ADDIS ABABA UNIVERSITY FACULTY OF MEDICINE DEPARTMENT OF COMMUNITY HEALTH

PREVALENCE OF UNINTENDED PREGNANCY AND CHILD BIRTH AND ITS DETERMINANTS IN HARAR TOWN; ETHIOPIA.

SOLOMON WORKU; MD

THESIS SUBMITTED TO THE FACULTY OF MEDICINE ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENTS OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS IN PUBLIC HEALTH.

APRIL 2002

ACKNOWLEDGMENT

I would like to forward my deepest appreciation and thanks to my advisors Dr Misganaw Fantahun and Professor Yemane Berhane for their unreserved help in reviewing my thesis work and giving me constructive criticism and advice. I would also want to extend my deepest appreciation to Dr Damen H/Mariam who initially and unreservedly assisted me in revising my proposal Let my thank also extend to Dr Abera Kume, Dr Gail Davey and Ato Fikrie Enkuselasse for their valuable contribution to the work of this research.

I would also acknowledge Harari National Regional Health Bureau, Misrak Arbegnoch Hospital staff and management and kebele 12 anti Aids club With special thanks to ato Biruk for cooperation and help offered to me during my data collection. I would also like to recognize the Ministry of Health, Family Health Department/UNFPA for the fund support to carry out the research.

I am deeply indebted to the entire staff of the community health department for their full cooperation and support in different aspects while the study is proceeding. The staffs of medical main library and community health department library as well as UNFPA library are also among the people to be appreciated for their cooperation in providing the necessary reference materials. I would also like to extend my appreciation to Ato Nigussu Worku and Wondwosen Bekele clerks of Community Health department computer laboratory for their support in their respective fields of activity. The concern and thoughtfulness I received from my family and friends is not forgotten, it is also my pleasure to acknowledge everyone who has contributed to the successful completion of this work.

TABLE OF CONTENT **Page**

LIST OF TABLES **Page**

LIST OF FIGURES **PAGE**

LIST OF ANNEXES **Page**

LIST OF ABBREVIATIONS

WHO-World Health Organization

AOR-Adjusted Odds Ratio

CSA –Central Statistical Authority

CPR-Contraceptive Prevalence Rate

COR- Crude Odds Ratio

CBS- community based study

DHS-Demographic and Health Survey

FP- Family Planning

FGAE- family guidance of Ethiopia

FGD- Focus Group Discussion

HIV-Human Immuno Deficiency Virus

HBS- Hospital based study

AIDS Acquired immuno Deficiency syndrome

ICPD-International Conference Population and development

IUD-Intra Uterine Device

KAP-knowledge Attitude and Practice

GOV.- Government

MOH- Ministry of Health

NFS- National fertility survey

STD-Sexually Transmitted Disease

TFR-total fertility rate

UNFPA-United Nation Fund Population agency

WFS-world fertility survey

ABSTRACT

Unintended pregnancy and births could have negative consequences for children, for their parents, for their sibling and for the society as a whole. Regardless of the level of health care access and use reducing the number of pregnancies will lower maternal death rates.

A descriptive cross sectional study design was used to assess the prevalence and socio demographic determinants of unintended pregnancy and or childbirth in Harar town. The study was carried out in nine *kebeles*, from three *keftegnas* of the town.

A multistage sampling technique was conducted to select a total of 1000 females of reproductive age group (15-49 years) for interview. A structured questionnaire survey and four-paired focus group discussion were used as the method of data collection.

A total of 983 females aged 15-49 years randomly selected women responded to a pretested structured questionnaire designed to illicit information concerning most recent unintended pregnancies, childbirth and induced abortions.

Fifty five point six percent of the respondents were currently married, 29.7 % never married, 9.4 % were divorced/separated and the rest 5.3% were widowed. The mean age at first marriage was 18.8(SD=4.5)

The majority of the respondents were found to have formal education. Knowledge of contraceptive method showed 96.6 % of the respondents knew at least one method. Among 785 sexually active women 326(41.5%) were reported to be current user of modern contraceptive method 195(33.7%) had ever used MC but 264(24.8%) among

sexually active women were non-users.

The occupational status indicated that 321(32.7 %) were employed including self employment 429(43.6%) were housewives, students constituted 127 (12.9%) and 106 (10.8%) were unemployed

Two hundreds twenty-five out of 675 ever pregnant surveyed respondents (33.33%) reported that their most recent pregnancies were unintended. Of these, about half 112 out of 225 reported had unintended childbirth and the rest 113 ended in induced abortion. The prevalence of unintended childbirth constituted about 16.59 % while induced abortion was found to be nearly 16.74 %.

Age at first marriage, marital status, education and number of pregnancies, respondents age and economic status were found to be the key predictors of unintended pregnancy or it's measured outcomes: unintended births and induced abortions.

System design and coherent strategy will be very important to meet unmet needs that result in unplanned and unwanted fertility both with respect to strengthen advocacy and increase access of modern contraceptive methods through community distribution and other social organizations as well as empowerment of women which enables them to be decision maker in their sexual and other aspects of life.

INTRODUCTION

Unintended pregnancy is a worldwide problem that affects women, their families and society. Unintended pregnancy can result from contraceptive non-use, contraceptive failure and less commonly from rape. Abortion is a frequent consequence of unintended pregnancy and in the developing world can result serious negative health effects such as infertility and maternal death. Regardless of the cause, unintended pregnancy and its negative consequences can be prevented by access to contraceptive services, including emergency contraception and legal abortion services and by respecting the contraception as well as legal abortion services and rights of women (1).

Between 20- 40% of births in developing countries are unwanted or mistimed, posing hardships for families and jeopardizing the health of millions of women and children. An estimated 50 million induced abortions are performed each year with some 20 million of those performed in unsafe circumstances or by un-trained providers. Nearly 600,000 women die each year from pregnancy related causes, 99% of these women live in developing countries. Forty percents of pregnant women experience some form of pregnancy related complication(s) and 15% of all pregnant women develop a life threatening complication(s) requiring obstetric care (1,2).

Significant proportion of women turn to induced abortions to avoid unwanted or unplanned births. This is the case not only in countries where abortion is legal and safe but also where it is illegal and therefore often unsafe. About 32 million abortion per year

occurred in the developing world in 1990 and Africa had fewer (3.8 million) abortions, but only 0.8 % of the abortions were safe (3). Reducing the number of unintended pregnancies, promotes reproductive health mainly by reducing the number of times a woman is exposed to the risks of pregnancy and child bearing in adverse circumstances. Family planning programs, by providing women access to modern contraceptive methods, have been able to reduce their exposure to obstetrical risks and the negative health consequences of unplanned pregnancies (1,2).

Eight countries-Bangladesh, Ethiopia, India, Indonesia, Nepal, Nigeria, Pakistan and Uganda account for the majority of maternal deaths worldwide. A considerable amount of these deaths could have been averted if appropriate family planning and obstetric care would have been used. Family planning is a process whereby couples are empowered to make informed choices about their fertility and thus their lives (2,4).

The 1994 International Conference on Population and Development (ICPD) adopts a definition of reproductive health that emphasizes every person's right to decide whether, when and how often s/he will have children. Endorsement of this definition underscores individual decision -making rights regarding family planning and all pregnancy-related care(5).

LITERATURE REVIEW

Fertility

Fertility in Sub-Saharan Africa remains the highest of any major region of the world. In some large Sub- Saharan African countries, little evidence of fertility decline is found. The fertility transition is clearly underway in southern Africa having a total fertility rate of 4.0 children, Zimbabwe with a TFR with one of 4.8, Swaziland 4.9, Lesotho 4.3,Botswana 5.2 and Namibia 5.3, Zambia 6.1 at best at the beginning of the fertility transition. Ethiopia is one of the countries with the lowest contraceptive prevalence and highest TFR. According to the Demographic Health Survey 2000, current contraceptive use is 8% and the TFR is reported to be 5.9(6.4 rural and 3.3 for urban). The transition seems to establish a foothold in to other areas; in East Africa Kenya has experienced a rapid fertility decline. Not many years ago the TFR in Kenya was 8.0 the highest in the word (6,7)

Figure. Percentage of women in eight developing countries who reported that their most recent pregnancy or birth was unintended- that is unwanted or mistimed

Serial Number	Country	Percentage of unintended Pregnancy or birth	Degree of unintended Pregnancy or birth
1	Nigeria	14%	Low
2	Tanzania	27%	Moderate
3	Thailand	34%	Moderate
4	Egypt	44%	High
5	Philippines & Colombia	48%	High
6	Bolivia	56	High
7	Kenya	58%	High

data from the World Demographic and Health Survey Published by Population Reference Bureau in 1997

The risk of adult female dying in African countries is high because African women become pregnant more often than women of other continents and each pregnancy is riskier. Unintended pregnancies also affect children's health, because these pregnancies occur disproportionately among women's in high-risk categories including very young or old women and those with many births and short pregnancy intervals. Those factors are also associated with a higher risk of infant mortality. (1)

Although wanted child bearing almost invariably declines as countries move through fertility transition, the trend in unwanted fertility was found to have an inverted "U" shape. During the first part of the transition, unwanted fertility tends to rise and it does not decline until the end of the transition. This pattern is attributed to the combined effect of an increase in the duration of exposure to the risk of pregnancy and a rise in contraceptive use as desired family size declines. The substantial variation in unwanted fertility among countries at the same transition stage, is caused by variation in the degree of implementation of preferences, the effectiveness of contraceptive use the rate of induced abortion and the proximate determinants, such as age at marriage, duration of breast feeding and frequency of sexual relations. (3) If desired family size continues to fall, as it has in most places, helping individuals achieve their reproductive goals will also result in overall lower fertility rates. Reproductive health program should place a high priority on meeting the growing need for family planning programs through safe access to a range of contraceptive methods and reorientation of the family planning policy to address the contraceptive needs of adolescents (5,8)

ADOLESCENT PREGNANCY

Adolescent pregnancy is one of worldwide reproductive health problem with a varying degree of severity in different parts of the world. Every society should place high priority on young on improving to the law enforcement system, creating services for victims of sexual violence. Law against sexual and domestic vulnerable should be in acted and existing law enforced. A principal barrier to women's control over their sexuality lies in their dependency on men for economic survival, therefore, in addition to direct policy and aimed at sexual violence measures to increase women's autonomy through higher education, opportunity for financial independence, laws guaranteeing inheritance and divorce rights are likely to reduce women's vulnerability to coercion and violence. (1)

Qualitative study conducted among Ugandan adolescents documented that the knowledge of safe sex behavior and reported behavior have little in common and that the fundamental barrier to behavioral change lies within the economic and socio cultural context that molds the sexual context of youth. Sexuality in Ethiopian teenagers is often complicated with unplanned/pregnancy, abortion and the risk of STDs and AIDS (9,10).

Pregnancy among adolescents is an important problem in most developing countries. The phenomenon in Brazil seems numerically stable for the age group from 15-19 years. In Brazil public hospital 15-25% of the mothers delivering are adolescents mostly 15-19 years old. The majority of these pregnancies are unwanted. The immediate consequences of unwanted pregnancies are: induced abortion, lack of prenatal care, personal and family disruptions, adoptions and abandonment. Adolescents of high socio economic levels

frequently solve the problem of unwanted pregnancies with induced and safe abortions. In spite of the legal prohibition in Brazil and many, African countries, there are no difficulties in obtaining the interruption of pregnancy with safety in clandestine services, clinics and private institutions for those with sufficient money and information. Poor women, however have only two ways of dealing with this situation: Give birth or acceptance of illegal induced abortion. The later is carried out in an unsafe condition, with high risk of infection, hemorrhage and other severe consequences including death .In addition, teen age pregnancy poses grave consequences as they are physiologically immature, often emotionally unstable and economically un capable to care for the baby (11,12).

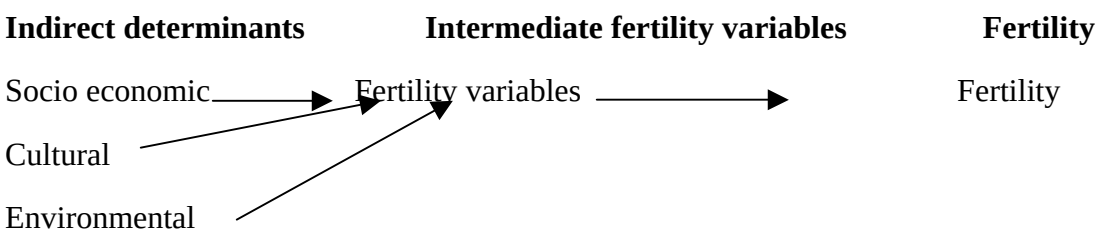
Adolescent sexuality often results in premarital and unplanned pregnancies, which often leads to premature discontinuation of schooling or abortion both of which are inherent risks and costs. In South Africa in contrast to other settings, teenage mothers may return to school once they have given birth and this opportunity strongly related to delay before the second baby, educated girls also tend to bring more bride wealth which may encourage parents to support their daughters (10,13).

In sub-Saharan Africa, sexual activity, contraceptive use and childbearing among never married woman aged 15-24 differs significantly among countries. Analysis of Demographic and Health Surveys data for seven countries reveals that in some countries such as Botswana and Liberia more than 75% unmarried women have had sexual intercourse, while only 4% in Burundi and Ghana have done so. Although, 75% sexually

experienced young women in the countries studied know of at least one contraceptive method, less than 30% of the women in most countries have ever used modern method. Child bearing among unmarried women is almost non-existence in Burundi (2%) and very low in Ghana (9%) but it is fairly common in Botswana (42%) and Liberia (34%)(14).

CONTRACEPTION

Fertility differences among populations and trends in fertility over time can always be traced to variations in one or more of the intermediate fertility variables. The following diagram summarizes the relationship among determinants of fertility(15).



In a study conducted in two woredas of southern Tigray on knowledge, attitude and practice of reproductive health revealed that the population is characterized by early marriage with mean age at first marriage of 15 years; teen age pregnancy and mother hood with 55% of mothers having given birth before the age of 18. Access to reproductive health service appears extremely low and knowledge of modern contraceptive was high (80%) while an unmet need for family planning was found to be 66%(16).

Many who request an abortion have become pregnant as a result of poor access, lack of fore thought or contraceptive failure. Although there is some debate, about magnitude of effect, few people question the important role that emergency contraceptive can play in

preventing unwanted pregnancy and hence maternal morbidity and mortality resulting from unsafe abortion. (17)

In sub-Saharan Africa where the desired family size is still high (contraceptive use low) about one-fifth of births on average are reported as mistimed, which suggests a need for contraceptive method for birth spacing (1).

More and more women of all over the world are opting for fertility by choice not by chance. Contraceptive use has a tremendous impact on women's health. It is saving the lives of women around the world from hazards of unwanted pregnancy More than 90% of unmarried sexually experienced women in Botswana, Kenya, Zimbabwe; and more than 75 % of the other women know of at least one modern contraceptive method. (14,18)

INDUCED ABORTION

Data on induced abortion provide evidence both on the extent of unintended pregnancies and one of its potentially harmful consequences. Unsafe abortions are one of the four leading causes of pregnancy related deaths and also account for a huge number of non-fatal injuries Abortion related maternal deaths are major causes of mortality in Africa and the treatment of incomplete and septic abortion is severely consume the scarce health resource of governments through out the region. In a community based comparative study conducted in east Gojam documented that out of 135 sexually active adolescent female 20(14.8%) had a history of abortion (1,19) A cross sectional community based study in Addis Ababa, out of 976 respondents 469 (48.1%) were pregnant in the past of which 113, (24.1%) had live births. 4 (0.8%) stillbirths, 10 (2.1%) spontaneous abortion and 362

(77%) had illicit abortions while in a study conducted on abortion in rural women in north Ethiopia documented that 343(29.3%) out of 1158 respondents disclosed they have known some one in their family who died of abortion which high lights one of the grave consequence abortion in this country. (20,21)

The sensitive nature of induced abortion has made collecting reliable data on the subjects difficult in Benin as inmost developing countries. Changes in reproductive preference and practice suggest diffusion process; from urban educated women to rural and less educated between 1982 and 1990, the mean number of surviving children born to a woman has increased by more than one child from 4.3 to 5.4. Examination of fertility preference shows that persistent reduction of more than one and half children in mean ideal family size occurred between 1982-1996 (22)

In study conducted in Butajira documented MMR is extremely high regardless of the method used to estimate the parameter. Neonatal mortality was estimated to be 27 per 1000 live births and accounted for a large proportion of infant deaths. Adjusted MMR for the direct method was 634 maternal deaths per 100,000 live births. (23)

A Kenyan hospital based study revealed that out of 1404 admissions, incomplete abortion constituted 489 comprising 34.8% of gynecological admissions (24) In a study conducted on adolescent pregnancies in Addis Ababa indicated that 569(74.0%) of adolescent mothers were unmarried and 391(51.0%) unemployed and the pregnancy may have been unplanned/unwanted and or socially unacceptable (25)

Hospital based study conducted in Sidamo (Yirga Alem) documented from 185 cases of abortion treated 64(35%) were reported to be induced and 121(65.0%) were spontaneous.

Induced abortion was higher in the age group 20-24(61.0%), single (65.0%), unemployed 70%, nuliparous (78.0%) and-12 grade educational levels (67.0%). The pregnancy was unwanted in all cases of induced abortions and 50(41.0%) in spontaneous abortion cases. In a study conducted among the sexually active females school adolescents in Addis Ababa, 32(18.6%) claimed to have been pregnant out of which 22(68.8%) ended up in abortion.(26.27).

One of the methods of preventing unintended childbirth is induced abortion. Nothing in the field of health care generates more controversy worldwide than does the issue of abortion.

For those who believe that life begins at the time of fertilization or implantation, there is no middle ground: abortion for them equates murder of unborn child. Similarly, for those who believe that a woman must have the ultimate right to decide whether to carry a pregnancy to term. The issue of abortion clearly presents an enormously complex moral and ethical dilemma. There is other issue which no directly affects the health of individuals and which is at the same time so affected by a web of religious moral and political factors (28).

As mentioned earlier abortion occurs in every society with varying degree in different settings. Abortion rates continue to increase unless unwanted pregnancy can be reduced.

Throughout Sub Saharan Africa abortion is highly restricted. Only seven countries permit abortion for reasons other than those directly threatens woman's life and in only one country Zambia, it is legal on social or socioeconomic grounds (29).

In hospital-based study conducted in south Africa Ga-Rankuwa hospital indicated that 1152 cases of abortion and 8321 deliveries were recorded in the same one year period which means for every 7.2 deliveries there was one abortion giving an incidence of 139 abortions (spontaneous and induced per 1,000 deliveries) Most of these women who interfered with their pregnancies resulting in abortion were between 16 and 21 years old. When married women were compared to single women it was evident that significantly more single women had a positive history of intervention than in the married group. It was established that 39.3 percent of the non-intervention group 98.5 percent of those who induced abortion established that they did not want their pregnancies (30).

The key issue relating to contraception and abortions for sexually active young people is access-both physical and financial access to services. Legislation is important in assuring access. It may provide for the availability of clinics to young people. One may contrast the Swedish legislation, which explicitly safe guards the confidentiality of the adolescents relationship with her doctor concerning provision of contraception, with personal consents or notification requirements concerning contraception and abortion, which may compromise the fragile access that adolescents perceive they have for prevention of unwanted pregnancy. Legislation also at one end of spectrum abortion is a crime under all circumstances or a crime except when performed to save the life of the woman. At the

other end of the spectrum abortion is an elective procedure In the middle of the spectrum abortion is allowed on specified medical, eugenic judicial grounds. As more and more countries have legalized abortion, especially in the first trimester of pregnancy, safe legal termination are increasingly available to young women as well as to all women. (31)

Women in developing countries still experience a high rate of unintended pregnancies and unsafe abortions. Emergency contraceptive is a safe way to reduce unwanted pregnancies and its respective consequences. Making motherhood safe requires action on three fronts: Reducing the number of unwanted pregnancies, reducing the number of obstetrics complications and reducing the case fatality rate of obstetric complications (32,33).

In Ethiopia ever-married population accounts 51% at country level and this was 47.2% for urban. Total number of ever born children per woman aged 45 – 49 years old was documented to be for urban of Ethiopia was 5.6 and for Harai was 5.8(34.35). Increasing the availability and accessibility of family planning information and services, will substantially reduce the number of pregnancies and result in reduction in maternal deaths. Social scientists have reached a degree of consensus that both socio economic development and effective family planning program contribute to fertility decline. Indeed an interactive relationship coexists to the degree that socioeconomic development provides an important foundation for highly successful family planning. (36)

In spite of this fact, induced abortion occurs practically in every society in the world, but only 40% of the women in the world live where abortion is legally free. A permissive legislation is a primary prerequisite for medically safe and early abortion. In contrary,

with restrictive law, abortion is difficult to obtain, costly and possibly unsafe, particularly to less affluent women in the society(37). In a study conducted in Gondar town, Ethiopia involving women aged 15-49 years indicated that the proportion of abortion to delivery was 0.3984 to 0.6016 and the ratio of unintended conception to intended conception was 0.4043 to 0.5957, and the proportion of unwanted fertility to wanted conception was 0.4099 to 0.5901(38). If a pregnancy occurs with in a pregnancy planned and brought to term they often can be dealt with and accepted. They are even more traumatic when they occur in unwanted pregnancy that could have been prevented through contraception. Teenagers because of their physical and physiological immaturity and also because of their social environment seem to suffer with undue frequency from complications of induced abortions (39)

Because all pregnancies can be prevented, health promotion strategies must address the problem of unsafe abortions. Only then we make significant strides in ensuring women's right to have children when they want and avoid to childbearing when they do not. Sadly illegal abortion is one of the five major causes of maternal mortality. International data suggests that maternal mortality is decreasing in regions where the use of family planning is increasing because of the consequence avoidance of unwanted pregnancies, even though accurate data is difficult to obtain in developing countries (40).

Despite a dramatic increase in contraceptive prevalence world wide over the last 20 years, one- third of women who become pregnant each year have either abortion or unintended birth (41). In a study conducted south central Ethiopia, documented family planning

services were grossly deficient in many health institutions: Only 1.4% of the health institutions have all family planning commodities (that is oral contraceptive pills, injectable contraceptives, condoms, diaphragms, IUDs) at the time of data collection. (42)A study conducted in Addis Ababa indicated that contraceptive prevalence rate was 29.5% with oral contraceptive pills being the most popular method used. The study demonstrated that there is still a wide gap between contraceptive knowledge and actual utilization (43).

Unsafely induced abortion is responsible perhaps for one quarter of maternal deaths in pregnancy and childbirth in developing countries. Despite intensified international concern with reducing high rates of maternal mortality and morbidity national policy makers and participants at international conferences in maternal health with a few important exceptions have not recommended that safe legal services for terminating unwanted pregnancies be offered as essential elements of basic reproductive healthcare. A new policy approach is clearly needed if unacceptably high rates of maternal mortality rates in many countries are to be reduced (44).

Despite the high magnitude of pregnancy related maternal mortality and grave consequences related to unintended pregnancy such as unsafely induced abortion including death of the mother, high number of non-fatal injuries and unintended births, the potential preventability of unintended pregnancy, very few studies adressesed the extent of unintended pregnancy and factors associated with it; so this study attempts to asses the extent of women affected by unintended pregnancy and factors associated with it.

RATIONAL OF THE STUDY

Some of the immediate consequences of unintended pregnancy are induced abortion and unintended birth. Substantive data associated to unintended pregnancies and the extent of women affected are lacking in Ethiopia.

Such data are relevant to policy makers and health care authorities to make uninformed decision towards prevention of this major reproductive health problem, therefore this study attempts to explore the extent of unintended pregnancy, childbirth, induced abortion and factors associated with it as well as knowledge, attitudes and practice of fertility regulation methods among women of reproductive age group (15-49 years).

OBJECTIVE

GENERAL OBJECTIVE

To Asses the magnitude of unintended pregnancy and its determinant factors among females of reproductive age (15-49) residing in Harar town.

SPECIFIC OBJECTIVES

- To estimate proportion of unintended pregnancies and childbirths in the study population.
- To describe knowledge attitude and practice on fertility regulation methods in females aged 15-49 years.
- To identify sociodemographic and cultural factors associated with unintended pregnancies and or childbirth

SUBJECTS AND METHODS

STUDY DESIGN

Community based descriptive cross sectional study was conducted from 20th November 2001 to 10th December 2002 among samples of females of the reproductive age group (15-49 yrs).

The study has both quantitative and qualitative parts:

QUANTITATIVE PART

The design of quantitative study was descriptive cross-sectional, which was used to assess the prevalence of unintended pregnancy and its determinant factors. It was also designed to assess knowledge, attitude and practice of fertility regulation methods.

QUALITATIVE PART

This study was carried out to assess the extent of the problem of unintended pregnancy and or childbirth in the community and knowledge attitude and practice of family planning services so as to supplement to the quantitative study.

The design of the study was focus group discussion (FGD) among selected groups of the society in the study area. There were eight groups of participants; two groups of male and females each grouped as married and unmarried forming a total of four groups. The fifth and sixth group is formed from elders and religious leaders in the community. Two other groups were formed from health service providers who were in particular connection with family planning and delivery or post abortion care services. All focus group discussions conducted consists of 6-8 members of participants in each group. The necessary precaution was made to carry out the focus group discussions in a quite place that was chosen by the participants so that they could discuss freely with out being affected by the surrounding condition.

STUDY AREA

The study was conducted in Harar town that is administrated by Harari National regional government. Harar is an ancient town located 525km east of Addis Ababa with an estimated population of 77,000 of which 49.2% were males and the rest were females. The town has 3 *keftegnas (woredas)* and 19 *kebeles*. It is one of the ancient cities serving as one of the active commercial, religious, cultural and political centers of the country and a home for various nations and nationalities.

The ethnic composition of the town in the order of decreasing population number is Amhara, Oromo, Harari, Guragie and others. Religious categories include Orthodox Christian, Muslims, Catholics, Protestants and Catholics.

The number of females in reproductive age (15-49) was projected to be 22,000 for the year 2000. Total fertility for 2000 was estimated to be 4.4 children per woman of reproductive age (15-49) while the national figure is 5.9 children per woman of reproductive age group 3.3 for urban and 6.4 for rural setting.

Literacy level for females is 68% while it is 87.3% for males. As of 1994 female employment is said to be 54.3 and 7.3% of females of reproductive age group are currently pregnant (6,46). There are five hospitals and eight health stations as well as 14 private clinics in the town.

SOURCE POPULATION

The source population consists of all females of reproductive age group (15-49years) residing in Harar town.

STUDY POPULATION

The study population was a random sample of female residents of the town aged 15-49 years. The inclusion criteria for enrolment of eligible respondent was being female of reproductive age (15-49) and residing in Harar at least for six months prior to the day of the survey.

SAMPLE SIZE DETERMINATION

The sample size was estimated based on an assumption that 50% of the pregnancies were unintended among women of reproductive age (15-49) with 5% margin of error and 95% confidence level of certainty. The actual sample size was calculated using single population proportion formula.

$$n = \frac{(z\alpha/_2)^{2} P(1-P)}{(d)^{2}} = \frac{(1.96)^{2} 0.5(1-0.5)}{(0.05)^{2}}$$

Where: P= the prevalence of unintended pregnancy and childbirth.

d =the margin error between the sample and the population.

Zα/2= critical value at 95% confidence level of certainty (1.96).

The calculated sample size=384.16

20% non response rate=77, Design effect=2

Total= 922(minimum sample size) A sample of 1000 women was collected on the study and this would increase precision.

STUDY VARIABLES

Dependent variables: unintended pregnancy, induced abortion, and unintended birth

Independent variables: Demographic variables such as age, marital status, ethnicity, and religion.

Socioeconomic and cultural variables: income, occupation, employment, family size, and educational level.

Knowledge attitude and practice of fertility regulation methods.

SAMPLING TECHNIQUE

In this study a multi-stage sampling technique was applied to select study subjects. The town was divided into three clusters using former higher administrative unit *Keftegna (woreda*). There are three *keftegnas (woredas*), the first two of the woredas each consists of seven kebeles (lowest administrative unit) and the third woreda consists of five *kebeles.* Three *Kebeles* from each woreda were identified, using simple random sampling method.

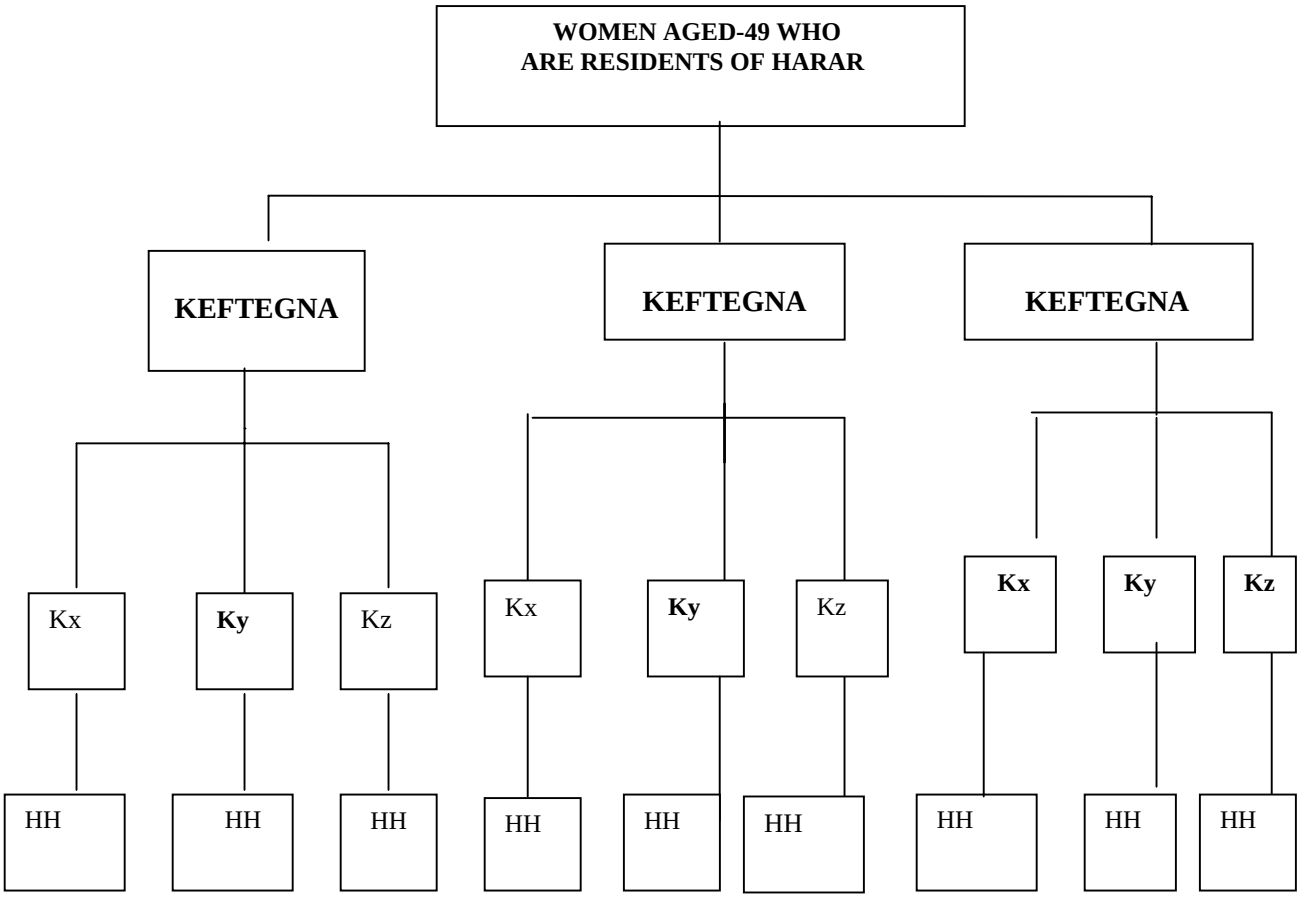
The sampling fraction from each of the selected *kebeles* was determined proportional to the total households of each *kebele*. Then systematic sampling method was employed to select the households from each *kebele* where the sampling interval was the total number of households in each *kebele* divided by the corresponding number of households to be interviewed in each *kebele.*

The first household to be interviewed was determined from kebele house number using simple random sampling method. The next household was identified

systematically (H/h^{th}) household by going clockwise direction.

Whenever more than one eligible respondent was found in the same selected household, only one respondent was chosen by lottery method (simple random sampling). In case no eligible was identified in the selected household, the interviewer would go to the next household in the clockwise direction until she got an eligible woman.

SCHEMATIC REPRESENTATION OF SAMPLING PROCEDURE.



KEY:

Keftegna: administrative unit.

Kx, y, z: selected kebeles

HH: Selected house holds

DATA COLLECTION

QUANTITATIVE DATA

Quantitative data was collected using a structured questionnaire. The questionnaire was being prepared in English, translated to Amharic and retranslated to English by different individuals to check for conceptual equivalence. The Amharic version was pretested on respondents of the same characteristics to the study subject outside the *kebeles* not included in the study.

The independent variables are sociodemographic variables, such age, marital status, ethnicity, and religion, socio economic such as income, occupation, family size, and educational level and knowledge attitude and practice of fertility regulation methods while the dependent variables are unintended pregnancy and induced abortion.

Twelfth grade completed female data collectors were recruited and were trained by the principal investigator for three days on details of interviewing technique in respect to structured questionnaire provided. During data collection the major problem faced was difficulties in identifying the house number that was given by respected kebele as it was done several years ago and numbers had fade away. New enumeration has been done in kebeles where the problem was severe.

QUALITATIVE DATA

A total of four paired focus groups were selected using the convenience method. There were two groups of women and two groups of men (married and not married) together forming four groups. Grouping was based on both on marital status (married

and unmarried) and by age (20-35years) for females and (20-45) years for males. Two other groups were formed from religious and community leaders. The rest two groups comprised of health workers who were in particular connection with FP, post abortion or delivery services.

The main purpose of these focus group discussions was to complement the data that was generated by quantitative survey and elaborate issues that may not be clearly reflected in the survey findings.

The focus group was made to consist of six to eight participants. The discussion was moderated by a person with previous experience of moderating and was taking notes of the discussion as well. The principal investigator recorded and observed the session moderated. As soon as the session ends the principal investigator together with the moderators summarized the findings, on description of the settings, participants and observations.

OPERATIONAL DEFINITION

Unintended pregnancy includes unwanted pregnancy or mistimed pregnancy.

Unwanted pregnancy is a pregnancy that has occurred after a woman has reached her desired family size and does not did not want any more child or children.

Mistimed pregnancy is a pregnancy, which has occurred without the wish of the woman at the specific time of occurrence of the pregnancy, but she has a desire to be pregnant and have a child or children some time in the future.

Pregnant woman is a woman who is amenorrhic for at least two months and has minor signs of pregnancy as well as the woman believes to be pregnant or a woman who claims that she was told to be pregnant by health worker on her visit to health institution and believes to be pregnant.

Induced abortion is a deliberate termination of pregnancy without medical reason (s) at gestational age of less than seven months or 28 weeks.

MANAGEMENT OF DATA COLLECTION

DATA QUALITY

Ten female interviewers, who had completed 12th grade, were used to collect the data, as women might be open on such sensitive issue to the same gender. Two diploma graduate supervisors with previous experience in conducting data collection were recruited and used as field supervisors.

These data collectors and their supervisors were intensively trained for three days by the principal investigator. The training was given on the aim of the survey, procedures of the survey, problems that may arise during the survey, going through the questionnaire question by question, and art of interviewing. Administering questionnaire among interviewers and supervisors in a form of role-play was practiced and then feedbacks and comments were given to each interviewer.

Care was taken on questionnaire design and its pre test was done on females of reproductive age group respondents residing in adjacent kebele not included in the principal survey. On regular basis supervisors checked questionnaires filled by data collectors for their completeness and logical consistency and submit them to the principal investigator within 24 hours for further check up. The principal investigator again checked at least one tenth of the total questionnaire.

DATA PROCESSING AND ANALYSIS

EPI-INFO version 6 and SPSS version 10 computer statistical packages were used to analyze the data. Rates, odds ratios, frequencies, were used to present the results in tables and charts.

To control for confounders binary logistic regression analysis was performed and adjusted odds ratio and 95% confidence interval was used to show the strength of the associations. FGD result was summarized using tables and included in the report as a support to the quantitative data.

ETHICAL CONSIDERATION

The study did not inflict any harm on the study subjects, the community, and the data collectors or on the supervisors involved. Written ethical clearance was obtained from ethical clearance committee of the medical faculty of Addis Ababa and the Harari Regional Health Bureau. The purpose of the study and the right of the respondent not to participate and not to answer the question for which she did not want to, was carefully explained to respondents prior to asking consent to conduct interview. All interviews took place privately at place and time chosen by the respondent. Strict confidentiality was assured through anonymous recording and coding of questionnaire and placed them in safe place after they have been collected and was used for the purpose of the study only.

RESULT

Quantitative part

A random sample of 1000 women were selected for the study out of which 983 responded to the survey questionnaire with a non response rate of 1.7% .Out of those who did not respond to the questionnaire five were not available at home for three visits, 3 refused to respond claiming the questionnaire contains too personal matters and the rest refused with out giving specific reasons.

Out of 983 survey respondents, 785 reported that they were sexually active and 675 of them have ever been pregnant. Among all who had ever been pregnant 225 reported that their most recent pregnancy was unintended.

The mean age of the survey respondents was found to be 28.22±8.54. Adolescents aged 15-24 years constituted 376(37.9%), the mean family size of study subjects was 4.9± 2.2. The prevalence of unintended pregnancy was 225(33.33%) n=675 among ever pregnant surveyed respondents.

The marital status of the survey respondents was classified into married 547 (55.6%), never married 292(29.7%) and the rest 92(14.7%) were divorced/separated or widowed. Mean age at first marriage was 18.2± 4.5.

The mean age at marriage was 18.8± 4.5. The median age at first pregnancy was found to be 19 Years. The highest percentage was accounted to surveyed respondents in the age group of 15-19 Years and constituted 41%, (n=675) among all first pregnancies.

The majority of the respondents were educated. Respondents with out formal education constituted 198(20.14 %). Only one hundred twenty three (12.5%) of the respondents

were illiterates, 75(7.6%) can read and write, 252(25.6%) have primary education, 501(51%) junior and senior secondary education, and 32(3.3%) higher education (n=983). Median family income was calculated to be 300 Birr. The occupational status indicated that generally 276 (28.07%) employed including self-employment, 429(43.6) were housewives; students constituted 127(12.9%) and 106(10.8%) were unemployed (n=983)

Table 1: **Socio demographic characteristics of survey respondents Harar, Ethiopia Nov.2001-Jan.2002 (n=983)**

Background characteristics.	Frequency	Percent
Age		
15-19	156	15.9
20-24	216	22.0
25-29	214	21.8
30-34	131	13.3
35-39	127	12.9
40-49	139	14.1
Mean+_SD	**28.2+_8.5**	
Family size		
1-4	498	50.7
5-8	430	43.7
9-12	49	5.0
13-19	6	0.6
Mean+_SD	**4.9+_2.2**	
Ethnicity	560	57
Amhara	168	17.1
Oromo	153	15.6
Harari	69	7.0
Guragie	24	2.4
Tigrie	9	.9
Others		
Religion		
Orthodox	606	61.6
Muslim	304	30.9
Protestant	68	6.9
Catholic	2	.2
Other	3	.3

Table 2. Reproductive and socio economic characteristics of reproductive age (15-49) respondents. Harar, Ethiopia Nov.2001-Jan 2002.

Background characteristics	Frequency	Percent N=983
Marital status		
Married	547	55.6
Never married	292	29.7
Divorced/Separated	92	9.4
Widowed	52	5.3
Age at marriage		
≤14	66	6.7
15-19	372	37.8
20-24	170	17.3
25-34	83	8.4
Mean± SD	**18.8± 4.5**	N=691
Age at first pregnancy		
14-19	403	41
20-24	189	19.2
25-29	70	7.1
30-34	13	1.3
(N=675)		68.7
Education		
No formal education	123	12.5
Read and write	75	7.6
Primary	252	25.6
Secondary	501	50.1
Higher	32	3.3
Occupation		
Gov.and NGO employ	156	15.8
Student	127	12.9
House wife	429	43.6
Vender	119	12.1
Unemployed	106	10.8
House maid	34	3.5
Other	12	1.2
Family income		
30-299Birr	402	40.9
300-599 Birr	344	35
600-899 Birr	106	10.8
900-1199 Birr	67	6.8
1200 and over Birr	64	6.5
Median = 300 Birr.		

FAMILY PLANNING KAP

Knowledge of contraceptive: 950 (96.6%) of the respondents knew at least knew one modern contraceptive method and 962(96.8%) knew at least one source of MC methods. Among all ever had sexual encounter reported that 326 (41.5%) to be current user of modern contraceptives method, 195 (24.8%) had ever used and the rest 264 (33.6%) were non-users (n=785).

The most frequently used modern contraceptive was the pills 329(33.5%), followed by injection 121(12.3%) and IUD 25(2.5%) and the rest others (n=521) The mean age at first contraceptive use was 23.01 years (SD=4.97). Peak age at first contraceptive use lies in the age group 20-24 years.

Among victims of unintended pregnancies the most frequent reply given to the reasons for failure to avoid unintended pregnancy were, lack of awareness 159 (70.6%), husband or partner disapproval 26 (11.6%), method failure 25 (11.1%), poor access to contraceptives 10 (4.4%) and others like following rape constituted 5 (2.2%) n=225. Fore the question whether modern contraceptive method against their religion 254(25.8 %), replied yes and the rest 729 (74.2%) replied No. n=983. Regarding opinions on abortion law 446 (46.4%) favored liberalization of abortion while 491(49.9%) did not and the rest 46 (4.7%) replied no opinion.(See Table 3 and figures 1-4).

IN bivariate analysis of knowledge of modern contraceptives was found to have statistically significant association with unintended pregnancy. (x^2 =32.76, P<0.05) The same was true for knowledge of source of modern contraceptives (x^2 =35.73, P<0.05). Knowledge of modern contraceptive advantages, pills dosage, perceived risk of pregnancy, inter pregnancy intervals, desired number of children and other KAP variables did not show statistically significant association.

Table 3: Family planning knowledge and attitudes among survey respondents Harar, Ethiopia Nov.-Jan 2001/2(n=983)

Back ground characteristics	frequency	percent
About FP heard		
Yes	907	92.3
No	76	7.7
Method failure (n=25)		
Pills	23	92
IUD	1	4
Periodic abstinence	1	4
Preferred		
Inter pregnancy gap		
Two or more years	168	17.1
Less than two years	815	82.9
Attitudes towards abortion law		
Permit abortion on request at early gestation	131	13.3
Against liberalization	491	49.9
Liberalization on economic grounds	315	32.0
Knowledge of MC source		
Knows non	31	3.2
Knows at least one source	962	96.8
Knows more than one source	941	94.7
Knowledge of MC method		
Knows non	33	3.4
Knows at least one MC	950	96.6
Knows > one MC	932	94.8
Knowledge of advantages of MC		
Non	36	3.7
Knows at least one advantage	953	96.3
Knows more than one advantage	908	92.3
MC against your religion		
Yes	254	25.8
No	729	74.2
Knowledge Emergency contraception		
Yes	197	20
No	786	80

Figure 1

Percentage distributionof contraceptive use by type among surveted respondents ,Harar,Ethiopia.

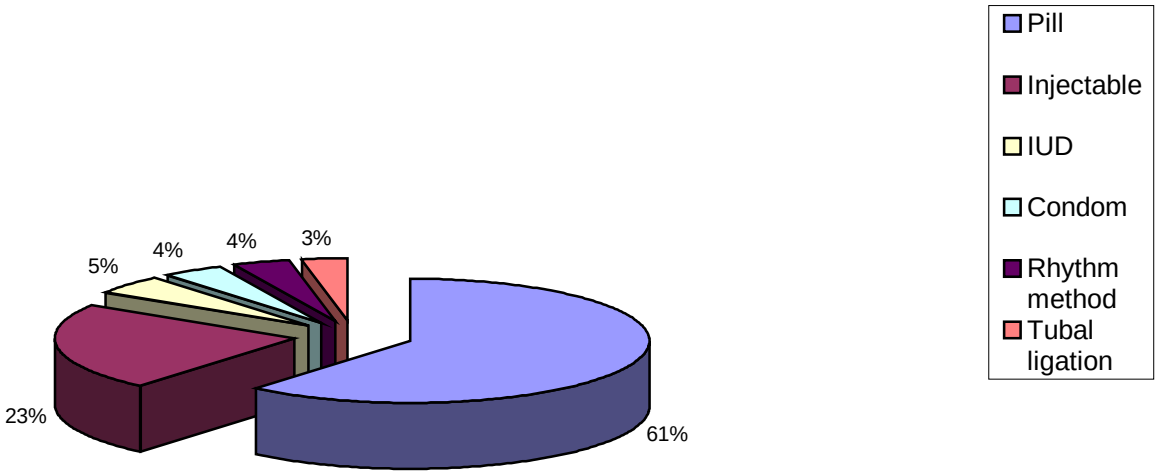


FIGURE 2

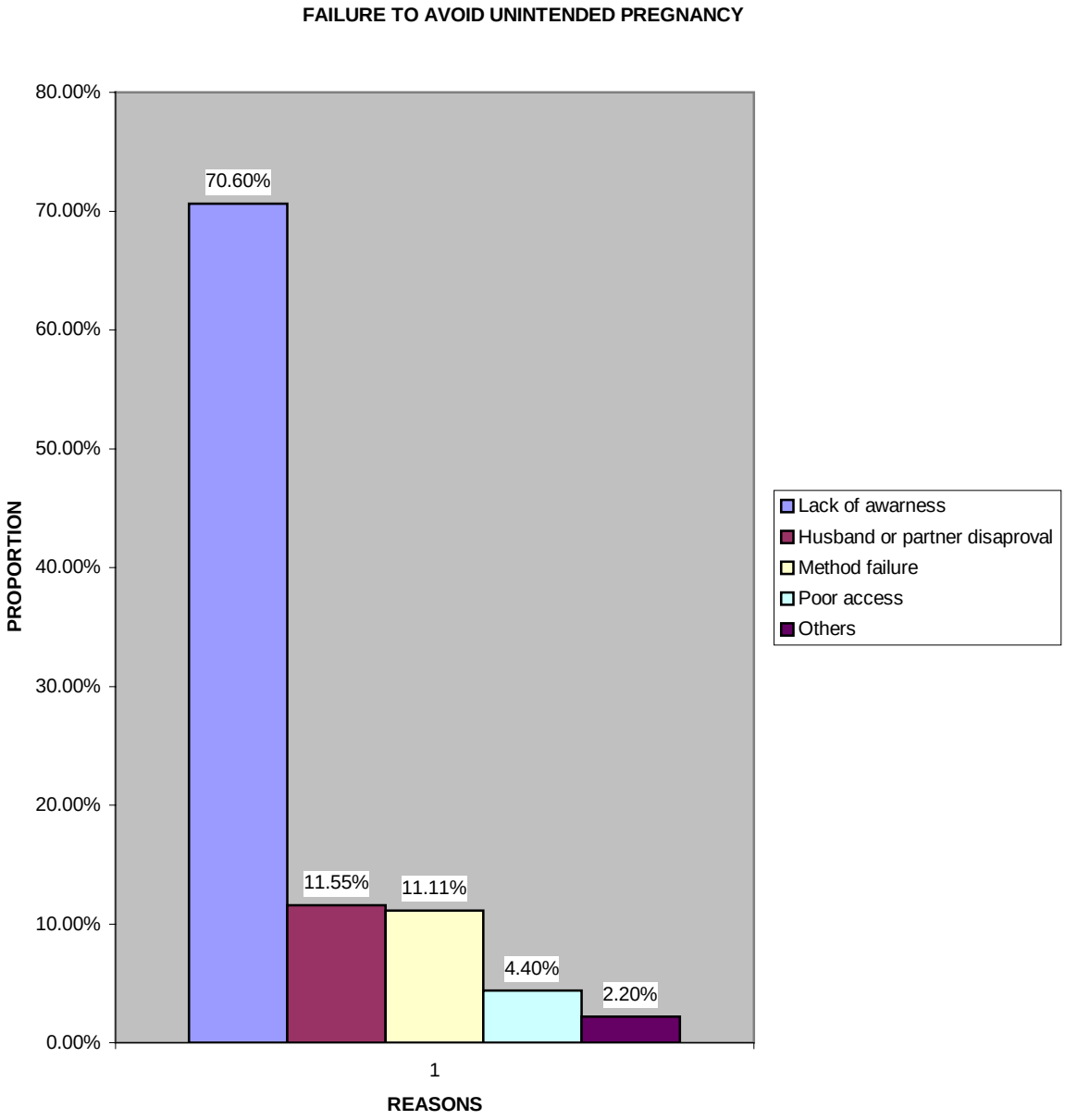

FAILURE TO AVOID UNINTENDED PREGNANCY
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
PROPORTION
70.60%
11.55%
11.11%
4.40%
2.20%
1
REASONS
Lack of awarness
Husband or partner disaproval
Method failure
Poor access
Others

FIGURE 3.

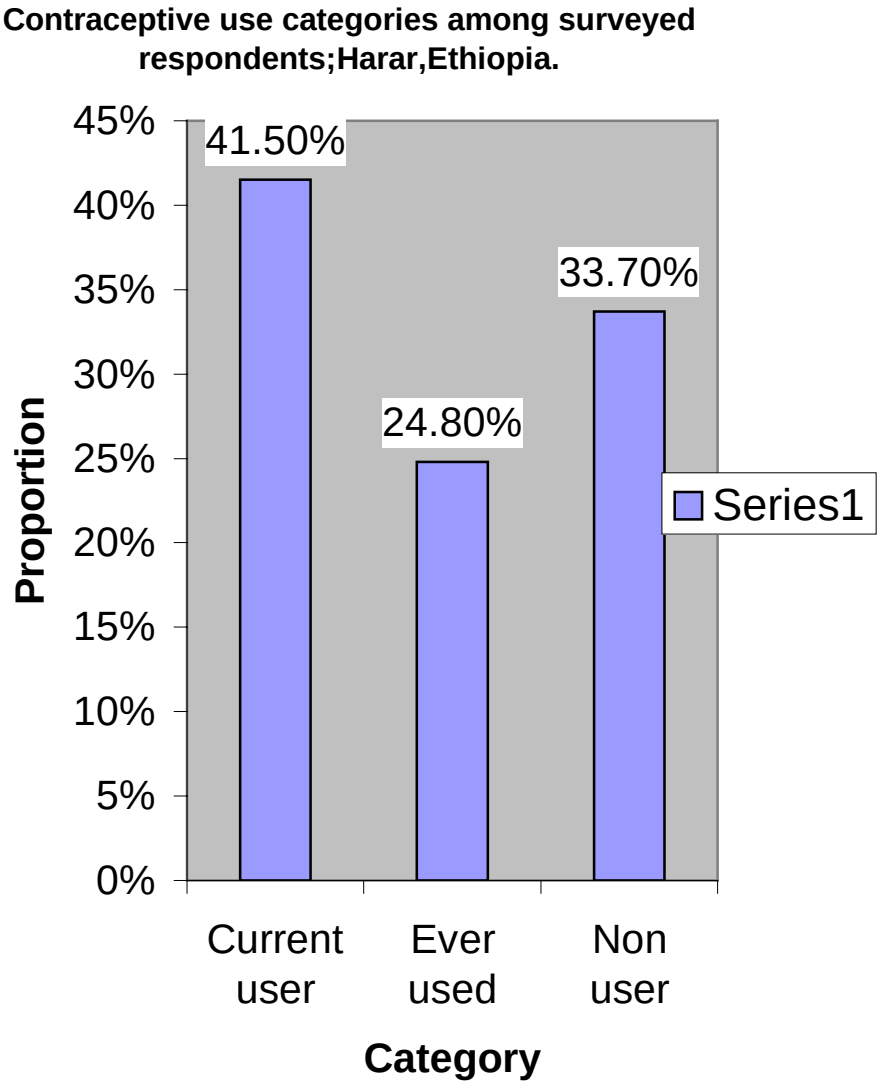

Contraceptive use categories among surveyed respondents;Harar,Ethiopia.
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Proportion
41.50%
24.80%
33.70%
Series1
Current user
Ever used
Non user
Category

FIGURE 4

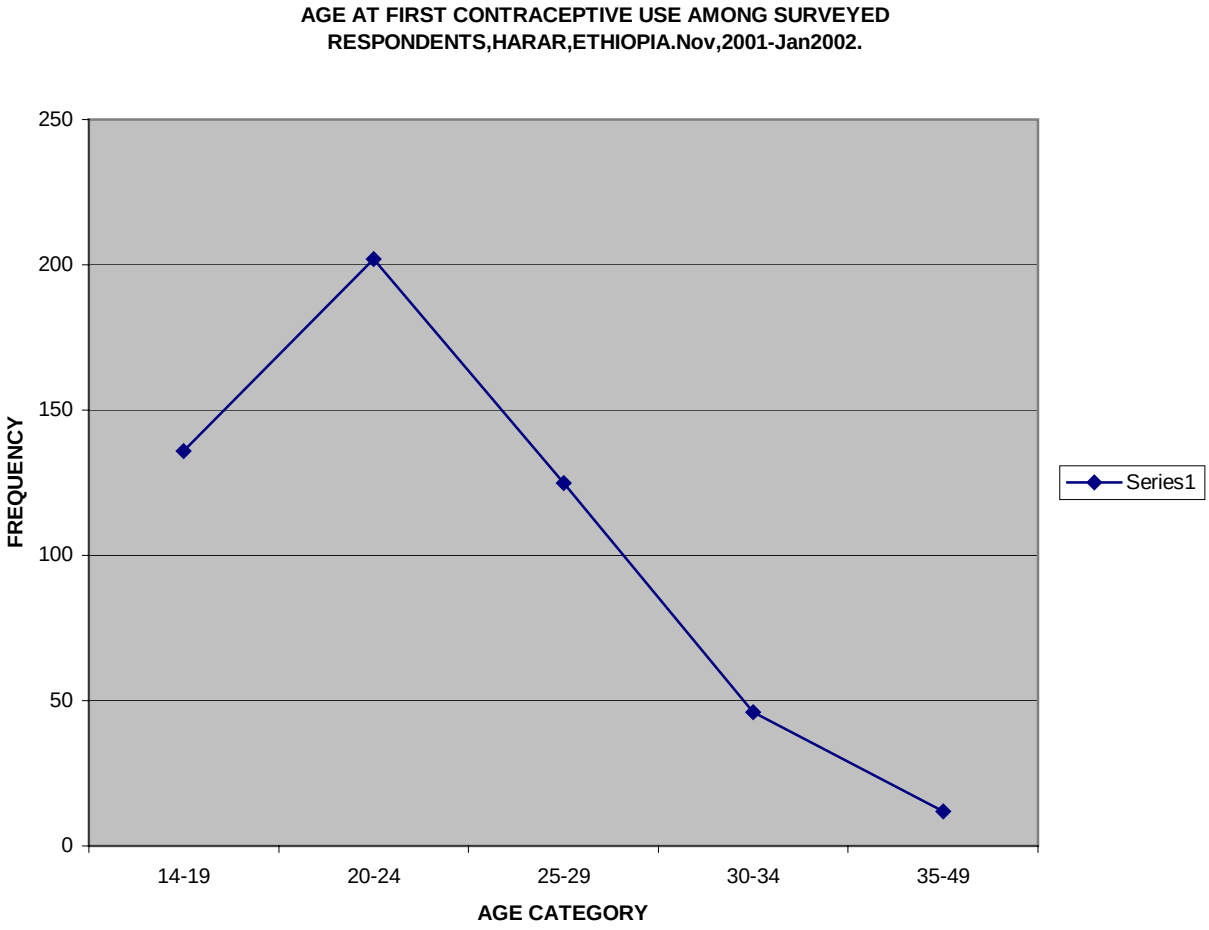

AGE AT FIRST CONTRACEPTIVE USE AMONG SURVEYED RESPONDENTS,HARAR,ETHIOPIA.Nov,2001-Jan2002.
250
200
150
100
50
0
FREQUENCY
14-19
20-24
25-29
30-34
35-49
AGE CATEGORY
Series1

Table 4. Contraceptive knowledge attitude and practice Characteristicsamong survey respondents in relation to unintended pregnancyHarar, Ethiopia. Nov.2001-Jan 2002

Background characteristics	Unintended pregnancy		X^2 (OR)	P value
Contraceptive	**Yes**	**No.**		
Knowledge				
Knows non method	5(25)	15(75)		
Knows at least one method	3(27.3)	8(72.7)		
Knows more than one method	217(33.7)	427(66.3)	0.84	0.66.
Knowledge of MC Source				
Knows no MC source	6(31.6)	13(68.4)		
Knows at least one MC source	6(46.2)	7(53.8)		
Knows more than one MC source	213(33.1)	430(66.9)	1.00	0.6
MC advantage	7(33.3)	14(66.7)		
Knows non MC Advantage				
Knows at least one MC advantage	10(40)	15(60)		
Knows more than one MC advantage	208(33.1)	421(66.9)	0.52	0.77
Contraceptive dose				
Knows Pills dosage	203(34.1)	393(65.9)	4.36	0.04*
Do not know Pills dosage	22(27.8)	57(72.2)	0.56(0.32.0.97)	
Perceived risk pregnancy				
Yes	181(33.5)	359(540)	0.01	0.91
No	44(32.6)	91(67.4)	OR=0.96(0.63.1. 46)	

* indicate significant association

Table 4. (Cont) Contraceptive knowledge attitude and practice among survey respondents in relation to unintended pregnancy Harar, Ethiopia. Nov.-Jan 2001/2

Back Ground characteristics	Unintended pregnancy Yes	No	X^2 (OR)	P value
Preferred pregnancy interval				
Two or more years	191(34.5)	362(65.5)	1.62 0.74(0.47.1.16)	0.20
Less than two years	34(27.9)	88(72.1)		0.19
Life time desired # children				
Two or less	65(34.4)	124(65.6)		
3-4	121(35.5)	220(64.5)		
Five and over	39(26.9)	106(73.1)	3.51	0.17
Contraceptive type used				
Pills	35(30.7)	79(72.7)	3.68	0.30
IUD	4(30.8)	9(69.2)		
Injection	58(40.3)	86(59.7)		
Other MC methods	16(44.4)	20(55.6)		
Natural methods	0	5(100)		
Contraceptive use				
Ever used	155(33.9)	302(67.1)	0.14	0.70
Non use	70(32.1)	148(67.9)	0.92(0.64,1.62)	

OUT COMES OF UNINTENDED PREGNANCY

The intended out comes of unintended pregnancy variable to measure were induced abortion and unintended birth. Chi square test showed that age was not significantly associated with induced abortion (x^2 =5.06, P > 0.05) while it was significantly associated with unintended birth. (x^2 =53.62, P<0.05) Marital status did not show significant association with induced abortion while it was significantly associated with unintended birth (P<0.05). Occupation was seen to be significantly associated with both induced abortion and unintended birth (P<0.05 see tables &6)

Table 5: Induced abortion in relation to socio demographic characteristics of respondents, Harar, EthiopiaNov.2001- Jan 2002(N=225)

Background characteristic	Induced abortion Yes	Induced abortion No
	N (%)	N (%)
Age	**X^2 =5.06**	**P=0.28**
15-24	21(42.9)	29(57.1)
25-29	23(36.5)	40(63.5)
30-34	27(65.9)	14(20.4)
35-39	25(64.1)	14(35.9)
40-49	17(53.1)	15(46.9)
Family size	**X^2 ==0.14**	**P=0.93**
1-4	53(51.0)	51(49.0)
5-8	52(49.1)	54(50.9)
9-19	8(53.3)	7(46.7)
Ethnicity	**X^2 = 2.88**	**P=0.41**
Amhara	59(48.4)	63(50.6)
Oromo	28(53.8)	24(46.2)
Others	7(36.8)	12(63.2)
Harari	19(9.4)	13(40.6)
Religion	**X^2 =3.38**	**P=0.34**
Orthodox	74(51.7)	69(48.3)
Protestant	5(45.5)	6(54.5)
Other	0(0)	3(100.0)
Muslim	34(47.9%)	37(52.1)
Marital status	**X^2 =1.06**	**P=0.59**
Married	74(48.4)	79(51.6)
Never married	23(57.5)	17(42.5)
Others	16(50)	16(50%)
Education	X^2 =8.301.06	P=0.15
Non educated	**9(29.0)**	**22(71.0)**
Primary	43(48.3)	46(51.7)
Secondary and higher	61(58.1)	44(41.9)
Occupation	**X^2 =13.73**	**P=0.017***
Gov, and NGO employ	27(69.2)	12(30.8)
Student	10(62.5)	6(37.5)
House wife	51(44.7)	63(55.3)
Vender	17(54.8)	14(45.2)
Unemployed	6(46.2)	7(53.8)
House maid	1(11.1)	8(88.9)
Others	1(33.3)	2(66.7)

* indicate significant association.

Table 6: Unintended birth, in relation to socio demographic characteristics of respondents, Harar, Ethiopian Nov.2001-Jan 2002

Background characteristic	Unintended birth Yes N(%)	N=225 No N(%)
Age	**X^2 =53.62**	**P<0.01***
15-24	24(18.18)	108(81.82)
25-29	36(20.9)	136(79.1)
30-34	16(13.3)	104(86.7)
35-39	19(16.4)	97(83.6)
40-49	17(12.6)	118(87.4)
Family size	**X^2 =4.83**	**P=0.06**
1-4	46(13.5)	294(86.5)
5-8	60(20)	240(80)
9-19	6(17.1)	29(82.9)
Ethnicity	**X^2 =3.90**	**P=0.27**
Amhara	65(17.5)	307(82.5)
Oromo	25(19.4)	104(80.6)
Others	11(16.2)	57(83.8)
Harari	11(10.4)	95(89.6)
Religion	**X^2 =2.80**	**P=0.42**
Orthodox	74(17.9)	339(82.1)
Protestant	7(20.6)	27(79.4)
Other	0(0)	3(100)
Muslim	31(13.8)	194(86.2)
Marital status	**X^2 =19.85**	**P<0.01***
Married	77(15.4)	422(84.6)
Never married	17(41.5)	24(58.5)
Others	18(13.3)	117(86.7)
Education	**X^2 =2.30**	**P=0.31**
Non educated	17(16.7)	85(83.3)
Primary	50(19.2)	211(80.8)
Secondary and higher	45(15.4)	267(85.6)
Occupation	**X^2 =30.71**	**P<0.01***
Gov, and NGO employ	14(11.8)	105(88.2)
Student	4(22.2)	14(77.8)
House wife	65(16.5)	330(85.5)
Vender	12(12.4)	85(87.6)
Unemployed	8(38.1)	13(61.9)
House maid	7(38.9)	11(61.1)
Others	2(28.6)	5(71.4)

* indicate significant association

LOGISTIC REGRESSION ANALYSIS

UNINTENDED PREGNANCY

In binary logistic regression analysis marital status was shown to be significantly associated with unintended pregnancy. Being single was a significant risk for unintended pregnancy. Singles were 1.72 times at higher risk of having unintended pregnancy when compared with married. AOR=1.72(1.20,2.47).

The age group of surveyed respondents 15-19 years old was at 4.23 times at higher risk of having unintended pregnancy than the age group 40-49 years OR = 4.23(1.42,10.54). Age at first marriage showed that it was significantly associated with unintended pregnancy indicating age at first marriage less than or equal to 19 was a risk factor. AOR =2.05(1.89,4.74) for the age group≤ 14 and AOR =1.38(1.75,2.56) for the age group-19 years old.

Number of pregnancies was also significantly associated with unintended pregnancy. Respondents with two or less pregnancies were less likely to report as having unintended pregnancy, AOR =0.5(0.33,0.74) and the same was true for women with 3-4 pregnancies with AOR=0.57(0.37,0.89) respectively. Other socio- economic and socio-demographic variables did not prove to have significant association while it was noted that primary education was found to be a risk factor for unintended pregnancy. AOR=1.6 (1.01,2.6) See Table 7 and 8**.**

Table 7. Distribution of unintended pregnancy among respondents by selected socio demographic characteristics. Harar Ethiopia Nov.2001-Jan 2002.

Background characteristics	Unintended pregnancy Yes Freq. (%)	No Freq. (%)	COR(95% CI)	AOR(95% CI)
Age				
15-19	14(48.3)	15(51.7)	3.00(1.21,7.46)	4.23(1.42,10, 54)*
20-24	36(35.0)	67(65)	1.7(0.94,3.17)	0.82(0.40,1.68)
25-29	63(36.6)	109(63.4)	1.86(1.09,3.18)	0.54(0.29,0.98)
30-34	41(34.2)	79(65.8)	1.67(0.93,3)	0.58(0.32,1.60)
35-39	39(33.6)	77(66.4)	1.63. (0.90,2.94)	0.58(0.32,1.04)
40-49	32(23.7)	103(76.3)	1.00	1.00
Family size				
1–4	104(30.6)	236(69.4)	1.00	1.00
5-8	106(35.3)	194(64.3)	1.24(0.88,1.75)	0.14(0.84,3.46)
9-19	15(42.9)	20(57.1)	1.7(0.79,3.64)	0.38(0.68,2.79)
Religion				
Orthodox	143(34.6)	270(65.4)	1.15(0.80,1.65)	0.57(0.33,1.84)
Protestant	11(32.4)	23(67.6)	1.04(0.45,2.38)	0.52(0.20,0.89)
Muslim	71(31.6)	154(68.4)	1.00	1.00
Other	0 (0)	2(100)	0.00(00.0,5.36)	57.38(0.00,2.2E+08)
Education				
Non	31(30.4)	71(69.6)	0.86(0.52,1.43)	0.91(0.49,1.71)
Primary	89(34.1)	172(65.90	1.02(0.0.71,1.4)	1.65(1.01, 2.6)*
Secondary and higher	105(33.7)	207(66.3)	1.00	1.00
Occupation				
Gov,and NGOemploy	39(32.8)	80(67.2)	1.00t	1.00
Student	16(88.9)	2(11.1)	16.41(3.51,151.17)	1.73(0.36,8.29)
House wife	114(28.9)	281(71.3)	0.83(.52,1.32)	0.67(0.30,15.25)
Vender	31(32)	66(68)	0.96(.52,1.78)	2.00(0.43,9.23).
unemployed	13(61.9)	8(38.1)	3.33(1.17,9.70)	1.62(0.34,7.76.)

***** indicate significant association

TABLE 8: Unintended pregnancy among respondents in relation to reproductive and Socio- economic characteristics. Harar, Ethiopia Nov.2001 - Jan 2001/2

	Yes	No	COR(95%CI)	AOR(95%CI)
Age at first marriage				
7-14	15(24.2)	47(43.9)	0.65(0.27,148)	2.05(1.89,4.74) *
15-19	103(29.6)	245(70.4)	0.81(0.43,1.55)	1.38(1.75,2.56)*
20-24	43(28.5)	108(71.5)	0.86(0.48,1.53)	1.99(0.84,2.61)
25-and above	24(32.9)	49(67.1)	1.00	1.00
Age at first sex				
7.14	24(32)	51(68)	1.84(0.73,4.68)	1.63(0.52,5.09)
15-19	151(36.7)	260(63.3)	2.75(1.05,5.0)	2.33(0.84,6.28)
20-24	40(28.6)	100(71.4)	1.56(0.67,3.70)	1.97(0.75,5.14)
25 and over	10(20.4)	39(79.6)	1.00	1.00
Marital status				
Married	142(29.7%)	336(70.3%)	1.00	1.00
Single	83(42.1%)	114(57.9%)	1.72(1.22,1.43)	1.72(1.20,2.47)*
Number of pregnancies				
< 2	93(28.1)	238(71.9)	0.47(0.32,0.71)	0.55(0.33,0.74)*
3-4	53(31.5)	115(68.5)	0.57(0.36,0.90)	0.57(0.37,0.89)*
5 and above	79(44.9)	97(55.1)	1.00	1.00

* indicate significant association

INDUCED ABORTION

Being educated was significantly associated with induced abortion that is 2.82 times more likely to report as having induced abortion compared to those with out formal education. AOR= 2.82 (1.4, 6.44).

No significant association of induced abortion was proved with occupation and marital status on this study.

It was also noted that number of pregnancy was significantly associated with induced abortion that is women with two or less pregnancies are likely to report as having induced abortion than women five and above as well as women 3-4 pregnancies. AOR=2.45(1.33,4.53) and AOR= 1.28(0.63,2.59) respectively. Economic status was significantly associated with induced abortion. Poors and average were less likely to report as having induced abortion compared to those who classify themselves as well to do. AOR=0.67(0.31,1.44) and AOR=0.71(0.35,1.45) respectively.

No statistically significant association was found to exist with other socio demographic variables illustrated on table 9 and 10.

Table 9. Distribution of Induced abortion among respondents by selected socio demographic parameters. Harar Ethiopia Nov-Jan 2001/2.

Background characteristics	Induced abortion		COR(95%CI)	AOR (95% CI)
	Yes	No		
	Freq. (%)	Freq. (%)		
Family size				
1–4	53(51.0)	51(49.0)	1.00	1.00
5-8	52(49.1)	54(50.9)	0.93(0.52,1.65)	1.21(0.38,3.80)
9-19	8(53.3)	7(46.7)	1.10(0.33,3.68)	1.68(0.53,5.30)
Age				
15-19	6(42.9)	8(57.1)	0.66(0.15,2.78)	1.26(0.33,4.85)
20-24	15(41.7)	21(58.3)	1.24(0.49,3.12)	1.7(0.61, 4.52)
25-29	23(36.5)	40(63.5)	0.51(0.20,1.31)	2.10(.83,5.17)
30-34	27(65.9)	14(20.4)	1.70(.59,4.91)	0.57(0.21,1.54)
35-39	25(64.1)	14(35.9)	2.02(0.70,5.89)	0.62(0.23,1.63)
40-49	17(53.1)	15(46.9)	1.00	1.00
Ethnicity				
Amhara	59(48.4)	63(50.6)	0.64(0.27,1.51)	1.56(0.71, 3.44)
Oromo	28(53.8)	24(46.2)	0.80(0.30,2.13)	1.25(0.51,3.06)
Others	7(36.8)	12(63.2)	0.64(0.27,1.46)	2.51(0.78,8.06)
Harari	19(9.4)	13(40.6)	1.00	1.00
Religion				
Orthodox	74(51.7%)	69(48.3%)	0.64(0.27,1.51)	0.57(0.48,1.51)
Protestant	5(45.5%)	6(54.5%)	0.91(0.21,3.78)	0.10(0.31, 1,39)
Muslim	34(47.9%)	37(52.1%)	1.00	1.00
Marital status				
Married	74(48.4)	79(51.6%)	1.00	0.63(0.16,2.44)
Not married	23(57.5%)	17(42.5%)	1.44(0.68,3.09)	1.13(0.45, .2.85)
Others	16(50%)	16(50%)	1.07(0.47,2.44)	1.64(0.59,4.54)
Education				
Illiterate	9(29.0%)	22(71.0)	1.00	1.00
Literate	104(53.6%)	90(46.4)	2.82(1.16,7.01)	2,82(1.24, 6.44)*
Occupation				
Student	10(62.5)	6(37.5)	0.74(0.19,2.97)	0.70(0.13,2.22)
House wife	51(44.7)	63(55.3)	0.36(0.15,0.83)	0.22(0.02,3.35)
Vender	17(54.8)	14(45.2)	0.38(0.09,1.61)	0.41(0.04,5.33)
Unemployed	6(46.2)	7(53.8)	0.54(0.18,4.61)	0.362(0.02,5.51)
House maid	1(11.1)	8(88.9)	0.06((0.00,0.05)	0.324(0.025,4.20).
Other	1(13.3)	2(66.7)	0.00(0.00,0.05)	3.485(0.14,88.43)

* indicate statistical significant association

Table 10: Distribution of Induced abortion among respondents by selected socio economic and demographic characteristics. Harar Ethiopia Nov-Jan 2001/2

Back ground characteristics	Induced abortion Yes	No	COR	AOR (95% CI)
Age in Years	**N (%)**	**N (%)**	**.**	
15-19	6(42.9)	8(57.1)	0.68(0.19,2.33)	0.29(.046,1.82)
20-24	15(41.7)	21(58.3)	0.64(0.19,2.33)	0.51(0.08,3.00)
25 and above	92(36.5)	83(63.5)	1.00	1.00
Economic status				
Poor	39(51.4)	35(48.6)	1.49(0.65,3.42)	0.67(0.31,1.44)*
Average	56(61.4)	53(48.6)	1.41(0.65,3.07)	0.71(0.35,1.45)
Well to do	18(42.9)	4(52.1)	1.00	1.00
Number of pregnancy				
$\underline{<}$ 2	36(38.7)	57(61.3)	0.41(0.71,0.79)	0.32(0.16,0.64)*
3-4	29(54.7)	24(45.3)	0.78(0.36,1.68)	0.49(0.47,1.62)
5 and above	48(60.8)	31(39.2)	1.00	1.00

* Indicate stistical significant association

FOCUS GROUP DISCUSSION

Most of the participants believed desired family size was 3-4 children as an ideal family size, few mentioned two children, where as others mentioned up to seven children, however the majority agreed on the number of children desired depends on the economic status of the parents so as to have adequate money for rearing cost of children. One participant said; “the problem does not lie on how many children are desired to have, but it lies how are you going to bring them up with daily growing rearing cost of children”? As the economic condition is low in most families, one should limit the number of children he should have depending on his economic status. Information on desired family size on this discussion indicates that it is above the replacement level.

As one of the prominent problems of reproductive health, many participants of all categories of focus group indicated unintended pregnancy with all its’ possible adverse outcomes as one of the major problem of the area In addition STDs including HIV/AIDs were the other concerns mentioned. In all of focus group discussion, the adolescents and youngsters were mentioned as the primary victims of the problem. Some mentioned the problem is beyond adolescents and youngsters, and it involves all females of reproductive age groups that directly or indirectly involve the whole society.

The use of family planning was mentioned as a practice to delay, space and limit childbirth by most of the participants. As risk factor for unintended pregnancies non-use of modern contraceptives, lack of fore thought and reluctance, lack of awareness of contraceptive methods were mentioned. On the other hand reasons for non-use were

ascribed to fear of side effects, poor hospitality from the side of providers, cultural and religious taboo, judgmental approach of providers especially to the youth and unmarried, inconvenient time of service, lack of peer distribution were some among many others.

One of the participants said: “since the service is free of charge, we are lacking to give it appropriate value and probably some fee paying for it might make us to sense the importance and more use the service as all value for what he has paid for”. One mother claimed a concern that “some video films displayed in FGAE to the youth might lead to the opposite action to what it was planned to achieve, that is motivating and encouraging the youth to sexual desires and practice so, concerned bodies should supervise the video films to be displayed”.

Oral contraceptive pills, injections and condoms were mentioned as known contraceptive methods in the locality. Sterility was reported to be a concern to most females as a side effect of oral contraceptive pills as they mentioned it in Amharic “mehan yadergal”. From traditional methods of contraception breast-feeding, post partum sexual abstinence and periodic sexual abstinence were mentioned, however only periodic sexual abstinence was the method used by few portion of the community other wise these methods are not practiced for the purpose of contraception.

Participants also mentioned their concern on the rapidly growing illegal abortions with its grave consequences including death of the pregnant woman. They further mentioned that it is the youth, the poor and unemployed who are the victims of such grave consequences, as they are the ones that have no other alternatives than risking their lives by going to unskilled abortionists when encountered with unintended pregnancy.

Table F1: Summary of married and unmarriedwomen and menFGD participants men plus religious and community leaders Harar Ethiopia Nov2001-Jan2002

Ser.No	Variables	Response variable	Married & unmarried	Married & unmarried Males	Elders religious leaders
1	Ideal family size	4	+++	++++	+++++
		2	++	++	+
	Depends on ones economy		+++	++++	++++
2	FP use	Spacing	++++	+++	++
		Delaying	++	+++	+
		Limiting	++++	+++	+++
3	RH problem	Unintended pregnancy	++++	+++	++
		Induced abortion	++++	++++	+++
		HIV/AIDS	+++++	+++++	+++++
4	Obstacles to alleviate problems	MC Non use	++	+++	++
		Lack of Awareness	++	++	+++
		Time inconvenience	+	+	
		Poor hospitality	+++	+	+
		Culture and religious matter	++	++	+
5	Known traditional methods	Breast feeding	+++	++	++
		Post partum abstinence	+	+	+
		Periodic abstinence	+++	++	
		Withdrawal		+	
6	Barrier to use MC	Lack of peer distribution	+++		
		Judgmental approach of provider	+++	+++	
		Husband disapproval	+++	++	+
7	Family planning	Support	+++	+++	+++

*TABLE F1(CONT): SUMMARY OF FOCUS GROUP DISCUSSION, MARRIED **AND** UNMARRIED WOMEN, AND MEN, **RELIGIOUS PLUS COMMUNITY LEADERS***

Harar;Ethiopia. Nov.2001-Jan.2002.

Ser.No	Variable	response Variable	Married & unmarried	married & unmarried	Community & religious elders
8	Source of information	Peer group	++++	+++	+++
		Mass media	++	+++	+++
		Family members	+	+	+
		Health institution	++	++	
9	IEC suggestion	Through edir and related organization	++++	++++	++++
	Targeting	Adolescents	+++	+++	+++
		Married &unmarried Women	+++	+++	+++
		Male involvement	+++	+++	+++
10	FP methods known	Pills	+++	+++	+++
		Injectables	+++	+++	+++
		Condoms	+++	+++	+++
11	Gov, population & health policy	Known	+	+	
12	Unintended pregnancy	Moderately prevalent	+++	++	++
	Induced abortion	Moderately prevalent	+++	+++	+++
	Unintended birth	Moderately prevalent	+++	+++	+++

leaders

Females Males

Edir is social organization for mutual assistance in time of wedding, death and related ceremony.

TABLE F 2: UNMARRIED WOMEN, MARRIED AND UNMARRIED MEN, SUMMARY OF FOCUS GROUP DISCUSSION, HEALTH PROVIDERS IN MAH AND FGAE, HARAR, ETHIOPIA NOV.-JAN 2001/2

	Variables	Response variable	GOV.health providers	FGAE providers
1	FP use	Spacing	++++	+++
		Delaying	++++	+++
		Limiting	++++	+++
2	RH problem	Unintended pregnancy	++++	+++
		Induced abortion	++++	++++
		HIV/AIDS	+++++	+++++
		Pregnancy related complication	+++	+++
3	Problems to service provision	Lack of facility	++	
		Resource scarcity	+++	
		Induced abortion complication	+++	
		FP counseling	+++	+++
4	Potential client non use	Culture and religious matters	+++	++
		Lack of awareness	+	+
		No special place for adolescents	+++	++
		Poor choice		+
		Poor counseling	+++	
		In adequate IEC	+++	+++
5	Family planning targets	Adolescents	+++	++
		Females of reproductive age group	+++	++++
		Male involvement	+++	+++
6	IEC methods	Peer education	++++	+++
		Audio visual instruments	++	+++
		Local language and culture	+	+
		Family Use of Edit and other community organization	++	++
7	IEC suggestion	Through edit and related organization	++++	++++
	Targeting	Adolescents	+++	+++
		Married &unmarried Women	+++	+++
		Male involvement	+++	+++

DISCUSSIONS

A decline in desired family size over time leads to a rise to a proportion of women who are at risk of having unwanted pregnancies. In traditional (pretransitional societies) relatively few women are exposed to this risk. Because they want large number of children and few women attempt to stop child bearing, so little reproductive time is left to bear unwanted children. In transitional societies women complete their desired child bearing at early ages, if effective birth control is not practiced women can have several unwanted pregnancies in their lifetime. (3)

The summary of socio-demographic characteristics is presented in tables 1-3. The prevalence of unintended pregnancy among ever-pregnant surveyed respondents was found to be 225/675(33.33%). This is higher than CBS finding in Nigeria (46) and less than HBS finding in Zimbabwe (45) and Yirgalem and Gondar Ethiopia (26,51). In the age distribution of respondents adolescents age 15-24 years constitute 37.9 percent of all respondents surveyed. The majority of respondents were married 55.6%(n=983). Rate of marriage in our study in the age group 19 years and below was 44.5%, which is very much higher than a marriage rate observed in Iran in 1997(48) which may be related to socio-economic differences between the two countries. This was far smaller compared to study finding conducted in Gondar administrative region (49) Azbaha (98.5%), and National family planning and fertility survey 1993(53), but comparable with Nigerian study (44) (66.7) and demographic health survey of Ethiopia 2000 (6).

In our sample, the majorities were educated and this can be related to the better access to education than in some rural and urban areas or town of Ethiopia, as this is one of the major towns of the country where multiple elementary, junior and senior high schools are available and was a capital city for eastern province in the past

. Predominant ethnicity among the respondents was the Amharas followed by Oromo, Harari and others that is comparable to the ethnic composition in the order of their decreasing number; finding of the 1994 population and housing census. The religious composition of the respondents surveyed showed that the majorities were Orthodox Christians followed by Muslims, Protestants and Catholics, which is also comparable to the to the same year census finding s (48).

The median age at first marriage was 18 years old slightly higher than study finding documented in Gondar (14.77 $\pm$ 0.05year) by Azbaha (51) and National family planning and fertility survey finding (53).

Proportion married at the age $\leq$ 14 years constitute 6.7%(66) of respondents surveyed. This is smaller compared to the National Family planning and Fertility Survey report1993 (51), However it is alarming both because adolescent females are immature both physically and physiologically and early child bearing can lead the woman to ill health and other consequences related to pregnancies as well as inhibit women from participation in socio-economic development activities including education (17). The most frequent reason mentioned for failure to avoid unintended pregnancy, were lack of awareness of modern contraceptive methods, husband disapproval, and method failure.

which seems at first glance contradicting with the observed relatively high knowledge of contraceptives methods and sources of these methods noted but it indicates that the knowledge of method was superficial and could not enable these women to prevent themselves from having unintended pregnancy. The gap observed between knowledge and practice in different studies can be the other possible explanation (9,41). On the other hand husband or partner disapproval and method failures were the main obstacles for the prevention of unintended pregnancy following lack of awareness.

Proportion of women who faced unintended pregnancy due to method was significant the most frequently reported failed method being pills, which might have resulted from poor counseling during method provision as has been reported on focus group discussions both with health care providers as well as representatives of clients. Unintended pregnancy could have also resulted due to lack of fore thought or low perceived risk of pregnancy (17) The prevalence of method failure was comparable with study finding in Zimbabwe (44).

PREDICTORS OF KAP OF FP METHODS.

Knowledge of contraceptive was shown to be relatively high among surveyed respondents and more than 96% of them knew at least one modern contraceptive method. This Finding much higher than the knowledge of one or more contraceptives documented among high school students in 1992 in Harar (50) and comparable to study finding in South Africa and Zimbabwe (44). About one–third of respondents reported to be current

users of modern contraceptive methods, a little more than one-fifth of respondents ever used a modern contraceptive method and the rest were non-users. This is relatively high compared to the National reported by Demographic and Health Survey of Ethiopia, and higher than rates observed in Addis Ababa 1995 from that of WFS finding in Benin (6,2241), but less than) those of Zimbabwe and Nigeria (44,46). The most frequently used contraceptive was pills, followed by injection, and IUD; which was comparable with study done in Addis Ababa, Nigeria and Zimbabwe (41,44,42).

Knowledge about the possibility of emergency contraception was correctly answered by only 20% of respondents indicating that there is much scope on educating women the possibility of emergency contraception if a need arises, as an effective backup with regular contraceptive methods. There is no doubt that emergency contraceptives are very useful for women who have faced the problem and decreases the number of unintended pregnancy and subsequent induced abortion or unintended birth and it is less used method (**12,29,32,33**). The need for dual protection in the era of HIV/AIDS should also be stressed while educating about the possibility of emergency contraception (47)

OUT COMES OF UNINTENDED PREGNANCY

Through out sub-Saharan Africa abortion is legally highly restricted. Only seven countries permit abortion for reasons other than those directly threatening the woman's life.(**28**) Despite this, when women are desperate, they will go to the extent of risking their lives. Clandestine abortion is not uncommon in Ethiopia despite the existence of restrictive laws (23,24,41,52).

The proportion of women whose most recent pregnancy was reported as unintended

constituted 225(33.33%) among all ever-pregnant surveyed respondents. This could be under reported due to the problem related to expost rationalization, that is reporting a child that was at first unwanted, later reported as wanted if the pregnancy has ended in unintended birth and problem related to the illegality of induced abortion in Ethiopia, if the pregnancy had ended in induced abortion and due to the issues related to cultural and religious taboos. Among all unintended pregnancies half ended in induced abortions 113(50.22%) and the rest in unintended births 112(49.9%). This is in line with proportion of induced abortion documented in the study conducted in Harar (52), Nigeria (46) and lower than proportion of induced abortion documented in Addis Ababa (23,27)

There was no significant association between age and induced abortion but association was observed between unintended birth and respondent's age. This was in line with study that identified the risk of pregnancy reaching term. (11)

Statistically significant association was not found between family size and induced abortion as well as unintended birth.

Occupations was significantly associated with induced abortion as well as with unintended birth, signifying the effect of socio economic variable on fertility as it has been proven to be in many studies. (15).

Further examination of the relationship sociodemographic and socio- economic variables with unintended pregnancy and induced abortion indicate that in marital status singles were more likely to report as having unintended pregnancy and this is in agreement with study finding Harare Zimbabwe (45). This can be explained by the fact that there is not yet established stable union in singles it is most likely that they would have unintended

pregnancy (15)'Women with two or fewer pregnancies were less likely to report having unintended pregnancy which is in agreement with the fact that as desired family decreases, and unwanted pregnancy tends to increase (3).

INDUCED ABORTION

Being educated was found to have statistically significant association with induced abortion. Educated women are more likely to report having induced abortions than illiterates. This can be explained by the fact that educated women are motivated more likely to delay, space or limit their pregnancies and they tend to have better access to information both to prevent or to terminate the pregnancy if it is miss timed or an unwanted pregnancy (7) This is in agreement with study finding in Yirgalem (26). The effect of confounders might have played in the bivariate analysis that result did not reveal significant association with induced abortion.

But no significant association was found between induced abortion and occupation as well as with marital status. Poor women were found less likely to report as having induced abortion, which might have resulted from poor access to information or lack of financial access to have an induced abortion. Women with two or less pregnancies were found les likely to report as having induced abortion compared to those women with five or more pregnancies. It is a relatively new phenomenon as most previous studies indicated that nuli porous women are more likely to be associated with induced abortion.(26,44,46,)

Summary of the focus group discussion indicated adolescents are the principal victims of induced abortion and poor contraceptive access as a result of judgmental approach of health care providers and cultural taboos. Population and health policies declared by the government were not known both to health care providers as well as to participants of the focus group discussions indicating there is a need to raise the awareness through all possible means. Lack of peer distribution of contraceptive devices and time inconvenience are among some of the concerns raised by most participants.

STRENGTH AMD LIMITATIONS OF THE STUDY

STRENGTH

1. Use of carefully designed pretested structured questionnaire.
2. Training of data collectors and use of previously experienced supervisors in data collection Supervisors.
3. Use of same gender interviewers.
4. The use of logistic regression to control for possible confounding effect.
5. Supplementation of quantitative study with qualitative study.

LIMITATIONS

1. Limitation related to cross-sectional studies.
2. Age of respondent might have some miss reporting of age there is neither government organized nor reliable parental birth records in Ethiopia.
1. The sensitivity of the issue, stigmas related to unintended pregnancy and the illegal nature of induced abortion in Ethiopia and ex post rationalization of unintended birth might result in under reporting.

CONCLUSIONS

- Estimates of unintended pregnancy indicate that it is one of the major reproductive health problems with all its adverse outcomes in Harar town.

- Lack of awarness, husband or partner disapproval and method failure was the prominent barriers reported for failure not to avoid unintended pregnancy among those whose most pregnancy was reported unintended.

- Women resort to risk even their lives in desperate conditions like seeking for illegally induced abortion following unintended pregnancies in adverse circumstances, so restriction may not lead to elimination of a case as in the case of restrictive abortions law unless alternatives methods or prevention of the problem before becoming into life is efficient and adequate.

- Age at marriage below or equal to 19 years old is related to unintended pregnancies with all its possible adverse outcomes.

- Literates resort to induced abortion if they encounter unintended pregnancy, as they are more likely to be motivated to delay, space or limit their pregnancies.

- Nuliporous women or those with lower numbers of pregnancies less likely to resort to induced abortion.

- The knowledge of source and methods of contraceptives was not comparable with family planning practice, was relatively low despite good potential access to family planning services as these are not the only factors associated with family planning practice.

RECOMMENDATION

- Since illegally induced abortion and unintended birth is a major public health problem, Policy makers, health professionals and health authorities are recommended to give due attentions towards its prevention. One of possible ways of prevention will be post abortion, and post portum counseling and method provision so as to avoid repeated cycles of abortion as well as unintended birth.

- System design and coherent strategy will be very important to meet unmet needs that result in unplanned and unwanted fertility both with respect to strengthen advocacy and increase access of modern contraceptive methods through community distribution and other social organizations.

- Decrease proportion of early marriage and adolescent's unintended pregnancy and all its possible adverse outcomes through multi dimensional policies and implementation programs that may improve the status of women (education, employment, women'srights etc.)

- Emergency contraception, which is not an abortifacient, can be used as an effective back up to regular contraceptive use that was found to be not widely known to our survey respondents, So, along with other methods, knowledge of emergency contraceptive method should be raised both among health professionals and all potential clients.
- Information, education and communication programs and improvements in counseling are

needed, there fore, better counseling, informed choices and higher quality services will build trust and create effective demand for family planning there by decrease unintended pregnancies and its possible adverse out comes.

- Encourage improvement of the quality of family planning services through improving missing supplies and provider's motivation through refreshment trainings, and courses, as this may result in greater efficiency, improve engagement of providers and clients.
- Rearrange service time according to local needs following a need assessment of client's need in relation to time of the service.

MAP OF STUDY AREA- Harar town

REFERENCES

1. WHO. Population Reference Bureau Improving Reproductive Health in Developing countries. A Summary of finding from the National Research Council of US National Academy of science. October1997: 1-32, Washington D.C

2.Susan Ross. Promoting quality maternal and newborn cares. A reference manual for a Program manager. December 1998

3.J. Bongaarts. Trends in unwanted child bearing in the developing world. Studies in family planning. 1997. (24) 8:267-277)

4.Priscilla R.Ulin, Karen Hardee, Patricia Barley, Nancy Williamson. The impact of family planning on women's life, expanding the research agenda. Family health international Research Triangle Park, North Carolina 1998 pp33-34.

5.WHO Family planning and health .Who statistic quarterly 1994. (47): 5-6

6.CSA Ethiopia and ORC Macro, 2001.Ethiopia demographic and health survey2000. Addis Ababa, Ethiopia. and Calverton, Maryland; USA

7. Dudley Kirk and Burnand Pillet. Fertility levels trends and differentials in Sub-Saharan Africa in 1980s and in 1990s.Studies in Family Planning 1998:29(1):1-22

8. Michael Garenne, Shepher Tolman and Katherine Kan Premarital fertility in rural South Africa: Challenges to existing population policy. Studies in Family Planning 2000:3(1): 47-54.

9.Louise A Hulton, Rachel Cullen, Spons Wamala Khaloko. Perception of sexual activity and their consequences among Ugandan adolescents. Studies in Family Planning, 2000:31(1):35-46

10.Shabir Ishmael, Habte Betsuamlak, and Kasahun Alemu. High-risk behavior for STD/HIV, pregnancy and contraception among high school students in rural town Northwestern. Ethiopia. Ethiopian Journal of Health Development 1997:11(1): 29-36.

11. J. L Pinto E Silva. Pregnancy during adolescence wanted Vs unwanted.(Unicamp) International Journal of Obstetrics and Gynecology.1998: 63 (Supp 1) s151-156

12. M J Mbizvo, J.Kasule, Bonduelle, V Gupta S Rusakaniko S J Gumbo SN Knoti W Mpanu-Shumbusho Sebina- Zziwa R Mwateba J Padayachy. Reproductive knowledge and Behavior of teen-agers in east, central and southern Africa: The Zimbabwe case Study. Central African Journal of Medicine.1995: 41(11): 346-54

13. Carol E Kaufman, Thea de Wet and Jonathan stadler. Adolescent pregnancy and Parenthood in South Africa. Studies in Family planning 2001:32(2); 147-160

14. Anastasia J Gage. Brandon and Dominique Meekers. Sex contraception and child bearing before marriage in sub-Saharan Africa. International Family Planning Perspective. 1993:19(1): 14-18

15.J.Bongaarts. Frame work for analyzing the proximate determinants of fertility. Population and Development Review 1978: 4(1): 105-131

16 Assefa Hailemariam, Michael welsh, Douglas Nicols and Tewodros Melesse Reproductive health in two woredas in southern Tigray, Ethiopia. Paper presented to Ethiopian Public Health Association XIIth Annual Public Health Conference. PP 33.

17.Maria De Bruyn. Preventing unwanted pregnancy and unsafe abortion – a reproductive right. Sexual Health Exchange 1999/4:7-9

18. Fathalla. Contraception and women's health. WHO special program of research training in human reproduction. British Medical Bulletin 1993: 49(1) 245-51

19. A.Seifu, M.Fantahun. Reproductive health needs of out of school adolescents in East Gojam; Comparative Analysis between Urban and Rural settings. Paper presented to Ethiopian Public Health Association XII^{tt_h} Annual Public Health Conference.PP 31.

20. Eyob Tadesse, Abate Gudunfa, Genet mengistu. A survey of reproductive health in the city of Addis Ababa Ethiop J Health Dev.1996: 10(1): 35-39

21. H Getahun, Y Berhane Abortion among rural women in north Ethiopia. International Journal of Gynecology and Obstetrics.2000: 71:265- 266

22.Vigil Capo- chichi and Fatima Juarez. Is fertility declining in Benin? Studies in Family Planning 2001: 32(1): 25- 40

23. Yemane Berhane, Women's health and reproductive out come in rural Ethiopia, Umea Epidemiology department of public health and clinical medicine, Umea University, Dissertations, Umea, and Sweeden.2000: pp33-34)

24. Jule Solo, Deborah L.Billings Colette Aloo- obunga, Achola Ominde and Margaret Makumi. Creating linkage between incomplete abortion treatment and family planning Service in Kenya. Studies in Family Planning1999: 30(1): 17-27

25. Eyob Tadesse and S Negussie. Adolescent pregnancies in Addis Ababa. East African Medical Journal.77 (8): Augest 2000:431-34

26. Tesfaye Madebo MD, Tinbit G/Tsadik. A six-month prospective study on different aspects of abortion. Ethiop Medical Journal.1993: 31:165-169

27. F. Berhane, Health problems and service preferences of school adolescents in Addis Ababa with emphasis on reproductive health, Dissertation, Department of Community Health, Addis Ababa University 2000

28. A Rosenfield. Abortion and women's reproductive health. International Journal of Gynecology and Obstetrics.1994 (46) 173-179

29. Francine M. Coeytaux. Induced Abortion in Sub-Saharan Africa what we do and don't Know. Studies in Family Planning 1988: 19(3): 187-190

30. SA ADU Biosocial profile of women of incomplete abortion in Ga-Rankuwa hospital Medunnsa, RSA Central African Journal of Medicine.1996: 42 (7): 198-202

31. Ruth Roemer Legislations on contraception and abortion for adolescents. Studies in Family Planning 1985: 16(5): 241-51

32.Van Look PF, Von Hertzen H. Emergency contraception. British Medical Bulletin. 1998: 49(1): 158-70

33.WHO, Maternal Health and Safe Motherhood Program, division of family health. Implementing Safe mother in Developing Countries. Geneva 1994

34.Central Statistical Authority. Report on the 1998 Health and Nutrition Survey. Addis Ababa. October 1999: PP87-88

35.Central statistical authority. Analytic report on 1998/99 Sample Survey and Vital Even Registration. August 2000:Bulletin Number 228: PP 51-65.

36.Anrudh K Jain. Fertility reduction and the quality of family planning services. Studies in Family Planning 1989: 20(1): 1-15

37.West off C. Rosen field A The impact of family planning on women's health. Current Opinion Obstetric. Gynecology, 1993:5(6): 793-7

38. Azbaha H. Unintended conception and unwanted fertility in Gondar, Ethiopia, East African Medical Journal 1992:69(7):355-9

39. Dreyfus R. The underrated benefits of oral contraceptives. Consequences of pregnancy and induced abortion in teen-agers. J.Fertil, 1992:32 suppl 4: 204-10

40. Maine D Karkazis KI Bohan N. The bad old days are still here. Abortion mortality in developing countries.J.Am.Med.Women Aassociation.1994: Sept-Oct 40(5): 137-42

41.Yemane Berhane and David Zakus.Community awareness and practice of family planning in urban community in Addis Ababa Ethop.J. Health Dev.1995: (9)3:7-16

42. Getachew Wako, Quality of reproductive health services with emphasis on structural aspects in south central Ethiopia. Dissertation, department of community health, Addis Ababa University 2000 Ethiopia.

43.Dixon Mueller R. Abortion policies and women's health in developing countries. International Journal of Health Service 1990:20(2): 297-304

44. M T Nbizvo, M M J Bonduelle, S Chaduzka, G Lindmark and L Nystorm.Unplanned Pregnancies in Harare, Zimbabwe. What is the contraceptive history and awareness of mothers? Central African Journal of Medicine.1997: 43(7): 200-205

45.M T Nbizvo, M M J Bonduelle, S Chaduzka, G Lindmark and L Nystorm.Unplanned Pregnancies in Harare what are the sexual and social determinants? Social Science and Medicine 1997:45(6): 937-42

4 6. Friday E Okonofua Clifford, Odimogeu, Helen Ajabor, Patrice H, Daru.and Agnes Johnson. Assessing prevalence and determinants of unwanted pregnancy and induced abortion in Nigeria. Studies in Family Planning 1999:30(1): 67-77

47. Cynthia Wood song, Helen P Koo. Two good reasons women and men's perspective on dual contraceptive use. Social science and medicine.1999: 91:567-580

48. Central Statistical Authority. Population and housing census of Ethiopia.country level. Volume 2, 1994. Addis Ababa.

49. J.Bongaarts. Odile Frank Ron Lesthage, The proximate determinants of fertility in Sub-Saharan Africa. Population and development review 1984:10(3): 511-537

50. Alan Grey, Sri Surman, Sait Sare.Communication and advocacy strategies of Adolescent Reproductive Health and Sexual Health case study 1999:1-19

51. Haile A, fertility condition in Gondar, North western Ethiopia, an appraisal of current status: Studies in Family Planning 1990,21(2): 110-17

52. F.Bisrat. Knowledge attitude and practice in Harar town High school students on family planning, Dissertation, Department of Community Health, Addis Ababa University 1992.

53.Transitional government of Ethiopia, Central statistical authority, population analysis and studies center, the 1990 National Family Planning and Fertility Survey report. June 1993 Addis Ababa.

CONSENT FORM

Questionnaire on "prevalence and determinants of unintended pregnancy and childbirth among women of reproductive age (15-49yrs) in Harar town Ethiopia".
Client interview.
Greeting.

My name is_____
I am working in a research team (project), which is conducted by Addis Ababa University in collaboration with ministry of health.
The main purpose of this study is to find out how big is a problem of unintended pregnancy and childbirth in Harar town and discover why this problem might be happening. We are inviting women between the age of 15 and 49 years to contribute to this study.
So I would like to ask you some questions about family planning. It would helpful in identifying problems related to the subject and improve family planning service in the future to meet your need.
Your name will not be recorded. All information you give will be kept strictly confidential and you have the right not to respond any question you don't want to.
Your participation is voluntary.
1.□ yes
2.□ No
Signature of interviewer_____ Date _____

Visiting table

	Visit 1	Visit 2	Visit 3
Date			
Result			

Result code 1. Complete
2. Incomplete
3.Respondent not available
4. Other specify _____

The questionnaire has the following parts:
A. Identification----Question number 001-005=5
B. Sociodemographic assessment----Question number 101-111=11
C. Economic status----Question number 112-113=2
D. Reproductive history s----Question number 114---140=27
E. Practice of modern contraception----Question number 141---146=6
F. Attitude towards modern contraception utilization-Question number 147--157=11
G. Knowledge about modern contraception----Question number 158---170=13
Total questions =**75**

RESEARCH QUESTIONNAIRE ON THE PREVALENCE AND DETERMINANTS OF UNINTENDED PREGNANCY AND CHILDBIRTH IN HARAR TOWN, ETHIOPIA.

A. IDENTIFICATION			
S. N.	**QUESTIONS**	**RESPONSE**	**CODE**
001.	Questionnaire number	□□□□	----------
002.	Identification number of interviewer	□□	----------
003.	Household number	□□□□	----------
004.	Date of interview (Eth. Calendar)	[___/___/___] d m y	----------
005.	Study site	1.Woreda_____ . 2.Kebele_____	----------

Operational definitions

Non migrant: One who Lives in the town since birth

Rural-urbanMigrant: Residential mobility From rural tourban.

Unintended pregnancy: Includes both unwanted pregnancies or mistimed pregnancied.

Unwanted pregnancy is a pregnancy that has occurred after a woman already had
the desired number(s) of children and she does not want to have any more children.

Mistimed pregnancy is a pregnancy which has occurred without the intention of the
woman or the couples at that specific time but wants to be pregnant and have a child some
times in the future.

Induced abortion: Is a deliberate termintion of pregnancy without medical reason(s) at
gestational age of less than seven months or 28 weeks.

Current user: Is a woman who is using modern contraceptive until the date of interview.

Ever user: Is a woman who has used modern contraceptive some times in the past but has discontinued.

Never user: Is a woman who has never used modern contraceptive till the date of interview.

B. SOCIO-DEMOGRAPHIC ASSESSMENT			
101.	Family size	□□Total	-
102.	What is your age?	Enter age in years□□	-

103.	Migration Status	□1. Non-migrant □2. Rural-Urban Migrant	-
104.	Duration of urban residence	Enter age in years □□	-
105.	What is your ethnicity?	□1.Amhara □2. Oromo □3. Harari □4.Guragie □5.Tigrie □6.Somali 7. Other, Specify_____	
106.	What is your religion?	□1. Orthodox □2. Muslim □3. Protestant □4. Catholic □5. Other, specify_____	-
107.	Marital status	□1. Monogamous marriage □2. Polygamous marriage □3. Never married → skip to Q110 □4. Divorced □5. Separated □6. Widowed	-
108.	If married, at what age were you married?	Age in years□□	-
109.	Duration of union	Enter duration in years□□	-

110.	Educational status of the respondent	□1. Illiterate (can't read or write) □2. Can read and write (no grade) □3. Attended elementary school □4. Attended junior or senior high school □5. Attended higher education	-
111.	What is your main occupation?	□1. Farmer □2. Government employee □3. Private organization employee □4.International organization employee □5. Student □6. Housewife □7. Self employ (vendor) □8. Jobless (Family dependent) □9. House maid □10.Commercial sex workers 11. Other, specify_____	-
C.ECONOMIC STATUS			
112.	What is your family's monthly income in Birr?	□1. --------- Birr per month (estimate of the respondent) □2. No response	-
113.	How do you classify your family's economic status by comparing your family's income with that of your neighbors?	□1. Very poor □2. Poor □3. Average □4. Well to do □5. Rich	-

D. REPRODUCTIVE HISTORY			
114	How old were you When you first had menstruation (menarche)	Enter age in years□□	-
115.	Have you ever practiced sexual activity?	□1. Yes □2. No ⟶ skip to Q147 □3. No response ⟶ Skip to Q117	-
116	If yes at what age have you started sexual relationship?	Age in years □□	-
117.	Have you ever been pregnant?	□1.Yes □2. No ⟶ skip to Q122	-
118.	If yes, how old were you when you first got pregnant?	Enter age in years □□	-
119.	How many pregnancies have you had till now?	Enter the number □□	-
120	Have you ever been pregnant when you did not want to?	□1. Yes □2. No ⟶ skip to Q122	-
121.	If yes, how many pregnancies were unintended?	Enter the number□□	-

122	Are you currently pregnant?	□1. Yes □2. No → skip to Q124	
123.	If pregnant, was the current Pregnancy intended?	□1.Yes □2. No	
124.	If you had been pregnant when you did not want to, what is the reason you could not avoid becoming pregnant?	□1.Lack of awareness of contraception method → skip to Q127 □2. Poor access to contraception → skip to Q127 □3 Husband or partner disapproval → skip to Q127 □4. Contraceptive failure □5. I have never been pregnant → skip to skip to Q141 □6. Other specify----------	
125.	If it was due to contraceptive failure, what was the method you used then?	Specify the method----------	
126.	Did you appropriately use the specified method according to the instruction provided?	□1. Yes □2. No □3. I was not instructed.	

127.	When did the last unintended pregnancy you had, occurred?	□1. Within the last three years □2. More than three years ago	-
128.	How many unintended pregnancies have you had within the last three years?	□1. One □1. Two or more □3. None ⟶ to Q132	-
129.	What did you do for the unintended pregnancy or pregnancies that you had within the last three years?	□1.Nothing, pregnancy continued and I gave birth □2. Attempted to stop the pregnancy, but failed. □3. Attempted to stop the pregnancy and succeeded □4. Had ended in still birth (seven or more years of pregnancy)	
130.	If You had induced abortion, who performed the abortion for you?	□1. Health professional □2. Untrained person □3. Self induced □4. No response	
131.	What was used to perform the abortion?	□1. Metallic instrument □2. Plastic tube □3. Local herbs □4.Over dose of drugs □5. Other specify----------	

132.	How many induced abortions have you had until now?	□1.Enter the number □□ □2.No response	
133.	Did any of the induced abortions, cause severe complications that required hospital admission?	□1. Yes □2. No	
134.	How many live births have you had?	Enter the number □□	-
135	How many of the live births you had were unintended?	Enter the number □□	
136.	How many live children do you have now?	Enter the number □□	
137.	Have you experienced unintended pregnancy before marriage?	□1. Yes □2. No → skip to Q141 □3. No response → skip to Q141	

138.	If yes, how many times?	Enter the number□□	
139	What was the result of the pregnancy(ies)?	□1.Delivered □2.Aborted spontaneously □3. Self induced abortion □3. Other specify----------	
140	If the answer was induced abortion, what was your most important reason for having an abortion?	1.Y N □1 Fear of parents, family ---- - ------ □2. Fear of discontinuing school ---- - ----- □3.Pregnancy was mistimed ----- ----- or unwanted □4. Economic problem ---- - ----- □5. Other specify	
E PRACTICE OF MODERN CONTRACEPTION			
141.	Can you please tell me to which group do you belong regarding modern contraception practice?	□1. Current user □2. Ever used □3. Non user → Skip to Q147 □4. Other specify----------	
142.	If you have ever used, how old were you when you first started to use modern contraception?	Enter age in years □□	-
143.	What was the method you used then?	Enter the methods _____	

144.	Do you and your spouse /partner currently use any method of family planning to space, avoid or prevent a pregnancy	☐1. Yes ☐2. No → skip to Q147		
145.	If the answer is yes, what modern or traditional contraceptive method do you use? (Tick only in the box against the method that she currently uses)	**Method** ☐1.Pill ☐2.IUD ☐3.Injectables ☐4.Implants (Norplant) ☐5.Spermicidal ☐6.Condom ☐7.Female Sterilization ☐8.Male Sterilization ☐9.Rhythm period ☐10.Post partum abstinence ☐11.Breast feeding ☐12.Other, specify_____		**N** --- --- ---
146	For how long have you been on this present method without interruption?	Enter period in months ☐☐☐		

F.ATTITUDES TOWARDS UTILIZATION OF MODERN CONTRACEPTION			
147.	Do you yourself approve or disapprove of couples using methods of family planning to prevent unintended pregnancy?	☐1.Approve ☐2. Disapprove ☐3. Don't know (no opinion)	.
148.	If you have already two or more children, would you like to have any more children?	☐1. Yes. ☐2. No ☐3. Up to God ☐4. Not applicable	.
149.	If you are non-user why don't you use modern contraception?	☐1.Not aware of modern contraceptive methods ☐2. Use traditional methods ☐3. Unacceptable in my culture ☐4. Fear of side effects ☐5. Fear of infertility ☐6. Other specify----------	.
150.	How many children do you prefer to have in your life?	Enter the number☐☐	.
151.	How much gap do you prefer to have between two consecutive pregnancies?	☐1. Less than one year ☐2. One Year ☐3. Between one and two years ☐4. More than two years	.
152.	Do you discuss about family planning with your husband or partner?	☐1. Yes ☐2. No ☐3. No husband or regular partner	.

153. .	Do you approve of school sex education to children 10 years old and over?	☐1. Yes ☐2. No	.
154.	If you have never had sexual intercourse, What are the main reasons?	Method 1Y 2.N ☐1.Fear of STD/HIV/AIDs ------- ☐2. Fear of parents ----- -- ☐3. Wants to wait until married -------- ☐4.Fear of unintendedpregnancy ------- ☐5.Nodesire ------- ☐6.Noopportunity ---------- ☐7.Other, specify_____	
155.	What do you think a woman should do if she becomes pregnant when she did not want to?	☐1 Attempt to induce abortion ☐2. Nothing, she should give birth ☐3. I don't know ☐4. Other specify----------	.
156.	How do you think the law should address the question of abortion?	☐1.It should permit abortion on demand in early pregnancy ☐2. It should remain restrictive ☐3.It should consider socio economic reasons for abortion ☐4.I don't know	.
157.	Is the use of modern contraceptive methods against your religious belief?	☐1.Yes ☐2. No	.

G. KNOWLEDGE ABOUT MODERN CONTRACEPTION			
158.	Have you ever heard of family planning service?	1. Yes 2. No	
159.	Do you know any ways or methods that women and men can use to delay or prevent pregnancy?	☐1.Yes ☐2. No ⟶ skip to Q164	
160.	If yes, is it possible to obtain this method?	☐1.Yes ☐2. No	
161	Which of the following modern contraceptive methods do you know about? (Tick all mentioned)	**Method** **1y** **2N** **2.N** ☐1. Pill -- ☐2.IUD --- ----- ☐3. Injectables - ------- - ☐4. Implants(Norplant) ------- ☐5. Spermicidal ------- ☐6. Condom -- ----- ☐7. Female Sterilization - ------ ☐8. Male Sterilization ------- ☐9.Other,specify____- _____	
162.	Where is the main place that you or other women are able to get modern contraception from? (Probe, don't read)	1.Y 2.N ☐1. Hospital ---- ----- ☐2. Health center ---- ----- ☐3. Health station ----- ------ ☐4. Community Health Post ----- ------ ☐5. FGA ---- ------ ☐6.Pharmacy/drug vendor - ------ ☐7. I don' know --- ------ ☐8. Other, specify_____	

163	Which advantage(s) of modern contraceptive methods do you know? (Tick only in the box against the respondent's answer that she knows the method)	1Y N2. ☐1 To avoid unwanted ---------- pregnancy ☐2 .To delay mistimed ---------- pregnancy ☐3. Regulation of periods - ---- ----- ☐4. Prevention of STDs ------- ---	.
164	How do you think is the best way, that a reproductive age woman should prevent unwanted or mistimed pregnancy?	☐1.Use modern contraceptive methods ☐2.Rhythm/ period method ☐3. Other specify---------- ☐4. I don't know	.
165.	Most often it is not possible to prevent pregnancy, if you are going to be pregnant you will be pregnant.	☐1. Agree ☐2. Disagree ☐3.No response	.
166.	Is it possible to prevent unintended pregnancy following unprotected sexual intercourse?	☐1. Yes ☐2. No ☐3 Do not know	.
167.	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 sexual intercourse ☐4. Other specify----------	.
168.	How easy do you think it would be for you to be pregnant?	☐1.Easely ☐2. With some difficulty ☐3. With great difficulty	.

169	If a woman has unprotected sexual intercourse, during her monthly cycle is she most likely to get pregnant?	☐1 During bleeding ☐2. Immediately after bleeding ☐3. Two weeks after bleeding ☐4. Just before bleeding	
170.	Suppose we compare using the pill and pregnancy, do you think using pill is more harmful to woman's health than pregnancy, equally harmful, or less harmful?	☐1. Pill is more harmful ☐2. Equally harmful ☐3. Pills less harmful ☐4. Neither harmful	

Name of interviewer _____ Supervisor's name _____

Date in Ethiopian calendar _____

Signature _____ Signature _____

GROUP FORMATION FOR FOCUS GROUP DISCUSSION

I. Women aged 20-35 yrs old for both married and unmarried (two groups)

II. Males aged 20-45 yrs old, both married and unmarried (two groups)

III. Elders and religious leaders (two groups).

IV. Health workers (two groups).

A total of Six to eight people will be selected for each focus group, using non-probability method.

1. What is the best family size in your opinion and the community at large? How can one achieve this?

2. What is your opinion on the usefulness of the family planning information provided including that from the mass media? Discuss the reason.

3. Which reproductive problems are considered to be the most important ones in the community and among your peers? Is unintended pregnancy and its consequence an important problem? Why? Discuss predisposing factors to unwanted or mistimed pregnancy?

4. What are the major obstacles to alleviate the problem? (Probe knowledge, economic factor, and lack of access, choice, service inconvenience, culture, and religious matters).

5. Are there any traditional practices related to contraception method prevailing in the community? Discuss how far these are common., well known and practiced by the public? What are the most frequently practiced modern contraceptive methods in your locality to avoid or delay unwanted or mistimed pregnancy?

6. What are the reasons for women not using modern contraception methods, which are already available? Probe for the various assumed barriers of use. (Accessibility, availability, acceptability etc)

7. What is your attitude towards family planning service provided?

Is it sufficient, effective useful, etc?

8. What are the sources of family planning related information for you and others in this community?

9. How do you think information related to family planning should be communicated to

the public in general and to women in particular?

Would you like to suggest the preferable methods?

Would you suggest targeting the information to every body or particular group in the population? (Women of reproductive age, adolescents etc)

10. How far is the public aware that unintended pregnancy is avoidable through the use of family planning? What modern family planning methods are well known in your community? Do you support the use of family planning?

What do men, elders and community leaders think of family planning?

Are you and the public in this locality satisfied of the family planning service provided?

11. Are you and other members of the society aware of any policy (policies) declared by the government on population, health etc. Discuss the population perception on them

12.To what extent do you think women of reproductive age are affected by unwanted or mistimed pregnancy and unsafely induced abortion?

What is the magnitude of unintended pregnancy, childbirth or induced abortion in your community?

What type of person is most affected (age, economic status, married, single, educated neducated, occupation)

.

Service providers

1. What do you think are the priority reproductive health problems in his area? What is the place of unintended pregnancy and or childbirth including unsafely induced abortion? What is your justification for such prioritization? (Probe as reminders of the priority areas).

2. What problems do you face while providing the services? Explain in terms of unfavorable attitudes, lack of facilities, poor organizations, resource unavailability complication of unsafely induced abortion, post partum and abortion family planning counseling and service provisions etc.

3. What are the reasons why potential clients are not able to use modern contraception services being provided? (Probe the various assumed barriers of use (accessibility, availability and acceptability.)

4. Who should be targeted for beneficiaries of family planning services? Explain your reasons.

5. Which methods of dissemination of the information including the mass media, regarding family planning to your clients as well as the public are used in this locality? What is the extent of availability and use of information, education and communication materials, on reproductive health in general and Family planning in particular 6. How do you assess the effectiveness of any family planning program, which is provided to the public? Would you suggest alternative methods?

7. Are you aware of any policy (policies) declared by the government on population, health etc? Discuss what they say and also how far they are known in the community. Also discuss public perception on them.

8. How do you think is the best way to address mistimed or unwanted pregnancy? What is your experience about women with such problem?

DECLARATION

I, the undersigned, declare that this thesis is my original work, has never been presented in any other University and that all resources of Materials have been duly acknowledged.

Name SOLOMON WORKU (MD)

Signature _____

Place Addis Ababa

Date of submission April 2002

This thesis has been submitted for examination with my approval as a University advisor.

Name Dr. MISGANAW FANTAHUN _____