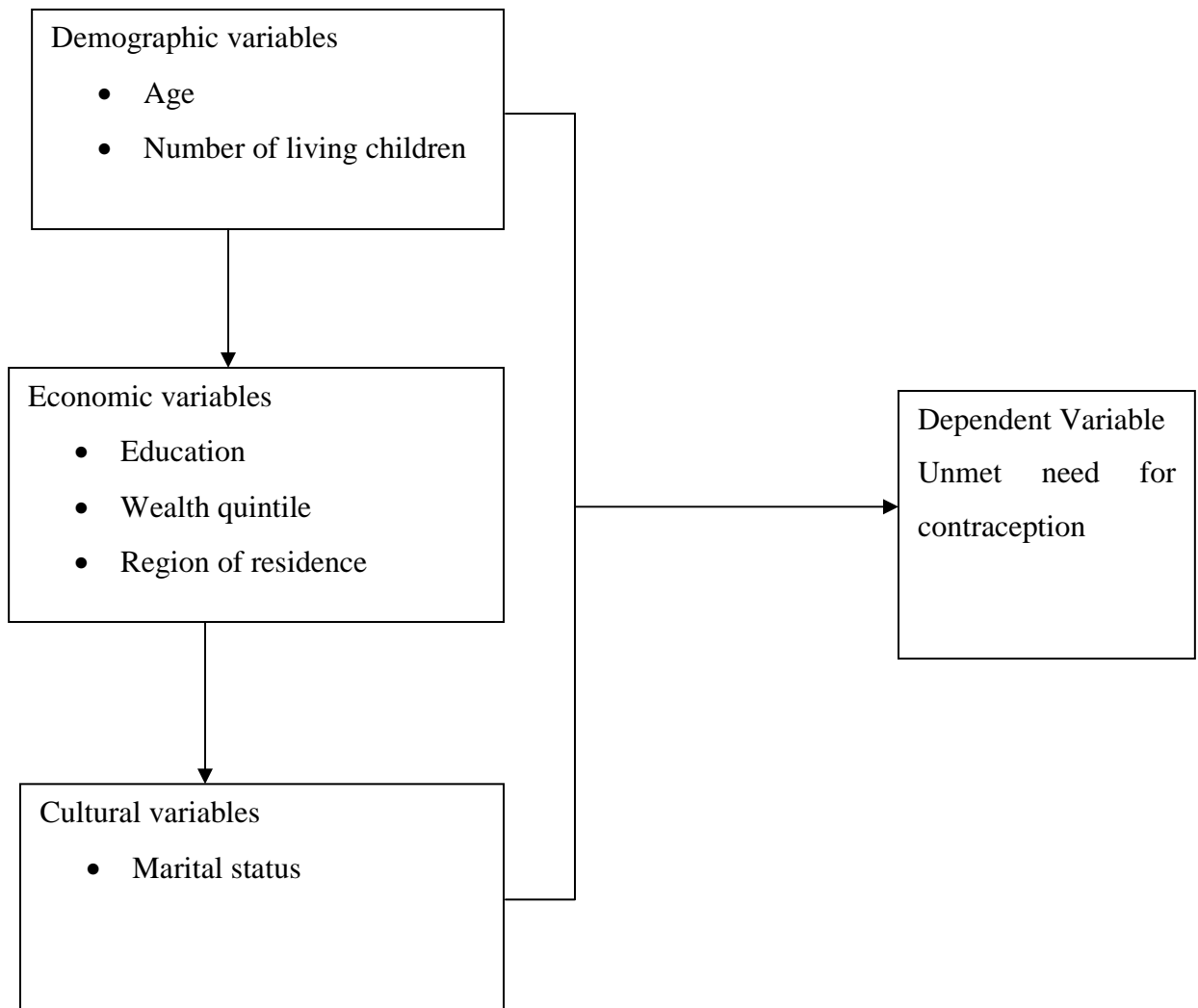


Figure 2.1: Operational model for unmet need for contraception

Adopted from Bongaarts 1978 “A framework for analyzing the proximate determinant of fertility

2.4.1 Operational Hypothesis

- i. Unmet need for contraception increases with age .
- ii. The higher the number of living children the higher the levels of unmet need among HIV positive women.
- iii. Unmet need for contraception is negatively associated with wealth quintile.

CHAPTER THREE

DATA AND METHODOLOGY

3.0 Introduction

This chapter presents the source of data for the study and the methods of data analysis that was utilised. Section 3.1 describes the source of data and 3.2 presents methods of data analysis .

3.1 Sources of Data

The study analyzed secondary data from the 2008/9 Kenya Demographic Health Survey (KDHS). The primary purpose of the KDHS is to generate recent and reliable information on fertility, family planning, infant and child mortality, maternal and child health, and nutrition. In addition, the KDHS also collected data such as age, education, wealth index and religion. Data on HIV sero status came from the HIV component of the KDHS 2008, where overall overall HIV test was conducted 83 percent of eligible responses , including 86 percent of the 4418 eligible women and 79 percent of the 3910 eligible men.

The focus of this study was on the 318 women whose results indicated they were HIV positive at that time of the survey.. The study utilized the HIV data file for identification of the HIV positive women who experienced the unmet need for contraception and the social, demographic and cultural characteristics which played an influential factor . The outcome variable in this analysis was an unmet need for contraception which measured whether the respondent was not using contraceptives yet they did not want to get pregnant at that time of the interview..

3.2 Methods of Data Analysis

This study utilized descriptive statistics as the main method of data analysis. These methods are described below;

3.2.1 Descriptive Statistics

Descriptive statistics was used to show the distribution of the study population by different background characteristics. The frequency distribution was used to measure

how often an occurrence of variables and its values occur in a data set. In this study, frequencies were used to give a sum of the distribution of unmet need by selected independent variables.

Bivariate analysis, Cross tabulation was used to show any significant relationships existing between the dependent variable which is an unmet need for contraception and each independent variable. To show statistical significance, Pearson chi-square test was used to measure the dependence of the association.

However chi square has limitations which include being sensitive to sample size. That is, the size of the calculated chi square is directly proportional to the size of the sample. Chi Square is also sensitive to small expected frequencies in one or more of the cells in the table. While Chi Square shows us statistical significance it does not give us much information about the strength of the relationship.

3.3. Variable Definition and Measurement

Variable	Variable Type	Measurement
Unmet Need for Contraception	Dependent variable	0- With unmet need 1- Without unmet need
Number of living children	Independent variable	1= 0 children 2=1-3 children 3=4+
Age	Independent variable	1= 15-24 2=25-34 3=35+
Formal Education	Independent variable	0- No education 1- Primary 2- Secondary
Wealth Quintile	Independent variable	1-Poor 2-Middle 3-Rich
Region of residence	Independent variable	1-High HIV prevalence 2-Low HIV Prevalence
Marital status	Independent variable	0- Not Married 1- Married

CHAPTER FOUR

DETERMINANTS OF UNMET NEED FOR CONTRACEPTION

4.0 Introduction

This chapter presents a description of the various factors that determine the unmet need for contraception among HIV positive women in Kenya. It begins with a description of key background characteristics of the study population followed by differentials of unmet need for contraception by key background characteristics. The last section presents the multivariate analysis which identifies factors that influence the unmet need for contraception among HIV positive women.

4.1 Background Characteristics of the Study Population

The analysis was based on a sample of 318 female respondents who tested positive during the KDHS 2008/9. Table 4.1 shows the descriptive characteristics of the variable used in the study. The distribution of the outcome variable and the explanatory variables are presented together.

The results show that among HIV positive women 17.9 percent had unmet need for contraception, compared to 82.1 percent who did not have the unmet need at that time of the survey. The study established that 42.1 percent of the women had 1-3 children, 38.1 percent had four children and above and 19.1 percent had no child at that time of the survey. The findings indicate that 40.6 percent of the HIV positive women interviewed were aged 25-34 years, 34 percent were 35 years and above while 26 percent were 15-24 years of age. Therefore, women at various developmental stages were reached by the study, making the information obtained from the sample largely representative. For maternal education, 62 percent of the women had a primary level of education, 29 percent had secondary and higher level of education while only 9 percent had no education. HIV positive women from the richest households were 52 percent, 33 percent were from the poor households while 15 percent were from the middle class households. The distribution of the study population by region of residence established that 37 percent were from high HIV prevalence regions while 63 percent were from low prevalence region. Half of the women included in the study were married at 53 percent, while 47 percent were not married at the time of the survey.

Table 4.0 Frequency distribution of study population by study variables

Variable	Frequency (N=318)	Percent
Dependent Variable		
Unmet need for contraception		
With unmet need	57	17.9
Without unmet need	261	82.1
Independent Variables		
Demographic Factors		
No. of living children		
0	63	19.8
1-3	134	42.1
4+	121	38.1
Age		
15-24	82	25.8
25-34	129	40.6
35+	107	33.6
Socio-Economic Factors		
Education		
No education	28	8.8
Primary	197	61.9
Secondary+	93	29.2
Wealth Quintile		
Poor	105	33.0
Middle	49	15.4
Rich	164	51.6
Region of residence		
High HIV prevalence	118	37.1
Low HIV prevalence	200	62.9
Marital status		
Married	168	52.8
Not married	150	47.2

Univariate analysis of the Kenya Demographic Health survey

4.2 Differentials in Unmet need for contraception

The results of differentials of unmet need for contraception are as shown in table 4.2 below. The study findings show that the number of living children was significantly associated ($X^2(2)=14.6, P=0.000$) with unmet need for contraception. Those who had 1-3 living children, reported the highest level of unmet need of contraception at 47 percent. HIV positive women who had 4 and more living children were at 37 percent, while those women with no children had the lowest level of unmet need at 14 percent. .

The result shows that the age of the woman was significantly associated ($X^2(2)=13.4, P=0.000$) with unmet need for contraception. Women aged 15-24 years had the highest level of unmet need for contraception compared to women in other age groups. HIV positive women in this age group reported unmet need of 22 percent compared to older women whose unmet need was at 16 percent. .

Maternal education was significantly associated ($X^2(2) =18.2, P=0.000$) with unmet need for contraception among HIV positive women in Kenya. The women who had no education experienced the greatest proportions of unmet need for contraception at 32.1 percent . Those who had secondary education or more had the least proportions of unmet need for contraception at 4.3 percent.

The result shows that wealth quintile was significantly associated ($X^2(2) =12.04, P=0.000$) with unmet need for contraception. Women from poorer households had the highest level of unmet need for contraception at 28 percent compared to other women from other household groups.

Region of residence was significantly associated ($X^2(2)=14.04, P=0.000$) with unmet need for contraception among HIV positive women in Kenya. Women from low HIV prevalence regions experienced the greatest proportions of unmet need for contraception at 63 percent . Those came from regions considered to have high HIV prevalence had the least proportions of unmet need for contraception at 37 percent.

Marital status was significantly associated ($X^2(2)=33.9, P=0.000$) with unmet need for contraception among HIV positive women. Married women had increased levels of unmet need for contraception at 87.7 percent compared to those who were not married at 12.3 percent.

Table 4.1 Differentials in Unmet need for contraceptives by Various Background

Variable	With unmet need	Without unmet need
No. of living children		
0	8(14.0%)	
1-3	27(47.4%)	55(21.1%)
4+	22(38.6%)	107(41.0%)
P-Value	0.000	99(37.9%)
X²	14.626	
d.f=2		
Age		
15-24	18(22.0%)	64(78.0%)
25-34	21(16.3%)	108 (83.7%)
35+	18(16.8%)	89(83.2%)
P-Value	0.000	
X²	13.416	
d.f=2		
Education		
No education	9(32.1%)	
Primary	44(22.3%)	19(67.9%)
Secondary+	4(4.3%)	153 (77.7%)
P-Value	0.000	89(95.7%)
X²	18.185	
d.f=2		
Wealth Quintile		
Poor		
Middle	29(27.6%)	76(72.4%)
Rich	44(22.3%)	42 (85.7%)
P-Value	0.000	143(87.2%)
X²	12.041	
d.f=2		
Region of residence		97(37.2%)
High HIV prevalence	21(36.8%)	164(62.8%)
Low HIV prevalence	363(63.2%)	
P-Value	0.000	
X²	14.041	
d.f=2		

Marital status		
Married		50(87.7%)
Not married		7(12.3%)
	P-Value	0.000
	X²	33.923
	d.f=2	
		118(45.2%)
		143(54.8%)

Bivariate analysis of the Kenya Demographic Health survey

4.3 Determinants of Unmet need for Contraception among HIV positive Women.

Table 4.2 presents the multivariate regression for HIV positive women. The results indicate that the number of living children, age, level of education and marital status are the most significant determinants of unmet need for contraception among HIV positive women.

The findings indicate that the number of living children was a strong determinant of unmet need for contraceptive in HIV positive women ,(P=0.003). In HIV positive women having more than four children increases the odds of not using contraception by 4.452 times Compared to the women who had 0 number of living children to those who had 4+, those women who had 4+ number of living children were more likely to experience an unmet need for contraception); Those who had 1-3 number of living children came in second and were more likely to experience an unmet need for contraception, (P=0.032) compared to those with 0 living children. The results were consistent with a study done by Bahamondes et al (2009) in Argentina where they found that women who experienced the unmet need for contraception had a statistically significantly more number of living children.

Maternal age was a significant factor influencing the unmet need for contraception among HIV positive women in Kenya, (P=0.043). WLHIV aged 35+ years were at 3.313 times more likely to experience an unmet need for contraception as compared to women who were 24 years and below. Women aged 25-34 years on the other hand were more likely to experience an unmet need for contraception, (P=0.027). The results imply that the odds of experiencing the unmet need for contraception for older women is higher. The results were consistent with a study done by Utomo et al. (1983) where they found

out that older age was one of the four major independent factors associated with the unmet need for contraception .

Maternal education was significantly associated with unmet need for contraception among HIV positive women in Kenya, (P=0.035). In HIV positive women having secondary or above level of education reduced the odds of unmet need for contraception to 0.13 times .The odds of not using contraception for women who had primary level education increases by 1.577 times. Therefore those who had higher level of formal education were exposed to contraceptive use than their primary counterparts. The results were consistent with a survey done by Rosetta et al (2006) in 14 countries among 7000 HIV positive women between 14 to 40 years showed that knowledge gap in family Planning methods restricts women's contraceptive choices and hence uses and that women fail to take advantage of new contraceptive methods due to lack of knowledge.

Marital status was a significant factor influencing the unmet need for contraception among HIV positive women in Kenya, (P=0.000) level of significance. In HIV positive women, not being married or cohabiting with a man reduced the odds of unmet need for contraception.. The results were consistent with a study done in Lesotho by Nakayiwa et al. (2007) where they found out that Marital status and the number of children still living are the strongest determinants of whether a woman would want to give birth in the future.

Wealth quintile was a not significant factor of unmet need for contraception for women with sero HIV status, (P=0.172). The findings were inconsistent with a study done by Tuoane et al (2004) where they found out that Cost and accessibility have been identified as barriers to use of family planning for poor rural women .Region of residence was not a significant factor of unmet need for contraception among HIV positive men in Kenya .

Table 4.2 Determinants of Unmet need for contraceptives among HIV positive women in Kenya

Variable	B	S.E.	Sig.	Exp(B)
No. of living children			0.003	
0	0.000			1.0000
1-3	1.325	0.341	0.032	1.098
4+	1.794	0.774	0.003	4.452
Age			0.043	
15-24	0.000			1.0000
25 to 34	1.198	0.576	0.038	1.360
35 plus	0.307	0.486	0.027	3.313
Education			0.035	
No education	0.000			1.0000
Primary	1.719	0.767	0.025	1.577
Secondary Plus	1.048	0.582	0.013	0.255
Wealth Quintile			0.172	
Poor	0.000			1.0000
Middle	0.553	0.395	0.161	0.739
Rich	-0.315	0.548	0.565	1.730
Region of Residence			0.121	
High HIV prevalence	0.000			1.0000
High HIV prevalence	-0.322	.382	0.400	0.725
Marital Status			0.000	
Married	0.000			1.0000
Not married	-2.089	0.443	0.000	0.124

Multivariate analysis of the Kenya Demographic Health survey

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a summary of the findings, conclusion and make recommendations. The recommendations are relevant for policy formulation and further research in HIV epidemic settings. Knowledge of the factors associated with unmet need for contraception can identify strategies to reduce fertility levels, eliminate mother to child transmission and reduce both maternal and child mortality rates.

5.1 Summary of findings

This study set out to establish the socioeconomic, sociocultural and demographic factors that influence the unmet need for contraception among Women Living with HIV in Kenya using KDHS 2008/9. Unmet need for contraception was the dependent variable in the study. Five explanatory variables were included in the study to test for determinants of unmet need for contraception among HIV positive women.

This study employed frequency distribution to establish background characteristics of the study population. The findings indicate that 40.6 percent of the HIV positive women interviewed were aged 25-34 years, 34 percent were 35 years and above while 26 percent were 15-24 years of age. Therefore, women at various developmental stages were reached, making the information obtained from the sample largely representative. Bivariate cross tabulation was utilized to determine the levels of association between sero positivity and unmet need for contraception. The independent variables included in the study were, maternal education, wealth quintile, Region of residence, maternal age, number of living children and marital status.

According to the World Bank report in 2009, the Unmet need for contraception (% of married women ages 15-49) in Kenya was 25.60, (Republic of Kenya 2007a; Republic of Kenya 2009; Ian et al., 2009). However this study established that the level of unmet need for contraception among HIV positive women was at 18% .The rate of unmet need for this special group women is lower than the national prevalence rate. This is attributed

to integration of family planning and HIV services, a strategy that has widely promoted an effective approach to ensuring the reproductive rights of WLHIV are met, thus preventing HIV infections by preventing unintended pregnancies. The magnitude of unmet need for contraception varied substantially according to the demographic and social characteristics of women, the most prominent of which is age, number of living children, education, and marital status.

This study established a positive relationship between age and unmet need for contraception for HIV positive women in Kenya at ($P=0.043$). WLHIV aged 35+ years were at 3.313 times more likely to experience an unmet need for contraception as compared to women who were 24 years and below. The results were consistent with a study done by Utomo et al. (1983) where they found out that older age was one of the four major independent factors associated with the unmet need for contraception. This indicates a concentration of unmet need for spacing and limiting births among younger and older women, respectively. This is to be expected because younger women will still want to have more children, while older women have achieved their desired number of children.

The findings of this study indicate that the number of living children was a strong determinant of unmet need for contraceptive at ($P=0.003$). In HIV positive women having more than four children increases the odds of not using contraception by 4.452 times. The results were consistent with a study done by Bahamondes et al (2009) in Argentina where they found that women who experienced the unmet need for contraception had a statistically significantly more number of living children. This is expected since those with fewer children would want to have more children because they may not have achieved their desired family size yet. The relationship between the number of living children and the level of unmet need assumes the same pattern as that of age in which women with fewer living children are more interested in contraception for spacing than women with high parity. The latter is more concerned with limiting births.

Examination of the relationship between maternal education and the level of unmet need shows the following pattern: for HIV positive women, unmet need for family planning is lower among women with secondary and higher education than among women with primary or no education. The odds of not using contraception for women who had primary level education increases by 1.577 times. Therefore a higher level of unmet need was attributed to women with the lowest level of education compared to those who had either secondary or higher education. The results were consistent with a survey done by Rosetta et al (2006) in 14 countries among 7000 HIV positive women between 14 to 40 years which showed that knowledge gap in family Planning methods restricts women's contraceptive choices and hence uses and that women fail to take advantage of new contraceptive methods due to lack of knowledge.

Marital status was a significant factor influencing the unmet need for contraception among HIV positive women in Kenya at ($P=0.000$) level of significance. In HIV positive women, not being married or cohabiting with a man reduced the odds of unmet need for contraception.. The results were consistent with a study done in Lesotho by Nakayiwa et al. (2007) where they found out that Marital status and the number of children still living are the strongest determinants of whether a woman would want to give birth in the future. In Northern Uganda, only 12% of women aged 15 to 49 were using a form of contraception and unmet need is estimated to be 58%(UDHS 2006). One of the most common reasons women give for not using contraceptives is fear of disapproval by their husbands. Women in post conflict northern Uganda are further denied services due to , inability to pay for services, inability to make individual decisions on when to seek health services, and denial of access to services by their male partners or other decision makers in the family. The high level of unmet need is because married women in such unions do not make decisions for themselves and consent is usually sought from husbands

Wealth quintile and region were not significant factors of unmet need for contraception for women with sero HIV status. The findings were inconsistent with a study done by Tuoane et al (2004) where they found out that Cost and accessibility have been identified as barriers to use of family planning for poor rural women . An implication is that a

working mother would have better income which translates into her ability to afford contraception. From multivariate analysis, the significant determinants of unmet need for contraception for WLHIV were: number of living children, age marital status, and maternal level of education.

5.2 Conclusions

There is growing evidence of the unmet need for FP among women living with HIV. Offering Family planning counselling and services in antenatal care and Child welfare services provides ongoing opportunities to assess and address needs at different life stages and contributes to the reduction of mother-to-child transmission by reducing subsequent unplanned pregnancies.

There is need to improve women's knowledge and access to modern methods of contraception. Lack of knowledge of the modern methods of contraception could explain the high unmet need among currently married HIV positive women in Kenya . There is also need to provide higher levels of education to WLHIV in a bid to increase their exposure to knowledge of contraceptive. These strategies could help to bring the high fertility levels down. This study sought to establish the demographic, social cultural and socioeconomic determinants of unmet need for contraception.. The study objectives were thus met. The study findings also conform to major studies that have been done around this area. However more research is needed to understand why wealth quintile and region of residence were not significant determinants of unmet need for contraception among HIV positive women if programs are to bridge the gap in contraceptive use among WLHIV.

5.3 Recommendations

5.3.1 Recommendations for policies

There is a desire to prevent vertical transmission, stop or space child bearing among sero positive women, there is need for programme to set up efforts to address unmet need for contraception among HIV positive women to reduce their own health risks and for PMTCT. Preventing unintended pregnancies among HIV- Positive women is an intervention located at the intersection of reproductive health and HIV concern.. It can serve as the basis of a joint right based agenda to eliminate vertical transmission of HIV. Integrative services purported to increase the availability of both HIV and FP services should set up as these will reach the greatest number of people using few resources. There is need for the development of educational curricula in the areas of health and sexuality that address the effects of early and unintended pregnancy on maternal and infant mortality. There is also need for counselling to facilitate informed decisions about childbearing among HIV positive women. There should be clear PMTCT guidelines in place to support women desiring to have more children in the future as this is increasingly important with advances in the range of treatment that reduce transmission from Mother to Child. Contraceptive use should be among key PMTCT strategies since modelers have shown it could avert 29 percent more HIV positive births.

Given that education is one of the key determinants of unmet need for contraception among HIV positive women, the study recommends the need to promote multi sectoral initiatives to ensure education attainment.. The study reveals that women with primary and no education are likely to experience unmet need for contraception thus implying that education and community campaigns are not reaching or impacting those with primary education or less.. Numerous studies have indicated that female education is a major determinant of completed family size and the length of interval between births. Other similar studies have indicated that knowledge gap restricts women in their uptake of contraceptive methods. Analysis have concluded that programs need to increase women educational attainment as a way to stimulate fertility reduction in developing countries. In response to a formative research that showed poor knowledge of PMTCT across the country, the government should embarked on a mission to increase awareness

amongst people of Kenya, to inform them on what PMTCT is so as to increase behavior change in the country. Given that men's actions have a direct bearing on the health of their partners and their children (Gallen et al. 1986) Male involvement in PMTCT and Family planning programs is crucial.

5.3.2 Recommendations for Future Research.

There is need for further research in the area surrounding contraceptive use and HIV because of the growing concerns and challenges in tailoring sexual and reproductive health service set the needs of HIV positive women, more s needed to understand the determinants of unmet need for contraception including the behavioural determinants and contraceptive methods preferences, attitudes, practices, reasons for discontinuation, spousal effect, and effect of interaction between hormonal contraception and ARVs.

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