ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

CONTRACEPTIVE DISCONTINUATION AND METHOD SWITCHING AMONG REGISTERED MODERN FAMILY PLANNING ACCEPTORS IN BAHIR- DAR

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A Thesis submitted to the School of Graduate Studies
Addis Ababa University
In Partial Fulfillment of the Requirement for the
Degree of Master of Science in Demography

JUNE 1998

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ACKNOWLEDGEMENT

First of all, my deepest gratitude should go to Dr. Assefa Hailemariam, my advisor, for he spent a lot of time reading the thesis progressively and gave critical and constructive comments. Without Dr. Assefa Hailemariam's close follow-up and unreserved assistance, it would have been practically impossible to get the research completed in its present form.

I would also like to express my gratitude and special thanks to the workers of the Family Guidance Association of Ethiopia (FGAE) North West Branch, Felege Hiwot Hospital, Bahir-Dar Health Center, Kebele 11 Clinic as well as the 12 Community Based Distribution Agents (CBDA) in Bahir-Dar for providing the necessary information used in the study, sister Gedamitu G/Michael and sister Bizunesh Tessema for their beneficial advice that led me to get the data, the School of Graduate Studies (AAU) for the provision of the financial support needed for the study.

My special thanks goes to Dr. Markos Ezra, coordinator of the Demographic Training and Research Center (DTRC) and Dr. Charles Teller for their appreciable motivation and moral support and the whole staff of DTRC who have contributed portion of their responsibility to generate the whole part of my project work.

I am also grateful to all my family members and friends for their considerable encouragement throughout my schooling period in the University.

Last but not least, I would like to express my heart felt thanks and appreciation to all the women who spent their precious time by responding to the many questions during the data collection process.

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ABSTRACT

The major objective of this study was to examine contraceptive discontinuation, reasons for discontinuation and method switching among registered modern family planning acceptors in one of the major urban center of Ethiopia, Bahir-Dar. Using systematic sampling technique a total of 1000 women were selected from 14245 women who for the first time visited one of the family planning providing center in the town and a total of 907 respondents were interviewed for the present study. Three and half years retrospective contraceptive histories were collected for these women in a monthly calendar of events. Single and multiple decrement life table technique are used to analyze the dynamics of contraceptives practice in the study population.

The finding shows that method specific 12- month discontinuation rates range from 43.8 percent for pill to 24.4 percent for injectable and IUD. For all methods combined, 39 percent of users were likely to terminate within the first year of use.

Side effects are the main reasons for first year discontinuation of the pill, IUD, and injectable. Method change, on the other hand, is the main reason for discontinuation of 'other modern methods' such as condom and vaginal methods. For all methods together side effects and the desire to get pregnant are the two main reasons for discontinuation of contraceptive use. Within the first year of use about 13 percent and 9 percent of users, respectively, were likely to terminate use of a method as a result of these reasons. The 12-month contraceptive failure rate is comparatively higher for the pill (2.8 percent) than 'other modern methods' (3.6 percent) and it ranges from 0 percent for injectable and IUD to 3.6 percent for 'other modern methods'. For all methods combined the 12-month probability of discontinuation due to method failure is 2.0 percent, indicating that method failure is not a significant problem as compared to other categories of reasons in the population under study.

The likelihood of method change is highest among users of IUD and the lowest is observed among users of injectable. About 27 percent of IUD users and 19

percent of injectable users were likely to switch methods within the second year of use. Switchers as a whole were most likely to switch their first method to injectable.

Contraceptive discontinuation rates were also significantly different among women with various socio-demographic characteristics. Discontinuation of a given contraceptive method is significantly influenced by age of acceptors, number of living children, additional children desired, contraceptive goal, and marital status. However, educational level and type of occupation were not found to have a significant effect on the discontinuation rate.

Based on the major findings of the study, the paper indicates major areas of policy and program interventions to improve the quality of family planning services. Among others, a need to address the issue of contraceptive related side effects, maximize the method mix, informing users about the proper usage of oral contraceptive, Specialized training for all those in the field particularly to community agents and further study in the area are suggested.

INTRODUCTION

1.1 STATEMENT OF THE PROBLEM AND RATIONALE OF THE STUDY

World population is currently estimated to be growing at about 1.6 percent per year (UN, 1995). This world rate has two very different components, each of which constitutes a population problem. For the developing countries, the problem is essentially growing numbers that are hindering economic development and frustrating the aspirations of their people for a better way of life. In the economically developed regions, population problem concern urbanization, population distribution, and the absorption of the underprivileged into the dominant socio-economic structure of the society. Air and water pollution, traffic congestion and depilation of the natural resources, often thought as population problems, are the more current technological problems.

Current high rates of population growth result from the fact that in the modern era, a decline in mortality can occur rapidly and largely independently of other changes in ways of life. Because of man's universal desire for health and longevity, institutions and individuals have always supported and adopted measures against death. As a consequence, vaccines, antibiotics, insecticides and chemical agents developed during and since World War II have been widely applied. These, coupled with improvement

in food production and distribution, with advances in sanitation, and a more effective social organization, have produced rapid decline in mortality which have not been associated with a comparable decline in fertility (Nortman, 1970).

Unlike death rates, birth rates are far less susceptible to rapid decline. Mortality can be greatly changed by community measures, but change in fertility depends largely on the action of many thousands of couples. In many developing countries, it is this gap between the low level of death rate (7 per 1000 in Latin America, 8 per 1000 in Asia and 14 per 1000 in Africa) and the high level of birth rate (26, 25, and 42 per 1000 in Latin America, Asia and Africa respectively) that has resulted in high rate of population growth (UN, 1995).

The developing nations are currently growing at 2.1 percent per year: a rate at which the population doubles in 33 years. Moreover, it is anticipated that as death rate continues to decline (including deaths associated with HIV/AIDS), the population growth rate of the developing regions will increase unless fertility also declines.

In Africa, like that of other developing regions, fertility continues to generate high rates of population growth. Total fertility rate (TFR) has remained high in the region since 1950 when the rate was 6.6 children per woman while as the rate for

the world as a whole was 5 children per woman; 2.8 for the more developed regions and 6.2 children for less developed regions. For the period 1985-1990 total fertility still remained at about 6 children, i.e., 6.2 children per women. This presents a decline of 6 percent only since the 1950s. It is during 1995-2000 that total fertility rate is expected to be below 6 children, i.e., 5.7 children per woman. (UN, 1989). As a result, the population in the region was estimated to be growing at an annual average rate of 2.8 percent from 1990 to 1995 (UN, 1995).

This high rate of fertility (5.7 children per woman) in the region compromises with efforts to improve the low levels of maternal and child health, and mortality. High rate of population growth coupled with poor economic performance, hinder the ability of governments to pursue their goals for poverty alleviation and human resource development, in areas such as education, health and sanitation.

In order to mitigate these problems and to promote long run development objectives, many African counties, especially after the adoption of the Kilimanjaro Plan of Action on Population (KPA) by African governments in 1984, have developed population and family planning programs and policies. The KPA recommendations, among others, include (UNECA, 1991):

- the usefulness of family planning and child spacing on the stability and well being of the family;
- the need for countries to incorporate family planning services into maternal and child health;
- incorporation of family planning education in training programs of men, women and the youth;
- governments to ensure the availability and accessibility of family planning services to all couples and individuals seeking such services freely or at the standardized price;
- the need for national family planning programs to make available a variety of methods to ensure free and conscious choice; and
- stepping up family planning outlets to reach communities, and individuals not served by conventional delivery systems.

In Ethiopia, as in most developing countries, while mortality has been declining in the last 35 years with the crude death rate (CDR) falling from 30 to 18 per thousand, fertility has remained persistently high and increasing. The country's total fertility rate (TFR) increased from 5.2 children per woman in 1970 to 7.5 children in 1984 and it further increased to 7.7 children in 1990 (Assefa, 1994 and Assefa and Allen, 1997).

As a result, the population of Ethiopia has been increased steadily. It was estimated that the population of the country was

only 11.8 million persons at the turn of the century. This increased to 13.6 million in 1925, to 19.2 million in 1950 and to 33.1 in 1975. In 1984, the census enumerated 42.6 million people (CSA, 1988 and Assefa, 1994). With the assumption of a 60 percent decline in total fertility rate, the low variant population projection, excluding Eritrea, shows a population of 54.3 million in 1995 and 63.2 million by the turn of the century. Further, it is expected to increase to 97.6 million by the year 2015, and to 155.0 million by the year 2035 (CSA, 1988). The rate of population growth also increased from the 1900 level of 0.2 percent per annum to 1.1 percent in 1925, to 2.0 percent in 1950, to 2.6 percent in 1975 and 2.8 percent in 1984 (CSA, 1988).

With the said population size and growth rate, Ethiopia is currently the second most populous country in Sub-Saharan Africa and the levels of total fertility rate of about 8 children per woman is the highest in the world (NOP, 1994).

On the other hand, if one looks at some of the indicators of development, Ethiopia is one of the least developed countries in the world (UN, 1995). A look at the agricultural sector, which is the backbone of the country's economy indicates that in the period between 1987/88 - 1990/91, the average growth rate was 0.2 percent per annum while per capita agricultural production declined by 2.7 percent (TGE, 1991). An estimated 90 percent of the rural households was food insecure and daily calory supply

per capita, in 1990, was estimated at only 76 percent of the recommended daily intake (TGE, 1993). As a result, nutritional deficiencies represent an extreme problem in Ethiopia. Stunting, which reflects chronic, long standing undernutrition, is more widely prevalent than that of wasting which reflects acute nutritional crisis. In 1994, the level of stunting and wasting for the country, for example, were 64 percent and 7 percent respectively (Ministry of Health, 1995).

Although safe-water is an essential pillar of sustainable health for rural and urban population, a large proportion of the population is deprived of safe drinking water particularly in rural areas. In 1994, it was estimated that only 26 percent of the population had access to safe drinking water of which 19 percent were rural and 81 percent were urban. The proportion with any form of latrine is only 8 percent (Ministry of Health, 1995).

The population per hospital, population per health center and population per health station in the country are also extremely high compared with the World Health Organization (WHO) standard of 500,000; 100,000 and 10,000, respectively. These ratios in the country, in 1995, were 646,330; 293,387 and 22,240, respectively. The population/doctor and population/nurse ratios were 38,365 and 14,860, respectively (Ministry of Health, 1995).

Due to these, the situation of Ethiopia in respect to all aspects of maternal, child and public health is desperate and among the worst in Africa and the world. Infant mortality rate (IMR) reported for 1993 was 139 per 1,000 live births, almost double of the Agency for International Development (A.I.D's) target level of 75 per 1,000. High rates of illness and death continue throughout childhood, resulting in a reported 1991 under five mortality rate (UFMR) of 236 per 1,000 live births. The maternal mortality rate in Ethiopia is also estimated to be among the world's highest, with estimates ranging between 500 to 2,000 maternal death per 100,000 live births (Bartlett, 1993).

Considering these and realizing other harmful consequence of rapid population growth, in 1993, the government of Ethiopia officially launched a population policy that aims at harmonizing the fast population growth with economic development.

The policy specifically stipulates to increase contraceptive prevalence rate (CPR) from the 1990 level of 4.0 percent to 40 percent by the year 2015 thereby reducing the total fertility rate (TFR) from the 1990 level of 7.7 children to 4 children per woman by the year 2015 (TGE, 1993). One priority area to accomplish the above goals, as stipulated in the population policy, is to conduct population researches. So far, in Ethiopia, much is not done in this area especially in the area of family planning except the work of Fikreab (1989), Seyoum and Yohannes (1994), Daniel (1995) and Dilnesaw (1995). Even these researchers focused mainly in one problem area of family planning i.e., the determinants of contraceptive use and non use with the main

intention of increasing contraceptive prevalence rate in the county. However, the high rate of contraceptive prevalence can not reduce the level of fertility if it is combined with high rate of discontinuation (Jejeebhoy, 1984 cited by Ahmed, 1990). Therefore, this study focuses on the level of contraceptive discontinuation rates for overall users and by specific method, the relative importance of factors interrupting the practice of use, and examine the level of contraceptive switching behavior with regard to all method and specific method among registered family planning acceptors in Bahir Dar. It also aims to measure the proportion of switchers and reasons for their switching to other methods. It is hoped that the findings will be beneficial for family planning program managers and planners.

1.2 OPERATIONAL DEFINITION OF TERMS AND CONCEPTS

In order to overcome problems which might arise in defining certain key concepts by different scholars, with the context of the present study the following working definitions are adopted:

Choice denied:-refers to women who report that they had been given a contraceptive method that differed from their own prior first choice.

Choice granted:-refers to women who report that the contraceptive method given was according to their choice.

Continuing user (active user):- continuing users are contraceptive users who are practicing family planning on a given date.

Contraceptive use segment:-is a period of time during which a woman's contraceptive use or non use status doesn't change. For example, a pill use segment that is 12 months long is 12 months of continuous pill use, preceded and followed by some thing else.

Cut-off date:- in this study, is assumed to be the date of interview.

Current user:- Any woman who stated in the survey that she was using a contraceptive method at the time of the interview.

Discontinues (drop outs):- Some one who was formerly using a method of contraception but, for any of a variety of reasons, is no longer using contraception.

Discontinuation rate:- it can be measured for each contraceptive method, or for all the methods together. It is calculated by dividing the number of dropouts of a method or methods (for specific period of time) by the total number of users of that or those methods, including those who discontinued the method(s), during the same time period.

Ever user :- Any women who stated in the survey that she had ever used any family planning method.

First segment continuation rate:- refers the probability that an acceptor of a particular method continue to use

a method without interruption for a specific period of time.

All method continuation rate:- refers to the probability that an acceptor of a contraceptive method will continue to use any method for a specific period of time without becoming pregnant.

Method switcher:- any one of contraceptive acceptor who reports having shifted from the use of one contraceptive method to another over the period under consideration.

Multiple switcher:- some one who has changed methods at least twice within the period under consideration.

1.3. OBJECTIVES

1.3.1. GENERAL OBJECTIVES

Since all policy formulations and actions are based on well done research results, the out-come of this research is hoped to contribute towards this goal. In this regard, it is expected that it will fill the gap by focusing on contraceptive use dynamics among contraceptive users. In addition, this study is expected to contribute in the effort of improving the quality of family planning program services in the country by identifying major factors that causes contraceptive use termination. It is also expected to identify a method most liked by clients, the age groups and the various socioeconomic groups that should be reached by the program when promoting contraceptive use.

1.3.2. SPECIFIC OBJECTIVES

In addition to the above general objectives, the research will have the following specific objectives:

1) To determine the discontinuation rate of over all users and by specific methods;

2) To examine the relative importance of each of the factors affecting contraceptive use;

3) To examine the proportion of switchers and the reasons for their switching over to other methods;

4) To identify the demographic and socioeconomic characteristics of both continuous users and dropouts as well as switchers;

6) To assist future researchers as a benchmark for further studies in the area; and

7) To forward program and policy relevant suggestions.

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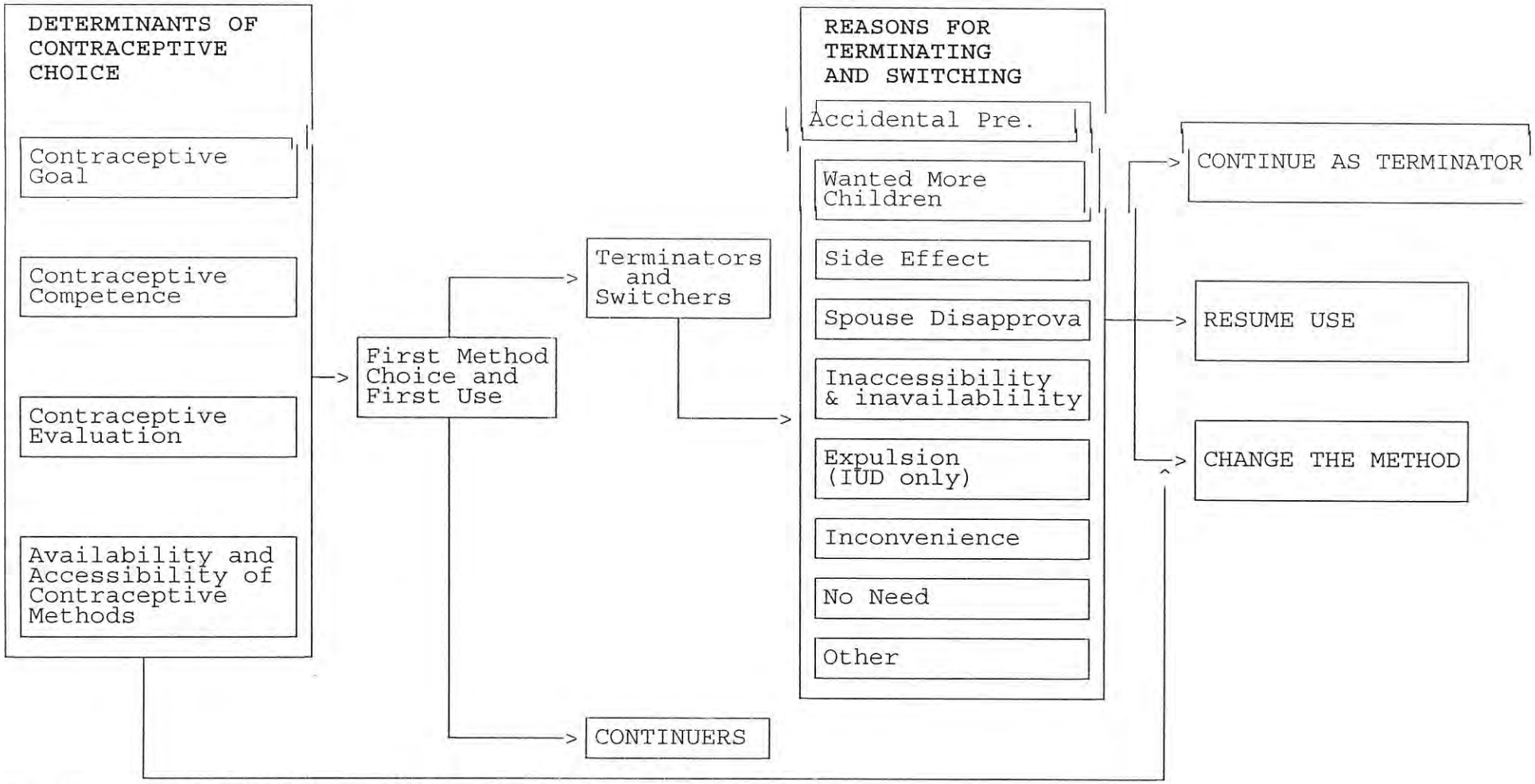
7) To forward program and policy relevant suggestions.

1.4. CONCEPTUAL FRAME WORK

The conceptual frame work proposed here is mainly based on the works of Bulatao (1989), Hamill, et al.(1990) and Ahmed(1990). This framework proposes that individual's decision regarding contraceptive method choice at a particular point in time is based on her contraceptive goal (spacing or limiting), contraceptive competence (the ability to use method effectively i.e., the educational status of the individual), contraceptive evaluation (assessment of the moral and practical aspects of using a specific method ... including side effects) and the availability and accessibility of contraceptive methods.

Because the researcher is interested in contraceptive use dynamics, the decision process can be viewed as continuing over time, resulting in a sequence of method choice. This sequence may include long period during which the method does not change, no method is used or the method switches from one to another.

CONCEPTUAL FRAMEWORK



Sources: *Bulatao (1989), Hamill, et al. (1990) and (Ahmed (1990)*

Note: *Since the main objective of this study is to examine contraceptive discontinuation and method switching all the variables, except the determinants of contraceptive choice, shown in the conceptual framework are considered in theanalytical part of the study.*

Change in individual background characteristics such as age, education and household well being; the number of present and additional children desired; knowledge and beliefs regarding their present and future fecundity; and their knowledge and belief about contraceptive methods, their effectiveness, availability, side effects, etc., are expected to contribute to method switch.

If there are no changes in any of these factors, then the method used is not expected to change. A woman's personal experience with the effectiveness of a prior method could include method failure, which subsequently affect the probability of changing methods. It is expected that changes in these factors of fertility demand and contraceptive experience to be important predictors of method switches in the observed interval.

Regarding contraceptive discontinuation, it is assumed that a woman who adopted any method may stop using it because of any one of the reasons presented in the figure or she may continue as user. Terminators after a certain period of time may resume their usage or change to other method or continue in their status at the end of the observed period.

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1.5. REVIEW OF THE LITERATURE

1.5.1. CONTRACEPTIVE DISCONTINUATION

Despite increasing rates of contraceptive acceptance, high rate of contraceptive discontinuation is observed in most developing countries (Mauldine, 1987; Bruce, 1990 and Shah, 1991). A study conducted based on the Demographic and Health Survey (DHS) data from six developing countries with high level of contraceptive use (Morocco, Tunisia, Egypt, Ecuador, Indonesia and Thailand) indicates that about one-third of the couples stopped using their method within one year of acceptance and about half did so within two years (Mohamed and Cleland, 1995). A follow-up survey result from Niger and the Gambia reveals that, in both countries, approximately 30 percent of new family planning clients discontinued contraceptive use within eight months (Cotten et al., 1992). A four month follow-up study in the Dominican Republic also indicates that of the 544 new users of birth control in the total sample of 722, 24 percent had discontinued by the time of the follow-up interview (four months after enrollment) and 13 percent were those who had previous experience in birth control use (Porter, 1984). The Philippines National Demographic Survey (1993) also indicates that one in three users discontinued in the first year of use. Sayed's (1985) review of contraceptive continuation rates estimated that (based on a 10 month follow up survey data in rural Egypt) among 100 women who accepted and used modern contraceptive methods, 26 terminated use before six month, and another 10

discontinued use during the first year. A similar study by Mauldine (1987), based on data from 33 countries, also shows that from 100 women who have an IUD inserted, 34 removed it before one year and an additional 10 removed in the second year. Of 100 women who have accepted and used oral contraceptives, 55 abandoned them before year one, and another 16 terminated using during the second year.

However, as studies cited above and other similar studies by Mohamed (1990) and Thapa et al. (1991) indicate, the rate of discontinuation highly varied among users of different methods. For example, according to Mohammed et al. (1995), in all six countries covered by their study, users of IUD were more likely than users of other methods to continue both at 12 months and 24 months.

1.5.2. REASONS FOR CONTRACEPTIVE DISCONTINUATION

Various studies have identified different factors influencing continuation of contraceptive use. These factors, among others, include: side effect or health concern, accidental pregnancy or method failure, desire for additional children, lack of access or availability of the chosen method, partner disapproval, change of method, partner separation or death, menopause, etc.

A number of studies showed that side effects or health concern is an important determinant of contraceptive discontinuation.

According to the Botswana Family and Health Survey (1984), for instance, experience with or concern about side effects was among the major reason for discontinuation among users of modern methods of contraception. The percentage reporting that they stopped using because their menstrual cycle had been disrupted, they had experienced other side effects or they were worried about side effects is 38 percent in the case of former pill users, 40 percent in the case of former injectable users and 53 percent in the case of IUD users. The Zimbabwe Reproductive Health Survey (1984) result also indicates that about 20 percent of past pill users and 19 percent of past injectable users terminated the methods because of experience with side effects or concern about possible side effects. A study by Mohamed and Cleland (1995) reveals that health concern including side effects were the most common causes of discontinuation. For all methods combined about 10 percent of episodes were terminated within the first year and about 20 percent within two years for this same reason. A study in seven selected urban centers of Ethiopia, namely, Addis Ababa, Awassa, Bahir Dar, Dessie, Harrar, Jimma and Nazareth also indicate that about 39 percent of modern contraceptive method users stopped using because of side effects (Seyoum and Yohannes, 1994).

Another factor cited in most writings for contraceptive use termination is accidental pregnancy or method failure. A study in Egypt shows that among first segment users of modern contraceptive, 40.5 percent of vaginal method users, 17.4

percent of pill users, 14 percent of condom users and 6.1 percent of IUD users terminated use of the methods because of becoming pregnant while using the methods (Ahmed, 1990). A study made by Laing and Alcantara (1980) reveals that 13 percent of those who discontinued use of first method and 30 percent who discontinued use of the last method stopped use when they became accidentally pregnant. A post family planning acceptance study in St. Vincent and St. Kitts-Nevis found that among women more than three months late for their last appointment, three-fourths in St. Vincent were exposed to pregnancy (Baily and Keller, 1982).

Desire for additional children also constitute a significant proportion of the reasons given for terminating contraceptive use. Findings from the Demographic and Health Survey on reasons for contraceptive discontinuation in six developing countries shows that among different method users, 18.4 percent in Morocco, 12.3 percent in Tunisia, 13.8 percent in Egypt, 10.7 percent in Ecuador, 14.3 percent in Indonesia and 23 percent in Thailand stop using contraceptive within two years after acceptance due to this reason (Mohamed and Cleland, 1995).

Lack of accessibility/availability or unable to get the chosen method is also an important factor to determine the continuation or termination of contraceptive use. In a study of oral contraceptive, IUD and condom acceptors in five Indonesian family planning clinics, clients were asked after

their initial contact whether they have received the method they requested, whether they were still using contraceptive, and if not, when they had discontinued. Of those who reported they had not received the method they wanted 85 percent discontinued within a year. The comparable rate among those who received the method requested was 25 percent (Pariani et al., 1987). A study in Zimbabwe indicated that at the end of 12 months, 75 percent of modern family planning acceptors discontinued use due to problems associated with the clinic, the availability of supplies or the methods (Whittaker and Coeytaux, 1987).

In addition to the above method-related reasons for contraceptive discontinuation, user's background characteristics such as age, educational attainment, number of living children and additional children desired as well as household well being have significant effect on contraceptive discontinuation.

A number of studies show that older women are more likely to use contraception for a considerably longer duration than younger women. According to the Zimbabwe Family and Health Survey (1984), for instance, pill users in the oldest age groups have longer average duration of use than younger women, i.e., within five year of use, the median duration of use among women age 35-39 is 36 months, while the median duration of use is about 12 months shorter among users in the 15-24 and 25-34 years age groups. Similar studies in Egypt indicated

that the average duration of IUD use for those under age 25 (25.6 months) is less than one-half of that observed for the group 35 years or over (over 57 months). Moreover, after 2 years of use, only 54 percent of those under 25 were still using, compared to 68 percent of those 25-34 years and 80 percent of those 35 years or older. Based on the 1994 Zimbabwe Demographic and Health Survey result, Sambisa (1996), found that, in the first year of use, women age 25-34 have the lowest discontinuation rate compared with women in other age group; but by the end of the second year of use, discontinuation rate decline with age and older women (35-34) have the longest median duration of use.

Women's educational attainment also affects contraceptive discontinuation rates. Studies in six developing countries showed that out of the six countries in three (Morocco, Tunisia and Egypt), uneducated women were more likely to stop using the pill than women with at least primary level of education. Among women with no education 36 percent in Morocco, 42 percent in Tunisia and 42 percent in Egypt terminated use of a method within one year of use compared with 31 percent in Morocco, 33 percent in Tunisia and 33 percent in Egypt with secondary or above level of education in the same period. Studies in Zimbabwe also indicated that within five year of use, the median duration of use increases from 19 months among pill users who attended but not complete primary school to about 48 months among those who had at least some secondary level education. Patterns of contraception for

IUD users by level of education in Egypt showed that women with less than primary level education have the shortest average duration of use (22.7 months) compared with those who have completed primary level or above education (27.6 months) (EDHS, 1984). Tizazu (1994) in his study of differential in use-effectiveness of contraceptive in South Ethiopia also found that, in comparison with those with no education, duration of use increased by 154 percent, if most users had attained educational level of grade 9-12.

Number of living children and additional children desired are also important factors to determine the continuation and termination of contraceptive use. A study on contraceptive use in Zimbabwe indicated that compared with high parity women, pill users with fewer than two living children have the highest discontinuation rates at both 12 and 24 months of use (Sambisa, 1996). Compared with those with no living children, a study in South Ethiopia showed that , duration of contraceptive use increased by 70 percent among those who had more than seven living children. Ali Mohamed and Cleld Jhohan in their study on contraceptive discontinuation in six developing countries by dividing respondents into three main groups (according to whether their number of living children at the start of the episodes was less than, equal or greater than their desired family size) found that cumulative discontinuation for both IUD and pill tend to be higher among respondents who had not yet achieved their desired family size at the start of the episode than it was among those who had

already reached or exceed their family size.

1.5.3. SWITCHING OF METHODS

As couples and individuals move through their reproductive life cycle and make decisions about contraceptive practice, they are confronted with many possible combination and sequence of method use. The number and mix of methods that they use, the frequency with which they switch methods and the specific order in which they use them depends on their fertility desires, personal experiences with various methods (such as side effects, cost and convenience) and the availability of each contraceptive methods (Kane et al., 1988; Bruce, 1990 and Shah, 1991). Data taken from a 1985 national follow up survey of respondents to the 1982 Sri Lankan contraceptive survey indicate that from the entire sample of 2,310 women, forty-one percent had used one method, 33 percent had used two methods, 9 percent three methods, and 3 percent had used four or more methods. That is, 45 percent had switched methods at least once and 12 percent had switched methods at least twice (Kane et al., 1988). The Botswana Family Health Survey of 1984 data also indicate that among ever in union women who ever used family planning, 54 percent of the sample used one method, 24.6 percent two methods, 13.4 percent three methods, 5.9 percent four methods and 2.1 percent had used at least five methods (i.e., about 46 percent of the entire sample had switched methods at least once). In Zimbabwe, among the ever union women who have

practiced family planning, 40 percent have ever used one method, 28 percent tried two methods, 19 percent had experience with three methods and 13 percent switched to four or more methods (Zimbabwe Reproductive Health Survey, 1984). According to the Barbados Contraceptive Prevalence survey of 1980-81, about 77 percent of the women were using any type of contraceptive methods used one to two methods and 23 percent switched from three to nine methods.

In general, switching among method is common, particularly among first time and adequately informed contraceptive users (Bruce, 1990). For instance, data from a household distribution scheme in Bangladesh indicates that two-third of those women still practicing contraception 18 months after the initial distribution of methods had switched methods (Bhatia et al., 1980). Philippines data from the national acceptors show that 34 percent of women who were using contraceptives at the end of the 24 months had switched methods at least once (Laing and Alcantara, 1980). In the course of eight months, a study of 650 new family planning clients in Niger and 570 in The Gambia, 10 percent of them switched method at least once in both countries (Cotten et al., 1992).

There also may be societies where couples' or individuals' selections are more resistance to change once established. For example, Davanzo et al.(1987) presented data from Malaysia (1961-75) on contraceptive switching among three different ethnic groups. In general, they found unusual inertia; most

women stayed with the same method not only overtime, but also from pregnancy to pregnancy. However, they also observed less stability in choice among those who had adopted modern methods. Calculating continuation rate with specific methods between pregnancies, they found continuation rates of 73 percent for rhythm, abstinence and withdrawal; 55 percent for barrier methods; and just over 50 percent for pill use (Bruce, 1990).

1.5.4. REASONS FOR SWITCHING OF METHODS

There are a number of reasons why couples wish to switch contraception. These reasons, among others, include: desire to change from temporary to permanent method, experiencing side effects, deciding to use male method or vice versa, lack of the chosen method, partner disapproval, etc. (Kane,1987, Bruce, 1990 and Shah, 1991).

As available literatures indicate, women who have attained all or a significant proportion of their desired fertility tend to switch to effective methods, women who experience method failure tend to switch to more effective methods and also womens' background characteristics such as age and education as well as household economic well-being have significant effect on method switching.

1.6. HYPOTHESES

Based on the aforementioned objectives and literature review, the study aims at testing the following hypotheses:

1) The rate of discontinuation varies among users of different methods of contraception;
2) The rate of discontinuation is lower for IUD users than for users of other methods.
3) The rate of discontinuation is lower for limiters than spacers.
4) The rate of discontinuation varies inversely with age and with the number of living children, and educational attainment;
5) Traditional, unskilled labor and low income indicates lower economic status; lower status women or couples have lower continuation rate (women who are gainfully employed have higher continuation rate than other women);
6) Among other reasons, side effects and desire for having additional children are the most important reasons for contraceptive discontinuation.
7) Women who attain all or a significant proportion of their desired fertility switch to more effective methods than those who do not attain their desired fertility;
8) Women who experience method failure switch methods more than those who do not experience method failure.

CHAPTER TWO

DATA SOURCE AND METHODOLOGY

2.1 THE STUDY AREA

For the purpose of this study, a retrospective survey was conducted among contraceptive users during the period September 1993 through January 1997 in Bahir- Dar town, urban Ethiopia. Under the present administrative structure Bahir-Dar is the capital of the Amahara Regional State, and there are 17 kebeles organized under two woredas in the town. Bahir-Dar is located about 570 km North West of Addis Ababa. The population of the town, according to the 1994 population and housing census result, was 96,140, of which 45,436 were males and 50,704 were females. The crude birth rate, general fertility rate and the total fertility rate were 19.7, 64.1 and 2.4, respectively. The population growth rate of the town in the period between 1984 and 1994 was 5.4 percent per annum (CSA, 1984 and 1994).

Family planning activities in the town started 20 years ago when the Family Guidance Association of Ethiopia (FGAE) in collaboration with the Ministry of health trained the first group of professionals and sent to the town. Since then the service was mainly provided through government health institutions as part of the maternal and child health program. In 1993 an organized office and clinic were established in the town by FGAE serving the North-West part of the country.

Bahir-Dar is selected as a study area due to the fact that in the town there are both government and non government family planning providing centers especially community based distribution centers(CBDs) and the town is expected to have relatively high contraceptive prevalence rate in urban Ethiopia, next to Addis Ababa, Nazaret and Awassa. In addition to this, the researcher is well familiar with the study area and it is hoped that this will facilitate the research activities.

2.2 SURVEY POPULATION AND SAMPLE SIZE

Family planning services in Bahir-Dar are provided through three government health institutions, i.e., Felege Hiwote hospital, Bahir-Dar Health Center and Kebele 11 Clinic. There is also one FGAE clinic which is specialized in the provision of family planning services and 12 Community Based Distribution Agents (CBDA).

In each family planning service delivery point, first, the total number of women who first visited a family planning service delivery point during the period was obtained from the daily registration book and the case record cards. Second, 14,245 women who first visited one of the family planning providing centers and reside in Bahir-Dar were identified from the registration system.

Using systematic random sampling technique, out of these

14,245 women 1,000 (14.3 percent) were selected for this study. For these 1000 sampled women, information on the following variables that can facilitate the actual data collection process were copied from the daily registration books and case-record cards. These information are: name of family planning providing center, name of woman, Card number, address as well as contraceptive history of the women.

2.3 INSTRUMENT

In addition to service statistics that is used for consistency check, a structured questionnaire was employed to collect data. The questionnaire was first prepared in English and distributed to different scholars and the advisor for suggestions and comments. Based on the given suggestions and comments the final English version, which is annexed to this paper, was prepared and translated into Amaharic. The Amaharic version was also proofread by the advisor. Finally 1,100 copies of the Amaharic version of the questionnaire (having four sections) were duplicated and used both for the pre-test and actual data collection. The first section of the questionnaire deals with information about background characteristics of respondents such as age, ethnicity and religious composition, occupational status, educational status, etc. The second section focused on fertility behavior of respondents. The third section concentrates on information about fertility regulation ,i.e., reasons for selecting modern method of contraception, reasons for choosing a particular methods of contraception, current contraceptive

status, reason for switching or discontinuing the pervious method(s), etc. The fourth and the last part of the questionnaire deals on marital status and partner background characteristics.

2.4 FIELD WORK

The field work includes selection and training of interviewers, pre-test, preparing the sample frame and, finally conducting the main data collection.

Only female enumerators were used for conducting the main interview. Females were preferred because as respondents were females, it was believed that the respondents will be more at ease with female enumerators in responding to some of the questions. The selection was based on completion of at least grade 12, motivation and ability to conduct interview. After screening documents of applicants the best 20 were selected to participate in a training. They were given 3 days intensive training on the art of posing questions and completing the questionnaire. During the training, all the materials in the questionnaire were discussed thoroughly until the enumerators understood them and were able to memorize the order and location of each question in the questionnaire. Interview practice was made in actual field situation on at least two contraceptive ever users by each data collectors during the training. Discussion were conducted on the experience gained from the practice.

Pre-testing was conducted just after the training of enumerators was completed. The aim was to indicate the deficiencies in the questionnaire and the difficulties likely to be encountered in the field, as well as to determine the time required for conducting the main interview. In addition, the pre-test was used to consolidate the training given to the enumerators in class. 40 questionnaires were used to interview purposively selected contraceptive ever users.

The outcome of the pre-test has assisted for data quality control during field work. The actual time required to fill a questionnaire was also estimated during the pre-test which has helped the researcher in planning the field work.

After necessary changes were made and the enumerators briefed about the changes on the questionnaire, the sampling frame was prepared. To prepare the sampling frame, each government and non-government health institution which provides family planning services was visited. From the list of each health institution those first time users within the period under consideration were collected. And, of these first time users 1,000 eligible women were selected. Soon after preparing the sample frame and selection of the sample was completed, the main interview started.

It is known that work measurement and quality control are integral part of data collection. Through out the duration of field work the enumerators were subjected to control and supervision. In addition to occasional checks, a sample of the

questionnaire was checked for coverage, completeness and quality of response.

However, many problems were encountered during the preparation of the sampling frame and actual data collection process. Some of the problems include:

i) In all the three government health institutions, both the daily registration books and case-record cards were not handled properly and systematically. For example, in a single health institution an acceptor was registered more than once within the period under consideration. One of the reason for this is that if one registration book is finished and a new one is started, the registrars copied only continuing users from the old registration book to the new one and give new card number by erasing the first one. When the terminators resume use, they again registered them as new acceptors and gave new card with new card numbers. As a result of this and other similar problems it was difficult to know the actual number of women served in the three government health institutions within the period under consideration simply from the registration books and cards currently in use. Because of this, the researcher was forced to check each new and old cards to identify the date of first visit and to know the actual number of women served in the health institutions within the period under study.

ii) In all government health institutions, the daily registration books and case-record cards don't have complete address of clients (no information about house number). Due to this, it was difficult to locate the sampled women based on the address obtained from the address card only, i.e., keftegna, kebele, and name of the client. So, the researcher was compiled to go to each of the seventeen kebeles and match the name of the sampled women with the kebele registration books and identify the house number.

iii) Although some clients give their full address especially in non-governmental family planning providing centers, they never lived in the stated address. This may be partly due to a deliberate attempt to give a false address in order to remain anonymous and partly due to a genuine mistake. Such problem was not recovered as there is no means to do so.

2.5 DATA QUALITY

In order to secure the quality of data, every possible effort has been made from the start of questionnaire design up to data cleaning stage.

However, in developing countries like Ethiopia where the majority of the population is illiterate, difficulties in obtaining reliable data from retrospective survey of such type

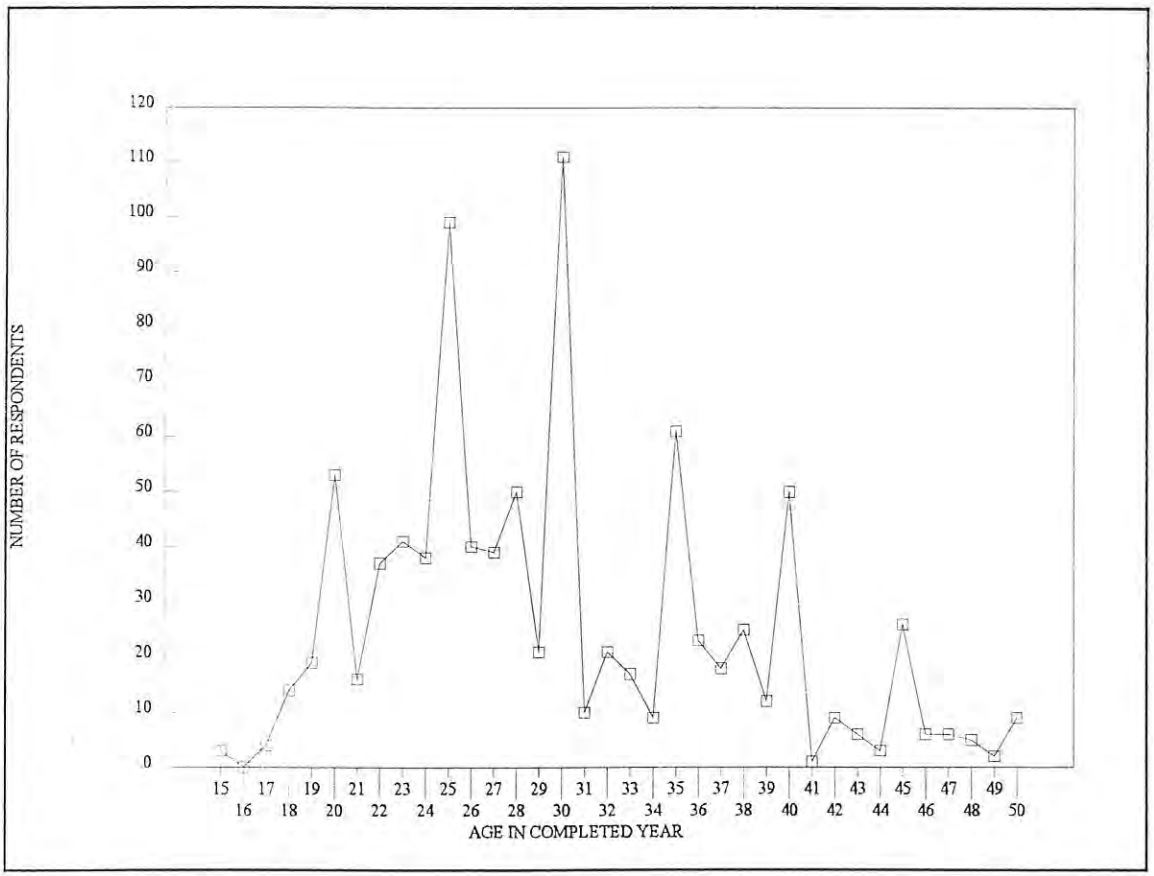
are well known. In particular when the execution and supervision of field work is done by one individual alone, such as in this study, it is difficult to expect error free data. In addition to this, the data quality of this study can not be discussed and ascertained in comparison with other similar studies. This is because there are no such studies conducted in Ethiopia in general and in Bahir-Dar in particular. Examining the quality of data of this study is further affected by the fact that some data quality assessing methods such as age-sex ratio methods do not apply to this study as it is focused only on female family planning acceptors. Because of these, data quality assessment is done only on age and reported duration of use.

2.5.1 AGE DATA

Age misreporting is common in developing countries. Only few educated parents keep records of date of birth of their children and celebration of ones birth-day is uncommon in this part of the world, and Ethiopia is no exception. Age data in most cases are affected either by the respondent and/or interviewer on the basis of linking the probable age with some events. Sometimes some people are not able even to give some information from which their ages can be estimated. In such condition, the estimation of age totally falls in the hands of the interviewers. In a population with gradually declining mortality and insignificant migration, if ages are correctly recorded, it is expected to observe a linear pattern in the

age distribution of the population. The single year age distribution of women under study is presented in Figure 2.1. The Figure shows that the age data deviate from the expected trend. Existence of error in the age data is manifested in clustering at ages ending in some digits and deficiencies at ages ending in others. The tendency of respondents or interviewers to report some ages at the expense of others is known as age heaping or age preference, or digit preference. Therefore, in order to examine the extent of age heaping in terms of digit preference Myers' Blended index of terminal digit preference was calculated.

Figure 2.1. Distribution of Respondents by Single Age, Bahir-Dar, 1997.



MYRES' BLENDED INDEX

Myres' Blended index is usually employed to measure index of preference for each terminal digits and it provides summary preference index for all terminal digits. Myres' Blended indices are calculated and the result is presented in Table 2.1. Theoretically, Myres' index ranges from "0" to "90". "0" indicates the absence of heaping in the age distribution and "90" shows that all ages were reported at a single terminal digit. The data in Table 1 shows a tendency of respondents to state their ages in digits ending "0", "5" and "8" and avoiding ages ending in other terminal digits. Putting in order of preference, "0" is the most preferred terminal digit followed by "5" and "8", respectively. On the other hand, "1" is the most avoided terminal digit. The second and third avoided terminal digits are "4" and "9". The summary preference index for all terminal digit is 26.

Table 2.1. Myres' Blended Index of Terminal Digit Preference, Bahir-Dar, 1997.

TERMINAL DIGIT (a)	POPULATION WITH TERMINAL DIGIT (a)	WEIGHTS		BALANCED POPULAT-ION	PERC-ENT	DEVIATION OF PERCENT FROM 10
0	223	1	9	2,230	24.7	14.7
1	27	2	8	270	3.0	-7.0
2	67	3	7	670	7.4	-2.6
3	64	4	6	640	7.1	-2.9
4	50	5	5	500	5.5	-4.5
5	189	6	4	1,890	20.9	10.9
6	69	7	3	690	7.6	-2.4
7	67	8	2	670	7.4	-2.6
8	93	9	1	930	10.3	0.3
9	54	10	0	540	6.0	-4.0
TOTAL				9,030	100.0	26.0

2.5.2 DATA ON REPORTED DURATION OF USE

Since respondents were asked to recall events of contraceptive use up to three and half years age, one type of bias that is likely to be important is recall bias. One symptom of poor recall is heaping of events on significant dates or prominent durations such as 3, 6, 12, and 24 months. The phenomenon of heaping at 3, 6, 12 and 24 months could bias the discontinuation rate at these durations.

Figure 2.2. Percent Distribution of Reported Segments Duration of Use, Bahir-Dar, 1997.

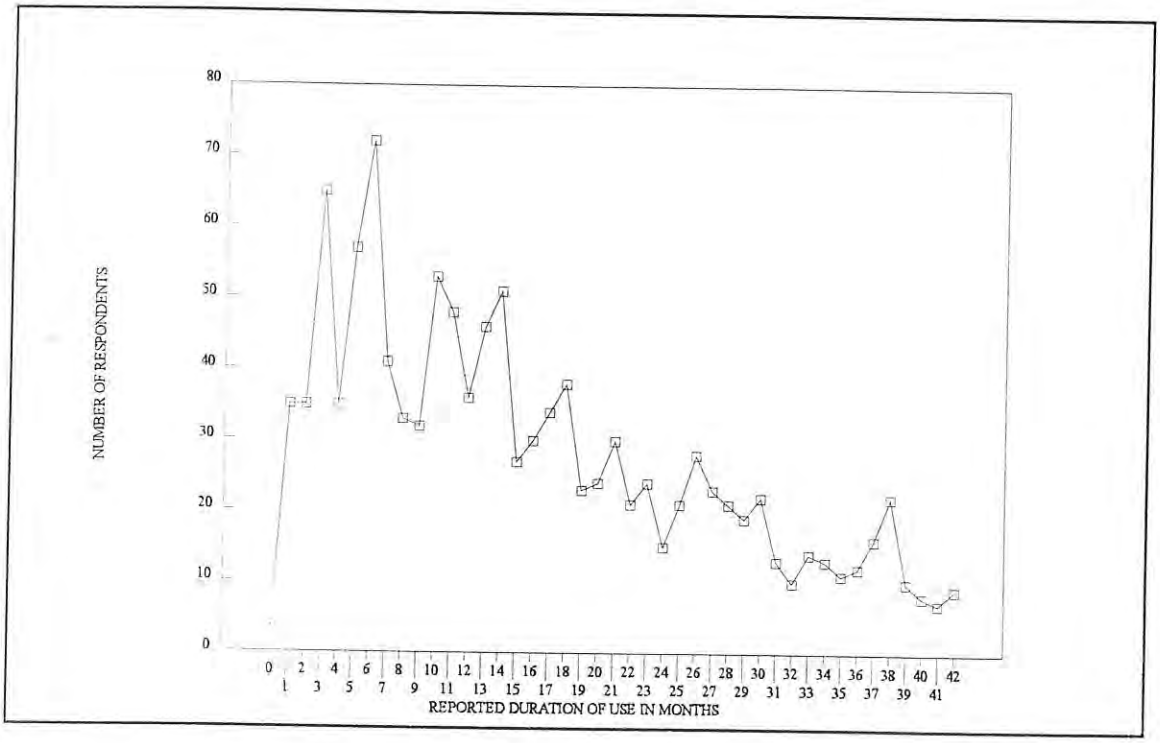


Figure 2.2. shows the percent distribution of the reported duration of use of segments. As it is clearly observed from the Figure heaping is very minimal on the 3, 6, 12 and 24 duration. Therefore, it is possible to conclude that unlike age , in this study, data on duration of use is fairly accurate.

2.6. DATA ANALYSIS

Most of the items in the questionnaire were Pre-coded. Due to this, immediately after data collection and a little work of coding data entry was made using the SPSS/DE soft ware. Cleaning of data was also conducted using the same computer soft ware.

In addition to uni-variate descriptive statistics and bi-variate analysis, multiple decrement techniques were employed in the data analysis.

Multiple decrement procedure provide a way of constructing duration specific termination rates, while making it possible to include in the construction of these rates both the continuing users and those who have stopped contraceptive use. It also enables us to have the relative importance of different reasons of discontinuation after controlling for duration.

Multiple decrement life table procedure was constructed based on the following information:

Let $Q(I_x)$ the probability of discontinuation because of reason I, $Q(I_x) = I_x/N^*_x$

I_x Include:

D_x = the number of pregnancies that occurred during month (x, x+1), while the method is used,

C_x = number of users changing the method during the month (x, x+1),

M_x = number of users who want more children during (x, x+1),

S_x = number of users who have side effect during (x, x+1),

H_x = number of users who stop using the method because of

spouse disapproval during (x, x+1),

A_x = number of users who stop using the method because of inaccessibility and inavailability during (x, x+1),

O_x = other reasons, which include personal reasons, emotional reasons,.. etc.

E_x = number of users who are not any more in need of using during (x, x+1)

Then $Q(D_x) = D_x/N^*_x$

Thus;

$$Q_x = I^{Q(Ix)}$$

$$P_x = 1 - Q_x$$

$$cum(P_x) = P_x$$

$$cum(Q_x) = 1 - cum(P_x)$$

Where:

x = denotes durations in one monthly unit

N^*_x = equal to $N_x - W_x/2$

N_x is the number of women retaining the device at start of the monthly interval (x, x+1)

W_x is the total number of women withdrawing from observation during (x, x+1)

Q_x is the total discontinuation probability during the month (x, x+1)

P_x the probability of continuation during the month (x, x+1)

cum (P_x) cumulative probability of continuation at the end of month x,

i.e.,

$$\text{cum } (P_1) = P_1$$

$$\text{cum } (P_2) = P_1 * P_2 \text{ or } = \text{cum}(P_1) * P_2$$

cum (Q_x) cumulative probability of discontinuation at the end of month x.

2.6 RESPONSE RATE

Out of 1,000 sampled women 85 were not traced at their addresses and 11 women refused to give any response, i.e., 907 women or 90.7 percent were successfully interviewed. The non-response rate of 9.3 is acceptable because, in general, a non-response rate of 20-40 can be expected in a survey of this type (Porter: 1984). The reason why these 9.3 percent of women could not be located at their address are summarized in Table 2.2.

As can be observed from Table 2.2, 5.1 percent of women could not be located because either they never lived at the stated address or the addresses were not traced. This may be due to a deliberate attempt to give false address to secure their contraceptive use privacy or partly due to genuine mistakes. Since the maximum observation period is three and half years after acceptors were registered for family planning services, it can be expected that a proportion of women moved to other address. During the period 2.3 percent of acceptors moved to different addresses. other groups of women who could not be interviewed were those who refuse to give responses and those

who died. The Percentage of these women to the sample size are 1.1 and 0.8, respectively.

Table 2.2. ***Percent Distribution of Outcome of Visits to Addresses of Sampled Respondents, Bahir-Dar, 1997.***

Out come of Visit	
Number	1,000
Percent	100.0
Completed	90.7
Never Lived/ Addresses not Found	5.1
Respondent Moved	2.3
Refuse to Give Response	1.1
Respondent Died	0.8

2.7 LIMITATION

Every study has its own limitations, especially the analysis of family planning continuation/discontinuation is subject to several limitations. This study is therefore not an exception. Therefore, the following major limitations are pointed out as precautions to all users of this research result:

i. One source of possible error is related to the quality of the date information. Both recall error and simple lack of knowledge of dates, especially regarding those women with no education, may contribute to error in the reporting of dates.

ii. Since the number of women under consideration are small and most of them ever used one kind of contraceptive

method, pill, the analysis is some times hampered by small number of users, especially when differentials in continuation/discontinuation are explored for various background characteristics and different contraceptive methods. For instance, it was planned to examine the behavior of method change by background characteristics of women, but, due to the fact that the number of users of different contraceptive methods in each category were very small, it was not possible to use the life table techniques and to see the results.

iii. A third possible limitation in this study results from the use of respondent reported segments of contraceptive use. Such data may be biased in two ways. first of all, women may report starting and stopping dates that include periods of non use. The inclusion of such periods will result in estimates of the average length of use that are biased up-ward. A second possible source of error in reporting is the omission of a very short segment of use. For example, a woman who used the pill for less than one month and discontinued for various reasons may not consider that segment of use important enough to report. This omission also will tend to decrease the estimated average length of use.

iv. Since we, the 1995/96 academic year entry, were for the first time expected to finish the program within two years while at the same time attending course work until January, 1996 together with fact that the town in which the study was conducted is too far (about 600 Km from

CHAPTER THREE

RESPONDENT'S BACKGROUND CHARACTERISTICS

One of the objective of this study is to ascertain the importance of user characteristics as correlates of contraceptive discontinuation and method switching behavior. Differential in contraceptive discontinuation and switching have bearing on the evaluation of family planning program efforts because the fertility impact of the program activity will depend upon the success with which contraception is practiced in different sub groups(Entwisle and Sayed, 1991). Therefore, this chapter tries to summarize the background characteristics of the women covered by the study. Age, education, occupation, number of living children, ethnicity and religious composition, marital status, as well as partner educational status are the main characteristics presented here.

3.1 AGE

Age data were collected by asking respondents about their age in completed years as of their last birth day and about the date of their birth. Answers to these questions were checked for consistency and a final response were entered by the interviewer.

Table 3.1 which shows the age distribution of respondents indicates that most respondents, 81.6 percent, are between 20 and 40 years old. only 4.3 percent are younger than 20 years and 14 percent are 40 years or older. The mean and median age of respondents are 29.8 and 28 years, respectively.

Table 3.1. Percent Distribution of Respondents by Age, Bahir-Dar, 1997

Age	
Number	907
percent	100.0
15 - 19	4.4
20 - 24	20.3
25 - 29	27.5
33 - 34	18.5
35 - 39	15.3
40 - 44	7.6
45+	6.4

3.2 LITERACY STATUS AND EDUCATIONAL LEVEL

Educational background of the 907 family planning program acceptors covered by the study was also one area of focus. Information on the respondents literacy status and educational level were obtained by asking the respondents whether they had ever attended school and, if the response was affirmative, the level and the highest grade they had completed. For those who had no formal education or who had completed grade six or less, information on literacy status were also obtained by asking whether or not they could read/write a paper.

Table 3.2 presents the distribution of respondents by literacy status and educational level. Overall, the result shows that about three out of every four women has had either formal or non formal education including literacy program.

Table 3.2 Percent Distribution of respondents by Literacy Status and Educational Level, Bahir-Dar, 1997

Educational Level	
Number	907
percent	100.0
Illiterate	23.3
Read/Write only	16.3
Primary	21.5
Junior Secondary (7-8)	12.2
High School & Above (9+)	26.7

From Table 3.2, it is also observed that about one out of every five respondents has had primary education, one out of every ten women had some junior secondary education and about one out of four had completed at least grade eight.

Table 3.3, which presents the distribution of respondents by educational level and age, indicates a trend towards higher educational attainment among younger women. For example, 66.3 percent of women aged 15-19 have had some junior secondary or above education compared to 7.2 percent in the oldest cohort.

Table 3.3 Percent Distribution of Respondents by Educational Level and Age, Bahir-Dar, 1997

Age Goup	Number	Perc.	Illiterate	Read/ Write	primary (1-6)	J.scondary Above (7+)
Total	907	100.0	23.3	16.3	21.5	38.9
15-19	39	100.0	17.9	10.3	5.1	66.3
20-24	184	100.0	28.3	5.4	13.0	53.3
25-29	249	100.0	15.7	12.9	19.7	51.8
30-34	168	100.0	22.0	16.7	26.2	35.1
35-39	139	100.0	25.9	27.3	30.2	16.5
40-44	69	100.0	36.2	26.1	18.8	18.8
45+	59	100.0	24.1	31.0	36.2	7.2

3.3 WORK STATUS AND OCCUPATION

Respondents were asked whether they had done any work in the month before the interview for which they were paid either in cash or in kind. The result shows that about 48 percent of the respondents had some work for which they were paid in cash or kind. Table 3.4 presents work status and the type of occupations in which women working for pay were involved. The table shows that women, in the study population, were less likely to be employed in professional, technical and managerial or clerical positions than as sales, service or skilled/unskilled labour.

Table 3.4 Percent Distribution of Respondents by Work Status and Type of occupation, Bahir-Dar, 1997

Type of Occupation	
Number	907
Percent	100.0
Not Working	51.8
Professional, Technical and Managerial	6.2
Clerical	1.3
Sales	11.8
Skilled/Unskilled Labour	12.5
Service	14.0
Other	2.4

About 14 percent of all respondents were working in service occupation largely as bar ladies. The majority of the other women were concentrated in skilled/unskilled labour (12.5 percent) or sales occupation (11.8 percent). The very small proportion of women reported in professional, technical and managerial (6.2 percent) and clerical (1.3 percent)occupation.

3.4 ETHNIC COMPOSITION

Respondents were asked about their ethnic group. In the questionnaire five ethnic groups, i.e., Amahara, Tigraway, Agew, Guraghe and Oromo were presented and the remaining coded as other. However, since the number of respondents in the Agew (0.6 percent), Guraghe (0.3 percent) and Oromo (0.3 percent) ethnic groups were found to be small, they are re-coded under

the category 'other'. Therefore, with this categorization the ethnic composition of respondents is summarized in the next table.

Table 3.5 Percent Distribution of Respondents by their Ethnic Composition, Bahir-Dar, 1997

Ethnic Group	
Number	907
percent	100.0
Amahara	92.9
Tigraway	5.1
Other	2.0

As shown in Table 3.5, the Amahara ethnic group is by far the largest ethnic group in the population under study. 92.9 percent of the respondents belong to this ethnic group. The second largest ethnic group is Tigraway which accounts for about 5 percent of the respondents. Only 2 percent of all respondents belong to other ethnic groups.

3.5 RELIGIOUS COMPOSITION

Information on respondents' religion affiliation was also collected. Like the case for ethnic composition, different kind of religions were presented in the questionnaire. However, as most of the respondents were found to belong to two major religions, i.e., Orthodox Christian and Muslim, women With other religions are re-coded under the category 'other'. Table 3.6 shows the result obtained.

Table 3.6 Percent Distribution of Respondents by their Religious Composition, Bahir-Dar, 1997

Religion	
Number	907
Percent	100.0
Orthodox Christian	90.8
Muslim	8.2
Other	1.0

As one can easily observe from Table 3.6, Orthodox Christian is by far the most prominent religion of the survey population. About nine out of ten women are affiliated with this religion. The second important religion is Muslim and it represent 8.2 percent of women under consideration. Other religions like Protestant, Catholic, etc, accounted for only 1 percent of the respondents.

3.6 MARITAL STATUS

Figure 3.1 presents the distribution of respondents according to the marital status which they reported in response to a question as to whether they were married, divorced, separated, widowed or never married. Overall, two third of the respondents are currently married. The percentage of women who are divorced, separated, widowed and never married are 9.7, 5.8, 6.0 and 10.7, respectively.

Figure 3.1 Percent distribution of respondents by Marital Status, Bahir-Dar, 1997

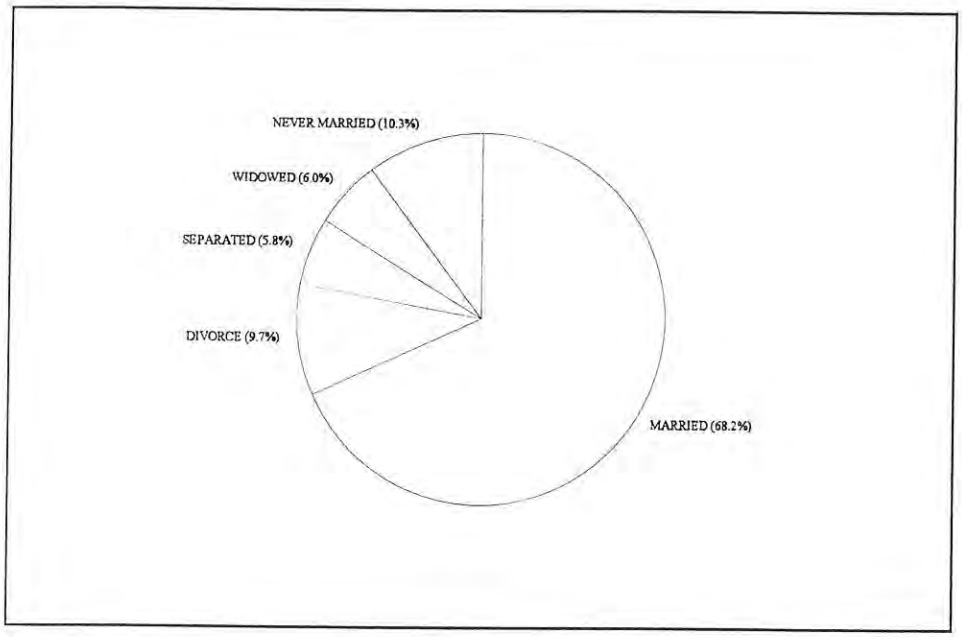


Table 3.7 summarizes the marital status of respondents by current age group as well. About half of all respondents aged 15-19 years reported that they were currently married. The proportion currently married increases to nearly 76 percent for women in the age group 35-39 and then decreases again. Conversely, the proportion never married decrease with increasing age. 41 percent of the respondents in the age group 15 to 19 are never married while this percentage decrease to zero in the two oldest age categories. Although the proportion of divorced/separated and widowed vary with age, the differences between proportion widowed and divorced/separated for different age groups are relatively small.

Table 3.7 *Percent Distribution of Marital Status by Age-Group Bahir-Dar, 1997*

Age-Group	Number	Per.	Marrier	Div./ Separated	Widowed	Never Married
Total	907	100.0	68.2	15.7	5.8	10.1
15-19	39	100.0	48.7	10.3	o	41.0
20-24	184	100.0	51.6	15.2	4.3	28.8
25-29	249	100.0	75.1	13.3	4.4	7.2
30-34	167	100.0	74.9	17.4	6.6	7.2
35-39	139	100.0	75.5	17.3	5.0	1.2
40-44	69	100.0	68.1	17.4	14.5	0
45+	59	100.0	69.5	20.3	10.2	0

3.7. HUSBAND'S EDUCATION

Out of the 907 respondents, 619 are currently in marital union. These women were asked if their husbands had ever attended school, and if so, the highest grade which their husbands had completed. Table 3.8 shows the distribution of currently married women by the educational status of their husbands. The result indicates 90 percent of husbands are literate and the majority (63.2 percent) had completed primary school. The median education of husbands is grade 8.

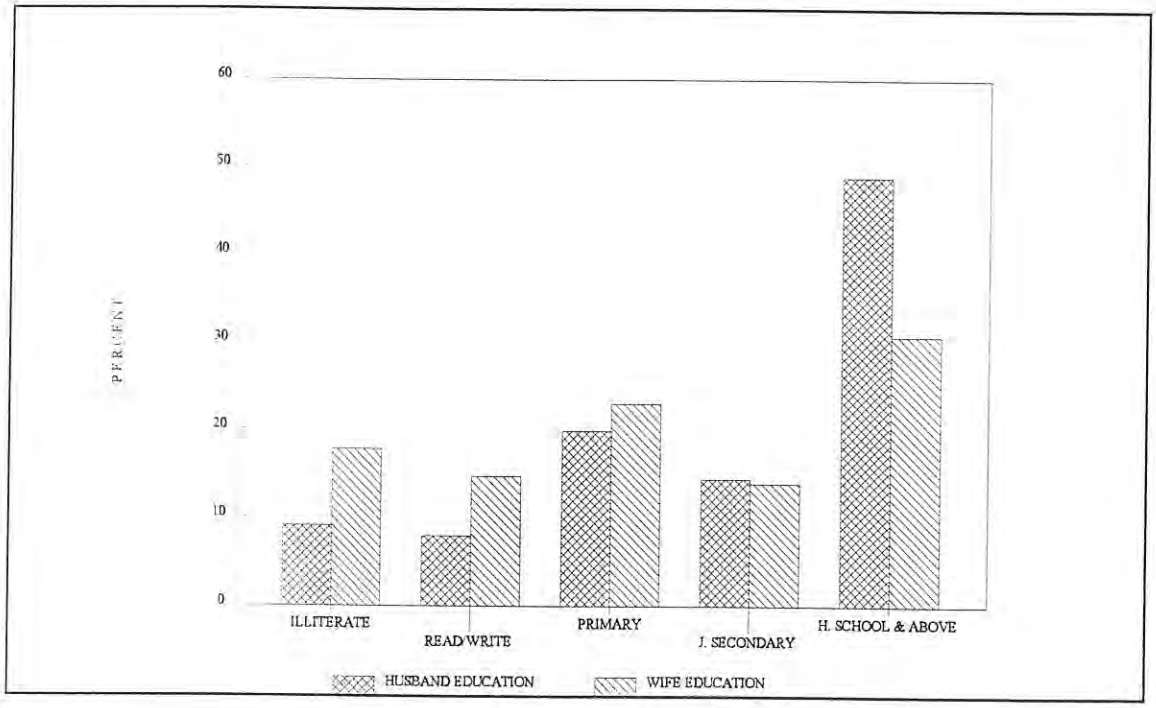
Table 3.8 Percent Distribution of Currently Married Women by Educational Level of their Husbands, Bahir-Dar, 1997

Husband's Educational Level	
Number	619
Percent	100.0
Illiterate	9.0
Read/Write	7.9
Primary	19.9
J. Secondary (7-8)	14.4
H. School & Above (9+)	48.8

In Figure 3.2 educational attainment of married women is compared with that of their husbands. Overall, the Figure shows that husbands have been attending school much more often than their wives. Where as 17.8 percent of married respondents have not attended any form of education, only 9 percent of their husbands have never attended school.

Men are also more likely than women to have completed high school and or higher education. Forty nine percent of men are reported in this category while only 30.7 percent have achieved that level. The median grade also clearly reflects the difference: grade 8 is the median for husbands and grade 5 for women, respectively.

Figure 3.2 *Educational Attainment of Currently Married Respondents and their Husbands, Bahir-Dar, 1997*



CHAPTER FOUR

KNOWLEDGE, EVER USE AND CURRENT USE OF FAMILY PLANNING METHOD

Information about knowledge of family planning and the use of contraceptive methods is of a particular use to policy makers and program managers for formulating policies and strategies. This chapter begins with an appraisal of women's Knowledge of contraceptive before moving on to consideration of past and current family panning practices. However special attention is focused on contraceptive discontinuation, reason for discontinuation and method switching behavior in chapter five.

4.1 KNOWLEDGE OF FAMILY PLANNING METHODS

Each respondent was asked the following questions about her knowledge of family planning methods. " As you know there are various ways a couple can delay the next pregnancy or avoid having children if they do not want them. Do you know or have you heard about any of these family planning methods ?" With out any probing, the respondent was first asked to name all the methods she knew or had heard of. Then, the interviewer read out the name and short description of each method not mentioned, and asked if she knew the method. Thus, the women's knowledge of contraception is measured at three levels: a) methods the woman thinks on her own (without probing), b) methods she knows when asked specifically about them (she

recognizes the method after probing), and c) methods that she has not heard of. Eight modern methods (pill, IUD, injectable, Vaginal methods, condom, tubal ligation, vasectomy and induced abortion) were included. Information was also obtained in the same manner for four traditional methods, i.e., prolonged breast feeding, rhythm, withdrawal and abstinence. Any other method mentioned by the respondent as a method to avoid pregnancy, such as herbs were also recorded.

Table 4.1 Percent Distribution of Respondents Knowing a Family Planning Method by Methods, Bahir-Dar, 1997.

Method	Knowledge of Method		
	with out prob	with prob	Total
Pill	98.5	1.2	99.7
IUD	37.8	33.7	71.5
Injectable	77.7	18.6	96.3
Vaginal Methods	7.6	20.8	28.4
Condom	48.3	43.0	91.3
Tubal ligation	16.5	55.3	71.8
Vasectomy	1.8	22.6	24.4
Induced Abortion	3.2	42.1	45.3
Prolonged B. feeding	5.0	32.5	37.5
Rhythm	10.9	33.8	44.7
Abstinence	2.6	69.6	72.2
withdrawal	1.4	17.0	18.4
Other	0.9	3.5	4.4
Total No. of Res.	907	907	907

Table 4.1 presents the extent of knowledge of women as obtained by spontaneous responses (without any prob) and prob responses. According to the table, the most widely known modern contraceptive methods are: the pill (99.7 percent),

injectable (96.3 percent) and condom (91.3 percent). 71.8 percent and 71.5 percent of women know about tubal ligation and IUD compared to only 28.4 percent knowing about vaginal methods. The least recognized modern method, vasectomy is known by only 24.4 percent of all respondents. This low level of knowledge of vasectomy may be due to the fact that, as all the respondents were female, family planning workers might give lass attention in providing information about the method during the IEC program. The most widely mentioned traditional method is abstinence, which is recognized by 72.2 percent of all women. In comparison, other traditional methods, i.e., Prolonged breast feeding, rhythm and withdrawal, are known only by 37.5 percent, 44.7 percent and 18.4 percent of all women, respectively.

4.2 EVER USE OF FAMILY PLANNING METHODS

Data on the level of ever use of a particular family planning method was collected by asking respondents whether they had ever used each of the method they know. The data presented in Table 4.2 show that users are more likely to have adopted modern than traditional method and the pill is the most frequently used method. The percentage ever using the pill (89.6 percent) is nearly three times higher than that for injectable (34 percent), the second most widely adopted method. Considerably fewer women had experience with other methods. Condom , IUD, rhythm, and prolonged breast feeding have been ever used by ten, seven, three and two percent of

all respondents, respectively, while vaginal methods, tubal ligation induced abortion and abstinence have each ever been used by less than one percent of all respondents.

Table 4.2 Percent of Respondents Ever using Family Planning Methods BY Method, Bahir-Dar, 1997

Method Ever Used	
Number	907
percent	100.0
Pill	89.6
IUD	6.5
Injectable	34.0
Vaginal Methods	0.7
Condom	10.4
Tubal ligation	0.8
Induced Abortion	0.1
Prolonged Breast feeding	2.2
Rhythm	3.1
Withdrawal	0.2
Abstinence	1.4
Other	0.2

The number of methods which women ever using contraception have employed provides an indicator of the breadth of their experience with contraceptive methods. However, the patterns of use suggests very little switching of methods. Table 5.1, in chapter five, shows that about two-thirds of all respondents have used only one method, slightly less than one third have tried two methods and only 2.4 percent have used three or more methods.

4.3 CURRENT USE OF FAMILY PLANNING METHODS

To obtain information on current use, respondents were asked if they were using or had used during the month before the survey any method to avoid or postpone getting pregnant. Almost 72 percent are presently being protected by either modern (71 percent) or traditional methods (0.9 percent). That is, Over 28 percent of all respondents terminated use of contraception during the period under consideration. Table 4.3 shows that the pill is the most commonly used method; 40.1 (37.1% and 3%) percent of all respondents and 55.8 percent of all current users are relying on it to avoid or postpone pregnancy. Injectable is the second most frequently used method and it is used by about 24.3 percent of all respondents and 33.7 percent of all current users. Users of all other modern methods put together account for only 6.7 percent of all respondents and 8.3 percent of current users. Traditional methods, on the other hand, are used only by 0.9 percent and 2.2 percent of all respondents and current users, respectively. From the data on current use of family planning methods, it can be also observed that about 3 percent of all respondents and 4.1 percent of current users were using two types of contraceptive methods (pill and condom) at a time. As to the reason why they were using two methods of contraceptive, all of them said that as they were engaged in commercial sex activities, they were using condom in order to prevent themselves from sexual transmitted diseases including HIV/AIDS and the pill to prevent unintended pregnancy.

Table 4.3 Percent Distribution of Respondents by the Method Currently Used, Bahir-Dar, 1997

Method	All Respondents	Current users
Number	907	652
percent	100.0	100.0
Pill	37.1	51.7
IUD	2.8	3.8
Injectable	24.3	33.7
Condom	0.1	0.2
Tubal ligation	0.8	0.8
P. Breast Feeding	0.2	1.2
Rhythm	0.6	0.8
Pill and condom*	3.0	4.1
Other	0.1	0.2
Not Currently Using	28.1	na

[na] *Not applicable*

* *Respondents were using these methods at a time*

Table 4.4 presents the distribution of respondents by selected background characteristics and current contraceptive status. From the table it is clear that current users are on average younger than terminators. The mean age of current users is 29.2 years, which is 2 years lower than terminators (31.3 years). There is no difference in the mean number of living children between terminators and current users. However, terminators are more likely to have additional children than current users (2.6 children Vs. 2.3 children).

Table 4.4 Percent Distribution of Respondents by Selected Background Characteristics and Current Contraceptive Status, Bahir-Dar, 1997

Background Characteristics	Current Contraceptive Status	
	Current Users	Terminators
No. of Respondents	625	255
Percent	100.0	100.0
AGE		
15-19	11.7	6.3
20-24	14.6	14.5
25-29	29.3	22.7
30-34	17.8	20.4
35-39	14.6	17.3
40-44	7.5	7.8
45-49	4.6	3.1
Mean Age	**29.2**	**31.3**
NO. OF LIVING CHILDREN		
0	17.3	12.5
1-2	35.4	36.1
3-5	32.7	36.5
5+	14.6	14.9
Mean NO. Living children	**3.3**	**3.3**
NO. OF ADDITIONAL CHILDREN DESIRED		
0	58.0	63.5
1-2	27.1	22.4
3-5	13.0	12.2
5+	1.8	2.0
Mean NO. Additional C.D	**2.3**	**2.6**
CONTRACEPTIVE GOAL		
Limiters	35.0	28.2
Spacers	64.1	68.2
Other	0.9	3.5
EDUCATIONAL STATUS		
Illiterate	23.3	23.1
Read and Write	16.4	16.1
Primary (1-6)	19.9	25.5
J. Secondary and Above(9+)	40.4	35.3
MARITAL STATUS		
Currently Married	71.6	60.0
Ever Married	16.7	33.3
Never Married	11.7	6.7
WORK STATUS		
Not Working	59.2	64.3
Working	40.8	35.7

Regarding contraceptive goal, unlike terminators, current users are more likely to be limiters. For instance, 35 percent of current users are using contraceptives for the purpose of limiting, where as only 28 percent of terminators had used contraceptives for the same purpose.

It can be also observed from the table that current users are on average better educated than terminators. Of the women who reported to be currently using family planning, 40 percent have completed at least one grade in secondary school. This is 5 percent more than that of women who reported to be not currently using. Current users also tend to be currently in marital union and more often economically active than terminators (41 percent Vs. 36 percent).

To summarize, one may state that current users are on average younger, better educated, currently married and more economically active than terminators. Number of surviving children, however, do not differ significantly between current users and terminators.

Table 4.5 indicates the distribution of current users by age and method used. Younger cohorts are some what more dependent on the pill, than older cohorts. The percentage of users relying on the pill declines from a peak of 73.3 percent in the age group 15-19 to 34.7 percent among women at the end of their childbearing period. The percentage of users employing injectable increases from 10 percent among those in the

youngest cohort to a high of 47.4 percent among those age 35-39 before declining to a low of 45.2 percent among users in the oldest age group. With regard to 'other modern methods', they are more frequently adopted by the youngest and the oldest cohorts, particularly those nearing the end of their child bearing years.

Table 4.5 Percent Distribution Of Current Users by Method Used and Age, Bahir-Dar, 1997

Method	Total	A		G			E	
		15-19	20-24	25-29	30-34	35-39	40-44	45-49
Number	652	30	140	191	116	95	49	31
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Pill	55.8	73.3	70.7	59.5	53.5	44.2	38.7	34.7
Injectable	33.7	10.0	17.9	31.0	40.5	47.4	44.9	45.2
O. Modern Method	8.2	16.7	10.7	7.9	3.4	7.4	16.4	20.1
T. Methods	2.3	0	0.7	1.6	2.6	1.0	0	0

DURATION OF USE

Current users were asked whether they had ever stopped using their method since the time that they had first adopted it and how long they had been using their method continuously. Most current users are first time users of the method that they had adopted. only 39 percent report that they had used their method at least one other time in the past.

With regard to the duration of current use, Table 4.5 shows that 31.5 percent of all current users had been using for 12

months or less, 25.3 percent had been using for 13-24 months, and 33.1 percent had been using for 25 months or more. These figures vary by method, with longer average duration of current use being reported by users of the pill (22 months) than injectable (16.4 months), Other modern methods (17.2 months) or traditional methods (14.8 months).

Table 4.6 Percent Distribution of Women Currently Using Family Planning by Duration of Use and Type of Method Currently Used, Bahir-Dar, 1997

Duration of Use	All Method	Current Method			
		Pill	Injectable	O. Modern Methods	T. Methods
Number	652	364	220	53	15
Percent	100	100	100	100	100
6 Months or less	19.2	13.2	26.8	30.2	13.3
7-12 Months	12.3	9.3	17.3	5.8	33.3
13-18 Months	17.2	18.7	15.5	13.2	20.0
19-24 Months	8.1	6.6	10.9	7.5	6.7
25-30 Months	12.6	12.1	13.2	15.1	6.7
31-36 Months	8.1	10.4	5.9	3.8	0.0
37 Months or more	12.4	16.2	7.3	9.4	6.7
Not Stated	10.1	7.5	1.1	1.2	0.3
Median (in months)	18.0	20.0	15.0	15.0	12.0
Mean (in months)	19.4	22.0	16.4	17.2	14.8

INDICATORS OF USERS SATISFACTION

A question was included in the survey to determine whether current users would prefer to continue using their present method or adopt another method. Users wanting to adopt another method were asked which method they preferred. Current users

also were asked about any problems they were experiencing with their method. The responses to these questions provide some indication of the level of users satisfaction with their current methods.

Table 4.7 shows that, overall, 82 percent of current users prefer their current method to other family planning methods. sixteen percent of current users, on the other hand, would like to switch to another methods. Only 1.5 percent of all current users say that they plan to discontinue the method some time in the future. The percentage who prefer some method other than their current method varies with the type of method currently used, ranging from 10.9 percent among injectable users to 20 percent among users of traditional methods.

Table 4.7 Percent Distribution of Women Who Are Currently Using Family Planning by Type of Method Currently Used and Method Preference, Bahir-Dar, 1997

Method Preference	Current Method				
	All Methods	Pill	Injectable	O. Modern Methods	T. Method
Number	652	364	220	53	15
Percent	100.0	100.0	100.0	100.0	100.0
Pr. present M.	81.9	78.3	88.2	83.0	73.3
Pr. Other M.	15.5	18.4	10.9	13.2	20.0
would not use	1.5	2.2	0.5	1.9	0.0
Not Stated	1.1	1.1	0.5	1.9	6.7

Table 4.8 shows that, on the whole, injectable (42.7 percent) is the most frequently preferred methods among users who are not satisfied with their current method, followed by nor plant

(19.4 percent), IUD and tubal ligation (10.7 percent each). The preferred method varies according to the current method. Among pill users who wants to switch method, injectable (56.5 percent) is clearly the preferred method, followed by nor plant (15.9 percent) and IUD and other modern methods (10.1 percent each). Among users of injectable, nor plant (33.3 percent) is the most preferred method followed by pill (20.8 percent). Among users of traditional methods who are not satisfied with their current methods, over two-third of them preferred injectable.

Table 4.8 Percent Distribution of Women Currently Using Family Planning Method Who Prefer Some Method Other than Their Present Method, Bahir-Dar, 1997

Preferred Method	Current Method				
	All Methods	Pill	Injectable	Other Modern Methods	T. Method
Number	103	69	24	7	3
Percent	100.0	100.0	100.0	100.0	100.0
Pill	4.9	na	20.8	0.0	0.0
IUD	10.7	10.1	12.5	14.3	0.0
Injectable	42.7	56.5	na	42.9	66.6
Tub. ligation	10.7	7.2	16.7	28.6	0.0
Nor plant	19.4	15.9	33.3	14.3	0.0
O. M. Method	9.7	10.1	12.5	na	0.0
T. Methods	1.9	0.0	4.2	0.0	33.3

Table 4.9 indicates the distribution of respondents currently using family planning by experience of problems with method and type of method used. The table shows that about 86 percent of all current users have not experienced any problems with their method. The percentage who have experienced problems

again varies with the type of method used, ranging from a high of 15 percent among other modern method users to a low of 6.7 percent among users of traditional methods. This result indicates that users of traditional methods are less likely than users of modern contraceptive methods either to change the method or to terminate their current method due to health problems. The most frequently cited problems were side effects (health problem) followed by the method disrupted menstrual cycle (24.7 percent)(Table 4.10).

Table 4.9 Percent Distribution of Women Who are Currently Using Family Planning by Experience of Problem With Method and Type of Method Currently Used, Bahir-Dar, 1997

Problem with Method	Current Method				
	All Methods	Pill	Inject-able	O. Modern Methods	T. Method
Number	652	364	220	53	15
Percent	100.0	100.0	100.0	100.0	100.0
Had Problem	13.3	13.5	13.2	15.1	6.7
Didn't Have Problem	85.6	85.4	86.4	83.0	86.7
Not Stated	1.1	1.1	0.5	1.9	6.7

Table 4.10 Percent Distribution of Women Who are Currently Using Family Planning and Have Had Problems With their Methods by Type of Problems Experienced, Bahir-Dar, 1997

Problems	All Methods
Number	89
Percent	100.0
Side effects (Health problem)	65.2
Disrupts menstrual cycle	24.7
Other problems	10.0

METHOD CHANGE AND DISCONTINUATION

An examination of the first method that the respondents had used against their current contraceptive use status (or current method) gives some ideas as to the patterns of method change and contraceptive discontinuation among the population under consideration. Table 4.11 shows the percentage distribution of respondents by the first and current status /method. As the table indicates that over one out of four respondents were not using a contraceptive methods at the time of the survey. Considering specific methods, 20.4 percent, 16.7 percent, 6.7 percent of women who first used injectable, IUD and other modern methods, respectively, were not using any method. Women who first used the pill (31.3 percent) were more likely than injectable, IUD or other modern methods not to be using at the time of the Survey.

Table 4.11 ***Percent Distribution of Respondents by First Method they Had Adopted and Current Contraceptive Status/method, Bahir-Dar, 1997***

Current Method	First Method				
	Pill	IUD	Inject-able	Other M. Methods	T. Methods
Number	726	19	140	16	6
Percent	100.0	100.0	100.0	100.0	100.0
Pill	46.0[a]	5.6	14.6	20.0	20.0
IUD	2.3	33.3[a]	0.3	0.0	60.0
Injectable	16.7	38.9	63.5[a]	0.0	0.0
O. M. Methods	2.9	0.0	0.7	73.3[a]	20.0[a]
T. Methods	0.7	5.6	0.0	0.0	
Not Currently Using	31.3	16.7	20.4	6.7	0.0

a *Indicates those who either still using their first method or those who stop the method for some time but resume the same method*

Nevertheless, the majority of women who first used other modern methods (93.3 percent), IUD (83.3 percent), injectable (79.6 percent) and pill (68.7 percent) appeared to have either still using their first method or switched to other methods following the ban on the use of their first method.

Table 4.12 ***Percent Distribution of Respondents Who Switched at Least One Time by First Method they Had Adopted and Current Method, Bahir-Dar, 1997***

First Method	No. women	Current Method				
		Pill	IUD	Injectable	Other M. Methods	T. Methods
Pill	169	na	10.7	72.8	13.6	3.0
IUD	10	20.0	na	70.0	0.0	10.1
Injectable	23	87.0	4.3	na	4.3	4.3
O. M. Methods	4	100.0	0.0	0.0	na	0.0
T. Methods	4	77.0	0.0	25.0	0.0	na
All Methods	210	13.8	9.0	62.4	11.4	3.3

na *Not Applicable*

Table 4.12 also shows the distribution of current users who at least switched one time by first and current method. As the table clearly indicates, overall, the majority of current users switched to injectable (62.4 percent) followed by pill (13.8 percent) and other modern methods (11.3 percent). With regard to specific methods, 72 percent, 70 percent and 25 percent of women who first adopted the pill, IUD and traditional methods, respectively, were using injectable at the time of the survey. The pill was clearly the most prevalent method among women who first used injectable; 87 percent of these women were using the pill, 4.3 percent were using IUD and other modern methods and the remaining 4.3 percent were relying on traditional methods.

REASONS FOR DISCONTINUED THE LAST METHOD

Detailed data on reasons for discontinued each segment of use were collected in the survey and the analysis of these data are presented in chapter five. However, in this section only reasons for discontinuing method during the most recent segment of use, i.e., those who discontinued use of family planning at the time of the survey, are discussed.

As table 4.13 shows, overall 28 percent of terminators discontinued use of contraception because they wanted to become pregnant. The proportion reporting that they actually become pregnant while using the methods is 7.5 percent. Experience with side effects or concern about possible side effects are cited by 27.5 percent of terminators as reasons for discontinuation. An additional 20.4 percent of past contraceptive users discontinued use of family planning because of avoiding sex due to different reasons. Five percent indicate that disapproval by their partner was the main reason for discontinuing use of contraception.

With regard to specific methods 31 percent, 23.9 percent and 20.8 percent of former pill users discontinued use of the method due to desire to have additional children, fear of side effect and avoidance of sex, respectively. A considerable proportion of former pill users (9.6 percent) discontinued use of the method due to accidental pregnancy. Partner disapproval, menopause and other reasons, were also mentioned

by 4.6 percent, 0.5 percent and 9.6 percent of past pill users, respectively. Among former injectable users, 47.9 percent of them terminated use of the method because of fear of side effects. Other reasons cited by past injectable users include avoiding sexual intercourse (18.8 percent) desire to have another child (16.7 percent), and partner disapproval (6.3 percent) (Table 4.13).

4.13 Percent Distribution of Terminators by Reasons for Termination and Method, Bahir-Dar, 1997

Reasons for Termination	All Methods	Last Method Terminated		
		Pill	Injec-table	O.M. Methods
Number	255	197	48	10
Percent	100.0	100.0	100.0	100.0
Method Failure	7.5	9.6	0.0	0.0
Des. to Get pregnant	28.2	31.0	16.7	30.0
Avoiding sex	20.4	20.8	18.8	20.0
Reached Menopause	1.6	0.5	4.2	10.0
Side Effect	27.5	23.9	47.9	0.0
Partner Disapproval	5.1	4.6	6.3	10.0
Other Reasons	9.8	9.6	6.3	30.0

CHAPTER FIVE

CONTRACEPTIVE DISCONTINUATION AND METHOD SWITCHING

As it is mentioned in chapter two, to examine the rates of contraceptive discontinuation and method switching, life table technique which is almost similar to that used in mortality analysis was employed. This is because the analysis sample includes segments of contraceptive use still in progress at the end of 42 months period. The ultimate duration of these segments is unknown and life table methodology allows the inclusion of both complete and incomplete segments of use (i.e., the technique helps to avoid censoring problem). The resulting life table, then, reflects the experience of a hypothetical cohort of women all starting at the same point in time. In addition to this, life table methodology provides reason-specific discontinuation rates and rates for contraceptive switching and abandonment and to assess the relative efficiency of different contraceptive methods across sub-groups of the population under consideration. Life table approach also helps to test the significant of sub-group differences(UN, 1991, Moreno and Goldman, 1995).

In this analysis, contraceptive discontinuation is segment-of-use based rather than women based. A segment of use, which is also known as use interval, is defined to start at the beginning of the first calendar month in which the women

reports use of a particular method and ends in the last month of contraceptive use of that method. Individual women may contribute several segment of use to the analysis sample. The sample for this analysis includes all segments of use that began in the period 1 - 42 months before the survey. A total of 907 respondents, in this study, reported 1,242 segments of contraceptive use beginning September, 1993 up to January, 1997. The distribution of respondents by the number of reported segments of use is shown in Table 5.1. Of these reporting use since September, 1993, about two-third used only one segment nearly three and half years period before the interview. Only 2.5 percent reported more than two segments.

Table 5.1. Percent Distribution of Respondents Reporting that they Used Contraception Between September, 1993 and December, 1997 by the Number of Segments of Reported Use, Bahir-Dar, 1997.

Number of Segments	Number of Respondents
Number	907
Percent	100.0
One	66.5
Two	31.0
Three or more	2.5

However, those segments of use for which either the month/year of initiation or the month/year of termination of use was missing were excluded from the analysis. Therefore, out of 1,242 segments 1,187 segments of contraceptive use were included in the analysis: 775 segments of pill use, 310 segments of injectable use, 48 segments of IUD use, 40

segments of use of other modern methods such as condom, vaginal methods tubal ligation, etc., and 14 segments of traditional methods. Since life table estimates based on small number of segments are not reliable(Ali and Cleland, 1995), in the tables that follow, life table rates for traditional methods are not presented.

5.1. CONTRACEPTIVE DISCONTINUATION BY METHOD

Table 5.2 and Figure 5.1 shows the cumulative discontinuation rates by method. Cumulative discontinuation rates provides information on what proportion of a group of segments could be expected to terminate through an ordinal period (X, X+n) only when they were subjected to the patterns of monthly termination rates. Table 5.2 indicates the cumulative discontinuation rates at 12-months and 24-months duration of use by method. The 12-month discontinuation rate for both IUD and Injectable is low (24.4 percent) but the 24-months discontinuation rate for injectable is lower than IUD and the median duration of injectable is longer than the median duration of IUD use. In many cases, the contrast between the discontinuation rate for injectable and those for other methods is remarkable. For instance, only 45 percent of episodes of injectable use ended within 24-months compared with 66 percent of pill use. The highest discontinuation rates are observed for pill: 44 percent of segment of use end within 12-months of initiating use and 66 percent end within 24-months. Overall, about 39 percent and 61 percent of

contraceptive users discontinue within the first and second year of use, respectively. The Wilcoxon statistic which tests whether the survival curves represented in each figure are equal, also indicates that the difference in discontinuation among methods are statistically significant (see Appendix-A).

Table 5.2 Cumulative 12-month and 24-month Probability of Discontinuation per 100 Segments and Median Duration of Use by Method, Bahir-Dar, 1997.

Method	12-month dis-continuation rate	24-month dis-continua-tion rate	Median duration of use (months)	Number of segments of use
Pills	43.8	65.5	18.3	775
IUD	24.4	56.1	25.9	48
Injectable	24.4	45.1	32.4	310
Other Modern Methods	40.4	60.1	19.8	40
Traditional Methods	*	*	*	14
All Methods	38.5	60.7	21.2	1,187

* *Indicates that the figure is based on less than 25 woman months of exposure in the first month of the life table and has been suppressed.*

The result presented in figure 5.1 shows that in the use of pill and 'other modern methods', the most rapid drop out occur in the first year of use. Forty four percent segment of pill use and 40 percent of other modern methods stop using the methods during the first year of use compared to 24 percent of injectable and IUD use. By the end of two years, the proportion of users who are still contracepting is 35 percent in the case of pill users, 39 percent in the case of other

contraceptive users discontinue within the first and second year of use, respectively. The Wilcoxon statistic which tests whether the survival curves represented in each figure are equal, also indicates that the difference in discontinuation among methods are statistically significant (see Appendix-A).

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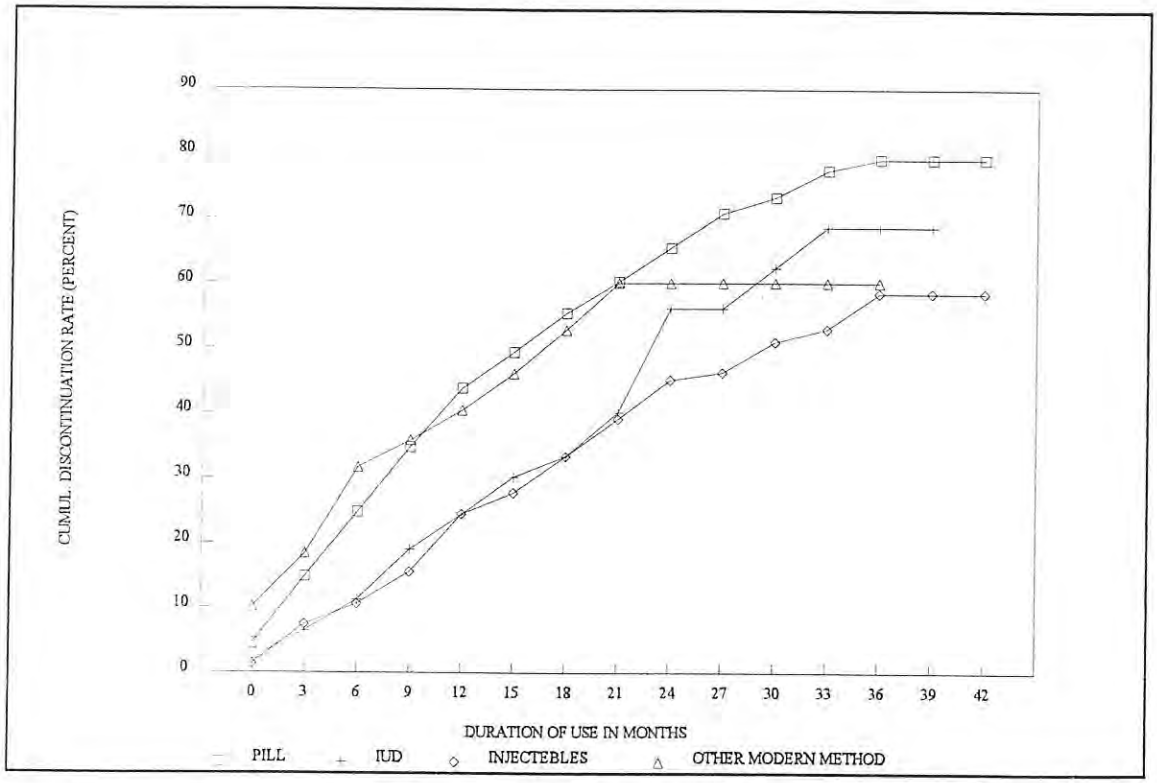
Injectable	24.4	45.1	32.4	310
Other Modern Methods	40.4	60.1	19.8	40
Traditional Methods	*	*	*	14
All Methods	38.5	60.7	21.2	1,187

* *Indicates that the figure is based on less than 25 woman months of exposure in the first month of the life table and has been suppressed.*

The result presented in figure 5.1 shows that in the use of pill and 'other modern methods', the most rapid drop out occur in the first year of use. Forty four percent segment of pill use and 40 percent of other modern methods stop using the methods during the first year of use compared to 24 percent of injectable and IUD use. By the end of two years, the proportion of users who are still contracepting is 35 percent in the case of pill users, 39 percent in the case of other

modern methods, 44 percent in the case of IUD and 55 percent in the case of users of injectable. The median duration of use varies from 18 months in the case of pill to 32 months in the case of injectable.

Figure 5.1. Contraceptive Discontinuation by Method, Bahir-Dar, 1997



The results for specific methods are some what unexpected. Since IUD is considered as a long term as well as an efficient method, it was expected that the method would have the lowest discontinuation rate among all other contraceptive methods. However, in this study, users of injectable were more likely than users of both IUD and other modern methods to be continuing at any duration of use after acceptance. This can be explained by the possibility that IUD users are confined to small number of segments (48) and the result obtained from

life table analysis with such small number of segments may not be reliable.

5.2 CONTRACEPTIVE DISCONTINUATION BY SELECTED BACKGROUND CHARACTERISTICS.

As it is known, differentials in contraceptive discontinuation have a bearing on evaluation of family planning program effort because the fertility impact of program activities will depend upon the success with which contraception is practiced in different sub-groups.

Table 5.3 presents life table discontinuation rates of all methods combined and median duration of use by selected background characteristics of respondents. Except for contraceptive intention, the focus is on fairly stable characteristics of respondent's age, number of living children, number of additional children desired, educational level, type of occupation, and marital status. The Wilcoxon statistics indicates that except for educational level and type of occupation, for all other characteristics, the difference in contraceptive discontinuation among groups are statistically significant at 0.05 level (see Appendix-B).

Table 5.3 Cumulative 12-Month and 24-Month Probability of Discontinuation Per 100 Segments of Method Used and Median duration of Use by Selected Background Characteristics, Bahir-Dar, 1997.

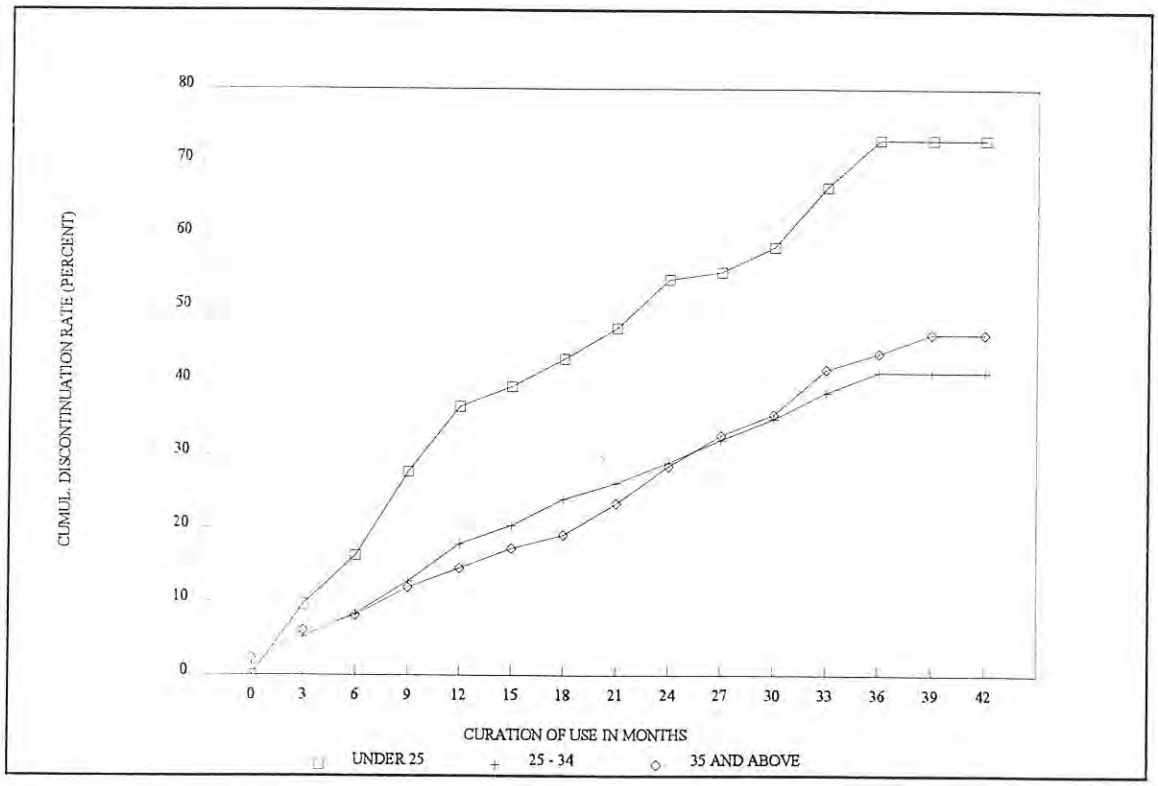
Background Characteristics	12-Months discont. rate	24-Month discont. rate	Median dura. of use	Number of segments
AGE				
Under 25	53.4	74.0	13.9	274
25-34	34.2	57.0	22.6	554
35 or more	34.5	57.2	24.7	359
CONTRACEPTIVE INTENT				
Spacer	41.2	64.2	19.5	786
limiter	31.7	53.0	25.5	384
other	*	*	*	17
NO. OF LIVING CHIL.				
0	48.2	64.6	17.0	167
1 - 2	43.1	65.4	19.0	421
3 - 4	32.5	59.7	24.3	423
5 or more	33.5	50.7	26.6	176
NO. OF ADDITIONAL CHILDREN DESIRED				
0	37.1	60.0	22.2	728
1 - 2	38.3	59.9	22.2	295
3 - 4	45.7	66.7	18.0	143
5 or more	*	*	*	21
EDUCATIONAL LEVEL [1]				
Illiterate	37.6	60.7	21.5	270
Read and write	37.0	62.7	21.8	207
Primary (1-6)	36.1	56.1	24.5	247
J. Secondary (7-8)	42.8	60.6	19.2	145
H. School and above (9+)	40.5	63.0	20.2	318
OCCUPATIONAL TYPE [1]				
Not working	37.9	62.7	20.6	632
clerical	*	*	*	18
Pro.,technical and managerial	29.2	52.2	26.4	82
Service	42.3	62.5	20.0	160
Ski./unskilled labor	24.6	56.5	20.4	138
sales	38.o	53.1	24.7	135
other	*	*	*	17
MARITAL STATUS				
Currently married	35.9	56.3	23.8	826
Ever married	41.6	71.3	19.1	252
Never married	50.4	65.0	14.8	109
TOTAL	38.5	60.7	21.2	1,187

[1] *Not significant at 0.05 level.*

* *Based of less than 25 women-months of exposer in the first month of the life table and has been suppressed.*

It is clear from Table 5.3 that age has a marked effect on the likely-hood of contraceptive discontinuation among respondents. The median duration of use for women under age 25 is 13.9 months, compared to 22.6 months for women aged 25-34 and just over two years (24.7) for women aged 35 and above. Figure 5.2 highlights the marked differences, especially between the youngest and the oldest age groups, in the patterns of discontinuation.

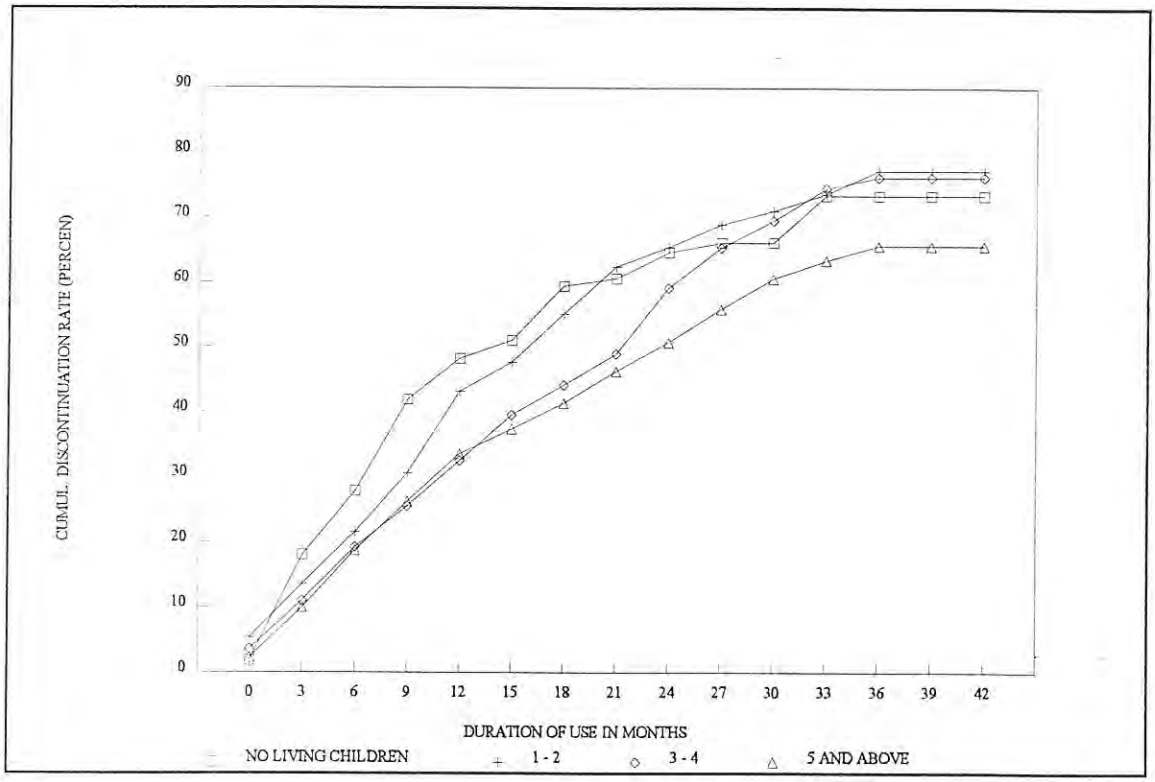
Figure 5.2 Contraceptive Discontinuation by Age Bahir-Dar, 1997



However, the difference in contraceptive discontinuation between the two oldest age groups is not that much significant. There is also a statistically significant

differences in the discontinuation rates of limiters and spacers. As expected, limiters are much less likely to discontinue contraceptive use than spacers thus resulting in much longer duration of use among limiters. The median duration of use of limiters and spacers are 25.5 and 19.5 months, respectively. Differentials in patterns of contraceptive use by the number of living children are also evident.

Figure 5.3 Contraceptive Discontinuation by Number of Living Children, Bahir-Dar, 1997

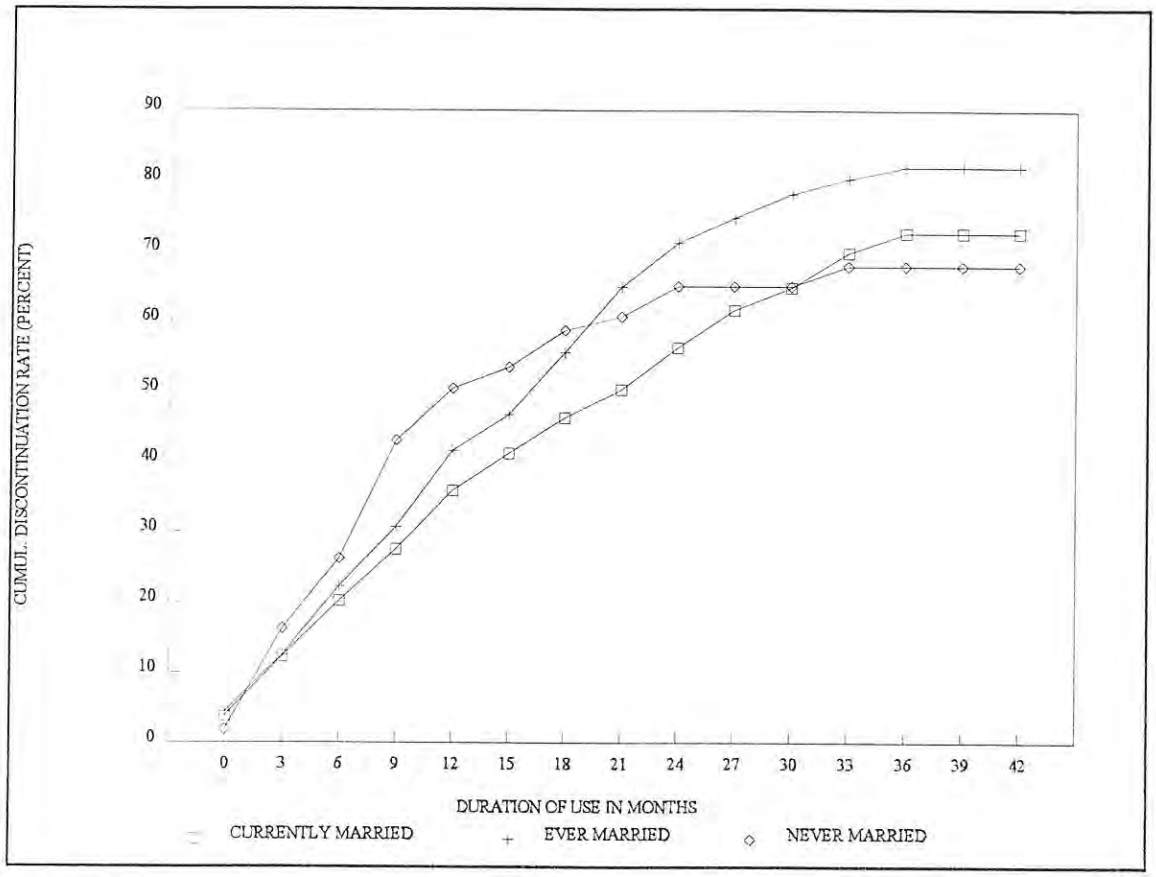


The same table indicates that the median duration of use for those with no living children (17 months) is less than that observed for those with five or more living children (26.6 months). Moreover, after two years of use the result presented

in Table 5.3 and Figure 5.3 shows that about 65 percent of those with no living children were likely to terminate use, compared to only 51 percent of those having five or more children. Number of additional children desired also show a marked difference in contraceptive discontinuation. compare with those who desired three or more children, women who desired no more children have the lowest discontinuation rates at both 12-months and 24-months of duration of use. The median duration of these two groups are 22.2 and 18 months, respectively. However, although the lowest contraceptive discontinuation rates at any duration of use, as expected, are observed among women who desired no more additional children, the rates are unexpectedly high. For instance, 37.1 percent and 60 percent of these women were likely to terminate use of a method within the first and second year of use, respectively. The possible explanation for this high rate of contraceptive discontinuation among these women might be either they reached menopause, stopped sexual intercourse or, except desire to have additional children, due to one of the reasons explained in the reasons for contraceptive discontinuation. Although educational level differences has no significant effect on contraceptive discontinuation, women with primary education are more likely to continue than their counter parts (Table 5.3). These weak educational differences and curvilinear patterns may be due to the interaction of the effect of age and education on the patterns of contraceptive use. Thus, older respondents with lower level of discontinuation are over represented among those with no

education. As a result, the expected patterns of decreasing contraceptive discontinuation with higher level of education is some what confounded by the effect of age. As that of educational level, differences in contraceptive discontinuation by type of occupation is also not significant at 0.05 level. However, as observed from the table, respondents who are engaged in professional, technical and managerial activities are more likely to continue than those engaged in other occupational types. The median duration of use of this group is 26.4 months followed by those who are working in sales activities (24.7 months) and the lowest median duration of use is observed for women engaged in service sector (20-months). Differential in contraceptive discontinuation by marital status are also presented in Table 5.3 and Figure 5.4. The likelihood of continuing contraceptive use at 12-month duration is higher for women who are currently in marital union than those who are not. But, by the end of the second year the lowest discontinuation rate is observed among women who are not yet engaged in marital activities. Overall, contraceptive continuation is higher among those who are currently in marital union followed by ever married and never married women in that order. The median duration of use of these groups are 23.8, 19.1, and 14.8 months, respectively.

Figure 5.4 *Contraceptive Discontinuation by Marital Status, Bahir-Dar, 1997*



5.3. CONTRACEPTIVE DISCONTINUATION BY REASONS OF TERMINATION

For a variety of reasons, it is important to understand why users terminate use of particular methods of contraception. For example, determining the reasons why different groups of contraceptive users terminate use of different contraceptives provides policy makers and program managers with relevant information on the advantage and disadvantage of the different methods of contraception. It also assist them in the design of interventions such as Information, Education and Communication (IEC). Life table methodology provides a frame-work which facilitates the analysis of contraceptive discontinuation by

reason through the construction of multiple decrement life tables (MDLT). MDLT gives reason specific discontinuation rates that are affected by the competing risks of discontinuation of other reasons (Sinquefield, 1973, Sambisa, 1996). The rates are usually known as net discontinuation rates. And, since net termination rates are additive, the sum of net termination rates of all reasons gives the total termination rate of the population under consideration and it allows to compare the discontinuation rates among different reasons given by the respondents.

In the following analysis, MDLTs are constructed with five mods of decrement (termination status) corresponding to the following mutually exclusive categories of reasons for discontinuation: Method failure, change of method, desire to get pregnant, side effects, and other reasons (Partner disapproval, availability, inconvenient to use, reached menopause, infrequent sex, separated/widowed, don't know, other).

Net 12-month discontinuation rates by reasons of termination and method are shown in Table 5.4. From the table, it is clear that the highest discontinuation rate for all methods combined, as expected, is for side effects. About 12.9 percent of users are likely to terminate within the first year of use for this reason followed by "other reasons" (9.6 percent).

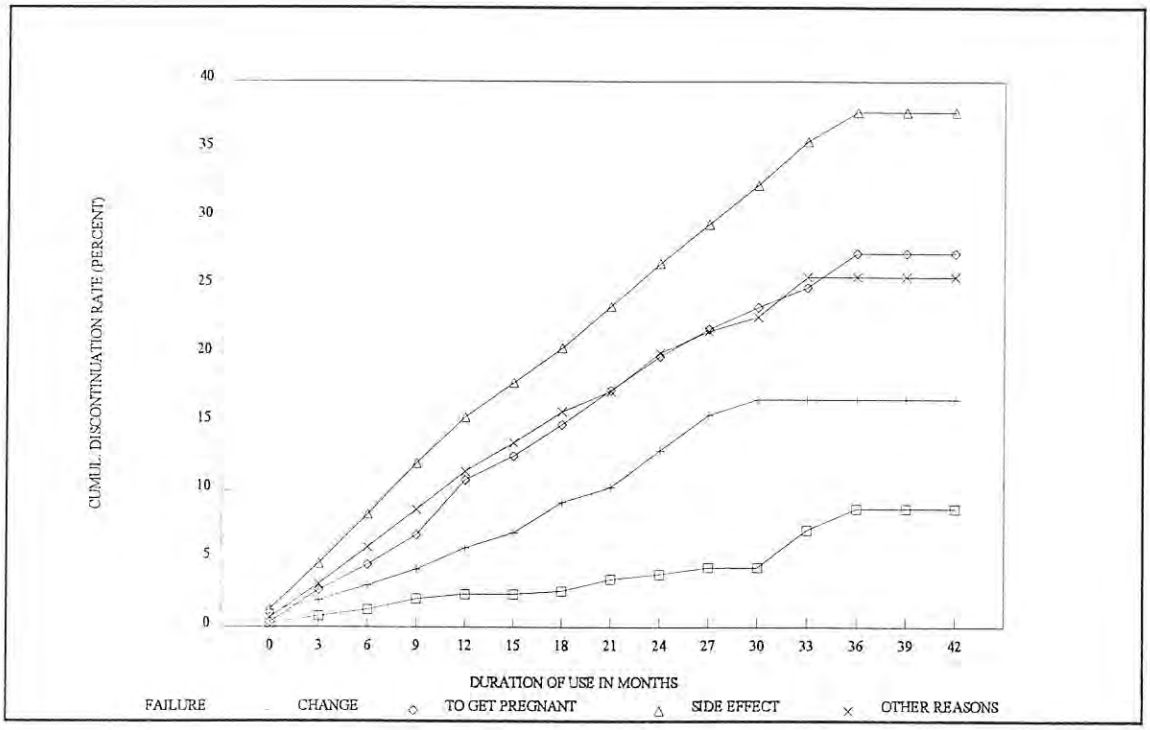
Table 5.4 Life table 12-month Discontinuation Rates by Reasons for Discontinuation and Method, Bahir-Dar, 1997.

Method	Reasons for Discontinuation					Total
	Method Failure	Method Change	Desire to Get Pregnant	Side Eff-ect	Other Rea-sons	
Pill	2.8	6.1	11.4	13.2	10.3	43.8
IUD	0	0	2.8	16.3	5.3	24.4
Injectable	0	1.0	3.2	12.9	7.3	24.4
Other M. Methods	3.6	10.1	5.1	8.5	13.1	40.4
T. Methods	*	*	*	*	*	
All Methods	2.0	4.9	9.1	12.9	9.6	38.5

** Indicates that the a figure is based on less than 25 woman months of exposure in the first month of the life table and has been suppressed.*

The likelihood of discontinuation because of desire to get pregnant and method change are 9.1 percent and 4.9 percent, respectively. The probability of discontinuing use due to method failure is only 2.0 percent indicating that method failure is not a significant problem compared with other categories of reasons in the population under consideration (see also Figure 5.5).

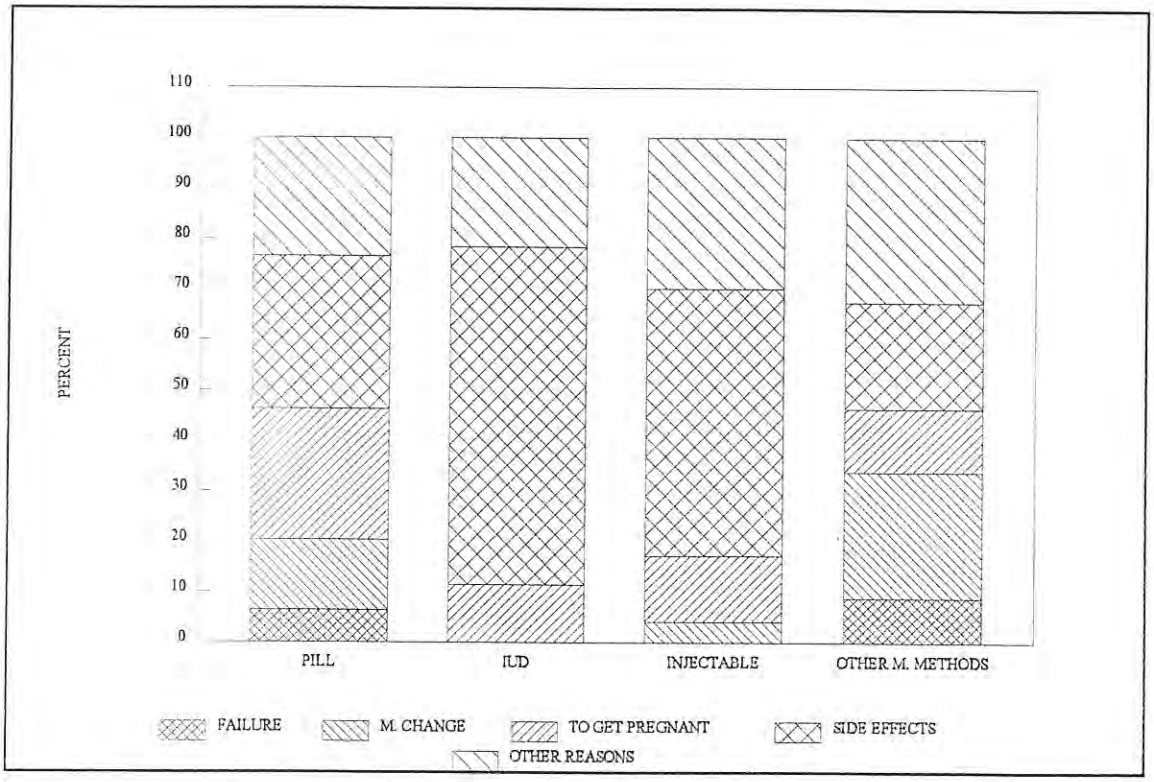
Figure 5.5 *Contraception Discontinuation by Reasons of Termination, Bahir-Dar, 1997.*



Considering contraceptive discontinuation by method and reason, Table 5.4 and Figure 5.6 (shows the percentage decomposition of the 12-month discontinuation rates by reason for discontinuation for each method which illustrates the relative importance of each reason across methods.), indicate that for each method side effect is the most important reason for termination. However, the probability of discontinuation because of side effect is relatively high among IUD users (16.3 percent) than users of other contraceptive methods. The likelihood of discontinuation due to desire to get pregnant is higher for users of the pill (11.4 percent) compared with users of other modern contraceptives. 'Other reasons' which include husband disapproval, reached menopause, infrequent

sex, inavailability of the method, etc., are also important reasons for termination especially among users of 'other modern methods'.

Figure 5.6 *Percent Decomposition of 12-month discontinuation Rates by reasons for Discontinuation, According to Method, Bahir-Dar, 1997*



About 13 percent of users of 'other modern methods' are likely to terminate use as a result of these reasons. The 12-month probability of discontinuation due to method change is also higher among users of 'other modern methods' (10.1 percent) followed by users of the pill (6.1 percent). The net rate of discontinuation because of method failure ranges from 0 percent for injection and IUD to 3.6 percent for other modern methods.

5.4 CONTRACEPTIVE SWITCHING BEHAVIOR

The impact of contraceptive discontinuation on the levels of fertility depend on whether women discontinue all contraceptive use following discontinuation of a particular method, i.e., exposing themselves to the risk of accidental pregnancy or whether they change to another method (Sambisa, 1996). High rate of method change among contraceptive users may indicate the availability of different contraceptive methods and as a result women are taking advantage of the opportunity to choose methods as their needs and preference change. Thus, high rate of method switching reflects successful family planning program. Women may also change method when they are not able to get the method they are using or when previously unavailable method becomes available. In this case, high rate of method switching could indicates the difficulty in obtaining and continuing use of the preferred method. Experience and fear about side effects of modern contraceptive methods, disapproval of the method by partner, etc, may also lead women to change methods. In addition to these, high rate of method change especially to a particular method of contraception also indicates the advantage and disadvantage of different contraceptive methods and helps to identify the method highly preferred by contraceptive users. On the other hand, women may discontinue use of all methods indicating that they have difficulties in maintaining continued use and leave themselves exposed to the risk of unintended pregnancy. Therefore, based on these facts, in this

section, contraceptive switching behavior of the population under study is analyzed using multiple decrement life table technique. Method switching, here, is analyzed in terms of the transition from the first method to the current method.

Table 5.5 shows the life table 24-month probability of method change from the first method to the current method and Figure 5.7 illustrates the relative importance of each status (current method) across first method. From the table, it is clear that the likelihood of method change is higher among users of IUD compared with users of another contraceptive methods. About 27 percent of IUD users are likely to switch methods in the second year of use. The 24-month probability of method change among pill users is 24.1 percent. On the other hand, the lowest likelihood of method change is observed among users of injectable. Only 19 percent of injectable users switched methods within the second year of use.

Table 5.5. ***Life Table 24-Month Contraceptive Methods Switching Rates by First and Current Method, Bahir- Dar, 1997***

First Methods	Current Methods					Total
	Pill	IUD	Injec-table	O. M. Methods	T. Met-hods	
Pill	na	2.8	14.9	4.9	1.5	24.1
IUD	8.3	na	18.2	0	0	26.5
Injectable	14.8	0	na	4.2	0	19.0
O. M. Methods	*	*	*	na	*	*
T. Methods	*	*	*	*	na	*
All Methods	3.5	2.2	13.1	4.5	1.2	24.5

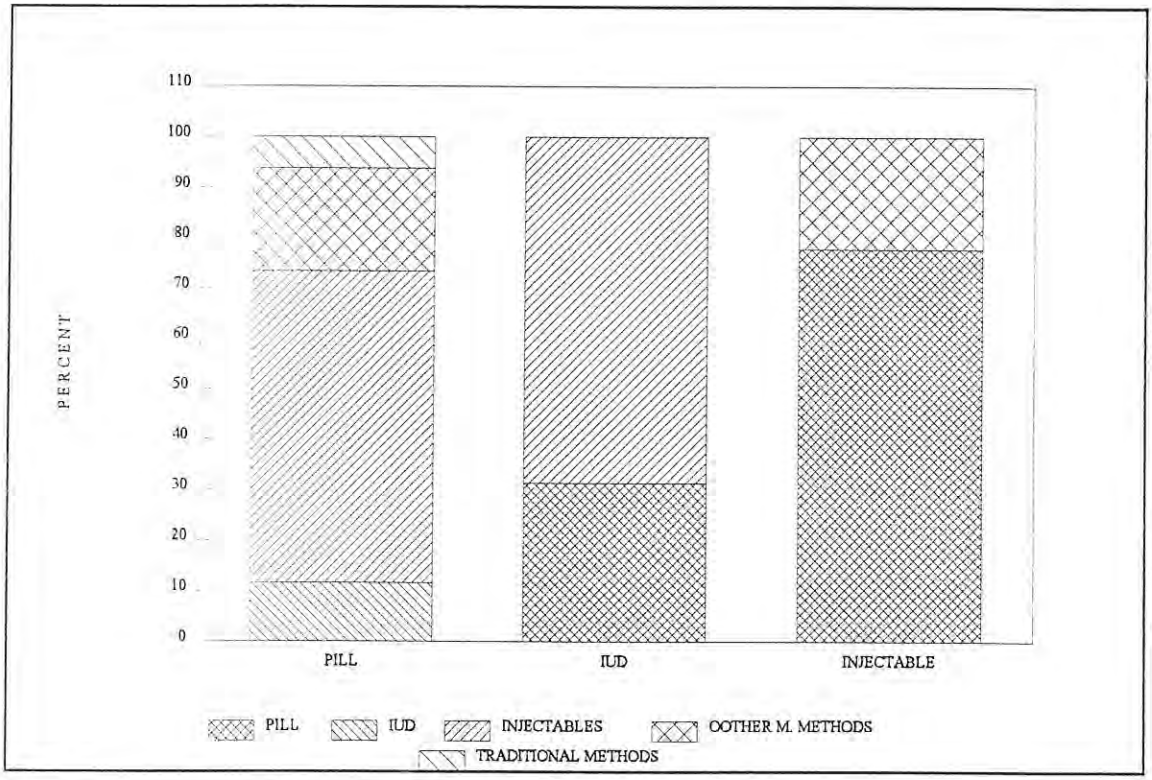
* ***Indicates that the a figure is based on less than 25 woman months of exposure in the first month of the life table and has been suppressed.***

na ***not applicable***

Switchers as a whole are most likely to switch their first method to injectable (13.1 percent) and then to 'other modern methods' (4.5 percent). The likelihood of method change from the first method to the pill, IUD and traditional methods are 3.5 percent, 2.2 percent and 1.5, respectively (see also Figure 5.7). About 15 percent of women whose first method is the pill are likely to switch to injectable and 4.9 percent to 'other modern methods'. The probability of method change from the pill to IUD and traditional methods are low, i.e., 2.8 percent and 1.5 percent, respectively. Over 8 percent of women whose first method had been an IUD switched to the pill. As in the case of pill users, IUD users are more likely to subsequently switch to injectable than to other contraceptive methods (18.2 percent compared to 8.3 percent). 14.8 percent

of women who had used injectable as their first method switched to the pill. A small proportion of former injectable users switched to 'other modern methods' (4.9 percent). Except for users of the pill, for users of another contraceptive methods the probability of method change to traditional methods is 0.

Figure 5.7 ***Percent Decomposition of 24-month Method Change Rates by Status (Current Method), According to First Method, Bahir-Dar, 1997***



CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 SUMMARY AND CONCLUSION

This study attempted to look at contraceptive discontinuation, reasons for discontinuation and method switching among registered modern family planning acceptors in one of the major urban center of Ethiopia, Bahir-Dar. The survey collected information on the background characteristics and history of contraceptive users served by three government health institutions, one FGAE clinic, and 12 CBD centers in the town between September, 1993 and January, 1997. The prime interest of the analysis was on the dynamics of contraceptive use, i.e., contraceptive discontinuation and method switching.

Using single and multiple decrement life table techniques, the study compared and contrasted the discontinuation rates and method change rates among users of different contraceptive methods. It also assessed the impact of certain socio-demographic variables on contraceptive discontinuation and method switching. In addition to these, the study also looked at the reasons given by contraceptive users for terminating use of a particular contraceptive method. Some of the major findings are summarized below:

The data on the age of respondents indicated that most women (81.6 percent) are between 20 and 40 years old. Only 4.3 percent are younger than 20 years and 14.1 percent are 40 years or older.

The majority of respondents (92.9 percent) belonged to the Amahara ethnic group. As the study was conducted in one of the town in the Amahara regional state, this result is not surprising. The second largest ethnic group is Tigraway which accounts for 5 percent of the respondents and only 2 percent of all respondents belonged to other ethnic groups.

Orthodox Christian constitute the vast majority (90.8 percent) of the population under study. The second important religion is Islam and it represented 8.2 percent of women and other religions together account for only 1 percent of the respondents.

The data on educational level and literacy status revealed that about 67 percent of women have had either formal or non formal education including participation in the national literacy program. From the data, it is also observed that about 21.5 percent of all respondents have had some primary education, 12.2 percent had some junior secondary education and about 28 percent have completed at least grade eight. From these data one can conclude that respondents to large extent, are either illiterate or have completed only primary level of education.

The result of the study also indicated that about 48 percent of the respondents worked at some job for which they were paid either in cash or in kind. In the study papulation, women were less likely to be employed in professional, technical and managerial or clerical occupations. Only 6.2 percent and 1.3 percent of all respondents were engaged in these occupations, respectively. On the other hand, the majority of working women were concentrated in sales (11.8 percent), skilled/unskilled labour (12.5 percent) and service (14 percent) occupations.

It is also observed that the majority of respondents (68.2 percent) were currently in marital union and 15.7 percent were either divorced or separated. Widowed and never married account for 5.8 percent and 10.1 percent of all respondents, respectively. Concerning the knowledge of specific family planning methods the result of the study indicated that the pill (99.7 percent), injectable (96.3 percent) and condom (91.3 percent) are the most widely known contraceptive methods. IUD and tubal ligation are also the best known modern methods each recognized by 71.8 percent and 71.5 percent of the women, respectively. The least recognized modern method, vasectomy, is known only by 24.4 percent of all respondents. However, since the study was conducted among registered modern family planning acceptors, this high level of contraceptive knowledge among respondents is not surprising. Respondents are more likely to have adopted modern than traditional methods and the pill is the most frequently used method. The percentage ever using the pill (90 percent) is three times the

percentage ever using injectable (30 percent), the second most widely adopted method. Considerably fewer women have experience with other modern methods such as IUD (6.5 percent), Vaginal methods (0.7 percent) and tubal ligation (0.8 percent).

Regarding current use of family planning almost 72 percent of all respondents are currently protected by either modern (71 percent) or traditional (0.9 percent) methods. The pill is the most commonly used method, 40.1 percent of all respondents and 55.8 percent of current users are relying on it. Injectable is the second most frequently used method and it is used by about 24 percent of all respondents and 33.7 percent of all current users. All other modern methods combined are used by only 6.7 percent of all respondents and 9.3 of current users.

Concerning contraceptive discontinuation, the study revealed that discontinuation rates by method range from 43.8 percent for the pill to 24.4 percent for injectable. And in many cases the difference between the rate of discontinuation for injectable and those for other methods are remarkable. For instance, 45 percent of users of injectable were likely to terminate within 24-moths of use compared with 66 percent of the pill, 60 percent of 'other modern methods' and 56 percent of IUD users. For all methods combined, about 39 percent and 61 percent of users were likely to discontinue use of a method within the first and the second year of use, respectively.

However, the result for specific method is some what unexpected. This is because, since IUD was considered as a long term as well as an efficient method, it was expected that users of IUD would have the highest continuation rate among all other modern method users. But, in this study, users of injectable were more likely to be continuing at any duration of use after acceptance. This may be due to the fact that users of IUD are confined to a small number of segments and the result obtained from life table analysis with such small number of segments may not be reliable.

Contraceptive discontinuation by selected background characteristics of respondents shows that except for educational level and occupational type, for other characteristics, the difference in contraceptive discontinuation among groups were statistically significant at 0.05 level. In general, discontinuation of a given contraceptive method is significantly influenced by age of acceptors, number of living children, number of additional children desired, contraceptive goal and marital status. The reason why educational level differences among acceptors did not affect the rate of discontinuation may be due to the interaction of the effect of age and education on the patterns of contraceptive use. It means, older women with lower level of discontinuation are over represented among women with no or primary level of education. As a result, the expected pattern of increasing duration of use is confounded by the effect of age on use. On the other hand, the reason why occupational

type differences was not significant to affect the rate of discontinuation is not clear.

When we look at the reasons for termination of a particular contraceptive method, the influence of side effects and other medical reasons were prominent, followed by a desire to get pregnant. For users of all contraceptives considered together, about 13 percent and 9 percent were likely to terminate within the first year of use because of these reasons, respectively. As expected, there are huge variations among methods. For instance, users of 'Other modern methods' such as condom and vaginal methods were less likely to stop because of side effects, but side effects are the major reasons for giving up the pill, IUD and Injectable. The probability of discontinuation due to method failure was relatively small. The 12-month probability of discontinuation due to this reason range from 0 percent for injectable and IUD to 3.8 percent for 'other modern methods'. indicating that IUD and injectable are the most effective methods. For all methods combined, only 2 percent of users terminated use due to this reason within one year of use. This also shows that in comparison with other reasons, method failure is not an important problem in the study population. Contraceptive discontinuation because of desire to change method is also minimal. For example, within one year, only 4.9 percent of all segments terminated use of a method in order to use another contraceptive methods. Further examination of contraceptive switching behavior by first and last method indicted that switchers as a whole were

most likely to switch their first method to injectable. The 12-month probability of method change from the first method to pill, IUD, Injectable, 'other modern method and traditional methods are 13, 4.5, 3.5 2.2, and 1.5 percent, accordingly. Except for users of the pill, for users of other modern methods the probability of method change to traditional method is 0. In general, among the first method drop outs who change methods, the new method adopted certainly was injectable.

This study has various policy and program implications on improving the quality of family planning services and then to achieve some of the objectives stipulated in the national population policy. The section that follows outline these.

6.2. PLICY IMPLICATIONS

1. As seen in the second chapter of this thesis, almost in all health institutions and community based distribution centers the handling of both case-record cards and daily registration books are very poor and they also do not include all the information that should be registered. Therefore, since these documents are the basis of such kind of studies and other similar studies that focus on improving the quality of family planning services, every possible efforts should be made to improve these poor handling and incomplete recording of information. In this case, effort should focused on training of family

planning workers, particularly nurses and community agents and also provide them with registry forms that can collect adequate information.

2. As it is observed from the result of this study, most of the contraceptive users are relying on one kind of contraceptive method, i.e., the pill. Therefore, every possible efforts should be made to maximize the method mix so that clients who are dissatisfied with one method can switch easily to another method. These efforts should aim to increase the share of highly efficient and most acceptable methods such as IUD, and injectable and minimize the reliance on temporary methods. The method change should also closely be monitored to respond to any change in demand resulting from the introduction of new methods.

3. Since at any duration of use the highest discontinuation rate is observed among users of the pill and the method is used by most of current users, special attention should be directed towards increasing the continuation rates among users of this method and reduce the highest rates of accidental pregnancy among users of the method. Efforts in this area obviously must focus on service providers, especially community agents, and must emphasize the necessity of informing users about the proper usage of oral contraceptives and the appropriate response to any side effects that they may experience.

4. From the study it is also seen that most contraceptive users terminate use of a particular contraceptive methods due to side effects. Therefor, to address the issue of contraceptive related side effects, family planning workers need to give more information to clients, both to dispel rumors about contraceptive use and to prepare new users. And they also need to clearly state the advantages and disadvantages of each method and address the clients' specific health concern. If the clients do experience health problems, they need to be encouraged to return to the service delivery point so that their concerns can be addressed.

5. The follow up of all family planning acceptors must be improved and upgraded, both the health and psychological aspects, because users with side effects frequently may not consult medical personnel about the problem that they experience in using the methods. Improved follow up may have an obvious positive impact on method continuation.

6. Failure rates for methods other than IUD and injectable carry obvious implications for policies on induced abortion. Access to safe abortion should be part of comprehensive family panning services.

7. The analysis on contraceptive switching behavior of respondents by first and last method shows that

switchers are more likely to change their first method to injectable (more effective method). Therefore, this should be encouraged. In addition, they also should be encouraged to use other effective methods like IUD and tubal ligation.

8. As it is also observed from the result of this study, a significant proportion of women terminate use of contraception due to their husband disapproval. Therefore, in promoting IEC program, attention should be focussed on men by emphasizing the advantage of family planning particularly to the health of their children and the mother.

9. Specialized training for all those working in the field particularly to community agents should be promoted.

10. Last but not least, in order to provide strong evidence and substantial conclusion, further in-depth studies in this area is recommended. In Particular studies focusing on the reasons for discontinuing contraceptive use or switching of methods are suggested. In this case concerned bodies particularly research institutions, higher academic institutions, NGOs etc. should encourage and support researchers both financially and technically.

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APPENDIX-A

CONTRACEPTIVE CONTINUATION BY METHOD

PILL

SURVIVAL TABLES DSU BY SU(1,5) /INTERVALS THRU 42 BY 3 /
STATUS TS (2)/COMPARE.

LIFE TABLE

SURVIVAL VARIABLE DSU FOR SU

DURATION OF SEGMENT USE
segment of used = 1 pill

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	775.0	9.0	770.5	35.0	.0454	.9546	.9546	.0151	.0155
3.0	731.0	24.0	719.0	77.0	.1071	.8929	.8523	.0341	.0377
6.0	630.0	17.0	621.5	73.0	.1175	.8825	.7522	.0334	.0416
9.0	540.0	21.0	529.5	70.0	.1322	.8678	.6528	.0331	.0472
12.0	449.0	33.0	432.5	60.0	.1387	.8613	.5622	.0302	.0497
15.0	356.0	25.0	343.5	34.0	.0990	.9010	.5066	.0185	.0347
18.0	297.0	23.0	285.5	34.0	.1191	.8809	.4462	.0201	.0422
21.0	240.0	20.0	230.0	25.0	.1087	.8913	.3977	.0162	.0383
24.0	195.0	12.0	189.0	25.0	.1323	.8677	.3451	.0175	.0472
27.0	158.0	18.0	149.0	23.0	.1544	.8456	.2919	.0178	.0558
30.0	117.0	22.0	106.0	9.0	.0849	.9151	.2671	.0083	.0296
33.0	86.0	18.0	77.0	12.0	.1558	.8442	.2255	.0139	.0563
36.0	56.0	33.0	39.5	3.0	.0759	.9241	.2083	.0057	.0263
39.0	20.0	16.0	12.0	.0	.0000	1.0000	.2083	.0000	.0000
42.0+	4.0	4.0	2.0	.0	.0000	1.0000	.2083	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.
THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 18.33

Continued...

IUD

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR SU segment of used
= 2 IUD

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	48.0	.0	48.0	1.0	.0208	.9792	.9792	.0069	.0070
3.0	47.0	4.0	45.0	2.0	.0444	.9556	.9356	.0145	.0152
6.0	41.0	4.0	39.0	2.0	.0513	.9487	.8877	.0160	.0175
9.0	35.0	1.0	34.5	3.0	.0870	.9130	.8105	.0257	.0303
12.0	31.0	2.0	30.0	2.0	.0667	.9333	.7564	.0180	.0230
15.0	27.0	2.0	26.0	2.0	.0769	.9231	.6983	.0194	.0267
18.0	23.0	1.0	22.5	1.0	.0444	.9556	.6672	.0103	.0152
21.0	21.0	3.0	19.5	2.0	.1026	.8974	.5988	.0228	.0360
24.0	16.0	2.0	15.0	4.0	.2667	.7333	.4391	.0532	.1026
27.0	10.0	3.0	8.5	.0	.0000	1.0000	.4391	.0000	.0000
30.0	7.0	.0	7.0	1.0	.1429	.8571	.3764	.0209	.0513
33.0	6.0	.0	6.0	1.0	.1667	.8333	.3137	.0209	.0606
36.0	5.0	2.0	4.0	.0	.0000	1.0000	.3137	.0000	.0000
39.0	3.0	3.0	1.5	.0	.0000	1.0000	.3137	.0000	.0000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 25.86

Continued...

INJECTABLE

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR SU segment of used
= 3 INJECTABLE

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	310.0	19.0	300.5	4.0	.0133	.9867	.9867	.0044	.0045
3.0	287.0	23.0	275.5	17.0	.0617	.9383	.9258	.0203	.0212
6.0	247.0	26.0	234.0	8.0	.0342	.9658	.8942	.0106	.0116
9.0	213.0	25.0	200.5	11.0	.0549	.9451	.8451	.0164	.0188
12.0	177.0	13.0	170.5	18.0	.1056	.8944	.7559	.0297	.0372
15.0	146.0	17.0	137.5	6.0	.0436	.9564	.7229	.0110	.0149
18.0	123.0	14.0	116.0	9.0	.0776	.9224	.6668	.0187	.0269
21.0	100.0	15.0	92.5	8.0	.0865	.9135	.6091	.0192	.0301
24.0	77.0	12.0	71.0	7.0	.0986	.9014	.5491	.0200	.0346
27.0	58.0	18.0	49.0	1.0	.0204	.9796	.5379	.0037	.0069
30.0	39.0	9.0	34.5	3.0	.0870	.9130	.4911	.0156	.0303
33.0	27.0	5.0	24.5	1.0	.0408	.9592	.4711	.0067	.0139
36.0	21.0	8.0	17.0	2.0	.1176	.8824	.4156	.0185	.0417
39.0	11.0	6.0	8.0	.0	.0000	1.0000	.4156	.0000	.0000
42.0+	5.0	5.0	2.5	.0	.0000	1.0000	.4156	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.
THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 32.43

Continued...

OTHER MODERN METHODS

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR SU segment of used
= 4 OTHER MODERN METHODS

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	40.0	1.0	39.5	4.0	.1013	.8987	.8987	.0338	.0356
3.0	35.0	4.0	33.0	3.0	.0909	.9091	.8170	.0272	.0317
6.0	28.0	7.0	24.5	4.0	.1633	.8367	.6836	.0445	.0593
9.0	17.0	1.0	16.5	1.0	.0606	.9394	.6422	.0138	.0208
12.0	15.0	2.0	14.0	1.0	.0714	.9286	.5963	.0153	.0247
15.0	12.0	3.0	10.5	1.0	.0952	.9048	.5395	.0189	.0333
18.0	8.0	.0	8.0	1.0	.1250	.8750	.4721	.0225	.0444
21.0	7.0	1.0	6.5	1.0	.1538	.8462	.3995	.0242	.0556
24.0	5.0	1.0	4.5	.0	.0000	1.0000	.3995	.0000	.0000
27.0	4.0	.0	4.0	.0	.0000	1.0000	.3995	.0000	.0000
30.0	4.0	1.0	3.5	.0	.0000	1.0000	.3995	.0000	.0000
33.0	3.0	1.0	2.5	.0	.0000	1.0000	.3995	.0000	.0000
36.0	2.0	2.0	1.0	.0	.0000	1.0000	.3995	.0000	.0000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 19.76

Continued...

TRADITIONAL METHODS

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR SU segment of used

= 5 TRADITIONAL METHODS

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	14.0	.0	14.0	.0	.0000	1.0000	1.0000	.0000	.0000
3.0	14.0	1.0	13.5	2.0	.1481	.8519	.8519	.0494	.0533
6.0	11.0	2.0	10.0	3.0	.3000	.7000	.5963	.0852	.1176
9.0	6.0	.0	6.0	.0	.0000	1.0000	.5963	.0000	.0000
12.0	6.0	1.0	5.5	1.0	.1818	.8182	.4879	.0361	.0667
15.0	4.0	1.0	3.5	.0	.0000	1.0000	.4879	.0000	.0000
18.0	3.0	1.0	2.5	1.0	.4000	.6000	.2927	.0651	.1667
21.0	1.0	.0	1.0	.0	.0000	1.0000	.2927	.0000	.0000
24.0	1.0	.0	1.0	1.0	1.0000	.0000	.0000	.0976	.6667

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 14.66

Continued...

COMPARISON OF SURVIVAL EXPERIENCE USING THE WILCOXON (GEHAN) STATISTIC
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
GROUPED BY SU segment of used

OVERALL COMPARISON STATISTIC 44.347 D.F. 4 PROB. .0000

GROUP	LABEL	TOTAL N	UNCEN	CEN	PCT CEN	MEAN SCORE
1	pill	775	480	295	38.06	-65.564
2	IUD	48	21	27	56.25	143.650
3	INJECTABLE	310	95	215	69.35	160.110
4	OTHER MODERN METHODS	40	16	24	60.00	-84.075
5	TRADITIONAL METHODS	14	8	6	42.86	-168.210

APPENDIX-B
CONTRACEPTIVE CONTINUATION BY SELECTED BACK GROUND CHARACTERISTICS

AGE

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SURVIVAL TABLES DSU BY Q103(1,3)/INTERVALS THRU 42 BY 3 /
STATUS TS (2) /COMPARE.
 LIFE TABLE
   SURVIVAL VARIABLE  DSU          DURATION OF SEGMENT USE
                FOR   Q103         CURRENT AGE OF THE RESOPNDENT
                                              =          < 25
```

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	274.0	12.0	268.0	9.0	.0336	.9664	.9664	.0112	.0114
3.0	253.0	14.0	246.0	35.0	.1423	.8577	.8289	.0458	.0511
6.0	204.0	16.0	196.0	31.0	.1582	.8418	.6978	.0437	.0572
9.0	157.0	11.0	151.5	29.0	.1914	.8086	.5642	.0445	.0706
12.0	117.0	16.0	109.0	19.0	.1743	.8257	.4659	.0328	.0637
15.0	82.0	11.0	76.5	8.0	.1046	.8954	.4172	.0162	.0368
18.0	63.0	7.0	59.5	8.0	.1345	.8655	.3611	.0187	.0480
21.0	48.0	6.0	45.0	8.0	.1778	.8222	.2969	.0214	.0650
24.0	34.0	4.0	32.0	4.0	.1250	.8750	.2598	.0124	.0444
27.0	26.0	4.0	24.0	2.0	.0833	.9167	.2381	.0072	.0290
30.0	20.0	4.0	18.0	.0	.0000	1.0000	.2381	.0000	.0000
33.0	16.0	2.0	15.0	4.0	.2667	.7333	.1746	.0212	.1026
36.0	10.0	6.0	7.0	1.0	.1429	.8571	.1497	.0083	.0513
39.0	3.0	3.0	1.5	.0	.0000	1.0000	.1497	.0000	.0000

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 13.96

Continued...

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR Q103 CURRENT AGE OF THE RESPONDENT
= 25-34

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	554.0	12.0	548.0	22.0	.0401	.9599	.9599	.0134	.0137
3.0	520.0	31.0	504.5	38.0	.0753	.9247	.8876	.0241	.0261
6.0	451.0	26.0	438.0	31.0	.0708	.9292	.8247	.0209	.0245
9.0	394.0	18.0	385.0	33.0	.0857	.9143	.7540	.0236	.0299
12.0	343.0	27.0	329.5	42.0	.1275	.8725	.6579	.0320	.0454
15.0	274.0	26.0	261.0	23.0	.0881	.9119	.6000	.0193	.0307
18.0	225.0	21.0	214.5	26.0	.1212	.8788	.5272	.0242	.0430
21.0	178.0	22.0	167.0	16.0	.0958	.9042	.4767	.0168	.0335
24.0	140.0	14.0	133.0	13.0	.0977	.9023	.4301	.0155	.0343
27.0	113.0	24.0	101.0	11.0	.1089	.8911	.3833	.0156	.0384
30.0	78.0	19.0	68.5	6.0	.0876	.9124	.3497	.0112	.0305
33.0	53.0	11.0	47.5	5.0	.1053	.8947	.3129	.0123	.0370
36.0	37.0	17.0	28.5	3.0	.1053	.8947	.2800	.0110	.0370
39.0	17.0	13.0	10.5	.0	.0000	1.0000	.2800	.0000	.0000
42.0+	4.0	4.0	2.0	.0	.0000	1.0000	.2800	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 22.62

Continued...

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR Q103 CURRENT AGE OF THE RESPONDENT
= 35 AND ABOVE

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	359.0	5.0	356.5	13.0	.0365	.9635	.9635	.0122	.0124
3.0	341.0	11.0	335.5	28.0	.0835	.9165	.8831	.0268	.0290
6.0	302.0	14.0	295.0	28.0	.0949	.9051	.7993	.0279	.0332
9.0	260.0	19.0	250.5	23.0	.0918	.9082	.7259	.0245	.0321
12.0	218.0	8.0	214.0	21.0	.0981	.9019	.6547	.0237	.0344
15.0	189.0	11.0	183.5	12.0	.0654	.9346	.6119	.0143	.0225
18.0	166.0	11.0	160.5	12.0	.0748	.9252	.5661	.0152	.0259
21.0	143.0	11.0	137.5	12.0	.0873	.9127	.5167	.0165	.0304
24.0	120.0	9.0	115.5	20.0	.1732	.8268	.4272	.0298	.0632
27.0	91.0	11.0	85.5	11.0	.1287	.8713	.3723	.0183	.0458
30.0	69.0	9.0	64.5	7.0	.1085	.8915	.3319	.0135	.0383
33.0	53.0	11.0	47.5	5.0	.1053	.8947	.2969	.0116	.0370
36.0	37.0	22.0	26.0	1.0	.0385	.9615	.2855	.0038	.0131
39.0	14.0	9.0	9.5	.0	.0000	1.0000	.2855	.0000	.0000
42.0+	5.0	5.0	2.5	.0	.0000	1.0000	.2855	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 24.56

Continued...

COMPARISON OF SURVIVAL EXPERIENCE USING THE WILCOXON (GEHAN) STATISTIC
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
GROUPED BY Q103 CURRENT AGE OF THE RESPONDENT

OVERALL COMPARISON STATISTIC 25.687 D.F. 2 PROB. .0000

GROUP	LABEL	TOTAL N	UNCEN	CEN	PCT CEN	MEAN SCORE
1	< 25	274	158	116	42.34	-145.03
2	25-34	554	269	285	51.44	45.738
3	35 AND ABOVE	359	193	166	46.24	40.109

NUMBER OF LIVING CHILDREN

```
SURVIVAL TABLES DSU BY Q204(1,4)/INTERVALS THRU 42 BY 3 /
STATUS TS (2) /COMPARE.
 LIFE TABLE
   SURVIVAL VARIABLE  DSU          DURATION OF SEGMENT USE
                 FOR  Q204         Total No. of living children
                                                 =          0
```

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	167.0	3.0	165.5	3.0	.0181	.9819	.9819	.0060	.0061
3.0	161.0	6.0	158.0	26.0	.1646	.8354	.8203	.0539	.0598
6.0	129.0	8.0	125.0	15.0	.1200	.8800	.7219	.0328	.0426
9.0	106.0	6.0	103.0	20.0	.1942	.8058	.5817	.0467	.0717
12.0	80.0	13.0	73.5	8.0	.1088	.8912	.5184	.0211	.0384
15.0	59.0	7.0	55.5	3.0	.0541	.9459	.4904	.0093	.0185
18.0	49.0	5.0	46.5	8.0	.1720	.8280	.4060	.0281	.0627
21.0	36.0	3.0	34.5	1.0	.0290	.9710	.3942	.0039	.0098
24.0	32.0	5.0	29.5	3.0	.1017	.8983	.3541	.0134	.0357
27.0	24.0	1.0	23.5	1.0	.0426	.9574	.3391	.0050	.0145
30.0	22.0	2.0	21.0	.0	.0000	1.0000	.3391	.0000	.0000
33.0	20.0	3.0	18.5	4.0	.2162	.7838	.2658	.0244	.0808
36.0	13.0	8.0	9.0	.0	.0000	1.0000	.2658	.0000	.0000
39.0	5.0	4.0	3.0	.0	.0000	1.0000	.2658	.0000	.0000
42.0+	1.0	1.0	.5	.0	.0000	1.0000	.2658	**	**

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**     THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.
THE MEDIAN SURVIVAL TIME FOR THESE DATA IS  16.97
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Continued...

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR Q204 Total No. of living children
= 1 - 2

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	421.0	18.0	412.0	22.0	.0534	.9466	.9466	.0178	.0183
3.0	381.0	25.0	368.5	32.0	.0868	.9132	.8644	.0274	.0303
6.0	324.0	18.0	315.0	29.0	.0921	.9079	.7848	.0265	.0322
9.0	277.0	15.0	269.5	31.0	.1150	.8850	.6945	.0301	.0407
12.0	231.0	19.0	221.5	40.0	.1806	.8194	.5691	.0418	.0662
15.0	172.0	14.0	165.0	13.0	.0788	.9212	.5243	.0149	.0273
18.0	145.0	11.0	139.5	20.0	.1434	.8566	.4491	.0251	.0515
21.0	114.0	19.0	104.5	17.0	.1627	.8373	.3761	.0244	.0590
24.0	78.0	6.0	75.0	6.0	.0800	.9200	.3460	.0100	.0278
27.0	66.0	12.0	60.0	6.0	.1000	.9000	.3114	.0115	.0351
30.0	48.0	10.0	43.0	3.0	.0698	.9302	.2896	.0072	.0241
33.0	35.0	4.0	33.0	3.0	.0909	.9091	.2633	.0088	.0317
36.0	28.0	12.0	22.0	3.0	.1364	.8636	.2274	.0120	.0488
39.0	13.0	11.0	7.5	.0	.0000	1.0000	.2274	.0000	.0000
42.0+	2.0	2.0	1.0	.0	.0000	1.0000	.2274	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 18.97

Continued...

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR Q204 Total No. of living children
= 5+

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	176.0	.0	176.0	4.0	.0227	.9773	.9773	.0076	.0077
3.0	172.0	11.0	166.5	13.0	.0781	.9219	.9010	.0254	.0271
6.0	148.0	9.0	143.5	14.0	.0976	.9024	.8131	.0293	.0342
9.0	125.0	11.0	119.5	11.0	.0921	.9079	.7382	.0249	.0322
12.0	103.0	4.0	101.0	10.0	.0990	.9010	.6651	.0244	.0347
15.0	89.0	4.0	87.0	5.0	.0575	.9425	.6269	.0127	.0197
18.0	80.0	2.0	79.0	5.0	.0633	.9367	.5872	.0132	.0218
21.0	73.0	3.0	71.5	6.0	.0839	.9161	.5380	.0164	.0292
24.0	64.0	7.0	60.5	5.0	.0826	.9174	.4935	.0148	.0287
27.0	52.0	8.0	48.0	5.0	.1042	.8958	.4421	.0171	.0366
30.0	39.0	3.0	37.5	4.0	.1067	.8933	.3949	.0157	.0376
33.0	32.0	8.0	28.0	2.0	.0714	.9286	.3667	.0094	.0247
36.0	22.0	12.0	16.0	1.0	.0625	.9375	.3438	.0076	.0215
39.0	9.0	5.0	6.5	.0	.0000	1.0000	.3438	.0000	.0000
42.0+	4.0	4.0	2.0	.0	.0000	1.0000	.3438	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 26.56

Continued...

COMPARISON OF SURVIVAL EXPERIENCE USING THE WILCOXON (GEHAN) STATISTIC
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
GROUPED BY Q204 TOTAL NUMBER OF LIVING CHILDREN

OVERALL COMPARISON STATISTIC 14.513 D.F. 3 PROB. .0023

GROUP	LABEL	TOTAL N	UNCEN	CEN	PCT CEN	MEAN SCORE
1	0	167	92	75	44.91	-100.21
2	1 - 2	421	225	196	46.56	-38.998
3	3 - 5	423	218	205	48.46	47.664
4	> 5	176	85	91	51.70	73.813

CONTRACEPTIVE INTENT

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LIFE TABLE
SURVIVAL TABLES DSU BY Q312(1,3)/INTERVALS THRU 42 BY 3 /
STATUS TS (2) /COMPARE.
 LIFE TABLE
   SURVIVAL VARIABLE  DSU          DURATION OF SEGMENT USE
                FOR   Q312         Reasons for use of the 1st method
                                                 =          LMITERS
```

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	384.0	4.0	382.0	10.0	.0262	.9738	.9738	.0087	.0088
3.0	370.0	19.0	360.5	28.0	.0777	.9223	.8982	.0252	.0269
6.0	323.0	13.0	316.5	25.0	.0790	.9210	.8272	.0236	.0274
9.0	285.0	16.0	277.0	27.0	.0975	.9025	.7466	.0269	.0342
12.0	242.0	16.0	234.0	20.0	.0855	.9145	.6828	.0213	.0298
15.0	206.0	19.0	196.5	11.0	.0560	.9440	.6446	.0127	.0192
18.0	176.0	14.0	169.0	15.0	.0888	.9112	.5874	.0191	.0310
21.0	147.0	11.0	141.5	14.0	.0989	.9011	.5292	.0194	.0347
24.0	122.0	12.0	116.0	13.0	.1121	.8879	.4699	.0198	.0396
27.0	97.0	21.0	86.5	8.0	.0925	.9075	.4265	.0145	.0323
30.0	68.0	11.0	62.5	4.0	.0640	.9360	.3992	.0091	.0220
33.0	53.0	14.0	46.0	6.0	.1304	.8696	.3471	.0174	.0465
36.0	33.0	17.0	24.5	2.0	.0816	.9184	.3188	.0094	.0284
39.0	14.0	10.0	9.0	.0	.0000	1.0000	.3188	.0000	.0000
42.0+	4.0	4.0	2.0	.0	.0000	1.0000	.3188	**	**

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**     THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.
 THE MEDIAN SURVIVAL TIME FOR THESE DATA IS  25.48
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Continued...

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR Q312 Reasons for use of the 1st method
= SPACERS

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	786.0	25.0	773.5	33.0	.0427	.9573	.9573	.0142	.0145
3.0	728.0	37.0	709.5	67.0	.0944	.9056	.8669	.0301	.0330
6.0	624.0	43.0	602.5	62.0	.1029	.8971	.7777	.0297	.0362
9.0	519.0	32.0	503.0	58.0	.1153	.8847	.6880	.0299	.0408
12.0	429.0	35.0	411.5	60.0	.1458	.8542	.5877	.0334	.0524
15.0	334.0	28.0	320.0	31.0	.0969	.9031	.5308	.0190	.0339
18.0	275.0	25.0	262.5	30.0	.1143	.8857	.4701	.0202	.0404
21.0	220.0	28.0	206.0	22.0	.1068	.8932	.4199	.0167	.0376
24.0	170.0	15.0	162.5	24.0	.1477	.8523	.3579	.0207	.0532
27.0	131.0	18.0	122.0	16.0	.1311	.8689	.3110	.0156	.0468
30.0	97.0	21.0	86.5	9.0	.1040	.8960	.2786	.0108	.0366
33.0	67.0	9.0	62.5	7.0	.1120	.8880	.2474	.0104	.0395
36.0	51.0	28.0	37.0	3.0	.0811	.9189	.2273	.0067	.0282
39.0	20.0	15.0	12.5	.0	.0000	1.0000	.2273	.0000	.0000
42.0+	5.0	5.0	2.5	.0	.0000	1.0000	.2273	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 19.52

Continued...

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR Q312 Reasons for use of the 1st method
= **OTHERS**

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	17.0	.0	17.0	1.0	.0588	.9412	.9412	.0196	.0202
3.0	16.0	.0	16.0	6.0	.3750	.6250	.5882	.1176	.1538
6.0	10.0	.0	10.0	3.0	.3000	.7000	.4118	.0588	.1176
9.0	7.0	.0	7.0	.0	.0000	1.0000	.4118	.0000	.0000
12.0	7.0	.0	7.0	2.0	.2857	.7143	.2941	.0392	.1111
15.0	5.0	1.0	4.5	1.0	.2222	.7778	.2288	.0218	.0833
18.0	3.0	.0	3.0	1.0	.3333	.6667	.1525	.0254	.1333
21.0	2.0	.0	2.0	.0	.0000	1.0000	.1525	.0000	.0000
24.0	2.0	.0	2.0	.0	.0000	1.0000	.1525	.0000	.0000
27.0	2.0	.0	2.0	.0	.0000	1.0000	.1525	.0000	.0000
30.0	2.0	.0	2.0	.0	.0000	1.0000	.1525	.0000	.0000
33.0	2.0	1.0	1.5	1.0	.6667	.3333	.0508	.0339	.3333

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 7.50

Continued...

COMPARISON OF SURVIVAL EXPERIENCE USING THE WILCOXON (GEHAN) STATISTIC
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
GROUPED BY Q312 REASON FOR USE OF THE METHOD

OVERALL COMPARISON STATISTIC 23.836 D.F. 2 PROB. .0000

GROUP	LABEL	TOTAL N	UNCEN	CEN	PCT CEN	MEAN SCORE
1	limiters	384	183	201	52.34	81.490
2	spacers	786	422	364	46.31	-29.700
3	others	17	15	2	11.76	-467.53

MARITAL STATUS

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SURVIVAL TABLES DSU BY Q401(1,3)/INTERVALS THRU 42 BY 3 /
STATUS TS (2) /COMPARE.
 LIFE TABLE
   SURVIVAL VARIABLE  DSU          DURATION OF SEGMENT USE
                 FOR  Q401         marital status
                                                 =        CURRENTLY MARRIED
```

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	826.0	24.0	814.0	31.0	.0381	.9619	.9619	.0127	.0129
3.0	771.0	46.0	748.0	66.0	.0882	.9118	.8770	.0283	.0308
6.0	659.0	42.0	638.0	57.0	.0893	.9107	.7987	.0261	.0312
9.0	560.0	35.0	542.5	50.0	.0922	.9078	.7251	.0245	.0322
12.0	475.0	31.0	459.5	53.0	.1153	.8847	.6414	.0279	.0408
15.0	391.0	33.0	374.5	31.0	.0828	.9172	.5883	.0177	.0288
18.0	327.0	30.0	312.0	27.0	.0865	.9135	.5374	.0170	.0302
21.0	270.0	34.0	253.0	19.0	.0751	.9249	.4971	.0135	.0260
24.0	217.0	21.0	206.5	25.0	.1211	.8789	.4369	.0201	.0430
27.0	171.0	32.0	155.0	19.0	.1226	.8774	.3833	.0179	.0435
30.0	120.0	25.0	107.5	9.0	.0837	.9163	.3512	.0107	.0291
33.0	86.0	17.0	77.5	11.0	.1419	.8581	.3014	.0166	.0509
36.0	58.0	31.0	42.5	4.0	.0941	.9059	.2730	.0095	.0329
39.0	23.0	16.0	15.0	.0	.0000	1.0000	.2730	.0000	.0000
42.0+	7.0	7.0	3.5	.0	.0000	1.0000	.2730	**	**

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**     THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

 THE MEDIAN SURVIVAL TIME FOR THESE DATA IS  23.78
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Continued....

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR Q401 marital status = **EVER MARRIED**

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	252.0	2.0	251.0	11.0	.0438	.9562	.9562	.0146	.0149
3.0	239.0	7.0	235.5	20.0	.0849	.9151	.8750	.0271	.0296
6.0	212.0	10.0	207.0	23.0	.1111	.8889	.7778	.0324	.0392
9.0	179.0	9.0	174.5	19.0	.1089	.8911	.6931	.0282	.0384
12.0	151.0	9.0	146.5	23.0	.1570	.8430	.5843	.0363	.0568
15.0	119.0	10.0	114.0	10.0	.0877	.9123	.5330	.0171	.0306
18.0	99.0	6.0	96.0	16.0	.1667	.8333	.4442	.0296	.0606
21.0	77.0	3.0	75.5	16.0	.2119	.7881	.3500	.0314	.0790
24.0	58.0	4.0	56.0	10.0	.1786	.8214	.2875	.0208	.0654
27.0	44.0	7.0	40.5	5.0	.1235	.8765	.2520	.0118	.0439
30.0	32.0	5.0	29.5	4.0	.1356	.8644	.2179	.0114	.0485
33.0	23.0	5.0	20.5	2.0	.0976	.9024	.1966	.0071	.0342
36.0	16.0	9.0	11.5	1.0	.0870	.9130	.1795	.0057	.0303
39.0	6.0	5.0	3.5	.0	.0000	1.0000	.1795	.0000	.0000
42.0+	1.0	1.0	.5	.0	.0000	1.0000	.1795	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 19.11

Continued...

LIFE TABLE
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
FOR Q401 marital status
= **NEVER MARRIED**

INTVL START TIME	NUMBER ENTRNG THIS INTVL	NUMBER WDRAWN DURING INTVL	NUMBER EXPOSD TO RISK	NUMBER OF TERMNL EVENTS	PROPN TERMI-NATING	PROPN SURVI-VING	CUMUL PROPN SURV AT END	PROBA-BILITY DENSTY	HAZARD RATE
.0	109.0	3.0	107.5	2.0	.0186	.9814	.9814	.0062	.0063
3.0	104.0	3.0	102.5	15.0	.1463	.8537	.8378	.0479	.0526
6.0	86.0	4.0	84.0	10.0	.1190	.8810	.7380	.0332	.0422
9.0	72.0	4.0	70.0	16.0	.2286	.7714	.5693	.0562	.0860
12.0	52.0	11.0	46.5	6.0	.1290	.8710	.4959	.0245	.0460
15.0	35.0	5.0	32.5	2.0	.0615	.9385	.4654	.0102	.0212
18.0	28.0	3.0	26.5	3.0	.1132	.8868	.4127	.0176	.0400
21.0	22.0	2.0	21.0	1.0	.0476	.9524	.3930	.0066	.0163
24.0	19.0	2.0	18.0	2.0	.1111	.8889	.3494	.0146	.0392
27.0	15.0	.0	15.0	.0	.0000	1.0000	.3494	.0000	.0000
30.0	15.0	2.0	14.0	.0	.0000	1.0000	.3494	.0000	.0000
33.0	13.0	2.0	12.0	1.0	.0833	.9167	.3202	.0097	.0290
36.0	10.0	5.0	7.5	.0	.0000	1.0000	.3202	.0000	.0000
39.0	5.0	4.0	3.0	.0	.0000	1.0000	.3202	.0000	.0000
42.0+	1.0	1.0	.5	.0	.0000	1.0000	.3202	**	**

** THESE CALCULATIONS FOR THE LAST INTERVAL ARE MEANINGLESS.

THE MEDIAN SURVIVAL TIME FOR THESE DATA IS 14.83

Continued...

COMPARISON OF SURVIVAL EXPERIENCE USING THE WILCOXON (GEHAN) STATISTIC
SURVIVAL VARIABLE DSU DURATION OF SEGMENT USE
GROUPED BY Q401 MARITAL STATUS

OVERALL COMPARISON STATISTIC 7.376 D.F. 2 PROB. .0250

GROUP	LABEL	TOTAL N	UNCEN	CEN	PCT CEN	MEAN SCORE
1	CURRENTLY MARRIED	826	402	424	51.33	26.772
2	EVER MARRIED	252	160	92	36.51	-45.520
3	NEVER MARRIED	109	58	51	46.79	-97.642

APPENDIX - C

ADDIS ABABA UNIVERSITY
INSTITUTE OF DEVELOPMENT RESEARCH
DEMOGRAPHIC TRAINING AND RESEARCH CENTER

QUESTIONNAIRE ON THE STUDY OF CONTRACEPTIVE DISCONTINUATION AND METHOD SWITCHING AMONG FEMALE FAMILY PLANNING ACCEPTORS IN BAHIR DAR

SECTION A. INDIVIDUAL IDENTIFICATION

1. KEFTEGNA_____

2. KEBELE_____

3. HOUSE NUMBER_____

4. NAME OF RESPONDENT_____

SECTION B. INDIVIDUAL VISIT RECORD

INTERVIEWER VISIT	1	2	3
DATE			
INTERVIEWER'S NAME			
DURATION OF INTERVIEW			
RESULT OF THE VISIT*			

* 1.Completed
2. Dwelling vacant/removed
3. Respondent left home
4. Partly completed
5. Refused
6.Other_____
(Specify)

PART I. BACKGROUND CHARACTERISTICS

101. It is important in this study to know your exact age. How old were you at your last birth day?

AGE_____ 98 Don't know

102. In what month and year were you born?

Month_____19_____ 98 Don't know

103. NTERVIEWER: AFTER EXAMINING THE RESPONSES IN 101 AND 102 CAREFULLY, ENTER THE RESPONDENT'S AGE BELOW.

AGE_____

104. Have you ever attended school?

1. Yes 2. No --- (SKIP TO 106)

105. What is the highest grade you have attended at school or university?

INTERVIEWER: CIRCLE LEVEL AND GRADE

LEVEL	GRADE						
1. Primary	0	1	2	3	4	5	6
2. Junior High School	7	8					
3. High School	9	10	11	12			
4. University	1	2	3	4	5	5	6

=>(SKIP TO 108)

5. Literacy program
6. Other non formal
7. Other_____
(specify)

106. Can you read a news paper, magazine or a letter, for example?

1. Yes 2. No 98. Not sure/Does not know

107. Can you write a letter, for example ?

1 Yes 2. No 98. Not sure/dose not know

108. What is your religion?

1. Moslem 2. Orthodox Christian 3. Catholic
2. Protestant 5. Other _____
(Specify)

109. What ethnic group do you belong to ?

1. Amara 2. Tigrawe 3. Agew 4. Guraghe
5. Oromo 6. Other_____
(Specify)

110. Now I would like to talk with you about your occupation. Aside from doing their household work many women have jobs for which they receive payment in cash or in kind. In the past month did you do any work for which you received payment either in cash or in kind?

1.Yes 2. No

111. What is your occupation, that is, what kind of work do youdo?

INTERVIEWER: IF RETIRED OR UNEMPLOYED, WRITE THE MOST RESENT OCCUPATION. IF STUDENT, WRITE STUDENT IF NEVER WORKED WRITE NEVER WORKED.

_____

_____

PART II. FERTILITY

201. Now I would like to ask you some questions about your children. Have you ever had a live birth, that is, have you given birth to a baby that cried or showed some other signs of life, even if the baby lived only for a short time?

1.Yes 2. No ---> (SKIP TO 208)

202. How many children have you given birth to, who are living with you?

_____ Sons _____ Daughters _____Total

203. How many children have you given birth to, who are living somewhere else?

_____Sons _____ Daughters _____Total

204. INTERVIEWER: SUM THE RESPONSES IN 202 AND 203 AND WRITE THE SUM IN 204. THEN, ASK:

Altogether, then, you have had_____children? Is that correct? (sum)

1. Yes 2. No --->(CORRECT ANSWER IN 202 AND 203)

205. Have you ever given birth to a child who later died, including any children who may have lived only a short time after birth?

1.Yes 2. No---> (SKIP TO 206 AND REGISTER 0; THEN CONTINUE WITH 207)

206. How many children have you given birth to, who later died?

_____ Sons _____ Daughters _____ Total

207. Just to be sure that I have the correct information, how many children altogether have you given birth to, including those who are still surviving whether they are living with you or some where else and those who have died?

Total Number _____

INTERVIEWER: SUM THE RESPONSE IN 204 AND 206 AND CHECK THAT SUM AGREES WITH THE TOTAL ABOVE.

208. Have you ever been pregnant?

1.Yes 2. No ---> (SKIP TO 225)

209. Are you pregnant now?

1. Yes 2. No 98. Not sure/Dose not know

210A. In addition to the pregnancies which ended in live births, have you had other pregnancies (miscarriages, abortions, or stillbirth) including even those which lasted only a few weeks or a few months?

1. Yes 2. No ---> (SKIP TO 211)

210B. How many pregnancies have you had which ended in stillbirth, miscarriage, or abortion?

Total Number _____

211. How old were you when you first became pregnant?

Age _____

212. Now I would like to ask you some questions about your last live birth, that is, the last baby which you had which cried or showed some other signs of life at births even if the baby lived for a short time?
When did you have your last birth?Please give me the date?
Month _____19_____

INTERVIEWER: IF RESPONDENT DOES NOT KNOW DATE, ASK:

How long ago was your last live birth?

Month _____ Year_____

INTERVIEWER: IF BIRTH OCCURRED WITHIN THE PAST FIVE YEARS (SINCE JANUARY 1992), GO TO 213 OTHERWISE, SKIP TO 220.

213. Was the child a boy or a girl?
1. Boy 2. Girl

214A. Is that child still alive?
1. Yes ---> (SKIP TO 215) 2. No

214B. How old was the child when he or she died?

Month_____ Year_____

INTERVIEWER: AFTER ASKING 214B, SKIP TO 216

215. Are you currently breast-feeding the child?

1. Yes ---> (SKIP TO 218A) 2. No.

216. Why did you stop breast-feeding?

1. Reaching weaning age
2. Mother sick
3. Pregnant
4. Child sick
5. Using pill
6. Work
7. No milk
8. Other_____
(SPECIFY)

217. How long did you breast-feed your last child?

Months_____(IF ANSWER IS "UNTIL BABY DEAD", WRITE AGE OF BABY AT DEATH)

218A. INTERVIEWER: LOOK AT 207 AND CIRCLE THE APPROPRIATE CODE BELOW THEN FOLLOW THE SKIP INSTRUCTIONS

1. One live birth ---> (SKIP TO 224)
2. Two or more live births

218B. When did you have your next-to-the last birth (the one born just before your last live birth)? Please give me the date.

Months_____ 19_____

INTERVIEWER: IF RESPONDENT DOES NOT KNOW DATE, ASK:

How long ago was your next-to-the last live birth?

Months_____ Year_____

219. Is that child still alive?

1. Yes ---> (SKIP TO 221) 2.No

210. How old was the child when he (she) died?

Years_____ Months_____(IF LESS THAN ONE MONTH, WRITE"OO"MONTHS)

221. did you breast feed this child?

1 Yes ---->(SKIP TO 223) 2. No

222. For what reason did you not breast feed that child?

1. Reach weaning age
2. Mother sick
3. Pregnant
4. Child sick
5. work
6. No milk
7. Using pill
8. Other_____ (Specify)

223. For how many months did you breast-feed that child?
Month_____ 87. Until child died

224. Do you want to have additional children in the future (in addition to the one you are expecting)?

1. Yes --->(SKIP TO 226)

2. No <
98. Not sure/Does not know <
=>(SKIP TO 228)

225. Do you want to have additional children some time in the future?

1. Yes

2. No <
98. Not sure/does not know <
=>(SKIP TO 229)

226. How many additional children do you want to have in the future? Number _____

227. If it were entirely up to you, when would you prefer to have your next child?

1. Within one year
2. After one but before two years
3. Two to four years
4. More than four years
5. Whenever it happens
6. Other _____ (specify)
98. Not sure/does not know

INTERVIEWER: AFTER ASKING 227, SKIP TO 229

228. Before you became pregnant the last time, did you want to have more children?

1. Yes
2. No
98. Not sure/ does not know

229. In your opinion, how old should a woman be before she has her first child? Age_____

230. Some people say that having babies while a woman is still a teen-agger can be harmful to her health. Do you agree or disagree with this statement?

1. Agree
2. Disagree
98. Not sure/ does not know

231. In your opinion, how old should the youngest child be before a woman has another child?

Years_____ Months_____

232. Some people say that having closely spaced pregnancies can be harmful to a woman's health. Do you agree or disagree?

1. Agree
2. Disagree
98. Not sure/Does not know

PART III. FERTILITY REGULATION

301. As you know, there are various ways a couple can delay the next pregnancy or avoid having children if they do not want them. Do you know or have you heard about any of these family planning methods ?

1 Yes 2. No --- (SKIP TO 303)

302. What family planning methods do you know any other ? | PROB: |

INTERVIEWER: CIRCLE CODE 1 (YES) IN COLUMN 2 OF THE KNOLEDGE TABLE BELOW FOR EACH METHOD THE RESPONDENT MENTION

303. INTERVIEWER: FOR EACH METHOD NOT CIRCLED IN COLUMN 2, ASK:

Just to be sure have you ever heard about_____?
(Method)

INTERVIEWER: CIRCLE RESPONSE IN COLUMN 3.

1 METHOD	2 KNOWLEDGE (UNPROMP-TED)	3 KNOWLEDGE (PROMPTED)	4 EVER USE	5 CURRE-NT USE
01. Pill Women can take a pill every day.	1. Yes	2. Yes 3. No	1. Yes 2. No	01 Yes
02. IUD Women can have an IUD or coil placed inside them by adoctor or a nurse.	1. Yes	2. Yes 3. No	1. Yes 2. No	02 Yes
03. Injectable Women can have an injection given by a doctor or nurse which stops them from becoming pregnant for several months.	1. Yes	2. Yes 3. No	1. Yes 2. No	03 Yes
04. Vaginal methods	1. Yes	2. Yes 3. No	1. Yes 2. No	04 Yes
05. Condom Men can use a rubber sheath during sexual intercourse.	1. Yes	2. Yes 3. No	1. Yes 2. No	05 Yes
06. Tubal ligation Women can have an operation to avoid having any more children.	1. Yes	2. Yes 3. No	1. Yes 2. No	06 Yes
07. Vasectomy Men can have an operation to avoid having any more children.	1. Yes	2. Yes 3. No	1. Yes 2. No	07 Yes
08. Induced Abortion	1. Yes	2. Yes 3. No	1. Yes 2. No	08 Yes
09. Prolonged BreastFeeding	1. Yes	2. Yes 3. No	1. Yes 2. No	09 Yes
10. Rhythm couples can avoid having sexual intercourse on certain days of the month is more likely to became pregnant.	1. Yes	2. Yes 3. No	1. Yes 2. No	10 Yes
11. Withdrawal Men can becareful and pull out the climax.	1. Yes	2. Yes 3. No	1. Yes 2. No	11 Yes
12. Abstinence	1. Yes	2. Yes 3. No	1. Yes 2. No	12 Yes
13. Other	1. Yes	2. Yes 3. No	1. Yes 2. No	13 Yes
				96 N.U

304. INTERVIEWER: FOR EVERY METHOD WHICH THE RESPONDENT KNOWS, ASK:

Have you (or your spouse) ever used _____?
(Method)

INTERVIEWER: CIRCLE RESPONSE IN COLUMN 4

305. Now I would like to ask you some questions about the first contraceptive method you used. What was the name of the method ?

Method _____

306. Was the method your choice?
1. Yes 2. No

307. From where did you obtain the method?
Source _____

308. Did you face any problem in obtaining the method from _____
(Name Source)
1. Yes 2. No --->(SKIP TO 310) 98. Don't know

309. What problem did you face?

_____

_____

310. In what month and year did you first begin to use this method ? _____ 19 _____
(Month) (Year)

311. How many living children did you have when you first started using the method ? Number _____

312. Were you using the method to cease childbearing or space birth ?
1. Cease childbearing 2. Space 3. Other _____
(Specify)
98. Don't know

313. Are you still using the method ?
1. Yes --->(SKIP TO 320) 2. No

314. When did you stop using the method ?

_____ 19 _____
(Month) (year)

315. Why did you discontinue using the method ?

1. Became pregnant
2. Began using another method
3. Wanted to get pregnant
4. was no longer exposed (husband away)
5. Menopausal
6. Spontaneous expulsion of IUD
7. Method not available
8. Had side effect
9. Opposition of husband
10. Not satisfied with the method
11. Other _____ (Specify)

316. Are you or your spouse currently using some family planning method or doing something to avoid a pregnancy?
1. Yes --->(SKIP TO 318)
2. No

317. Have you or your spouse used any method in the past month?
1. Yes
2. No --->(CIRCLE CODE 96 (NOT USING) IN COLUMN 5 AND SKIP TO 330)

318. What is (was) that method ?

INTERVIEWER: WRITE THE NAME OF THE METHOD BELOW AND CIRCLE THE CODE FOR METHOD IN COLUMN 5

Method _____

319A. In what month and year did you first begin to use this method ?

_____ 19_____ (Month) (Year)
98. Don't know

(SKIP TO INSTRUCTIONS BEFORE 320)

319B. How long ago did you first begin to use this method ?

_____19_____ (year) (Month)

INTERVIEWER: IF METHOD 05 OR 06 IS CIRCLED IN COLUMN 5 OF THE KNOWLEDGE TABLE, SKIP TO 323

320. Do you plan to continue using your present method during the next six months or is it possible that you will stop before that ?

1. Continue (SKIP TO 322)
2. Discontinue
98. Don't know (SKIP TO 322)

321. Why do you plan to stop using your method ?

1. Health reasons
2. Religious reason
3. Menopausal
4. Want more children
5. Husband away
6. Use other method
7. Method not available
8. Afraid of side effects
9. Other _____ (Specify)

322. Are you using your present method to cease childbearing or space births ?

1. Cease childbearing
2. Space
3. Other _____ (Specify)
98. Don't know

323. If it were up to you what would you prefer to use now ? your present method or some other method ?

1. Present method (SKIP TO 326)
2. Some other method
3. No method (SKIP TO 326)

324. What method would you rather use ?

Method _____

325. Why do you want to change your current method ?

1. Health problem
2. Problem With using current method
3. Method not available
4. Other _____ (Specify)

326. Have you or your husband experienced any other problems or difficulties with your present method ?

1. Yes
2. No ---- (SKIP 328)

327. What problems or difficulties did you have ?

1. Health problem
2. Irregular period
3. Nervous
4. Headache
5. Eye problems (sight)
6. Reduction in sex drive
7. Psychological problem
8. Sleeplessness/tension
9. Other _____ (Specify)

328. Is it suitable to begin using family planning before giving birth to any children ?

1. Yes (SKIP TO 326)
2. No
98. Don't know (SKIP TO 326)

329. How many children should a woman have before she and her husband begin to use family planning ?

Number _____ 96. Should not use

330. Do you approve or disapprove of a woman using family planning?

1. Approve
2. Conditionally approve
3. Disapprove
4. Don't know

331. Now I would like you to tell me about your use of family planning since January, 1992. What methods of family planning have you used since that time? Please name all the methods you have used in the order in which you used them, beginning with any method you were using in January, 1992. Or with the first method you began using after that time. If you stopped using a method at any time and then began using it again later, please be sure that you tell me all of the different times that you used the method during this period?

INTERVIEWER: WRITE THE NAMES OF THE METHODS IN THE ORDER THAT THEY ARE MENTIONED BY THE RESPONDENT IN COLUMN 2 OF THE CONTINUATION TABLE (A-1), THEN ASK 328 AND 329 FOR EACH METHOD.

TABLE A-1

TABLE OF CONTINUATION OF USE

1 ORDER OF USE	2 METHOD CODE NAME	3 STARTING DATE 332. In what month and year did you first start using this method?	4 STOPPING DATE 333. In what month and year did you stop using this method?
_____	_____ _____	Month_____19___	Month_____19___ 95 Still Using
_____	_____ _____	Month_____19___	Month_____19___ 95 Still Using
_____	_____ _____	Month_____19___	Month_____19___ 95 Still Using
_____	_____ _____	Month_____19___	Month_____19___ 95 Still Using
_____	_____ _____	Month_____19___	Month_____19___ 95 Still Using
_____	_____ _____	Month_____19___	Month_____19___ 95 Still Using

INTERVIEWER: IF THERE IS AN INTERVAL OF NON USE BETWEEN ANY TWO METHODS ABOVE, THAT IS, A PERIOD OF TIME BETWEEN THE DATE THE RESPONDENT STOPPED USING ONE METHOD AND BEGAN USING ANOTHER METHOD PROBE AS FOLLOWS:

Did you use any other family planning method after you stopped using (method) and before you started using (method)?

1. Yes 2. No

NTERVIEWER: IF THE RESPONDENT MENTIONS USING A METHOD DURING THE PERIOD, ENTER IT IN THE CONTINUATION TABLE (A-1) AND ASK 328 AND 329

INTERVIEWER: CHECK TO SEE THAT ALL OF THE METHODS LISTED ABOVE ARE CIRCLED IN COLUMN 4 OF THE KNOWLEDGE TABLE. PROBE TO CORRECT ANY ERRORS.

IF THE RESPONDENT IS CURRENTLY USING A METHOD (A METHOD 01-13 IS CIRCLED IN COLUMN 5 OF THE KNOWLEDGE TABLE), CHECK TO SEE THAT THE RESPONDENT HAS REPORTED THAT SHE IS STILL USING THAT METHOD, PROBE TO CORRECT ANY ERRORS.

INTERVIEWER: AFTER MAKING ANY CORRECTIONS THAT ARE NEEDED IN THE LIST ABOVE, NUMBER THE METHODS IN COLUMN 1 OF THE TABLE IN THE ORDER OF THEIR USE ACCORDING TO THE STARTING DATES RECORDED IN COLUMN 3.

FINALLY, ENTER A CODE FOR EACH METHOD IN THE BOXES IN COLUMN 2.

CODE	METHOD
01	Pill
02	IUD
03	Vaginal method
04	Condom
05	Tubal ligation
06	Vasectomy
07	Injection
08	Abortion
09	Breast-feeding
10	Rhythm
11	Withdrawal
12	Abstinence
13	Other

INTERVIEWER: WRITE THE METHOD NAME AND CODE FOR EACH METHOD THE RESPONDENT HAS USED IN THE ORDER SHE REPORTED USING THEM AT THE TOP OF TABLE A-2 ON THE NEXT PAGE

TABLE A-2

TABLE OF CONTINUATION OF USE

	1	2	3	4	5	6
METHOD NAME METHOD CODE	_____ ___	_____ ___	_____ ___	_____ ___	_____ ___	_____ ___
	IF THE RESPONDENT WAS USING BREAST-FEEDING, RHYTHM, WITHDRAWAL OR OTHER FOLK METHOD (08-13) SKIP TO 335.					
334. From where did you obtain this method? 01 FP clinic 02 Hospital 03 Health station 04 T. Factory clinic 05 Private clinic 06 Pharmacy 07 CBD agent 08 Other_____ (Specify)	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8
335. Why did you stop using the method? 1 Became pregnant 2 Began using another method 3 Wanted to get pregnant 4 Was no longer exposed (Husband away) 5 Method not available 6 Spontaneous expulsion of IUD 7 Had side effect 8 Opposition of husband 9 Not satisfied with method 10 Other_____ (Specify) 19 No reason 95 Still using 98 Not sure/Don't know	1 2 3 4 5 6 7 8 9 10 11 95 98	1 2 3 4 5 6 7 8 9 10 11 95 98	1 2 3 4 5 6 7 8 9 10 11 95 98	1 2 3 4 5 6 7 8 9 10 11 95 98	1 2 3 4 5 6 7 8 9 10 11 95 98	1 2 3 4 5 6 7 8 9 10 11 95 98
	IF THE RESPONDENT BECAME PREGNANT WHILE USING THE METHOD (CODE 1 CIRCLED FOR 335) GO ON THE NEXT CIRCLED METHOD AND ASK 334-337. IF CODE 95 IS CIRCLED GO TO 401.					
336. Did you became pregnant after you stopped using this method and before you began using another method? 1. Yes 2. No	1 2	1 2	1 2	1 2	1 2	1 2
	IF "NO" (CODE 2) IS CIRCLED ABOVE GO ON TO THE CIRCLED METHOD AND ASK 334-337.					
337. When did that pregnancy begin? Month_____ 19_____	Mo._____ 19_____	Mo._____ 19_____	Mo._____ 19_____	Mo._____ 19_____	MO._____ 19_____	Mo._____ 19_____

PART IV. MARITAL STATUS

401. Now I would like to ask you some questions about your marital status. What is your marital status ?

1. Married ----------->(SKIP TO 404)
2. Divorced
3. Separated ==========>(SKIP TO 403)
4. Widowed
5. Never married

402. Have you ever had a partner ?
1. Yes 2. No ----------->(TERMINATE INTERVIEW)

403. At present do you have a partner ?
1. Yes 2. No -------->(SKIP TO 412)

404. Is your partner living with you these days or is he living away some where ?
1. Living with her ------->(SKIP TO 406)
2. Away

405. How long has he been away ?
Year_____ Month _____(IF LESS THAN ONE MONTH WRITE "00" MONTHS)

406. Do you think that he wants to have more children in the future ?
1. Yes 2. No 98. Not sure/Dose not know

407. As far as you know, Is it physically possible for you and your partner to have a child in the future?
1. Yes 2. No 98. Not Sure/does not know

408. Do you think your partner approves or disapproves of family planning ?
1. Approve 2. Disapprove 3. Says it depends
4. Does not care/Has no opinion 98. Not sure/dose not know

409. How often have you talked to your partner about family planning in the past ?
1.Never 2. once 3. Three or more times

410. Did your partner ever attend school ?
1.Yes 2. No --->(SKIP TO 412) 3.Not sure/doesn't know

411. What was the highest grade which he passed at school or at the university ?

INTERVIEWER: CIRCLE LEVEL AND GRADE

LEVEL	GRADE
1. Primary	0 1 2 3 4 5 6
2. Junior High School	7 8 <=
3. Senior High School	9 10 11 12 =>SKIP TO 414)
4. University	1 2 3 4 5 6<=
5. literacy program	
6. Other non formal	
7. Other.....	
(Specify)	
98. Not sure/doesn't know	

412. Can he read a news paper, magazine or a letter, for example?
1. Yes 2.No 98. Don't know
(SKIP TO 414)

413. Can he write a letter, for example?
1. Yes 2. No 98. Don't know

414. Did your husband do any work in the past month?
1. Yes 2. No --->(SKIP TO 416)

415. What kind of work did he do?

_____

416. Now think back to the time when you first got married. Please give me the date when you began your marriage.

Month_____19_____

INTERVIEWER: IF RESPONDENT DOES NOT KNOW DATE, ASK:

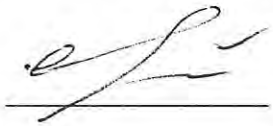
How old were you when you first married ?
Age _____

INTERVIEWER: THANK THE RESPONDENT AND TERMINATE THE INTERVIEW

DECLARATION

I, the undersigned, declare that this thesis is my work and that all sources of the materials used for this thesis have been dully acknowledged.

Name YITAYEW AYALEW

Signature 

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Date of Submission June 1998.