

**THE EFFECT OF AGE DIFFERENCE ON  
CONTRACEPTION USE AMONG MARRIED WOMEN  
IN KENYA**

By

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the Degree of Master of Science (MSc) in Population Studies of the  
University of Nairobi**

## DECLARATION

This research project is my original work and to the best of my knowledge has not been presented for a degree in any other university.

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## **DEDICATION**

To the Lord Almighty, who remains faithful forever. To my parents Mr. Polycarp Odaa and Mrs. Penina Odaa; thank you very much for the firm grounding in education. To my siblings and friends. My husband James Odhiambo, and son Aubrey: thanks for your support and encouragement throughout the study.

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I would like to thank all other PSRI academic and non-academic staff whom i directly or indirectly consulted.

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## ABSTRACT

African society has attached great importance to marriage and family formation, because values and social mores favour the early marriage, child birth and members of society especially males favour to marry younger female. The pattern of marriage in which the age gap between the spouses for the favour of the husband is an important indicator to measure the status and position of women in the society and can be confirmed that the increasing age gap between spouses to the favour of the husband means that he is more dominant on family decision making. Age difference between couple could also be an indicator of a woman's autonomy. It also determines who a couple interact with each other due to generation gap. The wife being junior to her husband and a woman could be treated as a subordinate. This could impede a woman from making vital decisions like contraceptive use.

The Kenyan government has made efforts to increase contraception prevalence even before Kenya's independence. As a result, knowledge on contraception is very high in Kenya but its use is less than average the number of married women. Unmet need is still an issue its satisfaction could avert a significant number of maternal deaths and child deaths. It has been noted that young women are the ones who suffer most from unmet needs. Gender inequality leads to a woman having no say in decision making, including use of contraceptives.

The main purpose of this study is to assess the effect of age difference on contraception use among married women. This study concentrates on married women since several studies have been done on this but concentrate on the adolescents.

To be able to achieve this KDHS women's data was used. The total number of married women was 4682 of whom 1,672 used contraceptives. The conceptual frame work used was adopted from Mahidul et al, since it illustrates the main proximate determinants of contraception use.

Univariate, bivariate and Multivariate analysis were used. Descriptive statistics generated showed the distribution of women by their background characteristics. Cross tabulations were used to show significant relationships that existed between each of the independent variables and the dependent variable. Chi-square was used to measure associations. Multivariate logistic regression then was used.

The bivariate analysis indicated that there was a significant relationship between woman's age, education, religion, work status, household wealth, place of residence, status of union, type of union, number of living children, future fertility intentions, her partner's fertility intentions, her partner's education level and her partner's age, age difference between the spouses and contraception use.

When spousal age difference was examined on its own, it had a statistical significant association with contraception use. On introduction of the woman's characteristics, a reverse was observed. This could be attributed to the girl- child and woman empowerment. The government should therefore accelerate these programs, since they are seen to have positive results as far as contraceptive use is concern.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background information

There is great importance attached to marriage and family formation because values and social mores favour early marriage, child birth, and members of the society especially the males' favour marrying of younger females (Haddad, 2012). This is the common norm in African society. The timing of when a marital life begins is an important and decisive indicator of the status of a woman and her position in the society (Haddad 2012).

Sub-Saharan Africa has the highest mean age difference between couples despite its downward trends it is experiencing. A large age difference between couples is one of the features of a traditional marriage. It is associated with age of entry into a union and the organization of marriage. The sooner a woman gets into a union creates the conditions for a potentially large age difference (Barbieri and Hertrich, 2005). Since most cultures demand that women get into unions at an earlier age than men, there is always a surplus of marriageable women leading to polygamy among some men. This is a determinant of high fertility since a women spends most of her fecund life in union, hence prolongs the period to which they are exposed to the risk of getting pregnant (Chesnais, 1986). In the recent times, nuptiality patterns in Kenya have been marked by an increase in the age of women at the first marriage narrowing the age difference of couples at first marriage.

Age difference between couples could also be an indicator of the woman's and couple's autonomy. It is often cited as a factor in the status of a woman, an indicator in the degree of inequality within the couple and the position of a woman in the society (Casterlin et al, 1986). A wife subordinates to her husband both as his junior and as a woman (Bozon, 1991, 2003). Due to the early age at first marriage, a woman spends most of her adult life in the union restricted to their roles as wives and mothers. This limits the woman from acquiring job skills and status outside the domestic sphere. Large age difference is therefore seen to be a contributing factor in limiting women's opportunities for personal growth and depriving them of identity. Fertility transition is fuelled by improvement of the status of the women, thus enabling the women to take control of their fertility and put up with the ensuing psychological and social costs (Barbieri and Hertrich, 2005).

Large age difference creates distance between couples due to generation and cultural gap between the spouses who are at different stages of their life cycle and who have different premarital experiences. This could impede on conjugal intimacy reducing the couple to a biological reproducing unit. The denial of a couple as a decision making unit appear to be a societal choice (Caldwell, 1982; Ryder, 1983). With modernization, the emergence of nuclear families led to rising of independent conjugal units. Decisions such as contraception are made at the conjugal level. Studies have shown that discussion of family planning issues between spouses is associated with more frequent contraception use. They have also indicated that husbands play a dominant or an important role in fertility decisions (Watkins et al., 1997), and that decisions about family size taken jointly by the spouses influence the probability of contraceptive use (Dodoo et al., 1997)

Contraception use has been described as the most important proximate determinant of fertility. Contraception use has a significant impact in reduce a woman's fertility level. It is one of the indicators used mostly to assess the success of family planning programmes. Studies have shown that modern contraception is mostly widely used by couples with smallest age difference. On the other hand, women married to much older men have a lower level of contraception use. This difference could be attributed to the disadvantage of the former in terms of individual decision making power (Barbieri and Hertrich, 2005; Ibisomi, 2001)

## **1.2 Problem statement**

The Kenyan government has put strategies and policies to facilitate the use of family planning services as a step towards reducing fertility, increasing contraception prevalence rate and reducing family planning unmet needs. This effort started way back in 1957 when the Family Planning Association of Kenya was established by merging the Family planning Committee of Mombasa (formed in 1955) and the Family Planning Association in Nairobi (formed in 1956). In 1962, it became the first Tropical African Association to join the International Planned Parenthood Federation (Radel 1973). Despite these policy measures, the total fertility rate remains high at 4.6, the contraception prevalence rate for all methods is at 46% and the unmet need for family planning averages at 24% yet the knowledge on contraceptive methods is as high as 95% among women and 97% among men aged between ages 15 to 49 (Republic of Kenya 2009). This indicates an obvious gap between knowledge on contraception and its usage.

Age of a woman is an important demographic variable that influences contraceptive behaviour. As the age of a woman increases with the increasing number of living children, the use of contraceptives also increases as they are more close to complete their desired family size. With respect to age at marriage, women who got married below 14 years and are having two living children, a very low proportion is using contraception than those married in age group 15-19 years and 20 years and above (Sahoo, 2007). UNICEF (2001) indicates that girls who marry before age 18 are disproportionately affected by complicated pregnancies that may lead to maternal death. Girls aged 10-14 are five times more likely to die in pregnancy or child birth than women aged 20-24: girls aged 15-19 are twice likely to die. These young women are the ones who suffers most from unmet family planning needs

Analysis by Moreland and Talbird (2006) have shown that satisfying unmet family planning needs in Kenya could avert 14,040 maternal deaths and 434,306 child deaths hence aid towards achieving the MDGs target by 2015 (Republic of Kenya, 2007). This unmet need could be met by increasing access to family planning services.

Gender imbalances in sexual decision-making influence women's contraceptive use. Waszak et al., (2000) reports that some young women would rather risk pregnancies than ask their partner to use a condom. Gender roles and gender norms are culturally specific and they vary around the world. Almost everywhere men and women differ from each other in power, status and freedom. However in most societies men have more power than women (Indongo, 2007). At the family household level, gender inequality manifest itself in a weaker role for women in decision making, lesser control over resources and restrictions in physical movement(Bardhan, 1974). These have a negative effect on contraceptive use.

This study therefore seeks to explore the effect of age difference on contraceptive use and the impact it has on fertility in Kenya.

### **1.3 Study objectives**

#### **1.3.1 General objective**

The main objective of this study is to establish the effect of age difference on contraception use among married women in Kenya.

#### **1.3.2 Specific objective**

- To assess the influence of the inter-play between spousal age difference and the partners characteristics on contraception use among married women.

- To assess the influence of the inter-play between spousal age difference and the woman's demographic and socio-economic characteristics and fertility intentions on their contraception use.

### **1.3.3 Research questions**

- Does age difference influence contraceptive use?
- Does the relationship vary with individual characteristics?

### **1.4 Justification of the study**

To explain fertility trends in Kenya, it is important to look at social relations indicators between spouses due to the numerous inequities between men and women. This study examines the relation between contraception use and age difference between couples. Studies have shown negative reproductive health outcomes from large age asymmetry between sexual partners. These include risk of sexually transmitted infections including HIV, unwanted pregnancies and non use or inconsistency use of contraception. However most of these studies have concentrated on the experience of the adolescent and non-marital relationships (Darron, 1999; Kaestle 2002). This may deflect attention from age asymmetries found marital partners where husbands are typically older than their wives.

This study will bring out the enormous influence the male partners have on decision making and contraceptive use in Kenya.

### **1.5 Scope and limitations of study**

Secondary data obtained from the 2008/09 Kenya Demographic and Health Survey (KDHS) will be used in this study. The survey provides information on fertility, mortality, health issues, socio-economic and environmental conditions. National representative samples of eight provinces are covered. A survey questionnaire specifically meant for the women was administered to collect information to address the question of age of spouse.

The KDHS uses a broad definition of marriage or union based on the respondent's declaration rather than on criteria of legal or customary recognition. This approach is justifiable since many unions go unrecorded in Kenya. Women who do not live with their spouses are considered as women in unions and are asked questions on their spouses alongside their married counterparts.

The age of spouse is known for the current union only. The changing patterns of marital unions over different cohorts cannot be examined since women of different cohorts were at different stages of their married lives as at the time of the survey.

## CHAPTER 2

### LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

#### 2.1 Introduction

There are three groups of factors that affect contraception use among married women. The first consists of socio-economic factors, which are characterized as indirect determinants. These include place of residence, religion, education and work status. The second consists of demographic factors such as age, parity, union type, union status, post partum amenorrhoea and fertility intentions. The third is culture.

#### 2.2 Socio-economic factors

##### 2.2.1 Place of residence

Place of residence is a useful measure or indicator of the degree of change from traditional or rural behaviour to a modern or urban behaviour. Women who live in urban areas are more likely to use contraceptives than those who live in rural areas. The fertility levels in urban and rural areas tend to be different (Boupha et al., 2005). A longitudinal study done in Nepal on fertility trends based the DHS in 1996 and 2001 illustrated that the estimates of TFR and fertility level of women in the urban area were lower than women who lived in the rural area , because of differences in contraception use (Retherford and Thapa, 2003)

##### 2.2.2 Religion

Religious factors have the potential to influence the acceptance and use of contraception by couples from different religious backgrounds in very distinct ways. Within religions, different sects may interpret religious teachings on this subject in varying ways, and individual women and their partners may choose to ignore religious teachings (Srikanthan and Reid, 2006).

Christian teachings vary depending upon the denomination. Roman Catholicism teaches that the primary purpose of sexual relations is procreation within marriage. Roman Catholics are therefore forbidden to use medical or physical contraceptive methods. Natural contraceptive methods such as abstinence and the rhythm method remain permissible. Although Eastern Orthodox Christianity holds a similar view of the purpose of sexual relations, most contraceptive methods are permitted (Srikanthan and Reid, 2006).



Among conservative Protestant groups, the need to procreate reflects a literal interpretation of the Bible, yet it is common for adherents to use birth control after the family is complete. Liberal Protestants, while encouraging procreation, accept that this is not the sole purpose of sexual relations. Among Protestants, no specific forms of contraception are forbidden (Srikanthan and Reid, 2006).

In Orthodox Judaism, having multiple children is encouraged; however, contraception may be used for medical indications. Islam similarly encourages large families and requires parents to ensure that the basic rights of children are met. Family planning is not forbidden but is more commonly used by traditional adherents for birth spacing rather than to restrict the overall size of families. Despite this permissibility, not all adherents of Islam are aware that contraceptive use is permitted (Srikanthan and Reid, 2006).

According to Hindu doctrine, women were created to have children, particularly sons; however, there are no specific religious prohibitions against contraception. Buddhist religious dogma does not stress procreation; thus, contraception may be used. Despite the permissiveness of Hinduism and Buddhism, cultural factors often encourage large families and this may hinder contraceptive use. Chinese religious traditions, such as Confucianism and Taoism, do not prohibit birth control (Srikanthan and Reid, 2006).

Despite the importance of religion in influencing decisions, practitioners of a faith do not necessarily adhere to the prescribed doctrines of their faith. Ninety-five percent of women in North America will use a contraceptive method at some point during their reproductive years, despite the prohibition of modern contraception by some religions (Srikanthan and Reid, 2006).

In a study by Mahidul et al. (1998) on contraceptive use among married teenage women and newlywed couples, it has been confirmed that the prevalence of contraceptive use was generally higher among non-Muslims than Muslims. Within both religious groups, ever use increased with age. A dramatic increase in ever use for the Muslims occurred in the 18-19 year age group, after which the rate went upward with the respondents age. Among non-Muslims, this dramatic increase occurred slightly later, at age 20-24years, after which the rate similarly continued to increase. Of the entire group of the Muslim respondents, 37% were currently using contraceptives while it was 57% for the non-Muslims.

### **2.2.3 Work status**

The relationship between women's participation in paid labour force and their fertility and contraception behaviour is commonly conceptualized in two ways. The first one emphasizes the opportunity cost of child bearing; focusing on how the prospects of career development and higher income may depress women's fertility hence use of contraception is of a high rate among this category of women. The second perspective focuses on the work-child care conflict. The less flexible a woman's work schedule and arrangements are, the more difficult it is for her to provide adequate care for her children. These results in the use of contraception to enable her limit her fertility (Yohannes et al., 2003). Studies by Beguy (2009) in Darkar, Senegal and Lome in Togo indicated that women who were employed had longer birth intervals than those who were unemployed, especially those who worked away from their homes. Banerjee: (2004) study confirms that unemployed women were more likely to have higher pregnant frequency than employed women

### **2.2.4 Education**

The impact of women's education level on contraception behaviour has been extensively studied. Higher education levels in women have consistently been shown to have a significant effect on fertility levels and a positive effect on contraceptive use (Martin, 1996: Stash, 2001). Education increases the cost of raising children and therefore reducing fertility levels through contraception makes sense (Mason 1987). Lower fertility, in turn increases the likelihood that a woman with more education will need to use fertility control measures since she understands the benefits of a small family size. (Martin 1995). Education is also believed to improve a woman's independence and has been suggested to increase a woman's ability to engage in innovative behaviour such as family planning. Specifically, education increases a woman's knowledge of contraception and makes it more likely that they will have financial means to acquire appropriate methods (Caldwell, 1986)

The effect of husbands' education levels on women's contraception behaviour has also been found to be significant. It has been argued that because the husbands play a major role in the wives contraceptive decision, it is necessary to examine how their education influences family planning use (Axinn, 1992). The use of male family planning method, such as male condom use and withdrawal method is dependent on the cooperation of the husbands. I husbands play a significant role in influencing the contraception methods used by their wives (Chapagain, 2005).

Using data from the Vietnam DHS survey, Dang (1995) found that husbands education levels have an even greater influence on contraceptive use than women's education levels.

## **2.3 Demographic factors**

### **2.3.1 Postpartum amenorrhoea**

Breast feeding is a major factor in influencing the duration of postpartum infertility. The inhibitory mechanism by which breast-feeding acts to delay ovulation is not fully understood though there is evidence that both frequency and duration of suckling plays an important role (Hadia et al., 2009). Studies have shown that fertility-inhibiting effect of postpartum infecundity resulting from prolonged breast-feeding is the most important proximate determinant of fertility (Renfree, 1991). During this period, contraception use is expected to be very low.

The inhibiting effects of breast-feeding on fecundity, particularly during the first 12 months after birth are well established. In the absence of breast-feeding the postpartum amenorrhea period is about two months. Prolonged breast feeding can extend the amenorrhea period for up to 19 months or more (Berhanu and Hogan, 1998). Even after the return of menstruation, breast-feeding can be continued to depress a woman's fecundity. The death of a breast-feeding infant prematurely ends lactation that shortens the postpartum amenorrhea period. In non-contraception populations, the early return of menstruation contributes to a higher risk of conception thus a shorter than normal birth interval. This is more pronounced in sub-Saharan Africa communities where there is prolonged breast-feeding hence low contraception usage (Gyimah, 2001)

### **2.3.2 Age**

According to a study carried out by Okech et al. (2011) in Kenya, 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. These results indicate the importance of age in contraception use.

### **2.3.3 Parity**

It has been observed that the higher the parity, the more likely a woman is to use contraceptives. According to the study carried out by Mahidul et al. (1998), ever use among the women who had children was more than three times higher (69%) than it was among women who had no children (19.7%). In the age group of 20-24 years, a drop in contraception use was observed among women who had no living children.

### **2.3.4 Type of marriage**

Polygyny is rarely included in family planning programmes in sub-Saharan Africa, even though the region has the highest rates of polygyny, high fertility and unmet need. In West Africa, a majority of women will spend some portion of their married life as a co-wife in a polygamous union (s). Polygynous unions differ from monogamous unions in a number of ways: greater age difference between polygynous spouses; decreased decision making power for wives; higher fertility preference for men; competition for husband's resources; lower spousal communication about family planning. Polygyny creates a climate of distrust between the spouses not only in polygynous unions, where "the dependence and submission of the co-wives [toward their husband] are reinforced by the competition and inequality between them" (Antoine, 2002), but also in monogamous marriages, because some men can use the potential arrival of a co-wife as "a threat to ensure their wives' subordination" (Hertrich and Locoh, 1999). Polygynous unions appear to result in higher preference for women, long periods of breast feeding and post-partum abstinence and decreased likelihood of contraception use.

Polygamy is usually associated with men's reproductive preference. Men usually have more than one wife because they want many children. The fertility preference of wives in polygynous unions is less clear. On the other hand, wives want many children in order to compete favourably with co-wives in terms of childbearing and status in household. This desire may be curtailed by the fact that women in polygynous unions shoulder greater responsibilities in rearing their children than their counterparts in monogamous union. Using data from DHS in 18 countries, Bankole and Singh (1998) have noted some differences in the desire for family size of marital partners by type of union. The proportion in which the husband's family size preference exceeds the wife's by two or more children is higher for polygynous unions than for monogamous unions.

### **2.3.5 Union status**

Kaufman (1998) reports that the absence of men at home is hypothesised to be negatively associated with contraceptive use because of lower coital frequency and a decreased risk of pregnancy. He further argues that the absence of men is also likely to increase demand for children because of the future labour and support children represent to women who find themselves in unstable social and economic relationships with men. Evidence suggests that many men working away from their wives are opposed to their wives' use of contraceptives, perceived as a sign of promiscuity and that men departing for contract work prefer to leave their wives pregnant, also eliminating the need for contraceptive use (Kaufman, 1998).

### **2.3.6 Fertility intentions**

Assuming that individuals who want no more children or wish to postpone childbearing practice contraception, it is easy to see why contraceptive use will be high when both spouses want to stop or postpone childbearing and low when both want to have another child. However, whether and to what extent, contraceptives are used in situations where spouses disagree about their intentions is the question. Do couples use contraceptives more when the husband wants more children and the wife does not or when the wife wants more and the husband does not? Where men are favoured in terms of access to household and community resources and recognition, do they also have a greater influence on contraceptive use?

According to Bankole and Singh (1998) findings, when spouses' fertility intentions disagree, there is no clear pattern with respect to the direction of contraceptive use. Out of the 18 countries, in 10 countries, modern contraceptive use is higher when only the husband wants to stop childbearing. In the other eight countries, however, it is higher when only the wife wants to stop having children. The difference in use according to which spouse wants no more children is generally trivial, less than eight percentage points in 12 countries. For the remaining countries, the difference ranges from nine percentage points in Malawi to 22 percentage points in Egypt, and the level of use is higher when only the husband wants no more children in five of these countries, all in Sub-Saharan Africa (Burkina Faso, Cote d'Ivoire, Kenya, Malawi and Senegal).

### **2.3.7 Age difference**

The age difference between spouses is one of the indicators of a woman's autonomy. The pattern of marriage in which the age gap between the spouses is in the favour of the husband is an important indicator to measure the status and position of woman in society.

It can be confirmed that the increasing age gap between spouses to the favour of the husband means that he is more dominant on family decisions (Haddad, 2012). These decisions include the woman's contraception use.

In studies by Barbieri and Hertrich (2005); Ibisomi (2001), it has been observed that couple with a large age difference between them are less likely to use contraception than couples with a small age difference

## **2.4 Culture**

Family planning programs have mostly concentrated their attention on women. In Africa research on the effectiveness of these programmes indicate limited success in curbing fertility although women consistently prefer to delay, limit or cease childbearing at some point (Ross and Mauldin, 1996). Family planning programmes have been struggling with this unmet need of African women. A major reason for the failure to reduce fertility and to deal with the unmet need has been the fact that programmes have not involved men (Benefo and Pillai, 2005). Men are an increasingly popular focus of reproductive health interventions. In the past, men's participation was sought after by family planning programmes to increase the use of condoms. However, later, men's involvement was considered necessary to support women's contraceptive use. Studies in both rural and urban showed that husband's approval was the most important determinant of contraceptive use by women.

Mufune et al.( 1999) reports that according to research conducted in Kenya, men who have some education on reproductive and sexual health are more likely than those who have not, to support their partners in family and contraception. The role of gender should not be down played. Both men and women play an important role in fertility decisions, including decisions to use contraceptives.

In Africa, research has concentrated on finding out the nature of men's involvement in reproductive decision making. Studies by Babalola (1999) and Rono (1999) revealed that men are instrumental in reproductive decision making. This is because in most African cultures, upon marriage, a man and his family pay dowry to the bride's family. An implicit outcome of the transaction is that it shifts reproductive decision making power to the male side. The gendered nature of marriages favours men whose costs in reproduction are minimal.

There has been evidence that many married women got pregnant even when they took contraceptives, especially pills, because their husbands objected to using them. They had to hide the pills in the garden and take them at irregular hours (Kaufman 1998).

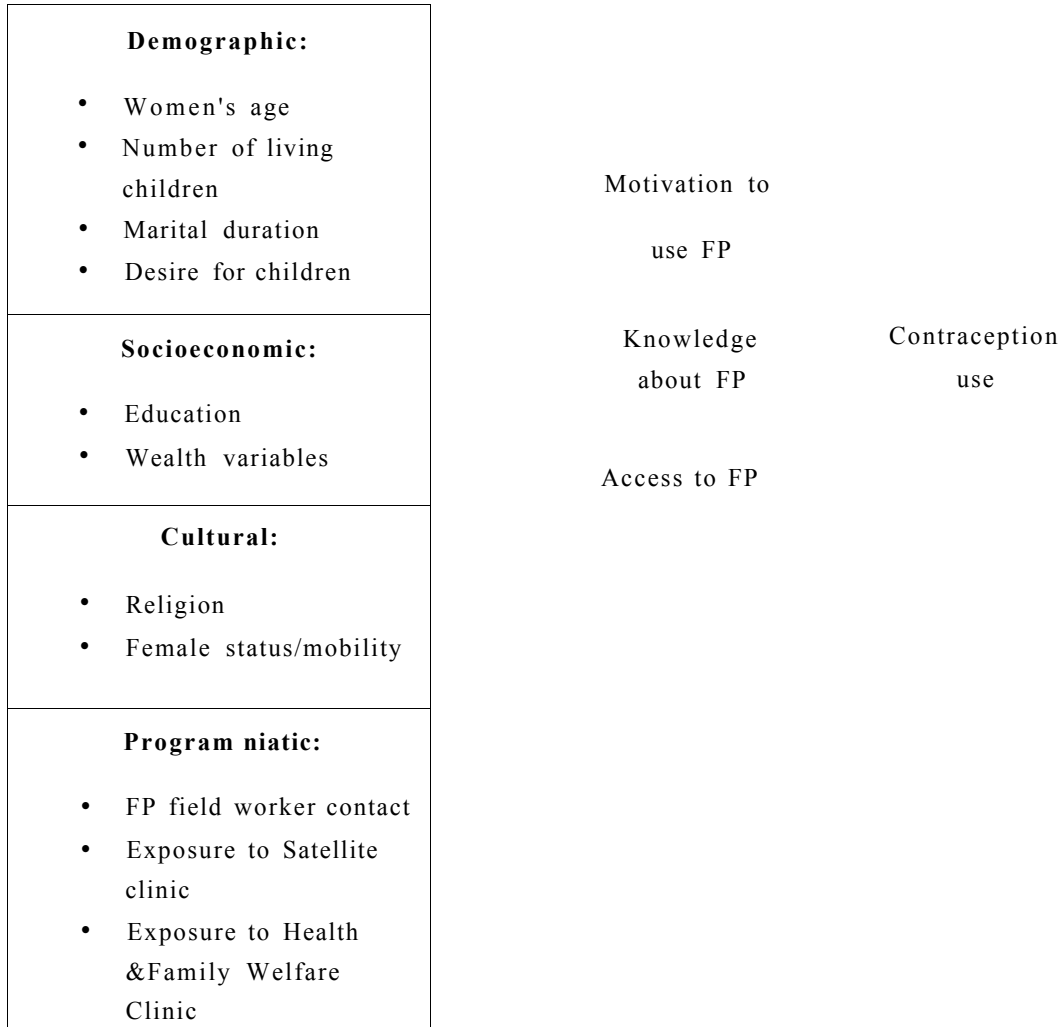
## **2.5 Conceptual framework.**

There are two main proximate determinants in the use of contraceptives: motivation to control fertility and the cost of motivation. Both operate through a set of demographic and socio-economic variables to affect the use of fertility regulation. Motivation is regarded as an interaction between the supply of children (actual number of surviving children) and demand for children (number of children desired). The cost of regulation includes economic costs (money and time), social costs (the outcome of transgressing social norms favouring child bearing) and health and psychological costs (the consequences of experimenting with something new that may be risky or unpleasant).

Factors affecting motivation to use contraceptives include: the desire for children, which is the most direct measure for contraception; demographic status which is measured by age and the number, of living children. Older women and women with more than five children are likely to be motivated to use contraceptives than younger women with low parity; reproductive knowledge which is measured by accurate knowledge of the ovulation cycle; cost and benefit of children, measures related the cost and benefit of children including education and place of residence; family values; exposure to family planning information, education and communication

Factors affecting the cost of contraception include: economic cost which is measured by accessibility to the source and time taken to reach it and the economic circumstances of the household; normative and psychological cost, which is measured by woman's own approval of family planning, the number of modern methods of which she approves, her perception that her husband and religion approve family planning, and exposure to IEC through various media; social costs which are measured by spousal communication about fertility and agreement about fertility goals, the influence of relatives on the decision to seek family planning information and place of residence

**Figure 2.1: Conceptual framework**

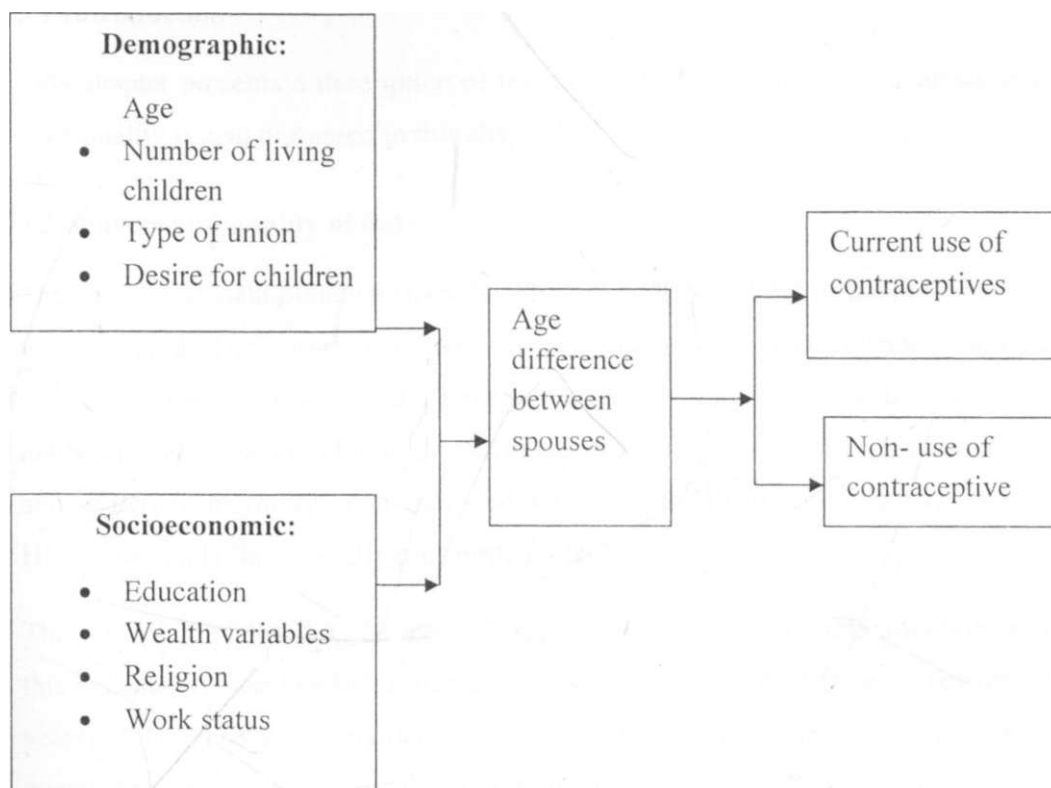


**Developed by Mahidul et al (1998)**



## 2.6 Operational framework

Figure 2.2: Operational framework



Adapted from Mahidul et al (1998)

Socioeconomic factors include place of residence, region of residence, work status and education level

Demographic factors include the number of living children, status of union, type of union, fertility intentions and age.

Cultural and programmatic factors have been excluded in the operational framework because they will not be tested in this study.

## 2.7 Hypothesis

Couples with a large age difference between them are less likely to use contraception than couples with a small age difference

## CHAPTER 3

### DATA AND METHODOLOGY

#### 3.1 Introduction

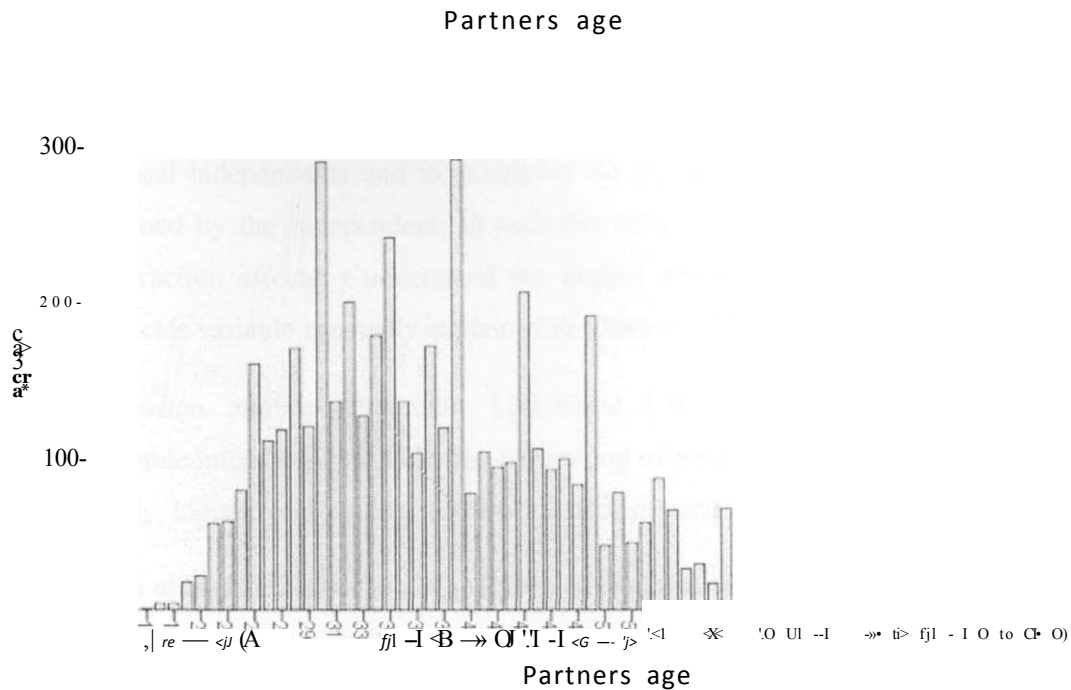
This chapter presents a description of the data and methods used for analysis in this study. Data quality is also discussed in this chapter.

#### 3.2 Sources and quality of data

This study uses data obtained from the 2008/09 KDHS. A total of 8,444 women aged 15-49 were covered. The survey was national in coverage. The data collected included fertility levels, marriages, sexual activity, fertility preferences, awareness and use of family planning methods, breast feeding practices, nutritional status of women and young children, childhood and maternal mortality, maternal and child health awareness and behaviour regarding HIV/AIDs, and other sexually transmitted infections.

The reliability of the data on age differences nevertheless warrants attention, especially as this indicator is based on two statements. It is calculated as the difference between the age (in years) of the interviewed woman and of her spouse. The age of the spouse is based on a direct question to his wife. To assess the quality of the data on age difference, the quality of the data on the ages of the two spouses, in terms of completeness and regularity of their distribution was examined. There were 18 out of 4682 missing cases in the partner's ages which amounted to 0.0038 %. As for the distribution, preference for ages ending with the digit 0 and 5 was observed in the partner's age as shown in the bar graph below. To check on the accuracy of the data, Whipple's index was calculated. It was found to be at 165.54 which suggest that the data on the age of partner is rough.

**Figure 3.1: Women's partners age distribution**



Source 2009 KDHS

### 3.3 Variable

The key independent variable is partner's age difference derived from subtracting woman's age from her partner's. The dependent variable is any contraception used which will be binary coded as 0 for no and 1 for yes.

The control variables are: the respondent's age, education, religion, occupation, household wealth, region, place of residence, status of union, type of union, number of living children, future fertility intentions as well as partner's age, education and future fertility intentions.

### 3.4 Methods of analysis

Multivariate logistic regression and bivariate analysis was used. Descriptive statistics generated will show the distribution of age difference between couples. Cross tabulations were used to show any significant relationships that existed between each of the independent variables and the dependent variable. To determine whether these associations are statistically significant, a Chi-square test was used to measure the dependence of the association.

### 3.5 Logistic Regression

Since the dependent variable is dichotomous, denoting whether a one uses contraception or not, binary logistic regression will be used to assess the affect of factors (independent variables) that are theoretically said to associate with the dependant variable.

Logistic regression can be used to predict a dependent variable on the basis of continuous and/or categorical independents and to determine the percent of variance in the dependent variable explained by the independent; to rank the relative importance of independent; to assess the interaction effects; t understand the impact of covariate control variables. The impact of predictor variable is usually explained in terms of odds ratios.

Logistic regression applies Maximum Likelihood Estimation after transforming the dependent variable into a logit variable (the natural log of odds of the dependent occurring or not). In this way, logistic regression estimates the odds of certain events occurring.

An explanation of logistic regression begins with an explanation of the logistic function

$$f(z) = \frac{1}{1 + e^{-z}}$$

The variable  $z$  represents the exposure to some set of risk factors, while  $f(z)$  represents the probability of a particular outcome, given that the set of risk factors. The variable  $z$  is a measure of the total contribution of all the risk factors used i the model and is known as the logit.

The variable  $z$  is usually defined as;

$$z = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k$$

Where  $z$  is the log odds of the dependent variable and where  $\beta_0$  is the constant and where  $k$  independent ( $x$ ) variables, some of which may be interaction terms.

### 3.6 Models

In order to achieve the set objectives, two models are fitted. The first is the spousal age difference with woman's contraceptive use. The second is spousal age difference with women's characteristics.

## CHAPTER 4

### DETERMINANTS OF CONTRACEPTIVE USE

#### 4.1 Introduction

This chapter is sub-divided into three sections. The first section presents the characteristics of the study population. The second section focuses on the association between contraception use and each of the selected socio economic and demographic factors. Cross tabulations have been used to test the association between contraceptive use and various independent variables. The last section explains the determinants of contraception use with focus on age difference between spouses.

#### 4.2 Study population characteristics

Out of the 8444 women in the survey, 4682 were involved in the study since it only factored in married women. Table 4.1 shows how these women are distributed based on their selected characteristics. The highest number of women were from rift valley which was 722 , then Nyanza which had 694, followed by coast which had 685 then Eastern which had 649, then western which had 590, then Central which had 494 followed by Nairobi which had 450 and the lowest was North eastern which had 398 women. Majority of these women were from the rural areas with 59.0% of them were working.

Women of primary education level made up 52.4% of the study population. Their partners were 44.9% in primary education level. Women of secondary and above level of education were 1328 while their partners were 1900. Women with no education formed 900 while their partners were 676

Christians were the majority of the women in the study; they formed 3620 out of the 4682 women. Muslims followed with 869 Women of no religion and other religions were 193.

Most of the women in the study lived with their husbands, only 22.1% of husbands lived elsewhere. 82% of the women were in monogamous marriages. The majority of the couples had an age difference of between 0-5 years. 1537 had an age difference of between 6-10 years. 1024 had an age difference of 11 and above. 2.8% of the women were older than their husbands.

Women of parity 0-3 were 1995 out of the 4682 women. Women of parity 3-4 were 834, and parity 5 and above were 1853. Only one woman was of parity 15. Majority of both husband and wife (48.6%) want the same number of children. 17.9% husbands want more children than their wives. 5.8% husbands want less children than their wives. There was no big difference in numbers for women who wanted more children and those who did not. Women who wanted more children were 2418 while those who did not want any more children were 2262.

**Table 4.1: Distribution of women by selected background characteristics of married women and their partners, 2009 KDHS**

<b>characteristics</b>	<b>Respondent (woman) N=4682</b>
<b>Region:</b>	
Nairobi	450
Central	494
Coast	685
Eastern	649
Nyanza	694
Rift Valley	722
Western	590
North-eastern	398
<b>Type of place of residence:</b>	
Urban	1323
Rural	3359
<b>Currently working:</b>	
Yes	2764
No	1906
<b>Education:</b>	
None	900
Primary	2454
Secondary f	1328
<b>Partner's education:</b>	
None	676
Primary	2104
Secondary+	1900
<b>Religion:</b>	
Christians	3620
Muslims	869
Other	193
<b>Partner lives in house:</b>	
Yes	3643
No	1039

**Table 4.1 (cont'): Distribution of women by selected background characteristics of married women and their partners, 2009 KDHS**

<b>Marriage type</b>	Monogamy	3871
	Polygamy	810
<b>Age difference (Man's-Woman's)</b>	<0	129
	0-5	1974
	6-10	1537
	11+	1024
<b>Number of living children</b>	<3	1995
	3-4	834
	5+	1853
<b>Fertility intentions</b>	Want more	2418
	Wants no more	2262
<b>Partner's</b>	Both want same	2277
	Husband wants more	840
	Husband wants less	272
	DK	1108
<b>Wealth index</b>	Poor	1795
	Middle	806
	Rich	2081
<b>Partner's age</b>	15-34	1833
	35-44	1416
	45+	1414
<b>Age</b>	15-34	3040
	35-44	1201
	45+	441

### 4.3 Findings from bivariate analysis

Determinants of contraceptive use have been illustrated in table 4.2. Contraceptive use was seen to decrease with an increase in the age difference between the spouse: 35.7% of women who were older than their husbands were using contraceptives, 40.6% of women of age difference of 0-5, 36.6% of women of spousal age difference of 6-10 % and 25.2% of women of spousal age difference was 11 and above

Education was observed to have an influence on contraception use. Users increased with increase in education level: 7.4% of women with no education, 37.2% of women with primary education, 51.4% of women with secondary education and 54.9% of women with higher than secondary education

Women in monogamous marriages used contraception more than women in polygamous marriages. There is no big difference in contraception use between women who lived with their partners and those who did not.

Contraceptive use among married women of parity 0-3 was 3.4%, 43.2% women of parity 3-4 and 29.4 .2% among women of parity 5 and above. Contraceptive use was 26.8% among women who wanted children and was 45.2% among women who did not want any more children. It was highest among women whose husbands wanted less children, 39.0% among women who wanted the same number of children as their husbands, 29.5% among women whose husbands wanted more children than the and 20.9% among women who did not know their husband's desired number of children

Region wise, contraception use was at 52.4% in Nairobi, 59.5% in Central, 29.5% in Coast, 40.1% in Eastern, 31.7% in Nyanza, 30.1% in Rift Valley, 38.8% in Western and the least was 3.5% in North eastern. More women in the urban areas used contraception than those in the rural areas. 42.3 % of women who were working used contraception and 26.1% of them who were not working used contraception

Contraception use was highest among Christian women. 13.2 of Muslim women and 17.6% of women of no religion used contraceptives.

The richest households had the highest contraceptive users at 47.5%. Contraceptive use was seen to decrease with decrease in wealth: 12.9% of women in the poorest household, 32.2% of women in poorer households, 40.0% of women in middle household, 46.2% of women in richer household used contraceptives.



**Table 4.2: Proportion of women using contraception according to selected background characteristics, 2009 KDHS**

characteristics	Current contraceptive		Total (N)	Chi-square
	use			Df
	(%)			significance
<b>Age difference (Man's-Wo man's)</b>				$\chi^2=70.199$
<0	35.7		46	Df=3
0-5	40.6		801	Sign=0.000
6-10	36.6		563	
11+	25.2		258	
<b>Education</b>				$\chi^2=4.71 \text{ 1E}2$
None	7.4		67	Df=2
Primary	37.2		913	Sign.=0.000
Secondary+	52.1		692	
<b>Currently working</b>				$\chi^1= 1.295$
Yes	42.3		498	Df=1
No	26.1		1171	Sign =0.000
<b>Marriage type</b>				$\chi^1=68.076$
Monogamy	38.4		1485	Df=1
Polygamy	23.1		187	Sign.=0.000
<b>Number of living children</b>				$\chi^2=49.14$
<3	3.4		681	Df=2
3-4	43.3		627	Sign.=0.000
5+	29.4		364	
<b>Fertility intentions</b>				$\chi^2= 1.720$
Wants more	26.8		649	Df=1
Wants no more	45.2		1023	Sign =0.000
<b>Partner's</b>				$\chi^2=1.315$
Both want same	39.0		888	Df=3
Husband wants more	29.5		248	Sign.=0.000
Husband wants less	44.9		122	
DK	20.9		232	
<b>Age</b>				$\chi^2=23.834$
15-34	35.0		1064	Df=2
35-44	40.4		485	Sign-=0.000
45+	27.9		123	
<b>Partner's age</b>				$\chi^2=18.660$
15-34	35.1		643	Df=2
35-44	40.0		567	Sign-=0.000
45+	32.4		458	

**Table 4.2(cont'): Proportion of contraceptives use according to women with selected background characteristics, 2009 KDHS**

<b>Region</b>			
Nairobi	52.4	236	$\chi^2=3.908$ Df=7 Sign.=0.000
Central	59.5	294	
Coast	29.5	202	
Eastern	40.1	260	
Nyanza	31.7	220	
Rift Valley	30.1	217	
Western	38.8	229	
North-eastern	3.5	14	
<b>Religion</b>			
Christians	42.1	1523	$\chi^2=2.826$ Df=2 Sign.=0.000
Muslims	13.2	115	
other	17.6	34	
<b>Type of place of residence</b>			
Urban	44.3	586	$\chi^2=59.159$ Df=1 Sign.=0.000
rural	32.4	1086	
<b>Wealth index</b>			
Poor	38.3	1795	$\chi^2=3.654$ Df=4 Sign.=0.000
Middle	35.8	1674	
Rich	25.9	1213	
<b>Partner lives in house</b>			
Yes	36.8	1342	$\chi^2= 8.727$ Df=1 Sign=0.003
No	31.9	330	
<b>Partners education</b>			
None	6.9	47	$\chi^2=3.425$ Df=2 Sign =0.000
Primary	35.1	739	
Secondary^	46.6	886	

#### 4.4 Findings from the multivariate logistic Regression

This section presents the effect of socioeconomic and demographic factors on contraceptive use in 2009. Tables 4.3 and 4.4 give the results of logistic regression for interpretation. If Exp B is significantly above one, that is an indication of a positive relationship between the independent and the dependent variable; if exp B is significantly lower than one, that is an indication of a negative relationship between the two variables. The coefficients (B) too guide the direction of the relationship between the two variables. For an association to be significant the level of association should be  $<5\%$ , and the Wald statistic should be  $>2$  /

#### 4.4.1 Demographic factors

In model 1 (table 4.3), all other variables were controlled for making age difference the only variable of interest. Age difference of spouses was found to be a significant factor affecting the use of contraceptives. A woman whose age difference from her partner was 11 and above was 0.608 times less likely to use contraception compared to a woman whose age difference with her partner is less than 0. This association was significant at 5% level. This negative association of age difference and contraception use mirrors the findings of Ibisomi (2001).

**Table 4.3: Model 1; Results from logistic regression showing the effect of spousal age difference on contraception use, 2009 KDHS**

	B	S.E	Wald	df	Sign.	Exp (B)
Age difference <0®			68.924	3	0.000	
0-5	0.209	0.189	1.214	1	0.271	1.232
6-10	0.042	0.191	0.048	1	0.826	1.043
11 +	-0.498	0.197	6.365	1	0.012	0.608*
constant	-0.590	0.184	228.551	1	0.001	0.3554
Variable(s) entered on step 1 :agediff						
Model summary						
Step	-2 Log likelihood		Cox &snell R squared		Nagelkerke R squared	
1	6009.609		.015		.021	
A Estimate terminated at iteration number 4 because parameter estimates changed by less than 0.001						

® denotes the reference category

Significant association (\*p<0.05) (\*\*p<0.01) (\*\*\*)p<0.001)

In model 2 (table 4.4), the women characteristics were involved alongside the age difference between spouses. The key variable, age difference between spouses, was not found to be a significant factor affecting contraceptive use. These results too mirror the findings of Ibisomi (2001). Contrary to these findings, Barbieri and Hertrich, (2005) found the age difference between spouses to be a statistically significant factor affecting contraception use and this association was found to be a negative one. This difference could be attributed to the fact that Barbieri and Hertrich use 1998 KDHS data. During this period, the number of unemployed was more than half that of the unemployed men. The contraception prevalence rate was at 38% in 1998. In the year 2009 KDHS show that 2 in every three currently married women were employed and 42% of them decide on how their cash earned are use. The contraception prevalence rate was at 46%.

Central and Nairobi provinces women are generally involved in decision making than women in other provinces. This in turn is seen to impact on contraception use since these two provinces have the highest contraception prevalence rate. This data indicate a positive association between women's status and contraception use. From this information, one can see that when the level of women empowerment increases, the age difference between spouses become insignificantly associated with contraception use, as in the case of 2009.

Though the key independent variable was found to be insignificantly associated with contraception use, other variables were found to be significant.

The woman's age was significantly affecting contraception use. A woman who was 45 and above was 0.321 times less likely to use contraceptives than a woman a woman who was below 35 years old. This relationship was significant at 0.1% level. Age has a complex effect because it reflects on both period and cohort effects. As a result of the period effect, contraceptive use can increase with age. The period of exposure to the probability of using contraception, and the probability of having reached the desire family size increases with age. Meanwhile, as a result of the cohort effect, contraceptive use is lower at older ages; the youngest cohorts have grown up in an environment more open to innovation and have been more exposed than their senior counterparts to campaigns promoting contraception use.

Fertility intentions of both the husband and wife are significantly associated with contraception use. Women who do not know how many children their husband's desire are 0.731 times less likely to use contraceptives than women whose husbands want the same number of children as them. Women who did not want any more children were 1.462 times more likely to use contraceptives than women who wanted more children. These relationships are significant at 0.1% level. Bankole and Singh (1998) found out that in Kenya, contraception use was higher when only husbands wanted no more children

The number of living children was a significant factor in determining contraceptive use. Women with 3 to 4 children were 1.714 times more likely to use contraception than women with less than 3 children. This relationship was significant at 0.1% level. The probability of using contraception increases logically with the number of surviving children. Axinn(1992), Chapagain (2005) and Dang (1995) findings concur with my results.

The union status was also a significant determinant of contraceptive use. Women whose husbands did not live with them in the same house were 0.788 times less likely to use contraceptives compared to women whose husbands lived with them in the same house. This relationship was significant at 1% level. Kaufman (1998) stated that absence of men is negatively associated with contraception use.

This study did not find a significant association between the number of co-wives, partner's age and contraception use.

#### **4.4.2. Socioeconomic factors**

In model 2 (table 2.2), the region where a woman lived was a significant factor in determining contraception use. Women who lived in central were 1.478 times more likely to use contraceptives than women who lived in Nairobi. This relationship was significant at 5% level. Women who lived in Rift Valley were 0.623 times less likely to use contraceptives than women who live in Nairobi. Women who lived in North-eastern were 0.390 times less likely to use contraceptives than women who live in Nairobi. These relationships were significant at 1% level. Women who lived in Nyanza were 0.530 times less likely to use contraceptives than women who live in Nairobi This relationship was significant at 0.1% level

A woman's working status was significantly associated with contraceptive use. Women who were not working were 0.619 times less likely to use contraceptives than women who were working. This relationship was significant at 0.1% level. Results by Yohannes et al (2003) and Banerjee (2004) supports this result.

Education was an important factor in determining contraceptive use. Women of primary education level were 2.384 time more likely to use contraceptives than women with no education. Women of secondary and above education level were 3.513 time more likely to use contraceptives than women with no education. These associations were significant at 0.1% level. Schooling is an indicator both for social background and the woman's status. It fosters the adoption of new fertility ideas through access to more diverse sources of information and to more opportunities for personal fulfilment outside the roles of a wife and a mother. Within the couple and extended family, education gives a woman more power to negotiate.

Wealth index was also an important determinant of contraceptive use. Women from middle-class households were 1.43 times more likely to use contraceptives than women from poor households. This relationship was significant at 0.1% level.

Partner's education level was found to be an important determinant of contraceptive use. Women whose partners were of primary education were 2.384 times more likely to use contraceptives than women whose partners have no education. Women whose partners were of secondary and above education were 3.513 times more likely to use contraceptives than women whose husbands have no education. These relationships were significant at 0.1% level.

Place of residence was not found to be a significant determinant of contraceptive use. Place of residence is usually associated with diffusion of information, social control and access to and use of health and family planning services.

In his study, Ibisomi found that contraception use in the study population was not associated with religion, occupation, number of children alive, place of residence or status of union.

**Table 4.4: Model 2; Results from logistic regression showing the effect of married women's characteristics on contraceptive use, 2009 KDHS**

	B	S.E	Wald	df	sign	Exp (B)
<b>Age difference</b>						
<0			0.506	5		
0-5	-0.106	0.215	0.244	1	0.957	1.112
6-10	0.087	0.224	0.152	1	1.077	1.091
11+	0.039	0.251	0.024	1	1.058	1.040
<b>Region</b>						
Nairobi			76.229	7	0.000	
Central	0.391	0.165	5.633	1	0.018	1.478*
Coast	-0.112	0.155	0.520	1	0.471	0.894
Eastern	0.043	0.163	.068	1	0.794	1.044
Nyanza	-0.636	0.158	16.227	1	0.000	0.530***
Rift Valley	-0.474	0.159	8.831	1	0.003	0.623**
Western	-0.225	0.158	2.028	1	0.154	0.798
North-eastern	-0.942	0.342	7.598	1	0.003	0.390**
<b>Type of place of residence</b>						
Urban						
rural	-0.112	0.122	0.997	1	0.318	0.894
<b>Husband desire for children</b>						
Wants same no. as wife			15.885	3	0.001	
Wants more	0.000	0.100	0.000	1	0.998	1.000
Wants less	0.235	0.140	2.790	1	0.095	1.264
	-0.314	0.097	10.403	1	0.001	0.731***
<b>DK Desire for children</b>						
Wants more						
Wants no more	0.384	0.087	19.301	1	0.000	1.462***
<b>Currently working</b>						
Yes						
no	-0.480	0.076	40.260	1	0.000	0.619***
<b>Religion</b>						
Christians			17.288	2	0.000	
Muslims	-0.464	0.146	10.060	1	0.002	0.629**
other	-0.710	0.231	9.418	1	0.002	0.492**
<b>Marriage type</b>						
Monogamy						
polygamy	-0.138	0.114	1.454	1	0.228	0.871

**Table 4.4 (cont'): Model 2; Results from logistic regression showing the effect of married women's characteristics on contraceptives use, 2009 KDHS**

<b>No. of living child ren</b>						
<3®			35.550	2	0.000	
3-4	0.539	0.093	33.230	1	0.000	1 714***
5+	0.243	0.126	3.708	1	0.054	1.275
<b>Education level</b>						
None®			48.188	2	0.000	
Primary	0.869	0.178	23.964	1	0.000	2 384***
Secondary+	1.256	0.191	43.106	1	0.000	3.513***
<b>Wealth index</b>						
Poor®			19.040	2	0.000	
Middle	0.366	0.109	11.379	1	0.001	1 443***
Rich	0.445	0.110	16.458	1	0.283	1.560
<b>Partner's education level</b>						
None®			14.874	2	0.001	
Primary	0.418	0.214	3.793	1	0.051	1.519
Secondary+	0.674	0.206	10.646	1	0.001	1 951***
<b>Husband lives in house</b>						
Yes®						
no	0.340	0.078	19.301	1	0.000	1.405***
<b>Age</b>						
15-34®			35.735	2	0.000	
35-44	-0.166	0.122	1.858	1	0.173	0.847
45+	-1.138	0.203	31.506	1	0.000	0.321***
<b>Partner's age</b>						
15-34®			0.704	2	0.703	
35-44	-0.075	0.104	0.511	1	0.475	0.928
45+	-0.136	0.171	0.638	1	0.424	0.873
constant	-2.489	.337	54.488	1	.000	.083
Variable(s) entered on step 1: agediff, cowivesno, educatiolevel, paritygrouped, wealthindex, religion, fertiltyintentions, VI01 V102,, V504, V621, V714						
Model summary						
Step	-2 Log likelihood		Cox &snell R squared		Nagelkerke R squared	
1	4754.187		.187		.260	
A Estimate terminated at iteration number 6 because parameter estimates changed by less than 0.001						

® denotes the reference category

Significant association (\*p<0.05) (\*\*p<0.01) (\*\*\*p<0.001)



**Table 4.4 (cont'): Model 2; Results from logistic regression showing the effect of married women's characteristics on contraceptives use, 2009 KDHS**

<b>No. of living children</b>						
<3®			35.550	2	0.000	
3-4	0.539	0.093	33.230	1	0.000	j
5+	0.243	0.126	3.708	1	0.054	1.275
<b>Education level</b>						
None®			48.188	2	0.000	
Primary	0.869	0.178	23.964	1	0.000	2.384***
Secondary+	1.256	0.191	43.106	1	0.000	3.513***
<b>Wealth index</b>						
Poor®			19.040	2	0.000	
Middle	0.366	0.109	11.379	1	0.001	1.443***
Rich	0.445	0.110	16.458	1	0.283	1.560
<b>Partner's education level</b>						
None®			14.874	2	0.001	
Primary	0.418	0.214	3.793	1	0.051	1.519
Secondary+	0.674	0.206	10.646	1	0.001	1.961***
<b>Husband lives in house</b>						
Yes®						
no	0.340	0.078	19.301	1	0.000	1.405***
<b>Age</b>						
15-34®			35.735	2	0.000	
35-44	-0.166	0.122	1.858	1	0.173	0.847
45+	-1.138	0.203	31.506	1	0.000	0.321***
<b>Partner's age</b>						
15-34®			0.704	2	0.703	
35-44	-0.075	0.104	0.511	1	0.475	0.928
45+	-0.136	0.171	0.638	1	0.424	0.873
constant	-2.489	.337	54.488	1	.000	.083
Variable(s) entered on step 1: agediff, cowivesno, educatiolevel, paritygrouped, wealthindex, religion, fertiltyintentions, VI01 V102,, V504, V62I, V7I4						
Model summary						
Step	-2 Log likelihood		Cox & snell R squared		Nagelkerke R squared	
1	4754.187		.187		.260	
A Estimate terminated at iteration number 6 because parameter estimates changed by less than 0.001						

® denotes the reference category

Significant association (\*p<0.05) (\*\*p<0.01) (\*\*\*)p<0.001)

## SUMMARY, CONCLUSION AND RECOMENDATION

### 5.1 Introduction

This chapter discusses the summary of the research findings, conclusion and recommendations for policy makers and for further research. These recommendations are made on the basis of the findings.

### 5.2 Summary

This study sought to assess the influence of spousal age difference on contraceptive use among married women in Kenya. Specifically the study sought to assess the inter play between spousal age difference and the respondent and her partner's demographic and socio-economic characteristics.

Bivariate analysis indicated that there was a significant relationship contraception use and the respondent's age, education religion occupation, household wealth, region, place of residence, status of union, number of living children, working status, future fertility intentions as well as their partners age, education and future fertility intentions.

### 5.3 Conclusion

The main purpose of this study was to find the effect of spousal age difference on contraception use among married women in Kenya. Model 1 has shown that age difference on its own was found to be negatively associated with contraception use and that it was statistically significant. This model accepts the hypothesis which suggests that large age groups impedes on contraception use. However, the relationship between age difference and contraceptive use was reversed when other respondents' and their partners' characteristics' were introduced in model two. The age difference's association with contraception use became statistically insignificant.

### 5.4 Recommendations

This section discusses the recommendations emanating from the study both for policy and for further research. These will be discussed in light to the study findings and conclusions.

#### **5.4.1 Implications for policy**

This study indicates that spousal age difference does not have a statistically significant association with contraception use when the women's characteristics are involved. This could be an indicator of the fruits of girl-child and women empowerment since it portrays the woman as an individual who has taken charge of her reproductive life. It could also mean that married women might be more empowered than documented. Another possible reason could be an indicator of the beneficial effect of women's education on contraceptive use.

From these results, the need to continue and even accelerate the girl-child and women empowerment programmes cannot be overemphasised.

#### **Recommendations for further research**

For further understanding of gap between contraception use and its knowledge in Kenya, future studies should focus on the mechanism behind higher contraceptive use by women who are highly educated, in households of middle wealth index, who do not know how many children their husbands want and whose husbands are highly educated and live in the same house as them. More detailed multivariate studies of these relationships could contribute much to this line of research.

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