

**MALE CONTRACEPTIVE PREVALENCE AND
FACTORS ASSOCIATED WITH CONTRACEPTIVE
USE AMONG MEN IN NGARA, TANZANIA.**

Fabian Nicholas Ndenzako

**A thesis submitted to the Faculty of Medicine, University of
Oslo as partial fulfilment for the degree
*Master of Philosophy in International Community Health.***



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Male involvement in family planning

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ABSTRACT: I

This is a study to explore the knowledge, attitude and practice of family planning among men in Ngara district Tanzania.

The first objective of the study was to assess the knowledge of different contraceptive methods and the magnitude of contraceptive use among men. The second objective was to assess the level of contraceptive availability and reasons for using/not using contraceptive methods as well as the men's reproductive preferences.

It is a cross-sectional study conducted in August-December 2000, including 275 men aged 15-59 years who were randomly selected from 18 villages. Men who had no sexual experience or were mentally ill and those who did not consent were excluded from the research. The data were collected using structured questionnaire, in addition focus group discussions were done and the association between different factors and contraception use was calculated.

The male contraceptive prevalence was low (18%), with periodic abstinence as a common method in use (9%). The knowledge of male methods was limited. Though a majority of men has heard about condoms (96%), only 70% have seen one and a majority reporting to have seen condoms only in packets during focus group discussions. Few men knew of vasectomy (48%), associating the method with "castration of animals".

Desiring more children (25%), poor knowledge of male methods (20%) and difficulties in using the methods (10%) were the most frequent reasons given by non-users. Men desired a large family size and preferred boys rather than girls. Contraceptive approval among men was high and men believed to be the prime contraception discussion initiators in their families. We conclude that low knowledge and misconception about male methods, large desired family size may have been associated with low male contraceptive prevalence. Therefore, there is a need to find better ways to reach men especially in rural areas, to provide access to appropriate and adequate information regarding a range of family planning services.

Keywords: Tanzania, KAP study (men): Knowledge (men), Attitude (men), and Contraceptive Practice (men), Contraceptive methods (men), condom, vasectomy, traditional methods, family size (men) sex preference (men), approval and discussion of family planning (men).

DEDICATION.

This work is dedicated to:

My wife Elizabeth Senguruka: You missed my company for so long.

My beloved father: Nicholaus Ndenzako: For your immense support and encouragement.

My beloved mother; Paskazia Ndenzako: For your love and care.

My first born, Frank; welcome to this new and challenging world.

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Abbreviations

AIDS	Acquired Immuno Deficiency Syndrome.
AMO	Assistant Medical Officer
AVSC	Access to Voluntary and Safe Contraception
CI	Confidenciy interval
COC	Combined oral contraceptives
DDH	Designated district hospital
DED	District Executive Director
DMO	District medical officer
DSM	Dar-Es-Salaam
FGD	Focus group discussion
FHI	Family Health International
FP	Family Planning
GDP	Gross Domestic Product.
GnRH	Gonadotropine releasing hormone
HIV	Human Immunodeficiency Virus
HPV	Human Papiloma Virus
ICPD	International Conference on Population and Development
IEC	Information, Education and Communication
IFS	Ideal family size
IPPF	International Planned Parenthood Federation
IUD	Intrauterine device
KABP	Knowledge, Attitude, Behaviour and Practice.
MA	Medical assistant
MAP	Male As a Partner.
MCH	Mother and child health
MENT	7-alpha methly-19 –nortestosterone
NDRDP	Ngara district rural development programme

NIHA	Norwegian International Health Association
NORAD	Norwegian Agency for Development Co-operation
OR	Odds ratio
PID	Pelvic inflammatory disease
POP	Progesterone oral pills
RH	Reproductive health
PHC	Primary health care
RTI	Reproductive tract infection
SPSS	Statistical Package for Social Sciences.
SSA	Sub-Saharan Africa
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Testosterone buciclate
TDHS	Tanzania Demographic and Health Survey
TE	Testosterone enanthate
TU	Testosterone undecionate
UMATI	Uzazi na Malezi Bora Tanzania (Tanzania Family Planning Association)
UNFPA	United Nations Population Fund
UNSAID	United State Agency for International Development
WHO	World Health Organisation

Definition of terms

Attitude: Evaluation judgements good-bad about particular objects, issues, persons or any other identifiable aspect of the environment. Attitudes are divided into three classes: cognitive (thought, believes), affective (emotions) and behavioural (overt actions).

Belief: Cognitive link between an objective and an attribute, a perceiver's estimate of the probability that the object possesses that attribute.

Confidence interval: A range of values for a variable of interest constructed such that it has a given probability of including the true value of the variable.

Confounding A situation in which the measure of effect of an exposure to risk is distorted because of the association of exposure with other factors that influence the outcome under the study.

Cross-sectional study: A study that examines the relationship between disease or health-related characteristics and other variables of interest that exist in a population at a given time. This study can not provide the temporal relationship between the variable of interest and the outcome at the same time.

District: Administrative part of a region, which is subdivided into several divisions.

Division: An administrative part of a district, which is subdivided into several wards.

Male involvement: The way men accept and indicate support for their partner's needs choices and rights in reproductive health and the men's own reproductive and sexual behaviour.

Male participation:

This refers to the men's supportive role in their families communities and work place to promote gender equity, girl's education, women's empowerment and the sharing of household chores and child rearing. "Participation" also suggests a more active role for men in both decision-making and behaviours such as sharing reproductive decision-making with their partners, supporting their partners' choice and/ or periodic abstinence.

Odds: The ratio of the probability of occurrence of an event to that of non occurrence, or the ratio of the probability that sometimes is so, to the probability that it is not so.

Odds ratio: A ratio of two odds or cross product ratio relative ratio.

Pandemic: An epidemic occurring over a very wide area and affecting a large proportion of the population.

Periodic abstinence: A male traditional contraceptive method where a man has to abstain from sexual intercourse during the woman's fertile period (when a woman is likely to conceive).

Population based: Pertaining to a general population and defined by geopolitical boundaries.

Prevalence: This is the proportion of a population that is affected by a disease or health condition at a given point in time.

Recall bias: Systematic error due to differences in accuracy or completeness of recall to memory of prior events or experiences.

Region: An administrative part of the country, which is usually bigger than a district, including from three to six districts with a population ranging from half to 5 million.

Reproductive health (RH)

"It is a state of complete physical, mental and social well being, and not merely the absence of disease or infirmity. It addresses the reproductive processes, functions and systems at all stages of life. Reproductive health, therefore implies that people are able to have a responsible, satisfying and safe sexual life and that they have the capability to reproduce and freedom to decide if, when and how often to do so" (Paragraph 7.2, ICPD programme of action). Implicit in the last condition is the right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice and the right to access to health care services.

Sexually transmitted diseases: An infection that normally is acquired through sexual contact.

Study population: The group of people selected for investigation.

Survey: An investigation in which, information is systematically collected but in which the experimental method is not used.

Ten-cell unit: Groups of approximately ten households defined by political structure in Tanzania: every household belongs to a ten-cell unit

Unmet need for family planning: The per cent of women/men who are married and sexually active and who do not desire to have any more children or want their next child within the next two or more years, but are not practising any family planning method to protect themselves from unwanted pregnancies.

Validity: The degree to which the inference drawn from a study, especially generalisations extending beyond the study sample, are warranted when account is taken of the methods, the representativity of the sample and the nature of the population from which is drawn. It has two parts, the validity of inference drawn as they pertain to the actual subjects in the study (internal validity); and the validity of inference as they pertain to people outside the study population (external validity or generalisability).

Village: Small administrative unit in the ward.

Ward: An administrative part of a district. It is smaller than a division and may contain three to eight villages, with a population up to 10,000 people.

Withdrawal: A male traditional method of contraception, where a couple engage in sexual intercourse and on just before impending ejaculation, and a man withdraws his penis from the woman's vagina and ejaculation occurs away from woman's genital organs.

INTRODUCTION

For decades a preponderance of family planning intervention programmes and activities as well as resources for fertility regulation, have been targeted to women, while the active participation of men in family planning was not promoted. In the African context men are posited as decision-makers and are perceived to be "gatekeepers" and custodians of cultural and traditional practices. Despite these perceived men's roles in families, family planning programs have made little effort to include men. This may have contributed to Africa, becoming the continent with the fastest population growth (Ityai 2000). In recent years however, the urge to involve men in reproductive health and family planning has received a sharper focus. The large number of articles on the subject (Ityai 2000, Foreman 1999, Drennan 1998, FHI 1998, UNFPA 1997, Khan 1997, Roundi and Ashford, 1996, Ringheim 1996, Turgay 1988) and the growing number of research publications and conferences are testimonials to this.

1.1.0 Reasons to involve men in family planning.

The reasons to involve men in family planning are not hard to find. They have been enumerated in different articles and population reports. The growing HIV/AIDS pandemic, which has engulfed a large population in Africa and else where, need men use of condoms. This calls for the exercise of responsible reproductive behaviour by both men and women in prevention of further spread of the infection (Ityai 2000, Drennan 1998, Khan 1997, UNFPA 1997, Roundi and Ashford, 1996). Moreover, men represent about half of the world's population, and use less than one-third of contraceptives, which are male methods or methods that require participation of both partners (FHI 1998, Ringheim, 1996).

The adaptation and correct use of female methods of contraception have been found to be positively affected by male involvement in family planning. Moreover, men are more interested in reproductive health information than has generally been assumed (FHI 1998). Other compelling reasons for involving men in family planning are that millions of pregnancies are unwanted each year due to lack or failure of contraception and

thousands of women die due to pregnancy complications where male involvement can make difference (Drennan, 1998, UNFPA, 1997). Lastly, the international consensus reached at ICPD in Cairo created a momentum for action for male involvement in reproductive health (Khan, 1997, Roudi and Ashford, 1996).

1.2.0.Men and family planning in Tanzania

The government of Tanzania has committed itself to provide comprehensive health services to all citizens equally and has adopted to the Primary Health Care (PHC) approaches in which family planning and its components as a basic service fundamental to provision of health for all. That all men and women of reproductive health including adolescents irrespective of their parity and marital status, shall have the right to access to family planning information, education and services and the Ministry of Health shall insure a system of effective supervision and monitoring (National policy guideline and standard service and training in family planning, 1994).

The Ministry of Health has stressed that (Edmund, 1993) the problems faced by the family planning program include lack of male involvement and community mobilisation and lack of communication skills among providers. Others are weak or poor directed programme support to Information, Education and Communication and weak monitoring of program activities.

Little efforts have been made by the Ministry of Health to involve men in family planning. Few studies have been made of male involvement in family planning (UMATI-2000) and only recently the Tanzania and Demographic Health surveys have included men. Few NGO have supported few male studies with regard to family planning. Hence, there is an urgent need to understand the level of knowledge, attitude and practice of men towards family planning and the extent they feel any responsibility in family formation and reproductive health. The importance of this study, therefore, is that it will provide updated baseline information, which will enable improvement and better functioning of family planning programmes, as well as involving men in family planning and STD prevention.

1.3. OBJECTIVES OF THE STUDY

Broad objective

To determine the contraceptive prevalence rate and the factors associated with contraceptive use among men aged 15-59 years in Ngara district. The specific objectives for this age group of men are:

Specific objectives

1. To assess the different types and magnitude of contraceptive use.
2. To explore the level of knowledge of contraceptive methods and their availability.
3. To analyse the relationship between contraceptive use and marital status.
4. To assess the reasons for using/not using contraceptive method (s).
5. To assess the knowledge of and prevalence of sexually transmitted diseases.

2.0. REVIEW OF RELATED LITERATURE

Africa as a continent has diverse countries with populations ranging from less than one million to more than one hundred million. The rate of natural population growth in Africa is 2.8%, which is almost twice the world's average. The population of the continent has tripled in the last 50 years, from 224 million in the 1950s to 728 million in 1995 (Roudi and Ashford, 1996).

In Africa as a whole fewer than one fifth of all couples use modern contraception compare to more than half of married couples in Asia and Latin America. In SSA only one out of ten couples use modern contraceptives for family planning (Roudi and Ashford, 1996). Since the introduction of family planning in Africa in the 1950s, it has expanded throughout the continent, but family planning information and services are still very limited particularly in Sub-Saharan Africa (SSA) (Roudi and Ashford, 1996).

A number of Demographic and Health Surveys in Africa have shown that the majority of African men know at least one family planning method either modern or traditional (Cynthia et al, 1999). Despite the basic knowledge of family planning methods contraceptive use is low (Cynthia et al 1999; Roudi and Ashford, 1996). Among African countries surveyed family planning practice is highest in Zimbabwe, followed by Kenya and Egypt (Mbizvo and Adamchak, 1998, Ezeh et al, 1996).

2.1.0. Male use and approval of family planning

According to the Demographic and Health Surveys (DHS), men are more likely to approve of family planning and to know about contraception than stereotypes about men suggest (Ezeh et al, 1996). While the majority of African men approve family planning, generally men in West Africa, except Ghana, are less likely to approve family planning, have less knowledge and low contraception use as compare to other regions in Africa. (Ezeh, et al 1996, Roudi and Ashford, 1996, Tanzania DHS, 1996). Men's contraceptive use is lower than might be expected, given their overall approval and knowledge. Between one-quarter and two thirds of men surveyed want no more children, yet neither these men nor their partners were using contraception (Loaiza 1998, Drennan 1998).

In seven of 15 countries surveyed in Africa, at least 90% of men approve the use of contraception. Within most of the countries men are less likely to approve family planning than women. This fact may in part explain why men are often pictured as an obstacle to contraception use. In all countries surveyed however, better-educated men express greater approval of family planning than do men with less education. Perhaps because the educated men understand the importance of family planning more better and there are also easy to change the negative attitudes towards family planing (Cynthia et al 1999, Loaiza et al 1998).

2.2.0. Factors limiting male involvement in family planning

Although men have some knowledge of family planning methods, approve family planning, and international advocacy of male involvement in family planning, there are a number of factors which have prevented men to play an active role in family planning. Some of them are mentioned below.

2.2.1. Services aimed at women and children

Before the sexual revolution initiated by the oral contraceptive, men were more of an integral part of family planning than they are today. If a couple wished to use contraception, their options were primarily limited to methods requiring male participation: withdrawal, periodic abstinence or condoms (FHI 1998, Drennan, 1998). Hormonal methods for women, beginning with the first oral contraceptive in 1960 (Cynthia et al 1999), and the subsequent development of intrauterine devices and modern tubal surgical sterilisation, led to the development of family planning focusing on women (Cynthia et al 1999; FHI, 1998; Drennan, 1998; Khan and Patel, 1997, Mbizvo and Bassett, 1996).

Most family planning and reproductive health services are designed to meet women or children's needs and, as a result, men miss family planning information and services. It may be inconvenient or unwelcoming for men to visit a facility that primarily serves

women, and the providers may not have the training or skills necessary to meet men's reproductive health needs (FHI, 1998).

Traditionally, family planning programs have viewed women as their primary clients for two reasons: First, it is women who become pregnant and most contraceptive methods are designed for women. Research findings since the 1960s confirm that female are the major target of family planning programmes and over 95 per cent of acceptors of contraception are females. In addition, the ratio of male to female sterilisation acceptors has been strikingly unbalanced. The second explanation is that there are various temporary and easy-to-use contraceptive methods available for women and which are offered conveniently as part of maternal and child health services, while only condoms, vasectomy, and male traditional methods are available for men (FHI, 1998, Edward, 1994).

There have been many false believes by providers and policy makers about men. It is easy to say that men always want more children, are not interested in using contraception, do not care about spreading of STDs, do not share any responsibility of raising children, and perpetuates violence against women. Some programs have been designed on these assumptions and therefore exclude men from getting help to understand their needs and to change their harmful behaviour. Surveys show that as men learn about contraception they want to use it, and as the pressure of raising large families increases, they want fewer children (FHI, 1998). In nearly all countries or cultures, there are men who share their parenting responsibilities and who stand-up against violence against women (FHI, 1998, Turgay, 1988).

Men and women are biologically partners in reproduction process and emphasis was put on women due to child bearing and rearing, but this naturally requires men. Most observers agree that family planning programs have made little effort to consider men's reproductive health needs or to reach men and that as a result men have few contacts with the reproductive health care system.

Some family planning programs have avoided serving men in the belief that women need privacy and autonomy in reproductive health matters (FHI, 1998). In addition to that most of surveys, like the Demographic and Health Surveys, World Fertility Surveys and Contraceptive Prevalence Surveys are directed to women. Male interviews are rarely

included in the Demographic and Health Surveys and usually men provide household characteristics like names, ages and the permission to interview women. Hence, conclusions were made on fertility attitude questions, even to their spouse based on women (Turgay, 1988).

The application of questions to men has started to change in most Demographic and Health Surveys, but the general tendency is to omit male questions, perhaps due to budgetary and organisational problems in the field. When there is shortage of money male questions are the ones to be discarded first because it is easier to reach women and interview them in developing countries as they are usually house wives or working on family farms or doing business close to home. On the other hand, men are more mobile, harder to catch at home, the work-place more likely to be far, and it is more difficult to find them even on weekends or in the evenings (Turgay, 1988).

2.2.2. Limited number of male contraceptive methods available

The currently available male methods are limited to condoms, vasectomy, withdrawal and abstinence. Like contraception for women, each of these methods has advantages and disadvantages and a particular client will have to decide himself whether the particular method will meet his needs (Roudi and Ashford, 1996, Okpere, et al 1986).

2.2.3. Rumours and misinformation

Because of general lack of access to accurate information about male contraceptive methods, men may not know how to use them correctly or may have misperceptions and fears that prevent them from using the methods. For example, men may be unwilling to use vasectomy because they associate it with castration or believe that it leads to impotence. Similarly, they may be unwilling to use condoms because they believe condoms will reduce sexual satisfaction or cause allergic reactions (Muhondwa and Rutenberg, 1996, Khalifa, 1982)

2.2.4. Provider bias against male methods

Providers may have misconception or biases about male methods or men's in family planning as the result, they may not present information about male methods or assume that men are not interested (Rogow and Horowitz, 1995, Santow, 1986).

2.2.5. Unfavourable social climate

In societies where sexual matters are not discussed openly, men may feel uncomfortable talking about their family planning needs and sexual concerns with their partners and with health educators. Young men may face particularly strong social pressures that prevent them from seeking reproductive health information and services. Interestingly, results of recent Demographic and Health Surveys among men indicate that in most countries men's approval of family planning matches the approval of women (Ezeh, et al 1996). And, of course, men have their own sexual and reproductive health needs, which have not been adequately addressed (Davidson, et al 1998, Ezeh, et al 1996). For example, The Ankole fertility survey (Uganda) in 1984 showed that men have a positive attitude towards family planning methods, particularly modern methods despite their extreme low level of contraceptive use. While only 7% of men had practiced modern contraception including female methods, 65% said they were willing to use and allow their wives to use modern methods (Roudi and Ashford, 1996).

2.3.0. The effects of denying sexual and reproductive rights to both men and women

The United Nations Population Fund (UNFPA 1997) has documented the effects of denying sexual and reproductive rights to both men and women worldwide. Many of these problems are related to gender-based cultures, norms and values that are embedded in each society. Some of these effects are:

1. Approximately 585,000 women one every minute die each year from pregnancy-related causes, nearly all in developing countries.

2. There is about 200,000 maternal deaths annually result from the lack, or failure of contraceptive services.
3. A total of 120-150 million women who want to limit or space their pregnancies are still without the means to do so effectively. Altogether, 350 million couples lack information about and access to a range of contraceptive services.
4. At least 75 million pregnancies each year (of about 175 million) are unwanted, resulting in 45 million abortions, 20 million of which are unsafe.
5. Each year 70,000 women die as a result of unsafe abortion, and unknown number suffers from infections and other health problems.
6. Approximately 1 million people die each year from reproductive tract infections, including STDs other than HIV/AIDS. More than half of the 333 million new cases of STD annually is among teenagers.
7. About 120 million women have undergone some form of female genital mutilation; another 2 million are at risk each year.
8. At least 60 million girls who would otherwise be expected to be alive are "missing" from various populations as a result of sex- selective abortions or neglect.
9. Approximately 2 million girls under the age of 15 are introduced into the commercial sex market each year.
10. Rape and other forms of sexual violence are rampant, though many cases of rape are unreported because of the stigma and trauma associated with rape and the lack of sympathetic treatment from legal systems.

2.4.0. Men's involvement in family planning can save lives of their sexual partners

Because of biological differences, men transmit sexually transmitted infections more easily to women than women do to men (Foreman, 1999, DeGraft, et al 1997). The growing HIV pandemic and other STDs necessitate men to practice safer sex and use condoms (Drennan, 1998). By using condoms, STD/HIV and unintended pregnancies among their partners can be reduced.

Men can become more supportive by helping their partners to receive reproductive health services when needed and by providing the resources needed to obtain such

services. They can also play an important role in preventing maternal death: during pregnancy, delivery and after the baby is born. Their decisions may make a difference between ill health and health, life and death (WHO, 1998). Each pregnancy carries potential risk for a woman, even if it looks healthy and at low risk (Salter et al 1997). A man can make sure his wife gets proper antenatal care, he can pay for the visits and provide transport and he can accompany her to the antenatal clinic where he can learn signs and symptoms of pregnancy complications. He can also arrange for skilled labour delivery and avoid delays in seeking care during delivery (Thadeus and Maine, 1994) as well as provide nutritious food to the pregnant wife to avoid anaemia and all its complications and good nutrients to his children (UNICEF, 1998).

2.5.0. Issues to consider when addressing men about family planning

To serve men better, programs need to reconcile the conflicting opinions and views about men and reproductive health:

2.5.1. Encourage men to support women's contraceptive choices

One of the frequent reasons given by women for not beginning or continuing use of contraception is their partner's opposition (FHI, 1998). Men who are educated about reproductive health issues are more likely to support their partner's decisions and to encourage public policies that result in women receiving reproductive health care they need. A project in rural Mali addressed the male supportive role by using men to promote family planning in local communities. Many women reported that male community workers had changed their husbands' attitudes towards family planning and had generated more open communication between spouses about family planning. (Kak et al, 1993)

2.5.2. Increase communication between partners (spousal communication)

Communication between spouses and among family/household members regarding family planning and contraceptive use is considered crucial to the adoption of contraception (Chai,1997), and is found to be positively correlated with fertility behaviour. It can encourage family planning use, promote reproduction health decisions and lead to healthier practices (Drennan 1998, Chai, 1997). For example, in Ilorin Nigeria, among men who said that they had discussed contraception with their partners, 22-60% reported that their wives used the method, compared to 4-10% of those who said they have not discussed family planning with their wives (Oni, et al 1991). In Sri Lanka, husband-wife communication and contraceptive use were higher among couples with higher education (De Silva, 1985). It is suggested that issues of spousal communication across societies and its variations might be understood in terms of the different structural and cultural factors within which the couples live, that is, religious ideologies and cultural norms concerning gender roles and status which impinge upon women's autonomy (Chai, 1997).

Levels of spousal communication on contraceptive use are also governed by family structure, wife's education, the perceived status of women in the family and in the community, and women's role in decision-making (Chai, 1997, Hollerbach, 1980). More importantly, decision-making (unilateral or joint) on fertility or contraceptive use very much depends upon the gender and power relations predominating in the family (Chai, 1997, Bhassorn, 1991).

In developing countries, the husband's attitudes, preference, intentions and decisions are more important. Most often it is the husband who exerts the greatest influence in couple communication and fertility decision-making (Drennan, 1998, Chai, 1997, Roundi and Ashford 1996, Bhassorn, 1991). When reproductive health decisions are made jointly by both partners, the decisions are more likely to be implemented.

In Ghana, the wife's attitudes towards contraception are strongly influenced by husband's attitude and background characteristics like education, but the wife does not similarly influence the husband's views. On the other hand, it is perceived that men will

necessarily have more influence on reproductive decisions, because they typically control the families' assets and are accepted as head of household.

Increased communication between the partners improves the understanding of each partner's reproductive preferences and decreases some of the consequences of poor communication, such as unintended pregnancies and large family sizes (Valentine, et al, 1996, Roudi and Ashford, 1996). Experts agree that the more the husbands and wives discuss family planning with each other, the higher the level of contraceptive use. It is not clear whether discussion of family planning stimulates its use or whether using family planning invites discussion of the topic probably both statements are true.

2.5.3. Encourage joint decision-making about family matters

Men in Africa play an important role in most decision-making pertaining to family life, including family size and family planning. A number of cultural and institutional factors favour African men in matters related to marriage and family life (Roudi and Ashford, 1996). Men play important roles as head of household, are viewed as the custodians of their lineage, and are the protectors and providers of their families. The social and economic dependency of wives on their husbands gives men great influence on family decisions (Popoola, 1999).

Qualitative studies of married women with unmet needs for family planning demonstrate the powerful role that their husbands play in determining whether they use contraception. In Uttar Pradesh in India, 87% of women with unmet needs said that the decision to use contraception ultimately rests with the husband (Khan and Patel 1997). In urban Guatemala, women with an unmet needs told interviewers that they often deferred to their husband's wishes despite their own preferences. For example, a woman who had been pregnant 11 times and had six living children said that while both she and her husband wanted to space future pregnancies, she was waiting for her husband to take the initiative to decide on which method to be used. She would be embarrassed to do or say any thing on this (Drennan, 1998).

In Vietnam, men and women agree that the husband in a marriage makes the final decision on how many children the couple will have and when, if ever, they will use contraception (Montagu, 1998).

In Nigeria, 25% of Nigerian men approve of family planning and the consent of the husband or male partner is frequently required by the service providers before contraception is given to woman or even before a caesarean section is performed. In Benin Teaching Hospital, many newly delivered women prefer to leave the contraceptive decision-making to their husbands (Okpere, et al 1988). In Sudan the decision not to practice family planning is male dominated and husbands are responsible for provision of contraceptives when family planning is practised (Khalifa, et al 1982). Encouraging men to discuss family planning issues and have a joint discussion on contraceptive use can make a difference in the use of both male and female methods.

2.5.4. Increase the use of male methods

Increased use of male methods will relieve some of the burden of contraception that are currently placed on women. Policy makers and providers have alleviated men from responsibility of using existing male methods, for example, by focusing attention on female sterilisation, to the detriment of safe and effective male methods. Research on new male methods goes at slow pace (Ringheim, 1996). Limited funds and lack of commercial interests in regulating fertility has slowed the progress. It seems that pharmaceutical companies doubt the existence of a market for male hormonal contraceptives and fear the potential litigation. In addition, male reproductive physiology is more complicated since sperm production is a continuous process as opposed to the monthly ovulation in women and that women have menopause (Ringheim, 1995, Gallen et al 1986).

2.5.5. Encourage men to become more aware of related family issues

Men need to be more involved in caring for and raising children, in encouraging schooling for both girls and boys, in reducing violence against women and children, and

in making resources available to meet the needs of the family. These are complex, deeply ingrained cultural issues, and in many settings family concerns are more linked to family planning and reproductive health.

In Uganda for example, more male clients visit the family planning clinic during the season when school fees are due, because that is when men finally understand the burden of having many children, a burden that women have understood since a child is born (AVSC International, 1997).

2.5.6. Improve men's behaviour for prevention of sexually transmitted infections (STI)

The effect of men's attitude and behaviours with respect to women's health is perhaps evident in STD prevention and treatment (Calverton, 1994, Hollerback, 1980). Increasing condom use and changing high-risk sexual behaviours are primarily STD prevention strategies. Where condoms have been heavily promoted by social marketing campaigns, condom use has gone up markedly (Dallabetta, 1996, Lamptey, 1994).

Increase condom use is a step toward changing men's behaviour in a way that directly affect their health, as well as the health of their partners and wives. But surveys show that condoms are in higher use outside marriage than with spouses, and wives with little power to negotiate can be infected by husband's (Drennan, 1998, Calverton, 1994; Long, 1984). Because of condoms' affiliation with sexual transmitted diseases, their reputation as a method of family planing has been deteriorated.

2.6.0. Men involvement in family planning improves contraceptive use to their partners

In Africa, men are brought to believe that family planning or reproductive health is women's issues (Terefe et al 1993). In Ethiopia, as in most of sub-Saharan cultures (Terefe et al 1993), men tend to dominate a couple's decision about family size and use of contraception (Cynthia et al 1999, Roudi and Ashford, 1996, Terefe et al 1993). However, men can participate in family planning in two ways, by using contraceptives themselves (condom, vasectomy, withdrawal and periodic abstinence), or support their partners to use family planning. It has been found that, male support affect the choices,

adaptation, continuation and current use of female contraceptive methods. Men often influence effective use of contraceptive methods, and even satisfaction with the method chosen. A man's support often contributes to better use of female methods and, for many couples, a male method may be an excellent choice.

A study in Addis Ababa found that involving husbands in family planning education significantly influences a couple's decision on whether to begin using contraception. The contraceptive use doubled among couples who received husband-wife counselling (33percent), compared with couples in which women were counselled alone (17%) (Terefe, 1993).

In Bangladesh (Akhter, 1993) involving husbands in Norplant counselling sessions improved continuation rate for the contraceptive Norplant. The continuation rate was higher among women whose husbands were counselled (42%) compared with women whose husbands did not receive the counselling (32%).

2.7.0.Male methods of family planning

Male family planning methods are condom, vasectomy, withdrawal and periodic abstinence.

2.7.1.0.Condom

The condom has been used for contraception for at least 250 years and as protection against sexually transmitted diseases ever longer than that (Gallen, et al, 1986, <http://resevier.fhi/fp/fpother/conom/conom3.html>). Today high quality condoms are available in range of sizes, thickness, shapes, textures, and colours to appeal to different customers. This may result in many more men choosing to use condoms who previously abandoned the method.

2.7.1.1. Condom use

For a condom to prevent STD and pregnancy, it must be used correctly and persistently. It is effective in preventing pregnancy (ANNEX I) when used correctly every time (Robert, 1997).

Achieving a behaviour pattern that results in consistent condom use can be difficult. It has been found that, people who choose condoms as a contraceptive method require more counselling than people who use condoms as a back up method (Oakley and Dogue 1995). This is because those who choose it as their primary contraceptive may have underestimated how hard it is to use condom every time.

Counselling appears to increase condom use when it involves both men and woman in monogamous situation, and when it focuses on skill building. In a project that counselled 144 heterosexual HIV discordant couples every six months over six years, condom use increased, and there were no HIV seroconversions (Padian et al 1997).

Another study compared women who received several 90 minutes group counselling sessions and one month follow-up sessions in skill training about condom use to women who received a general health massages. Three months later, condom use had more than doubled among the first group, but had only increased marginally among those receiving the general massages (Kelly and Murphy, 1994).

2.7.1.2. Condom use worldwide

About 46 millions couples use condoms for family planning. Of these, 60% are in developed world mainly in Japan, USA and UK while 40% are in developing countries mainly in Asia (Gallen et al 1986). Condom use is widely spread in Eastern Europe and the former Soviet Union. In Latin America and the Caribbean, condom use is highest in Jamaica, at 17% of married couples, and in Costa Rica, at 16%.

In Asia and the Pacific, condom use is highest in South Korea, where one in every ten married couple relies on condom. As with most other methods, condom use is low throughout most of Sub-Saharan Africa and the Near East and North Africa. Exceptions are Mauritius, where about 13% rely on condoms; and Zambia, about 4%. Elsewhere in

these regions, about 2% or less of couples in surveyed countries report using condoms (John Hopkins School of Public Health, Population report, 1998, Drennan, 1998).

2.7.1.3. Why people don't like to use condoms

The most frequent reasons given of not using condoms is related to: lack of sensation or interrupt sexual pleasure, psychological and social factors, including couple communication and assumptions that condoms, are for use in extramarital relationships and with prostitutes (Ityai et al 2000, Drennan, 1998, Mwaijonga et al 1992). Others are lack of availability of condom, include policies that prohibit condom distribution to youth; and lack of confidence in the reliability of condoms themselves. Men and women think condoms do break frequently and have invisible holes that will allow micro-organisms to go through (Alan, et al, 1999, Lin, 1996, Spruyt et al 1996, Rwabukwali et al 1994, Richters, 1993, Grady 1993).

2.7.1.4. Condom promotion increases its use for family planning and for STD's prevention

"Promotion and reliable supply, and distribution of high quality condoms becomes an integral component of all reproductive health care services. Governments and International community should provide all means to reduce the spread of HIV/AIDS infection" (Paragraph 7.33, ICPD programme of Action).

Initially family planning experts feared associating condoms with stigmatised STD and later deadly AIDS disease would lessen interest in them as a family planning method. However, social-marketing programmes for family planning support AIDS prevention as well and consumers seem to readily accept the dual function of condoms (Green, 1997).

Condom social marketing programmes initiated in 1973 was primarily for family planning. Of 39 condom social marketing programs in developing countries, 19 marketed condoms for family planning only, 13 marketed condoms for both STD and family planning and 7 marketed condoms for STD only (Lande, 1993). The proportion of condoms provided through family planning and AIDS prevention programs is not known.

It appears that most condoms are still provided through family planning programs but that the number provided through AIDS programs prevention is growing rapidly (Lande, 1993).

Condom promotion and sales has increased due to HIV/AIDS, but use of condoms falls far short of the need for them. For sexually active men with multiple sexual partners, using condoms remain the only way to protect from HIV. Social marketing program in many countries has helped condom availability. World wide social marketing program has sold 937 million condoms, in 1997, 20% more than the year before. Condom promotion both within and outside health facilities is an essential part of HIV/AIDS prevention and condom supply and information must be available from multiple sources. Health care providers, community leaders and policy makers must be convinced that condom promotion deserves high priority, and communication specialists should strive to create a climate in which condom use is considered normative behaviour (Danian 996).

2.7.1.5. Advantages of condoms

A condom is effective way of family planning (ANNEX I) and STD/HIV prevent. It can be used to treat premature ejaculation, cheap and does not need medical personnel supervision. The only disadvantage is that it causes some irritation to people who are allergic to latex (Gallen et al 1986).

2.7.2.0. Vasectomy

This is the permanent method of birth control for men and is a popular method of family planning only in few countries. It is surgical operation that intends to cause sterility for men. Vasectomy blocks the vas deferens and keeps sperm out of the seminal fluid and the body instead of being ejaculated absorbs sperms. It does not affect masculinity, sexual organs, sexuality and sexual pleasure. There is no organ or glands removed or altered and hormones and sperms continue to be produced as before and the ejaculate will look like it always did and there will be about as much as before.

Vasectomy is not effective immediately because sperms remain in the system beyond the blocked tubes. Hence other birth control must be used and it usually takes from 15-20 ejaculations before the semen analysis shows no sperm in the seminal fluid or after 6 to 8 weeks (Robert, 1997, Vasectomy study group, 1991).

Antibodies to sperm develop in 50% of men who have vasectomies. Antibodies protect the body against viruses and bacteria. Sperm antibodies will not be affected by the general health but they may lessen the chance of fertility when vasectomy is reversed. (Robert, 1997)

2.7.2.1. Vasectomy reversal

Vasectomy can be reversed and the most single determining factor of reversal success is the duration after which the vasectomy was done. Within 3 years after vasectomy, reversal results in sperm recovery in over 97% of cases, from 4 to 8 years, about 91%; from 9 to 14 years, about 87%; and beyond 14 years, about 70%. However, it is expensive to have reversal done and is only available in few specialised centres and hence it should be considered as permanent method (Vasectomy study group, 1991).

2.7.2.2. Prevalence of vasectomy worldwide

Approximately 45 million men world-wide have undergone vasectomy (Gallen, et al 1986). Among developing countries of recent surveys among married women, vasectomy is widely used in South Korea, at 12% of married couples; China, at 10%; Nepal, at 5%; and India, at 4%. Among developed countries, use of vasectomy is widespread in New Zealand, at 18% of married couples; Canada, at 16% and US, at 13%; and the Netherlands, at 11%. Vasectomy is widely being practiced in Europe, North America and parts of Asia (William, 1996).

In Latin America and Caribbean, vasectomy use is highest in Brazil, at about 3% of married couples, and between 1% and 2% of couples in Costa Rica and Guatemala. In all surveyed countries in Sub Saharan Africa and in the Near East and North Africa, less than 1% of married couples rely on vasectomy.

Vasectomy promotion as it is for other family planning methods, makes difference in terms of knowledge, change of attitude and general acceptability of the method. Vasectomy was the most famous male contraceptive method in India in 1960-70s even more than the female methods due to promotion (Khan and Patel, 1997). More than 50% of all family planning acceptors were men using vasectomy. However this is not the case currently due to new technology of minilap and laparoscopic sterilisation (Patel et al, 1997, Gallen et al 1986). In Tanzania, after vasectomy promotion clients increased (Table III) and men were willing to choose vasectomy if providers educate them, provide them with adequate information and if it is available (Muhondwa and Ruternberg, 1997). In Kenya, vasectomy promotion doubled the number of clients after the promotion campaigns i.e. 125% (Davidson et al 1998, Drennan, 1998).

In Brazil, multimedia campaign promoted vasectomy as an *act of love*; the central image of the campaign was cartoon of two hearts, one male and one female that playfully depicted the advantages of vasectomy. The animated cartoon aired on Television, magazine advertisements and billboards. During and after campaign, requests to clinic information about vasectomy increased substantially. Years after the campaign family planning clients still referred to the two hearts. Potential family planning clients, consider information from friends and relatives to be reliable and truth worth. Thus satisfied vasectomy clients can often recruit new clients.

In Pakistan, the Family Planning Association of Pakistan has asked his vasectomy clients to recommend the procedure to friends and relatives who intended to have permanent contraception. Also in Brazil, Colombia and Mexico, vasectomised men have been especially influential in helping other men to decide to have vasectomies (Robey, et al 1996, AVSC International, 1997).

2.7.2.3.To improve future use of Vasectomy

Clinical research is underway to improve on the new vasectomy technology that uses clips, plugs or injections to block the vas deferens. Some of these new vasectomy techniques may be non-surgical (i.e. injected through the skin) and may prove more reversible than the standard vasectomy procedure.

2.7.3.0. Male traditional methods

The male traditional contraceptive methods include periodic abstinence and coitus interruptus (Withdrawal).

2.7.3.1.0. Coitus Interruptus (Withdrawal)

It may be the oldest means of preventing pregnancy used by our grandparent and great grand parents (Finger, 1996, Rogow and Horowitz, 1995, Gallen et al, 1986). It can trace its roots the way back in the Holy bible, "Onan spilled his seeds on the ground to avoid impregnating his deceased brothers' wife, whom he had been ordered to marry" (Rogow and Horowitz, 1995, Gallen et al 1986, Genesis 38:9). The method also is in the Islamic legal writings that dating back several centuries sanctioned its use.

Thirty-five million couples are estimated to use withdrawal worldwide (Rogow and Horowitz, 1995). The pregnancy failure rate is often higher (ANNEX I) because the man does not always withdrawal in time; still the method is available and cost nothing. Historically, withdrawal alone, with sexual abstinence and induced abortion, played a major role in bringing about the historical fertility decline in the Western Europe (Rogow and Horowitz, 1995, Santow, 1993).

Among surveyed married women in developing countries, only 4% use withdrawal. While in most regions withdrawal is not common method, its use is substantial in some countries. In Turkey 26% of married couples rely on withdrawal for contraception; in Czech Republic, 22%; and in Mauritius, 16% (Finger, 1996).

The method has been given little attention in most family planning programs because; it has low efficacy rate in pregnancy prevention (ANNEX I) and coitus dependent (Finger, 1996, Rogow and Horowitz 1995, Santow 1993).

2.7.3.1.1. Advantages and disadvantages of the method

The main advantages of this method is that, it is available in any situation at any cost, it requires no supply, it does not need help from health care workers and lastly, it provide

privacy for users. The main disadvantage of the method is high failure rate (ANNEX I) and this makes most of health personnel dismiss the method. Despite all these disadvantages, withdrawal is considerably better way to avoid pregnancy than not using contraception and some couples learn to use it fairly successfully (Rogow and Horowitz, 1995, Santow, 1993, Gallen, et al, 1986).

2.7.3.2. 0. Periodic abstinence

It requires a full co-operation and participation of both husband and wife. It is estimated that about 17 million people worldwide use the method. To practice periodic abstinence, couples must be able to predict the woman's fertile period. The calendar/rhythm involves calculations based on women previous menstrual cycles to estimate the time of ovulation. With the newer methods, couples are able to monitor physiological changes that occur with ovulation, like rise in basal body temperature, an increased slippery cervical mucus and change in the position and texture of the cervix. Other signs include intermenstrual bleeding, mid cycle abdominal pains and breast tenderness.

Some couples use barrier methods around the time of ovulation rather than to abstain, a practice sometimes called fertile awareness. In Japan, many couples use condoms in this way.

Effectiveness of periodic abstinence (ANNEX I) depends on the couple's motivation, their ability to detect signs of the fertile period and with calendar rhythm and the regularity of the menstrual cycle. Highly motivated couples who have received good instructions often can use the methods very successfully (Ezeh, et al 1996).

The use of periodic abstinence is substantial in some countries. For example, Bolivia, 22% of married couples use periodic abstinence; in Peru, 18%; and in Ecuador, 9%. In Vietnam, about 10% of the couples rely on the method, and in Philippines and Malaysia, 7%. In 10 countries of Sub-Saharan Africa, survey findings show that, at least 5% of couples use periodic abstinence as a family planning method.

Use of traditional methods is probably greater than most of the surveys suggest. One reason is that traditional methods, especially withdrawal, are often used in combination of modern contraceptive methods. For example, women who use oral contraceptive may

practice withdrawal or abstinence if they forget to take pills. Since most of surveys do not report such use of multiple methods, they may underestimate the use of traditional methods (Long, 1984).

2.8.0. SUMMARY OF LITERATURE REVIEW

For many years men have been excluded from family planning by many family planning programmes despite the role African men play especially in decision making on reproductive issues. This may have been one of factors leading to Africa being the continent of highest population growth at the moment.

Female oriented family planning programs, unfavourable social climate and limited number of male contraceptives are some of reasons which have been limiting men not to be involved in family planning. However, the emergency of HIV pandemic and other STD, require men to use condoms to prevent further spread of the infection. More over, for family planning programmes to succeed, their implementation have realised the importance of men in family planning and hence their involvement has slowly been addressed

Family planning experts have urged that the low male contraceptive use may have contributed by the limited choices for men. Research efforts are underway to increase the number of male methods in which men can choose from. Despite the limited number of methods for men, the male traditional methods have given little attention in family planning programs. The high failure rates in pregnancy prevention for these methods may have contributed for this, yet most studies have indicated the methods to be in high use in some societies and hence, they need to be promoted.

Men's involvement can encourage fertility regulation since men can support partners' use of family planning or use male methods by themselves. Few studies have been conducted on the subject in Tanzania. An update of the knowledge, attitude and practice of male family planning methods is needed. This will enable better functioning of programmes involving men in family planning and STD prevention.

Table I

Current method in use: What men say

Selected Demographic and Health Surveys, 1990-1997

Region, country and year	% of currently married men reporting contraceptive use by method									
	Not using any method	Using any method 1	Any modern method 2	Pill	IUD	Condom	Female sterilisation	Other modern methods 3	Periodic abstinence	Withdrawal
WEST AFRICA.										
Burkina Faso, 1992-93	88	12	7	2	1	4	0	0	5	0
Cameroon 1991	80	20	10	4	0	2	4	0	7	3
Central Africa Rep. 1994-5	76	24	11	5	0	3	3	0	12	1
Code d'Ivoire 1994	74	26	14	2	0	5	3	4	11	1
Ghana 1993	67	33	20	5	1	10	1	3	9	4
Mali 1995-96	82	18	10	4	0	4	1	1	7	1
Niger 1992	93	7	5	2	0	1	1	1	2	0
Senegal 1997	84	16	9	3	1	4	0	1	4	3
EAST AFRICA.										
Kenya 1993	46	54	32	11	3	7	5	6	20	2
Malawi 1996	75	25	17	5	0	7	3	2	7	1
Rwanda 1992	66	34	12	3	0	0	1	8d	18	4
Tanzania 1996	67	33	16	7	0	5	1	3	13	4
Uganda 1995	75	25	10	3	0	3	1	3	11	4
Zimbabwe 1994	40	60	55	43	1	6	2	3	2	3
NORTH AFRICA										
Egypt	50	50	47	14	30	2	1	0	2	1
Morocco	61	39	35	28	2	2	3	0	3	1
ASIA										
Bangladesh 1996-97	40	60	49	25	2	5	8	9	9	2
Pakistan 1994-95	85	15	10	1	1	4	4	0	3	2
LATIN AMERICA AND CARIBBEAN										
BRAZIL 1996	26	74	69	19	1	5	40	4	3	3
HAITI 1994-95	68	32	17	4	NA	6	3	4	9	6

NA=Not available,

1= Includes traditional methods.

2= Includes pills, IUD, Condom, Female sterilisation, and other modern

3= Other modern methods include injectables, vaginal methods vasectomy, and implants

8d= 8% use injectables, making this the most widely used method in Rwanda (Ezeh et al 1996).

2.9.0.TANZANIA HEALTH SERVICES

The Tanzania government (ANNEX III) emphasises equity in distribution of health services and views access to services as a basic human right. In 1991, the Ministry of Health developed a new Primary Health Care (PHC) strategy. The primary objective of the PHC focuses on strengthening district management capacity, multisectoral collaboration and community involvement. The government provides 60% of health services and the rest are provided by non-governmental organisations. The top of the extensive network of health facilities consists at the national level of four referral hospitals, one of which is the university teaching hospital. Most regions have a regional hospital and there are 183 hospitals in the country. At the divisional level, there are 291 health centres and at the ward level there are 3, 286 dispensaries. At village level, village health posts have been established, staffed with at least two village health workers. There are more than 5,550 village health workers in Tanzania (TDHS, 1996).

2.9.1.Family planning in Tanzania

The Family Planning Association of Tanzania (UMATI) introduced family planning services to Tanzania in 1959. During the early years, the services were mostly provided in few urban areas with little support from the government. With the expansion of UMATI in 70s, services were extended to cover more areas in the country. The government becomes actively involved in providing family planning services following the launching of the integrated Maternal and Child Health (MCH) programme in 1974. Currently, both government and non-governmental organisations under the co ordination of the Family Planning Unity (FPU) provide family planning services in the Ministry of Health. Clinical services are complemented by community-based services. The national

policy on family planning is to strengthen family planning services, to promote welfare of the family, community and eventually to reduce the population growth rate.

2.9.2. Knowledge, attitude and male contraceptive use in Tanzania

2.9.2.1. Knowledge

Almost 90 per cent of all men know at least one method of family planning (Popoola, 1999, TDHS, 1996). Among women the pills are the best known method (78%), while among men, condoms are the best known method (86%). The difference in knowledge between men and women is especially notable for male sterilisation and condom: 35% of men compared with 25% of women know of male sterilisation and 86% of men compared with 72% of women know about condoms (TDHS, 1996).

2.9.2.2. Contraceptive approval

Use of effective contraceptive methods is facilitated when couples have a positive attitude towards family planning. Obtaining the husband information on the approval or disapproval of family planning is important because the information can be used for formulation of family planning policies. Fifty one per cent of all men approve family planning while 78% of women approve family planning (TDHS, 1996). Approve of family planning; indicate to what extent to which further education and publicity are needed to gain or increase acceptability of family planning.

2.9.2.3. Men contraceptive use

The level of current use of family planning is one of the indicators most frequently used to assess the success of family planning program activities. In Tanzania, 22% of men are currently using contraception, 14% using modern and 8% using traditional methods. Sixteen per cent of all women are currently using contraceptive method and 12% are using modern methods. The most widely used methods are the pills (5%) and

injectable (4%) among women and condoms among men. Current use of contraception is higher among the sexually active unmarried population than among women and men.

Table II

Current use of contraception among men by age group in Tanzania (TDHS, 1996)

Age	N	Any	Any M	Pil l	IUD	DPR	CM	TL	CL	WD	PA	OT	AT	Not using
15-19	488	7.3	6.6	0.0	0.0	0.0	6.6	0.0	0.4	0.3	0.0	0.0	0.7	92.7
20-24	371	19.9	15	2.3	0.0	0.3	12.2	0.0	3.7	1.0	0.0	0.2	4.9	80.1
25-29	301	27.7	15.5	4.1	0.2	1.1	10.1	0.0	7.8	3.9	0.0	0.5	12.1	72.3
30-35	272	33.9	20.3	6.8	0.5	3.8	9.1	0.0	9.2	4.2	0.3	0.0	13.6	66.1
35-39	251	37.6	20.4	6.9	0.5	4.7	7.5	0.8	11.1	4.9	0.6	0.6	17.2	62.4
40-44	206	26.8	16.9	7.4	0.6	2.4	2.4	3.7	6.1	3.7	0.0	0.0	9.8	73.2
45-49	149	22.7	13.6	5.4	0.8	3.3	3.6	0.4	5.7	1.2	0.4	1.8	9.1	77.3
50-54	118	20.7	10.2	1.5	0.0	2.5	3.5	2.7	6.8	2.7	0.5	0.5	10.6	79.3
55-59	100	12.3	7.2	5.1	0.0	0.0	0.0	2.1	3.8	1.2	0.0	0.0	5.0	87.7
Total	2256	22.4	14	3.9	0.2	1.8	7.3	0.7	5.5	2.4	0.2	0.3	8.4	77.6

Any M= Any modern method, DPR= Depo-Provera, CM= Condom, TL= Tubal ligation, WD= Withdrawal PA=Periodic abstinence, OT =Any other method, AT= Any tradition method.

Table III

Vasectomy trend for nine years in Dar Es Salaam city- Capital of Tanzania

Year	1992	1993	1994	1995	1996	1997	1998	1999	Aug-2000
Number of men served	4	9	8	22	50	40	90	81	11

Vasectomy promotion campaign increased clients in 1998 (UMATI-2000).

3.0. Methodology

3.1. Study area

3.1.1. Location

Ngara is one of the six administrative districts in Kagera region. It is located in the north west of Tanzania Mainland. Rwanda and Burundi border the district to the north and west while it borders Kigoma and Shinyanga regions in the south (Fig I). The district covers an area of approximately 3,750 km² and is divided into 17 wards, which are subsequently subdivided into 72 villages.

3.1.2. Population

The district has about 300,000 people within 39,378 households and the average household size is 7.2 persons. The population growth has been increasing from 2.7% in 1988 to 3.6% in 1998 and the sex ratio is approximately 1:1. The district belongs mainly to two tribes, namely Wahangaza, the majority, and Washubi. There are also other immigrant tribes like Haya, Ha, Chaga, Sukuma and also Rwandese and Burundians. The district was hard hit by the 1994 civil war in Rwanda by receiving huge numbers of refugees. In 1994 there were 800,000 Rwandese refugees and about 200,000 refugees from Burundi, which was almost three times the number of inhabitants in the district (Benjamin, 1994). This emergency of refugees affected all sectors including health. Many civil servants shifted to work in refugee camps where they were better paid by United Nations Agencies, leaving most of health centres and dispensaries and other government institutions with little or no staff. There was high migration of people into the district seeking employment and business.

3.1.3. Economic activities

The main activities in the district are agriculture and small-scale business. The majority of the households earn their living from small-scale subsistence farming. Agricultural production is basically for consumption and the district domestic market. Coffee is the only well-established cash crop but its production is at a small scale. There

is also nickel in Kabanga mining centre and gold mining in Rumasi. Trading groups are inhabitants, immigrants and foreigners from neighbouring countries.

3.1.4. Climatic conditions

The district has three distinct climatic seasons, the rain season starting in February and ending in early June. The summer or dry season lasts from June to early October, and the autumn is in October-January with some intermittent rains and the annual mean temperature is around 17 °o in Bugufi and 25 °o in Bushubi [Ngara District Rural Development Programme 2000(NDRDP)]

3.1.5. Topography

The district falls in a series of dissected landscapes of altitude between 1,200 and 1,850 metres above sea level. The major landscapes comprise hills, ridges and scarps, plateau, swamps, flood plains, river terraces and minor valleys. The river Ruvubu divides the district into two parts: Bugufi in the Northeast and Bushubi in the Southwest. The river also divides the major tribes of the district: the Wahangaza who are living in the densely populated Bugufi area and the Washubi who inhabit the area south of Ruvubu river.

3.1.6. Education

There are 90 primary schools in the district, three government and two private secondary schools. Seven years of primary education is compulsory, and those who pass the examinations continue with secondary education, while those who do not, continue with village life (Annual district education report 2000).

3.1.7. Transport

The distance from Ngara to Dar Es Salaam, the capital of Tanzania, is 1,600 km. It is 350 km to the regional headquarter Bukoba (NDRDP-2000). The district is accessible from different parts of Tanzania and outside by airway and roads. A tarmac road connects Ngara to Kigali (Rwanda), Bujumbura (Burundi) and Isaka (Shinyanga region).

The transport within the district is difficult since roads are not good and the situation becomes even worse in the rainy season.

3.1.8. Health services and personnel

There is one Medical Officer (MO) who is in charge of the Designated District Hospital (DDH), 3 Assistant Medical Officers (AMO), 28 Medical Assistants (MA), and 10 nurse officers. Others are 51 nurse midwives and 29 maternal and child health nurses. There are four hospitals; Murgwanza (DDH), Rulenge, Lukole A and B. The last two hospitals are for refugees and are run by the Norwegian People's Aid (NPA). There are three-health centres: Mabawe, Bukirilo and Ntobeye and thirty-two dispensaries. There are limited communication facilities for health provision in the district. There are no radio calls or telephone links to other health centres and dispensaries.

The total fertility rate in the district is estimated to be six children per woman and the contraceptive prevalence for females is 8 per cent, with unknown figures for males. The maternal mortality is 115 per 100,000 live births, infant mortality - early childhood mortality rate is 108 per 100,000, immunisation coverage, up to one year is 65 percent, and up to five years, is 84 percent (Annual district health report-2000).

3.2. Sample size

The sample size was obtained using the formula (Altman D, 1999).

$$N = \frac{4 P (1-P)}{A^2}$$

where

N = Number of men to be interviewed

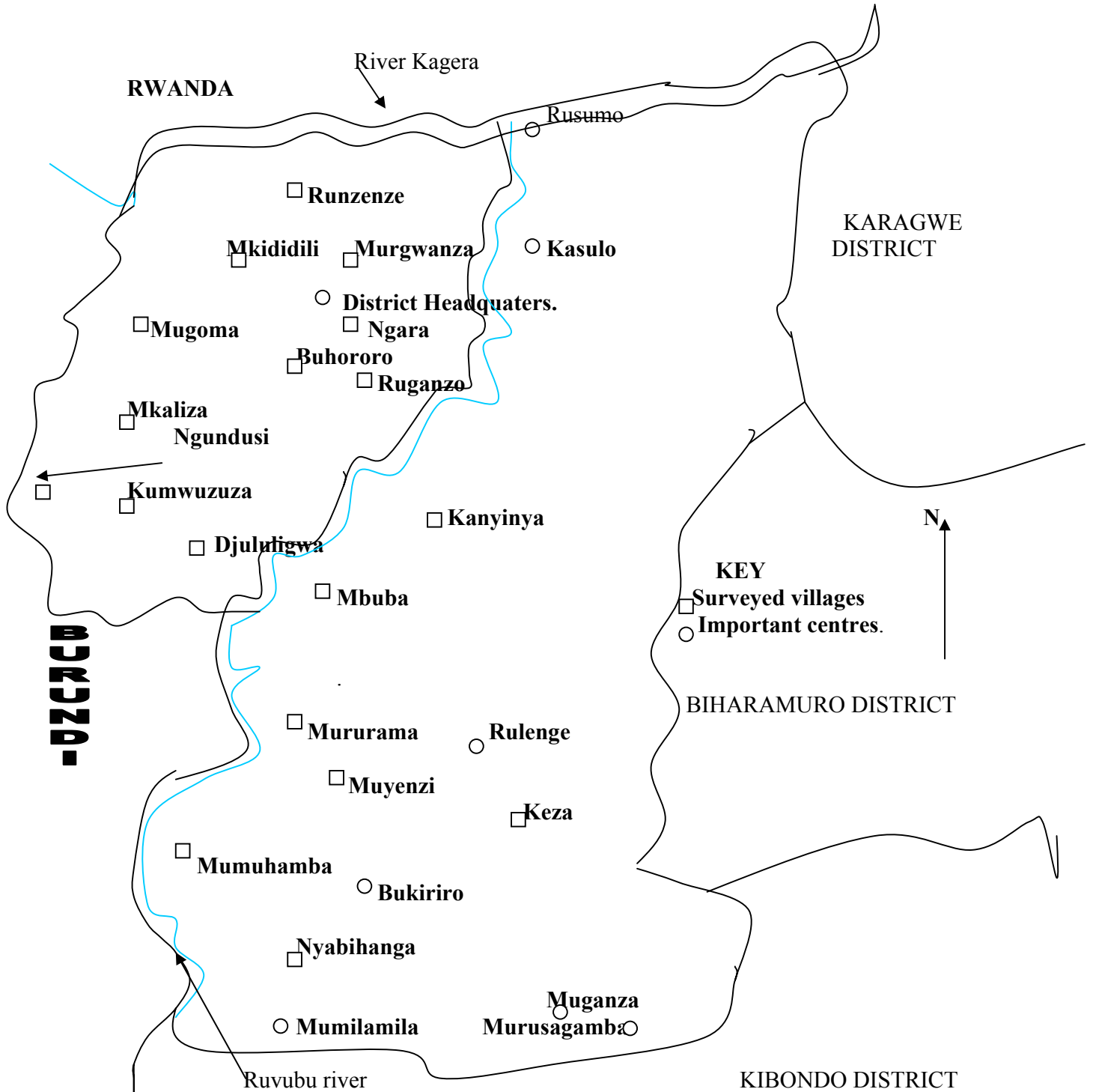
P =Prevalence of the male contraceptive use which was estimated to be 22% (TDHS, 1996)

A=0.05 (95% confidence interval i.e. the power of the test). This gave 275 men.

Figure I: Map of Tanzania showing location of the study area



FIGURE II MAP OF NGARA SHOWING SURVEYED VILLAGES



3.3. Study design and sampling procedure

It is a cross sectional study involving men who live in the selected villages. The names of and population size in each village were obtained from the district health office. Multi-stage random sampling was done. All wards were listed alphabetically and by simple random sampling eight were chosen. Then the villages in all selected wards were listed alphabetically and 18 were selected for interviews. Men were randomly selected with a probability of selection proportional to the population size of each selected village. Within each chosen village, ten-cell units were selected by simple random sampling from a list of all ten-cell units in each village and eligible men were obtained from the selected ten cell units in each village.

Criteria for selection of participants:

Inclusion criteria:

- ◆ Men currently aged between 15 and 59 years.

Exclusion criteria:

- ◆ Men who had no sexual experience.
- ◆ Men who were mentally ill and those who did not consent.

3.4. Data collection

An indigenous male medical assistant who had previous research experience was recruited as a research assistant. Training on how to ask questions related to sexual behaviour and creating rapport with respondents were done. This was important because in studies involving sexual behaviours, assurance of confidentiality to respondents and creation of good rapport to gain confidence from interviewees is an important component of the interviewing process. The data were collected using structured questionnaire and focus group discussions.

The questionnaire was first prepared in English, then translated into Swahili by the investigator. Translation was also corrected by a Swahili teacher especially in using terms that were socially acceptable. To test if the Swahili version had the same meaning on the

English version, an independent person was asked to translate it back into English. The differences were discussed and corrected. The questionnaire had open and closed questions and was divided into five parts (ANNEX 5).

3.4.1. Interviews

Both the research assistant and the principal investigator conducted the interviews. It was face-to face-interviews and done confidentially. Men were asked in Swahili language about their background characteristics, fertility preferences, contraceptive knowledge, attitudes, contraceptive use, source of knowledge, and contraceptive availability. Knowledge and awareness of sexually transmitted diseases were also asked.

3.4.2. Pre testing of tool (Questionnaire)

Pre-testing of the tools was done to check the correctness of the questions and to find out if the subjects have the same or understanding of the questions as we had. Moreover, this process was important to ascertain the suitability of the questions in local cultural settings and to minimise the possibility of evoking undue responses or asking questions that may have a different meaning to the local population. Pre-testing also helped to identify and correct some practical problems encountered before the main data collection. Fifty men from three villages were involved in the pre-testing and afterwards some changes were made in the questionnaire.

Introductory letters about our activities were provided to village executive officers in selected villages by the District Executive Director (DED). In addition, personal visits were made in each village, guided by village officers, to find men in their ten-cell units, obtaining their consent and arrange an appropriate time for interview. The head of each selected ten-cell unit from the village led us to households with eligible participant (s). Verbally men were explained our objectives and requested to participate by the principal investigator and the research assistant. Interviews were done in their homes the following day.

3.4.3. Finding men at their homes

The men were difficult to find in their homes. Only six out of twenty men were found despite having made appointment with them. Interviews were done in privacy under banana trees beside their houses for those who were at home. However, peeping of children/wife in a majority of households and sometimes by visitors was common. This disrupted the interviews and the concentration of both interviewers and interviewees. An individual interview took an average of thirty to forty minutes. Five days were spent to complete the first village. In the second village, 10 men out of 14 were found and the rest were not found.

To avoid interview interruption and spending much time to locate men while maintaining privacy, we had to change the venue for interviews. Sixteen men were interviewed in the third village. After identifying the men and getting consent, they were requested to come to the villages' office, where an interview followed the next day. This was made possible by the assistance of village executive officers. In most village offices, one or two rooms were available where men were interviewed one after another. The request was made to those who had been interviewed not to mix with those who had not. This was convenient, served time, less interruption and was adopted throughout the study.

3.4.4. Interview refusal

Approximately one quarter of the consenting men refused interviews in different ways. While a few demanded money some demanded local brews and others reported to have emergencies on day of interview. All men, who wanted incentives or did not like participating after consenting, were let to go if they wished. Arrangements were made to find more men in the same village when the intended number of men was not met. The majority of the men during and after the interview was interested to know more about some of the questions we asked. They were happy to engage in discussions and become better informed.

3.4.5. Focus group discussions

Together with village officers we had to pursue men to join a focus group the day before the event. Unfortunately, at the agreed day and time, only two or three out of the ten men who had volunteered to participate came on time and the rest were late or did not show up at all.

Using a pre designed and pre tested discussion guide (ANNEX VI), issues pertaining to knowledge and use of male methods were discussed. Five FGDs aimed at achieving maximum variation were conducted. The composition of each specific focus group is shown in table IV below:

Table IV. Backgrounds characteristics of FGD participants

FGD	Participants	Age range	Marital status of participants	Village
1	8	15-25	Single	Runzenze
2	6	20-25	Married	Buhororo
3	5	25-34	Single	Ruganzo
4	6	25-40	Married	Nyabihanga
5	7	40-59	Married	Mukirehe

All discussions were conducted in primary school classrooms in the respective villages in Swahili. The moderator (Principal investigator) and two assistants conducted all FGDs. The moderator started the discussion by requesting participants to introduce themselves and then introduced the general topic of discussion. The men did not favour tape recording of the discussion, except for one FGD. Note-taking was therefore the main method to record the discussions results. Two assistants, one with medical and the other with social science background recorded all discussion results and non-verbal communications that emerged during discussions. Each discussion lasted between 45 minutes and to one hour. After each FGD, a brief meeting was held with the assistants for

better administration and identification of issues raised in the discussion, which might need further investigation in the next FGD, and compared the discussion results.

The men, who participated, were very active in the discussion. They were less uneasy than we had expected when talking about male methods. We believe the information to be true and the records were a faithful representation of what was said. The men expressed their own views according to their experiences and feelings. They asked a lot of questions pertaining to the subject and even questions out of discussion but within the reproductive area.

3.5.0.Data management

Preparations of all questionnaire forms including printing, binding and coding, was done at Ngara District Rural Development Project (NDRDP) office, where the investigator had secured a temporary office for the research. Every day after data collection, the completed questionnaires were checked to see whether they were filled in correctly. They were corrected if errors were found. The responses were coded, and the data were entered into the computer using SPSS 9.0. The data were checked and edited for inconsistency and errors.

3.6.0.Data analysis

3.6.1.Quantitative data

The data were analysed using SPSS. Descriptive statistics procedures were employed during the data analysis. Descriptive statistics were used to compute chi-square for contingency tables, and inferences for chi-square tests were based on p-values. The statistical significance was considered when the *P*-value was below or equal to 0.05. All tests were two sided. Confounders were corrected using multivariate analysis (binary logistic regression) and where numbers were small Fisher's exact method was employed. The statistical inference for logistic regression was determined by calculating 95% confidence intervals (CI) for the prevalence odds ratios (OR).

3.6.2: Qualitative data

Analysis of focus group discussions included re-ordering of discussion topics, ordering of emerging issues in the discussions, transcriptions and making summaries. Sorting and ordering of responses from semi-structured interviews were done and grouped into themes. The recurring statements and narratives were summaries.

3.7.0. Ethical clearance

This was obtained from Tanzania Ministry of Health (ANNEX IV) and the Norwegian Research Ethical Committee. A detailed research protocol was sent for review and for approval and later, the permission to conduct the study was secured from the above two institutions. All men provided oral consent, as they did not favour to provide the written one fearing legal implications. For ethical reasons, the participants were free to refuse to be interviewed. Hence, informed consent was important before the beginning of the interviews.

3.8.0: Validity and reliability of the data

The representativeness of the data may be distorted from the selection of study participants, confounding, follow-up, measurements, analysis and interpretation biases (Hennekens, Buring, 1997, Hernbergs, 1992). In this study, selection bias and confounding were taken of care by randomisation. In addition, training of the research assistant who were closely supervised by the principal investigator was done to reduce biases.

In qualitative research, validity problems may appear during description, interpretation or theory (Maxwell, 1996). In this study, much "threats" were taken care of by using two assistants with different backgrounds for note-taking and for comparison. Men with different age groups and marital status (Table VI) were included to minimise bias that may arise due to different backgrounds.

By comparing and relating data from different sources, it is possible to establish the credibility of the findings (Maxwell, 1996). To understand the knowledge, attitude and use of male methods among participants, data from FGD and interviews were compared in order to judge the important plausibility of the answers and the responses were very much similar in both cases.

This research was carried out in rural settings and both investigators had medical background except in FGDs. This may have created an information bias with socially acceptable answers from the respondents. Assuring confidentiality by telling interviewees that their responses would be treated confidentially and their names were not required during interviews reduced such bias.

The reasons for men who refused interviews are not known. Hence they may affect the general validity of the results. However the number of refusal was small, in addition men from the same village were requested for interviews when the number is not met.

4.0. SUMMARY OF MAIN RESULTS

4.1. Paper I: Knowledge, Attitude, and Practice of family planning as correlates to fertility among men in Ngara district-Tanzania

Ndenzako F, Svanemyr J, Brunborg H, Sundby J

Intended journal for submission: International journal of family planning perspectives.

This paper provides description of data from a cross sectional survey of knowledge, attitude and practice of family planning among men in general population. The first objective of this study is to assess the knowledge of different types and magnitude of contraceptive use among men. The second objective is to assess the level of contraceptive availability and reasons for using/not using contraceptive methods and their reproductive preferences. It included 275 men aged 15-59 years who were randomly selected from 18 villages. Men who had sexual experience and could provide consent were included in the research. Using structured questionnaire and focus group discussions information on knowledge of different contraceptives, use, attitude, availability and reasons for using/not using were collected. Association between different socio-demographic characteristics and contraception use was calculated.

The knowledge on male methods was limited. Though a majority of men has heard of condoms (96%), only 70% have seen one and a majority reporting to have seen condoms in packets during focus group discussions. Few men knew of vasectomy (48%), associating the method with castration of animals.

The male contraceptive prevalence was low (18%), and half of contraceptive users were using periodic abstinence (9%). Condom use was high among sexually active unmarried men and majority reporting to use it for STD prevention rather than for contraception.

Desiring more children (25%), poor knowledge of male methods (20%) and difficulties in using the methods (10%) were the most reasons for not using contraception given by non-users. Men desired large family size and preferred boys rather than girls. Contraception approval among men was high and men believed to be the prime contraception discussion initiators in their families.

4.2 Paper II: Knowledge on and prevalence of sexually transmitted diseases among men, and their sexual behaviours in Ngara Tanzania

Ndenzako F, Svanemyr J, Brunborg H, Sundby J

Intended journal: East African Medical Journal:

This paper describes findings from a population-based study conducted in Ngara district Tanzania. The main objective of the study was to assess men's sexual behaviours, knowledge on, and establish the self reported prevalence of sexually transmitted diseases. The study involved 275 men, aged 15-59 years randomly selected from 18 villages. It was a cross-sectional study, conducted in August to December-2000 and men who had sexual experience and could consent were included. Face to face interviews using structured questionnaire and focus group discussions were done for data collection.

Of 275 men, 15% had their first sexual intercourse below the age of 15 years and the self reported prevalence of STD was found to be 5%. Ten per cent and 4% of men reported to have regular and irregular sexual partners respectively.

Ninety two per cent of all men have heard of sexually transmitted diseases and *Gonorrhoea* (82%), HIV (82%) and *Syphilis* (79%) were the most reported STD.

Though a majority of men were certain that a condom could prevent sexually transmitted diseases (73%), 41% thought that they could be infected with HIV if they use condoms. A significant proportion of men (22%), did not know how many times a condom can be used for sexual intercourse and the rest reported that a condom can be used more than once.

5.0. Limitations, conclusions, recommendations and generalizability

5.1.0. Limitation of the study

1. We have interviewed men about issues pertaining to contraception and other reproductive issues. Men answered questions of their partners about contraceptive use and reasons of not using contraceptives, which may not be the real representation of their sexual partner's views. In this case differences and similarities between couple on knowledge, attitude and behaviour were missed. If we could interview couples, we would have information about the real differences and similarities. This is because a the comparison would have involved two individuals who act as a unity of reproduction and their difference may be true in terms of reproductive outcome, especially contraception use and fertility. However, for men being unmarried and divorced men, widower and men who are not in legal marriages or those who are cohabiting, their preferences and behaviours regarding contraceptive use and fertility are not addressed by a couple approach. This group of men was considered in our study.
2. Some men may be unwilling to reveal intimate information for whatever reasons. Some may be silent about their sexual behaviours while others may exaggerate their sexual activity, depending on the perceived social desirability of the practice. Being the case, it is thus hard to gauge to what extent people under/over report extramarital sex or whether they are as they say.
3. Because of short of time and financial constraints, other issues pertaining to condom use were not investigated. Issues like putting/removing a condom from the penis before and after intercourse and decision- making on condom use were not studied.

5.2.0. Generalizability of the results

Interpretation of the data presented in this report, needs to consider the issues presented in the methodological discussion. It is important to note that the problems encountered in the data collection do not necessarily invalidate the findings. The number of refusals may reflect the fact that the participants were free to refuse interviews without any fear or prejudice. This could be because all the ethical principles were strictly followed to obtain consent from each participant in the study. The representative sample was systematically drawn from the general population, the study design was appropriate for the topic, privacy was maintained to avoid biases and data were kept confidentially and carefully analysed. Moreover, the findings are consistent with results from other studies of the same kind, which is an important criterion for judging the potential for generalizability of the findings. This being the case, it is sound to conclude that the findings reflect the situation that was prevailing at the time of the data collection, and hence the results are generalizable to the general male population in Ngara district.

5.3.0. Conclusions

The low knowledge and misconception about male contraceptive methods, as well as the large desired family sizes and the preference for boys were associated with low male contraceptive use.

The results have given a greater understanding of the determinants of contraceptives use and reproductive behaviour in Ngara. The data show that a majority of men were aware of contraceptives, but detailed knowledge on specific male methods was lacking.

The results have indicated some prospect that the fertility decline may happen in the future. Although the use of male contraceptives among men in our study is limited, there are favourable attitudes towards family planning and willingness to use contraception. The attitude towards family planning use is an important indicator of

potential decline in fertility if other necessary conditions are available. The important question remains when the fertility is going start-declining decline. The appropriate answer may depend on the efforts invested by the district family planning program and the Government of Republic of Tanzania to involve men in family planning.

5.4.0.Recommendations

1. There is a need to find better ways to reach men, especially in rural areas and to provide access to appropriate and adequate information regarding a range of family planning methods. The efforts from the Government and the district administration should explore ways in which more detailed information about specific methods could be conveyed to men in traditional settings. For example, because more than 80% of men have primary education and above, which imply that the majority of men can read and write, material containing both written and pictorial components can have good impact.
2. There was unmet need of family planning, as more than sixty per cent of men who want no more child, neither themselves nor their partners, were using contraception. There is a need of promotion and making contraceptives available to all men and women.
3. As it has been observed about in different family planning methods, traditional methods are widely not promoted and sometimes dismissed. Because such methods are the mostly widely used, they need more promotion and education on how they can be effective.
4. Policy makers should find ways to increase the range of family planning methods available to men, perhaps through male only clinics where information and services like vasectomy could be provided.
5. Condom promotion should be increased by social marketing and distribution at places appropriate and convenient for men.
6. Community based research with in-depth interviews in collaboration with STD clinics and laboratories, is needed to uncover the low prevalence of STD and sexual behaviour found.

7. Promotion of condom use in couple relations for protection against unwanted/mistimed pregnancies and STDs, may increase condom use rather than for protection of STD alone.
8. Socio-cultural issues associated with poor STD health seeking behaviours need to be investigated.

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Paper I

Knowledge, Attitude, and Practice of family planning as correlates to fertility among men in Ngara district-Tanzania.

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ABSTRACT: I

This was a study to investigate the knowledge, attitude and practice of family planning among men in Ngara district Tanzania.

The first objective of the study was to assess the knowledge of different types and magnitude of contraceptive use among men. The second objective was to assess the level of contraceptive availability and reasons for using/not using contraceptive methods as well as the men's reproductive preferences.

It is a cross-sectional study conducted in August-December 2000, including 275 men aged 15-59 years who were randomly selected from 18 villages. Men who had no sexual experience or were mentally ill and those who did not consent were excluded from the research. The data were collected using structured questionnaire, in addition focus group discussions were done and the association between different factors and contraception use was calculated.

The male contraceptive prevalence was low (18%), with periodic abstinence as a common method in use (9%). The knowledge of male methods was limited. Though a majority of men has heard about condoms (96%), only 70% have seen one and a majority reporting to have seen condoms only in packets during focus group discussions. Few men knew of vasectomy (48%), associating the method with castration of animals.

Desiring more children (25%), poor knowledge of male methods (20%) and difficulties in using the methods (10%) were the most frequent reasons given by non-users. Men desired a large family size and preferred boys rather than girls. Contraceptive approval among men was high and men believed to be the prime contraception discussion initiators in their families. We conclude that low knowledge and misconception about male methods, large desired family size might have been associated with low male contraceptive prevalence. Therefore, there is a need to find better ways to reach men especially in rural areas, to provide access to appropriate and adequate information regarding a range of family planning methods.

Keywords: **Tanzania, KAP study (men): Knowledge (men), Attitude (men), and Contraceptive Practice (men), Contraceptive methods (men), condom, vasectomy, traditional methods, family size (men) sex preference (men), approval and discussion of family planning (men).**

Introduction

For many years, men have been absent from most Demographic and Health Surveys (DHS), as they were only utilised to provide household information on fertility determinants (Turgay, 1988). However in societies where men are decision makers (Drennan, 1998; Roudi and Ashford, 1996,) and control many aspects of social life and family matters, their influence on fertility regulation become an essential factor to be included in fertility related researches (Turgay, 1988). Involving men in family planning has shown to be cost effective and make a difference in reduction of unwanted pregnancies and maternal deaths (Drennan, 1998; Roudi and Ashford, 1996). In addition, men represent about half of the world's population, but use less than one third of the contraceptives. They use male methods or methods that require participation of both partners. Condom and vasectomy account for only 9% and 8% of total contraceptive use, respectively (FHI 1998; Ringheim, 1996).

Since the introduction of family planning in Africa in the 1950s, family planning programs have made little efforts to involve men in family planning. Despite the fact that family planning programs have expanded in different parts of the continent (Drennan, 1998), the level of family planning information is still low and fertility is high in most parts of Africa (Ezeh et al 1996). It is estimated that less than one fifth of couples in Africa use modern contraception and only one couple out of ten in Sub Saharan Africa use any kind of fertility regulation. This may have resulted in Africa to have the fastest population growth than any other continent. It is estimated that, the size of the African population have almost tripled in the past 50 years, from about 224 million in 1945 to 728 million in 1995 (Roudi and Ashford, 1996). Because of low contraception prevalence, unwanted pregnancies are frequent, many ending in unsafe abortions, which may lead to maternal ill health and death.

Despite the increase in family planning practice in Tanzania, large families and unintended pregnancies are still frequent (TDHS, 1996). There is a neglected dimension of male participation in family planning and by the time of this survey, only few studies had been conducted of male involvement in family planning in Tanzania (UMATI-2000).

The high total fertility rate of 6.7, (DMO office 2000), high population growth rate (3.6%) (DMO office 2000) and the absence of male studies in Ngara district were

compelling reasons to undertake this study. The purpose of this study therefore, was to assess the knowledge, attitude and practice of family planning among men in the district. The importance of this study will provide up date baseline information on male knowledge, attitude and practices related to family planning and reproductive health. This information may help programs to increase male involvement in family planning and STD/HIV prevention in Ngara district.

Methodology

The study was carried out in Ngara district, located in North -Western part of Tanzania. The district covers an area of 3,750 km² and is subdivided into 72 villages. It has a population of 300,000 and a population growth of 3.6 per cent per year (Ngara DMO's office-2000). The total fertility rate has been estimated to be six children per woman. The contraception prevalence is 8% for female methods and unknown for male methods.

We conducted a cross-sectional study involving 275 men aged 15-59 years, who were randomly selected from 18 villages. The study was conducted in August- December 2000, after securing an ethical clearance from Tanzania ministry of health. Names and population in each village were obtained from the district health office. Multi-stage simple random sampling was done. All wards were listed alphabetically and by simple random sampling eight were chosen. Then villages in selected wards were listed alphabetically and 18 were selected for interviews. Men were randomly selected with a probability of selection proportional to population size of each selected village. Within each chosen village, ten cell units were selected by simple random sampling from a list of all ten-cell units and eligible men were obtained from the selected ten cell units in each village. Ten cell units are groups of approximately ten households defined by a political structure in Tanzania i.e. every household belongs to ten-cell unit. A "cell" means a household. Men who had no sexual experience, were mentally ill and those who did not provide consent were excluded.

Data collection

Personal visits were made in each selected village prior to interview to find men, arranging appropriate time for interviews and getting verbal consent.

Data were collected using pre tested structured questionnaire administered by principal investigator and a male research assistant and focus group discussions were conducted.

Interviews

After identifying men and getting their consent, an interview followed next day at villages' office. In most village offices, one or two rooms were available and men were interviewed one after another and a private place beside the office was used for interview in few villages where rooms were not available. Each individual interview lasted for around twenty-five minutes.

Confidentially, men were asked in Swahili about their background characteristics, contraceptive knowledge, attitude, use, and source of knowledge, contraceptive availability and their fertility preferences. The request was made for those who had had an interview not to mix with those who had not.

Focus group discussions

Together with heads of villages, we had to find men and get their consent before the discussions. The pre designed and pre tested discussion guide was use. In each FGD, participants were selected so that they were of the same cohort. The guide included issues on knowledge, attitude and practices of male contraceptive methods. A moderator (Principal investigator) and two assistants for note taking and other non-verbal communication conducted FGD. Each discussion lasted for 45 minutes to an hour. After each FGD, short meeting among organisers was held to discuss any emerged issue, which needed rectification before other FGD. The participants were less uneasy than we had expected when talking about male methods and expressed their own views according to their experiences and feelings.

Data analysis

Every day after the data collection, the completed questionnaires were checked to see whether they were filled in correctly and to correct possible errors. The coding of responses was done manually. The data were computerised using SPSS (9.0). The data were checked and edited for inconsistency and errors. The association between the different factors and contraceptive use was calculated using chi-square and when needed, Fisher's exact method was employed. Statistical significance was defined as the *p*-value is below or equal to 0.05. Confounders were corrected using multivariate analysis (binary logistic regression). In addition to the statistical analysis, focus group discussion analysis was included to interpret and illustrate some of the findings.

Findings

Background

A majority of the respondents were married (84%), farmers (62%), Catholics (54%) and had 7 years of primary education (70%). The mean age of the respondents was 33 years (age range 15-59 years) and more than 60% were below 34 years.

Men's knowledge on contraceptive methods

Among male methods, condom was the one that most men mentioned to have heard about (96%), 70% had heard of periodic abstinence, withdrawal (51%) and vasectomy (48%). Among female methods, pills were most often mentioned (90%), followed by female sterilisation (85%), then Depo-Provera (82%). Others were, calendar (67%), loop (37%), and breast feeding (32%). Less than 15% of the men could mention other female methods.

To understand the possible source of their knowledge, the men were asked to mention where they had learned about the methods. The men reported to have learned the methods from hospital/clinics (40%), radio (15%), friends (10%), schools (3%), and newspapers and the rest had no opinion.

Focus group discussions showed that men had limited knowledge about male methods of contraceptive. A majority reported to have seen condoms only in packets in focus group discussions. A substantial number of men believed that a condom should be used

in extramarital relations, while others incorrectly believed that condoms were implanted with micro-organisms. Men had limited knowledge on vasectomy and some equated the method with castration of an animal. They did not know when exactly a man had to abstain from sexual intercourse for those who reported to be using periodic abstinence. For example, one man incorrectly said, "You have to abstain, a whole week before, during, and one week after menstruation". Another 25 year old man with two children incorrectly stated that, "You have to abstain during and one week after menstruation".

Knowledge on places where male methods could be obtained

Seventy-nine per cent of all men knew at least one place where they could get male contraceptives and the hospital was the best known place. Other places identified were dispensaries (57%), family planning clinics (55%), friends (21%), and pharmacies (12%). Those who reported to know family planning clinics as a source of contraceptives, were more likely to use contraception than those who could identify other sources ($p=0.005$, OR =0.3055, 95% CI= 0.1297, 0.7196).

The male contraceptive prevalence and methods in current use

The male contraceptive prevalence was found to be 18% and half of the contraceptors were using periodic abstinence (9%) (Table I). Among the condom users 80% were unmarried while 20% were married men. A larger proportion of unmarried men (41%) was using contraception than married (14%) (Table II). Among female methods as reported by men, the depo-provera, calendar and pills methods were the most used (6%) each (Table I).

Reasons for using/not using contraceptives

Among contraceptive users, avoidance of pregnancy (60%), wanting no more children (10%), wanting fewer children (8%), were reported as reasons for contracepting. A large proportion stated that they were using contraception to prevent sexually transmitted diseases (22%). It is important to note that only one man out of eight of those who wanted no more child, reported to be using contraception (Table II).

Of 225 non-users 25% reported desiring more children to be the main reason for not doing so. Poor knowledge of male methods (20%), difficulty to use (10%), poor availability (6%) and not married (5.8%) were other reported reasons. The last reasons were the expensiveness of male methods (3%) and 30% of non-users reported that their wives were using contraceptives. Men who reported that their wives did not use any contraception, were asked to give the reasons for this. Forty per cent reported that their wives wanted more children. Other reasons cited by the men were that their wives did not know the methods (34%), wife being menopause (6%), religion does not allow her (4%), and dislike of the wives to use contraceptives (12%).

Men's ideal family size

The mean ideal family size (IFS) that men reported to support was 6.2 children. A large proportion of the men favoured a large family size, between 5-6 children (32%), and 27% of the men desired more than 6 children. Men who anticipated a large ideal family size were less likely to use contraception ($p=0.002$). It was also found that the ideal family size increased with age and number of living children.

Sex preference

More than half of all men wanted boys (55%) rather than girls (10%) and the rest favoured both boy and girl children. Inheritance of family property was the most frequent reason reported by men who favoured boys rather than girls (27%). Our study could not demonstrate any association between contraceptive use and sex preference ($p=0.152$).

Contraceptive approval and discussion

Among non-contraceptive users, 90% approved of contraception and 86% approved of their wives using contraception. When the men were asked to whom should start contraception discussion in a family, a large proportion said that husband should initiate the discussion (68%). Only 12% said that the wife should start it and 20% reported that any of them could start the discussion. Husbands, who believed that wives are supposed to initiate contraception discussions, were more likely to use contraceptives compared to those who thought themselves or any of the couple members should initiate the

discussion. However, the study could not demonstrate any association between contraceptive use and a person supposed to initiate contraception discussion ($p=0.056$).

Discussion

Knowledge, prevalence and male methods in current use

Knowledge of different contraceptive methods is very important for contraception use. The men in this study knew more about female methods than male methods and were more familiar with female sterilisation than vasectomy, as found in other studies (Ityai et al 2000, Santow, 1996, Calverton, 1994). The primary focus of the family planning programs on women and the poor promotion of male methods may explain this difference in knowledge. In view of this situation, there is an urgent need to promote male methods so that men can take an active role in family planning and in using male methods.

Our study has indicated that married men were less likely to use condoms compared to unmarried men. A number of articles (Ityai et al 2000, TDHS, 1996, Rwabukwali, et al 1994, Calverton, 1994) have reported of similar findings. Because of trust in couple relations, married men and women may not be willing to use condoms to prove fidelity to their sexual partners. The condom is very effective as a contraceptive method and in prevention of STD (Gallen et al 1996). This may also imply that couples may not like to use condoms as a contraceptive method because they are associated with extramarital relations. In addition, because condoms are frequently used among unmarried men, it may also suggest that premarital contraceptive use involve more than pregnancy prevention and probably indicate motivation to avoid STDs especially HIV. The promotion of condom for both as a contraceptive method and STD prevention is required.

The results show that vasectomy was the least known among male methods. Even those who had heard about the method had misconceptions, as they were associating the method with castration as it has been observed in other studies (Muhondwa and Rutenberg, 1997, Khalifa, et al 1982). Absence of vasectomy services in the district's family planning program may partly explain the difference. This makes it less popular and creates many myths among men. If it were available and promoted, it could become

popular and widely used by men. For example vasectomy promotion projects in Tanzania and Kenya, increased clients for more than half a year later (UMATI-2000, Nzioka, et al 1999). Further more, service providers who lack the knowledge about the procedure may fail to inform clients about the existence of the method (Santow, 1996, Khalifa, et al 1982) and other providers who know the method may discourage it for clients. It is important therefore, to promote the method among men and probably among providers and policy makers to alleviate the misconception and increase acceptability.

The male contraceptive prevalence was low and men reported more contraceptive use than recorded female methods in the district. It may be possible that the use of traditional methods reported by men may not have been recorded in the district, which may explain the discrepancy in reporting. As reported elsewhere, men report higher levels of contraception use than married women do (Bankole et al 1998; Ezeh et al 1996). The discrepancy in reporting was largest in two DHS in Kenya, where the gap between male and female responses was over 20% points in each survey. In Ghana there was a 14 % point difference and in Tanzania, 6% point difference (TDHS, 1996).

There are no obvious explanations for the incongruity between men and women reports on contraception use. Some have proposed that men over-report the use of both male and female methods (Ezeh, AC, et al 1996). Others have suggested that married women usually under report all male and female methods because they may be using contraceptives without the knowledge of their husbands (Bankole et al 1998).

Over-reporting contraceptive methods by men may indicate that men approve contraceptive methods. It may also be the case that non-contraceptors report to be using contraceptives. However, because our study used the recorded figure for female methods to compare the male reported contraception prevalence, it is hard to say if women would have reported lower level of female methods in the district as shown elsewhere. To make a concrete conclusion on contraceptive reporting discrepancy, a research involving couples in the district is needed.

Half of the contraceptors were using periodic abstinence. This method has been found to be the most commonly used male method in most surveys in developing

countries (Ezeh et al 1996). This method is natural, readily available, provides privacy to the users, has no side effects, costs nothing and is not coitus dependent. Men may prefer this method due to these advantages. Considering the low efficacy of periodic abstinence in pregnancy prevention (Gallen et al 1986), men's poor knowledge about woman's fertile period (Gorgen, et al, 1998), fertility in the district may continue to be high despite the use of this method. However, motivated couples can use the method effectively when they do not have other choices. There is an urgent need to promote the method like other modern male methods being the choice of the majority.

Reasons for not using contraceptives and reproductive preferences

Desiring more children was the most frequent reason given by men as to why they were not using contraception as found also in Ghana, Niger and Tanzania (Ezeh, et al 1996, TDHS, 1996). The proportion of men wanting more children range from 60% in Ghana to 90% in Niger. In East Africa, the proportion is between 47% to 63% except Tanzania, where 80% of men wanted more children. The proportion of men who desire more children and their perception of their wives desire to have more children, are meaningful predictors of future childbearing (Bankole et al, 1998). This also plays an important role in deciding to use family planning methods (Roudi and Ashford, 1996, Ezeh, et al, 1996). This may explain why fertility is high in Ngara district and other parts of Africa. Development of social security system, educating parents on quality of children and future economic prospects of children and negative impacts of many children may encourage men to reduce their fertility.

Our study shows that a majority of Ngara men favour large families. The ideal family size (IFS) marks boundaries of socially acceptable behaviour and it is indicator of fertility desired (Ezeh et al 1996). Many demographic and health surveys in Africa have shown the ideal family size to be 5 children (Ezeh et al 1996). This number is as high as 9 children in West Africa, and as less as half in East Africa to 4.5 children, except in Tanzania where the ideal number is 6 children (Bankole et al 1998; Ezeh, et al 1996; Roudi and Ashford L, 1996; Tanzania DHS, 1996). As the majority of population is farmers, grown-up children are expected to be manpower and produce for the family.

Further more, in Ngara district like in other parts of the country where social security system is not existing children are expected to take care of their old parents. These two factors may explain the large family size and high fertility favoured by men. While it is important to underline that a substantial proportion (27%) of men in Ngara favour more than six children, it is also encouraging to note that a third of all men felt that even 3-4 children are adequate and 3% do not need any more children. This may indicate that, there is a potential of future fertility decline in the district. It is also worth mentioning that the ideal number of children as a measure of reproductive preference is subjected to biases. This measure is likely to change, it is influenced by the current fertility, and the desired number of children is biased towards the respondent's actual living children. Nonetheless, this measure is still used in fertility surveys because it is simple and allows comparison with earlier survey data (Bankole et al 1998, Ezeh, et al 1996).

The data shows that IFS increases with age, and that older Ngara men desire more children than the younger men. This has also been observed in other studies (Ezeh, et al 1996; TDHS, 1996). This may be explained by changing of norms, and the older men may be reflecting the actual reproductive norms. The second explanation may be that, young men are more likely to be educated than older ones, thus better understanding of the disadvantages of large families and hence favouring fewer children. The implication of such finding is that, as the older generation passes out, the fertility may decline with time since young generations favour few children.

Contraceptive approval and discussion in families

Use of family planning is facilitated if a couple has a positive attitude towards family planning. Despite high approval of family planning, there is low contraceptive use. Approving family planning by their wives or themselves, is a good indicator that there is a potential of family planning methods to be utilised if the necessary conditions are available.

As shown by number of articles (Drennan, 1998, Roundi and Ashford, 1996), men in our study believed that they should initiate contraception discussion in their families.

Men and women agree that men are prime decision-makers (Khan and Patel, 1997, Roudi and Ashford, 1996, Okpere et al, 1988). For example in Nigeria, 90% of men and 80% of women agree that men have to initiate contraception discussion (Okpere et al, 1988). The social role ascribed to men as family breadwinners makes them feel to be heads of families and prime decision-makers. With this argument, and approved family planning by men, the contraceptive use by both men and women could increase if family planning programmes in the district could target men.

Conclusion

The prevalence of male contraceptive methods was low. Low knowledge, the misconceptions about male contraceptive methods and desire for large families might be the contributing factors. Therefore, there is a need to find better ways to reach men especially in rural areas, to provide access to appropriate and adequate information regarding a range of family planning methods.

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**Table I: Current use of contraception among men in Ngara, Tanzania,
as reported by men 15-59 years of age.
(N = 275).**

Method	Frequency	Per cent
Periodic abstinence	25	9.1
Condom	20	7.3
Withdrawal	5	1.8
Depo-Provera	17	6
Calendar	17	6
Pills	16	5.8
Female sterilisation	6	2.2
Norplant	3	1.1
Breast feeding	3	1.1
Traditional herbs	1	0.4
Using any method	112	40.8
Not using any method	150	54.5
NR	13	4.7
Total	275	100.

NR= No response.

**Table II: Current use of male contraception among men (15-59years)
by background characteristics as reported by men in Ngara, Tanzania.
(N= 275)**

Background	Current use of male contraceptives		p-value		
	Yes			No	
	N	%		N	%
Education					
No education	0		16 (100%)		
Primary education*	36 (16%)		185 (84%)		
≥Secondary education	14 (37%)		24 (63%)	0.023	
Age group					
15-24	14 (22%)		48 (88%)		
25-34	21 (20%)		83 (80%)		
35-44	11 (18%)		50 (82%)		
45-59	4 (8%)		44 (92%)	0.370	
Occupation					
Peasant	22 (13%)		149 (87%)		
Unskilled employment	7 (22%)		24 (88%)		
Businessmen	10 (42%)		14 (58%)		
Student	0		6 (100%)		
Skilled employment	11 (25%)		32 (75%)	0.04	
Religion					
Other Christian groups	3 (13%)		20 (87%)		
Catholic	23 (16%)		124 (84%)		
Protestant	9 (18%)		41 (82%)		
Islam	4 (31%)		9 (69%)		
Anglican	11 (26%)		31 (74%)	0.453	
Alcohol					
Yes	32 (15%)		178 (85%)		
No	18 (28%)		47 (72%)	0.021	
Age at first intercourse					
NR	5 (17%)		24 (83%)		
≤15	12 (38%)		19 (62%)		
16-25	28 (14%)		168 (86%)		
≥26	5 (26%)		14 (74%)	0.011	
Desired children					
Enough	1 (12.5%)		7 (87.5%)**		
1-2	4 (40%)		6 (60%)		
3-4	26 (30%)		59 (70%)		
≥5	19 (11%)		153 (89%)	0.002	
Number of wives***					
1	27 (13.5%)		173 (86.5%)		
>1	2 (8%)		24 (92%)	< 0.001	
Marital status					
Single****	20(41%)		28 (59%)		
Married	30 (13%)		197 (87%)	< 0.001	

*Includes those who had incomplete primary education.

** Shows magnitude of unmet need for family planning among men.

*** Excluded unmarried men,

**** Includes widow and divorced men

Paper II

Knowledge on and prevalence of sexually transmitted diseases among men, and their sexual behaviours in Ngara Tanzania

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ABSTRACT: II

This is a study intended to assess men's sexual behaviours, knowledge on, and establish the self reported prevalence of sexually transmitted diseases, in Ngara district-Tanzania.

The study involved 275 men, aged 15-59 years randomly selected from 18 villages. It was cross-sectional study, conducted in August to December-2000 and men who had sexual experience and could provide consent were included. Data collection was done using structured questionnaire and focus group discussions.

Of all men, 15% had their first sexual intercourse below the age of 15 years and the self reported prevalence of STD was found to be 5%. Ten per cent and (4%) of all men reported to have regular and casual sexual partners respectively. Ninety two per cent have heard of sexually transmitted diseases and *Gonorrhoea* 82%, HIV 82% and *Syphilis* 79%, were the most reported STD.

Though a majority of men were certain that a condom could prevent sexually transmitted diseases (73%), 41% thought that they could be infected with HIV if they use condoms. A significant proportion of men (22%) did not know how many times a condom can be used for sexual intercourse and the rest had no opinion. We concluded that there was a low self-reported STD prevalence. The incorrect believes about condom may have been associated with low condom use. Further studies to elucidate community STD prevalence and determinants of condom use are recommended.

Key words: Tanzania, sexual behaviour, knowledge, STD, condom use, prevalence, and protection.

Introduction

For several years, sexually transmitted diseases (STD) have ranked among the top five categories for which adults in developing countries seek health care services (Dallabetta, 1996). It still poses a big health threat in both developed and developing countries. It is estimated that 36 million people are infected with HIV (UNAIDS-2000) and 685,000 people are being infected with STD every day (Lande, 1993). Approximately 1 million people die each year from STDs other than HIV/AIDS and more than half of the 333 million new cases of STD annually is among teenagers nearly as many as malaria cases (Dallabetta, 1996, Lande, 1993).

The World Bank reports that the sum of day health life lost due to HIV, Syphilis and Chlamydia infection almost equals the number of days lost due to malaria and measles. It is estimated that 5% of the total discounted healthy life years lost in Sub Saharan Africa are due to STD and HIV alone accounting for 10% of healthy life years lost (Dallabetta et al 1996). Sexually transmitted diseases like gonorrhoea can cause infertility to both men and women if untreated. However, women are often blamed for infertility, when, in fact, men may also be infertile. It is estimated that 40 percent of infertility world-wide is due to male causes (Davidson, et al 1994).

To prevent STD, the need of men to use condoms and practice safer sex is becoming ever more urgent (Drennan, 1998, DeGraft, et al 1997, Khan, 1997, UNFPA, 1997, Roudi and Ashford, 1996). Because of biological and social factors, men transmit more sexually transmitted infections more frequently to women than women to men. For example, WHO estimates that men are 8 times more likely to transmit HIV to female partners with repeated unprotected sex than women are to transmit this to men. In addition, men are likely to have more sexual partners than women and more often men determine whether sex is to take place and whether condoms are to be used (Foreman, 1999).

The HIV infection rate is still growing and it is estimated that 1.3 millions Tanzanians are currently living with the infection (TDHS, 1996). The Ngara district STD and HIV prevalence is not known, however the data for blood donors show that the HIV prevalence has doubled to 20% in the past four years (District hospital laboratory-2000). Given that STD is a risk factor for HIV-1 infection (Weir et al, 1994), it is important to know the determinants and magnitude of STD among men. The objective of this study

therefore, is to assess men's sexual behaviours, their knowledge on and self-reported prevalence of STDs and the health seeking behaviour with regard to sexually transmitted diseases.

The importance of this study is that it will provide baseline information on male sexual behaviour and self-reported prevalence of STD among men. This information may help programs to increase male involvement in family planning and STD/HIV prevention in Ngara district.

Methodology

This is a population-based study conducted in Ngara district in north-west Tanzania, 1600 km from the capital city Dar es Salaam. It is a cross-sectional study, conducted in August to December 2000. It involved 275 men aged 15-59 years who were randomly selected from 18 villages. Names and population size of each village were obtained from the district health office. Multi-stage random sampling was done. All wards were listed alphabetically and by simple random sampling eight wards were chosen. Then villages from the selected wards were listed alphabetically and 18 villages were selected for interviews. Men were randomly selected with a probability of selection proportional to the population size of each selected village. Within each chosen village, ten cell units were selected by simple random sampling from a list of all ten-cell units in each village and eligible men were obtained from the selected ten-cell units in each village. Ten cell units are groups of approximately ten households defined by the political structure in Tanzania i.e. every household belongs to ten-cell unit. Men who had no sexual experience, or mentally ill and those who did not consent were excluded.

Data collection

Personal visits were made to each selected village prior to the interviews to find men, arranging appropriate time for interviews and get their consent. The data were collected using a pre-tested structured questionnaire administered by male interviewers. Focus group discussions were conducted.

Interviews

After identifying men and getting their consent, an interview followed next day at villages' office. In most village offices, one or two rooms were available and men were interviewed one after another. A private place beside the offices was used for interview in few villages where rooms were not available. Confidentially, men were asked in Swahili about their background characteristics, sexual experiences, and sexual practices including number of sexual partners. Knowledge on condom use, STDs, health seeking behaviours and preventive measures were inquired. To assess prevalence of STD, men were asked to report if they have had STD twelve months preceding our study. The request was made for those who had had an interview not to mix with those who had not.

Focus group discussions

Finding men, getting their consent and arranging appropriate time for discussions was done before the FGD. The pre designed and pre tested discussion guide was used. The guide included knowledge on condom use and availability. The moderator (Principal investigator) and two assistants for note-taking and any other non-verbal communication conducted FGD. Each discussion lasted between for 45 minutes and to an hour. After each FGD, short meeting among organisers was held to discuss any emerged issue that needed rectification before other FGD. During discussions, the atmosphere was pleasant with no outsiders. The participants were less uneasy than we had expected when talking about sexual issues and condom use. We believe the information to be true and the records were a faithful representation of what was said. Most of them expressed their own views according to their experiences and feelings and asked a lot of questions pertaining to the subject.

Data analysis

On each day after the data collection, the completed questionnaires were checked to see whether they were filled in correctly and errors were corrected. Coding of responses was done manually, and then computerised using SPSS 9.0. Data were checked and edited for inconsistency and errors.

Findings

Background

A majority of respondents were married (84%), farmers (62%), Catholics (54%) and had 7 years primary education (70%). The mean age of respondents was 33 years (age range 15-59 years) and more than 60% were below 34 years. Fifteen per cent of all men had their first sexual intercourse below 15, with a mean age of 16.5 years, and by the time they complete 20th of their birthday, 74% had had their first sexual intercourse.

Sexual behaviour

The men were asked about their sexual behaviour a year before the survey, as a way of measuring the risk of contracting STD. Ten per cent of all men reported to have regular sexual partners and 23% of them had their last sexual intercourse with them within a month preceding an interview. Sixty-two per cent of the men had sexual intercourse with their regular sexual partners within three days and 16% beyond three days before the interview. On this occasion, more than half of men reported not to have used condoms in the last sexual intercourse with their regular sexual partners (Table I).

Of all men, 4% reported to have casual sexual partners, and 2% claimed to have more than one partner. A majority of men with casual partners had the last sexual intercourse with them a month or more prior to the study and more than half reported not to have used condoms on this occasion (Table I). As expected, unmarried sexually active men were found to have more of both regular and casual sexual partners than married men (Table II).

Knowledge and prevalence of sexually transmitted diseases

Ninety two per cent of all men have heard of at least one sexually transmitted disease, the most common being *Gonorrhoea* (82%), HIV/AIDS (82%) and *Syphilis* (79%). Other reported STD, were *Genital warts* (8%), *Chlamydia* (2%) and *Trichomoniasis* (0.4%) and nobody reported to have heard about genital ulcers disease as STD.

A very low proportion of men (5%) reported that they had suffered from STD twelve months preceding our study. While half of them stated to have suffered from *Syphilis*, 42% reported to had suffered from *Gonorrhoea* and two men did not know what kind of

infection they had had. Of those who reported to have suffered from STD, only 3 men informed their sexual partners about their infection and 47% stated to have been treated in hospital. Responding as to how they avoided to transmit the diseases to their sexual partners, half of the men who reported to have had infection said that they abstained from sexual intercourse, while one man acknowledged to have been treated together with his sexual partner.

Knowledge of and condom use

Ninety-six per cent of all men have heard about condoms and 70% have seen one. Young men below 20, were less likely to have seen condoms ($P= 0.011$) and those who have seen condoms were sure that a condom can be used only once ($P<0.001$).

Seventy-three per cent of all men were certain that condoms could prevent sexually transmitted diseases. However, when asked specifically if they believe that condoms can prevent HIV transmission, 45% said that they believe so, while 41% thought that they could be infected with HIV if they use condoms, and 14% had no opinion.

Of the 275 men, 76% knew that a condom could be used only once, while 22% did not know how many times a condom could be used and the rest had no opinion. Only 7% of the men had used a condom in their last sexual intercourse and protection against STD was the reason stated by more than half of those who used condoms.

In the focus group discussions, some men reported to have seen condoms only in packets. The majority believed that a condom should be used only in extramarital relations. One man 35 years old with two children said that, "If my wife finds a condom in my pocket, it will make a big conflict in the family", he added by saying "she will believe that I have affairs with another woman". Some men reported that condoms are implanted with microorganisms while others who were willing to use condom, were not in a position to obtain them. One man stated that "Even if you go to the health centre, the workers would not provide you with condoms".

Discussion

Given the evidence that the majority of HIV infections in Tanzania are caused by heterosexual contact (TDHS, 1996), information on sexual behaviour is important in designing and monitoring interventions programmes to control the spread of STD/HIV.

Sexual initiation

One of the most important epidemiological determinants of STD infection is sexual behaviour, which can be divided into age at first sexual intercourse, number of sexual partners and other sexual practices (Davidson, et al 1994). As it has been observed in Mara region Northern Tanzania (Konings, et al 1991), our data show that early sexual debut is associated with increased risk of having many sexual partners. Young men below 20 are likely not to have seen condoms. These findings may imply that young men are at a higher risk of contracting STD and hence HIV than any other age group. For example, about half of all people infected with HIV are younger than 25 years (Alan Guttmacher Institute, 1998). Given slow progression from initial HIV infection to AIDS, the high incidence among men in their 20's indicates that many contracted HIV before age of 20 (Roudi and Ashford, 1996, Mac C auley and Salter, 1995). Thus it appears that interventions directed to young men may have a considerable impact in reducing the proportional of men engaging in sex, provision of good knowledge on safer sex and hence reduction in STD/HIV infection.

Our study found that men initiated sexual activity at an early age which have been reported elsewhere (Mac C auley and Salter, 1995; Roudi and Ashford, 1996; Morris, 1994; Davidson, et al 1994). The average age at first sexual activity varies by country and probably by region, but most young men have had sex well before age of 20 (Morris, 1994). This correlates well with the findings in our study. With the available data, it is difficult to explain the early sexual debut in Ngara, but elsewhere, a number of reasons have been presented for the possible cause. The first is the declining (overtime) in the age at which puberty begins, which is between the ages of 9 and 14 (Mahmmod and Ringheim, 1996; Davidson, et al 1994, Senanayake, 1990). Second, is the influence of testosterone, a hormone that motivates men to engage in sex. During men's adolescence and into their early 20s, testosterone levels are high in blood circulation and account for

much of their strong sexual desire (Loraine 1970, Udry et al 1985). Lastly is the cultural influence on sexual behaviours of young men. While in some cultures young men are expected to prove their sexual powers, in others fathers have been found to initiate their sons by taking them to prostitutes (Foreman, 1999). For example in Uganda, while it was unacceptable to parents and society for unmarried girl to become pregnant, boys were encouraged by their peers and fathers to prove if they were not "impotent". This calls for further research, to find out the possible cause of early sexual initiation among young men in this area especially the traditional sexual norms.

Sexual partners and condom use.

Although only limited information on sexual behaviour was collected in the present study and of unknown accuracy, a clear association between the number of regular and casual partners with marital status has emerged (Table II). As expected, unmarried men reported more sexual partners than married men with low condom use. It has been observed that self-reported sexual behaviour is subjected to recall bias (Hengster, et al, 1991), that may have occurred in this study. However, because of the association between high-risk sexual behaviour and HIV-1 infection, the number of sexual partners may have been under-reported. To report these extramarital relations may depend on the perceived social status related to sexual practice. In some cultures for example, to be sexually active with a high number of sexual partners is closely connected to manhood (Itayi M et al 2000, Davidson et al 1994). However, reliable information on sexual networking is naturally difficult to tackle in this survey. It is thus difficult to gauge, to what extent men are under/over-reporting extramarital sex relations or whether they do what they actually say.

The knowledge of condom was relatively high. However negative attitudes were found to be attached to condom and it may have contributed to the low condom use. Further more, because of trust in sexual relations, married men and women may not be willing to use condom, as a sign of fidelity to their sexual partners. This may explain the low condom use among men with regular and irregular partners. With increase HIV/AIDS in the district (District lab 2000), and STD being a risk factor for HIV, there is a need for aggressive methods to promote condom, using appropriate methods aiming to

alleviate negative attitudes attached to condoms and increase supply especially in rural areas.

Knowledge of, prevalence and health seeking behaviour for STD

The study found a relatively high knowledge among men on common sexually transmitted diseases, and this observation is in keeping with other similar findings from other studies (Dallabetta, et al 1996). Conflicting results, however, were observed between condom use among men with sexual partners and self-reported prevalence of STD. Despite low condom use among men, few men reported to have had STD. A plausible explanation of this finding may be that the level of STD prevalence is likely to be underestimated since many STDs cases are unrecognised and that many respondents may fail to report a recent STD infection because of social stigma. Providing men with information on the negative health consequences may encourage men to reported the infection. Though half of men who reported to have STD said they had suffered from gonorrhoea, it is important to interpret this cautiously. This is because a more than half of men who had STD did not attend the official health care service where accurate diagnosis could be made and men may not know what kind of STD they are suffering from. Hence, a better way of assessing actual self-reported STD might need collaboration with STD laboratory where reliable information can be obtained.

As reported elsewhere (Dallabetta, et al 1996, Davdson, et al 1994), our result shows that only few men who had suffered STD reported to have been treated in a hospital. A possible explanation to our findings is that the stigma associated with STD and STD clinics, poor quality of government health care services and costs of the services may be the main obstacles for men not to attend STD health care services in Ngara. Studies have found that men are often reluctant to seek help about sex related problems, they often leave sexual health problems until they are suffering from discomfort or pain (Davdson, et al 1994). Few men attend STD clinics for regular check ups, even where these facilities exist (Davdson, et al 1994). The implication of men not seeking health care services in the official health sector is that an individual delay in getting treatment, men may fail to take complete course of antibiotics and this will lead to more spread of the infection and further complications before treatment. In addition, the STD may not be cured. There is a

need, therefore, to understand how men perceive STD at their local environment and efforts to be made to increase their health seeking behaviour.

Few men informed their sexual partners of their STD infection and only one man was treated together with his sexual partner. A number of studies (Green, 1997, Davidson et al 1994, Dallabetta, et al 1996) have demonstrated similar findings. Men may not inform their STD infection status and may not be treated with their sexual partners because of fidelity and trust in them. This implies that denying a female partner treatment for STD, the disease is contained to the couple, resulting into more serious health complications to both partners. Encouraging men with STD to refer their sexual partners for treatment is important because women are more likely to be asymptomatic and suffer serious social and health consequences of STD (Green, 1997).

However, partner referral or notification for STD treatment has not always resulted in the intended outcome. Male partners may be unwilling to answer questions about their sexual partners and they may not know their names or addresses. Sometimes a demand for partner notification can prevent people from seeking sexual health care. People may stay away from a clinic that requires patients to give the names and address of their sexual partners or bring them along. For example in Uganda, people go to traditional healers "needle men" for injection rather than to clinics that demand the names of sexual partners (Lande, 1993). In view of poor health seeking behaviour among men with STD, poor reporting of the disease to their sexual partners and low condom use, a comprehensive approach is imperative for controlling of spread of STD.

Conclusion

A low self-reported STD prevalence and incorrect beliefs about condoms seems to be associated with low condom use. Further studies to elucidate STD prevalence and determinants of condom use, and norms for male sexual behaviours are needed.

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Table I: Self-reported number of sexual partners and condom use at the last sexual intercourse among men in Ngara, Tanzania.

Number of sexual partners (Within 12 months prior to the study)	Condom use in last sexual intercourse		
	Yes	No	
Regular			
1	2 (28%)	7 (78%)	P<0.001
≥2	6 (35%)	11 (65%)	
Casual/Irregular			
1	1 (25%)	3 (75%)	P<0.001
≥2	3 (43%)	4 (57%)	

NB: Those who had more than one casual partner were more likely to use condom in their last intercourse.

Table II Relationship between marital status and having sexual partners among men in Ngara Tanzania.

Sexual partners (Within 12 months prior to the survey)		Marital status		
		Single	Married	
Regular	Yes	17 (65%)	9 (35%)	P<0.001
	No	31 (13%)	217 (87%)	
Casual/Irregular	Yes	7 (64%)	4 (36%)	P <0.001
	No	41 (15%)	223 (85%)	

Unmarried men had more regular and irregular partners twelve months before the study.

Table III: Number of men reporting to have regular partners by background characteristics in Ngara, Tanzania (N= 275).

Background	Sexual partner		
	Yes	No	
Tribe			
Hangaza	18 (9%)	156 (91%)	<i>P</i> <0.001
Shubi	4 (4%)	84 (96%)	
Haya	4 (50%)	4 (50%)	
Age group			
15-24	13 (21%)	49 (79%)	<i>P</i> = 0.020
25-34	5 (5%)	99 (95%)	
35-44	6 (11%)	54 (89%)	
45-59	2 (6%)	29 (94%)	
Education			
No education	2 (10%)	18 (90%)	<i>P</i> =0.15
Primary education*	18 (8%)	200 (92%)	
≥Secondary education	6 (17%)	30 (81%)	
Marital status			
Single**	17 (35%)	31 (65%)	<i>P</i> < 0.001
married	9 (4%)	217 (96%)	
Job			
Peasant***	11(6%)	165 (94%)	<i>P</i> < 0.001
Employment	9 (14%)	65 (86%)	
Businessmen	6 (25%)	18 (75%)	
Alcohol			
Yes	17 (8%)	192 (92%)	<i>P</i> < 0.001
No	9 (14%)	56 (84%)	
Religions			
Other Christians	0 -	25 (100%)	<i>P</i> = 0.34
Catholic	12 (8%)	134 (92%)	
Protestant	8 (16%)	42 (84%)	
Islam	2 (18%)	11 (82%)	
Anglican	4 (10%)	38 (90%)	
Number of wives****			
1	9 (5%)	190 (95%)	<i>P</i> <0.001
≥2	0 -	27 (100%)	
Age at first intercourse			
<20	18 (22%)	63 (78%)	<i>P</i> <0.001
>20	8 (4%)	185 (96%)	

*Include incomplete primary and adult education, **Include widows and divorced.

Include students, *Unmarried men excluded.

Male involvement in family planning, Ngara district- Tanzania.

Ndenzako Fabian¹ Sundby Johanne².

The urge to involve men in family planning has become increasingly important for various reasons. The increasing growing of HIV/AIDS pandemic requires men to use condoms for STD prevention. More over, it has been shown that men are more interested in reproductive health information than has generally been assumed, and their support affects positively both the adaptation and correct use of female contraceptive methods. Involving men has shown to be cost-effective, and men are decision-makers in most societies in developing countries including issues of reproduction. Millions of unwanted pregnancies and their consequences could be avoided if men were involved in family planning

A high fertility rate (6.7), a high population growth rate (3.6%), and absence of male studies in Ngara district were compelling reasons to undertake the study of male involvement in family planning.

Objectives:

The objectives of the study were to assess the different types and magnitude of contraceptive use among men and explore the level of knowledge on contraceptive methods and their availability. Others were to assess the reasons for using/not using contraceptive method(s) and assess prevalence and knowledge on STD among men in a rural Tanzanian area.

Methodology:

The study design was a cross section, involving men living in the district of Ngara. After ethical clearance, a representative sample of 275 men was randomly selected from 18 villages out of a total of 72. All men aged 15-59 years who had given verbal consent were included. Men that had no sexual experience, men that did not give their consent to participate and men that were mentally ill, were excluded. A male research assistant was recruited and data were collected using structured questionnaires. In addition, five focus group discussions were conducted. Prior to the interviews, the men were visited at their homes, in order to seeking their consent, fix an appointment and agree on a place for the interview. The interviews were carried out at the village's office, where privacy was optimal.

Every day after data collection, the completed questionnaires were checked to see whether they had been filled in correctly and in order to correct errors once found. Responses were coded and then entered into a computer using Statistical Package for Social Science (SPSS) 9.0. In addition to statistical analysis, comments from the focus group discussion were included to support our findings.

Findings

The majority of men were in the age group between 25 and 34 years; (38%); and the mean age of the respondents were 33 years. Almost three-quarter of the population had completed 7 years primary education, (70.2%), and (12.4%) had secondary education. 96% of all the men had heard of condoms, followed by periodic abstinence 70%, withdrawal (51%). A small proportion had heard of vasectomy (47.6%). Although condom was the most known male method, in focus group discussions revealed that few men knew how to use it. 70% of the men have seen a condom, but a majority has seen it in their packets. Others reported that they could not use it with their wives. 78.5% of men knew at least one place where condom could be obtained, hospital and family planning clinics being the most popular places.

Male contraceptive prevalence was found to be 18.2%, slightly lower than the national male contraception prevalence of 22%. Periodic abstinence was the most used method (9.5%) followed by condom (7.3%) and withdrawal (1.5%). No body had undergone vasectomy.

25% of non-users reported that the main reason they did not use a contraceptive method was that they wanting more children. Other reasons included poor knowledge about male methods (16.4%); difficulties in using methods (8.4%), poor availability (5%), and that the wife was in menopause (3.6%) and 18% had no reason of not doing so.

92% of the men have heard of sexually transmitted diseases. 73% of them knew that a condom could prevent STD transmission. However, when asked if a condom could prevent HIV transmission, only 45% of men were sure that it could do so. 41% of men said, they could be infected with HIV if they use condom, while 14% said they did not know whether they could be infected or not if they use a condom. Almost a quarter of all men (22.2%) did not know how many times a condom may be used for sexual intercourse, while some few men said it can be used more than once. 5.2% had suffered STD within a year before the interview, few of them were treated in hospitals and less than a percent had informed their sexual partners of the infection.

DISCUSSION:

Our study demonstrated that educated men use contraceptives. They may understand and support contraception better and change negative attitude attached to contraception as it has been shown in other studies (Kak P et al, 1993, Roudi, F. et al, 1996).

Men's knowledge and contraceptive use:

The male contraception prevalence was found to be slightly lower than the national contraception prevalence. Absence of male focused family planning programs in the district may explain the difference. Periodic abstinence was used by half of contraceptive users. Considering the low efficacy of periodic abstinence in pregnancy prevention (25 pregnancies/100 women/year), men's poor knowledge about woman's fertile period where

a man has to abstain from sexual intercourse, fertility may continue to be high despite the use of the method. Some men think, mistakenly, that pregnancy can not occur if their partner is virgin or that a woman is most fertile during menstruation (Gorgen, et al, 1998). Stigmatisation and incorrect beliefs has been found to be associated with vasectomy (Oni, et al 1991, Ezeh, et al, 1995, Midzo, et al 1998). Absence of vasectomy in most family planning programmes renders it to less popular among men and it is associated with myths. If it were available and promoted, it might have been popular and used by men (William, 1996, Khalifa, et al 1982, Muhondwa, et al 1997, Santow, 1996).

Male contraceptive prevalence (18.2%) was higher than the recorded use of female methods in this district (8%). Married men have been found to be reporting higher levels of contraception use than married women. The largest discrepancy was found in two DHS in Kenya, where the gap between male and female responses was over 20 percent points in each survey. In Ghana there was a 14 percent point difference and in Tanzania the difference was 6%. Researchers have not found any obvious reason for the difference in reporting methods between men and women (Ezeh, et al 1996). However over reporting may be a good indicator that men approve contraception and that men may over report use of condom in extramarital relations.

Among non-contraceptive users, wanting more children was the most frequent reason given. Husbands whose wives were not using contraception also had the perception that their wives wanted more children. Husbands' desire for more children and their perception of their wives desire to have more children both play important role in deciding to use family planning. This could be one of the reasons why the contraception prevalence is low. Desiring another child is a meaningful predictor of future childbearing and this in one way can explain why fertility has remain high in most places in Africa including Tanzania (Ezeh, et al, 1995, Roudi et al 1998).

Men's knowledge on STD's:

A high number of men reported that they thought they could be infected with HIV if they use condom (41%) and 14% did not know whether they could be infected or not. Some of the incorrect beliefs and negative attitude attached to condoms were that "were implanted with micro organisms", and that they "have micro pores which allow transmission of these organisms". This may explain why condoms are not favoured. The poor knowledge found on condom use, e.g. that men did not know how many times a condom can be used, show that knowledge is still low and this may lead to increased prevalence of sexually transmitted diseases, especially HIV. Such findings, incorrect beliefs about condom and poor availability may explain the low condom use as contraceptive method and for prevention sexually transmitted diseases (Drennan, 1998, Rwabukwali et al, 1994).

Less than fifty percent who reported to have suffered STD reported to have been treated in a hospital. The others had been self-treated. It has been found that most people with a STD seek help from traditional healers, pharmacists, friends and other informal sources before consulting health care. This has the following disadvantages: the STD is not cured, individual delay in getting treatment, people may fail to take complete course of

antibiotics and more spread of the infection before treatment. Due to poor quality and stigma association with STD clinics, some patients seek treatment from private practitioners who charge 4-10 times the cost in public clinics (Dallabetta et al 1996).

Very few of those who had STDs informed their partners about the disease. Because of concerns about fidelity and trust, many people who are infected with STD find it difficult to tell their sexual partners. For women, it may even more difficult since they are subjected to violence, separation or social ostracism if they disclose their STD infection to their partners (Dallabetta et al 1996). Encouraging men with STDs to refer their sexual partners for treatment is important because women are more likely to be asymptomatic and to congetal infection in future pregnancies (Green 1997)

CONCLUSION:

- **Although it was difficult to find men for both the interview and the focus group discussion, men are indeed interested in family planning and should be included in family planning programs**
- **High fertility, poor knowledge, misinformation and low availability of male methods are consistence with low male contraception use.**
- **Low knowledge, misinformation and myth about condom use for HIV prevention; may cause increased prevalence of HIV in district where left unchecked. This needs information, education and communication approach (IEC).**

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Difficulties in collecting data from men in surveys: Field experience from Ngara-Tanzania.

Ndenzako Fabian 1, Sundby Johanne 2.

For many years, men have been excluded in many demographic and health surveys and only used to provide household information like names, age and permission to interview women. Conclusions and recommendations on attitude and fertility regarding have instead been made based on women responses. However, in societies where males control many aspects of social life, including family matters, their influence on fertility regulation become an essential factor to be included in fertility related research. (Turgay, U, 1988).

The main objectives of the study was to find out to which extent male are involved in family planning. Data were collected using structured questionnaires and focus group discussions. In this sub-study, we introduce and discuss some problems encountered when attempting to interview men on issues of family planning.

Field organisation.

Pre-testing of tools was done in three villages, where 50 men were selected. Each head of selected village was given an introductory letter from the District Executive Director (DED), who is a chief district administrator. In addition, we (the researcher and an assistant) paid personal visits to each village prior to interview in order to find men, obtain consent and fixing appointments.

Some difficulties experienced.

1. Men do not like to provide written consent:

Obtaining men's written consent in the pre testing was difficult and unacceptable to men despite the fact that they had received prior information about our visit. Even though men were repeatedly assured confidentiality and that their names were not required, this was not enough to provide written consent, due to fearing of legal implications. However, they were ready to give verbal consent and participate, which was then adopted throughout the study.

2. Men are difficult to get at their homes:

In the first village to be visited during pre testing, only six men-- out of twenty to be interviewed-- were found. The interviews took place in privacy just beside their houses without their wives or children hearing our conversations. However peeping of children/wife in a majority of households to see what we were doing or sometimes visitor's appearance was common. This disrupted the interviews and concentration of both the interviewer and interviewee. Some men thought we were police security officers who were carrying out interrogations. Some men were not found, and their wives reported that they did not know where their husbands were. When we met some of them

along the road or at a village bar they said that, they had forgotten our appointment. Preparing a private place for interview and completing the interview took thirty to forty minutes on average. This was, because as we were visitors, a man had to find a chair. Those who had no chairs or a bench; they felt they had to borrow one. Repeated requests that we did not need a chair or a bench made them feel shame because visitors had to sit on the grass.

3. To interview men consumes both time and materials and men change their mind regularly:

It took almost five days to complete the interviews in the first village. In the second village, only 14 men were required and verbally gave their consent. After two days, ten of the 14 were found. Further enquiry revealed that, the remaining four had changed their minds and they did not like to tell us anything. Since privacy and consent were the most important thing to secure for interviews, we had to find a better way of getting men without affecting our results and spending too much time. It took three to five days from the first visit to the village to until completion of interviews with 14-20 men. In third village, we changed the venue for our interviews. After finding the men and getting consents, we requested them to come to the village office where interviews could be conducted in an official kind of environment.

4. Men are inquisitive, which takes time during an interview.

In most village offices, one or two private rooms were available where men could be interviewed one after another. A request was made for those who had already been interviewed not to mix with those who had not. Where there were no rooms, a private place beside the office was found and interview could continue in privacy. This was found to be convenient and led to fewer interruptions during the interviews and was therefore adopted throughout the study. Because of the privacy, some interviewee started asking a lot of questions about some issues we raised during interviews. Answering and completing individual interview took long-time than expected, and this created a queue of interviewees who had arrived at the agreed time. We had to provide men different reporting times to the village's office for interviews, which solved the problem.

5. Men's interview refusal.

While a majority of men agreed to be interviewed, others did not provide consent. Almost a quarter of those who verbally consented refused interviews later in different ways. Some demanded money, others demanded to buy them local brews and some said they had emergencies on day of interviews. One man in mid of interview said, " You know my throat is too dry to continue talking, voice is not coming properly, I need something to smoothen it " Meaning that, he wanted me to buy him local brews to drink in order to continue responding. All these men were let to go if they wished and arrangement were made to find other men in the same village if the required number was not met.

6. Men face difficulties responding to questions about sex:

Reporting their last sexual intercourse was the most difficult issue among the interviewed men. Some men requested me to skip last sexual intercourse-question and continue with other questions, saying that it was embarrassing to answer. Assuring them that sex is something normal in marriage and nothing to worry about, a majority could recall and count day back to give an exact date. A few older men (50 - 59) refused to be interviewed because the interviewers were too young to ask such private questions, believing that we were like their sons and asking sexual related questions was misbehaving. However, many men of their age co-operated nicely.

7. It is difficult to get men for focus group discussions:

The most difficult exercise was to bring men together for focus group discussion, despite that I had a very experienced assistant in this field. Together with heads of villages we had to pursue men repeatedly to join the discussion which was an exercise done before the discussion. Head teachers of primary schools in the selected villages provided classrooms for the discussion. Those who agreed to take part unfortunately did not turn up in time, only two out of 10 or 12 men who agreed a day before could come. The rest were late and some did not come. With difficulties five to eight men were found in each discussion. The trend was the same in almost each village.

8. Men are suspicious of taping focus group discussions:

Men in almost all groups opposed tape recording of the focus group discussions, even after reassurances and explanations about the purpose of doing so. Hence writing was the main method used to note down discussion results. However those who agreed to be involved in discussion, were very active in giving their views and asking a lot of questions pertaining to the subject and even questions out of the specific topic, but within reproductive area.

Conclusion:

- Interviewing men needs patience, appears strange among villagers and is resource consuming in terms of time and materials.
- Although men are difficult to catch, they are interested in family planning.
- More researches should be carried in order to find better ways of reaching men with questions about family planning especially in rural areas.

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ANNEX I

Efficacy rates of different contraceptive methods.

Modern contraceptives

	Contraceptive method	Efficacy in preventing pregnancy.
1	Vasectomy.	1 Pregnancy per 1000 women in the first year of use.
2	POP(Progestin only oral pills)	1 pregnancy in 1000 women in first year of use.
3	Norplant	1 Pregnancy in 1000 women in first year in women weighing less than 70 kg. If used by women with more than 70kg, efficacy is reduced to 1 pregnancy in every 48 women in the first year.
4	Depoprovella (Injectable).	1 Pregnancy in 333 women in first year of use i.e. 0.3/100.
5	Female sterilisation	1 Pregnancy in 200 women in first year of use, and 1 pregnancy in 55 women within 5 years.
6	IUDs	1 Pregnancy in 125 women in the first year of use-Tcu 380A.
7	COC (Combined oral contraceptive).	1 Pregnancy per 100 women in the first year of use.
8	Condom	3 pregnancies per 100 women i.e. 1:33 in the first year of use.

Male Traditional methods

1.	Coitus Inruptus (Withdrawal)	23 pregnancies per 100 women per year.
2.	Periodic abstinence.	25 pregnancies per 100 women per year.

NB: Some methods are highly effective than others, however they may not be frequently used or recommended because of side effects, difficult to use in practice or they may be expensive. (The essentials of Contraceptive Technology, Johns Hopkins Population Information Program, July, 97, Gallen et al 1986).

ANNEX II

Different experimental male contraceptives.

Contraceptive prototypes for men use one of two mechanisms of action: some suppress sperm production, either through hormonal or non-hormonal means; others inhibit the ability of sperm to fertilise the ovum, usually by disrupting a key step necessary for conception.

A. HORMONAL SUPPRESSION OF SPERM PRODUCTION.

<i>AGENT</i>	<i>HOW IT WORKS</i>	<i>RESEARCH STATUS.</i>
Gonadotropin hormone-releasing hormone (GnRH) coupled with protein.	-Stimulates immune system to inactivate the body's natural GnRH, suppressing sperm production -Annual injection.	Two-year safety trial of gonadotropin hormone-releasing hormone (GnRH) combined with tetanus toxoid protein recently begun in 20 men.
7-alpha-methyl-19 nortestosterone(MENT)	-Suppresses sperm production -Annual implant.	Efficacy trials of MENT implant under way; long term toxicology testing not yet conducted.
Testosterone buciclate (TB).	-Suppress GnRH secretion and thus sperm production. -Three-month injection.	TB injectable tested in a WHO-supported study indicated stronger dosage necessary for reliable contraception. Trials of TB injectable and progestogen is under way.
Testosterone undecanoate (TU).	-Suppresses GnRH secretion and thus sperm production. -One or two month injection.	Studies among men under way in China of TU injectable; studies of two month TU injection with a progestogen planned.
Testosterone enanthate (TE).	-Suppresses GnRH secretion and thus sperm production. -Weekly injection.	Provided effective contraception in 98% of 399 men in a two year WHO trial, but not considered desirable for general use because weekly injections are required.
TE/Progestogen combination	-Suppress GnRH secretion and thus sperm production -Weekly injection of TE, daily progestogen pills.	Combination of TE and progestogen achieved initial contraception sooner than TE alone, but not considered desirable for general use because weekly injections are required.

B. NON HORMONAL SUPPRESSION OF SPERM PRODUCTION.

Gossypol	-Suppresses sperm production -Daily pill -Irreversible in some men	Recent pilot study of low dose gossypol pill indicates effective contraception without dangerous potassium depletion, larger study planned.
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C. INHIBITION OF FERTILISATION ABILITY OF SPERM

Nifedipine.	-May prevent sperm enzyme action needed for fertilisation	Research planned to find variation of this drug that specifically targets
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	-Daily pill.	sperm without producing systemic side effects.
Mifepristone (RU 486).	-Makes sperm temporarily immotile -Daily pill	Research is seeking chemically similar compounds that may target sperm without mifepristone's undesirable side effects.
Sperm surface protein	-Antibodies attached to sperm block fertilisation. -Vaccine.	Immunisation of male guinea pigs with sperm surface protein has demonstrated reversible contraception. Other animal studies planned.

(Best, 1998, Ringheim et al 1995, Gallen, 1986).

ANNEX III. OVERVIEW -TANZANIA

History.

Shortly after independence of British colonial rule in 1961, Tanganyika and Zanzibar merged to form the nation of Tanzania in 1964. Zanzibar became independent on January 12, 1964, after the overthrow of the rule of Sultanate.

Geography.

The united republic of Tanzania is the largest country in East Africa, covering 945,000 square kilometres, 60,000 of which is inland water. It lies south of equator and borders eight countries: Kenya and Uganda to the north; Rwanda, Burundi, Zaire, and Zambia to the west; and Malawi and Mozambique to the south.

One of the Tanzania's most distinctive geographical features is the Great Rift Valley faulting throughout eastern Africa and is associated with volcanic in north-eastern regions of the country. In the north, Mount Kilimanjaro rises to more than 5,000 metres with the highest peak, Kibo, reaching 5,895 metres above sea level. This is the highest point in Africa.

The main climatic feature for most of the country is the long spell from May to October, followed by a period of rainfall from November to April. The main rainy season along the coast and the areas around Mount Kilimanjaro is from March to May, with short rains between October and December.

Population distribution in Tanzania is extremely uneven. Density varies from 1 person per Square kilometre in arid regions to 51 per square kilometres (133/sq. mi.) in the Mainland's well-watered highlands and 134 per square kilometres in Zanzibar and more than 80% of the population is rural areas.

Demographic characteristics and Health indicators

The population of Tanzania has trebled from 7.7 million in 1948 to 23.1 in 1988 and around 32 million in 1998. The population growth rate is one of the highest in Africa of 2.8 fertility rate of 6 children per woman per year in her reproductive age.

The life expectancy is 52 years for total population, 51 years for male and 53 years for female. The infant mortality and maternal mortality rates has remain high to 95 and 770 per 100,000 live births respectively (WHO, 1998). Overall, 43 per cent of Tanzanian children are classified as stunted (low height-for-age) and 18 per cent are severely stunted. Seven per cent of children underfives are wasted (low weight-for-height) and 1 per cent are severely wasted (TDHS, 1996).

Administration

Tanzania is divided into 20 regions and Zanzibar into 5 regions and each region is divided into districts. The capital city is Dar Es Salaam, but some government offices have been transferred to Dodoma, which is planned as the new national capital and the National Assembly now meets there at regular basis. Since independence, Tanzania was under one party rule, which came to an end in 1995 with the first democratic election.

Economy

Tanzania is one of the poorest countries in the world with per capita income of 580\$ (World Bank, 1999). The economy is heavily dependent on agriculture, which accounts for half of the GDP, provides 85% of exports, and employs 90% of the work force. Industry is mainly limited to processing agricultural products and light consumer goods. More than half of the population (51%) lives below the poverty line and a majority of them are in rural areas (World Bank, 1999).

Education

The literacy rate in Tanzania is 68% and according to the UNESCO, 1995 estimates, 79% and 57% of male and female respectively, can read and write Swahili, English or Arabic. There is difference in education attained between sexes, male being more at all levels of education

Annex IV.
Ethical clearance from Tanzania Ministry of Health.

UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH

Telegrams: AAFYA#, DAR ES SALAAM
Telephone: 120361
(All letters should be addressed to
the Principal Secretary)
In reply please quote:



P.O. Box 9083,
DAR ES SALAAM.

Ref. No.: HED/51/80/109.

22 August, 2000

The Regional Medical Officer
KAGERA REGION
P.O. Box

The District Medical Officer
P.O. Box 30 NGARA
KAGERA REGION

**RE: RESEARCH ON MALE CONTRACEPTIVE PREVALENCE AND FACTORS
ASSOCIATED WITH CONTRACEPTIVE USE AMONG MEN:**

Dr Fabian Ndenzako is pursuing a Mphil course in International Community Health at the University of Oslo, Norway and he has developed a research protocol on the above captioned topic. He is in Tanzania on fieldwork, which is expected to start any time this month through December in Ngara district.

The Ministry of Health has no objection to his study, which is in partial fulfillment of his Mphil course. I am therefore requesting you to give him full support and assist him where he may require/need such assistance.

Yours Sincerely,


E.W.M. Manumbu

for PERMANENT SECRETARY

c.c. Dr Fabian Ndenzako – You will be required to submit a copy of your final findings of the study to the Research Unit of the Ministry of health

ANNEX V.

QUESTIONNAIRE

Part 1.	Identification number.	-----
1	Ward	-----
2	Name of village	-----
3	Tribe of interviewee	-----
4	Date	-----
Part 2.	Demographic and socio-economic characteristics	
2.1	How old are you-----years <i>UNY Mia mingapi?</i>	-----
2.2	What is the highest level of school you have attended? <i>Una kiwango gani cha elimu?</i>	1.No education----- 2.Primary education/complete/incomplete 3.Secondary education 4.Post secondary education--- 5.Adult education----- 6.Others-----
2.3.	What is your occupation? <i>Unafanya kazi gani?</i>	1.Peasant----- 2.Employed----- 3.Self employed----- 4.Businessman----- 5.Student----- 6.Others-----
2.4	Marital status (If not married go to question 2.9) <i>Hali ya ndoa</i>	1. Single----- 2. Cohabiting----- 3. Married----- 4. Divorced----- 5. Widower-----
	For married, divorced or widowers	
2.5	Is/ was this your first marriage <i>Hii ni mara ya kwanza kuo?</i>	Yes-----No-----
2.6	At what age did you get marriage at first time? <i>Ulio a ukiwa na miaka mingapi kwa mara ya kwanza?</i>	-----Years
2.7	How many wives have you ever had? <i>Ulishakuwa na wanawake wangapi?</i>	-----
2.8	How many wives do you have now? (Only for married) <i>Kwa sasa una wanawake wangapi? (Kwa walioa tu)</i>	
2.9	Which religion do you belong to? <i>Wewe ni dini/ thehebu gani?</i>	1. Protestant----- 2. Catholic----- 3. Islam----- 4. SDA----- 5. None----- 6. Others-----Mention.
2.10	Do you ever drink? <i>Unakunywa/ uliishawahi kunywa pombe?</i>	Yes-----No-----
2.11	If yes, what kind of alcohol do you drink? <i>Kama ndio, ni aina gani ya pombe unakunywa?</i>	1.Gwagwa----- 2.Gongo----- 3.Migorigori-- 4.Beer-----

		5.Wine----- 6.Others-----7.All typed-----7.1 and 2 only-
2.12	If yes, how often do you drink? <i>Kama ndio, ni mara ngapi unakunywa?</i>	1.Every day----- 2.One to three times per week-- 3.Once per month----- 4.Occasionaly/less often-----
2.13.	Do you smoke tobacco? <i>Unavuta tumbaku?</i>	Yes-----No-----
2.14.	Do you smoke marijuana? <i>Unavuta bangi?</i>	Yes-----No-----
Part 3	Sexual experience, contraception knowledge, use and reproductive preferences.	
3.1	Have you ever had sexual intercourse? <i>Umeishawahi kufanya tendo la ndoa?</i> <i>(Kukutana kimwili na mwanamke)</i>	Yes-----No-----
3.2.	At what age did you have you first sexual intercourse? <i>Ulikuwa na umri gani ulipofanya tendo la ndoa kwa mara ya kwanza?</i>	-----Years
3.3	When was your last time to have sexual intercourse with your wife (For married). <i>Ni lini mara ya mwisho kufanya tendo la ndoa na mkeo ?(Kwa walioa)</i>	1.Last night----- 2.A few days a go----- 3.A week a go----- 4.A month a go----- 5.A year a go----- 6.Others-----
3.4.	Did you use any contraception at that sexual intercourse? <i>Ulitumia njia yoyote ya kuzuia mimba wakati huo wa tendo la ndoa?</i>	Yes-----No-----
3.5	If yes, why? <i>Kama ndio, kwa nini ulitumia?</i>	-----
3.6	If no, why? <i>Kama hujatumia kwa nini?</i>	-----
3.7.	Do you have a regular partner apart from your wife?(Somebody you have been having sex for a year or more) <i>Ukiacha mke wako, unarafiki/marafiki wa kike unaofanya nao tendo la ndoa kwa mwaka au zaidi?</i>	Yes-----No-----
3.8	If yes, how many such regular partners do you have? <i>Kama ndio, unamarafiki wangapi?</i>	-----
3.9	When was your last time to have sex with your regular partner? <i>Ni lini ilikuwa mara ya mwisho kufanya tendo la ndoa na huyo rafiki yako?</i>	1.Last night----- 2.Few days ago----- 3.A week a go----- 4.Month a go----- 5.Years a go----- 5.Others-----
3.10	Did you use a condom for that intercourse with your regular partner? <i>Ulitumia mpira wa baba (Condon) wakati wa tendo hilo la ndoa na huyo rafiki yako?</i>	Yes-----No-----
3.11	Do you have irregular partner(s) apart from your wife(s)/regular partner(s). <i>Ukiacha mkeo, rafiki yako wa kike wa siku zote, una rafiki mwingine ambaye unafanyanaye tendo la ndoa mara mojawoja?</i>	Yes-----No-----
3.12	If yes how many irregular partners do you have in the past one year? <i>Kama ndio, unao marafiki wangapi wa mara mojawoja katikamwaka uliopita?</i>	-----
3.13.	When was your last time to have sex with your irregular partner?	1.Last night-----

	<i>Ni lini mara ya mwisho kufanya tendo la ndoa na huyo rafiki yako wa mara moja moja?</i>	2.Few days a go---- 3. A week a go----- 4.A month ago----- 6. Year a go----- 7. 6. Others-----
3.14	Did you use a condom for that sexual intercourse? <i>Ulitumia mpira wa baba (condom) wakati wa tendo hilo la ndoa?</i>	Yes-----No-----
	Fertility preference, desired number of children & sex preference	
3.15	How many children are you anticipating to have? <i>Ungependa uwe na watoto wangapi?</i>	-----
3.16.	How many children do you have?(living) <i>Unawatoto wangapi waliohai?</i>	-----
3.17	What is the sex of your children? <i>Watoto wako ni wa jinsia gani?</i>	Males----Females----
3.18	How many of your children would you like to be boys and girls? <i>Ni watoto wangapi ungependa kuwa wa kiume na wakike?</i>	Males-----Female-----
3.19	Between boys and girls, which one would you like to have more than the other? <i>Kati ya wavulana na wasichana wapi unapenda uwenao wengi kuliko wengine?</i>	Boys---- Girls---- All-----
3.20	If you prefer boys, why? <i>Kama unapenda wavulana kwa nini?</i>	-----
3.21	If prefer girls, why? <i>Kama unapenda wasichana, kwa nini?</i>	-----
3.22	If you like all, why? <i>Kama unapenda jinsia zote kwa nini?</i>	-----
3.23	Did any of your children die? <i>Una mtoto yoyote kwa bahati mbaya alifariki?</i>	Yes-----No---
3.24.	If yes, how many? <i>Kama ndio, wangapi?</i>	-----
3.25	How many children do you have on each of your wife?(for polygamous only) <i>Unawatoto wangapi kwa kila mke wako?</i>	1 st wife----2 nd wife---- 3 rd wife----4 th wife---- 5 th wife----6 th wife----
	Contraception	
3.26	Have you ever heard any way(s) or method(s), which can be used by men to prevent a woman from becoming pregnant? <i>Unajua au umeishawahi kusikia njia ambayo wanaume wanaweza kutumia kuzuia, mwanamke asiwe mja mzito?</i>	Yes-----No-----
3.27	If yes where did you get the information about the contraception methods? <i>Kama ndio ulipata taarifa wapi kuhusu hizo njia za kuzua mimba?</i>	1.Radio----2.News paper---- 3.School---4.Friends----- 5.Hospitals/Clinics----- 6.TV-----7.Parents----8.Others-
3.28	Have you done any thing or tried in any way to delay or avoid pregnancy? <i>Umeishawahi kufanya chochote ili kuchelewesha au kuzuia usipate mtoto?</i>	Yes-----No-----
3.29.	If yes, what have you done or used? <i>Kama ndio, ulishafanya nini au ulitumia nini?</i>	-----
3.30.	Do you know any source of information about contraception that is focused on men only? <i>Unajua chanzo cha taarifa kuhusu njia za uzazi wa mpango ambazo zinalenga wanaume pekee yao?</i>	Yes-----No-----

3.31	Which media do you think is the best source of information for you about male contraception? <i>Ni chombo kipi cha habari ambacho unadhani kinakufaa kupata taarifa ya njia za kuzuia mimba ambazo zinatumiwa na wanaume?</i>	1 ST ----- 2 ND ----- 3 rd -----
3.32	Can you mention all family planning methods that you have ever heard <i>Taja njia zote za kuzuia mimba ambazo umeishawahi kusikia.</i>	1. Condom---2. Injectionn(Depo)---- 3. Pills-----4. Diaphragm---- 5. Vasectomy---6. Foam----- 7. Jelly----- 8. IUD----- 9. Breast feeding--10. Norplant-- 11. Female sterilisation 12. Withdrawal---.13. Abstinence- 14. Calendar-----
3.33	Among those contraceptives above, which one have you/ your partner ever used? <i>Kati ya njia hizo za kuzui mimba ni ipi wewe/mwenzi wa kike ameishawahi kutumia?</i>	1. Condom---2. Injectionn(Depo)---- 3. Pills----- 4. Diaphragm---- 5. Vasectomy---6. Foam----- 7. Jelly----- 8. IUD----- 9. Breast feeding-10. Norplant-- 11. Female sterilisation 12. Withdrawal---.13. Abstinence- 14. Calendar-----Others---
3.34.	Are you/ your partner using any contraceptive now? <i>Kwa sasa wewe au mwenzi anatumia njia yoyote ya kuzuia mimba kwa sasa?</i>	Yes-----No-----
3.35.	If yes, which method are you using? <i>Kama ndio, ni njia ipi unatumia?</i>	-----
3.36	Why are you using contraceptives?(For users only) <i>Kwa nini unatumia njia za kuzuia mimba?</i>	Not to have more children---- To have few children----- To protect from HIV----- Others-----Mention
3.37	Why are you not using contraception?(For nonusers). <i>Kwa nini hutumii/hamtumii njia yoyote?</i>	Not married----- Wife is menopause----- I want more children----- I do not know them----- Not available----- I don't like----- Fear side effect----- They are expensive-- My religion does not allow--- Others-----Mention
3.38	Is your wife using contraception now? <i>Mke wako anatumia njia yoyote ya kuzuia mimba?</i>	Yes-----No-----
3.39	If yes, why? <i>Kama ndio, kwa nini?</i>	-----
3.40	If no, why? <i>Kama hapana, kwa nini?</i>	-----
3.41	Are you planning to let you wife use family planning in future?(Those whose wives are not using) <i>Una mpango wa kumruhusu mke wako kutumia njia za kupanga uzazi baadaye?(Kwa manaume ambao waume zao hawatumii)</i>	Yes-----No-----
3.42	Who decided for the contraceptive which your wife is using? <i>Nani aliamua kutumia njia ya mpango wa uzazi anayoitumia mkeo?</i>	Me and mywife----- Myself----- Friends----- Health workers----- Others-----
3.43	How do you feel when your wife is using contraceptives?	

	<i>Unajikiaje mke wako anapotumia njia za kupanga uzazi?</i>	-----
3.44	Do you discuss with your partner when and how to use contraception? <i>Unajadiliana na mwenzi, ni lini na wakati gani wa kutumia njia za kupanga uzazi?</i>	Yes-----No-----
3.45.	Whom do you believe is suppose to initiate contraception discusion in a family? <i>Wewe unaamini ni nani anatakiwa kuanzisha mjadala wa kutumia njia za mpango wa uzazi wa majira ndani ya familia?</i>	Husband----- Wife----- Wife and husnand----- Any of you----- Others-----Mention----
3.46	Would you like to use male contraceptives if you are given enough information?(Non users of male methods) <i>Ungependa kutumia njia za kupanga uzazi za kiume, kama ukipewa taarifa za kutosha?(Kwa wasiotumia njia za kiume).</i>	Yes-----No-----
3.47	If yes why? <i>Kama ndio, kwa nini?</i>	-----
3.48	If no, why? <i>Kama hapana, kwa nini?</i>	-----
Part 4	Availability	
4.1	Do you know a place where you can obtain modern male contraceptives methods? <i>Unajua sehemu ambapo unaweza kupata njia za kisasa za kiume za kuzuia mimba?</i>	Yes-----No-----
4.2	If yes, mention the places. <i>Kama ndio, taja sehemu hizo</i>	-----, -----, -----, -----.
Part 5	Knowledge and awareness on sexual transmitted diseases.	
5.1	Have you ever heard diseases that can be transmited through the sexual intercourse (if no, go to 5.5) <i>Uliishakusikia magonjwa ya zinaa?</i>	Yes-----No-----
5.2	Which diseases have you ever heard? <i>Ni magonjwa yapi ya zinaa ambayo umeishawahi kuyasikia? Taja</i>	Gonorrhoea----Syphilis----- HIV/AIDS----Gernital warts-- Chlamydia----Others, mention--
5.3	In the past 12 months, did you have any of these sexually transmitted diseases? <i>Katika mwaka mmoja uliopita, uliishawahi kuwa na ugonjwa wowote kati ya hayo?</i>	Yes-----No----- Don't know-----
5.4	If yes, which one? <i>Kama ndio, uliugua ugonjwa /magonjwa gani?</i>	Gonohrrea----Syphilis----- HIV/AIDS----Gernital warts-- Chlamydia----Others, mention
5.5	During the past 12 months, did you have any discharge from your penis? <i>Katika mwaka mmoja uliopita, uliishawahi kuwa na uchafu unatoka kwenye sehemu za siri?</i>	Yes-----No-----
5.6	During the last 12 months, did you have a sore or ulcer from your penis? <i>Katika mwaka mmoja uliopita uliishawahi kuwa na uvimbe au kidonda kwenye sehemu za siri?</i>	Yes-----No-----
5.7	If you had sexually transmited disease, did you seek advice or treatment?/treatment with your partner <i>Kama ulikuwa na ugonjwa wa zinaa, ulitafuta ushauri au matibabu? Na mwenzako?</i>	Self treatment---- Advice/Treatment----- Did nothing-----
5.8	Did you tell your wife/ Partner that you have sexually transmitted diseases? <i>Ulimwambia mke wako/ rafiki yako wa kike kuwa una ugonjwa wa zinaa?</i>	Yes-----No-----

5.9	When you had the sexually transmitted diseases, what did you do, not to transmit it to your wife/partner <i>Ulipokuwa na ugonjwa wa zinaa, ulifanya nini ili usimwambukize mkeo/mwenzako</i>	Abstinence----- Used condom----- Get teated all together--- Self treated----- Did nothing-----
5.10	Can a condom prevent you from getting sexually transmitted diseases if you use it? <i>Unadhani ukitumia condom inaweza kuzuia usipate magojwa ya zinaa</i>	Yes-----No-----
5.11	Have you ever seen a condom? <i>Uliishawahi kuona condom?</i>	Yes-----No-----
5.12	How many times can a condom be used? <i>Unadhani condom inaweza kutumika mara ngapi kwenye tendo la ndoa?</i>	Only once----- More than once----- Until it breaks----- I don't know-----
5.13	Do think that condom can transmit to you HIV/AIDS, if used during sexual intercourse? <i>Unadhani condom inaweza kukuambukiza ukimwi wakati wa tendo la ndoa?</i>	Yes-----No-----

ANNEX VI

Guideline questions for focus group discussions.

1. Can you mention male methods of contraception.
2. How many of you are using male methods of family planning?
3. What kind of male methods are you using? -----,-----,-----,-----,
4. Explain the actual time where a man has to abstain for sexual intercourse (for those using periodic abstinence).
5. Who can explain coitus intruptus?
6. How many have heard of vasectomy?
7. Who can explain how vasectomy works
8. How many of you would like to use vasectomy.
9. How many of you have used condoms?
10. How many of you have seen condoms, and where?