

**ADDIS ABABA UNIVERSITY**  
**FACULTY MEDICINE**  
**DEPARTMENT OF COMMUNITY HEALTH**

**MAGNITUDE AND DETERMINANTS OF UNMET NEED AND  
BARRIERS OF FAMILY PLANNING (AMONG WIVES, HUSBANDS  
AND COUPLES) IN ENDERTA DISTRICT, TIGRAY REGION  
ETHIOPIA**

**A THESIS SUBMITTED TO FACULTY OF MEDICINE  
ADDIS ABABA UNIVERSITY  
DEPARTMENT OF COMMUNITY HEALTH  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTERS OF PUBLIC HEALTH**

**JUNE 2006**

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**BY**

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**June 2006**

# DECLARATION

*I THE UNDERSIGNED, SENIOR MPH STUDENT DECLARE THAT THIS THESIS IS MY ORIGINAL WORK IN PARTIAL FULFILLMENT FOR THE REQUIREMENTS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH. ALL THE SOURCES OF THE MATERIALS USED FOR THIS THESIS AND ALL PEOPLE AND INSTITUTIONS WHO GAVE SUPPORT FOR THIS WORK ARE FULLY ACKNOWLEDGED.*

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THIS THESIS WORK HAS BEEN SUBMITTED FOR EXAMINATION WITH MY APPROVAL AS UNIVERSITY ADVISOR.

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**ADVISOR'S NAME**

## **DEDICATION**

*Dedicated to my husband Alemseged Nega for his love and patience.*

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Above all, I would like to give thanks and glory to my LORD JESUS CHRIST who gave me the courage to pursue my study and also who provide me every thing through my study.

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## ACRONYMS

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CPR	Contraceptive Prevalence Rate
CSA	Central Statistical Authority
DHS	Demographic and Health Survey
FP	Family Planning
OCs	Oral contraceptives
UN	United Nation
UNDP	United Nation Development Program
WHO	World Health Organization

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## **ABSTRACT**

**BACKGROUND** - Ethiopia is the third populous country in Africa with a population of 73 million in the mid 2005. The population is growing rapidly at the rate of 2.46 percent per year. At this rate of growth the country will reach 100million in the next 15 years.

Even if drastic measures slow the rate of growth, the population will continue to increase as the country's 47 million youths under the age of 24 raise their own families. /6/

**OBJECTIVE** - the study is designed to assess the magnitude and determinants of unmet need for family planning among couples, wives and husbands in Enderta district.

**METHODS** -Community based cross-sectional study data collection started on January 1 and finished on January 26. It was carried out among couples; 408 wives and 408 husbands. Simple random sampling technique was implemented (the villages had equal chance of selection) select 7Villages out of the71. Interview held only for the couples wives aged 15 to 49 and their husbands living in the study area and selected house hold. Informants were interviewed using structured and pre tested questionnaire. Data analyzed using EPI Info version 6 and SPSS11 statistical packages.

**FINDINGS** - When all couples were stratified according to the contraceptive need status, 48% of wives and 46.8% of husbands had unmet need. The maximum and minimum couple's unmet need was 57.6%and 18.6 respectively. Met need was 15%for wives and 21% for husbands. Contraceptive demands were 63.5 and 68%for wives and husbands respectively. Among the factors considered to be associated with unmet need only number of live children and discussion about contraception within these six months was found to be statistically significant. (Table 9, 11, 12).

Developing and implementing programs that encourage the involvement of men in family planning, improving family planning service for men, and making male contraceptive methods available and accessible at all level of health facility is recommended, and encouraging spousal communication and involving men in family planning decision making is important in bridging the gap between met and unmet need.

## 1 INTRODUCTION

Each year around 515000 women die from complication of pregnancy, childbirth or unsafe abortion. It is estimated that between 10 and 20 percent of these pregnancies were unwanted at the time of conception. Thus up to 100,000 maternal deaths could be avoided if women who want to space/limit births used effective contraception./1/ Contraception decreases the number of induced abortion. Globally, some 22%of pregnancies are aborted. By definition these pregnancies are unwanted. In addition unwanted pregnancies may involve increased risks for the woman or her unborn child simply because the woman or her family may be less likely to invest time and money in obtaining prenatal care and skilled help in childbirth for an unwanted child./1/

Every minute of every day, some where in the world a women dies as a result of complication arising during pregnancy and child birth and the majority of these deaths are avoidable. The death of women during pregnancy or child birth is not only a health problem but also matter of social justice.” WHO 1999/2 /

Maternal mortality rate is one of the most sensitive indices of human and social development depicting the widest gap in public health between developed and developing countries./2/According to the EDHS 2000 maternal mortality rate in Ethiopia is among the highest in sub-Saharan Africa which is 871/100000live births./3/ and according to Tigray 1993 EFY profile maternal mortality ratio in Tigray was 504-756/100,000 live births./4/

According to the base line survey 1998 of NCTPE in 60% of the marriage at national level, 79% in Tigray, take place below the legal age of marriage. This results in early pregnancy and childbirth and in birth-related complications such as fistula, loss of

education opportunities, poverty marital breakdowns etc. Tigray reportedly experienced obstetric fistula higher than any region in Ethiopia 1.6% of 634 mothers interviewed by DHS 2005. The national average is 1.0% of 9703 mothers./4/ A survey of unsafe abortion in health facilities in Ethiopia 2002 revealed that the leading four institutions that reported the highest number of abortion cases were Gonder ,Mekele, Gandhi Memorial, and Yekatit 12 Hospitals./5/

Ethiopia is the third populous country in Africa with a population of 73 million. The population is growing rapidly at the rate of 2.46 percent if this continuous, the population will reach 100 million in the next 15 years. Even if drastic measures slow the rate of growth, the population will continue to increase as the country's 47 million youths under the age of 24 raise their own families./6/

Although TFR has shown some decline recently from 7.7 children in 1990 to about 6 in 2000, it is still very high suggesting the need for aggressive action to be taken to increase contraceptive prevalence which is very low now. Today, very few women use contraception. According to the EDHS(2000), an estimated 5.4 million married women had unmet need for family planning service in 2000./2 /According to the EDHS (2005) contraceptive prevalence rate in Tigray is 16 percent. /7/

As population increase the carrying capacity of the earth will decrease in terms of food supply, provision of social services such as health education, housing, and employment. Most of the developing countries all over the world, including Ethiopia, are presently experiencing similar socioeconomic problems caused mainly due to their prevailing rapid population growth rates. The growing disparity between population growth and economic development calls for regulation of fertility. The persistence of high fertility in

developing countries is believed to be deep rooted in the structure of the society and its culture./8/

The percentage of household who suffer from food shortage in Tigray region were 32% in 2004. The prevalence of wasting among children is 12.8% in rural Tigray in 2004, which is worrying that stands as the worst in Ethiopia. It is 4% higher than the national average rural population./4/

The prevalence of underweight in rural Tigray is 42.5% in 2004. Tigray is second only to Amhara state and worse than the national average./4/.

Backward tradition, recurrent drought, overwhelming illiteracy, absence of transport facilities, absence of health center, absence of mixed contraceptive methods are some of the threats of the study area to use family planning service. The delivery services by skilled health personnel in this district were very minimal that is only 2%. /9, 11/

The standard formulation of unmet need include all fecund women who are living in marital or non marital union (and thus are presumed to be sexually active) ,who are not using any method of contraception and who either do not want to have any more children or want to postpone their next birth for at least two more years and also includes all currently pregnant or amenorrhea women who become pregnant because they are not practicing contraception and whose pregnancies was un wanted or mistimed. Traditional methods of contraceptive because of their limited efficacy are also considered to be contributing to the unmet need. /3/

The level of unmet need for family planning in Ethiopia is among the highest in sub Sahara Africa ;36 percent of currently married women have unmet need,22 percent for spacing and 14 percent for limiting . Unmet need is higher among rural than urban( 37

percent and 25 percent respectively). Overall, unmet need for family planning is the highest in Amahara region (41 %) and the lowest in the Afar region (12 %).The unmet need in Tigray region is 28%,( 18.8 % for spacing and 9.1 % for limiting)./3/.

A study conducted in four major region in 2004 revealed that total unmet need was higher in rural area (35.4) compared to urban (28%) .Unmet need for spacing was higher among younger women aged 15-24 years while unmet need for limiting was higher among older women./11/

Meeting unmet need means saving women lives by avoiding unwanted pregnancies and unsafe abortion./3/ Reducing total fertility from 7.7 children per women to 4 by the year 2015; increasing the prevalence of contraceptive use from 4 percent to 44 percent by the year 2015; reducing maternal, infant, child morbidity and mortality rates and improving the welfare of the people are among specific objective of the National population policy of Ethiopia./13/Measuring couples unmet need for FP will have the potential utility of reducing fertility because the vast majority of births in this region especially in rural occur within monogamous couples. As husbands are powerful and decision makers so involving them in family planning is likely to enhance fertility reduction. Meeting unmet need helps to reduce high rate of fertility, of reducing population growth and improve living standard and human welfare, reduce maternal, Infant, child mortality and morbidity and ensure the right of couples and individual to plan their families.

Under such circumstance it is high time to study couples unmet need in rural Tigray where a single research of similar nature is not available. The findings from the study will provide useful information about the magnitude and determinants of family planning and

the barriers of family planning and will help the relevant stakeholders in planning and implementing intervention activities.

## **2 LITERATURE REVIEW**

### **2.1 Background**

The first series of surveys to 'shed light' on the extent of unmet need in developing countries were knowledge, Attitude, and practice(KAP) surveys which were first undertaken in the 1960s. These were followed by the world fertility surveys, the Demographic and health surveys the contraceptive prevalence surveys and more recently the reproductive health surveys. /25/

Studies have been conducted to explore the magnitude of unmet need and then main factors, which have importance on unmet need. Brief reviews of some of the literature relevant to this study are presented in the following section.

From the dawn of the human race to the turn of the twentieth century the population of Ethiopia grew to a total of only 11.75 million people. In only 60 years, however, it increased by another 11.8 million and reached 23.6 million in 1960. It has grown even faster since then with greatest gain occurring in the 1980s and 1990s. The rate of growth of the population increased from about 2.3% in the 1960s to a peak of 3% in the late 1980s and early 1990s. Thus the population increases by more than two and half times its 1960s size reaching 65.6 million in 2000. At present, according to the UN medium variant projection. Ethiopia will have 83.5 million persons 2010 and 105 million 2020 (UN population Division). /2/

The population of Tigray grows by more than 110000 people every year. Population in the 1994 GC census was 3.16 million and growth rate is estimated at 2.8% per year .The

2005 projected population is estimated to be 4,215,944 of which 82.6% are rural and 51% of the totals are female./4/

The main feature of fertility in Ethiopia is that has been at a high level. It increased between the 1990s and early 1990s from about 5.2 children per woman in 1970 to 7.7 in 1984 and further to 7.7 children per woman in 1990. In 1994; however, it began to decline. This suggests that fertility has begun its down ward course. Nevertheless it still stands at a very high level. According to EDHS, in 2000, TFR was 5.9 children per woman./2/ According to the EDHS 2005 TFR for Ethiopia is 5.4 and for Tigray region it is 5.4, 2.4 for the urban and 6 for the rural./7/

## **2.2 Knowledge, Attitude And Practice**

**Knowledge** operationally defined as awareness for at least one method of contraception (mention at least the name of one modern contraception methods).

As EDHS 2000 revealed knowledge is slightly higher among currently married women and men (86 and 92% respectively) than among all women and men. In general however, Ethiopian men are more likely to have heard of a contraceptive method than women. Among currently married women and men, for instance men had higher level of knowledge for all the methods. The pill is the most widely known modern method; with 82% of currently married women and 85% currently married men have heard of it.

EDHS 2000 is done on both men and women and on married and unmarried in urban and rural area in all regions including Tigray but not on couples. The result of this study is compared with the findings of wives of the current study. /3/

The Pathfinder's (2004) survey revealed knowledge of family planning is high in the population( 86%), knowledge of long term and permanent method is very low, fewer than



one in three women mention knowledge of female sterilization and only one in five mentioned about male sterilization This study unlike the current study is done in both rural and urban in four regions including Tigray and is done only on reproductive age women not on men and not on couples. findings of women is compared with the current study findings of wives. /12/

Asefa Hailemariam, Welsh M and D Nichols in their study indicated that 78% women in rural areas knew at least one family planning method. Oral contraceptive and Injectables appear to be familiar to the most of the respondent, 76% reported Knowledge of OCs and 75% reported Knowledge of Injectables. Unlike the current study this study is done in rural and urban areas in two districts in Tigray; while the current study is only in rural areas. The findings of married women and men is compared with the findings of wives and husbands of the current study.

A study conducted in Awassa town (and peri - urban area in 2002 revealed that 98% of the urban and 95% of the peri urban study population had heard of contraception, and 95% in the urban area and 72% in peri urban knew at least one method of contraception. Un like the current study this study is done in urban and peri-urban areas in a reproductive age women. The findings of this study is compared with the findings of wives of the current study. /14/

According to Jelaludine and Genet's study knowledge of contraceptive method among Ethiopian women who have unmet need is limited one out of ten women with unmet need has never heard of family planning, and more than half of the women with unmet need do not know a source for any family planning method. /20/

## **Attitude**

The Ethiopian 2000 Demographic Health Survey 2000 revealed that among currently married women not using family planning 46% intend to use a method and those who had three or more children, highly educated women and urban women were more likely to be users of family planning , 67% of Ethiopian women with unmet need for family planning said they intend to use a method of contraception in the future./3/

The same study indicate two thirds of currently married women who knew of a contraceptives method didn't discuss family planning with their husbands in the 12-month prior to the interview. Nearly one in five women had discussed family planning once or twice, while 15% said they had talked more often. Majority of women (69%) approved of the use of family planning and 38% believed that their husbands approve it too. One third of women reported that they did not know about their husband's attitude and another 8% were unsure of their stand. Approval of family planning was higher among women living in Addis Ababa and Tigray region where more than 8 out of ten women approved of the use of family planning. According to this study two thirds of women with unmet need intended to use contraceptive sometime in the future and 31% of women reported that they do not intend to use any family planning method in the future./3/

The study conducted in Awassa in 2002 mentioned above revealed that 70% of women with unmet need had never used family planning method and 64% of women with unmet need for family planning had intention to use family planning in the near future./14/

A study to assess men's role in infertility regulation in Tigray indicated that Tigrian men in general wanted a greater number of children than their wives/partners. Men showed

greater family size preference (ideal family size) than their wives/partner.(4.9 children for men and 3.7 for women)./17/

A study conducted in Harar city in 2005 revealed that husbands want to have more children and sooner than wives and wives had more desire to limit and intend to use contraceptive than husbands. The same study indicates that 86% of all couples in the study had at least one living child and out of them 58% had at least two children; more than 78% of couples reported using a method in the past. More than 82% of couples approved contraceptive use and 60% discussed contraceptive issue in the last six months this study is done on couples or wives and husbands, and is done only in the city. Like the current study this study is done on couples and it defers from the current study that it is done in city. The findings of this study are compared with the findings of the current study. /18/

According to the findings of Stan Becker's study in Zambia 55% of wives who were not practicing contraception report intending to use contraceptive within 12 months compared with 36% of comparable husbands. In Bangladesh the corresponding figures are 46% for wives and 42% for husbands. In Dominican Republic, the proportions are 49% and 41% respectively. This study is done on couples or wives and husbands; But unlike the current study the definition of unmet need in this study includes only those intenders it excludes those non intenders of family planning. defers from the definition of EDHS 2000 and our study. /21/

## **Practice**

Despite the fact that male sterilization is much less complicated than tubal ligation for women, the overwhelming majority of sterilization is in women world wide. In, 1992, an

estimated 41.5 million couples were relying on vasectomy compared to nearly 140 million with female sterilization. An estimated 45 million couples world wide used condom, just under half of them in developing countries in 1990./15/

As study in Ethiopian 2000(Demographic Health Survey) revealed of currently married women, 14% have never heard family planning, while only 17% have ever used a method. 14% of currently married women age 15 – 49 reported ever using a modern contraceptive method. Current use of family planning is very low and stands 8% among the same group of women./3/

Study conducted in Awassa town and per urban area in 2002 revealed that the contraception prevalence in Awassa was 68% and in per urban area 48%. /14/

Study conducted in Harar city in 2005 revealed contraceptive prevalence is 69% for wives and 66% for husbands./18/

Study conducted in southern Tigray 2000 revealed ever use of family planning is 20% and current use is 13%. /7/Study conducted in Tigray region 2002 revealed 22% of males and 20.8% of females are currently using contraceptives./8/

Asefa Hailemariam, Welsh M and D Nichols in their study indicated that ever use is slightly higher among urban as compared to rural respondents 20.2% and 15.9% respectively. And urban women are slightly more likely to be contracepting than their rural counterparts: 16% versus 13%. /10/

Ethiopia knowledge Attitude and practice in family planning (2004) revealed more than 30% of women in Tigray reported having ever used contraception. Current users was 20 percent./12/

Ethiopian 2005 (Demographic Health Survey) revealed 14% of married women in Ethiopia are using some method of modern contraception and 16% in Tigray. /7/

### **2.3 Unmet Need for family planning**

Ethiopia knowledge Attitude and practice in family planning (2004) revealed total unmet need was higher in rural area (35.4) compared to urban (28%).Unmet need for spacing was higher among younger women aged 15-24 years while unmet need for limiting was higher among older women /12/

Ethiopian DHS 2000 survey indicates that among currently married women unmet need for spacing is 22% while unmet need for limiting is 14%, the total unmet need 36%. Total unmet need is higher in rural areas than urban areas which is 37% and 25% respectively./3/

Study conducted in Awassa town and peri urban area in 2002 revealed unmet need for family planning in Awassa town was 23.6% of which 13% for spacing and 10.5% for limiting of child birth and unmet need in per urban was 40% of which 32.7% for spacing and 7.4% for limiting birth. /14/

Study conducted in Harar city in 2005 revealed unmet estimate level for wives husbands and couples' (minimum) were found to be 15.3%,16.5%,and 4.7% respectively, which are very low compared to other studies results./18/

According to Asefa Hailemariam, Welsh M and D Nichols study 55.7% of women in rural areas defined as having unmet need. Most of these are seen to wish space future pregnancies 44.8% ; a minority seek to limit childbearing (10.9%)./10/

According to data generated from 27 DHS surveys between 1990 and 1994, unmet need for family planning range from 11% in Turkey to 37% in Rwanda./15/

Studies done in 1996 and 1997, three DHS on measuring unmet need, wives husbands or couples revealed that unmet need among married women is 15.8% in Bangladesh, 12.4% in Dominican Republic and 18.3% in Zambia./21/

Studies done in 18 developing countries revealed unmet need for these 18 countries, ranging from 58% in Peru to 24% in Kenya./25/

## **2.4 Factors Affecting Contraception and unmet Need Family Planning**

A study by Westoff and Bankole (1995) using DHS-11 data indicate that lack of information about family, opposition to family planning, and ambivalence about future child bearing were the principal factors responsible for unmet need for family planning./25/

As studies Attitude to ward family planning and reason for nonuse among women with unmet need for family planning in Ethiopia from DHS 2000 indicate there is marked decline in unmet need for spacing with age falling from 81 percent among the youngest group women to 25 percent among women age 35 and over. At the same time the unmet need for limiting increase with age from 10 percent among women age 15-19 to 55 percent among women age 35 and over. Unmet need for spacing decrease with the number of living children while unmet need for limiting increase as the number of living children increase. /16/

This study also indicated unmet that need for family planning is substantially higher among rural women compared to their urban counterparts, and that better educated women had less unmet need than women with little or no education. Women who are exposed to any one of three media, namely Radio, Television, or News paper had lower unmet need compared with women who had no media exposure at all (88%). /16/

In DHS 2000 Ethiopia, the most important reasons for non-use of contraception identified by women with unmet need were fertility related reason particularly breast feeding, post amonuric (21percent and 20percent respectively). Another 12 percent-cited fatalistic reason, Opposition to use (19 percent), health concern (13percent), fear of side effect( 6percent). The reason for not intending to use contraceptive methods in the future were desire for children most common reason for both men and women, cited by 42% of women and 65% of men, women by themselves or by their partners opposition to contraceptive use 10% and 8% respectively. Religious prohibition was mentioned as a reason for not intending to use in the future by 8%of wife and 6% of husband respondents. /3/

Study conducted in Awassa town and per urban area in 2002 revealed that among the non-users of family planning 50%in urban did not use due to husbands or partners opposition to use family planning. And knowledge about family planning, family size, place of residence, discussion with husbands and husband' attitude towards contraception were found to be determinants of unmet need for contraception./14/

Study conducted in Harar city in 2005 revealed among the factors considered to be associated with unmet; only perceived approval of contraception use by spouses and discussion about contraceptive between spouses are found to be associated significantly./18/

According to the study Factors Associated with unmet need for family planning in Amhara Region in 2003 total demand for family planning increase with increasing number of living children. It increased from 8.2% among those with no living children to

30.8% among those with one or two living children and to 34.8% among those with 5 or more living children./19/

The same study revealed that nearly 60% of women who with demand had never discussed family planning .Among those who discussed family planning issues with their partners, 42.5% had spacing. The result suggest that spousal communication about fertility regulation increase demand for contraception to lower fertility by limiting number of children./19/

Jelaludin and Genet in their study show that communication between husband and wife is low, one out of three women with unmet need does not know whether her husband approves of family planning while 40% believe that their husbands approve and 27% believe that their husbands disapprove.65% of women have never discussed family planning with their husbands during the last year, while 20% discussed family planning once or twice, and only 16% discussed family planning more often. More than seven out of ten women approve family planning while only 17% disapprove./20/

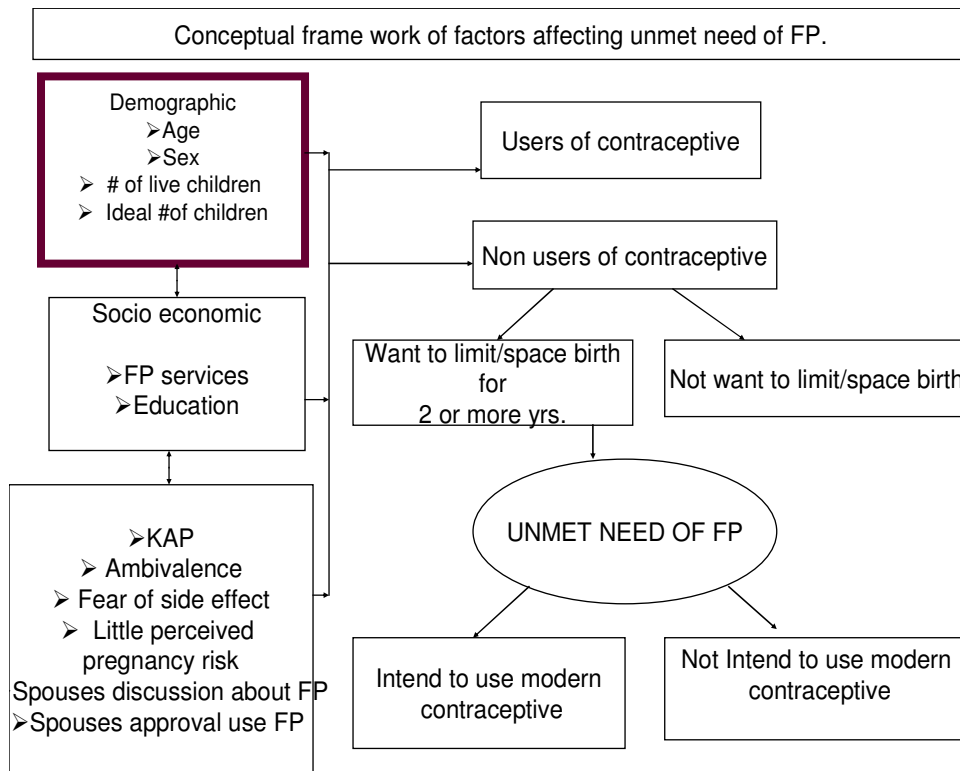
According to Asefa Hailemariam, Welsh M and D Nichols study the desire to have additional children is the major reason for not intending to use contraception reported by 72% women in rural areas and 40% of women in urban areas./10/

The same study revealed only 15.7% of married women in rural areas who knew about family planning said that they discuss family planning with their husbands; 56% of currently married women in rural areas who knew a method said that their husband approved use of family planning for limiting or spacing births./10/



### 3 CONCEPTUAL FRAMEWORK

The framework is conceptualized by using two groups of variables. These are dependent and independent variables. The independent variables are those influence unmet need for family planning.



## **4 OBJECTIVES**

### **4.1 General Objective**

The general objective of the study is to assess the magnitude and determinants of unmet need for family planning among husbands and wives in Enderta District.

### **4.2 Specific Objectives**

To assess the general knowledge, attitude and practice towards family planning and fertility, among wives and husbands in Enderta District.

To assess the magnitude of unmet need in couples, wives and husbands in Enderta District.

To identify the determinants of unmet need among couples, wives and husbands who are non users in Enderta District.

To identify the barriers of family planning in Enderta District

## **5. METHODS**

### **5.1 study design**

Community based cross-sectional survey.

### **5.2 study area and population**

The study was conducted in Enderta District one of the 35 districts in Tigray 773 Km North East of Addis Ababa located in the southern zone of Tigray. The district covers 665 Sq .Km and has a population of about 116394 with a population density of 175 persons per Sq Km. The number of female aged 15-49 years is estimated to be 25607. The total number of health institution by type is 5 health stations 6 health posts and one district hospital. The potential health service coverage is 56%. Under the district there are 17 kebeles and each kebeles has a minimum of three and maximum of five villages. The total number of villages in the district is 71. The population in each village ranges from 688 to 3917, and the number of households ranges from 98 to 559.

### **5.3 Source Population**

The source population constitutes all (couples) husbands and wives in reproductive age and resident of the study area.

### **5.4 Study Subjects**

Couples, randomly selected wives aged 15-49 years and their husbands were the study subjects. The study consists of one sample. Any subjects who fulfilled the criteria of study subject and live in the randomly selected household were interviewed. In the presence of two couples in one house hold one couple was selected using lottery method.

## **Inclusion and Exclusion criteria**

**Inclusion criteria** included all fecund couple; wives aged 15-49, and their husbands, who are resident of the study area.

**Exclusion criteria** all couples out of reproductive age and couples not living in the study area or in the house hold were excluded from the study.

## **5.5 Variables**

### **Dependent variable**

Unmet need of couples or wives and husbands.

### **Independent variables**

socio economic and demographic; age residence occupation education

Ambivalence about future childbirth.

Low perception of fecund ability.

Husbands or wives opposition.

Fear of side effect.

Health problem.

Spouses discussion about modern contraception

## **5.6 Sample Size**

The sample size for the study was determined based on the assumption the most commonest barrier which is the desire for more children 42% (EDHS 2000), non response rate of 10 percent (referring to 0.7% non response rate of the study done on role of men in fertility and family planning program in Tigray region), taking critical value corresponding to the 95% confidence interval and degree of precision at the level of .05.

There were 25067 women aged 15 to49 in the study area. Based on this, using the

stratified equal allocation for wives and husbands 412 sample from wives of child bearing age and 412 for their husbands were selected and interviewed.

Formula used to calculate the sample size

$$\frac{Z_{\alpha/2}^2 * P * (1-P)}{D^2} = n$$

$$\frac{1.96^2 * 0.42 * 0.58}{0.05^2} = 374$$

$$374 + (374 * 10/100) = \underline{412 \text{ couples}}$$

The largest sample size which is 422 couples was taken, out of which 5 couples were in fecund and 9 couples refused to be interviewed. Data was collected from 408 couples.

### **5.7 Sampling Technique**

There are a total of 17 kebeles and 71 villages in the district each kebele has a minimum of three and maximum of five villages as described earlier , the population in each village ranges from 688 to 3917, and the number of households in each village ranges from 98 to 559.

Simple random sampling technique lottery method was implemented to select 7 Villages or (administrative sub kebeles which are found under the kebeles “Kushets”) from the total of 71 Villages listed. List of households was obtained from the village administrative. The sample size to the selected villages is allocated proportional to their

total households. Using systematic random sampling every 3<sup>rd</sup> household was interviewed starting from the center of the village until the allocated sample was achieved. Couples who fulfill the criteria of the study subject were interviewed in the absence of illegible couples in that household the next near by house hold was interviewed.

### **5.8 Data Collection Procedure**

Prior to the survey, the fieldwork district, kebele and village officials were contacted for permission to conduct the interviews. And they served to inform and mobilize the community.

Enumeration was carried out by female and male high school graduate who were trained for three days for this purpose. These interviewers was selected from Mekele and hired to collect data from the villages. Female data collectors interviewed wives while male data collectors interviewed husbands. The number of the survey team was two .Each team had Six interviewers, one supervisor and three CHA. One team was assigned to one village at a time. The questionnaire was standard questionnaire for family planning studies translated into Tigrigna pre tested and modified. The questionnaire had fife sections. Section one collected data on demography and socio economic characters tics, section two on reproductive history the third, forth and fifth sections on KAP of modern contraceptive . The data collection was held on January first 2006 and ended on January 26 2006.

### **5.9 Data Quality Control**

Questionnaire was translated from English to Tigrigna and back to English as well to reconfirm consistency. Data collectors were trained to be familiar with the objective and the methodology of the research and to standardize their interviewing technique and to

ask question in consistent manner. The principal investigator went closely supervising the performance of the data collector in the field on a daily basis and a supervisor was with the data collector and checked the questionnaire.

### **5.10 Operational Definition**

**Unmet need for contraception** – Women are defined as having an unmet need if they are fecund, married or living in union, not using any contraception, do not want any more children or want to postpone for at least two years Also unmet need includes pregnant or ammenorrhic women with unwanted or mistimed pregnancies/births and not using contraception at time of last conception.

**Couple** – male and female who are in marital relationship or in union are said to be couple.

**Couples unmet need** – if at least one spouse report not using modern contraception in spite of expressed demand for spacing or limiting a child.

**Minimum Couples unmet need** – estimate base on couples in which both spouses want to space or to limit births and intend to use contraceptives will obviously be lower than estimates based on response of wives and husbands separately.

**Maximum Couples unmet need** – estimate based on couples in which at least one spouse report not practicing contraception in spite of desire to limit or space child birth.

**In fecund couples** – couples are considered in fecund if either spouses report infecundability.

**Knowledge of contraception** – awareness for at least one method of contraception (mention at least the name of one modern contraception methods).

**Villages** – Administrative boundaries “Kushets” which are found under Kebele.

**Farmer** – A person who owns or manages a farm.

**Housewife** – Woman whose main occupation is looking after her family, and who does not have regular paid work outside the home.

### **5.11 – Data Processing and Management**

Data entry editing and analysis was done using EPI6 and SPSS11. Frequencies and percentage of different variables were computed for description as appropriate. Odds ratio with 95% confidence interval computed to assess the presence and degree of association between the dependent and independent variables. Logistic regression, multiple variant analyses used for better prediction of determinants.

### **5.12 – Ethical Consideration**

Ethical clearance was obtained from Addis Ababa University, Faculty of Medicine ethical committee. Official letter sent to Tigray Bureau of Health and to Enderta district council. Respondents were interviewed based on their verbal consent.



## 6 RESULT

In this study a total of 408 couples from Enderta district were interviewed. The non response rate was 2%. The study area includes 5 kebeles and 7 villages. All respondents are from rural. The respondents background character, age, literacy status, educational attainment, fertility situation, age at first marriage, age at first birth, knowledge attitude and practice of contraceptive, current use of contraceptive methods etc are analyzed.

**Background characteristics of the respondents** - In this survey a total of 408 couples were interviewed all are from rural areas of Enderta district five kebeles and seven sub kebeles. Details are presented in annex 1.

**Socio demographic characteristic**-The age of the wives range from 14 to 47 years with mean of 28 and the age of husbands range from 19 to 74 year with mean of 40 years. Seventy percent of wives were younger than 34 years, while only 35% of husbands were below this age. Majority of the wives were relatively young. The difference is due to the fact that only reproductive age wives are included and also due to the cultural factors women married husbands elder than them selves. Forty two percent of the wives were in the peak childbearing age (20- 29).

Out of total 99.5% of wives and 99.3% husbands were Christians and 0.5% of the wives and 0.7% of the husbands were Muslims. Most of the respondents were Tigrians by ethnicity (97.4). Sixty-five percent of the study population was illiterate (79% wives and 51.5% husbands). Seventeen percent completed 1-6 grades (12% wives and 21% husbands), five percent completed 7-12 grades (4% wives and 5.1% husbands). Wives literacy was much lower than the husbands. Only 16% of wives had gainful occupation while all husbands did so. (Table 1)

**Table 1 Frequency and percentage distribution of wives and husbands by reported socio demographic characteristic Enderta district 2006**

Characteristics	Wives N (%)	Husbands N (%)	Total N (%)	Wives	Husba.
	N=408	N=408	N=408		
<b>1 Age in years</b>					
14-19	45 (11)	1 (0.2)	(5.6)	Mean = 28	40
20-24	97 (23.8)	17 (4.2)	(13.9)		
25-29	75 (18.4)	57 (14)	(16.2)	Median =27	38
30-34	66 (16.2)	82 (20.1)	(18.2)		
35-39	69 (16.9)	64 (15.7)	(16.3)	Minimum=14	19
40-44	45 (11)	38 (9.3)	(10.2)		
45-49	11 (2.7)	54 (13.2)	(1.8)	Maximum =47	74
50-74	0	95 (23.3)	(11.6)		
<b>2 Religion</b>					
Christian	406 (99.5)	405 (99.3)	(99.4)		
Islam	2 (0.5)	3 (0.7)	(0.6)		
<b>3 Ethnicity</b>					
Tigrea	403 (98.8)	392 (96.1)	(98.7)		
Others	5 (1.2)	16 (3.9)	(2.3)		
<b>5 Occupation</b>					
House wife	346 (85)	0	(42.4)		
Farmer	23 (5.6)	350 (86.0)	(45.7)		
Merchant	22 (5.6)	7 (2.0)	(3.6)		
Daily laborer	16 (5.4)	58 (14.2)	(9.6)		
Others	4 (3.9)	31 (3.9)	(35)		
<b>6 Education</b>					
Do not write & read	323 (79.2)	210 (51.5)	(65.3)		
Write & read	20 (4.9)	90 (22.1)	(13.3)		
Completed 1-6 grade	48 (11.8)	87 (21.1)	(16.5)		
Completed 7-12 grade	17 (4.2)	21 (5.1)	(4.7)		

## **Reproductive history**

Early age at pregnancy and child bearing has a detrimental effect on the health of both mother and the child. In addition, it also indicates a longer reproductive span and higher levels of fertility.

The age of first marriage varies from age of 10 years till age of 27 years for wives and 15 years till age of 50 for husbands. Mean age of first marriage was 16 and 25 for wives and husbands respectively. Seventy four percent of wives married for the first time before the age of 18 years and 21% married before the age of 15. (Table 2)

The age of first pregnancy of all wives was less than 30 years. The minimum, maximum and mean ages of first pregnancy were 12, 28 and 18 year respectively. (Table 2)

The age of first birth varies from age of 12 to 29 and 18 to 48 for wives and husbands respectively. Mean age of first birth was 18 for wives and 27 for husbands. Forty two percent of wives gave birth before the age of 18 years. (Table 2)

Out of those wives with in age group of 14 to 24 years 92% married before the age of 18 years, 84% got first pregnancy and 71% gave birth before the age of 18 years. (Table 3)

Mean number of living children for both spouse were 4. It ranges from 0 to 11. Six percent of couples were childless, and 14.3% of couple had children 7 or more. (Table 2)

Thirty three percent of wives with the age group of 14-19 years were childless, Sixty seven percent had 1 to 2 living children and of those 20-24 year group 7% were childless, 66% have 1 to 2 living children. Thirty six percent of wives with the age group of 45-49 years had 7 or more living children. (Table 4)

Ideal mean number of children desired was 6 and 7 for wives and husbands respectively. Only 0.4% of wives and 1.6% of husbands said that they want to have more than 12 children. And 21% of wives and 29% of husbands reported that they want to have more than 7 children.

A total of 67 births occurred to the 408 couples in the study population within 6 months proceeding the study period (Lactating amenorrhea because of practicing exclusive breast feeding in the rural area), and 12 % of wives were pregnant. (Table 2)

Twelve percent of wives reported that they were pregnant but 11% of husbands respond that their wives were pregnant. Sixteen percent of wives and husbands (couples) respond that they have a child aged six months or less. (figure 1)

Neither of the couples reported that the pregnancy and the recent birth were unwanted but 8.2% of wives and 4.5% of husbands reported that it was mistimed. Eighteen percent of wives and 5% of husbands reported that the birth that happened within these 6 months preceding the survey was mistimed. (Table 2)

Sixteen percent of wives reported that they had experienced an abortion. Of these, 67% had an abortion once and 33% had more than once. (Table 2)

**Table 2 Frequency and percentage distribution of wives and husbands, by reported reproductive characteristics Enderta district January 2006.**

Characteristics	Wives		Total (%)	Wives Husbands.	
	N (%)	husbands N (%)			
<b>1.Age at first marriage</b>	N=335	N=373	(100)		
10-14	70 (20.9)	0	(9.8)	Mean = 16	25
15-19	234(69.9)	21( 5.6 )	(36)	Median = 15	25
20-24	29 (8.7)	157(42.1)	(26.3)	Minim. =10	15
25-29	2 (0.6)	129(34.6)	(18.5)	Maxim. =27	50
>29	0	66(17.7)	(8.1)		
<b>2.AGE at first pregnancy</b>	N=314				
< 14	21( 6.7)			Mean = 17	
15-19	226(72 )			Median = 17.5	
20-24	65 (20.7)			Minim. = 12	
25-29	2 (0.6 )			Maxim. = 27.5	
<b>3.Age at first birth</b>	N=314	N=343	(100)		
< =14	13(4.1)	0	(2)	Mean = 18	27
15-19	211(67.2)	8(2.3)	(33.3)	Median = 18	27
20-24	87(27.1)	93(27.1)	(27.4)	Minim. = 12	18
25-29	3( 1 )	145(42.3)	(22.5)	Maxim. = 29	48
> 29	0	97(28.3)	(14.8)		
<b>4. N # of living children</b>	N=408	N=408	N=816		
0	23(5.6)	23(5.6)	(14.4)	Mean = 4	4
1-4	240 (58.8)	240 (58.8)	(48.2)	Median = 3	4
5+	145 (35.5)	145 (35.5)	(37.4)	Minim. = 0	0
				Maxim. = 11	11
<b>5 Idea ( N # of children Desired)</b>	N=231	N=356	(100)		
2-4	68(29.4)	90 (28.7)	(28.7)	Mean = 6	7
5-7	114 (29)	138(43.3)	(45.8)	Median = 6	6
8-12	48(20.8)	86(20.6)	(24.4)	Minim. = 2	2
13+	1(0.4 )	5(1.6)	(1.1)	Maxim. =20	30

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<b>6. pregnancy status</b>	N=408	N=408	N=816
Pregnant	49(12)	44 (10.8)	(11.4)
Non pregnant	356(88.5)	361(87 )	(87.9)
Not sure	3(0.7)	3(0.7)	( 0.7)
<b>7. pregnancy</b>			
Wanted	45(91.8)	42 (95.5)	(93.5)
Mistimed	4(8.2)	2 (4.5)	(6.5)
<b>8. Gave birth with in past six month</b>	N=408	N=408	N=816
Yes	67 (16.4)	67 (16.4)	(16.4)
NO	341(83.6)	341(83.6)	(83.6)
<b>9.Gave births with in past six months wanted,unwanted,mistimed</b>			
Wanted	55	62	(87.3)
Mistimed	12	5	(12.7)
<b>9. Hx of abortion experience</b>	N=408	N=408	
Yes	67 (16.4)	78 (19.1)	(17.8)
No	341(83.6)	330 (80.9)	(82.2)
<b>10. N# of abortion experienced</b>			
Once	45 (67)	50(64)	(65.5)
Twice	10 (15)	21(27)	(21.4)
More than two	12 (18)	6(7.6)	(12.4)

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**Table 3 Frequency and percentage distribution of wives age versus their first marriage, pregnancy and delivery**

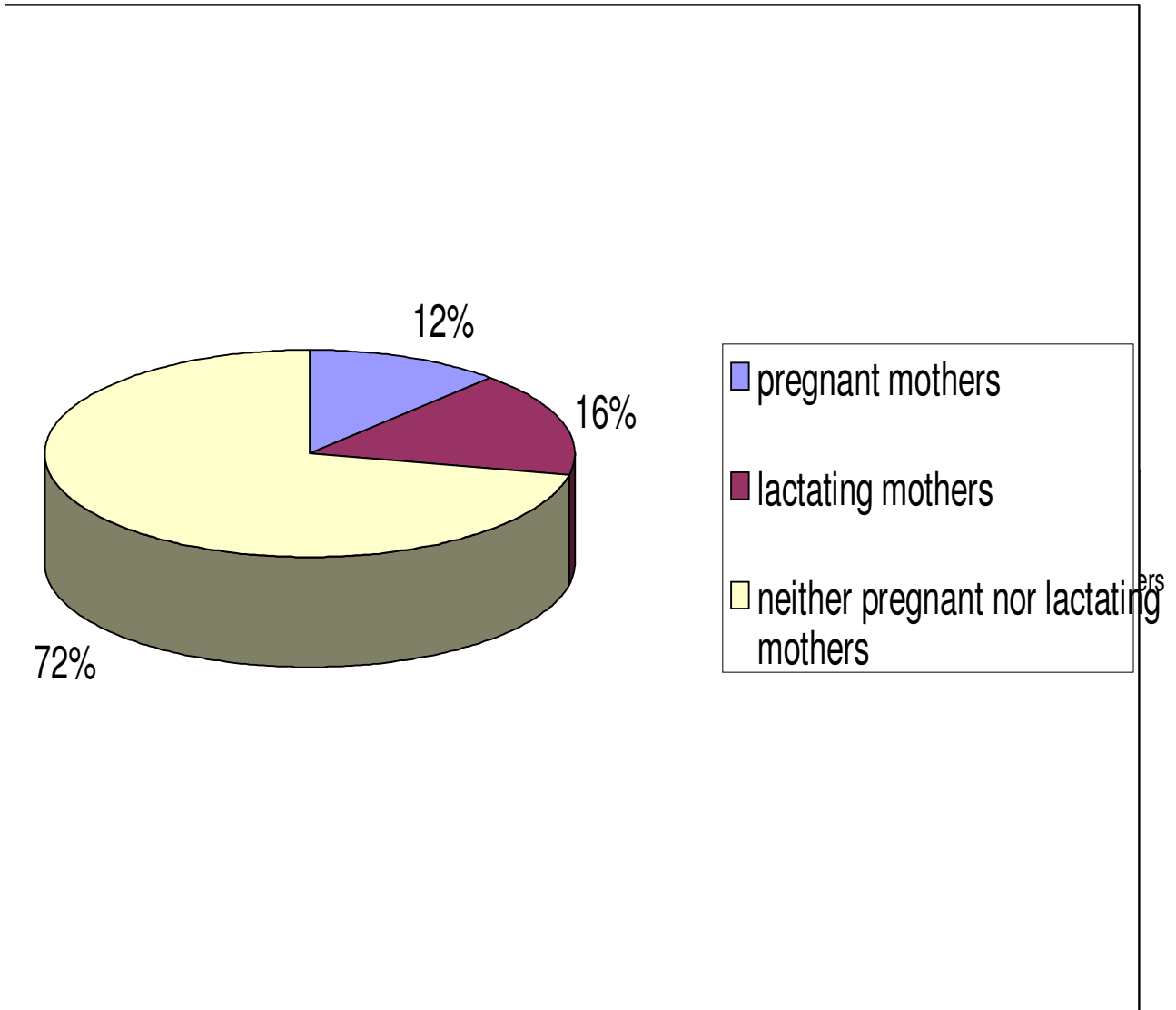
<b>Wives age at first marriage pregnancy and delivery</b>	<b>Wives age grouped in to three</b>			<b>Total</b>
	<b>14-24</b>	<b>25-34</b>	<b>35 -49</b>	
<b>Age at first marriage grouped</b>	<b>N=125</b>	<b>N=113</b>	<b>N=97</b>	<b>N=335</b>
Less than 18years	115(92)	94(83.2)	90(92.8)	299(89.3)
18 to 25years	10(8)	18(15.9)	6(6.2)	34(10.1)
26 to 35 years	-	1(0.9)	1(1)	2(0.6)
<b>Age at first pregnancy grouped</b>	<b>N=107</b>	<b>N=115</b>	<b>N=92</b>	<b>N=314</b>
Less than 18 years	84(78.5)	67(58.3)	63(68.5)	214(68.2)
18 to 25years	23(21.5)	46(40)	29(31.5)	98(31.2)
26 to 35 years	-	2(1.7)	-	2(0.6)
<b>Age at first delivery grouped</b>	<b>N=107</b>	<b>N=114</b>	<b>N=93</b>	<b>N=314</b>
Less than 18 years	76(71)	60(52.6)	61(65.6)	197(62.7)
18 to 25years	31(29)	52(45.6)	31(33.3)	114(36.3)
26 to 35 years	-	2(1.8)	1(1.1)	3(1)

**Table 4 Frequency and percentage distribution of wives age versus their number of living children Enderta District January 2006**

NUMBER OF LIVING CHILDREN GROUPED	WIVES AGE GROUPED							Total N=408
	14 – 19 N=45	20 -24 N=97	25 -29 N=75	30 -34 N=66	35 -39 N=69	40 -44 N=45	45 -49 N=11	
0	15(33.3)	7(7.2)	1(1.3)	0	0	0	0	23(5.6)
1-2	27(67)	64(66)	27(36)	10(15.2)	6(8.7)	2(4.4)	1(9.1)	137(33.8)
3-4	2(4.4)	20(20.6)	41(54.7)	23(34.9)	8(11.6)	9(20)	1(9.1)	104(25.4)
5-6	1(2.2)	4(4.1)	5(6.7)	28(42.4)	31(44.9)	15(33)	4(36.4)	88(21.6)
7+	0	2(2)	1(1.3)	5(7.6)	24(34.8)	19(42)	4(36.4)	56(13.7)



Figure 1 Percentage distribution of couples by reproductive status  
In Enderta district January 2006



## **Knowledge attitude towards contraceptive**

Ninety-seven percent of the wives and husbands had ever heard of any method of delaying or avoiding pregnancy. Ninety-five percent of the wives and 96% of the husbands can name at least 1 type of contraceptive methods. (Table 5)

Most common known methods were pill and injectable. Ninety-two percent of wives and husbands responded that they knew injectable; and 90% of wives and 91% of husbands reported that they knew pill. The least known method was female and male sterilization, mentioned by only less than 2% of couples. (Table 5)

From the couples responded to the source of knowledge 53% of the husbands and 36% of the wives reported that they have heard from health institution, 64% of wives and 54% of husbands from community health workers and 21% of wives and 32% of husbands from radio. Others report that they heard from friends. Majority of the couples 78.4% of wives and 84% of husbands want to know more about contraceptive; 50% of wives and 69% of husbands got approval of contraceptive use by spouses. (Table 5)

Twenty-two percent of all wives and 34% of all husbands reported that they had discussion about contraceptive within the last six months. (Table 5)

**Table 5 Frequency and percentage distribution of wives and husbands, by reported reproductive knowledge and attitude about contraceptive method Enderta district January 2006.**

<b>Knowledge Attitude to wards contraceptive</b>	<b>Wives N (%)</b>	<b>Husbands N (%)</b>	<b>Total (%)</b>
Hear about family planning			
Yes	396 (97.3)	397( 97.3)	
No	12 (2.9)	11 (2.7)	
Can name any modern contraceptive			
Yes	309 (95.3)	394 (96.6)	
No	99 (4.7 )	14 (3.4)	
Type of contraceptive method known			
Pill	351 (90)	360 (91.4)	90.7%
Injectable	357 (91.5)	359 (91.1)	91.3%
IUCD	15 (3.8)	7 (1.8)	2.8%
Norplant	21 (5.4)	17 (4.3)	4.8%
Condom	49 (12.6)	93 (23.6)	18.1%
Female sterilization	4 (1 )	7 (1.8)	1.4%
Male sterilization	2 (0.5 )	6 (1.5)	1%
Know source of knowledge about contraceptive			
Yes	365 (93.6)	367 (93.1)	93.4%
No	43 (10)	41 (10)	6.6%
Source of knowledge about contraceptive			
Health institution	146 (35.8)	216 (52.9)	44.4%
TBA,CHA,CBRHA	259 (63.5)	220 (54.1)	58.8%
Radio,Tv,journal	88 (21.6)	128 (31.4)	26.5%
Friends	151 (37)	92 (22.5)	2.7%
Others	13 (3.2)	9 (2.2)	29.8%
Intention to know more about contraceptive			
Yes	320(78.4)	344 (84.3)	81.4%
No	84 (20.6)	64 (15.7)	18.4%
Approval of contraceptive use by spouse			
Yes	204 (50)	282(69.1)	59.6 %
No	204 (50)	126(30.9)	40.4%
Discussion about contraceptive with husband or wife with in this six month			
Yes	90(22.1)	137(33.6)	27.8%
No	318 (77.9)	271(66.4)	72.2%

## **Attitude and Practice of modern contraceptives**

All couples were asked whether they are currently practicing any modern method of contraception to avoid or postpone pregnancy. There is marked discrepancy between ever used and current use of contraceptive. The percentage of the respondents ever used contraceptive was 25% and 26% for wives and husbands respectively. But for the current use it was only 15.4% for wives and 21% for husbands.

Among the 25% wives and 26.7% husbands ever users of contraception, 40% of wives and 34% of husbands report that they discontinue to use. The main reason for discontinuation was to have more children reported by 50 % of wives and 54% of husbands followed by little perceived pregnancy risk reported by 23.8% of wives and 16% of husband. (Table 6)

Wives and husbands that had desire to limit /space births and intend to use within twelve months were 31% and 34.2% respectively. (Table 6)

The two most widely used modern methods were injectable and pills. 17.5% of wives and 24% husbands report current use of pill and; 81% of wives and 74.8% of husbands report current use of injectable. Only one couple report they used the permanent contraceptive method which is female sterilization. All contraceptive methods are used by women. (Table 6,7)

In the survey, the proportion of wives reporting not using modern contraception is higher than that of husbands; proportion of wives intending to use contraception within 12 months was lower than that of husbands. The reasons given by those wives and husbands not intending contraceptive use in the next 12 months were( 44% of wives and 56.5% of husbands ) desire for more children, (34% of wives and 23.5% of husbands) little Perceived risk of pregnancy, (15% of wives and 5.5% of husbands) fear of contraceptive side effect. (Table 6)

**Table 6 Frequency and percentage distribution of wives and husbands  
by reported desire for more children, and by intention to use  
contraception Enderta district 2006**

<b>Measure characteristics</b>	<b>Wives</b>	<b>Husbands</b>	<b>Total</b>
	<b>N# ( % )</b>	<b>N# ( % )</b>	<b>( % )</b>
	N=408	N=408	(100)
<b>Desire for children</b>	<b>299 (73.3)</b>	<b>310 (76)</b>	<b>(74.6)</b>
Want in less than two years	43 (14.4)	35 (11.3)	(12.8)
Want but after two years	234 (78.7)	262 (84.5)	(81.4)
Unsure of timing	22 (7.4)	13 (4.2)	(10.2)
<b>Want no more</b>	<b>91 (22.3)</b>	<b>88 (21.6)</b>	<b>(21.6)</b>
<b>Undecided about desire</b>	<b>18 (4.4)</b>	<b>10 (2.4)</b>	<b>(3.4)</b>
<b>Intention</b>			
Intend to use within 12 months	107 (31.1)	111 (34.2)	(32.6)
Unsure	15 (4.1)	11 (3.3)	(3.7)
Do not intend to use	223 (64.8)	203 (62.5)	(63.7)
Total	345 (100)	325 (100)	(100)
Intend to use for spacing	84 (78.5)	94 (84.7)	(80.7)
Intend to use for limiting	23 (21.5)	17 (18.3)	(18.3)

**Table 7 Frequency and percentage distribution wives and husband, by intention to use modern FP, the type they want Enderta district 2006.**

<b>Characteristics</b>	<b>Wives N# (%)</b>	<b>Husbands N# (%)</b>	<b>Total (%)</b>
<b>Intend to use with in 12 months</b>	N=345	N=325	(100)
Yes	107 (31.1)	111 (34.2)	(32.6)
No	223 (64)	203 (62.5)	(63.7)
Not decided	15 (4.1)	11 (3.4)	(3.4)
For spacing	84 (78.5)	94 (84.7)	(81.7)
For limiting	23 (21.5)	17 (15.3)	(18.3)
<b>Type of contraception method chosen</b>			
Inject able	96(86)	87(80.5)	(79)
Pills	14 (13)	30 (27.8)	(19)
Implant	1(.9)	1(.9)	(.9)
<b>Reason for not intend to use modern contraception</b>			
fear of side effect	35(15.3)	11(5.5)	(9.3)
Little pregnancy risk	78(34)	47(23.5)	(29)
Desire more children	102(44)	113(56.5)	(50)
Religion prohibition	5(2.2)	18(9)	(5.4)
Husbands opposition	3(1.7)	0	(.5)
Not available chosen contraceptive method	2(.9)	0	(3.5)
Lack of knowledge	3(1.7)	11(5.5)	(.7)
<b>Practice of modern contraceptive</b>			
Yes	103 (25,2)	109(26.7)	(26)
No	305 (74..8)	299(73.3)	(74)
<b>discontinued using modern contraception</b>	41(39.8)	37(33.9)	(36.8)
<b>Reason for discontinuation</b>			
fear of side effect			
Little pregnancy risk	3(7)	9(24)	(15.4)
Desire more children	10(23.8)	6(16)	(20.5)
Medical problem	21(50)	20(54)	(52.6)
Not available chosen contraceptive method	8(19)	1(2.7)	(11.5)
<b>Type of contraception previously used</b>	0	1(2.7)	(1.3)
Inject able			
Pills	75(68)	74 (64)	(66)
IUCD	33(30)	40 (34.8)	(32.4)
Female sterilization	1(.9)	0	(.4)
	1(.9)	1(.87)	(.8)
<b>Current using of contraception</b>	<b>63 (15.4)</b>	<b>87 (21.3)</b>	<b>(18.4)</b>
For spacing	43 (68)	65 (75)	(72)
For limiting	20 (32)	22 (25)	(28)
<b>Type of contraception currently using</b>			
Inject able	51 (81)	65 (74.8)	(22)
Pills	11 (17.5)	21 (24.)	(79.7)
Female sterilization	1 (1.6)	1 (1.2)	(1.3)

**Table 8 Percentage distribution of wives and husbands with in couples  
by contraceptive use status Enderta District 2006.**

<b>Contraceptive use status</b>	<b>Wives N# (%)</b>	<b>Husbands N# (%)</b>
	N=408	N=408
<b>Fecund using modern contraception</b>	<b>63 (15.4)</b>	<b>87 (21.3)</b>
<b>Fecund not using modern contraception</b>	<b>345 (84.6)</b>	<b>321 (78.7)</b>
*Desire to limit/space births and intend to use with in 12 months	107 (31)	111 (34.6)
Not desire to limit/space births and intend to use with in 12 months	238 (69)	210 (65.4)

\*includes desire to space births less than two years and intend to use with in 12 months

## **Couples modern contraceptive met and unmet need**

Couples are defined as having unmet need if at least one spouse report not using modern contraception in spite of expressed demand for spacing (more than 2 years) or limiting a child.

When all couples are classified according to the contraceptive need status 48% of wives and 46.8% of husbands had unmet need. Thirty eight of wives and 37% of husbands had un met need for spacing and 10% of wives and 9.8% had un met need for limiting. The maximum and minimum couple's unmet need was 57.6% and 18.6 respectively. Met need was 15% for wives and 21% for husbands. Contraceptive demands were 63.5 and 68% for wives and husbands respectively. (Table 9, Figure 2, Figure 3)

The proportion of couples in which both partners want to limit/ space birth and intend to use within 12 months (minimum unmet need) is very low approximately 1/4<sup>th</sup> the level of the estimated based on the wives' report.

## **Reason for not using contraception and not intending to use contraception**

Wives and husbands who had unmet need were asked why they did not use modern contraception, Majority 32% of wives and 45% of husbands reported desire for more children, and 38% of wives and 28% of husbands due to little perceived risk of pregnancy (breast feeding, using traditional method, and so on), health problem was mentioned by 12% of wives and 4.5% of husbands 7.5% of husbands and 4.3% of wives reported lack of knowledge, and religion prohibition accounted 2.5% of wives and 10.5% of husbands (figure 4).

## **Factors associated with unmet need**

Among the factors considered to be associated with unmet need only number of live children and discussion about contraception within these six months revealed statistically significant. Among the factors considered to be associated with met need only number of live children and discussion about contraception and partners approval use of contraceptive revealed statistically significant. Other factors did not revealed statistically significant (table 10, 11, 12).

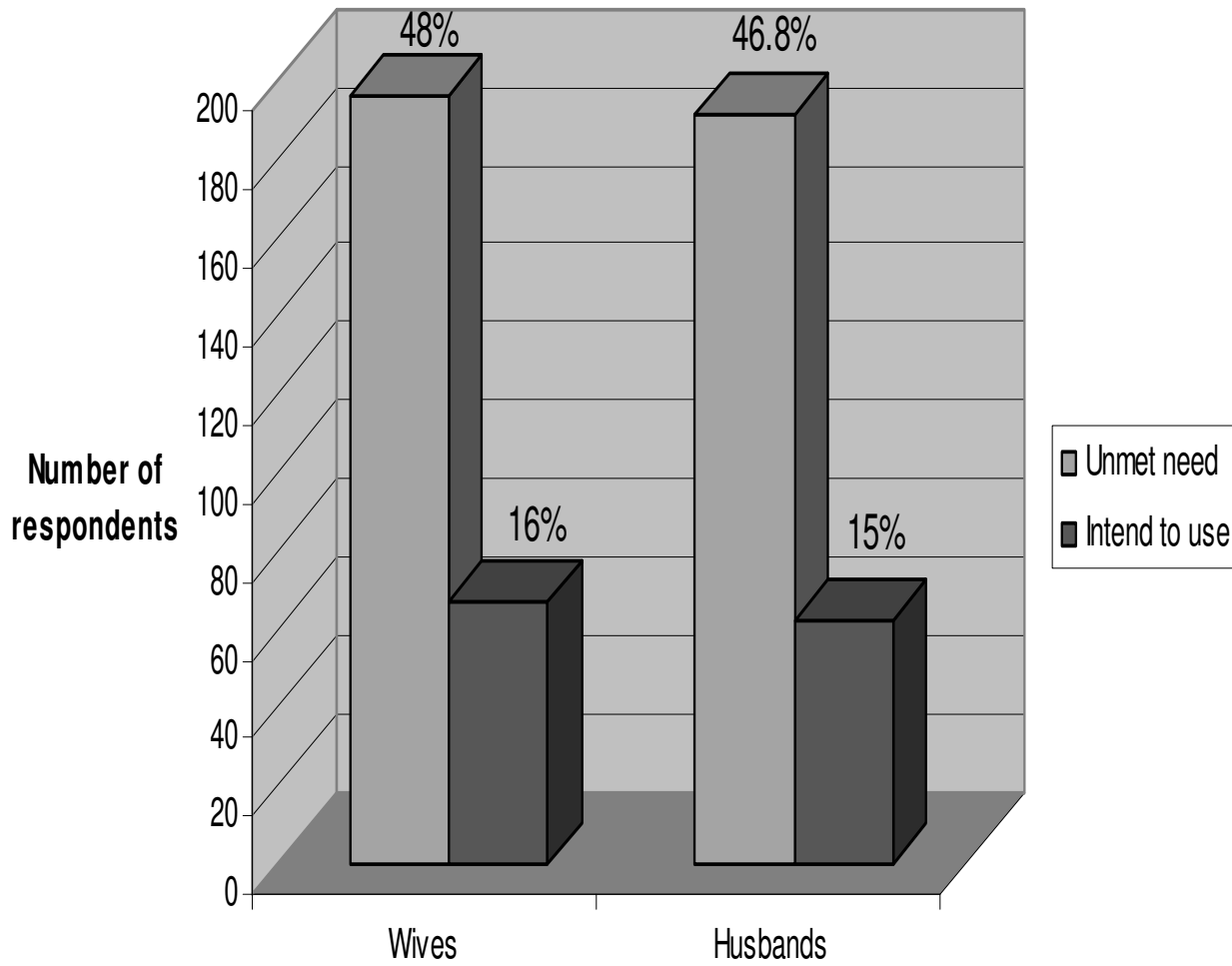


**Table 9 Percentage distribution of wives husbands and couples, by  
contraceptive need status Enderta District January 2006.**

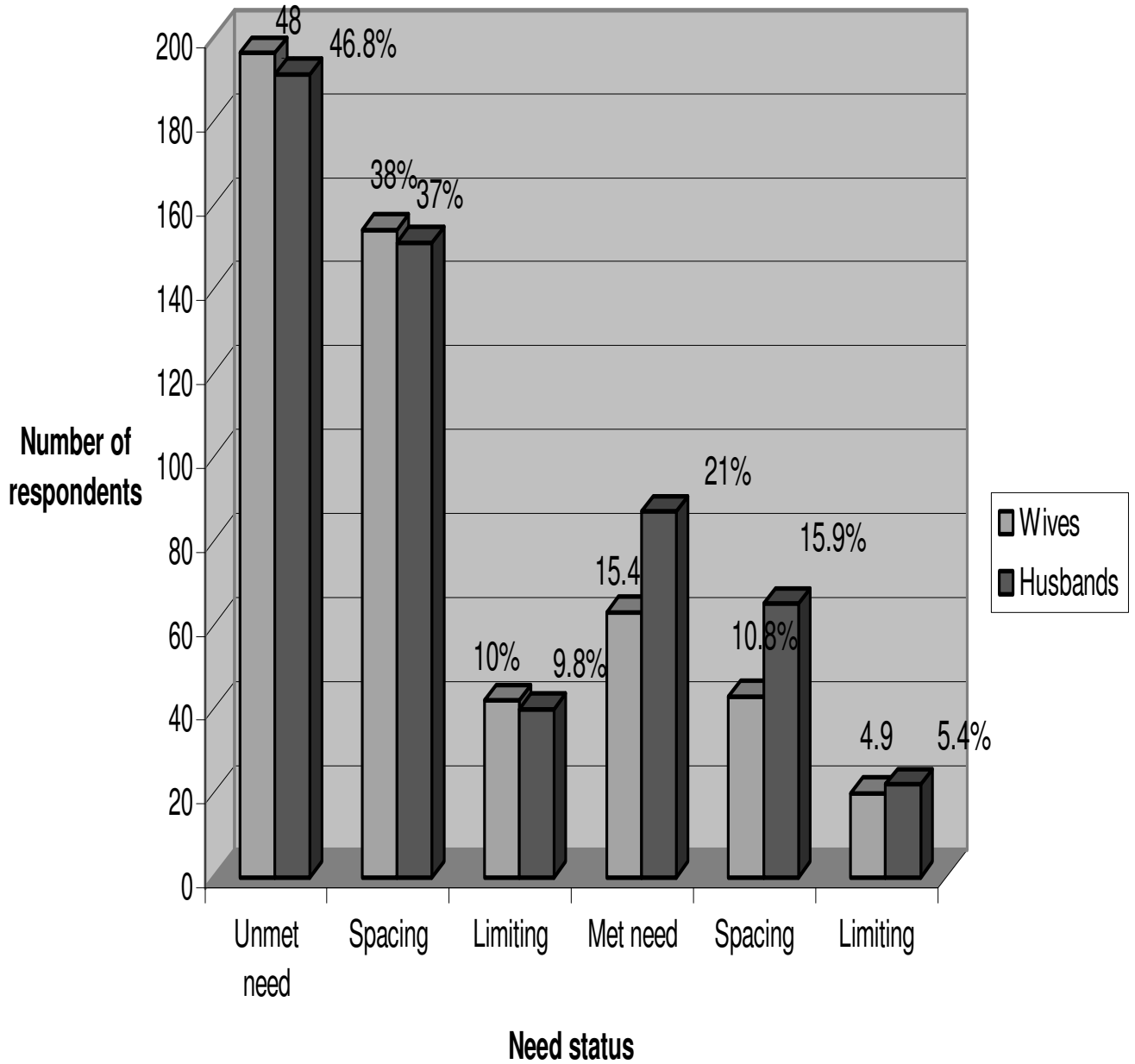
Need status	Wives		Husbands		Couples	
	N ( % )	(%)	N ( % )	(%)	Minimum	Maximum
<b>Unmet need</b>	196(48)	N=196	191(46.8)	N=191	76(18.6)	235(57.6)
For spacing	154(38)	(78.6)	151(37)	(79)	61(15)	183(44.9)
For limiting	42(10)	(21.4)	40(9.8)	(9.8)	15(3.6)	52(12.7)
		N=63		N=87		
<b>Met need</b>	63(15.4)		87(21)		45 (11.5)	105 (25.7)
For spacing	43(10.8)	(68)	65(15.9)	(74.7)		
For limiting	20(4.9)	(31.7)	22(5.4)	(25.3)		
<b>Contraceptive demand</b>	259(63.5)		278(68)		121 (29.6)	398 (97.5)
					<b>Maximum</b>	<b>Minimum</b>
<b>No need</b>	149(36.5)		130(31.8)		287(70.3)	10(2.4)
<b>Total</b>	408 (100)		408 (100)		408 (100)	408 (100)

Figure 2.

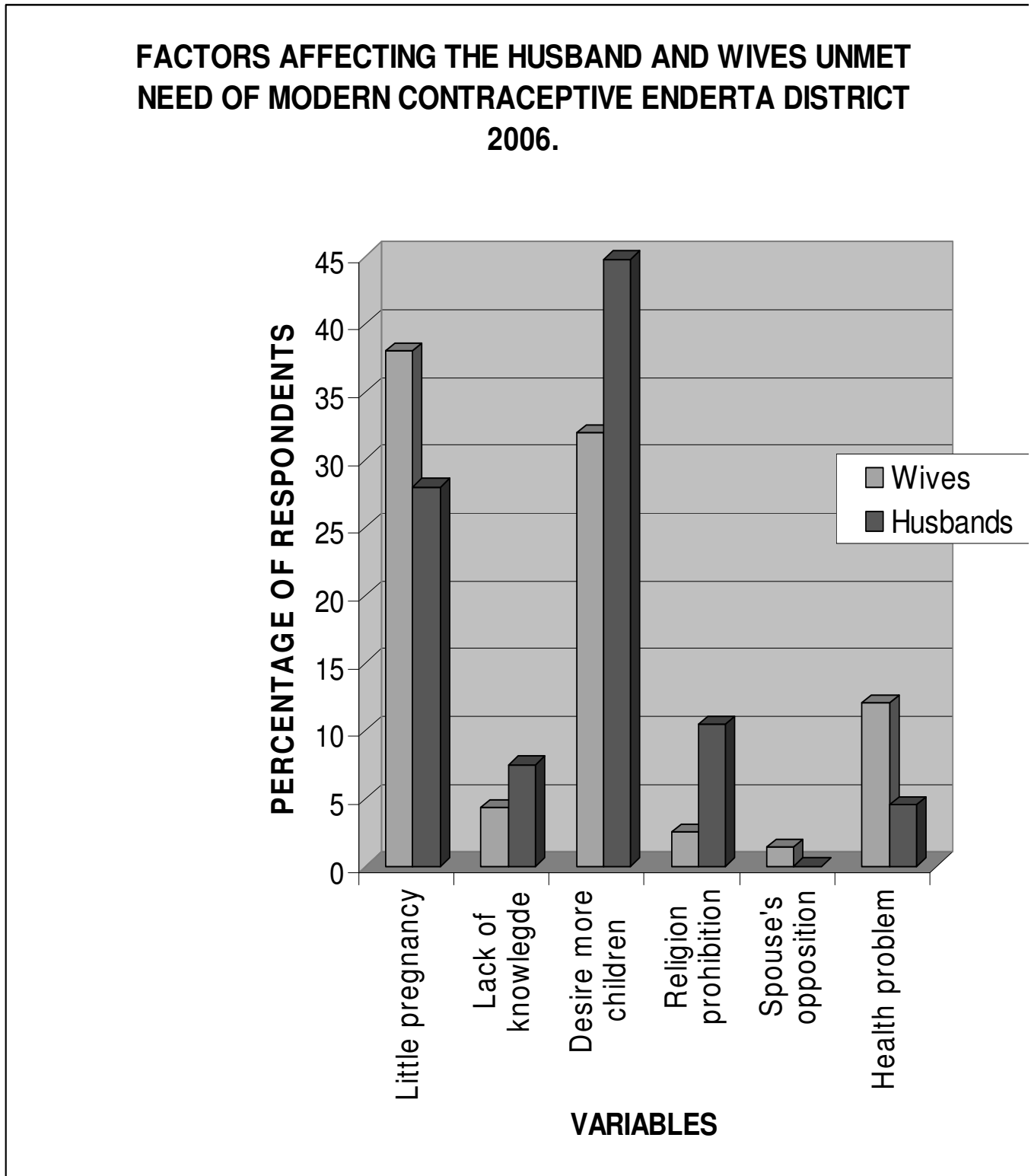
Percentage ditrubution of unmet need and intention to use contraception of wives and husbands enderta District2006.



**Fig 3 percentage distribution of wives and husbands by contraceptive need status  
Enderta Tigray**



**Figure 4 Factors affecting the husband and wives unmet need of modern contraceptive in Enderta District, January 2006.**



**Table 10 Logistic Regression: of wives and husbands independent variables verses their current contraceptive use Enderta District January 2006.**

Factors	Users			Non users	OR	CI
	Wives	Husban.	Total	Total		
	N (%)	N (%)	N (%)	N (%)		
<b>Age in years</b>						
14-24	19(30.2)	4(4.6)	23(15)	137(20.6)	0.808	0.369 - 1.767
25-34	27(42.9)	36(41.6)	63(42)	217(32.6)	0.970	0.556 - 1.692
35-74	17(27)	47(54)	64(43)	312(46.8)	1	
<b>Educational status</b>						
Illiterate	42(66.7)	31(35.6)	73(48)	460(69.1)	0.460	0.168 – 1.258
Can write and read & completed 1 to 6 grade	17(27)	48(55.2)	65(43)	180(27)	0.652	0.241 – 1.762
Completed > than 6 grade	4(6.3)	8(9.2)	12(8)	26(3.9)	1	
<b>Occupation</b>						
House wife	50(79.4)	0	50(33.3)	296(44.4)	0.922	0.308 - 2.758
Framer	2(3.2)	68(78.2)	70(46.7)	304(45.6)	0.660	0.250 - 1.746
Merchant	0	1(1.1)	1(0.6)	22(3.3)	1.238	0.326 - 4.710
Daily laborer	4(6.3)	16(18.4)	20(13.3)	54 (8.1)	1.274	0.512 - 3.172
Other occupation	0	15(10)	15(10)	20(30)	2.008	0.626 - 6.444
<b>Number of children alive</b>						
<b>0</b>	<b>1(1.6)</b>	<b>1(1.1)</b>	<b>2(1.3)</b>	<b>44(6.6)</b>	<b>0.125</b>	<b>0.022 - 0.699</b>
1-4	37(58.7)	60(69)	68(64.7)	384(57.7)	0.825	0.481 - 1.415
>5	25(39.7)	26(29.9)	51(34)	238(35.7)	1	
<b>Couples discussion about modern contraception with in 6 month</b>						
No	23(36.5)	18(20.7)	41(27.3)	548(82.3)	0.140	0.090 - 0.219
Yes	40(63.5)	69(79.3)	109(72.7)	118(17.7)	1	
<b>Partner approval using contraception</b>						
Do not approve	8(12.7)	4(4.6)	12(8)	318(47.7)	0.210	0.109 – 0.405
Approve	55(87.3)	83(95.4)	138(92)	348(52.3)	1	

**Table 11 Logistic Regression: of wives independent variables; versus their unmet need Enderta District January 2006**

Variables	Unmet need		
	N (%)	OR	C.I.
<b>Age</b>	N=196	.	
14-24	61(31)	1.357	0.708 - 2.600
25-34	72(36.7)	1.532	0.862 - 2.725
35-74	63(32.1)	1	
<b>Occupation</b>			
House wife	175(89.3)	1.398	0.698 - 2.800
Farmer	8(4.1)	0.413	0.036 - 4.714
Merchant	5(2.6)	0.432	0.128 - 1.458
Daily laborer	9(4.6)	0.811	0.113 - 16.181
<b>Educational status</b>			
Illiterate	163(83.2)	0.562	0.147 - 2.154
Can write and read & completed 1 to 6 grade	26(13.3)	0.422	0.103 - 1.726
Completed > than 6 grade	7(3.6)	1	
<b>Number of children alive</b>			
<b>0</b>	<b>5(2.6)</b>	<b>0.126</b>	<b>0.037 - 0.427</b>
<b>1-4</b>	<b>102(56)</b>	<b>0.472</b>	<b>0.256 - 0.872</b>
<b>&gt;=5</b>	<b>79(41.4)</b>	<b>1</b>	
<b>Wives perceived approval of C.N use by her Husband</b>			
Do not approve	107(54.5)	1.265	0.800 - 2.003
Approve	89(45.4)	1	
<b>Couples discussion about C.P use with in last six months</b>			
<b>No</b>	<b>162(82.7)</b>	<b>1.859</b>	<b>1.127 - 3.067</b>
<b>Yes</b>	<b>34(17.3)</b>	<b>1</b>	

**Table 12 Logistic Regression: Of husband' independent variable; versus their unmet need Enderta district January 2006**

Variables	Unmet need		
	N (%)	OR	C.I.
<b>Age</b>			
14-24	9(4.7)	1.377	0.433 - 4.383
25-34	47(24.6)	0.857	0.444 - 1.654
35-74	135(70.7)	1	
<b>Occupation</b>			
Framer	173(90.6)	1.299	0.555 - 3.040
Daily laborer	24(12.6)	0.784	0.340 - 1.806
Other occupation	7(3.7)	0.420	0.140 - 1.611
<b>Education</b>			
Illiterate	105(55)	0.756	0.180 - 3.185
Read& write and completed 6grade	81(42.4)	1.209	0.297 - 4.922
Completed >6grade	5(2.6)	1	
<b>Number of children alive</b>			
<b>0</b>	<b>5(2.6)</b>	<b>0.189</b>	<b>0.049 - 0.726</b>
<b>1-4</b>	<b>102(53.4)</b>	<b>0.431</b>	<b>0.221 - 0.841</b>
<b>&gt;=5</b>	<b>84(44)</b>	<b>1</b>	
<b>Husband's perceived approval of C.N use by his wife</b>			
Do not approve	74(38.7)	1.556	0.852 - 2.842
Approve	177(61.3)	1	
<b>Couples discussion about C.P use with in last six months</b>			
<b>No</b>	<b>151(79.1)</b>	<b>2.895</b>	<b>1.654 - 5.067</b>
<b>Yes</b>	<b>40(20.9)</b>	<b>1</b>	

### **Among the unmet need Couples; those intend to use modern contraceptive with in 12 months**

For those couples with unmet need and intend to use modern contraception unmet need can be defined for husband and for wives separately, following the logic of the lower diagram in figure 5, the selected combined for couples are shown in the diagram. The estimated of unmet need based on couples in which both spouses want to space or to limit birth and intend to use contraceptive with in 12 months was obviously be lower than estimated based on response of wives and husbands separately. This is because the couple's measure requires agreement between partners on their desire to limit on space births and their intimation to practice contraception. Thus the measure represents a minimum estimate of unmet need and consists of only the couple in category 5. (figure1)

A Maximum estimate of unmet need can be calculated if couple in which either spouse (or both spouse) having unmet need are included. Maximum measure of unmet represents all couples in categories 5, 6 and 7 and half of those in categories 1 and 3.

Wives unmet need is based on categories 3, 5, and 6 and husbands' unmet need is based on 1, 5 and 7.

Among the total unmet need those wives and husbands who intend to use modern contraceptive with in 12 months are 34% and 32% respectively. The maximum and minimum couple's unmet need was 44% and 22% respectively.

Out of total 408 wives and 408 husbands with un met need and intend to use modern contraceptive with in 12 months are 16% and 18% respectively. The maximum and minimum couple's unmet need was 22% and 4% respectively.

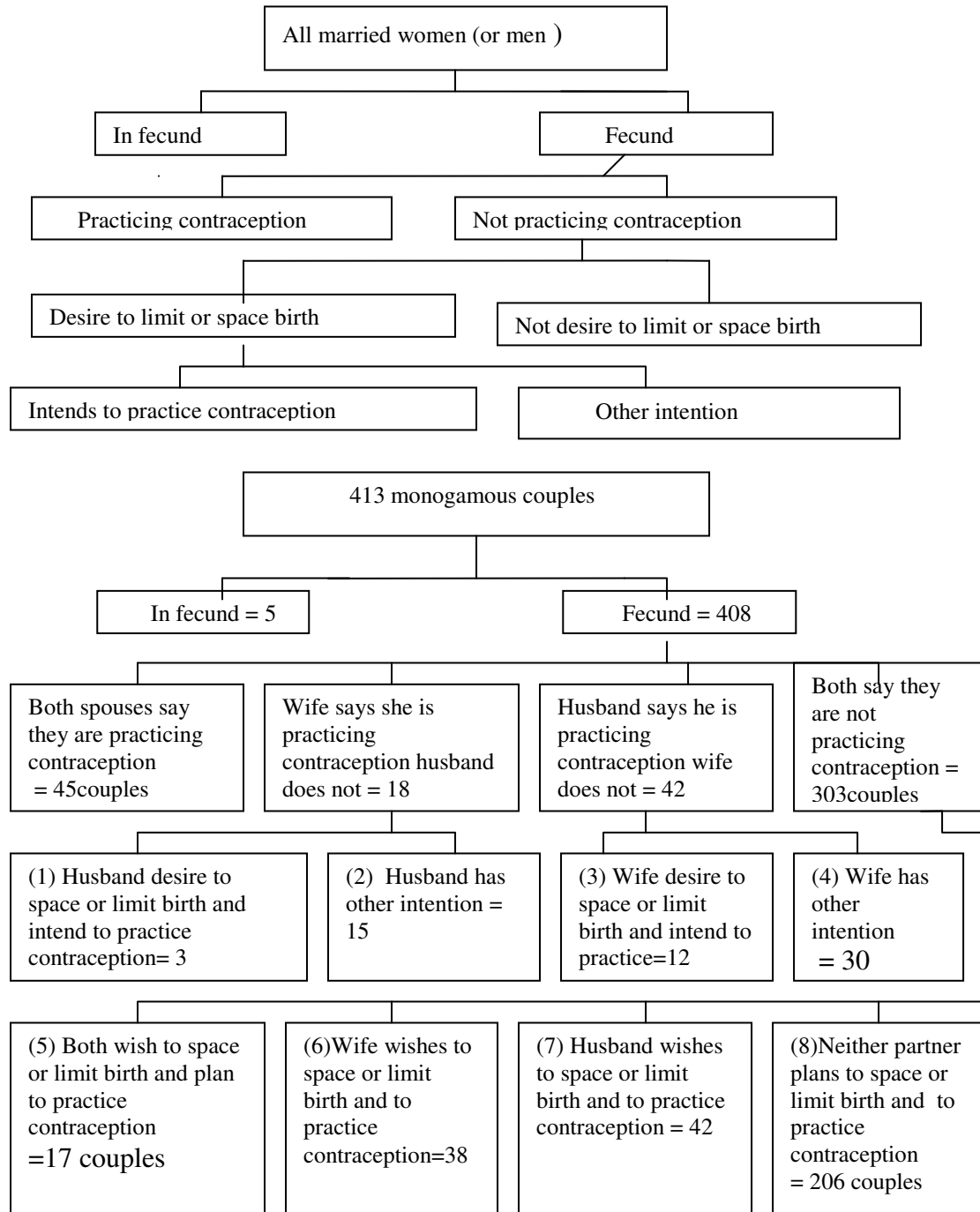
Fifteen percent of wives and 21% of husbands had met need. Contraceptive demands (wives and husbands with un met need but not intend to use contraceptive are excluded) were 31%for wives and 36.5% for husbands. The maximum couples met need was 26% and minimum couples unmet need was 11%.



**Table 13 Percentage distribution of wives husbands and couples, by  
contraceptive need status Enderta District January 2006.**

Need status	Wives		Husbands		couples	
	N	(%)	N	(%)	Minimum	Maximum
Unmet need	196(48)	N=196	191(46.8)	N=191	76(18.6) N=76	235(57.6) N=235
Intend to use	67(16)	(34.2)	62(15)	(32.5)	17(4) (22.4)	104(25.5) (44.3)
Not intend to use	129(31.6)	(65.8)	129(31.6)	(67.9)	59(14.6) (77.6)	131(32) (55.7)
Met need	63(15.4)		87 (21)		45 (11.5)	105 (25.7)
Contraceptive demand	259(63.5)		278(68)		121 (29.6)	340 (83.3)
Contraceptive demand(Non intenders excluded)	130(31)		148(36)		62(15)	209(51)
					<b>Maximum</b>	<b>Minimum</b>
No need	149(36.5)		130(31.8)		287(70.3)	10(2.4)
No need(Not intenders included)	278(68)		259(63.7)		346(84.8)	199(48.7)
Total	408 (100)		408 (100)		408 (100)	408 (100)

**Figure 5 Categories for considerations of unmet need for modern contraception**



N.B box 8 includes those couples having unmet need but not intend to use modern contraception and those couples who had no unmet need. (Adopted from study by Becker S. Measuring unmet need: Wives, Husbands or Couples?)

**Table 14 Frequency and Percentage distribution of couples, by spouses reports of contraceptive use and intend to use according to need status Enderta District January 2005**

Category	Need status			
	Wife	Husband	Wife	Husband
<b>Fecund , both report currently using</b>	No need	No need	45	45
<b>Fecund , one spouse report using</b>	<b>105</b>			
Husband alone , wife desire to space/limit birth and to use with in 12 months	Need	using	12	12
Husband alone wife has other intention	No need	using	30	30
Wife alone , Husband desire to space/limit birth and to use with in 12 months	using	Need	3	3
Wife alone Husband has other intention	using	No need	15	15
<b>Fecund both report they are not using</b>	<b>606</b>		<b>303</b>	<b>303</b>
Both wish to space/limit birth and to use with in 12 months	Agreed	Agreed	17	17
Wife alone wishes to space/limit birth and to use with in 12 months	Has need	Has need		
Husband alone wishes to space/limit birth and to use with in 12 months	Need	No need	38	38
Neither plan to space/limit birth nor to use with in 12 months	No need	Need	42	42
Others	Neither has need	Neither has need	272	272
			206	206

## 7 Discussion

Studies on couple's unmet need in most developing nations revealed, husband report high levels of fertility desire than their wives. Thus it is incorrect to use data from women to calculate unmet need for couples. So calculating couples unmet need explore the potential utility, because the vast majority of births in this region especially in the rural area occur within monogamous couples.

Similarly, fertility desire and unmet need typically consider individual matters, but can also be regarded as a couple phenomena, as evidence in the Program of Action of the International Conference on Population and Development, which affirm the importance of helping "couple and individuals meet their reproductive goals in a framework that respects the dignity of all persons and their rights to choose the number, spacing and timing of the birth of their children. Yet each individual couple may have different reproductive goals and if so, one of the two will be unable to exercise this right. This contradiction in itself provides an argument for examining a couple approaches. Typically some form of couple negotiation resolve these difference.

This community based study used information gathered from 408 couple involved in the study to estimate prevalence of unmet need for contraception of both spouses' and of couples as well as determinant factors that affect its magnitude. Out of the 408 couples 12% of wives respond that they were pregnant but 11% of husbands respond that their wives were pregnant. Sixteen percent of couples respond that they have child 6 month or less.

Neither of the couple responds that the pregnancy and the recent birth (births within 6 months) were unwanted. But 4(8.2%) of wives and 2 (4.5%) of husbands respond that the pregnancy was mistimed. So out of total 408 couples 1% of wives and 0.5% of husbands had unmet need, due to mistimed pregnancies. And also out of the 408 couples 3% of wives and 1.2% of husbands had unmet need, because the recent births was mistimed.

The total unmet need is the unmet need of the pregnant, lactating and those neither pregnant nor lactating. The percentage of unmet need is calculated from all 408 couples.

(Met need, unmet need and no need) Forty-eight percent of wives and 46.8% of husbands had unmet need. 38% of wives and 37% of husbands had unmet need for spacing and 10% of wives and 9.8% of husbands had unmet need for limiting. The maximum and minimum couple's unmet need was 57.6% and 18.6% respectively. This is low when compared to the findings of studies by Assefa Hailemariam, M. Welsh and D. Nichols in 2002 which was 55.7% the probable reason could be due to time deference. But is very high when compared to the study done in Harar city 2005 which were 15.3%, 16.5%, 4.7% for wives husbands and couples (minimum) respectively. The reason could be due to deference in residence this study is done in rural but the comparable studies are done in urban. Still it is high when compared to the unmet need of Tigray rural married women 37% reported by EDHS 2000 and 36.7% reported by EKAP in family planning 2004, the reason for this discrepancy could be in the other rural area of Tigray there is health center but in this study area there is no health center. However in the findings unmet need for spacing is higher than limiting which is consistent with other studies. (3, 10, 12, 16, 18)

The proportion of couples in which both partners want to limit/space births and intend to use within six months is very low 1/4<sup>th</sup> of the level of the wives wants to limit/space births and intend to use within six months comparable with other studies. (18,21). The minimum and maximum couple estimates show high discrepancy due to the reason that disagreement on contraceptive use (the proportion of couples in which only one spouse report use) is high. Although the disagreement on the desire to limit / space births and intend to use within 12 months (the proportion of couple in which only one spouses report desire to limit /space birth and intend to use within 12 months) is high. In contrast the agreed couples met need and unmet needs (minimum unmet need) which is very low.

In this study among the total unmet need 34% of wives and 33% of husbands intend to use modern contraception within 12 months respectively. This finding is lower when compared with the study done in Awassa in 2002 which was 63% for married women and the study done in Harar city which was 80% for wives and 86% for husbands. The probable reason could be due to deference in the study area. Study of Awassa is done in

urban and peri urban and the study of Harrar is done in urban but this study is done in rural.

When calculated out of the total (408 couples) the percentages of couples with unmet need and intend to use contraception 16% for wives, 15%for husbands, 26% maximum, and 4% minimum are consistent with the result of unmet need DHS study on measuring unmet need done1996and 1997in Bangladesh, Dominican republic and Zambia. In Bangladesh unmet need for wives was 15.8%, in Dominican Republic for the estimated maximum unmet need was 29%, in Zambia 5.7% minimum unmet need was estimated./21/

Wives with un met need are more intenders than husbands with unmet need.(table 13 )and husbands had higher demand for more children than wives.(table 4) consistent with other studies./3,6,18,/

### **Factors associated with unmet need for contraception**

Among the factors consider to be associated with unmet need only number of live children and discussion about contraception with in these six months revealed statistically significant association. (Table 9, 10).

Those wives and husbands who discuss each other about contraception had high met and low unmet need than those who did not discuss and those wives who got approval from husbands had high met need than those who did not. (Table 8, 9 10,)Twenty-two percent of wives and 34% of husbands report that they had discussed about contraception with their spouses with in six months consistent with other studies. 3, 4, 9 On the other hand large proportion of couples with unmet need 82% did not discuss about contraception with in this 6 months this result is consistent with the study done in Harar city 2005 which is 82% and studies in other areas. /3, 4, 7/

Eleven percent of childless couples had unmet need and out of those couples with 1-4 children 23% had unmet need. Out of those couples with 5 or more children, 27%had un met need. Those couples with 5 or more children had the highest unmet need followed by

couples with 1-4 live children. As the number of live children increase the level of unmet need also increases which is in agreement with findings of other studies. /3, 4, 7/

Seventy four percent of wives were married before the age of 18 and most women 42% gave birth before the age of 18 as a consequence of the early marriage. Out of those wives with in age group of 14 to 24 years 92% married before the age of 18 years, 84% got first pregnancy and 71% gave birth before the age of 18 years.

The level of knowledge of family planning appear to be high on both wives and husbands 95% and 96% respectively knowledge of permanent methods is very low, only less than 2% of wives and husbands mentioned permanent methods.

### **Reason for not use contraception and not intending to use contraception**

Wives and husbands who had unmet need was asked why they did not use modern contraception. The most important reason were desire more children reported by 45% of wives and husbands, followed by little perceived risk of pregnancy (explanation gave by the respondents for the little perceived risk of pregnancy was breast feeding, using traditional method, naturally late to be pregnant and so on), Desire for more children is the highest reason for the couples which is consistent with the other studies./7,10/

### **Practice of modern contraception**

The contraceptive prevalence rate is 15.4% and 21.3% for wives and husbands respectively. This is comparable with the EDHS 2005 which is 16% for women in rural Tigray. It is high when compared to the findings of studies by Assefa Hailemariam, M. Welsh and D. Nichols in 2002 which was 13%, the probable reason could be due to time deference. There is a marked difference between the ever use and current use of family planning services. As illustrated earlier 25% of wives and 26% husbands had ever used but 15.4% wives and 21% husbands are current users. The main reason for discontinuation was to have more children reported by 50 % of wives and 54% of husbands followed by little perceived pregnancy risk reported by 23.8% of wives and 16% of husbands.

Amongst the factors considered to be associated with the met need like age, education , number of living children, number of children desired, partners approval and partners discussion were the most important ones. Among these factors only perceived approval of contraceptive by spouses and discussion about contraception are found to be significantly associated with unmet need.



## **8 Strength and limitation**

### **Strength**

- Large sample size is taken
- Couples unmet need of family planning is unique study in the region

### **Limitation**

- There could be information bias wives may give deliberately wrong answer about current use of contraception because of suspicious that answers be passed to their husbands. So this would under estimate the contraceptive prevalence rate.
- Not supplemented by qualitative study.

## 9 Conclusion

- Calculating couples unmet need for family planning explores the potential utility, because the vast majority of births in this region especially in the rural area occur with in monogamous couples.
- Seventy four percent of wives were married before the age of 18 and most women 42% gave birth before the age of 18 as a consequence of the early marriage. Out of those wives with in age group of 14 to 24 years 92% married before the age of 18 years, 84% got first pregnancy and 71% gave birth before the age of 18 years. Early age at pregnancy and child bearing has a detrimental effect on the health of both mother and the child. In addition, it also indicates a longer reproductive span and higher levels of fertility.
- The level of knowledge of family planning appears to be high on both wives and husbands 95% and 96% respectively but knowledge of permanent methods is very low only less than 2% of wives and husbands mention about permanent methods.
- All contraceptive methods are used by women. This is mainly because most contraceptive methods are for women and services are provided to individual women (not to couples) ; however husbands play a crucial role in fertility decision making specially in the rural area and husbands had high demand to have more children ; so strategies should be designed that encourage men to use available contraception. Men contraception methods should be available and accessible.
- Forty eight percent of wives had unmet need, 38% had unmet need for spacing and 10% for limiting. The maximum and minimum couple's unmet need was

57.6% and 18.6 respectively. This is very high when compared to EDHS 2000 and other studies in the region the probable reason could be due to the fact that no health center and qualified health personals in the study District unlike the other Districts.

- The proportion of couples in which both partners want to limit/space births and intend to use within six months is very low one forth of the levels of the wives wants to limit/space births and intend to use within six months. The minimum and maximum couple estimates show high discrepancy due to the reason that disagreement on contraceptive use and the disagreement on the desire to limit / space births and intend to use within 12 months is high. In contrast, the agreed couples met need and unmet need (minimum unmet need) which is very low.
- Large proportion of couples with unmet need 82% did not discuss about contraception with in this 6 months. Those wives and husbands who discuss with each other about contraception had high met and low unmet need than those who did not discuss and those wives who got approval from husbands had high met need than those who did not.
- Among the factors consider to be associated with unmet need only number of living children and discussion about contraception within these six months revealed statistically significant association. The significant factors associated with met need are partner's approval and partner discussion for both wives and husbands. So this indicates promotion and encouragement activity to enhance communication between spouses are necessary.

- Those couples with 5 or more children had highest unmet need followed by couples with 1-4 living children. As the number of living children increase the level of unmet need also increases shows.
- There is a difference in spouse's fertility desire and contraception intention. Wives with unmet need are more intenders than husbands with unmet need and husbands had higher demand for more children than wives.
- Desire to have more children and little perceived risk of pregnancy and fear of side effect, were reason for discontinuation of using modern contraception.
- Wives and husbands who had unmet need were asked why they did not use modern contraception, Majority 45% of wives and husbands reported because they desire more children, and 38% of wives and 28% of husbands due to the reason of little perceived risk of pregnancy( explanation gave by the respondents for the little perceived risk of pregnancy was breast feeding, using traditional method, naturally late to be pregnant and so on), health problem was the reason of 12% of wives and 4.5% of husbands 10% of husbands and 4.3% of wives reported because of lack of knowledge, religion prohibition accounted to 2.5% of wives and 10.5% of husbands (table 9). Desire for more children is the highest reasons for the couples do not using contraception.

## 10. Recommendation

- Develop and implement program that encourage the involvement of men in family planning, improve family planning service for men, and make male contraceptive methods available and accessible at all level of health facility.
- Integrate family planning in to gender program, Farmers association, Youth association; any institution working on the men's issue should integrate family planning in to their program.
- In our country where men are dominant indecision making, Encouraging spousal communication and involving men in family planning decision making is important in bridging the gap between met and unmet need.
- More attention should be given to the availability and accessibility mixes of family planning service and effectiveness of the service in the district.
- Early marriage is still common in the rural Tigray despite the efforts being made to rise the age of marriage to 18 years. Creating opportunities to promote the education of girls contributes significantly to the delay of first marriage and also help them to shape their future.
- Knowledge is high, but a practice is low, strategies on how to encourage wives and husbands to practice contraception should be designed specially for the husbands.
- Further research is needed to identify the extent of unmet need for the polygamous couples.

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## Annex 1

**Table 15 Kebele and village distribution of the couples Enderta Disterict January 2006**

<b>Kebele(code)</b>	<b>Village(code)</b>	<b>Population</b>	<b>Household</b>	<b>Household sampled</b>	<b>Household interviewed</b>
Shibta (1)	Ghergembes (01)	1093	156	39	39
Shibta (1)	M/Addi (02)	1054	150	37	37
Mia Ambesa(2)	Serewat (06)	2450	350	86	84
Mia Tsedo (3)	Monas (03)	1021	145	36	36
Mia Tsedo (3)	Danrera (05)	3105	444	109	105
Arato (4)	Shiguala (04)	1838	262	65	64
Debri (5)	Hawatsu (07)	1429	204	50	48
Total		11990	1711	422	413







## **Annex 2**

### **English questionnaire on magnitude and determinants of unmet need and barriers of Family planning**

My Name is \_\_\_\_\_ I came from \_\_\_\_\_ I am a student of MPH in the AAU. I would like to inform you that you and me would have a short discussion concerning this study. Before we go to our discussion, I will request you to listen carefully to what I am going to read to you about the purpose and general condition of the study and tell me whether you agree or disagree to participate in this study.

#### **CONSENT FORM**

The purpose of this study is to assess magnitude and determinants of unmet need and barriers of Family planning. You are selected to be one of the participants in the study. The study will be conducted through interviews. We are asking you for a little of your time, about 45 min, to help us in this study. At the end, it is hoped that the information you give us could help to design appropriate service delivery strategy for family planning. The interview involves questions on the use of family planning. So private setting is needed in which you & the interviewer will carry out the interview. We could like to assure you that this privacy should strictly be maintained through out. A code no will identify every participant and no name will be used your responses to any of the questions will not be given to anyone else & no reports of the study will ever identify you. If a report of results is published, only information about the total group will appear. The interview is voluntary. Your participation/ non-participation, or refuse to respond to the questions will have no effect now or in the future. On services that you or any member of your family may receive from any service provider.

Are you willing to participate in this study?      1, Yes      2, NO

**Couples or Wives and Husbands who are family planning user, ever user otherwise never user are asked. You should circle the right answer among the multiple choices**

**Questionnaire 1 – for women**

**PART ONE: – DEMOGRAPHIC AND SOCIO ECONOMIC CHARACTERISTICS**

S.N°	QUESTIONS	Choice of answer
101	address	Write the code
102	Age (in years)	1. ----- Years 2. I don't know 3. No response
103	Marital Status Sex	1-Single 2 –Married 3 –Divorced 4 –Widowed 5 - Female
104	Religion	1 Orthodox 2 - Islam 3 – Protestant 4 –Catholic 5 – Others (specify)
105	Ethnicity	1 –Tigray 2 - Amhara 3 - Oromo 4 - – Others (specify)
106	Educational Status	1 – don't write and read 2 – read and write 3 – completed 1 – 6 grade 4 – completed 7 – 12 grade 5 - Higher education
107	Occupation	1 – house wife 2 - Merchant 3 – daily laborer 4 – house maid 5 - Governmental employee 6 – Job less 7 – Others (specify)
108	Monthly income (of wife only)	1 - ----- birr in month 2 – I don't know exactly 3 – Unwilling to respond
109	If you compare monthly income with your neighbors where you put your economic status	1 – Very poor 2 – Poor 3 – Medium 4 – Rich 5 – I can't say 6 – No response

**PART - TWO: REPRODUCTIVE HISTORY**

S.N <sup>o</sup>	QUESTIONS	RESPONSE	Skip to ques.
201	At what age did you first married?	1 – At the age of ----- 2 – I don't remember 3 – No response	
202	Have you ever been pregnant?	1 – Yes 2 – No 3 – I don't remember 4 – No response	208 204 204
203	If your answer to ques no 202 is yes, how old were you when you first got pregnant?	1 - ----- year 2 – I don't know 3 – No response	
204	Have you ever gave birth to a child?	1-yes 2 – no 3 – no response	208 209
205	How old were you when your first child was born?	1 - ----- years 2 – I don't remember 3 – no response	
206	How many live children do you have?	1 – enter no ----- a. Sons b. Daughter 2 – I don't know exactly 3 – No response	
207	If you could go back to the time you don't have children and could choose exactly the number of children to have in your life, how many children could that be	1 – enter no ----- 2 – I don't know 3 – No response	
208	How many children would you like to have in your life (for those don't have children)?	1 – enter no ----- 2 – not yet decided 3 – no response	
209	Are you currently pregnant?	1 – yes 2 – no 3 – I am not sure 4 – no response	211 211 211
210	If answer to ques no 209 is yes, is the pregnancy ----- ?	1 – wanted now 2 – wanted later 3 – not wanted at all 4 – no response	214 213 213 215
211	Did you give birth within the last six months?	1 – yes 2 – no 3 – no response	224 224
212	If the answer to ques 211 is yes, is the birth -----?	1 – wanted then 2 – wanted later 3 – not wanted at all 4 – no response	214 213 213 216
213	If you have been or gave birth within the last six months when you don't want to what were the reasons you couldn't avoid becoming pregnant? Thick all mentioned.	1 – fear of side effect 2 – not aware of contraceptive 3 – no preferred method 4 – little pregnancy risk (H or / & W) 5 – to have more children 6 – husband disapproval 7 – contraceptive method failure 8 – Others /specify	

214	Time since previous birth(for those currently pregnant or gave birth since 6 month?)	1 - ----- months 2 - I don't remember 3 - no response	
215	After the child you are expecting now, would you like to have another child or not to have any more children? (for pregnant women)	1 - have a child ----- 2 - have no more children --- 3 - not yet decided 4 - no response	217 219 219 219
216	After the birth that occurred within the last six months, would you like to have another child or not to have any more children?(for women that gave birth within the last six months)	1 - have a child 2 - have no more children 3 - not yet decided 4 - no responses	218 220 220 220
217	If the answer to question 215 is choice 1 (preferred to have another child) how long would you like to wait before the birth of another child?	1 - Less than or equal to 2 2 - > 2 years 3 - not yet decided 4 - no response	219 219 219
218	If the answer to question 216 is choice,(preferred to have another child) how long would you like to wait the birth of another child?	1 - Less than or equal to 2 2 - Greater than 2 3 - not yet decided 4 - no response	220 220 220
219	Within a year after the birth of the child you are expecting now, will you use modern contraception (for pregnant women)?	1 - yes 2 - no 3 - not sure 4 - no response	221 227
220	Do you intend to use modern family planning within a period of 12 months starting from the birth that occurred within the last six months?	1 - yes 2 - no 3 - not yet decided 4 - no response	221 226
221	If the answer to question no 219 was yes, would you like t use the method for limiting or spacing?	1 - for spacing 2 - for limiting 3 - don't know 4 - no response	228 228 228 228
222	If the answer to question no 220 was yes, would you like to use the method for limiting for limiting of for spacing?	1 - for spacing 2 - for limiting 3 - don't know 4 - no response	228 228 228 228
223	If you are not currently pregnant or didn't give birth since 6 months or unwilling to respond if you are currently pregnant or gave birth within the last 6 months, would you like to have another child or not to have any more children?	1 - have another child 2 - no more children 3 - not yet decided 4 - no response	225 225 225
224	If the answer to ques no 223 is choice 1, how ling would you like to wait from now before the birth of another child?	1 - Less than or equal to 2 2 - Greater than 2 3 - not yet decided 4 - no response	225 225 225
225	Would you intend to use modern contraceptive within 12 months from now?	1 - yes 2 - no 3 - not yet decided 4 - no response	227 226 229 229

226	If you are not going to use modern contraceptives, would you tell me the main reasons? Tick all mentioned	1 – fear offside effect 2 – not aware of contraceptive 3 – no preferred method 4 – little pregnancy risk (H or / & W) 5 – to have more children 6 – husband disapproval 7 – Religion prohibition 8 – Fear of infertility 9 – other	229
227	For what purpose would you like to use the modern contraceptives, for limiting or for spacing?	1 – for spacing 2 – for limiting 3 – don't know 4 – no response	
228	Which method would you like to use? Thick all mentioned.	1 – pill 2 – implant (Norplant) 3 – injectables 4 – IUCD 5 – condom 6 – female sterilization 7 – male sterilization 8 – spermicidal (foaming tabs, jelly) 9 – natural method (abstinence, withdrawal) 10 – other	
229	Have you ever experienced a pregnancy terminated with abortion?	1 – yes 2 – no 3 – I don't remember 4 – no response	
230	If the answer to question no 229 is yes, how many times?	1 – Wright the no ----- 2 – I don't remember 3 – no response	
231	If the answer to question no 213 is due to contraceptive method failure, what was the method used?	1 – pill 2 – implant (Norplant) 3 – injectables 4 – IUCD 5 – condom 6 – female sterilization 7 – male sterilization 8 – spermicidal (foaming tabs, jelly) 9 – natural method (abstinence, withdrawal) 10 – other	

**PART THREE – PRACTICE OF MODERN C.P**

301	Have you ever used modern contraceptive?	1 – Yes 2 – No 3 – I don't remember 4 – no response	
302	If the answer to ques 301 is yes, what are the methods you used? Tick all mentioned.	1 – pill 2 – implant (Norplant) 3 – injectables 4 – IUCD 5 – Condom 6 – female sterilization 7 – male sterilization 8 – spermicidal 9 – natural method 10 – others (specify)	
303	If the answer to ques 301 is yes, are you currently using a methods?	1 – yes 2 – no 3 – don't know 4 – no response	
304	If the answer to ques 303 is yes, which method are you using? Tick all the mentioned methods.	1 – pill 2 – implant (Norplant) 3 – injectables 4 – IUCD 5 – Condom 6 – female sterilization 7 – male sterilization 8 – spermicidal 9 – natural method 10 – others (specify)	
305	If the answer to ques to 303 is yes, for what purpose you are using the methods?	1 – Spacing 2 – Limiting 3 – do not know 4 – Others specify	
306	If the answer to ques 301 is yes and to ques 303 is no what was the main reason that you stopped using contraceptive method? Tick all mentioned.	1 – Fear of side effect 2 – Fear of infertility 3 – Medical problem 4 – preferred method is not available 5 – Desire to have more children 6 – Little risk of pregnancy 7 – Unacceptable in any culture 8 – Religion prohibition 9 – Others (specify)	
307	Would you say that using contraception is mainly your decision or you wife's decision or did you both decide together?	1 – Mainly respondent's 2 – Mainly wife's 3 – Joint decision 4 – other	
308	Time taken to travel to the source of contraceptive methods?	1 - ----- hours 2 – I do not know 3 – no response	



**PART FOUR: - ATTITUDES TOWARDS CONTRACEPTIVES**

401	Would you like to know more about contraceptive methods?	1 – Yes 2 – No 3 – No response	
402	Do you approve or disapprove of couples using a method of family planning?	1 – Approve 2 – Disapprove 3 – No response	404 404
403	If the answer to question no 402 is to disapprove, Why? Tick all mentioned.	1 – Religion prohibition 2 – Fear of side effect 3 – Medical problem 4 – Desire for more children 5 – Others, specify	
404	Have you discussed about contraception with your husband within the last six months?	1 – Yes 2 – No 3 – Don't remember 4 – No response	
405	If the answer to question no 404 is yes, how many times have you discussed?	1 – Once 2 – Twice 3 – Three times 4 – Greater than 3 times 5 – Don't remember exact no 6 – No response	
406	What is you husband's attitude to wards contraceptive methods?	1 – Approve 2 – Disapprove 3 – Do not know 4 – No response	
407	Does you husband know whether you are using or not using any contraceptive?	1 – Yes he do know 2 – No he doesn't know 3 – I am not sure 4 – No response	
408	Do you know if your husband is using or not using any modern contraceptive?	1 – Yes 2 – No 3 – I am not sure 4 – No response	

**PART FIVE KNOWLEDGE ABOUT CONTRACEPTION**

501	Have you ever heard of family planning?	1 – Yes 2 – No 3 – Don't remember 4 – No response	
502	Do you know any way or methods that women and men can use to delay or avoid pregnancy?	1 – Yes 2 – No 3 - No response	
503	If the answer to question no 502 is yes, which of the following contraceptive methods do you know about?(read and tick all mentioned methods)	1 – pill 2 - IUCD 3 – injectables 4 – implant (Norplant) 5 – Condom 6 – female sterilization 7 – male sterilization 8 – spermicidal 9 – natural method 10 – others (specify)	
504	Do you think it is possible to obtain this method?	1 – yes 2 – no 3 – I don't know 4 – no response	
505	Where is the main place that you or other women are able to get modern contraceptives from? (Tick all mentioned)	1 – Hospital 2 – Health center 3 – Health station 4 – Shop 5 – FGAE clinic 6 – Pharmacy/drug vendor 7 – Private clinic 8 – other specify	
506	Which advantage of contraceptive methods do you know of? (Thick all mentioned)	1 – Avoid unwanted pregnancy 2 – To delay mistimed pregnancy 3 – Regulation of period 4 – TO limit family size 5 – To prevent STI 6 – Other specify	
507	How do you think oral contraceptive pills should be taken to prevent unintended pregnancy?	1 – One pill daily from one menstrual cycle to the next 2 – One pill every other day 3 – One pill following intercourse 4 – Don't know	
508	How do you think injectable contraceptive pills should be taken to prevent unintended pregnancy?	1 – One injection every three months during menstruation 2 – One injection every six months 3 – One injection following sexual intercourse 4 – Don't know	
509	Suppose we compare usage of pills and pregnancy, do you think pills usage is more harmful to women's health than pregnancy, equally harmful or less harmful	1 – Pills are more harmful 2 – Equally harmful 3 – Pills less harmful 4 – Don't know 5 – No response	
510	Which is the best way do you think for	1 – Usage of modern contraceptives	

	married couples in the reproductive age to prevent unwanted or mistimed pregnancy?	2 – Use natural methods (periodic abstinence, withdrawal) 3 – Don't know 4 – No response	
511	What is your source of information about family planning? Tick all mentioned	1 – Health workers 2 – Radio 3 – TV 4 – Friends 5 – News papers 6 – other, specify	
512	Do you have radio or TV in your house?	1 – Radio 2 – TV only 3 – Both radio and TV 4 - None	

**Couples or Wives and husbands who are family planning user, ever user otherwise never user are asked. You should circle the right answer among the multiple choices or write the code**

**Questionnaire II – for men**

**PART ONE: – DEMOGRAPHIC AND SOCIO ECONOMIC CHARACTERISTICS**

S.N <sup>o</sup>	QUESTIONS	Choice of answer
101	Address	Write the code
102	Age (in years)	4. ----- Years 5. I don't know 6. No response
103	Sex	M
104	Religion	1 – Orthodox 2 - Islam 2 –Protestant 4 –Catholic 5 – Others (specify)
105	Ethnicity	1 – Tigrean 2 - Amhara 3 - Oromo 4 - – Others (specify)
106	Educational Status	1 – don't write and read 2 – read and write 3 – completed 1 – 6 grade 4 – completed 7 – 12 grade 5 - Higher education
107	Occupation	1 – house wife 2 - Merchant 3 – daily laborer 4 – house maid 5 - Governmental employee 6 – Job less 7 – Others (specify)
108	Monthly income (of wife only)	1 - ----- birr in month 2 – I don't know exactly 3 – Unwilling to respond
109	If you compare monthly income with your neighbors where you put your economic status	1 – Very poor 2 – Poor 3 – Medium 4 – Rich 5 – I can't say 6 – No response

**PART - TWO: REPRODUCTIVE HISTORY**

S.N <sup>o</sup>	QUESTIONS	RESPONSE	Skip to ques.
201	At what age did you first married?	1 – At the age of ----- 2 – I don't remember 3 – No response	
202	Have ever child born to you?	1 – Yes 2 – No 3– No response	206
203	If your answer to ques no 202 is yes, how old were you when the first child born to you ?	1 - ----- year 2 – I don't remember 3 – No response	
204	If your answer to ques no 202 is yes, how many live children do you have?	1 – enter no ----- a. Sons b. Daughter 2 – I don't know exactly 3 – No response	
205	If you could go back to the time you don't have children and could choose exactly the number of children to have in your life, how many children could that be	1 – enter no ----- 2 – I don't know 3 – No response	
206	How many children would you like to have in your life (for those don't have children)?	1 – enter no ----- 2 – not yet decided 3 – no response	
207	Is you wife currently married?	1 – yes 2 – no 3 – I am not sure 4 – no response	209 209 209
208	If the answer to question no 207 is yes, is the pregnancy -----?	1 – Wanted now 2 – Wanted later 3 – Not wanted at all 4 – No response	212 211 211 213
209	Did your wife give birth within the last six months?	1 – yes 2 – no 3 – no response	222 222
210	If answer to ques no 209 is yes, is the pregnancy ----- ?	1 – wanted now 2 – wanted later 3 – not wanted at all 4 – no response	212 211 211 214
211	If your wife has been pregnant or gave birth within the last six months, when you(and your wife) do not want to, what were the main reasons that she could not avoid becoming pregnant? tick all mentioned	1 – Lack of awareness about contraceptive methods 2 – Poor access to contraceptives 3 – Wife disapproval 4 – Contraceptive failure 5 – Little perceived risk of pregnancy 6 – Religion prohibition 7 – other specify	

212	Time since the birth of your last child (for husbands whose wife are currently pregnant or gave birth within the last six months and reported that current pregnancy or birth that occurred within the last 6 months is wanted.)	1 - ----- months 2 - I don't remember 3 - No response	
213	After the birth of the child your wife is expecting now, would you like to have another child or not to have any more children?	1 - Have a child 2 - Have no more children 3 - Not yet decided 4 - No respond	215 217 217 217
214	After the birth that occurred within the last 6 months would you like to have another child or not to have any more children?	1 - Have a child 2 - Have no more children 3 - Not yet decided 4 - No respond	216 218 218 218
215	If you preferred to have another child how long would you like to wait before the birth of another child?	1 - Less than or equal to 2 2 - > 2 years 3 - not yet decided 4 - no response	217 217 217
216	If you preferred to have another child how long would you like to wait before the birth of another child?	1 - Less than or equal to 2 2 - > 2 years 3 - not yet decided 4 - no response	218 218 218
217	With in a year after the birth of the child your wife is	1 - yes 2 - no 3 - not yet decided 4 - no response	219 224
218	Within a year after the birth of the child that occurred within the last six months, will you use modern contraception (for husband whose wife gave birth within the last six months)?	1 - yes 2 - no 3 - Not yet decided 4 - no response	220 224
219	If the answer to question no 217 was yes for what purpose would you like t use the contraceptive methods?	1 - for spacing 2 - for limiting 3 - don't know 4 - no response	226 226 226 226
220	If the answer to question no 218 was yes, for what purpose would you like to use the contraceptive method	1 - for spacing 2 - for limiting 3 - don't know 4 - no response	226 226 226 226
221	If your wife is not currently pregnant or didn't give birth within the last 6 months or failed to respond and if your wife is currently pregnant or gave birth since 6 months, would you like to have another child or not to have any more children?	1 - have another child 2 - no more children 3 - not yet decided 4 - no response	223 223 223
222	If the answer to ques no 221 is choice 1, how ling would you like to wait from now before the birth of another child?	1 - Less than or equal to 2 2 - Greater than 2 3 - not yet decided 4 - no response	223 223 223
223	Would you intend to use modern contraceptive within 12 months from now?	1 - yes 2 - no	225 224

		3 – not yet decided 4 – no response	227 227
224	If you are not going to use modern contraceptives, would you tell me the main reasons? Tick all mentioned	1 – fear offside effect 2 – not aware of contraceptive 3 – no preferred method 4 – little pregnancy risk(H or / & W) 5 – to have more children 6 – husband disapproval 7 – other	227
225	If the answer to question no 223 was yes, for what purpose would you like to use the contraceptive method	1 – for spacing 2 – for limiting 3 – don't know 4 – no response	
227	Have your wife ever experienced a pregnancy terminated with abortion?	1 – yes 2 – no 3 – other	
228	If the answer to question no 227 is yes, how many times?	1 – Wright the no ----- 2 – I don't remember 3 – no response	

### PART THREE – PRACTICE OF MODERN C.P

301	Have you ever used modern contraceptives?	1 – Yes 2 – No 3 – I don't remember 4 – no response	
302	If the answer to ques 301 is yes, what are the methods you used? Tick all mentioned.	1 – pill 2 – implant (Norplant) 3 – injectables 4 – IUCD 5 – Condom 6 – female sterilization 7 – male sterilization 8 – spermicidal 9 – natural method 10 – others (specify)	
303	If the answer to ques 301 is yes, are you currently using a method?	1 – yes 2 – no 3 – don't know 4 – no response	
304	If the answer to ques 303 is yes, which method are you using? Tick all the mentioned methods.	1 – pill 2 – implant (Norplant) 3 – injectables 4 – IUCD 5 – Condom 6 – female sterilization 7 – male sterilization 8 – spermicidal 9 – natural method 10 – others (specify)	
305	If the answer to ques to 303 is yes, for what purpose you are using the methods?	1 – Spacing 2 – Limiting	

		3 – do not know 4 – Others specify	
306	If the answer to ques 301 is yes and to ques 303 is no what was the main reason that you stopped using contraceptive method? Tick all mentioned.	1 – Fear of side effect 2 – Fear of infertility 3 – Medical problem 4 – preferred method is not available 5 – Desire to have more children 6 – Little risk of pregnancy 7 – Unacceptable in any culture 8 – Religion prohibition 9 – Others (specify)	
307	Would you say that using contraception is mainly your decision or you wife's decision or did you both decide together?	1 – Mainly respondent's 2 – Mainly wife's 3 – Joint decision 4 – other	
308	Time taken to travel to the source of contraceptive methods?	1 - ----- hours 2 – I do not know 3 – no response	

**PART FOUR: - ATTITUDES TOWARDS CONTRACEPTIVES**

401	Would you like to know more about contraceptive methods?	1 – Yes 2 – No 3 – No response	
402	Do your self approves or disapprove of couples using a method of family planning?	1 – Approve 2 – Disapprove 3 – No response	404 404
403	If the answer to question no 402 is to disapprove, Why? Tick all mentioned.	1 – Religion prohibition 2 – Culture do not allow 3 – Fear of side effect 4 – Medical problem 4 – Desire for more children 5 – Others, specify	
404	Have you discussed about contraception with your wife within the last one-year?	1 – Yes 2 – No 3 – Don't remember 4 – No response	
405	If the answer to question no 404 is yes, how many times have you discussed?	1 – Once 2 – Twice 3 – Three times 4 – Greater than 3 times 5 – Don't remember exact no 6 – No response	
406	What is you wife's attitude to wards contraceptive methods?	1 – Approve 2 – Disapprove 3 – Do not know 4 – No response	
407	Does you know if your wife is using any modern contraceptive currently?	1 – Yes I do know 2 – No i dont know 3 – I am not sure 4 – No response	



408	Does your wife know if you are using or not using any modern contraceptive?	1 – Yes 2 – No 3 – I am not sure 4 – No response	
-----	---	---	--

**PART FIVE**

501	Have you ever heard of family planning?	1 – Yes 2 – No 3 – Don't remember 4 – No response	
502	Do you know any way or methods that women and men can use to delay or avoid pregnancy?	1 – Yes 2 – No 3 - No response	
503	If the answer to question no 502 is yes, which of the following contraceptive methods do you know about?(read and tick all mentioned methods)	1 – pill 2 - IUCD 3 – injectables 4 – implant (Norplant) 5 – Condom 6 – female sterilization 7 – male sterilization 8 – spermicidal 9 – natural method 10 – others (specify)	
504	Do you think it is possible to obtain this method?	1 – yes 2 – no 3 – I don't know 4 – no response	
505	Where is the main place that you or other men are able to get modern contraceptives from? (Tick all mentioned)	1 – Hospital 2 – Health center 3 – Health station 4 – Shop 5 – FGAE clinic 6 – Pharmacy/drug vendor 7 – Private clinic 8 – other specify	
506	Which advantage of contraceptive methods do you know of? (Thick all mentioned)	1 – Avoid unwanted pregnancy 2 – To delay mistimed pregnancy 3 – Regulation of period 4 – TO limit family size 5 – To prevent STI 6 – Other specify	
507	How do you think oral contraceptive pills should be taken to prevent unintended pregnancy?	1 – One pill daily from one menstrual cycle to the next 2 – One pill every other day 3 – One pill following intercourse 4 – Don't know	
508	How do you think injectable contraceptive should be taken to prevent unintended pregnancy?	1 – One injection every three months during menstruation 2 – One injection every six months 3 – One injection following sexual intercourse 4 – Don't know	
509	Suppose we compare usage of pills and	1 – Pills are more harmful	

	pregnancy, do you think pills usage is more harmful to women's health than pregnancy, equally harmful or less harmful	2 – Equally harmful 3 – Pills less harmful 4 – Don't know 5 – No response	
510	Which is the best way do you think for married couples in the reproductive age to prevent unwanted or mistimed pregnancy?	1 – Usage of modern contraceptives 2 – Use natural methods (periodic abstinence, withdrawal) 3 – Don't know 4 – No response	
511	What is your source of information about family planning? Tick all mentioned	1 – Health workers 2 – Radio 3 – TV 4 – Friends 5 – News papers 6 – other, specify	
512	Do you have radio or TV in your house?	1 – Radio 2 – TV only 3 – Both radio and TV 4 - None	