

**DETERMINANTS OF READINESS TO UNDERGO  
VASECTOMY, A FAMILY PLANNING METHOD FOR  
MEN IN BUSIA COUNTY, KENYA**

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER  
OF ARTS IN PROJECT PLANNING AND MANAGEMENT OF THE  
UNIVERSITY OF NAIROBI**

**2014**

**DECLARATION**

This research project is my original work and has not been presented in any other university or institution of higher learning.

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## **DEDICATION**

This project is dedicated to my wife, Evelyn and to my two sons Calvin and Tyler Ochieng for their support and encouragement during the study.

## **ACKNOWLEDGEMENT**

I feel indebted to my supervisors, Professor Omollo Ongati and Ms. Lenah Kirop whose inputs were critical to the development of this study. I deeply appreciate Dr. Charles Rambo, the former resident lecturer of the University of Nairobi, Kisumu extramural Centre for his guidance during the development of the project. Many thanks to Dr. Raphael Nyonje who helped me shift focus from hospital to community based study to enhance validity and reliability of the data.

I would like to appreciate Dr. Douglas Stein, the founder and director of Florida Vasectomy and Reversal Center based in Tampa, Florida, U.S.A. He hosted and mentored me in his private practice in December, 2010. I witnessed how he did between twenty to thirty vasectomies every day and thereby fostering in me a keen interest in Vasectomy services and felt a strong urge to replicate the same in Kenya beginning with Busia County where I felt the need is immediate. Dr. Douglas Stein funded my trip to India in February 2011 where I participated in the 5<sup>th</sup> world vasectomy conference which took place in Goa. In February 2012 he funded my trip to Cebu City, Philippines for a one week vasectomy mission; I learnt a great deal the organization and coordination of a vasectomy camp.

My heartfelt appreciation also goes to Dr. Ramon Suarez, the founder and president of No Scalpel Vasectomy International (NSVI), a charitable organization based in Florida, USA. Dr. Suarez has on three prior occasions honored my humble request for vasectomy missions to Kenya; in May and November 2012 and in August 2013. Lastly I would like to thank the Jaramogi Oginga Odinga Referral and Teaching hospital institutional review board for conducting an ethical review on the study.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

|              |   |
|--------------|---|
| <b>FHI</b>   | Family Health International                     |
| <b>FPM</b>   | Family Planning Methods                         |
| <b>IEA</b>   | Institute of Economic Affairs                   |
| <b>JHSPH</b> | John Hopkins School of Public Health            |
| <b>KDHS</b>  | Kenya Demographic Health Survey                 |
| <b>KNBS</b>  | Kenya National Bureau of Statistics             |
| <b>KNSPP</b> | Kenya National Social Protection Policy         |
| <b>LAPMs</b> | Long Acting Permanent Methods                   |
| <b>MLM</b>   | Multilevel Marketing                            |
| <b>MSI</b>   | Marie Stopes International                      |
| <b>NCAPD</b> | National Council for Population and Development |
| <b>NHFC</b>  | Natural Help for Convalescence                  |
| <b>NNNSV</b> | No Needle No Scalpel Vasectomy Technique        |
| <b>NSV</b>   | No Scalpel Vasectomy                            |
| <b>TFR</b>   | Total Fertility Rate                            |
| <b>UNFPA</b> | United Nations Population Fund                  |

## ABSTRACT

Kenya is among the sub-Saharan African countries with very high Total Fertility Rates (TFR), currently at 4.6 per woman. The Total Population is 38.6 million with an annual population growth rate of 2.8%. The population is projected to hit the 85 million mark by the year 2050. The surest way to save ourselves is to maintain human Population at "Carrying Capacity" and living in harmony with our environment through effective voluntary family planning Programmes. This study investigated the factors that determine the readiness to undergo vasectomy as a method of family planning among men whose families are complete in Matayos location, Busia County. The study explored the socioeconomic factors, vasectomy administration process and resource based factors that determine men's readiness to undertake vasectomy, a male family planning method. The population in this study is 1024 male heads of households in Matayos Location, Busia County. With a margin error of 5%, confidence level of 95% and a response distribution of 50% the study anticipated to interview a sample of 279 Busia residents. A survey questionnaire was used to collect data from the field using a descriptive cross sectional survey. The questionnaire was pretested by conducting a pilot test on a sample of 10 respondents from Nambale location which has a similar geographical location as Matayos location. The research instruments yielded a reliability coefficient of 0.81. Data analysis was done by category into the demographics and the other independent variables. Analysis was carried out in the SPSS version 19 based on descriptive and inferential statistics using chi square and presented in the form of frequency tables. The study found that the socio economic factors that affected men's readiness to undergo vasectomy were the number of years in marriage, number of children, and difference between the number of boys and girls in the family, age of the youngest child, planning of the births and whether the last child was planned or not. In the vasectomy administration factors, the study established that use of needles affected men's readiness to take up vasectomy, recovery period from the surgical process and the type of family planning use by spouse. In the resources that affected adoption of vasectomy, the study found that availability of qualified vasectomists in the local health facilities and provision of wage compensation during the process of recovery increased the chances of adoption of vasectomy. The study recommends that there needs to be an improved campaign to remove stigma towards vasectomy. This should be done by proper campaign in social centers such as schools, churches and market places. This could also be done by involving local NGOs and community leadership. The study also recommends that the government needs to be at the forefront of the campaign to involve people in taking up vasectomy. The government could also provide logistic support to the process. The study suggests that in future a similar research needs to be done and involve the views of the vasectomists to make it more inclusive. Secondly, the study suggests that in future a follow up study needs to be done to assess whether adoption of the process has improved or not. Lastly the study also suggests that a similar study needs to be done in other areas more so in areas of urban setting so as to compare with the findings of this study.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the study

Vasectomy is a permanent method of family planning involving a surgical process where the service provider cuts the vasa deferentia, through which sperm travel from the testicles to combine with semen making the semen sperm free. Vasectomy is effective, safe and cheap to perform and has few side effects. Unfortunately, knowledge on vasectomy as a method of family planning is poor. With the exception of Bhutan and Tajikistan, female sterilization is more common than vasectomy in the world (Lande & Kol, 2008).

In USA, 78% of men sampled in a survey said, “Contraception is a joint decision, and 87% of men strongly agreed that men have the same responsibility as women for the children they father” (Grady, 1996).

In New Zealand vasectomy has been so widely adapted that it seems to be the rule rather than the exception (John Hopkins Bloomberg School of public Health (JHBSPH), 2008).vasectomy became more widespread than female sterilization in the mid 1980’s. In the late 1990’s a telephone survey found that over half (57%) of men ages 40-49 had had vasectomies. The procedure is popular among all socioeconomic groups (JHBSPH, 2008).vasectomy is not particularly promoted in New Zealand; instead the high

prevalence reflects widespread attitudes about male roles in the family and reproductive health. Interviews with vasectomy clients ages 35 to 45 years found that 9 out of 10 had chosen vasectomy because they wanted to relieve their partners of the responsibility for contraception and felt it was time for them to take their turn (JHBSPH,2008).The decision was made easier by the simplicity, safety, short recovery time and lower cost of vasectomy compared to female sterilization (JHBSPH,2008).vasectomy is so widely used in New Zealand that men say they are not influenced by misperceptions or negative attitudes expressed by some friends.

India possesses a structured and comprehensive national programme promoting the use of No scalpel vasectomies (NSV). This programme is funded by the United Nations population fund (UNFPA) with the Government of India providing centers for training and making available the necessary infrastructure at the training sites( Michel ,Sokal and Kaza , 2005).As of December 2002,309 NSV courses had been organized all across the country involving 51 state trainers,58 district trainers and 1080 trainees (Michel ,et al 2005). A total of 153,687 procedures were performed during these training sessions. A national NSV conference is organized on an annual basis by the NSV surgeons of India. In 2003-04,113,092 vasectomies were performed (Michel, 2005).

Among the strategies adopted by the Rwandan Ministry of health, particular importance has been placed on the availability and accessibility of contraceptive methods including vasectomy ( Republic of Rwanda (ROR),2011).vasectomy feasibility studies led by the Rwandan ministry of health maternal and child health unit in four districts (Nyabilu,Gizumbi,Ruhindo and Muhanga) showed increasing demand for vasectomy services in these districts and elsewhere in Rwanda while the service provider's skills remained insufficient (ROR,2011). To address these

challenges the Rwandan ministry of health planned training sessions on No Scalpel vasectomy in order to endow service providers working in maternal and child health with the necessary skills. The highly successful Rwandan vasectomy programme was initiated in 2008 supported by Family Health international (FHI).A total of 1170 vasectomies were done from 2008 to 2010 (ROR,2011).

Kenya is among the sub-Saharan African countries with very high Total Fertility Rates (TFR), currently at 4.6 per woman (Kenya Demographic Health Survey (KDHS), 2008-09).The Total Population is 38.6 million with an annual population growth rate of 2.8%.The population is projected to hit the 85 million mark by the year 2050(Kenya National Bureau of Statistics(KNBS), 2009). Forty five percent of all the pregnancies in Kenya are unwanted and unplanned (KDHS, 2008-2009).Ninety nine percent of the burden of Family planning is carried by women with little male involvement (Marie Stopes international (MSI), 2011).Seldom are we reminded that we have surpassed the “carrying capacity” of our environment and that is why desertification, drought, flooding, disease outbreaks, famine, rampant unemployment and insecurity have become a permanent feature in this country’s annual calendar. The single greatest threat to biological resources of this country is the current uncontrolled proliferation of the human species and the resulting poverty. In a natural resource based economy like ours, if the people are poor, environmental degradation will continue no matter what legislation are put in place. Meanwhile we shall continue begging for foreign aid when the cheapest and surest way to save ourselves is to maintain human Population at” Carrying Capacity” and living in harmony with our environment( Mwenja,2008).

Vasectomy is an effective family planning method which has been successfully used in developed countries like USA, Australia, New Zealand and Asia (table1).

Vasectomy is more popular than female sterilization in Bhutan and Tajikistan; both developing countries (Kols and Lande, 2008). Vasectomy can also be effectively used in Kenya. In this era of globalization, why should Kenya be an “Island?” Vasectomy is much safer with limited or no side effects, with only a few men experiencing short-term blood clotting or infection, considered to be minor problems, unlike the many side effects associated with contraceptives on women, such as heavy vaginal bleeding, weight changes, migraine headaches and loss of libido. The procedure takes minutes to complete, and requires only local anesthesia. After vasectomy, the testicles continue to produce sperm, which eventually degenerate and are excreted like any other unused sperm or body cells, while the glands that produce semen will continue doing so in same amount. After 15 -20 ejaculations the semen is considered safe (World Health Organization (WHO), 1994). Men should not expect any changes in physical traits of masculinity, body strength, sexual drive, erections or climaxes, as vasectomy does not affect production of male hormones. Vasectomy is one of the few methods that allow men to take personal responsibility for contraception.

Without the worry of pregnancy and the concern of using temporary contraception, some men reported increased sexual pleasure after undergoing vasectomy (WHO, 1994). Despite this, the usage is very low in developing countries at 2.5%, with only 0.1% of Kenyan men having had vasectomy (Marie Stopes International (MSI), 2011).

Busia has a high population growth rate of 2.9% as compared to the national growth rate of 2.8%. It is also higher than the targeted population growth rate of 2.1% by 2010 by Kenya’s economic blue print, *vision 2030*. (Kenya Demographic Health Survey (KDHS), 2009).The population density is 439 people per km<sup>2</sup> compared with the national figures of 27/km<sup>2</sup> (Institute of Economic Affairs (IEA), 2011).



The district experiences high fertility with Total Fertility Rate (TFR) standing at 5.8 children per woman (KDHS, 2009). The population is mainly youthful with two thirds (67%) of the population aged below 25 years. Those aged 65 years and above account for only 3.4 per cent of the total population. The youthful population has put pressure on the available educational, health, food and other social facilities. This has also contributed to the high dependency ratio of 100:107. High population growth rate with diminishing resources unable to satisfy the youths is a ticking time bomb waiting to explode (KDHS, 2009).

The doctor/patient ratio is 1:41,200 in Busia. World health organization recommended ratio is 1:5,000. (WHO, 2009). The district experiences high infant and child morbidity and mortality. Infant mortality stands at 75 deaths per 1,000 live births while under 5 mortality is at 111/1000 live births. The deaths are high mainly due to inaccessible health facilities, inadequate health services and high poverty incidence where most parents cannot afford medical care for their children.

The teacher to Pupil ratio is 1:33 in Public schools. The global average is 1:18. The police to citizens Ratio is 1:1150; UN Security Council recommends 1:450 (GOK, 2012). The Government, the community and other stakeholders need to act urgently to reduce the rapid population growth rate.

**Table1.1: Estimated worldwide use of vasectomy**

| <b>Area and year</b>       | <b>Uptake rate (%)</b> |
|----------------------------|------------------------|
| Canada                     | 22.0                   |
| New Zealand/Australia 1999 | 11.8                   |
| U.S.A. 2001                | 10.3                   |
| Asia 2004                  | 3.0                    |
| Northern Africa 2004       | 0.1                    |
| Sub Saharan Africa 2003    | 0.1                    |
| Kenya                      | 0.1                    |

Source: John Hopkins Bloomberg School of public Health. Population reports

## **1.2 Statement of the problem**

Non Use of contraceptives is one of the contributing factors to the persistent high fertility levels prevailing in Kenya. This was reflected in the first development report released as an interim on Kenya's development. The government therefore made a move to reduce the population growth rate by establishing family planning as a persuasive policy aimed at controlling fertility (KDHS, 2003). The most used methods of family planning in Kenya are female sterilization 4.8%, pills 7.2%, IUD 1.6%, injectable 21.6%, male condom 1.8%, Lactational Amenorrhoea Method (LAM) 0.5%, period abstinence (rhythm methods) 4.7%, withdrawal 0.7%, folk methods 0.7%, others include implant, post coital Oestrogens (morning after pills- 72hrs), vaginal ring, implants and female condom (KDHS, 2008-09). However, vasectomy which is a Long Acting and Permanent Method (LAPM) for men whose families are complete was not even documented despite its effectiveness and safety.

In Kenya, only (0.1%) of men have had vasectomy as a family planning method. Reasons for undergoing vasectomy vary among those who have had it. Results from a survey carried out by MSI in 1997, indicates that 27 % chose vasectomy to relieve their partner from the side effects of using the female contraceptives, while another 31% said they had completed their families, and vasectomy was the best permanent form of contraception. Many couples cited economic reasons and concern for their women's health as a motivating factor for not wanting any more children. Others cited the desire to share responsibility for family planning and vasectomy's advantage over female sterilization and other temporary methods as well as the freedom from unintended pregnancy that it confers.

Although vasectomy is simpler, safer, less expensive and effective, leaves only a minute scar and usually performed in half the time of most female sterilization, the up take is low. According to Julie Douglas of MSI, London, there is less information available about Vasectomy, compared to women's methods. There are a number of reasons why men might be reluctant to use vasectomy as a family planning method in Kenya. Among them, is the fact that the use and effectiveness of vasectomy has not been effectively evaluated and documented, leading to lack of information on vasectomy as an effective family planning method in Kenya. Another obstacle is lack of access to qualified health care providers and health facilities that can provide the service. Poor men also find it a challenge to rest for two days without wages after the vasectomy.

Due to this, there is general reluctance by men to adopt vasectomy as a family planning method. For instance, in Winam division, Kisumu district there is already an active clinic (Marie Stopes Clinic) providing free service of vasectomy as a family

planning method; despite this the uptake is very low. For this population the problem of access has been solved, however since inception in 2009 only 100 men have undergone vasectomy. This prompts questions like, are men uninterested in family planning? Or are they resistant to male methods? Is it the vasectomy administration process itself that is a barrier? Would interest in vasectomy be greater if men knew more about it? And lastly where can men find answers to these questions. Against this background, then what are the determinants of readiness to undertake vasectomy as a family planning method?

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

The study aims at investigating the factors which can determine a man's readiness to undertake vasectomy as a method of family planning among men whose families are complete in Busia County.

### **1.4 Objectives of the study**

The objectives of the study were:

1. To explore the socioeconomic factors that determines men's readiness to undertake vasectomy, a male family planning method.
2. To assess the vasectomy administration process and how it determines men's readiness to undertake vasectomy.
3. To examine how resources, health facilities and availability of qualified staffs determine men's readiness to undertake vasectomy.

### **1.5 Research Questions**

This study sought to answer the following questions:

1. How do socioeconomic factors determine men's readiness to undertake vasectomy?

2. How does the vasectomy administration process determine men's readiness to undergo vasectomy?
3. How does the availability of qualified staff and health care facilities determine men's readiness to undertake vasectomy?

### **1.5 Significance of the Study**

The findings from this study could be used by policy makers on family planning to popularize vasectomy as one of the most appropriate and effective family planning methods option offered in Kenya. This would lead to the family planning providers increasing and improving provision of vasectomy in family health facilities. As a result institutions would train more vasectomy providers and medical personnel who are sympathetic to vasectomy as a family planning method. In terms of gender mainstreaming and Reproductive health, vasectomy can be used to mainstream men into the reproductive health issues. Vasectomy would be seen as additional men's contribution to reproductive health area which would greatly contribute to population control leading to better economic standing. For the Academia, the findings could contribute to knowledge in this area, as well as provide opportunity for further and wider research into this field of vasectomy as a family planning method.

### **1.6 Basic Assumptions**

The study had the following basic assumptions: the respondents would be available and would participate in the study by way of giving their honest answers to the questions asked. It was also assumed that the respondents would give correct information needed by the researcher. Similarly it was also assumed that men in Matayos location had similar characteristics as men in Busia County. It was also assumed that the identified variables such as socioeconomic factors, vasectomy

administration process and access to health care facilities determined men's readiness to undertake vasectomy.

### **1.7 Limitations of the study**

This study was conducted in Matayos location, Busia County and was limited to factors determining readiness to undertake vasectomy as a family planning method. The study was a quantitative descriptive study on a small sample focusing on reasons "for" or "against" readiness to undertake vasectomy using a structured questionnaire. This limitation of the study to residents of Matayos location has a potential bias, because the small size is not representative or sufficient enough to allow for the findings to be generalized to the whole of Busia County. Vasectomy involves discussion on sexual matters; most people are conservative and might not be willing to discuss such matters particularly in public. But the researcher is male and is a beneficiary of the procedure and has offered same to other men too. This made the researcher comfortable and confident in handling the topic (Njoroge, 2009).

### **1.8 Delimitation of the study**

The study focused on the factors determining readiness to undergo vasectomy as a family planning method among men whose families are complete and have no desire to sire more children in Busia County, Kenya. These are men who would like to continue enjoying satisfying sexual relationship with their beloved wives without the fear of getting unplanned or unwanted pregnancies. Only the sampled male heads of households were interviewed, households with no male heads were skipped.

Busia County is situated at the extreme western edge of Kenya. It is 1,695km<sup>2</sup>. The temperature ranges between 22<sup>o</sup>c and 30<sup>o</sup>c. (GOK, 2009) Busia County borders with Bungoma County to the north, Kakamega County to the east, Siaya County to the south east and republic of Uganda to the west. It boasts of the Kakapel National

monument, an ancient rock painting over 2000 years old (Institute of Economic Affairs (IEA), 2011). It lies between latitudes  $0^{\circ} 1' 36''$  south and  $0^{\circ} 33'$  North and longitudes  $33^{\circ} 54' 32''$  East and  $34^{\circ} 25' 24''$  West (GOK, 2009).

The county falls within the high rainfall savanna ecological zone with generally well distributed rainfall throughout the year. 50% of the rains are long rains occurring between March to May. Short rains (25%) occur from August to October. Most of the county receives 1,270 to 1,790 mm mean annual rainfall. It falls within the Lake Victoria basin. The altitude rises from 1,130 m above sea level at the lake shore to a maximum of about 1,500m in the Samia and north Teso hills (IEA, 2011).

### **1.9 Definition of key Terms and Concepts as used in the study**

**Family Planning:** Ability of the individual to anticipate and attain their desired number of children and the spacing and the timing of their births, achieved through contraceptives.

**Vasectomy:** Vasectomy is a permanent method of family planning involving a surgical process where the provider cuts the vasa differentia, through which sperm travel from the testicles to combine with semen making the semen sperm free.

**Determine:** to cause something to occur in a particular way or to give direction to or affect in a particular manner.

### **1.10 Organization of the study**

The research study is organized as follows: The preliminary is composed of declaration, acknowledgement, dedication, table of content, list of abbreviations and acronyms and the abstract. Chapter one discussed the background of the study,

statement of the problem, purpose of the study, objectives of the study, the research questions, significance of the study, assumptions of the study, limitation and delimitations of the study, definition of significant terms and organization of the study. Chapter two contains sections on literature review which contains introduction, review of the literature according to the study variables, theoretical framework and conceptual framework. Chapter three discussed the research methodology and it entailed introduction, research introduction, research design, target population, sample and sampling procedures, research instruments and data analysis methods. Chapter four presents data analysis, presentation, interpretation and discussion of the study findings while chapter five presents summary of finding, conclusion and recommendation.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

In this chapter the researcher will review literature related to how socioeconomic factors, vasectomy administration process, access to health care facilities and resources can determine a man's readiness to undergo vasectomy.

#### **2.2 Socioeconomic factors determining readiness to undertake vasectomy**

For those who cannot afford to meet their basic human needs for clean water, adequate food and nutrition, healthcare, education, clothing and shelter, Contraception may be far down the list of priorities. This may be so even if Family Planning services are subsidized or free (National Council for Population and development (NCAPD), 2010). Globally, developed countries which have lower levels of poverty than developing countries have higher levels of family planning usage (NCAPD, 2010). Inequalities also exist within Kenya according to household wealth (NCAPD, 2010).

When the need for Family Planning is not met couples have more children than they intended and populations grow more rapidly than economic and social development can keep pace with. Too many unplanned children inevitably force a family into the Poverty Bracket. Improving and equalizing access to Family Planning can yield significant benefits to Kenya's future economic and social development and for family wellbeing.

Universal access to Family Planning services could save lives of about 150 000 women worldwide each year (Singh et al, 2009). Kenya's Maternal Mortality Rate is 488/100 000 Live births (Kenya national Bureau of statistics (KNBS) and ICF Macro, 2010). Annually 14,700 Kenyan women and Girls die as a result of pregnancy

complications (KNBS and ICF macro, 2010). 441 000 women and girls suffer from disabilities caused by complications during pregnancy and childbirth. Most of these deaths and complications can be prevented through cost effective Family Planning programs (Futures group, 2002) however this report by Futures group failed to capture men's role in family planning.

In Kenya the biggest threat to poverty reduction efforts is continued rapid population growth. The national population policy for sustainable development aimed to reach a population growth rate of 2.1% by the end of 2010. At the same time the country's development blue print, *Kenya vision 2030* envisions a poverty level that is below 10% by the year 2030(GOK, 2007). This is near impossibility because at the current population growth rate of 2.8%, the population will double itself by the year 2035.

Family planning is a powerful tool for combating poverty (NCAPD, 2010). Family planning enables couples to have the number of children they intend to have thereby improving child health and survival and reducing maternal depletion caused by having too many children. Parents are able to devote more resources to each child thereby improving child nutrition, education levels and Living standards. In this policy brief the national council for population and development did not emphasize the need to put more resources on male specific family planning methods such as vasectomy which is quite cost effective and can help reduce the public health expenditure on the other family planning commodities which are perpetually out of stock in the public health facilities.

Demographic factors such as age, marital status and total number of children one has could influence a man's readiness to undertake vasectomy but no studies have been done in Busia to ascertain the relationship. Socioeconomic status such as level of

education, employment and religion could play a role but no studies have been done in Busia to confirm if these factors are influential on men's intention to undergo vasectomy.

### **2.3 Vasectomy administration process and its influence on uptake of vasectomy**

Many people fear injections to some extent but once that fear becomes persistent, excessive and unreasonable, the fear becomes a phobia. Injection phobia is the fear and avoidance of receiving various types of injections, blood donations and vasectomy. This is a specific phobia and is extremely common yet not very well recognized, affecting up to 10 % of the population (Anxietyuk, 2010). In Busia county there is no literature on Men's phobia towards needles.

Stein (2011) avers that no man likes needles near his scrotum. In fact many men actually hate them, so the "*No Needle Anesthesia technique*" is a relief for them. It is done with the spray applicator called the Madajet. It requires only 1/10<sup>th</sup> of the volume of anesthetic that is used with the needle technique. There is no distension of the skin or underlying tissue and less bleeding occurs. The procedure takes 15 minutes. There might be a blood clot or slight local infection in 0.1% of the cases (Stein, 2011).

Vasectomy should be considered permanent and irreversible and is meant for men who do not want or want no more children. The ability to obtain and maintain an erection is unchanged. There is no noticeable change in the quantity or quality of semen ejaculated. The man is like the seedless tangerine Oranges, "*all sweet juices but no seeds!*" There is no effect on testosterone levels, desire or libido. Many couples report a more relaxed and enjoyable sex life once the fear of pregnancy is gone (Rich, 2011).

After the procedure men are advised to avoid cycling, running or lifting heavy objects more than 30kgs for 2 days. A back up birth control method should be used for 3 months as the vas deferens is clearing. A woman can be made pregnant within this period. About 2% of men regret having had the procedure and most of them are single, under 30years of age, never had children and are in unstable relationship. Men who fit one or more of these categories should consider non-permanent forms of birth control instead of vasectomy (Stein, 2011).

No needle No scalpel vasectomy has been in the American market for the last twenty years but was only introduced into the Kenyan market in May 2012 by the researcher supported by a team of urologists from U.S.A (No Scalpel Vasectomy International, 2012). Buluma (2012) asserts that the Government of Kenya needs to collaborate with other agencies to promote the no needle no scalpel vasectomy in order to relieve women of possible risks and deaths associated with unplanned and unwanted pregnancies.

#### **2.4 Resources and access to health care facilities**

Network Marketing also called Multilevel Marketing (MLM) is embracing more and more arenas today and is providing a source of livelihood to many families. (Sreekumar 2007).It also enhances their social status. MLM members also get tremendous opportunities to develop themselves personally (Sreekumar ,2007).A successful personal selling based on referrals is the key to ensure regular expansion of client base and building long term client relations (Sreekumar, 2007).

Conventional marketing may become slow or stagnated over a period of time but Multi-level marketing may be the turnaround tool in such situations (Sreekumar 2007).

Network Marketing is given various names like freelance marketing, chain marketing or simply word of mouth but the basic principle is that a happy consumer of high quality vasectomy services brings in more clients for which he is getting a little incentive for each client he brings (Stein, 2012).

So the MLM members look at the project as income, fun and self-development besides the satisfaction realized by empowering men to have control of their Reproductive Health through accepting and undergoing vasectomy (Stein, 2012). In Busia County, no literature is available on the effectiveness of word of mouth multilevel marketing strategy on the promotion of vasectomy services.

Sub Saharan Africa is experiencing a severe shortage of health care providers, especially Doctors. The world health organization (WHO) recommends a minimum of 20 Doctors per 100 000 people yet Kenya has only 14 Doctors per 100,000 people. Most of these doctors work in urban areas, leaving rural men and women in great need of crucial services like vasectomy (Family Health International (FHI), 2009).

In a study titled factors affecting vasectomy acceptability in Tanzania, Family Health International found that a quarter of vasectomy clients cited lack of provider availability as an explanation for having postponed the procedure. Others just described the difficulty involved in obtaining the service. Often the providers are unavailable or inaccessible. There was confusion as to when the service would be rendered. Lack of equipment and supplies was also cited as a barrier (FHI,2009).There was no contact for easy communication with the providers and patients had no one to turn to whenever complications arose after the procedure (FHI, 2009).The only providers conversant with vasectomy were frequently transferred leaving clients precarious. Clients also indicated that the healthcare provider should

be of good reputation and integrity because the body part involved is private and sensitive (FHI, 2009).

The Population Council of Guatemala noted that the traditional model of introducing vasectomy services is defective. It consisted of sending doctors to a foreign country and training them on vasectomy but when they return to their work stations they do not use the acquired skills due to limited demand and lack of confidence in their skills. A better system should involve concurrent client mobilization and on the job training (Pop council, 2005). There is no literature available indicating which model was used to train vasectomy doctors and how many have been trained so far and whether they are actively rendering services or not in Busia county.

The period of recovery from surgery is referred to as Convalescence. During this period the body needs time to heal and adjust from the physical trauma experienced. Recovery is a gradual process and varies from person to person depending on the type of surgery. It is a period of rest where regaining strength and becoming healthy is the primary objective. Forcing oneself to return to full speed work too soon can have serious consequences e.g. Scrotal hematoma after vasectomy (Natural Healing for convalescence (NHFC), 2011). Family members need full support to care for the vasectomy client both professionally and financially (NHFC, 2011). Vasectomy clients must rest 2 days after surgery to ensure proper healing. This is a big challenge for poor clients who eke out a living from hands to mouth but would wish to control their fertility through vasectomy. A successful vasectomy programme needs to look into this issue critically and budget for it (Rich, 2011).

Vasectomy programs in Bangladesh, India, Nepal and srilanka compensate for wages lost after vasectomy. Large cash payments are avoided because they can

interfere with informed choice. Out of pocket expenses such as lost wages or transportation cost to the hospital can be a great barrier for poor men considering vasectomy. Many programs offer men reimbursement or compensation for such expenses (John Hopkins Bloomberg School of Public Health (JHBSPH), 2008). This noble idea is yet to gain adoption in Kenya.

In 2007 the Government of India considered and approved a revision in the compensation package to acceptors of sterilization with a particular boost to male participation in Family planning from the existing 800 Rupees to 1500 Rupees in both Public and Private accredited facilities (Government of India (GOI), 2007).

Non Scalpel Vasectomy International (NSVI) is a nonprofit organization based in USA and has conducted successful vasectomy missions to Haiti and Philippines for the last 10 years. Kenya benefitted from the mission for the first time in May 2012 in honor of the invitation submitted by the researcher (No Scalpel Vasectomy International (NSVI), 2012). The mission of NSVI is to promote and provide free No Scalpel Vasectomy Services worldwide but especially in the developing countries whose infrastructure and environmental resources are challenged by rapid population growth unchecked by effective family planning programs. One of their strategies is to reimburse men for wages lost after vasectomy (NSVI, 2012). This is a just way of spending money rather than pay for travel allowances and per diems in seminars to staffs that are already in the payroll (Nalugo, 2011).

The Kenya constitution is the supreme law of the country. Therefore any law or policies including those touching on social protection that are inconsistent with it are void. Article 43 of the Kenya constitution expressly guarantees all Kenyans their economic, social and cultural rights including basic rights to health, education, food

and decent livelihoods. It explicitly asserts the right of every person to social security (Kenya National Social Protection Policy (KNSPP), 2011). It binds the state in article 43(3) to provide appropriate social security to persons who are unable to support themselves and their dependants. This implies social protection in its totality: social assistance, social security and health insurance (KNSPP, 2011). Policy makers should invoke this clause in our constitution to guarantee men cash transfer of reasonable amount to compensate for wages lost during the two days of recuperation after a vasectomy procedure.

United States Agency for International Development (USAID) prohibits the payment of incentives to potential voluntary sterilization acceptors, providers and referral agents but permits compensation of reasonable expenses in order to make voluntary sterilization like vasectomy as equally available as other contraceptive methods (USAID, 2009).

Social protection is defined by International Labor organization as the set of public measures that a society provides for its members to protect them against economic and social distress that would be caused by the absence or a substantial reduction of income from work as a result of various contingencies e.g. sickness and invalidity (International Labor Organization (ILO), 2003).

Social protection is an investment and consequently a productive factor. Poor countries like Kenya cannot afford not to invest in social protection like cash transfer of 1000 kshs to support vasectomy acceptors during recovery if they want to break the vicious cycles of high population growth rate, poverty and underdevelopment and begin to contribute positively to local, national, regional and global development (ILO, 2003).

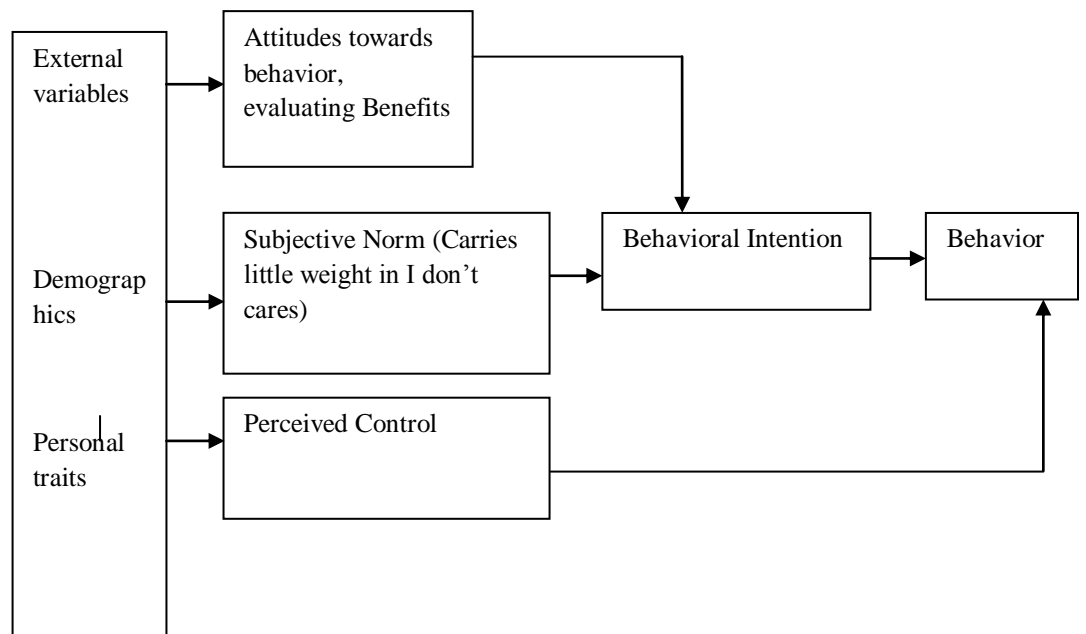


Extension of social protection coverage is affordable and is approximately 1 % of the GDP and that the costs of not having adequate social protection are higher since they are paid in economic, social and developmental terms (ILO, 2003). There is no literature available in Busia county and Kenya in general that highlights the relationship between social protection through small cash transfers and intention to undergo vasectomy.

## **2.5 Theoretical framework**

The study will be informed and guided by Theory of Planned Behavior. The proponent of this theory is Ajzen. It is an extension of the earlier Theory of Reasoned Action (TRA, Fishbein & Ajzen 1975), TPB states that individual behavior is driven by behavioral intentions where behavioral intentions are a function of an individual's attitude toward the behavior, the subjective norms surrounding the performance of the behavior, and the individual's perception of the ease with which the behavior can be performed (behavioral control). This perceived behavioral control" is presumed to not only affect actual behavior directly, but also affect it indirectly through behavioral intention (Zimmerman et al., 2005). Attitude toward the behavior is defined as the individual's positive or negative feelings about performing behavior. It is determined through an assessment of one's beliefs regarding the consequences arising from a behavior and an evaluation of the desirability of this consequence. The centrality of Behavioral Intention questions the classical model of Belief, Attitude and Behavior (Conner & Sparks, 1995). Behavioral control is defined as one's perception of the difficulty of performing a behavior. TPB views the control that people have over their behavior as lying on a continuum from behaviors that are easily performed to those requiring considerable effort and resources.

**Figure 1.1: Theory of planned behavior, following Connor and sparks 1995**



Source: PCPP Working paper N0.4: Health-seeking behavior and health System Response

In TPB behavioral intention is determined by several factors. To begin with, Attitudes towards behavior are determined by the belief that a specific behavior will have a concrete consequence and the evaluation or valorization of this consequence. Another factor is the Perceived behavioral control, determined by the belief about access to the resources needed in order to act successfully, plus the perceived success of these resources (availability of relevant information, qualified and experienced staff, wage compensation and effective pain management during the procedure). And lastly, are the personality traits which condition attitudes and perceived behavioral control.

**Application:** So far, Theory of Planned Behavior has more than 1200 research bibliographies in academic database. In particular, recently, several studies found that the TPB would better help to predict health-related behavioral intention than the TRA (Ajzen, 1988) given that TPB has improved the predictability of intention in various health-related fields such as condom use (e.g., Albarracin, Fishbein, Johnson, &

Muellerieile, 2001; Sheeran & Taylor, 1999), leisure (e.g., Ajzen & Driver, 1992), exercise (e.g., Nguyen, Potvin, & Otis, 1997), diet (e.g., Conner, Kirk, Cade, & Barrett, 2003) and H.I.V (Campbell & Mzaidume, 2001).

**Strength:** The advantages of the TPB includes its taking into account the motivational aspects of personal control in decision making and taking responsibility over one's own reproductive health. Also by adding "perceived behavioral control," theory of planned behavior can explain relationship between behavioral intention and actual behavior, since an individual's behavioral intention cannot be the exclusive determinant of behavior where an individual's control over the behavior is incomplete.

**Limitation:** Unfortunately, Theory of planned behavior is based on cognitive processing and level of behavior change; overemphasizing on psychological factors, while under-valuing structural factors like limited access or availability of resources.

It also overlooks emotion variables such as threat, fear, mood and negative or positive feeling and assessed them in a limited fashion. In the health related behavior situation, given that most individuals' health behaviors are influenced by their personal emotion and affect-laden nature, this is a decisive drawback for predicting health-related behaviors (Dutta-Bergman, 2005).

### **2.5.1 Relevance of the Theory**

For a long time the role of family planning was left to women, but at the same time men have control over reproduction issues including the number of the children in a household. This makes TPB relevant because of its encouragement of feelings of self-control which would be useful in the case of men choosing vasectomy as a family

planning method, as the theory promotes feelings of control and self-efficiency in negotiating with partners. Theory of Planned Behavior is therefore important to understanding the entire process of decision making in either to adopt or not adopt vasectomy as an option in family planning.



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section describes the research design, target population, sample size and sample selection. Data collection tool and methods that were applied and how validity and reliability of the data collection instrument were measured are described. Also discussed in this chapter are data collection procedures, ethical considerations and how the collected data was analyzed.

#### **3.2 Research Design**

The study adopted a descriptive research design. Descriptive research is used to obtain information concerning current status of the phenomenon to describe what exists with respect to variables or conditions in a situation and the relationship between the variables. The main goal of this type of research is to describe the data and characteristics about what is being studied. The idea behind this type of research is to study frequencies, averages and other statistical calculations (Sekaran, 2010). This design has been chosen because, first the study intended to determine the possible relationships between the variables and secondly the variables have been studied before, either independently or with other variables by various scholars, the design is also relevant for this study because it's the most widely used technique to gather information that describes the nature and extent a specified set of data ranging from the physical counts and frequencies (Oso and Onen, 2009).

### **3.3 Target population**

A population refers to a group of people, events or things that the researcher wishes to investigate while a sample is a subset of the population and comprises a few members selected from it (Sekaran, 2010). The population in this study was male heads of households in Matayos Location, Busia County who are 1024 in number (table 3.1)

### **3.4 Sample size and sample selection**

Sample size is the finite part of a statistical population whose properties are studied to gain information about the whole population. According to Babbie (2004), working with a sample reduces the length of time needed to complete research, cuts the cost, is manageable and is almost a mirror of the sample population. This study used stratified random sampling to achieve this. A stratified random sample is a sampling plan in which a population is divided into L mutually exclusive and exhaustive strata and a simple random sample of n elements is taken within each stratum h. the sampling is performed independently within each stratum. The main objective of stratification is to give a better cross section of the population so as to gain a higher degree of relative efficiency (Sekaran ,2010).

#### **3.4.1 Sample size**

With a margin error of 5%, confidence level of 95% and a response distribution of 50% the study anticipated to interview a sample of 300 Busia residents. Since the target population is less than 10,000 that is 1024, the anticipated sample size was calculated using the following formula from Mugenda and Mugenda (2003)

$$nf = n / (1+n)/N$$

Where:

$n_f$ =the desired sample size (when population is less than 10,000)

$N$ =the estimate population

$n$ =desired sample size when population is more than 10,000

$$n = (Z^2 pq/d^2)$$

where:  $Z$ =standard normal deviation at the required confidence interval of 95%

$p$ =proportion in target population with characteristics being used.

$$q=1-p$$

$d$ =level of statistical significance set

$p=0.5$  as recommended by Fisher et al which assumes 50% of characteristics of

interest

$$q=1-p=0.5$$

$Z=1.96$  at 95% confidence interval

$$n=(1.96)^2 (0.5 \times 0.5)/0.5=384$$

$$n=384$$

Therefore desired sample size=  $384/1+384/1024=279$

### **3.4.2 Sample selection**

Stratified random sampling will be used to select the sample size. The criterion for stratification was the 10 villages in Matayos location. A list of household names was



referenced in each village .The sampling interval was determined by dividing the total number of households by the desired sample of 279 i.e.  $1024/279=3.67$  equivalent to 4. Thus from the first randomly picked household per village, every 4<sup>th</sup> household in each village was picked and the male head was selected to participate in the study. The total number of households selected to participate in the study is shown in table 3.1

**Table 3.1: The Population and Sample Size**

| Village | Number of households | Sample size |
|---------|----------------------|-------------|
| Buyama  | 20                   | 5           |
| Lunga   | 87                   | 22          |
| Mabunge | 137                  | 34          |
| Nangoma | 241                  | 60          |
| Muyafa  | 173                  | 53          |
| Murende | 185                  | 56          |
| Busende | 69                   | 17          |
| Igero   | 17                   | 4           |
| Luriba  | 63                   | 16          |
| Bugengi | 32                   | 12          |
| Total   | 1024                 | 279         |

Source: Busia County statistics bureau

### 3.5 Research instrument

A survey questionnaire was used to collect data from the field. Its contents included the introduction, sections A, B, C, D, E and F. Section A captured the demographic profile and included the respondent's number, age, educational status and religion. Section B contains Family information such as marital status, number of children, the

gender of the children and methods of birth control used by partner over the past one year. Section C captured sources of information on vasectomy. Section D captured access to the health care facility and availability of qualified vasectomists in the nearest health facility. Section E asked men's attitude towards needles used during the traditional vasectomy procedures. Section F asked the employment history, level of exertion and if income replacement is necessary during the two days of recovery after vasectomy (appendix 1).

### **3.5.1 Pilot testing**

The questionnaire was pretested by conducting a pilot test with a sample of 10 respondents from Nambale location which has a similar geographical location as Matayos location. The pilot was conducted to find out if the questions measured what they were supposed to measure and the respondents can understand and interpret the questions correctly. The pilot was also conducted to measure how long the questionnaire administration would take.

### **3.5.2 Validity of instruments**

To control quality the researcher endeavored to attain validity and reliability coefficients of at least 0.70 or 70%. validity is the extent to which research results can be accurately interpreted and generalized to other populations. It is the extent to which research instruments measure what they are intended to measure ( Oso & onen,2009).Content validity ensures that the measure includes an adequate and representative sets of items that tap the concept being measured. The more the scale represent the domain or universe of the concept being measured, the greater the content validity. Content validity is a function of how well the dimensions and elements of a concept have been delineated. The researcher's supervisors will attest to the content validity of the questionnaire (Oso & Onen, 2009). To establish validity the

questionnaire was given to the two supervisors to evaluate the relevance of each item in the questionnaire to the research objectives and rate each item on the scale of very relevant (4), quite relevant (3), somewhat relevant (2) and not relevant (1). validity was determined using content validity index ( C.V.I) = items rated 3 or 4 by both supervisors divided by the total number of items in the questionnaire.(Oso & Onen, 2009).

### **3.5.3 Reliability of instruments**

The reliability coefficient obtained with a repetition of the same measure on a second occasion is called test –retest reliability. That is when a questionnaire containing some items that are supposed to measure a concept is administered to a set of respondents in Busia 4 weeks apart, the correlation between the scores obtained from same set of respondents at different times is the test re-test coefficient. The higher it is the better and hence the stability of the questionnaire. 70 % and above was the target (Sekaran 2010)

### **3.5 Data collection procedures**

The respondents were reached in their homes. The researcher completed questionnaires through interviews for those who were not able to read and write. Self administration was done for those who were literate. All the questionnaires were completed in the presence of the researcher and collected on the same day after their completion. On-spot checks were done for their completeness, omission and commission errors. The errors found were corrected there and then. The respondent also got an opportunity to seek for clarification on responses that were not clear.

### **3.6 Data entry and analysis**

The researcher created a code book on the statistical package for social scientists (SPSS) version 19, which was used to enter the information collected. Data was then cleaned to identify and correct invalid entries.

For quantitative analysis, the data was analyzed using quantitative techniques looking at the statistical analysis of numerical data by reducing people to numbers. Quantitative data output was obtained by cross tabulation and frequencies of individual variables. Descriptive statistics e.g. frequencies, percentages, means standard deviations and kurtosis was used to describe data.

Data analysis was then grouped by category into the demographics and the other independent variables. Analysis was carried out in the SPSS version 19. Analysis was based on descriptive and inferential statistics and was presented in the form of frequency and percentage tables.

### **3.7 Ethical Considerations**

Data collection always carries with it the possibility of doing harm to others and these risks must always be minimized. Given that this study is on a sensitive topic, the principle of informed consent was upheld throughout the data collection. The researcher explained the study at hand, giving all the necessary information and asked for permission before collecting any data. The data collected will not be used in any way that is likely to cause embarrassment to the participants, as the data will be kept secret and where in doubt of this the respondents were encouraged to be anonymous. Privacy confidentiality and security of the information was assured. The study was also subjected to ethical review by the Jaramogi Oginga Odinga Referral and Teaching hospital Institutional review board.

**CHAPTER FOUR**  
**DATA ANALYSIS PRESENTATION, INTERPRETATION AND**  
**DISCUSSIONS**

**4.1 Introduction**

This chapter presents the analysis of the study done data as was captured in the analysis of the study objectives. The study had three objectives namely to establish: the Socioeconomic factors that determine men’s readiness to undertake vasectomy, the vasectomy administration process and how it determines men’s readiness to undertake vasectomy and examine how resources , health facilities and availability of qualified staffs can determine men’s readiness to undergo vasectomy.

**4.2 Study response rate**

The study targeted a total of 279 community members who were household heads. The study was however unable to get a 100% response rate and managed to get views as summarized in table 4.1

**Table 4.1: Study Response Rate**

| <b>Respondents</b> | <b>Targeted</b> | <b>Obtained</b> | <b>Overall</b> |
|--------------------|-----------------|-----------------|----------------|
| Household heads    | 279             | 226             | 81.00%         |

Out of the targeted 279 respondents who were targeted for the study, the study was able to find the views of only 226 household heads. This translated to a questionnaire response rate of 81.0%. Cooper and Schindler (2007) states that a study response rate of above 75% is sufficient for a study of a social scientific nature to continue.

### 4.3 Demographic characteristics of respondents

This chapter presents the demographic characteristics of the respondents that could help explain the purpose of the study. The study explored the age, education, marital status and education of the respondents.

#### 4.3.1 Level of education of respondents

The researcher began by examining the level of education of the respondents and presented the findings in table 4.2. Level of education is a good indicator of explaining someone understands of issues and consequently his ability to understand and adopt new ideas.

**Table 4.2: Level of education of respondents**

| <b>Level of education</b> | <b>Freq.</b> | <b>Percentage</b> |
|---------------------------|--------------|-------------------|
| None                      | 40           | 17.7              |
| Primary                   | 86           | 38.05             |
| Secondary                 | 72           | 31.86             |
| Tertiary                  | 28           | 12.39             |
| <b>Total</b>              | <b>226</b>   | <b>100</b>        |

Among the 226 respondents in the study, 40 (17.17%) had no formal education, 86 (38.05%) had primary level of education, 72 (31.86%) had secondary level of education and 28 (12.39%) had tertiary level of education. From these findings, most of the respondents had some form of formal education meaning that they were able to read and understand the tools of data collection. They were also able to understand and appreciate the purpose of vasectomy once explained to them. For the 40 (17.7%) respondents who did not have formal education the researcher self-administered the

questionnaire to them. In a study done in New Delhi, India, the literacy rate was higher in vasectomy acceptors as compared to their spouses. Majority of the men (60%) had completed at least secondary education (Kaza, Patil, Arora, 2011)

### 4.3.2 Marital status of the respondents

The study also examined the marital status of the respondents and presented the findings in table 4.3. Knowing the marital status is important because it is expected that people who have undergone vasectomy are those who are married and already have children and vice versa.

**Table 4.3: Marital status of respondents**

| <b>Marital status of respondents</b> | <b>Freq.</b> | <b>Percent</b> |
|--------------------------------------|--------------|----------------|
| Married                              | 206          | 91.15          |
| Not married                          | 20           | 8.85           |
| <b>Total</b>                         | <b>226</b>   | <b>100</b>     |

From table 4.3, a total of 206(91.15%) respondents were married while the other 20(8.85%) respondents were not married. It would be expected that most of the respondents who had undergone vasectomy were those who were married. This also showed that the study was representative of the views of both the married and single household heads in the community.

### 4.3.3 Age distribution of the respondents

The study examined the age distribution of the respondents and presented the findings in table 4.4. Knowing the age distribution was important because it is expected that the respondents who take up vasectomy are those who are in the middle ages and not who are in the young ages of less than 35 or over 50 years.

**Table 4.4: Age of respondents**

| <b>Age of respondents</b> | <b>Freq.</b> | <b>Percent.</b> |
|---------------------------|--------------|-----------------|
| Less than 35 years        | 90           | 39.82           |
| 35 to 50 years            | 94           | 41.59           |
| Over 50 years             | 42           | 18.58           |
| <b>Total</b>              | <b>226</b>   | <b>100</b>      |

From table 4.4, a total of 90(39.82%) respondents were aged below 35 years, 94(41.59%) were aged between 35 and 50 years and 42(18.58%) were over 50 years of age. These findings show that the study involved the views of a cross section of ages and was therefore representative. In the late 1990's a telephone survey found that over half (57%) of men ages 40-49 had had vasectomies in Newzealand (John Hopkins Bloomberg School of Public Health(JHBSPH),2008).In a study of vasectomy acceptors in New Delhi,India,the mean age of vasectomy acceptors was 36.1 years(range 22-49 yrs) while that of their spouses was 32 years(range 18-45 years).72% of the clients were between 30-40 years of age, while nearly 63% of the spouses were between 26 to 35 years of age with a mean age of 31.42 years (Kaza *et al*, 2011).

#### **4.4 The socioeconomic factors that determine men's readiness to undergo vasectomy**

The first objective of the study examined the socioeconomic factors that determine men's readiness to undertake vasectomy. The socioeconomic factors that were explored were employment status, level of income, number of years in marriage, number of children, difference between boys and girls in the family, age of the



youngest child, whether or not all the children were planned and whether the youngest was planned for.

#### 4.4.1: Influence of Employment status on men’s readiness to undergo vasectomy

On employment status of the respondents and how it affected readiness to undergo vasectomy. Table 4.5 shows the cross tabulation presenting the relationship between employment status and men’s readiness to take up vasectomy.

**Table 4.5: Influence of employment status on readiness to undergo vasectomy**

| Employment status | Readiness to uptake vasectomy |              |            |              | Total      |            |
|-------------------|-------------------------------|--------------|------------|--------------|------------|------------|
|                   | Ready                         |              | Not ready  |              | Freq.      | %          |
|                   | Freq.                         | %            | Freq.      | %            |            |            |
| Formal            | 22                            | 9.73         | 37         | 16.37        | 59         | 26.11      |
| Informal          | 24                            | 10.62        | 39         | 17.26        | 63         | 27.88      |
| Jobless           | 39                            | 17.26        | 65         | 28.76        | 104        | 46.02      |
| <b>Total</b>      | <b>85</b>                     | <b>37.61</b> | <b>141</b> | <b>62.39</b> | <b>226</b> | <b>100</b> |

From table 4.5 above out of the 85 respondents who said they were ready to take up vasectomy 22 (9.73%) were formally employed, 24 (10.62%) of them were informally employed and 39 (17.26%) of the 85 had no jobs. Among the 141 men who were not ready to undergo vasectomy, 37 (16.37%) had formal jobs, 39 (17.26%) were informally employed while 65 (28.76%) were jobless. From the results in this cross tabulation, it is clearly evident that occupation and readiness to undertake vasectomy had no relationship, i.e., a man’s occupation does not influence his readiness to take up vasectomy. The researcher confirmed this using a chi-square analysis and presented the finding in table 4.6

**Table 4.6 Chi-square test checking the influence of employment on readiness to undergo vasectomy**

|                    | Value             | df | Asymp. Sig. (2-sided) |
|--------------------|-------------------|----|-----------------------|
| Pearson Chi-Square | .009 <sup>a</sup> | 2  | .995                  |
| N of Valid Cases   | 226               |    |                       |

From table 4.6, the significance of the chi square analysis is 0.955 which is a value greater than 0.05, this means that at 5% level of significance, employment status did not influence uptake of vasectomy among men in Busia county. This concurs with John Hopkins University findings in Newzealand which showed that the procedure is popular among all socioeconomic groups (John Hopkins Bloomberg School of Public Health (JHBSPH), 2008). In a study of vasectomy acceptors in New Delhi, India, Kaza et al (2011) found that 70% of the acceptors worked in Non Governmental organizations and only 22% were government employees. The study did not mention the informally employed and the jobless. Majority of the spouses (89%) were housewives.

#### **4.4.2 Influence of level of exertion on men’s readiness to undergo vasectomy**

The research explored whether the level of exertion or in other words physical activity influenced the readiness of someone to take up vasectomy. The study examined this using a cross tabulation analysis as presented in table 4.7.

**Table 4.7: Effect of level of exertion on readiness to undergo vasectomy**

| <b>Response</b> | <b>Readiness to undertake vasectomy</b> |              |                  |              | <b>Total</b> |            |
|-----------------|---|--------------|------------------|--------------|--------------|------------|
|                 | <b>Ready</b>                            |              | <b>Not ready</b> |              | <b>Freq.</b> | <b>%</b>   |
|                 | <b>Freq.</b>                            | <b>%</b>     | <b>Freq.</b>     | <b>%</b>     |              |            |
| Light           | 23                                      | 10.18        | 39               | 17.26        | 62           | 27.43      |
| Moderate        | 22                                      | 9.73         | 37               | 16.37        | 59           | 26.11      |
| Heavy           | 40                                      | 17.70        | 65               | 28.76        | 105          | 46.46      |
| <b>Total</b>    | <b>85</b>                               | <b>37.61</b> | <b>141</b>       | <b>62.39</b> | <b>226</b>   | <b>100</b> |

From table 4.7, 23 (10.18%) of the 85 respondents who were ready to undertake vasectomy had jobs with level of exertion that was light while another 22 (9.73%) respondents were involved in jobs that had moderate level of exertion and finally the remaining 40 (17.70%) respondents were involved in jobs that they considered had heavy level of exertion. On the other hand out of the 141 respondents who were ready to undertake vasectomy, 39 (17.26%) respondents considered that their jobs were jobs of light levels of exertion, 37 (16.37%) respondents felt their jobs had a moderate level of exertion while 65 (28.76%) respondents considered that their jobs had a heavy level of exertion. By examining the figures and proportions, it is clear that level of exertion had no influence on a man's readiness to undertake vasectomy. The researcher sought to confirm this from a chi square analysis as presented in table 4.8

**Table 4.8: Chi-Square analysis between exertion and readiness to undergo vasectomy**

|                    | Value             | df | Asymp. Sig. (2-sided) |
|--------------------|-------------------|----|-----------------------|
| Pearson Chi-Square | .433 <sup>a</sup> | 2  | .805                  |
| N of Valid Cases   | 226               |    |                       |

From table 4.8, the significance of the chi square analysis was found to be 0.805. given that 0.805 was a value greater than 0.05, it could be established that at 5% level of significance level of exertion had no influence on readiness to undergo vasectomy among men in Busia county

#### 4.4.3 Level of income on readiness to undergo vasectomy

Next, the study was to explore the effect of the respondents' level of income to their readiness to undertake vasectomy. This was done using a cross tabulation between level of income and men's readiness to take up vasectomy and the findings of this were as shown in table 4.9

**Table 4.9: Influence of level of income on readiness to undergo vasectomy**

| Response     | Readiness to uptake vasectomy |              |            |              | Total      |            |
|--------------|-------------------------------|--------------|------------|--------------|------------|------------|
|              | Ready                         |              | Not ready  |              | Freq.      | %          |
|              | Freq.                         | %            | Freq.      | %            |            |            |
| < 1000       | 19                            | 8.40         | 31         | 13.72        | 50         | 22.12      |
| 1000-3000    | 18                            | 7.96         | 30         | 13.27        | 48         | 21.24      |
| 3000-5000    | 16                            | 7.08         | 26         | 11.50        | 42         | 18.58      |
| 5000-10000   | 14                            | 6.19         | 22         | 9.73         | 36         | 15.93      |
| > 10000      | 18                            | 7.96         | 32         | 14.16        | 50         | 22.12      |
| <b>Total</b> | <b>85</b>                     | <b>37.60</b> | <b>141</b> | <b>62.40</b> | <b>226</b> | <b>100</b> |

Out of the 85 respondents who said that they were ready to take up vasectomy, 19 (8.40%) of them had an income less than Ksh.1000, 18 (7.96%) had a total income ranging between Ksh.1000 and 3000, another 16 (7.08%) respondents of them had an income that ranged between Ksh.3000 and 5000, a total of 14 (6.19%) had an income between Ksh.5000 and 10000 and finally 18 (7.96%) respondents had monthly income of more than Ksh.10000. on the other hand among the 141 respondents who said that they were not ready to uptake vasectomy, 31 (13.72%) earned a salary of less than Ksh.1000, another 30 (13.27%) respondents earned a monthly income ranging between Ksh.1000 and 3000, 26 (11.50%) respondents of them had a total income ranging between Ksh.3000 and 5000, 22 (9.73%) other respondents had an income ranging between Ksh.5000 and 10000 and the remaining 32 (14.16%) respondents had an income greater than Ksh.10000. From these findings, it can be established that level of income had no influence on men’s readiness to take up vasectomy.

The researcher went on to assess whether indeed level of income had no effect on the men’s readiness to take up vasectomy using a chi square analysis and presented the findings in table 4.10.

**Table 4.10 Income on readiness to undergo vasectomy**

|                    | Value              | df | Asymp. Sig. (2-sided) |
|--------------------|--------------------|----|-----------------------|
| Pearson Chi-Square | 3.976 <sup>a</sup> | 2  | .137                  |
| N of Valid Cases   | 226                |    |                       |

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 17.95.

From table 4.10, the significance level of the test was 0.137, this is a value greater than 0.05, this means that at 5% level of significance the level of income did not influence readiness to take up vasectomy. This contradicts studies by the National

council for population and development which found that those who cannot afford to meet their basic human needs for clean water, adequate food and nutrition, healthcare, education, clothing and shelter, Contraception may be far down the list of priorities. This may be so even if family Planning services are subsidized or free (National Council for Population and development (NCAPD), 2010). Globally, developed countries which have lower levels of poverty than developing countries have higher levels of family planning usage (NCAPD, 2010).

#### 4.4.4 Number of years spent with partner on uptake of vasectomy

The study went ahead and examined the number of years spent with the partner among the respondents who said that they were married and further explored their readiness to undertake vasectomy. It is expected that the respondents who had spent more years with a partner were more ready to take up vasectomy maybe because they already had enough children and would therefore easily embrace vasectomy. Table 4.11 shows the results of the findings as presented in the cross tabulation.

**Table 4.11: Effect of number of years in marriage on the readiness to undergo vasectomy**

| Response           | Readiness to undertake vasectomy |              |                    |              | Total      |            |
|--------------------|----------------------------------|--------------|--------------------|--------------|------------|------------|
|                    | Ready<br>Freq.                   | %            | Not ready<br>Freq. | %            | Freq.      | %          |
| Over 15 years      | 40                               | 19.42        | 8                  | 3.88         | 48         | 23.3       |
| 10 to 15 years     | 30                               | 13.27        | 24                 | 10.62        | 54         | 26.21      |
| Less than 10 years | 7                                | 3.40         | 97                 | 47.09        | 104        | 50.49      |
| <b>Total</b>       | <b>77</b>                        | <b>36.09</b> | <b>129</b>         | <b>63.91</b> | <b>206</b> | <b>100</b> |

Out of the 206 respondents who said that they were married, 48(23.3%) had been with their partner for over 15 years, 54(26.21%) had been with their partners for 10 to 15 years and 104(50.49%) had been with their partners for less than 10 years. These

results show that most married respondents in the study had been in marriage for a short time. Of the respondents who had partners, a total of 77 respondents were ready to take up vasectomy. Among them 40(19.42%) had been with their partners for over 15 years, 30(13.27%) had been with their partners for a period ranging between 10 and 15 years and lastly 7(3.4%) had been with their partners for a period of less than 10 years. This shows that among respondents who were ready to take up vasectomy a high proportion had been with their partners longer for periods of time greater than 15 years. On the other hand for the category of respondents who were not ready to take up vasectomy most had been in marriage for a short period of time. Specifically the study found that out of the 129 respondents who were not ready to take up vasectomy, 8(3.88%) had been with their partner for periods over 15 years, 24(10.62%) had been with their partners for periods ranging between 10 and 15 years and lastly 97(47.09%) had been with their partners for less than 10 years. This clearly showed that number of years spent with a partner had an influence on readiness to take up vasectomy among the respondents. i.e. a person who has spent more years with a partner is ready to take up vasectomy more than a person who has spent fewer years with partner. The study further examined the influence of the number of years in marriage on the readiness to adopt vasectomy and presented the findings in table 4.12.

**Table 4.12 Influence of number of years in marriage on readiness to undergo vasectomy**

|                    | Value               | df | Asymp. Sig. (2-sided) |
|--------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 13.976 <sup>a</sup> | 2  | .013                  |
| N of Valid Cases   | 206                 |    |                       |

From table 4.12, the significance was found to be 0.013, which is a value less than 0.05. This means that at 5% the number of years in marriage had an influence on men's readiness to adopt vasectomy.

#### 4.4.5 Number of children on readiness to undergo vasectomy

Next, the study sought to establish the influence that the number of children had on the men's willingness to uptake vasectomy. It is expected that if a man has many children he will be ready to take up vasectomy than a man who has few children. The findings of this investigation were presented in a cross tabulation analysis as shown in table 4.13.

**Table 4.13: Influence of number of children on willingness to undergo vasectomy**

| Responses            | Readiness to uptake vasectomy |              |            |              | Total |          |
|----------------------|-------------------------------|--------------|------------|--------------|-------|----------|
|                      | Ready                         |              | Not ready  |              | Freq. | Percent. |
|                      | Freq.                         | Percent.     | Freq.      | Percent.     |       |          |
| Less than 3 Children | 12                            | 5.83         | 36         | 17.48        | 48    | 23.3     |
| 4 to 8 children      | 16                            | 7.77         | 38         | 18.45        | 54    | 26.21    |
| Over 8 Children      | 49                            | 23.79        | 55         | 26.70        | 104   | 50.49    |
| <b>Total</b>         | <b>77</b>                     | <b>37.39</b> | <b>129</b> | <b>62.63</b> | 206   | 100      |

Out of the 77 respondents who had partners and were ready to undertake vasectomy, 12 (5.83%) had less than 3 children, 16 (7.77%) had between 4 to 8 children while 49 (23.79%) had over 8 children. These findings show that among men who were willing



to embrace vasectomy, most had many children of more than 8 in number meaning that having more children increased a respondent's willingness to uptake vasectomy. On the other hand, among those who were not ready to uptake vasectomy, 36 (17.48%) had less than 3 children, 38 (18.45%) had 4 to 8 children and finally 55 (26.70%) respondents had over 8 children. From these results, a conclusion could be made that respondents with more than 8 children were more ready to uptake vasectomy than those with less children, or in other words the number of children owned by a partner had an influence on readiness to take up vasectomy. The study went on to assess the influence of the number of children on men's readiness to adopt vasectomy and presented the findings in table 4.14.

**Table 4.14 Chi-square test checking the influence of the number of children on readiness to undergo vasectomy**

|                    | Value              | df | Asymp. Sig. (2-sided) |
|--------------------|--------------------|----|-----------------------|
| Pearson Chi-Square | 9.009 <sup>a</sup> | 2  | .005                  |
| N of Valid Cases   | 226                |    |                       |

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 22.19.

From table 4.14, the significance of the chi square analysis was 0.005. This is a value less than 0.05; this implies that at 5% level of significance, the number of children had an influence on the men's readiness to accept vasectomy. Kaza et al (2011) found that 95% of the vasectomy acceptors had two or more children and only 5% of the vasectomy acceptors had one child before undergoing vasectomy.

#### 4.4.6 Difference between boys and girls on parent’s readiness to take up vasectomy

The researcher then went on to investigate the effect of the difference between boys and girls that a respondent had on their readiness to embrace vasectomy and came up with the findings shown in table 4.15.

**Table 4.15: Whether difference between boys and girls would influence parent’s readiness to undergo vasectomy**

| Responses                      | Readiness to undertake vasectomy |              |            |              | Total      |            |
|--------------------------------|----------------------------------|--------------|------------|--------------|------------|------------|
|                                | Ready                            |              | Not ready  |              | Freq.      | Percent.   |
|                                | Freq.                            | Percent.     | Freq.      | Percent.     |            |            |
| More boys than girls           | 37                               | 17.96        | 28         | 13.59        | 65         | 48.87      |
| Equal number of boys and girls | 35                               | 16.99        | 33         | 16.02        | 68         | 51.13      |
| Less boys than girls           | 5                                | 2.43         | 68         | 33.01        | 73         | 54.89      |
| <b>Total</b>                   | <b>77</b>                        | <b>37.38</b> | <b>129</b> | <b>62.62</b> | <b>206</b> | <b>100</b> |

Among the 77 respondents who had partners and were ready to uptake vasectomy, 37 (17.96%) had more boys than girls, 35 (16.99%) had an equal number of boys and girls while only 5 (2.43%) had less boys than girls. Of the 129 respondents who were not ready to uptake vasectomy, 28 (13.59%) had more boys than girls, 33 (16.02%) had the same number of boys as girls while 68 (33.01%) had less boys than girls. These results show that having more boys than girls in the family increased the chances to take up vasectomy for the men. In other words the more the boys in a family the higher the readiness of the parent to uptake vasectomy. The study went on to assess whether indeed the difference in the number of boys and girls affected the readiness of men to adopt vasectomy using a chi square analysis in table 4.15.

**Table 4.15 Chi-square test checking the influence of difference between boys and girls on readiness to undergo vasectomy**

|                    | Value | df | Asymp. Sig. (2-sided) |
|--------------------|-------|----|-----------------------|
| Pearson Chi-Square | 7.015 | 2  | .025                  |
| N of Valid Cases   | 206   |    |                       |

From the chi square analysis in table 4.15, the significance of the chi square analysis was 0.025; this is a value less than 0.05. It implies that at 5% level of significance the difference in the number of boys and girls had an influence in readiness to undergo vasectomy. Kaza et al (2011) concurs that the number of clients accepting vasectomy was less among those who had no male child as compared to those who had no girl child (6.5% and 25.4% respectively).with one daughter, vasectomy acceptance was 42% and with two daughters it fell to 24% showing a 28 % fall in vasectomy acceptance. After one male child the acceptance rate was 46.5% but only falls less to 40.4% after two male children (Kaza *et al* 2011)

#### **4.4.7 Age of the youngest child and readiness to take up vasectomy**

To answer this, the researcher asked the age of the youngest child and the results were cross tabulated by the readiness to undergo as shown in table 4.16

**Table 4.16: Age of the youngest child on the parents' readiness to uptake vasectomy**

| Age bracket            | Readiness to uptake vasectomy |              |            |              | Total      |            |
|------------------------|-------------------------------|--------------|------------|--------------|------------|------------|
|                        | Ready                         |              | Not ready  |              | Freq.      | Percent.   |
|                        | Freq.                         | Percent.     | Freq.      | Percent.     |            |            |
| Less than 5 years      | 35                            | 16.99        | 22         | 10.68        | 57         | 27.67      |
| Between 6 and 12 years | 34                            | 16.50        | 35         | 16.99        | 69         | 33.5       |
| Over 12 years          | 8                             | 3.88         | 72         | 34.95        | 80         | 38.83      |
| <b>Total</b>           | <b>77</b>                     | <b>37.37</b> | <b>129</b> | <b>62.62</b> | <b>206</b> | <b>100</b> |

From the findings, out of the 77 respondents who were ready to take up vasectomy and were married, 35 (16.99%) respondents had their youngest child being less than 5 years old, 34 (16.50%) had their youngest child aged between 6 and 12 years and finally 8 (3.88%) respondents had their youngest child being over 12 years old. On the other hand of the 129 respondents who were not ready to take up vasectomy and were married, 22 (10.68%) had their youngest child being aged below 5years, 35 (16.99%) of them had their youngest child being aged between 6 and 12 years while 72 (34.95%) had their youngest child being over 12 years old. From these results, if the youngest child is younger, it increases the chances of a man to be ready to take up vasectomy and on the other hand if the youngest child is older it reduces the chances of the man to take up vasectomy.

The researcher sought to confirm this using a chi square test as shown in table below whether in deed age of the youngest child influenced readiness to adopt vasectomy and presented the findings in table 4.17.

**Table 4.17: Chi-Square Test for age of the youngest child on the parents' readiness to uptake vasectomy**

|                    | Value               | df | Asymp. Sig. (2-sided) |
|--------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 63.003 <sup>a</sup> | 2  | .000                  |
| N of Valid Cases   | 206                 |    |                       |

From table 4.17, the significance of the chi square test was 0.000, which was a value less than 0.05. This means that at 5% level of significance, age of the youngest child had an influence on the adoption of vasectomy among men. Kaza et al (2011)

similarly observed that 25% of the clients underwent vasectomy within two years of the last born and only 19% underwent vasectomy after 10 years of the last child.

#### 4.4.8 Family planning on readiness for vasectomy uptake

Next, the study investigated if the respondents' readiness to uptake vasectomy was affected by whether or not all the children were planned and the results are shown in the table 4.18.

**Table 4.18: Whether birth planning would influence respondents' readiness to undergo vasectomy**

| Response     | Readiness to undergo vasectomy |              |            |              | Total      |            |
|--------------|--------------------------------|--------------|------------|--------------|------------|------------|
|              | Ready                          |              | Not ready  |              | Freq.      | Percent.   |
|              | Freq.                          | Percent.     | Freq.      | Percent.     |            |            |
| Yes          | 25                             | 12.14        | 107        | 51.94        | 132        | 64.08      |
| No           | 52                             | 25.24        | 22         | 10.68        | 74         | 35.92      |
| <b>Total</b> | <b>77</b>                      | <b>37.38</b> | <b>129</b> | <b>62.62</b> | <b>206</b> | <b>100</b> |

Among the 77 respondents who had partner and were ready to uptake vasectomy, 25 (12.14%) had all their children planned while the remaining 52 (25.24%) did not plan for all their children. From this, it is evident that most of the respondents who were ready to uptake vasectomy did not plan for all their children. On the other hand of the 129 respondents who were not ready to uptake vasectomy, 107 (51.94%) had all their children planned for while the other 22 (10.68%) did not plan for all their children. From the general results, 132 (64.08%) respondents planned for all their children while 74 (35.92%) of the 206 respondents did not have all their children planned for. These findings show that lack of family planning increased the chances of a man to be ready for vasectomy.

The research examined whether planning of all children had a significant influence on readiness to adopt vasectomy among men in Busia County using a chi square test and presented the findings in table 4.19.

**Table 4.19: Chi-Square Test between Influence of family planning on the respondents' readiness to undergo vasectomy**

|                    | Value               | df | Asymp. Sig. (2-sided) |
|--------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 59.980 <sup>a</sup> | 2  | .000                  |
| N of Valid Cases   | 206                 |    |                       |

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.38.

From the Pearson's chi square test above, the significance was found to be 0.000, which is a value less than 0.05, this means that at 5% level of significance, planning of all the children had an effect on men's readiness to adopt vasectomy.

#### **4.4.9 Planning of the youngest child on readiness to undergo vasectomy**

The study then went on to examine whether the youngest child of the respondents was planned and how this influenced their readiness to uptake vasectomy. The findings of this investigation were shown in table 4.20

**Table 4.20: Whether planning of the youngest child would influence readiness to undergo vasectomy**

| Response     | Readiness to uptake vasectomy |              |            |              | Total      |            |
|--------------|-------------------------------|--------------|------------|--------------|------------|------------|
|              | Ready                         |              | Not ready  |              | Freq.      | Percent.   |
|              | Freq.                         | Percent.     | Freq.      | Percent.     |            |            |
| Yes          | 25                            | 12.14        | 107        | 51.94        | 132        | 64.08      |
| No           | 52                            | 25.24        | 22         | 10.68        | 74         | 35.92      |
| <b>Total</b> | <b>77</b>                     | <b>37.38</b> | <b>129</b> | <b>72.62</b> | <b>206</b> | <b>100</b> |

From table 4.20, out of the 77 respondents who had partners and were ready to take up vasectomy, 25 (12.14%) respondents planned for their youngest child while 52 (25.24%) never planned for their youngest child. Of the 129 respondents who were not ready to uptake vasectomy, 107 (51.94%) had planned for their youngest child while 22 (10.68%) never planned for their youngest child. It could be concluded that most of those respondents who planned for their youngest child were not ready to uptake vasectomy while most of those who never planned for their youngest child were ready to uptake vasectomy.

The study again used chi square analysis to assess the influence of planning of the youngest child on readiness to adopt vasectomy and presented the findings in table 4.21.

**Table 4.21: Chi-Square Tests on planning of the youngest child on readiness to undergo vasectomy.**

|                    | Value               | df | Asymp. Sig. (2-sided) |
|--------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 53.862 <sup>a</sup> | 2  | .000                  |
| N of Valid Cases   | 206                 |    |                       |

From table above, the significance of the chi square test was 0.000, which is a value less than 0.05. This means that at 5% level of significance planning of the youngest child had an influence on men's readiness to adopt vasectomy.

#### **4.5 The vasectomy administration process and men's readiness to undergo vasectomy**

The second objective of the research was to examine the vasectomy administration process and how it determines a man's readiness to undertake it.

#### 4.5.1 Fear of needles on men’s readiness to undergo vasectomy.

Given that in the previous times vasectomy was a surgical process that involved the use of needles and scalpels, the study explored whether the use of needles had an effect on men’s readiness to take up vasectomy and presented the findings in table 4.22.

**Table 4.22: Whether the Sight of needles would influence men’s readiness to undergo vasectomy**

| Response     | Readiness to uptake vasectomy |             |            |              | Total      |            |
|--------------|-------------------------------|-------------|------------|--------------|------------|------------|
|              | Ready                         |             | Not ready  |              | Freq.      | Percent.   |
|              | Freq.                         | Percent.    | Freq.      | Percent.     |            |            |
| Yes          | 60                            | 26.55       | 119        | 52.65        | 179        | 79.2       |
| No           | 25                            | 11.06       | 22         | 9.73         | 47         | 20.8       |
| <b>Total</b> | <b>85</b>                     | <b>37.6</b> | <b>141</b> | <b>62.38</b> | <b>226</b> | <b>100</b> |

Among the 226 respondents, 179 (79.2%) admitted to being worried by the sight of the needle while 47 (20.8%) of them were not worried by the sight of the needle. Out of the 85 respondents who were ready to take up vasectomy, 60(26.55%) attested that the sight of needles worried them while 25(11.06%) said that the sight of needles did not worry them. On the other hand of the 141 respondents who were not ready to take up vasectomy, 119(52.65%) said that the sight of needles worried them compared to 22(9.73%) who said that the sight of needles did not worry them. This findings show that fear of needles increased the chances of not being ready to take up vasectomy from 26.55% to 52.65%. On the other hand it could be explained that most of the men were worried by the sight of the needle and as a result shied away from the vasectomy process.

The study went on and explored whether this influence was real or not using chi square analysis and presented the findings in table 4.23.



**Table 4.23 Chi-Square analyzing the influence of sight of needles on readiness to undergo vasectomy**

|                    |                    |    |                       |
|--------------------|--------------------|----|-----------------------|
|                    | Value              | df | Asymp. Sig. (2-sided) |
| Pearson Chi-Square | 6.139 <sup>a</sup> | 1  | .013                  |
| N of Valid Cases   | 226                |    |                       |

From table 4.23, the significance of the chi-square analysis is 0.013, which is a value less than 0.05. This means that at 5% level of significance, fear of needles truly influenced readiness of men in Busia County to adopt vasectomy.

#### 4.5.2 Fear of pain on readiness to undergo vasectomy

Having established this, the study further went on to investigate whether the fear of pain could be a hindrance to the utilization of vasectomy and the findings are shown in table 4.24.

**Table 4.24: Whether fear of pain can influence willingness to undergo vasectomy**

| Response     | Readiness to undergo vasectomy |              |            |              | Total      |            |
|--------------|--------------------------------|--------------|------------|--------------|------------|------------|
|              | Ready                          |              | Not ready  |              | Freq.      | Percent.   |
|              | Freq.                          | Percent.     | Freq.      | Percent.     |            |            |
| Yes          | 57                             | 25.22        | 111        | 49.12        | 168        | 74.34      |
| No           | 28                             | 12.39        | 30         | 13.27        | 58         | 25.66      |
| <b>Total</b> | <b>85</b>                      | <b>37.61</b> | <b>141</b> | <b>62.39</b> | <b>226</b> | <b>100</b> |

The study found that of the 85 respondents who were ready to take up vasectomy, 57 (25.22%) of the respondents who were ready to uptake vasectomy admitted that the fear of pain was a hindrance to the adoption of vasectomy while 28 (12.39%) others were of the opinion that the fear of pain was not a hindrance to uptake of vasectomy. On the other hand, 111 (49.12%) of the 141 men who were not ready to uptake vasectomy said fear of pain was a hindrance to uptake of vasectomy while the

remaining 30 (13.27%) men said that fear of pain was not a hindrance to uptake of vasectomy. From the results, it can generally be noted that belief that vasectomy was a painful process reduced the chances of uptake of vasectomy. The study sought to confirm this from a chi square test which was presented in table 4.25.

**Table 4.25: chi square test between fear of pain and willingness to undergo vasectomy**

|                    | Value              | df | Asymp. Sig. (2-sided) |
|--------------------|--------------------|----|-----------------------|
| Pearson Chi-Square | 3.782 <sup>a</sup> | 1  | .002                  |
| N of Valid Cases   | 226                |    |                       |

From table 4.25, the significance of the p value of the chi square test was found to be 0.002. This is a value less than 0.05 meaning that at 5% level of significance fear of pain influenced men's readiness to undertake vasectomy.

The fear of pain aspect motivated the researcher to find out whether the withdrawal of the needles in the vasectomy procedure would motivate the respondents to take up vasectomy. It was expected that most men interviewed would be motivated to take up the process if the needles were withdrawn and the results are shown in table 4.26

**Table 4.26: Whether the withdrawal of needles in the process of vasectomy would motivate men to undergo vasectomy**

| <b>Responses</b> | <b>Frequency</b> | <b>Percentage</b> |
|------------------|------------------|-------------------|
| Yes              | 145              | 64.16             |
| No               | 81               | 35.84             |
| <b>Total</b>     | <b>226</b>       | <b>100</b>        |

From table 4.26, 145 (64.16%) men of the 226 who responded agreed that the absence of the needles would actually motivate them to undertake vasectomy while the

remaining 81 (35.84%) disagreed with this view. From these findings it may be easy to conclude that needles are a major hindrance to the motivation of men to undertake the vasectomy process. Stein (2011) avers that no man likes needles near his scrotum. In fact many men actually hate them, so the “*No Needle Anesthesia technique*” is a relief for them. It is done with the spray applicator called the Madajet. It requires only 1/10<sup>th</sup> of the volume of anesthetic that is used with the needle technique. There is no distension of the skin or underlying tissue and less bleeding occurs.

#### **4.5.3 Influence of knowledge on recovery period on readiness for vasectomy uptake.**

The study then went ahead to find out the effect of knowledge of the recovery period on the respondents’ readiness to undergo vasectomy and the findings are as shown in table 4.27.

**Table 4.27: Effect of knowledge on recovery period on the willingness to undergo vasectomy**

| <b>Responses</b>          | <b>Readiness to uptake vasectomy</b> |                 |                  |                 | <b>Total</b> |                 |
|---------------------------|--------------------------------------|-----------------|------------------|-----------------|--------------|-----------------|
|                           | <b>Ready</b>                         |                 | <b>Not ready</b> |                 | <b>Freq.</b> | <b>Percent.</b> |
|                           | <b>Freq.</b>                         | <b>Percent.</b> | <b>Freq.</b>     | <b>Percent.</b> |              |                 |
| Less than 3 days          | 41                                   | 18.14           | 31               | 13.72           | 72           | 31.86           |
| Between 3 days and 1 week | 39                                   | 17.26           | 37               | 16.37           | 76           | 33.63           |
| More than one week        | 5                                    | 2.21            | 73               | 32.30           | 78           | 34.51           |
| <b>Total</b>              | <b>85</b>                            | <b>37.61</b>    | <b>141</b>       | <b>62.39</b>    | <b>226</b>   | <b>100</b>      |

Of the 85 men who were ready to undergo vasectomy, 41 (18.14%) believed that it took a period of less than 3 days to recover after vasectomy, 39 (17.26%) respondents believed that it took between 3 days and 1 week to recover while 5 (2.21%) other respondents believed recovering process lasted for more than a week. On the other hand, among the 141 respondents who were not ready to take up vasectomy 31

(13.72%) respondents believed that the recovering process took less than 3 days, 37 (16.37%) respondents were of the opinion that the recovering process lasted between 3 days and a week while 73 (32.30%) respondents believed that it took more than a week. These findings show that most men were ignorant of the recovering process with only 72(31.86%) respondents knowing exactly how long it would take for the recovering process. Normally the recovering process takes two days.

The study explored whether the length of recovery period had a significant influence on the men's readiness to undertake vasectomy and presented the findings in table 4.28.

**Table 4.28: Chi-Square Test for recovery period on the willingness to undergo vasectomy**

|                    | Value               | df | Asymp. Sig. (2-sided) |
|--------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 49.912 <sup>a</sup> | 2  | .000                  |
| N of Valid Cases   | 226                 |    |                       |

From table 4.28, the significance of the chi square testing the influence of recovery period on the men's willingness to undertake vasectomy. The significance of the test was found to be 0.000 which was a value less than 0.05. This means that at 5% level of significance, recovery period had significant influence on willingness to undergo vasectomy.

#### **4.5.4 Birth control on readiness to undergo vasectomy.**

The study went on to examine the effect that the birth control method used over the past year had on the respondents' willingness to uptake vasectomy and the results are shown in table 4.29.

**Table 4.29: Influence of the method of birth control used over the past year on respondents' readiness to uptake vasectomy**

| Responses    | Readiness to uptake vasectomy |              |           |              | Total      |            |
|--------------|-------------------------------|--------------|-----------|--------------|------------|------------|
|              | Ready                         |              | Not ready |              | Freq.      | Percent.   |
|              | Freq.                         | Percent.     | Freq.     | Percent.     |            |            |
| Depo shots   | 35                            | 16.99        | 29        | 14.08        | 64         | 31.07      |
| None         | 58                            | 28.16        | 8         | 3.88         | 66         | 32.04      |
| Condoms      | 10                            | 4.85         | 14        | 6.80         | 24         | 11.65      |
| Pills        | 16                            | 7.77         | 10        | 4.85         | 26         | 12.62      |
| Abstain      | 10                            | 4.85         | 10        | 4.85         | 20         | 9.71       |
| Implants     | 2                             | 0.97         | 0         | 0            | 2          | 0.97       |
| Withdrawal   | 2                             | 0.97         | 2         | 0.97         | 4          | 1.94       |
| <b>Total</b> | <b>133</b>                    | <b>66.51</b> | <b>73</b> | <b>33.49</b> | <b>206</b> | <b>100</b> |

Of the 133 respondents who had partners and were ready to uptake vasectomy, the wives of 35 (16.99%) used depo shots as a method of birth control, 58 (28.16%) never used anything to control birth over the past year, 10 (4.85%) used condoms as a method of birth control over the past year, another 16 (7.77%) used pills to control birth, yet another 10 (4.85%) abstained to enable them control birth over the past year, 2 (0.97%) made use of implants as a method of birth control over the past year and again another 2 (0.97%) of the respondents used withdrawal method to control birth in the past one year. Among the 73 who were not ready to uptake vasectomy, the wives of 29 (14.08%) used depo shots as a method of birth control, 8 (3.88%) never used any birth control method in the past one year, 14 (6.80%) utilized condoms to control birth in the previous year, 10 (4.85%) respondents used pills, 10 (4.85%) resorted to abstaining in order to control birth in the past one year, 2 (0.97%) of them used the withdrawal method to control birth while none of them used implants. From these results, it is clear that all the respondents whose spouses used implants were ready to adopt vasectomy; most respondents whose spouses used pills were also ready to take up vasectomy. Men whose spouses never used any method were also willing to

undertake vasectomy. The study went on to explore whether indeed type of family planning method used had an influence on the men readiness to accept vasectomy and presented the findings in table 4.30

**Table 4.30: Chi-Square Test method of birth control used over the past year on respondents' readiness to uptake vasectomy**

|                    | Value               | df | Asymp. Sig. (2-sided) |
|--------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 31.365 <sup>a</sup> | 6  | .000                  |
| N of Valid Cases   | 206                 |    |                       |

From table 4.30, the significance is a value less than 0.05. This means that at 5% level of significance, the type of family planning practiced by the wife influenced men's readiness to undertake vasectomy. This is mainly due to the side effects of the hormonal methods of family planning on their partners. None use of Family planning also meant that there are too many children in the family to take care of and the man would be more willing to adopt vasectomy for economic reasons. Kaza et al (2011) found that 82% of the spouses were not using any form of contraception prior to vasectomy acceptance and 7% were practicing unsafe sex or abstinence.

The next aim of the study was to establish the respondents' reasons for choosing vasectomy and the responses are as shown table 4.31.

**Table 4.31: Reasons for choosing vasectomy**

| <b>Reason for choosing vasectomy</b> | <b>Frequency</b> | <b>Percentage</b> |
|--------------------------------------|------------------|-------------------|
| Don't want any more children         | 29               | 54.72             |
| Economic reasons                     | 18               | 33.96             |
| Side effects of FP on partner        | 4                | 7.55              |
| Wanted to participate in FP          | 2                | 3.77              |
| <b>Total</b>                         | <b>53</b>        | <b>100</b>        |

Of the 53 respondents who had undertaken vasectomy, 29 (54.72%) admitted to going for vasectomy for not wanting any more children, 18 (33.96%) chose vasectomy for economic reasons, 4 (7.55%) opted for vasectomy due to the side effects of the current family planning method on their partner while 2 (3.77%) went for vasectomy because of their willingness to participate in family planning. From these results, it could be concluded that most of the respondents went for vasectomy because they never wanted any more children and for economic reasons. Interviews with vasectomy clients ages 35 to 45 years found that 9 out of 10 had chosen vasectomy because they wanted to relieve their partners of the responsibility for contraception and felt it was time for them to take their turn. The decision was made easier by the simplicity, safety, short recovery time and lower cost of vasectomy compared to female sterilization (Lande *et al* 2008).

#### **4.6 Resources and health facilities on men's readiness to adopt vasectomy**

The third objective of the study was to establish how resources and health facilities can determine men's readiness to undertake vasectomy. The study explored the influence of availability of qualified vasectomists, distance to a local health facility,

adequacy of health facility, proficiency of the practitioners in the local health center and availability of wage compensation on men’s readiness to take up vasectomy.

#### 4.6.1 Availability of qualified vasectomists on readiness to undergo vasectomy

The first aim of the research was to determine whether there was a qualified Vasectomist in the local health facility and how this influenced the respondents’ readiness to undergo vasectomy. The results are as shown in table 4.32.

**Table 4.32: Whether the availability of a qualified Vasectomist in the local facility would affect the respondents’ readiness to uptake vasectomy**

| Response     | Readiness to uptake vasectomy |              |            |              | Total      |            |
|--------------|-------------------------------|--------------|------------|--------------|------------|------------|
|              | Ready                         |              | Not ready  |              | Freq.      | Percent.   |
|              | Freq.                         | Percent.     | Freq.      | Percent.     |            |            |
| Yes          | 11                            | 4.87         | 3          | 1.33         | 14         | 6.19       |
| No           | 74                            | 32.74        | 138        | 61.06        | 212        | 93.81      |
| <b>Total</b> | <b>85</b>                     | <b>37.61</b> | <b>141</b> | <b>62.39</b> | <b>226</b> | <b>100</b> |

From table 4.32, 14 (6.1%) respondents said there was a qualified vasectomists in the local health facility while 212 (93.81%) said that there were no qualified vasectomists in their local facilities. Out of the 85 respondents who were ready to take up vasectomy, 11 (4.87%) of the 85 respondents agreed that they had a qualified local Vasectomist in their local health facilities while 74 (32.74%) said there were no qualified vasectomists in their local health facility. Of the 141 respondents that were not ready to take up vasectomy 3 (1.33%) agreed that there was a qualified Vasectomist at their local health center while 138 (61.06%) respondents believed that there was no qualified Vasectomist in the local health facility. These findings show that the presence of a qualified Vasectomist increased the chances of someone to undertake vasectomy from 1.33% to 4.87%. The study used chi square test for



independence to assess whether availability of a qualified vasectomists had an influence on men’s readiness to undertake vasectomy.

**Table 4.33: Chi square test between availability of a qualified Vasectomist on readiness to uptake vasectomy**

|                    | Value               | df | Asymp. Sig. (2-sided) |
|--------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 10.671 <sup>a</sup> | 1  | .001                  |
| N of Valid Cases   | 226                 |    |                       |

The chi square test had a value of 0.001. This was a value less than 0.05 meaning that at 5% level of significance availability of a qualified vasectomy in the local health facility influenced the men’s readiness to accept vasectomy. In a study titled factors affecting vasectomy acceptability in Tanzania, Family Health International (FHI) found that a quarter of vasectomy clients cited lack of provider availability as an explanation for having postponed the procedure. Others just described the difficulty involved in obtaining the service. Often the providers are unavailable or inaccessible. There was confusion as to when the service would be rendered. Lack of equipment and supplies was also cited as a barrier (FHI ,2009).There was no contact for easy communication with the providers and patients had no one to turn to whenever complications arose after the procedure (FHI, 2009).The only providers conversant with vasectomy were frequently transferred leaving clients precarious. Clients also indicated that the healthcare provider should be of good reputation and integrity because the body part involved is private and sensitive (FHI, 2009).

Next, the study sought to know how the respondents knew that there were qualified vasectomists in the nearest health facilities and the results are shown in table 4.34.

**Table 4.34: How to know whether there are qualified vasectomists in the nearest health facilities**

| <b>Response</b>              | <b>Frequency</b> | <b>Percentage</b> |
|------------------------------|------------------|-------------------|
| Visiting the health facility | 13               | 92.86             |
| Phone                        | 1                | 7.14              |
| <b>Total</b>                 | <b>14</b>        | <b>100</b>        |

Out of the 14 respondents who knew that there were qualified vasectomists in their local health facility, 13 (92.86%) respondents said that they knew it through visiting those facilities in person while 1 (7.14%) got to know whether there are qualified vasectomists in the nearest health facilities by making a phone call.

#### **4.6.2 Distance to the local health facility on readiness to undergo vasectomy.**

Come to think of it, would the distance to a local health center affect the respondents' willingness to uptake vasectomy? The study sought to establish the answers for this question from the respondents and their reactions are as shown in table 4.35.

**Table 4.35: Would the distance to a local health facility influence the respondents' readiness to undergo vasectomy**

| <b>Response</b> | <b>Readiness to undergo vasectomy</b> |                 |                  |                 | <b>Total</b> |                 |
|-----------------|---------------------------------------|-----------------|------------------|-----------------|--------------|-----------------|
|                 | <b>Ready</b>                          |                 | <b>Not ready</b> |                 | <b>Freq.</b> | <b>Percent.</b> |
|                 | <b>Freq.</b>                          | <b>Percent.</b> | <b>Freq.</b>     | <b>Percent.</b> |              |                 |
| Yes             | 57                                    | 25.22           | 111              | 49.12           | 168          | 74.34           |
| No              | 28                                    | 12.39           | 30               | 13.27           | 58           | 25.66           |
| <b>Total</b>    | <b>85</b>                             | <b>37.61</b>    | <b>141</b>       | <b>62.39</b>    | <b>226</b>   | <b>100</b>      |

Among the 85 respondents who were ready to uptake vasectomy, 57 (25.22) agreed that the distance to a local health facility would affect their readiness to uptake vasectomy while 28 (12.39%) of them disagreed that distance to a local health facility would affect their readiness to undergo vasectomy. On the other hand 111 (49.12%)

of the 141 respondents who were not ready to uptake of vasectomy agreed that distance to the local health facility would influence their readiness to uptake vasectomy while 30 (13.27%) of them disagreed. These findings show that distance to local health facility influenced readiness to adoption of vasectomy by the respondents. The study explored the significance of the chi square test to assess whether at 5% level of significance; distance to the local health facility influenced the men's readiness to access vasectomy.

**Table 4.36: Chi-Square Test between distance to the local health center and uptake of vasectomy.**

|                    | Value              | df | Asymp. Sig. (2-sided) |
|--------------------|--------------------|----|-----------------------|
| Pearson Chi-Square | 3.782 <sup>a</sup> | 1  | .04                   |
| N of Valid Cases   | 226                |    |                       |

From chi square test had a significance of 0.04, which is a value lesser than 0.05 meaning that at 5% level of significance distance to the health facility will influence the men's readiness to accept vasectomy. Out of pocket expenses such as lost wages or transportation cost to the hospital can be a great barrier for poor men considering vasectomy. Many programs offer men reimbursement or compensation for such expenses (John Hopkins Bloomberg School of Public Health (JHBSPH), 2008).

#### **4.6.3 Adequacy of health facility on readiness to undergo vasectomy**

The study went further to investigate how the respondents' judgment on the adequacy of the health facility in their area would affect their readiness to uptake vasectomy and the findings are shown in table 4.37

**Table 4.37: Effect of the respondents' judgment on the adequacy of the health facility in their area to their willingness to undergo vasectomy**

| Response     | Readiness to uptake vasectomy |              |            |              | Total      |            |
|--------------|-------------------------------|--------------|------------|--------------|------------|------------|
|              | Ready                         |              | Not ready  |              | Freq.      | Percent.   |
|              | Freq.                         | Percent.     | Freq.      | Percent.     |            |            |
| Good         | 23                            | 10.18        | 39         | 17.26        | 62         | 27.43      |
| Average      | 22                            | 9.73         | 37         | 16.37        | 59         | 26.11      |
| Poor         | 40                            | 17.70        | 65         | 28.76        | 105        | 46.46      |
| <b>Total</b> | <b>85</b>                     | <b>37.61</b> | <b>141</b> | <b>62.39</b> | <b>226</b> | <b>100</b> |

According to these findings, most of the respondents said that the adequacy of the health facilities in their areas was poor as illustrated by the statistics, 105 (46.46%) of the total 226 who responded. 23 (10.18%) of the respondents who were ready to uptake vasectomy were of the opinion that the adequacy of the health facilities in their areas was good, 22 (9.73%) rated the adequacy of the health facility in their area as average while 40 (17.70%) judged the adequacy of the health facility in their area as poor. Among the ones who were not ready to uptake vasectomy, 39 (17.26%) rated the adequacy of their local health facility as good, 37 (16.37%) said that the adequacy of their health facility was average and finally 65 (28.76%) were of the opinion that their health facilities rated poor. These findings clearly show that the adequacy of the health facilities did not have an effect on the men's readiness to take up vasectomy.

The chi square testing the significance of the effect of adequacy of the nearest health facility on the men's readiness to accept vasectomy was presented in table 4.38.

**Table 4.38: Chi-Square Tests adequacy of the health facility on willingness to undergo vasectomy**

|                    | Value             | df | Asymp. Sig. (2-sided) |
|--------------------|-------------------|----|-----------------------|
| Pearson Chi-Square | .020 <sup>a</sup> | 2  | .990                  |
| N of Valid Cases   | 226               |    |                       |

The chi square testing the effect of the adequacy of the health facility accessed and the uptake of vasectomy had a significance of 0.99 which is a value greater than 0.05. This means that at 5% level of significance, adequacy of the health facility did not influence willingness to uptake vasectomy.

#### **4.6.4 Proficiency of the practitioners on readiness to undergo vasectomy**

The study further sought to find out how the respondents rated the proficiency of the health facility practitioners in their area and how this influenced their readiness to uptake vasectomy. The findings are on table 4.39

**Table 4.39: How proficiency of the health facility practitioners affect readiness of the respondents to undergo vasectomy**

| Response     | Readiness to uptake vasectomy |              |            |              | Total      |            |
|--------------|-------------------------------|--------------|------------|--------------|------------|------------|
|              | Ready                         |              | Not ready  |              | Freq.      | Percent.   |
|              | Freq.                         | Percent.     | Freq.      | Percent.     |            |            |
| Good         | 22                            | 9.73         | 37         | 16.37        | 59         | 26.11      |
| Average      | 24                            | 10.62        | 39         | 17.26        | 63         | 27.88      |
| Poor         | 39                            | 17.25        | 65         | 28.76        | 104        | 46.02      |
| <b>Total</b> | <b>85</b>                     | <b>37.60</b> | <b>141</b> | <b>62.40</b> | <b>226</b> | <b>100</b> |

Among the 85 respondents who were ready to undergo vasectomy, 22 (9.73%) rated the proficiency of their health facility practitioners as good, 24 (10.62%) said that their health facility practitioners were average in proficiency while 39 (17.26%) were of the view that the proficiency of the practitioners in their local health facilities was

poor. Of the ones who were not ready for vasectomy, 37 (16.37%) rated the proficiency of the practitioners at their local health facility as good, 39 (17.26%) of them rated their local practitioners as averagely proficient and 65 (28.76%) respondents rated the practitioners at their local facilities as poor. From the results, it can be generally concluded that most of the proficiency of the practitioners in the local health facilities did not influence the readiness of the respondents to take up vasectomy.

The study used the chi square test to explore the effect of the proficiency of the practitioner on the men’s readiness to undertake vasectomy and presented the findings table 4.40.

**Table 4.40: Chi-Square Test proficiency of the health facility practitioners and the readiness of the respondents to uptake vasectomy**

|                    | Value             | df | Asymp. Sig. (2-sided) |
|--------------------|-------------------|----|-----------------------|
| Pearson Chi-Square | .009 <sup>a</sup> | 2  | .995                  |
| N of Valid Cases   | 226               |    |                       |

From table 4.40, the chi square test revealed that there was a significance of 0.995, which is a value greater than 0.05. This meant that at 5% level of significance proficiency of the health practitioner had no influence on the men’s readiness to undergo vasectomy.

#### **4.6.5 Wage compensation on readiness to undergo vasectomy**

The question of whether the wage compensation for the two days of recovery after vasectomy would motivate the respondents to undertake vasectomy was explored in the study. The results of this study are shown in table 4.41

**Table 4.41: Whether the wage compensation for the two days of recovery after vasectomy would motivate the respondents to undergo vasectomy**

| Response     | Readiness to undergo vasectomy |              |            |              | Total      |            |
|--------------|--------------------------------|--------------|------------|--------------|------------|------------|
|              | Ready                          |              | Not ready  |              | Freq.      | Percent.   |
|              | Freq.                          | Percent.     | Freq.      | Percent.     |            |            |
| Yes          | 57                             | 25.22        | 111        | 49.12        | 168        | 74.34      |
| No           | 28                             | 12.39        | 30         | 13.27        | 58         | 25.66      |
| <b>Total</b> | <b>85</b>                      | <b>37.61</b> | <b>141</b> | <b>62.39</b> | <b>226</b> | <b>100</b> |

It was established that 168 (74.34%) of the respondents agreed that the wage compensation for the two days of recovery after vasectomy would motivate them to undertake vasectomy while 58 (25.66%) respondents disagreed with this view. It was also reported by 57 (25.22%) respondents of those who were ready to uptake vasectomy that the wage compensation for the two days of recovery after vasectomy would motivate them to undertake vasectomy and 28 (12.39%) of them disagreed. Of the ones who were not ready to uptake vasectomy, 111 (49.12%) agreed that wage compensation for the two days of recovery after vasectomy would motivate them to undertake vasectomy while the other 30 (13.27%) disagreed. This findings show that provision of wage compensation increased the chances of uptake of vasectomy.

The study used the chi square test of independence to assess the effect of compensation during the two period of recovery on men's willingness to undertake vasectomy. Table 4.42 shows the results of the analysis.

**Table 4.42: Chi-Square Test between wage compensation for the two days of recovery after vasectomy would motivate the respondents to undertake vasectomy**

|                    | Value              | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|--------------------|--------------------|----|-----------------------|----------------------|----------------------|
| Pearson Chi-Square | 3.782 <sup>a</sup> | 1  | .004                  |                      |                      |
| N of Valid Cases   | 226                |    |                       |                      |                      |

From table 4.42, the chi square test revealed that there was a significance of 0.004, which is a value less than 0.05. This meant that at 5% level of significance two day wage compensation had an influence on the men’s readiness to undertake vasectomy. Vasectomy programs in Bangladesh, India, Nepal and srilanka compensate for wages lost after vasectomy. Large cash payments are avoided because they can interfere with informed choice. Out of pocket expenses such as lost wages or transportation cost to the hospital can be a great barrier for poor men considering vasectomy. Many programs offer men reimbursement or compensation for such expenses (John Hopkins Bloomberg School of Public Health (JHBSPH), 2008).

The respondents were then asked their source of referral for vasectomy among the respondents who have undergone vasectomy and their responses were as shown in the table 4.43.

**Table 4.43: Respondents’ source of referral for vasectomy**

| Source for referral for vasectomy | Frequency | Percentage |
|-----------------------------------|-----------|------------|
| CHW                               | 46        | 86.79      |
| Friend                            | 6         | 11.32      |
| Newspaper                         | 1         | 1.89       |
| <b>Total</b>                      | <b>53</b> | <b>100</b> |



Of the 53 who had undergone vasectomy, 46 (86.79%) respondents said that they knew about vasectomy through the community health workers, 6 (11.32%) of them said that their source of referral for vasectomy was a friend and finally 1 (1.89%) said that the source of referral for vasectomy is the newspaper. Billboards were not used in Busia so its impact could not be analyzed in this study.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of the research findings as captured from the analysis of the research objectives. The study had three objectives namely to establish: the Socioeconomic factors that determine men's readiness to undergo vasectomy, the vasectomy administration process and how it determines men's readiness to undertake vasectomy and examine how resources and health facilities can determine men's readiness to undertake vasectomy.

#### **5.2 Summary of the research findings**

This section presents a summary of the research findings.

##### **5.2.1 The socio economic factors affecting men's readiness to take up vasectomy**

The study explored the socio economic factors that influence men's readiness to take up vasectomy. The study established that employment status had no influence on the men's readiness to take up vasectomy.

The study also established that the level of exertion didn't have any influence on men's ability to take up vasectomy.

The study established that the level of income did not have any influence on men's readiness to take up vasectomy.

The study however found that the number of years in marriage had an influence on men's readiness to take up vasectomy. Among the men who were ready to take up vasectomy, most had been in marriage for over 15 years while among the men who were not ready to take up vasectomy most had been in marriage for less than 10 years.

The study established that the respondents who had more children were ready to take up vasectomy faster than those who had few children. For instance, out of the 77 married respondents who were ready to take up vasectomy 12(5.83%) had less than 3 children and 49(23.79%) had over 8 children. In the category of married men who were not ready to take up vasectomy 36(17.48%) had less than 3 children.

The study established that among the respondents who were willing to take up vasectomy, more had more boys than girl children in their families. Specifically the study established that among the 77 respondents who had children, 37(17.96%) had more boys than girls children while 5(2.43%) had less boys than girls children. On the other hand in the category of respondents who were not ready to take up vasectomy, 28(13.59%) had more boys than girl children and 68(33.01%) had less boys than girl children.

The study established that the age of the youngest child had an influence on the men's readiness to take up vasectomy. Most men who were ready to undertake vasectomy had their youngest children under the age of 5 years. On the other hand most men who had their youngest child over 12 years ago were not ready to take up vasectomy. For example out of the 77 respondents who were ready to accept vasectomy and were ready to take up vasectomy, 35 (16.99%) had less than 5 years while 8 (3.88%) had the youngest child over 12 years old. In the category of 129 respondents who were not ready for vasectomy 22 (10.68%) had less than 5 years while 72 (34.95%) had the youngest child over 12 years ago.

The study established that family planning had an impact on uptake of vasectomy. For instance, the study established that among the households that the heads were ready to take up vasectomy most of their children were unplanned while among the households

whose heads were not ready to take up vasectomy most of the household heads had planned for all their children. For instance, among the 77 respondents who were ready for vasectomy, 52(25.24%) said that they had not planned for all their kids while the other 25 (12.14%) respondents said they had planned for all their kids. In the group of 129 respondents who said that they were not ready to take up vasectomy 107 (51.94%) said that they had planned all their children while the other 22 (10.68%) said that they had not planned all their children.

Similarly, the study established that planning for the last child had an impact on uptake of vasectomy. For instance, it was found that among the households that the heads were ready to take up vasectomy the last child was unplanned while among the households whose heads were not ready to take up vasectomy most of the household heads had planned for the last child. For instance, among the 77 respondents who were ready for vasectomy, 52(25.24%) said that they had not planned for the last child while the other 25 (12.14%) respondents said they had planned for the last child. In the group of 129 respondents who said that they were not ready to take up vasectomy 107 (51.94%) said that they had planned all their children while the other 22 (10.68%) said that they had not planned all their children.

### **5.2.2 Vasectomy administration process on uptake of vasectomy**

The second objective of the study explored how administration process of vasectomy influenced men's readiness to undertake vasectomy. The study started by examining how the use of needles in the administration of vasectomy influenced men's readiness to take up vasectomy. The study established that men's fear of the sight of needles increased the changes of one not being ready to take up vasectomy. For instance, it was established that out of the 85 respondents who were ready to take up vasectomy, 60 (26.55%) agreed that they were worried by the sight of needles and the other 25

(11.06%) were not worried by the sight of needles. On the other hand among the 141 respondents who were not ready to take up vasectomy, 119 (52.65%) agreed that they were afraid of the sight of needles and the other 22 (9.73%) said that they were not afraid of the sight of needles.

The study examined whether the fear of pain caused by surgery influenced readiness to undertake vasectomy. The study established that indeed fear of pain contributed to lower readiness by men to adopt vasectomy. For example, it was established that out of the 85 respondents who were ready to take up vasectomy, 57 (25.22%) believed that the fear of pain was a hindrance to uptake of vasectomy and the other 28 (12.39%) were not of the opinion that fear of pain was a hindrance to uptake of vasectomy. On the other hand among the 141 respondents who were not ready to take up vasectomy, 111 (49.12%) agreed that the fear of pain was a hindrance to uptake of vasectomy and the other 30 (13.27%) said that fear of pain was not a hindrance to uptake of vasectomy. This was confirmed by 145 (64.16%) respondents who agreed that the absence of the needle would actually motivate them to undertake vasectomy while the remaining 81 (35.84%) disagreed with this view.

The study examined the effect of recovery period on the men's readiness to undertake vasectomy. Out of the 85 respondents who were ready to take up vasectomy, 41 (18.14%) believed that the recovery period lasts a period of less than 3 days, 39 (17.26%) believed it took between 3 days and 1 week to recover while 5 (2.21%) thought it took more than a week. However in the other category of respondents who were not ready to take up vasectomy. A total of 31 (13.72%) believed that the recovering period lasts a period of less than 3 days, 37 (16.37%) believed it took between 3 days and 1 week to recover while 73 (32.30%) thought it took more than a week. This showed that the household heads who were actually aware of the recovery

period of the no needle no scalpel, which lasts for 2 days, were more ready to take up vasectomy.

The study explored the influence of the birth control method used by the respondent's wives on their ability to take up vasectomy. Of the spouses of the 133 respondents who were ready to uptake vasectomy, 35 (16.99%) used depo shots as a method of birth control, 58 (28.16%) never used anything to control birth over the past year, 10 (4.85%) used condoms as a method of birth control over the past year, another 16 (7.77%) used pills to control birth, yet another 10 (4.85%) abstained to enable them control birth over the past year, 2 (0.97%) made use of implants as a method of birth control over the past year and lastly another 2 (0.97%) of the respondents used withdrawal method to control birth in the past one year. Among those who were not ready to uptake vasectomy, 29 (14.08%) used depo shots as a method of birth control, 8 (3.88%) never used any birth control method in the past one year, 14 (6.80%) utilized condoms to control birth in the previous year, 10 (4.85%) respondents used pills, 10 (4.85%) resorted to abstaining in order to control birth in the past one year, 2 (0.97%) of them used the withdrawal method to control birth while none of them used implants. These results show that the respondents whose spouses were using implants, pills and Depo shots were more ready to take up vasectomy. Those whose spouses were not using any method were also willing to undertake vasectomy.

### **5.3.3 Resources and health facilities on men's readiness to undergo vasectomy**

The third objective of the study was to establish how resources and health facilities can determine men's readiness to undertake vasectomy. The study established that having a qualified Vasectomist in the health facility increased the chances of a man being ready to undertake vasectomy. For instance among the 85 respondents who were ready to take up vasectomy 14 (6.19%) of them admitted that there was a

qualified Vasectomist in their local health facility while 212 (93.81%) said there were no qualified vasectomists in their local facilities. On the other hand 11 (4.87%) of the 85 respondents who were ready to uptake vasectomy agreed that they had a qualified Vasectomist in their local health facilities while 74 (32.74%) had no qualified vasectomists in their local health facility. This findings clearly shows that having a local Vasectomist in the health facility increased the chances of one being ready to undertake vasectomy.

The study found that distance from health facility would affect the uptake of vasectomy. It was found that among the 85 respondents who were ready to uptake vasectomy, 57 (25.22%) agreed that the distance to a local health facility would affect their readiness to uptake vasectomy while 28 (12.39%) of them disagreed that distance to a local health facility would affect their readiness to undergo vasectomy. On the other hand of the 111 (49.12%) of the respondents who were not ready to uptake of vasectomy agreed that distance to the local health facility would influence their readiness to uptake vasectomy while 30 (13.27%) of them disagreed.

According to these findings, most of the respondents said that the adequacy of the health facilities in their areas was poor as illustrated by the statistics, 105 (46.46%) of the total 226 who responded. 23 (10.18%) of the respondents who were ready to uptake vasectomy were of the opinion that the adequacy of the health facilities in their areas was good, 22 (9.73%) rated the adequacy of the health facility in their area as average while 40 (17.70%) judged the adequacy of the health facility in their area as poor. Among the ones who were not ready to uptake vasectomy, 39 (17.26%) rated the adequacy of their local health facility as good, 37 (17.26%) said that the adequacy of their health facility was average and finally 65 (28.76%) were of the opinion that their health facilities rated poor.

Among the 85 respondents who were ready to uptake vasectomy, 22 (9.73%) rated the proficiency of their health facility practitioners as good, 24 (10.62%) said that their health facility practitioners were average in proficiency while 39 (17.25%) were of the view that the proficiency of the practitioners in their local health facilities was poor. Of the ones who were not ready for vasectomy, 37 (16.37%) rated the proficiency of the practitioners at their local health facility as good, 39 (17.26%) of them rated their local practitioners as averagely proficient and 65 (28.76%) respondents rated the practitioners at their local facilities as poor. From the results, it can be generally concluded that most of the respondents thought that the practitioners of their local health facilities had poor proficiency but this did not influence decision to undergo vasectomy.

A total of 168 (74.34%) of the respondents agreed that the wage compensation for the two days of recovery after vasectomy would motivate them to undertake vasectomy while 58 (25.66%) of them disagreed with this view. 57 (25.22%) of those who were ready to uptake vasectomy agreed that the wage compensation for the two days of recovery after vasectomy would motivate them to undertake vasectomy and 28 (12.39%) of them disagreed. Of the ones who were not ready to uptake vasectomy, 111 (49.12%) agreed that wage compensation for the two days of recovery after vasectomy would motivate them to undertake vasectomy while the other 30 (13.27%) disagreed.

### **5.3 Conclusion**

The purpose of the study was to explore the determinants of readiness to undergo vasectomy among men in Busia County. The study found that the determinants could be grouped into socio economic factors, vasectomy administration factors and health care resource factors. In the socio economic factors, the study found that the socio



economic factors that affected men's readiness to take up vasectomy were number of years in marriage, number of children, difference between the number of boys and girls in the family, age of the youngest child, planning for the children and whether the last child was planned. In the vasectomy administration factors the study established that use of needles affected men's readiness to take up vasectomy, recovery period from the surgical process and the type of family planning use by spouse. In the resources that affected adoption of vasectomy, the study found that availability of qualified vasectomists in the local health facilities and provision of wage compensation during the process of recovery increased the chances of adoption of vasectomy.

#### **5.4 Recommendations**

The study recommends that there needs to be more awareness and campaigns to men who had more girls than boys on the importance of vasectomy. This group of men should be informed and educated that vasectomy is important as a family planning measure and not only necessary once one has enough number of boys in the family. The study also recommends that awareness on the benefits to take up vasectomy should be done to everyone more so those who had their youngest children over 5 years of age. This group was established not to be ready to take up vasectomy.

The study recommends that more campaign should be done to inform men on the administration of the no needle no scalpel mode of vasectomy. Most respondents were unaware of the surgical process of vasectomy and they believed it was done using needles and scalpels for this reason they were not ready to take up vasectomy.

Lastly, the study recommends that the government should staff the local health facilities with qualified vasectomists to improve on men's readiness to take up

vasectomy. The study recommends that there needs to be more health facilities specialized for carrying out vasectomy.

### **5.6 Suggestion for further study**

The study suggests that in future a similar research needs to be done and involve the views of the vasectomists to make it more inclusive

The study suggests that in future a follow up study needs to be done to assess whether adoption of the process has improved or not.

The study also suggests that a similar study needs to be done in other areas more so in areas of urban setting so as to compare with the findings of this study

## 5.7 Contribution to the body of knowledge

The study had the following contribution to the body of knowledge.

| Objective  | Contribution to the body of knowledge   |
|--|---|
| the socioeconomic factors that determine men's readiness to undertake vasectomy, a male family planning method | A total of 85(37.61%) men were ready to undergo vasectomy   |
|  | A total of 141(62.39%) men were not ready to undergo vasectomy  |
|  | The study also established that the level of exertion didn't have any influence on men's ability to take up vasectomy.  |
|  | The study also established that level of income did not have any influence on men's readiness to take up vasectomy.   |
|  | The socio economic factors that affected men's readiness to take up vasectomy were number of years in marriage, number of children, difference between the number of boys and girls in the family, age of the youngest child, planning for the children and whether the last child was planned. |
| The vasectomy administration process and how it determines a men's readiness to undertake vasectomy            | Use of needles affected men's readiness to take up vasectomy, recovery period from the surgical process and the type of family planning use by spouse.  |
| How resources and health facilities can determine men's readiness to undertake vasectomy                       | In the resources that affected adoption of vasectomy, the study found that availability of qualified vasectomists in the local health facilities and provision of wage compensation during the process of recovery increased the chances of adoption of vasectomy.                              |

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## APPENDICES

### APPENDIX A: LETTER OF TRANSMITTAL

UNIVERSITY OF NAIROBI,  
P.O. BOX 30197-00100  
NAIROBI, KENYA  
1/8/2013

#### INTRODUCTION

To.....

Dear Sir,

Good-----my name is Charles Ochieng, a student at the University of Nairobi pursuing a Master of Arts degree in project planning and management. In order to fulfill the requirements of the programme, I am undertaking a study on determinants of readiness to undertake vasectomy, a male family planning method. The findings of the study will aid policy makers in decision making.

Kindly answer the questions honestly

Thank you

## INFORMED CONSENT

I,..... has read the information in this form (or it has been read to me).I was free to ask any questions and they have been answered. I am over 18 years of age and exercising my free power of choice, hereby give my consent to be included as a participant in the study of determinants of readiness to undertake vasectomy, a male family planning method in Busia county.

- 1) I have read and understood this consent form and the information provided to me.
- 2) I have had the consent document explained to me
- 3) I have been explained to about the nature of the study.
- 4) My rights and responsibilities have been explained to me by the researcher.
- 5) I am aware of the fact that I can opt out of the study at any time without having to give any reason.
- 6) I am also aware that the researcher may terminate my participation in the study at any time, for any reason without my consent.
- 7) I hereby give permission to the researcher to release the information obtained from me as a result of participation in this study to the University of Nairobi, Government agencies and ethics committee.
- 8) My identity will be kept confidential if my data are publicly presented.
- 9) I have decided to be in the research study.

By signing this consent form, I attest that the information given in this document has been clearly explained to me and apparently understood by me.

Name of interviewee..... Signature.....

Date.....

Name of Researcher..... Signature.....

Date.....

## APPENDIX B: THE SURVEY QUESTIONNAIRE

### Section A: Demographic profile

1. Respondent's identifier:
2. Age (Yrs.): 15-19  20-29  30-39  40-49  above 50
3. Religion: Muslim  catholic  protestant  others
4. Educational Status: None  primary  secondary  tertiary

### Section B: Family Information

1. Marital Status. Tick in the appropriate box.

Married  Divorced  Widowed  Single

2. Total number of children you have had

3. How many are Boys?  How many are Girls?

4. What is the age of your youngest child?

N/A  Less than 1 year  1 to 5 years

6 to 12 years  over 12 years

5. Were your children all planned? Tick in the box provided.  Y  N

6. Was your youngest child planned? Tick in the box provided.  N  Y

7. Methods of Birth Control used over the past year. Tick as appropriate.

None  Abstinence  Withdrawal

Condoms  Pills  Depo shots

Implants  IUCD  Rhythm

8. Can you undergo Vasectomy? N  Y

9. If the answer to 8 above is yes go to 10 below

10. What would motivate you to undergo the procedure?

Side effects of Hormonal Methods on partner

Economic reasons  don't want any child

Don't want any more Children

Wanted to participate in Family planning

### Section C: Referral Network

1. Have you heard about vasectomy? Yes  No

2. If the answer to 1 above is yes then proceed to Question 3 below:

3. From whom or where did you get information?

Friend  wife  Health worker

Satisfied client  teacher  Radio  TV

Newspaper  Billboard  Internet search

**Section D: Health care facility**

1. Is there a qualified Vasectomist in the nearest health facility? Tick in the box 

|     |    |
|-----|----|
| YES | NO |
|-----|----|

 provided.

2. How far is the facility from your residence? Tick appropriate box.

A. Near  B. Far  C. very far

3. Would you go for vasectomy if the health facility was near? N  Y

**Section E: Vasectomy administration process.**

1. Does the sight of a needle worry you? Tick in the box 

|    |   |
|----|---|
| NO | Y |
|----|---|

2. Is the fear of pain a hindrance to the utilization of vasectomy? 

|   |    |
|---|----|
| N | YF |
|---|----|

3. Would the absence of needles during the procedure motivate you to undertake vasectomy? No  yes

**Section F: Income during recovery**

1. Are you employed? Tick in the appropriate box 

|    |     |
|----|-----|
| no | YES |
|----|-----|

Formal  informal  Jobless

2. What is your level of exertion? Tick in the appropriate box

Light: No lifting/No cycling  moderate: some lifting/some cycling

Heavy: Heavy lifting/a lot of cycling

3. What is your average monthly income in Kenya shillings? Tick the appropriate

Box:

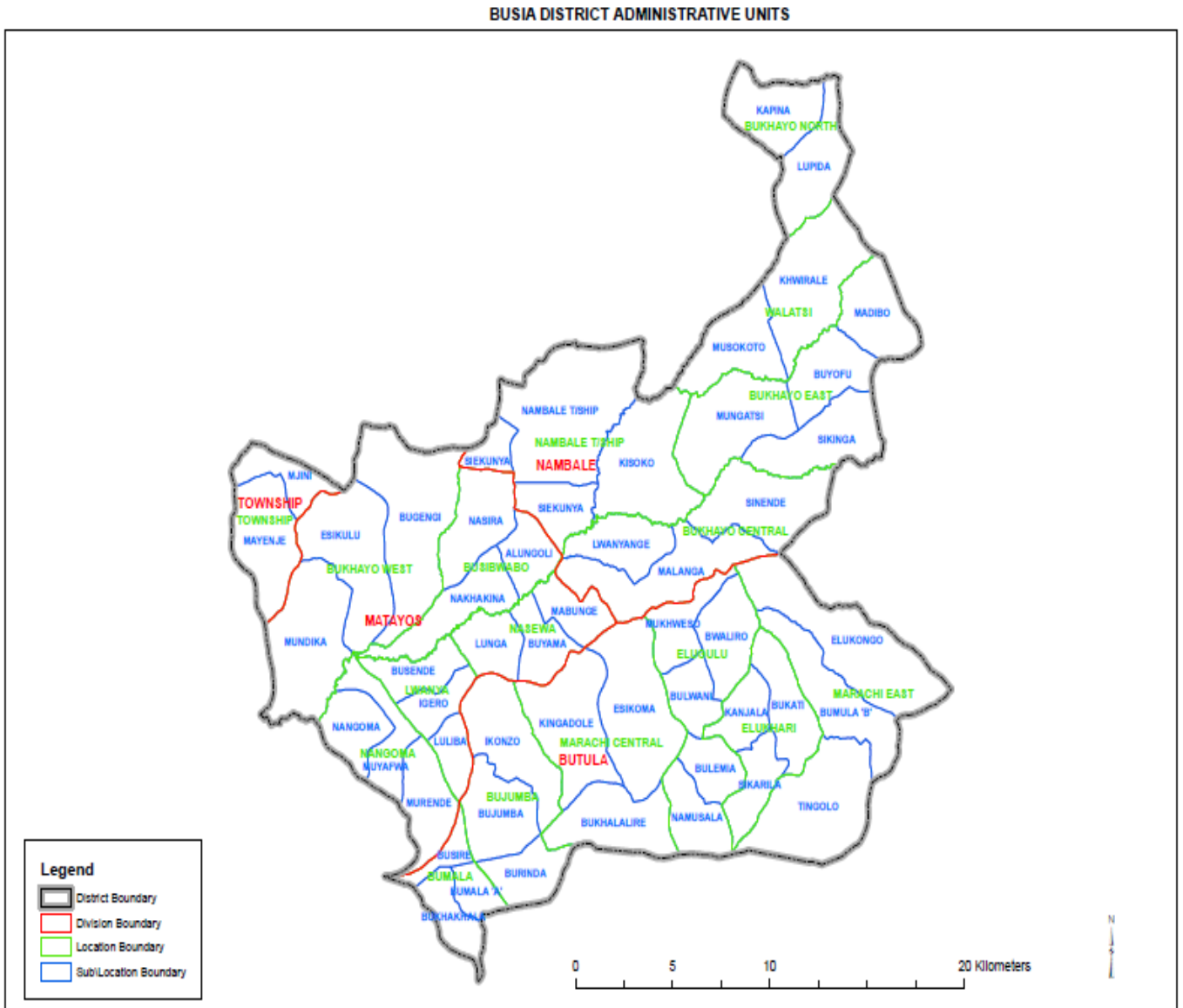
Less than 1000  1000-3000  3000-5000

5 000-10 000  over 10 000

4. Would wage compensation for the two days of recovery after vasectomy motivate you to undergo the procedure? Tick in the appropriate box.  Y  NO

Adapted from: [www.vasweb.com](http://www.vasweb.com)

## APPENDIX C: BUSIA COUNTY MAP



Source: Busia county statistics bureau



## APPENDIX D:ETHICAL APPROVAL



### MINISTRY OF HEALTH

Telegrams: "MEDICAL", Kisumu  
Telephone: 057-2020801/2020803/2020321  
Fax: 057-2024337  
E-mail: [medsuptnpgh@yahoo.com](mailto:medsuptnpgh@yahoo.com)  
*When replying please quote*

JARAMOGI OGINGA ODINGA TEACHING &  
REFERRAL HOSPITAL  
P.O. BOX 849  
KISUMU

ERC.1B/VOL.1/58

21<sup>st</sup> August, 2013

Ref: .....

Date .....

Ochieng' Charles Odhiambo,  
University of Nairobi,  
NAIROBI.

Dear Mr. Ochieng',

**RE: FORMAL APPROVAL TO CONDUCT A RESEARCH TITLED:  
"DETERMINANTS OF READINESS TO UNDERTAKE VASECTOMY, A FAMILY  
PLANNING METHOD FOR MEN IN BUSIA COUNTY, KENYA"**

This is to inform you that the JOOTRH Ethics and Review committee (Reg. No. 01713) has reviewed your protocol for research and found it ethically satisfactory.

You are, therefore, permitted to begin your research immediately. Note that this approval is for one year (21<sup>st</sup> August, 2013 – 22<sup>nd</sup> August, 2014). If it is necessary to proceed with the research beyond the stipulated period, you will be required to apply for further extension to the JOOTRH – ERC.

Also note that you will be required to notify the ERC in writing of any protocol amendment(s), serious or unexpected outcomes related to the conduct of the study or termination for any reason.

Finally, note that you will be required to share the findings of the study in both hard and soft copies upon completion.

The JOOTRH – ERC takes this opportunity to thank you for choosing the institution and wishes you the best in your endeavours.

Yours sincerely,

FRED O. AKWATTA,  
SECRETARY – ERC,  
JOOTRH – KISUMU.

/bao

# APPENDIX E: RESEARCH AUTHORIZATION

REPUBLIC OF KENYA



## NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349, 254-020-2673550  
Mobile: 0713 788 787 , 0735 404 245  
Fax: 254-020-2213215  
When replying please quote  
secretary@ncst.go.ke

P.O. Box 30623-00100  
NAIROBI-KENYA  
Website: www.ncst.go.ke

Our Ref: NCST/RCD/12A/013/114

Date: 29<sup>th</sup> August 2013

Charles Odhiambo Ochieng  
University of Nairobi  
P.O Box 825-40100  
Kisumu.

### RE: RESEARCH AUTHORIZATION

Following your application dated 22<sup>nd</sup> August, 2013 for authority to carry out research on "*Determinants of Readiness to Undertake vasectomy, a family planning method for men in Busia County, Kenya.*" I am pleased to inform you that you have been authorized to undertake research in **Busia County** for a period ending 31<sup>st</sup> December, 2013.

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

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

  
SAID HUSSEIN  
FOR: SECRETARY/CEO  
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

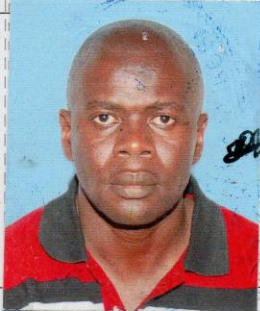
Copy to:

The County Commissioner  
The County Director of Education  
Busia County.



"The National Council for Science and Technology is Committed to the Promotion of Science and Technology for National Development"

**APPENDIX F: RESEARCH PERMIT**

|  |  |
|--|--|
| <b>THIS IS TO CERTIFY THAT:</b>                            | <b>Research Permit No. NCST/RCD/12A/013/114</b>                                    |
| <b>Prof./Dr./Mr./Mrs./Miss/Institution</b>                 | <b>Date of issue 29<sup>th</sup> August, 2013</b>                                  |
| <b>Charles Odhiambo Ochieng</b>                            | <b>Fee received KSH. 1000</b>  |
| <b>of (Address) University of Nairobi</b>                  |  |
| <b>P.O. Box 825-40100, Kisumu</b>                          | <b>Location</b>  |
| <b>has been permitted to conduct research in</b>           | <b>District</b>  |
| <b>Busia</b>   | <b>County</b>  |
| <b>on the topic: Determinants of Readiness</b>             | <b>Applicant's Signature</b>   |
| <b>to Undertake vasectomy, a family</b>                    | <b>For: Secretary</b>  |
| <b>planning method for men in Busia</b>                    | <b>National Commission for Science</b>   |
| <b>County, Kenya.</b>                                      | <b>Technology &amp; Innovation</b>   |
| <b>for a period ending: 31<sup>st</sup> December, 2013</b> |  |