

ADDIS ABABA UNIVERSITY  
DEPARTMENT OF REGIONAL AND LOCAL DEVELOPMENT STUDIES

USERS AWARENESS AND PRACTICE ON EMERGENCY CONTRACEPTION  
AMONG YOUTH IN ADAMA AND BAHIR DAR UNIVERSITIES, ETHIOPIA

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## ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
CHW	Community Health Workers
CPR	Contraception Prevalence Rate
EC	Emergency Contraception
ECP	Emergency Contraceptive Pills
EDHS	Ethiopia Demographic and Health Survey
EPHA	Ethiopia Public Health Association
FGD	Focus Group Discussion
ESOG	Ethiopia Society of Obstetricians and Gynecologist
FGAE	Family Guidance Association of Ethiopia
HIV	Human Immunodeficiency Virus
HBM	Health Belief Model
ICPD	International Conference on Population and Development
IPPF	International Planned Parenthood Federation
IPAS	International Project Assistance Service
IUCD	Intra Uterine Contraceptive Device
KI	Key Informant
KII	Key Informant Interview
MDG	Millennium Development Goals
MOH	Ministry of Health
OTC	Over the Counter (Prescription Free)
PPFA	Planned Parenthood Federation of America
RH	Reproductive Health
SRH	Sexual Reproductive Health
STI	Sexually Transmitted Infection
TFR	Total Fertility Rate
WHO	World Health Organization
WSG	Women Support Group

## ABSTRACT

*Unsafe abortion is a major public health problem in Ethiopia contributing to the high maternal mortality rate. The youth constitute a high risk group for unsafe abortions. It can be lessened by the use of ECP to prevent unintended pregnancy. Despite the availability of the method, access to and use of this method remains low in the country. The purpose of this study was to evaluate knowledge, attitudes and practice of ECP among university students in Adama and Bahir Dar, Ethiopia.*

*A sample of 400 female students of Adama and Bahir Dar Universities and 40 service providers in the two towns were selected for the study. Data were collected by a self-administered, anonymous and pre-tested questionnaire, FDGs and KIIs.*

*The findings of the study indicate that of the total potential ECP users a slightly less than 50% were aware of the method and much lesser in Bahir Dar University. The majority of the health service providers who participated in the KII and the FGD participants reported that they had heard about the method. However, knowledge of the general features of emergency contraceptive pills was very low and misinformation was high among these groups. Awareness about EC was more strongly associated with prior sex practice. Users and providers generally had positive attitudes regarding emergency contraceptive pills; however, some believed that emergency contraceptive pills were abortifacient. Those with adequate knowledge generally showed favorable attitudes towards emergency contraceptive pills. Few respondents (less than 10%) had used emergency contraceptive pills. Prescription pattern of providers was very low. Media and friends were important source of information on ECP for most of the respondents familiar with the method.*

*The study recommends an urgent need to educate the youth about ECP including the correct timing of use. Health service providers need training about ECP. It is also recommended that training programs target the types of providers who are less knowledgeable about the method.*

## **CHAPTER ONE**

### **INTRODUCTION**

This chapter is an introduction to the study. It gives an outline of the study, describes the background to the problem, formulates the statement of the problem and discusses the significance of the study. It also includes research questions, goal and specific objectives. Research methodology and design, data collection techniques, background of the study sites are also briefly described.

#### **1.1. Background to the Problem**

It is estimated that 84 million unwanted pregnancies occur annually worldwide and that is the main cause for unsafe abortion, one of the most important factors of maternal morbidity and mortality (WHO, 2003). The same source also notes that 46 million abortions take place every year, out of which 20 million are performed under unsafe conditions. Consequently, seventy thousand women die yearly as a consequence of unsafe abortion, while five million suffer from permanent or temporary morbidity in the world. Young and unmarried women constitute a high risk group for unsafe abortions.

An estimated 3.7 million unsafe abortions are performed each year in sub-Saharan Africa. Abortion complications account for an estimated 13% of all maternal deaths in Africa (WHO, 1994). In some countries hospital-based studies report much higher percentages. For example, in Ethiopia a hospital-based study estimated that abortion complications accounted for nearly 40% of maternal deaths (WHO, 1994)

In Ethiopia, a national survey undertaken in 2005 reported that contraceptive prevalence rate was less than 24 percent; only 18 percent used modern contraceptives, and the unmet need for family planning was 41 percent (EDHS, 2005). According to EDHS (2005), nearly half of all pregnancies in Ethiopia are unintended, and half of these pregnancies

end in induced abortion. Maternal mortality ratio for Ethiopia is 673 per 100,000 live births, and complications from unsafe abortion account for almost 55 percent of all these deaths (EDHS, 2005). As elsewhere in the developing world, the most exposed and vulnerable groups are students, and single or unmarried women. Emergency contraception was officially launched in Ethiopia in 2004 by the Ministry of Health, with the aim of improving the reproductive health situation in the country. Yet, the service is grossly underutilized in the country. The consequences of unplanned pregnancies in Ethiopia are multiple: high rate of school dropouts, unsafe and illegal abortions and the consequent risk of very serious morbidity and mortality (IPAS, 2002).

The socioeconomic burden of unintended pregnancy is significant but also largely preventable. In recent years, many low and middle income countries have supported the use of Emergency Contraception (EC). However, it remains pretty unknown and underused in those countries. Emergency contraception (EC) refers to the type of contraception that is used as an emergency course of action to prevent unintended pregnancy subsequent to an unprotected sexual intercourse (IPPF, 2004). EC has been shown to be safe and effective since its introduction. It has been estimated that widespread use of emergency contraception may significantly reduce unwanted and teenage pregnancies and the number of abortion-related morbidity and mortality (WHO, 2003). The use of EC prevented more than 50,000 abortions in the year 2000 and accounted for 43% of the total decrease in the abortion rate from 1994 to 2000 in the United States (PPFA, 2004)

Ethiopia is among the signatories of the International Conference on Population and Development (ICPD) Program of Action 1994, which says that

“...it is the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, and therefore ensuring access to family planning information and services is an important activity in the reduction of deaths due to unsafe abortion...”(ICPD, 1994: 62)

Reducing maternal mortality rates by 75 percent is included in number 5 of the Millennium Development Goals (MDGs). Hence, promoting EC is related to the third MDG that is “Gender equality and empowerment of women”. Strategies to decrease maternal mortality in least developing countries include improving access to emergency obstetric care and family planning services (WHO, 2005).

Expanding women’s access to safe, and voluntary family planning counseling and services, and to a range of modern, safe effective contraceptives will allow them to plan the timing and spacing of their births. Ensuring that the need for contraception is met will reduce maternal mortality substantially and improve maternal health by avoiding unsafe abortion. The most common methods of emergency contraception include hormonal contraceptive pills (also called morning-after pills), intrauterine contraceptive devices and mifepristone (IPPF, 2004). This study will focus on the type of Emergency Contraception Pills called dedicated EC product Postinor 2. In the past, emergency contraceptive pills (ECP) were thought to be effective only within 72 hours, but recent studies have confirmed that they are effective for up to 120 hours (IPAS, 2002). Situations of unprotected intercourse that demand the use of emergency contraception include failure of barrier methods such as slippage, breakage or misuse of condom, sexual assaults, failed coitus interrupts, two or more consecutive missed oral contraceptive pills, or simply because intercourse was unexpected and therefore contraception had not been used. Extensive use of EC therefore could be a potential strategy to reduce the incidence of unwanted pregnancies and unsafe abortions in Ethiopia.

## **1.2. Statement of the Problem**

In Ethiopia, maternal mortality ratio is estimated at 673 per 100,000 live births (EDHS, 2005). Complications from unsafe abortion account for around 55 percent of all the maternal deaths (EDHS, 2005). The use of EC can potentially play an important role in reducing unwanted pregnancies and hence deaths related to unsafe abortion.

Emergency contraception was officially launched in Ethiopia in 2004 by the Ministry of Health, with the aim of reducing unwanted pregnancies and improving maternal health. Previous studies conducted in Ethiopia that focused on the subject (Kebede, 2006 and Wegene and Fikre, 2007) examined knowledge, attitudes, and practice of users with respect to EC. These studies have also identified barriers to use of EC, most notably lack of awareness. These studies revealed generally favorable attitudes towards EC but low level of awareness and insufficient knowledge about the method. To my knowledge, however, no study has specifically examined providers' perceptions about the method while they are equally pertinent. In general, there is insufficient research-based information on knowledge, attitudes and practices of young, unmarried women (most vulnerable groups) regarding ECP. Such researches are useful in designing effective strategies for expansion of the EC service, and to inform decision makers for policy-making in the area of SRH. This study is a contribution to this gap. The study will provide baseline data to assist policy makers in developing appropriate evidence-based strategies to promote the use of emergency contraceptive pills in Ethiopia.

This study used a case study approach to assess the knowledge, attitude and practice of ECP among youth. The study is undertaken in Adama and Bahir Dar towns and the study population was university students. The two universities were selected as they are found in easily accessible and the fast growing towns. From personal observation, the university campuses are surrounded by a number of night clubs, bars and "chat" houses. Students may have easy access to these places in turn vulnerable to unprotected sex and unintended pregnancy. Besides, the towns are known for their higher incidences of deaths related to unsafe abortion (MOH, 2004).

### **1.3. Objectives of the Study**

#### **1.3.1. General Objective**

The general objective of the study is to explore awareness of, knowledge about, attitudes and practice of ECP among youth and health service providers, with the view to identifying plausible strategies for reducing unwanted pregnancies and associated morbidity and mortality.

### **1.3.2. Specific Objectives**

The specific objectives of the study are:

- to assess awareness of, knowledge about, use of and attitudes towards ECP among female university students from Adama and Bahir Dar Universities;
- to assess health care providers' knowledge, attitudes and prescription practice of ECP; and
- to recommend on possible strategies to expand ECP prevalence rate in Ethiopia

### **1.4. Research Questions**

The specific research questions that the study tried to answer were;

- What is the level of knowledge about, use of and attitudes towards ECP among youth in Ethiopia?
- What is the knowledge, attitudes and prescription patterns of ECP among health care workers?
- What additional measures can be instituted to improve ECP prevalence rate?

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

EC has been revealed as providing women a second chance to prevent unwanted pregnancies and unsafe abortions. The Ethiopian restrictive abortion law still contributes to the growth of the number of unwanted pregnancies that put women's lives in danger by acquiring unsafe abortion (IPAS, 2002). Since ECP has been a recent phenomenon in Ethiopia, there are very limited studies conducted about the knowledge, attitude and practice of ECP in the area of public health. The existing literatures focus on ECP among abortion seeking clients in Addis Ababa and few other regional towns. To my knowledge studies that focus on ECP has not been conducted in Adama and Bahir Dar Universities so far. This study is thus an important contribution. As published and unpublished studies in the subject matter are scanty, it will also serve as reference for further research initiatives. The study was conducted with the intention to contribute to looking at ECP from the perspective of potential users and health care providers.

## **1.6. Methodology**

In this study primary and secondary data were gathered. The data processing and analysis was done using statistical techniques with SPSS.

### **1.6.1. Research Population and Sample**

The research population for this study covered all the female students from Adama and Bahir Dar Universities. The total number of female students from the two universities was 3158 (1726 from Adama and 1432 from Bahir Dar). A two stage sampling process was followed. At the first stage purposive sampling method was used to select the two universities (Adama and Bahir Dar) among others found in the country. The reasons for selecting these Universities were that they are found in easily accessible and the fast growing towns and students are vulnerable to unprotected sex and unintended pregnancy. Besides, the towns are known for their higher incidences of deaths related to unsafe abortion (MOH, 2006).

In the second stage, a total of 400 female students, 200 each from each university were selected by a convenience sampling method. This number represents more than 12% of the total female student population of the two universities. These students were included in the sample randomly and it was found representative as well. All female students of the two universities were eligible for the survey. However, only students who were present in the university dormitory at the time of the survey actually participated in the study by completing a questionnaire.

### **1.6.2. Study Design**

The study is a cross sectional survey with both quantitative and qualitative components. Female students from the two universities and attendants of FGDs and KIIs from the health service centers were the sampling unit for the quantitative and qualitative studies respectively.

### **1.6.3. Data Collection Instruments and Management**

The self-administered structured questionnaire comprised 36 questions (Appendix I) was used to collect the information from female undergraduate students of the two universities. The questionnaire was initially designed taking into consideration similar surveys that have been carried out in other studies (Wegene and Fikre, 2007, Olufunke M. E, et al., 2006 and Muia, E., et al., 1999). It was tested among 20 students of the Adama University. The completed questionnaires were then studied to identify issues that needed amendment. As a result, some questions were rephrased to avoid misinterpretation.

The questionnaire covered demographic data, followed by questions on experience of sexual intercourse, contraceptive habits, the contraceptive method used before (if any), abortion etc. This was followed by questions regarding knowledge, attitudes and practice of ECP, including an open-ended question on opinions as to how potential users can be better informed about the method. Free space was left on the last page of the questionnaire for voluntary remarks.

The students were identified and approached individually from their dormitories where they were residing. All students participated in the survey managed to understand and answer the questions within 30-45 minutes. Two senior female university students and girls' club members from each university were recruited and trained for data collection. The female data collectors were preferred as males are not allowed to visit the female students' dormitories. No apparent problems were encountered during completion of the questionnaire except that few technical terms were apparently not well known by the respondents. The data collectors provided explanation upon request.

FGDs were conducted to collect qualitative data for the study. Two focus group discussions (among female university students) were conducted. A topic guide with semi-structured open-ended questions about knowledge of (8 questions) and attitudes (4) to ECP was used (Appendix II). The two groups were asked the same questions but not necessarily in the same order. On average each FGD session took one hour. The data

collectors conducted the FGD sessions. FGD guide and note taking was used as a data collection tool.

KIIs were conducted to collect additional information from health service providers in the study sites. The data collectors were trained on the content of the questions and interviewing techniques. A topic guide with semi-structured open-ended interview questions about knowledge (4 questions), experiences (3), and attitudes (4) about ECP were posed (Appendix III)

For descriptive statistics results were expressed in terms of proportions or percentages and for analytical statistics odds ratios were used to examine the relation between variables. A multivariate logistic regression model was used to refine the understanding of the variables associated with ECP awareness. This helped to examine the main predictors for dependant variable that was awareness about ECP.

#### **1.6.4. Ethical Considerations**

Students were enrolled into the study after obtaining their prior verbal consent. Information was provided to all on the objective of the study. Maximum effort was made to maintain privacy during data collection process. Confidentiality of information was assured by omitting names of the study subjects from the questionnaire.

#### **1.7. Limitations of the Study**

This study assessed and analysed knowledge as well as patterns of perception and practice on emergency contraception among youth in Ethiopia. The limitations of the study were that it was limited to two towns and only university students and such a sample may not be representative of the target population. It does not cover young married couples, and more than two study areas. The knowledge, attitude and patterns of prescription of emergency contraceptives among health care providers and health institutions outside Adama and Bahir Dar towns were not assessed.

### **1.8. Organization of the Thesis**

This study consists of five chapters. Chapter one presents the introduction and background of the study. It includes the problem of the statement, purpose of the study, significance of the study, research questions, theoretical framework and limitation of the study. It introduces the methodology for the study, scope and limitation, definition of terms used in the study and outline of the study. Chapter two reviews relevant literatures on related subject. Chapter three outlines description of the study area. Chapter four presents the results and discussions. Chapter five presents summary, conclusion and recommendations and implication of the study for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

The purpose of the literature review is to gain knowledge about the research topic and studies already conducted by other researchers on similar topics. Findings from similar studies helped to refine the statement of the problem and the research questions of the current study. Information about various models and theories used by other researchers on similar studies was taken as a reference. It was also used in forming a basis for comparisons when interpreting findings of the study.

The chapter focuses mainly on literature related to the research topic that is Users and Providers Perspectives: Emergency Contraception among youth in Adama and Bahir Dar Universities, Ethiopia. It is divided into three major parts. The first part highlights the definition of concepts. This is followed by the conceptual framework. The third part highlights empirical works done on the subject. The Health Belief Model will be adopted and used to guide this study.

#### **2.1. Definition of Concepts**

##### **Reproductive Health (RH)**

RH is defined as a state of physical, mental and social wellbeing in all matters relating to RH systems at all stages of life (WHO, 1998)

##### **Emergency Contraception (EC)**

EC is contraception administered subsequent to unprotected intercourse to prevent unintended pregnancy. Emergency contraception also known as “postcoital contraception” allows women a second chance to avoid unplanned pregnancy. EC is advised for emergency use only and not recommended as regular contraception. (PPFA, 2004)

**Youth** - WHO (2007) refers youth to those in the 15-24 age range. The Ministry of Youth, Sports and Culture of Ethiopia defines Youth as “part of the society who are

between 15-29 years old” (Ministry of Youth, Sports and Culture of Ethiopia, 2004). This study adopted the operational definition of youth from WHO (2007) that youth are those between 15-24 age range.

**Gender** - Gender refers to the economic, social and cultural attributes and opportunities associated with being male or female in a particular point in time ([www.hrsb.ns.ca/content/id/1008.html](http://www.hrsb.ns.ca/content/id/1008.html)).

**Unsafe Abortion** - Abortion is unsafe when it is "carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both" (WHO, 2007).

**Attitude** - A summary of evaluations regarding an object of thought; a settled way of thinking or feeling about someone or something, sometimes reflected in a person's behavior. Attitude often means some degree of aversion or attraction that reflects the classification and evaluation of objects and events. While attitudes are logically hypothetical constructs (i.e. they are inferred but not objectively observable), they are manifested in conscious experience, verbal reports, overt behavior, and physiological indicators ([www.britannica.com](http://www.britannica.com))

**Knowledge**- Knowledge – is the act of intellectual learning, of understanding a fact or a truth, cognition, understanding, perception, discernment, theoretical or practical mastery of a subject, art or a science (Salles, 2001 cited in De Freitas, E. 2007). For the purpose of this study, the level of knowledge among the study subjects would be scored using their answers for the questions regarding knowledge about ECP.

## **2.2. Conceptual Framework**

A number of theoretical models have been developed to explain and predict human behavior. The Health Belief Model (HBM), the Stages of Change (Transtheoretical) Model, the Theory of Planned Behavior (TPB) and the Precaution Adoption Process Model (PAPM) are among contemporary theories of health behavior at the individual and interpersonal levels (National Institute of Health (USDHHS) (2005). The individual behavior is the fundamental unit of group behavior. In order to explain and influence the

behavior of individuals, the individual level is the most basic one in health promotion practice. Three key concepts cut across these theories:

1. Behavior is mediated by cognitions; that is, what people know and think affects how they act.
2. Knowledge is necessary for, but not sufficient to produce, most behavior changes.
3. Perceptions, motivations, skills, and the social environment are key influences on behavior.

In addition to exploring behavior, individual-level theories focus on intrapersonal factors (those existing or occurring within the individual self or mind). Intrapersonal factors include knowledge, attitudes, beliefs, motivation, self-concept, developmental history, past experience, and skills. Individual-level theories are presented below.

The Health Belief Model (HBM) addresses the individual's perceptions of the threat posed by a health problem (susceptibility, severity), the benefits of avoiding the threat, and factors influencing the decision to act (barriers, cues to action, and self-efficacy

The Stages of Change (Transtheoretical) Model describes individuals' motivation and readiness to change a behavior. The model's basic premise is that behavior change is a process, not an event. As a person attempts to change a behavior, he or she moves through five stages: pre-contemplation, contemplation, preparation, action, and maintenance.

The Theory of Planned Behavior (TPB) examines the relations between an individual's beliefs, attitudes, intentions, behavior, and perceived control over that behavior. The TPB assume behavioral intention is the most important determinant of behavior. According to the model, behavioral intention is influenced by a person's attitude toward performing a behavior, and by beliefs about whether individuals who are important to the person approve or disapprove of the behavior (subjective norm). The TPB assumes all other factors (e.g., culture, the environment) operate through the models' constructs, and does not independently explain the likelihood that a person will behave a certain way.

The Precaution Adoption Process Model (PAPM) names seven stages in an individual's journey from awareness to action. It begins with lack of awareness and advances through subsequent stages of becoming aware, deciding whether or not to act, acting, and maintaining the behavior.

Many of them have been used in connection with sexual and reproductive health. Among these, the Health Belief Model (HBM) was selected and adopted to serve as an appropriate conceptual framework to assess user's and providers' participation in ECP use and avoid unintended pregnancy for this study. The units of analysis (individual level), the topic (health problem) and the type of behavior to be addressed were among the major reasons to adopt the HBM. Likewise and it is one of the most widely used theories of health behavior and it offers a conceptual framework that identifies factors affecting human behavior in relation to (personal) health and was found to be consistent with everyday observations and supported by previous studies (Mbambo et al., 2006; EK, 2008). The model provided a framework for assessing the perceptions, knowledge, and practice of ECP and demographic variables of participants. The outcome of use of ECP was appropriately identified as the action component of the model. The literature review will be discussed with reference to the main components of the HBM namely individual perception, modifying factors and variables affecting the likelihood of initiating actions.

### **The Health Belief Model (HBM)**

The HBM was originally developed in the 1950's by a group of U.S public health service social psychologist to explain why so few people were participating in different health service programs (Onega, 2001). The model has been adopted and widely used in the field since then. The model is a conceptual framework that attempts to explain and predict health behaviors by focusing on attitudes and beliefs of individuals. The model (Figure 2.1) has several components added to address existing health problems and remedial interventions. According to the model, the likelihood that an individual will take an action depends on his/her perception of the potential illness (problem), perception of

illness consequences, and perceived benefits and barriers associated with participating in the behavior (Janz et al., 2002).

Components of the HBM address individual perceptions of a particular health threat, benefits of avoiding the threat, and factors that influence the decision to act. The six main constructs are thought to influence a person's decision regarding whether or not to take action (e.g., use of ECP). Two of the primary constructs are *perceived susceptibility*, which refers to an unwanted pregnancy, and *perceived severity*, the belief that the condition has serious consequences (e.g., abortion or death). In addition to these, other constructs of the HBM are significant, including perceived *barriers* (eg lack of awareness, access, etc) and *perceived benefits* (safety, etc.). The HBM also includes an appreciation for the element of one's confidence to perform the indicated health behavior (e.g., using ECP), resulting in successful limitation of the threat of disease or negative outcome (Unwanted pregnancy). This relates to the construct of *self-efficacy*. According to Onega (2001), self-efficacy links knowledge and action in behavioral change. Onega further describes self-efficacy as the belief in one's ability to accomplish a certain task. Lastly, the *cue to action* construct describes causes that may prompt an individual to take preventive health action. In the example of using ECP, causes may include use of ECP with a close friend, health promotion advertisement, or the influence of a health care provider (Janz et al., 2002). The application of the HBM in this research study is shown in Figure 2.1.

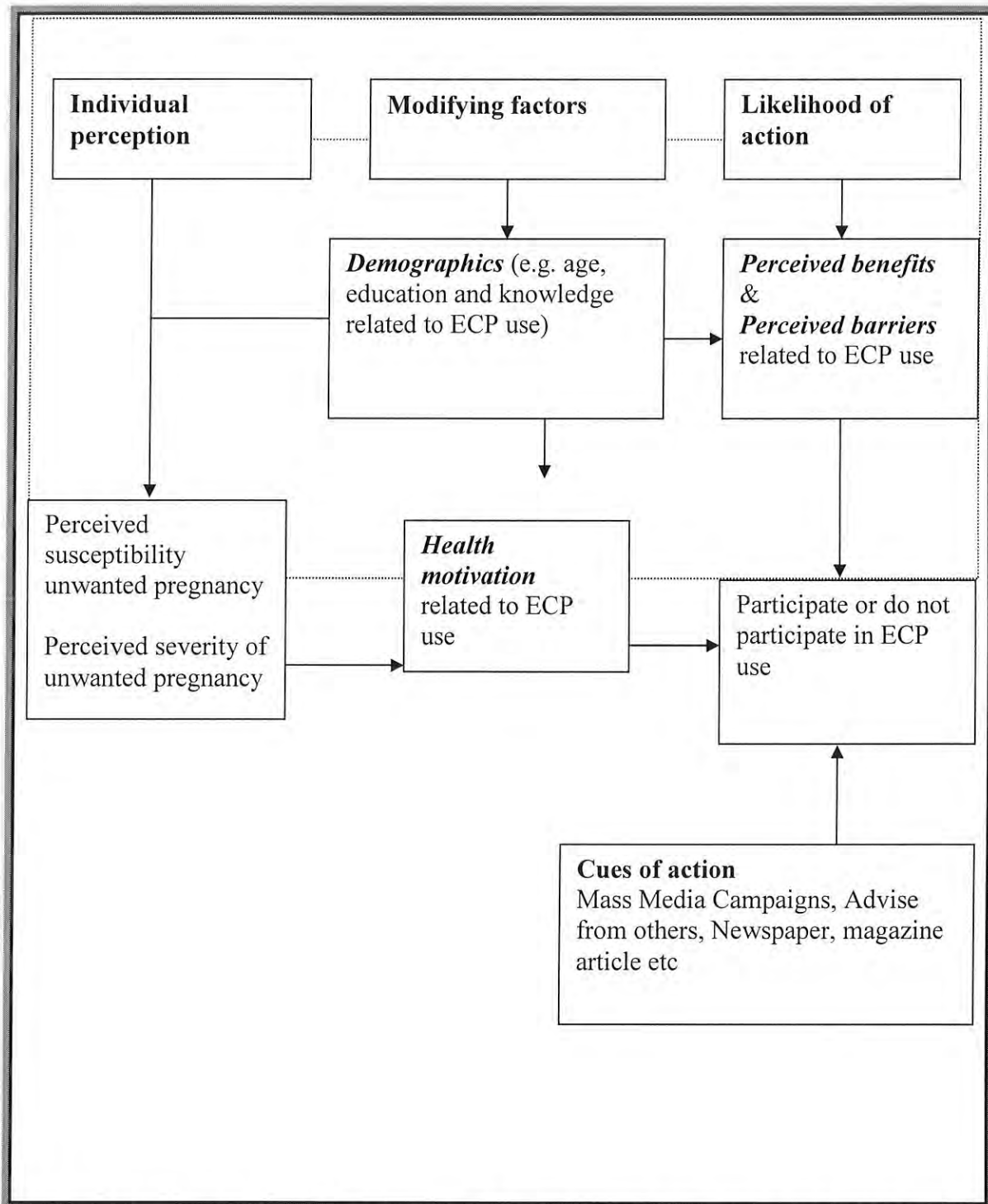


Figure 2.1: Health Belief Model and ECP use: Adapted and Modified from Janz et al., 2002.

### **2.2.1. Perceptions of Users and Providers that could Influence the Use of ECP**

Individual perceptions involve “a person’s beliefs about his/her own susceptibility to diseases plus the seriousness with which he/she views the perceived threat of the illness” (Onega, 2001). Youth’s perception about ECP may change the rate of incidence of unintended pregnancies and unsafe abortions. Unsafe abortion, a result of unintended pregnancies, could have serious implications for the physical, psychological and social well being of the youth. Youth should be well-informed about ECP to enable them to make informed decisions about their SRH. Adequate information about the method can shape young people’s perception and increase the utilization rate of the method when necessary. This would give them one more chance to prevent unwanted pregnancies (PPFA, 2004).

In studies conducted in Kenya, Cameroon and South Africa, less than fifty percent of the study subjects were aware of the availability of ECP. Among these, majority have misconceptions about ECP. These could be potential barriers to ECP utilization. Further, users’ perception is complicated by the fact that providers have negative attitudes and lack of basic knowledge about the method (Ellertson, 2000)

Although the ECP is introduced in many countries including Ethiopia as a dedicated product, there are a number of misconceptions about the method especially among the young users. Lack of knowledge regarding its mode of action and the timeframe for optimal use, difficulties in accessing the ECP on time have been reported as a great barrier to its use (Ellertson, 2000).

### **2.2.2. Modifying Factors that can Affect Utilization of ECP**

Utilization of emergency contraception can be modified by different factors. The factors might be interrelated and/ or interdependent. The outcome of behavior may change due to the influence of numerous surrounding modifying factors. The following are the major factors that can modify the ECP utilization (Onega, 2001)

## **Individual Characteristics**

Individual attributes, like age, gender and educational status have direct influence in contraception usage including ECP.

**Age** is one of the individual attributes that affect the contraception utilization rate. Youth's contraceptive utilization rate might be influenced by ignorance and unavailability of contraceptives. Age might also influence their decision in engaging sexual intercourse and utilization of contraceptives. In order to prevent unplanned pregnancy and induced abortion rate, youth should be given adequate education before they are engaged in sexual activities (IPPF, 2004).

**Gender** is another attribute that affects the utilization rate of contraception. Knowledge, attitudes and practice about sexual issues might be different among youth based on their gender. Males might be willing to participate in reproductive choices and yet less privileged compared to their female peers. Girls and boys might need interventions that could improve their sexual reproductive health knowledge, attitudes and enhance discussions and negotiation skills. Males and females should receive the same information about contraceptives and reproduction. Male adolescents should also be able to control reproductive opportunities by using male condoms to prevent unwanted pregnancies. However, the present study focused only on female students.

“In most societies women are passive, and transgender people marginalized – making all of them vulnerable in different ways to SRH problems and inhibiting access to contraceptives. Women are often economically dependent on men, and have limited power to claim their SRH rights, for example through condom use, or determining resource use for accessing services. It is also often culturally unacceptable for women to express sexuality, which for example could make them unwilling to seek condoms. Violence against women has direct effects such as increased risk of STIs/HIV, as well as indirect such as fear of accessing services, requesting use of condoms” (Amnesty International, 2005).

### **Educational Status**

A person's level of education affects his/her ability to make informed decisions, including contraceptive decisions. Youth who lack education might lack knowledge about contraceptives because they might be unable to understand the relationship between menstruation, coitus, fertility and conception (Mwaba, 2000). Information about sexual and reproductive issues presented in any of the information, education and communication materials might be read and understood only by educated people. Lack of education could hamper young people to understand and personalize information about reproductive health issues, including emergency contraception. Level of education of a person affect the ability to make informed decisions and could impact negatively on his/her awareness of their rights and choices.

### **Psycho- social Issues**

Social values, beliefs and practices influence decision- making about the use of contraception. Some beliefs are beneficial and others are not. Adolescents are influenced by psychosocial variables in deciding about initiating sexual relations and contraceptive use, possibly allowing their individual perceptions to be greatly influenced by their peers' influence and expectations (WHO, 2003).

### **Cultural (traditional) Factors**

Youth from different cultural backgrounds or traditions might be influenced by different factors, or by the same factors but to different extents, not to use contraceptives. Communities from many of Sub- Saharan African countries have negative attitudes towards condom use. This is due to cultural factors including the desire for more children and female sexual compliance to enhance their economic status and increase parents' perceived social security for their old age (WHO, 2003).

### **Economic Factors**

Economic status of women, particularly in Africa, varies from culture to culture. Women of inferior status cannot make decisions affecting their own lives. Women are dependant

on their partners for their livelihood. Hence, they cannot oppose their partner's wishes concerning their reproductive health as they are at risk of losing their only source of financial support for themselves and their children (WHO, 2003).

### **2.3. Variables Affecting Users the Likelihood of Initiating Actions to Use ECP**

Perceived benefits and barriers have impact on youth's decisions to initiate utilization of ECP and avoid unintended pregnancy.

#### **2.3.1. Perceived Benefits of ECP utilization**

Youth should be informed about benefits of ECP. The use of ECP saves women's lives from unplanned pregnancies and unsafe abortion. This improves youth's health by allowing them second chance to prevent unintended pregnancies. Mainly effective use of ECP reduces maternal mortality significantly.

#### **2.3.2. Perceived Barriers to the Utilization of ECP**

The following are among the major barriers that have impact on the utilization of ECP among youth.

#### **Institutional Factors**

Health service conditions in developing countries affect access to EC. Overloaded clinics where demand of contraceptives is not considered urgent, lack of privacy, unfriendly attitudes towards young people, and limited financial resources that prevent acquisition of dedicated EC products, all stand in the way of easy access (PPFA, 2004). Even in developed countries the services may not be sufficiently responsive. This situation is exacerbated by the reluctance of some hospitals to provide what many doctors view as a peripheral service. Along with, when EC is needed, the time frame in which to contact a provider and a pharmacist is relatively short. Any delay increases the chance of pregnancy. Nevertheless, many countries still require a medical prescription to obtain the method (Ellertson, 2000)

### **Attitude of Opinion Makers towards Emergency Contraception**

One of the most important barriers to increase the rate of utilization of EC is the erroneous perception that the method is abortifacient. This concept led to strong opposition of the religious leaders and the anti-abortion groups. As a result, conservative politicians and fundamentalist opinion leaders opposed the introduction of EC in many countries, particularly in Latin America (PPFA, 2004).

### **Service Providers' Attitudes**

Other obstacles affecting access to EC include lack of information among health service providers and pharmacists about this method, how to use it and its mechanism of action and fears related to potential misuse and the widely held misconception that EC promotes promiscuity. Moreover, some providers display judgmental attitudes to the needs of their clients or moral constraints because of the apparent controversy about the mechanism of action of EC (Olufunke et al., 2006)

## **2.4. Empirical Evidences**

### **2.4.1. Global Perspectives about Contraceptives and Abortions**

The consequences of unwanted pregnancies particularly where abortion is legally restricted or partially liberalized is life-threatening. To alter the situation and lessen the incidence, women should access regular and emergency contraceptive pills. In many developing countries, unsafe abortions are a leading cause of death among women of reproductive age. The 2007 WHO Report reveals that complications related with unsafe abortion are responsible for about 13 percent of all maternal deaths. The primary reason for induced abortion is unintended pregnancy. Hence, unsafe abortion is one of the greatest health risks that a young woman can face. In most cases unsafe abortions take place in developing countries, which ended up with serious long-term negative health effects, including infertility and maternal death. Abortions are also a major drain on scarce medical resources.

Expanding information and access to family planning services will allow women to plan the timing and spacing of their births. Improving the status of the unmet need for

contraception will reduce maternal mortality substantially and improve maternal health by avoiding unsafe abortions (IPPF, 2004). In these countries, poverty, malnutrition and lack of sanitation and education contribute to serious health consequences for women and their families experiencing an unintended pregnancy (Klima, 1998). In these settings, the availability of EC would reduce the growing pressure on hospital beds, nursing staff, blood supplies and medication needed to treat any life-threatening medical complication resulting from abortions.

#### **2.4.2. The Millennium Development Goals and International Conference on Population and Development (ICPD)**

The Millennium Development Goal (MDG) to improve maternal health reinforces decades of international commitment and national efforts to address the problems associated with reproductive health, safe motherhood, and family planning. It builds on past global agreements such as the Program of Action of the International Conference on Population and Development (ICPD) held in Cairo in 1994, the Platform of Action of the Fourth World Conference on Women held in Beijing 1995, and the UN International Development Targets established in 1995. The global commitment to achieving the MDGs provides a unique opportunity to revisit, refocus, and scale up resources and program efforts by donors, governments, and civil society to improve maternal and reproductive health for individual and societal well-being.

Access to information and services of family planning can contribute directly to the MDGs to reduce child mortality and improve maternal health. Family planning helps reduce the number of high-risk pregnancies that result in high levels of maternal and child illness and death. Increasing access to and use of family planning is not one of the MDGs; however, it can make valuable contributions to achieving many of the goals. Thus, it is noted;

“...Meeting unmet need for family planning not only allows families to space and limit their births when desired; it can also reduce the costs of meeting the MDGs and directly contribute to the reduction of maternal and child mortality...” (IPPF, 2004)

### **2.4.3. History of Emergency Contraception**

In cases of unanticipated sexual activity, contraceptive failure, or sexual assault ECP have been prescribed for women to reduce the risk of pregnancy. The first documented case of emergency contraception was published in the 1960s after physicians used this method to prevent pregnancy in a survivor of sexual assault. Almost one-third of the ECP prescriptions were for rape survivors until the early 1996. By the end of the 1990's, ECP were widely recognized as a safe and effective method for all women at risk of unintended pregnancy. Formerly, ECP were widely known as "morning-after" pill. However, the term "morning-after" pill is incorrect because the method:

- involves more than one pill
- does not need to occur on the "morning after"
- should not be confused with medical abortion — the "abortion" pill — because ECP cannot terminate an established pregnancy (PPFA, 2004)

The ECP regimen first approved by the U.S. Food and Drug Administration (FDA) is called the Yuzpe Regimen, named for a Canadian Professor A. Albert Yuzpe who published the first studies demonstrating the safety and efficacy of ECP in 1974. The Yuzpe regimen consists of combined oral contraceptive pills that contain the hormones estrogen and progestin taken in two doses, 12 hours apart (PPFA, 2004)

### **2.4.4. The Debate about EC**

EC has been surrounded by controversies about several issues which are discussed below.

#### **The doses**

There have been some worries that the doses of the hormones involved in ECP are high. Some of the concerns include potentially increased risks of cardiovascular events, worries about possible effects on future fertility, feared teratogenic consequences following method failure or unintended use during pregnancy, exaggerated or extreme fears of adverse tolerability, and concerns about drug interactions with other medication. Fears

about side effect such as in ability to conceive later in life if one were to use ECP were expressed. However, considerable available data on ECP confirm an excellent safety profile (Trussell and Raymond, 1990).

### **The Abortifacient Effect**

The other concern is that EC is considered as an abortifacient. The main promoters of the objection that EC is abortifacient, is the Catholic Church in many countries. Thus, ...”a pregnancy begins with a fertilized ovum, medically a woman is considered to be pregnant when a fertilized ovum implants itself in the lining of her uterus, because only then can it grow into a fetus” (Trussell and Raymond, 1990).

However, the function of ECP is to prevent the fertilization of the ovum by preventing ovulation, or by interfering with sperm so that it cannot fertilize the ovum. Studies summarized in Trussell and Raymond (2008) indicate that the Yuzpe regimen mainly inhibits or delays ovulation and may have effects on the endometrium.

### **Impacts on Sexual Activity**

The accessibility of EC is not adequate to support this argument. However, neither EC nor any contraceptive method has been statistically proven to increase sexual activity among users. Others responded to this objection by stressing on the importance of marketing EC properly. It must be presented to women as an emergency, or a last resort if all else fails (Schiappacasse, 2006)

### **Implication on the Use of Other Methods of Contraception**

There are also groups that disclose the possibility of reduction of use of regular contraceptives when EC is used. Supporters of this idea argue that provision to emergency contraception would tempt users to abandon their routine contraceptives and rely on emergency contraception. Several authors have reported that advanced provision has not negatively affected use of routine contraception but in some cases have led to patients switching to more reliable forms of contraceptives. Of all studies that addressed

this issue, only one study indicated that advanced provision of EC led to decreased usage (Trussell and Raymond, 1990).

#### **2.4.5. Gender Perspectives in Emergency Contraception**

Different gender beliefs toward contraception may affect contraceptive use among young people and need to be explored for the development of sexuality education and services aimed for this group.

“Gender refers to women’s and men’s roles and responsibilities that are socially determined. Gender is related to how we are perceived and expected to think and act as women and men, because of the way society is organized and not because of our biological differences. Gender determines what is expected, allowed and valued in a woman or a man in a given context. Gender is relational (based on socially constructed roles for women and men), hierarchical (based on power relations between men and women), historical (changes over time and differs from one culture to another), contextually specific (variations in gender relations depend on ethnicity, age, sexual orientation, religion) and institutionally structured (social relations supported by value, legislation, religion).”  
[www.hrsb.ns.ca/content/id/1008.html](http://www.hrsb.ns.ca/content/id/1008.html)

In most societies there are differences and inequalities between women and men in responsibilities assigned, in activities undertaken, in access to and control over resources, as well as in decision-making opportunities. At times gender may have an effect on how counseling is performed regarding contraceptive use and other RH related issues (PPFA, 2004).

Use of FP methods is facilitated when husbands and wives discuss the issue and air their views. According to the 2005 EDHS, knowledge of at least one method was slightly higher among women than men. Men were generally more likely than women to know about male sterilization, male and female condoms, while women were more likely to know about female-oriented methods such as female sterilization, the pill, IUD,

injectables, and implants. EC is one of the methods that can be entirely chosen and used by the woman alone without involving the partner.

## **2.5. Summary**

This chapter presented the literature review undertaken on EC with reference to the main components of HBM. The literature review covered youth's perception about EC, modifying factors to utilization or non utilization of EC and variables could influence the likelihood of youth's utilization of EC to prevent unwanted pregnancy. This study utilizes the Health Belief Model as a conceptual framework to guide the study

## **CHAPTER THREE**

### **DESCRIPTION OF THE STUDY AREA**

The focus of this chapter is to present the description of the study area. Firstly details of the study sites are described. This is followed by the map and health indicators in the region and the country.

#### **3.1. Location of the Study sites**

The study was conducted in two regional states of Ethiopia namely Amhara and Oromia Regions. Adama and Bahir Dar are the capitals of Oromia and Amhara Regions respectively (Figure 3.1). The towns are 3<sup>rd</sup> and 4<sup>th</sup> biggest towns of the country respectively. Both of the towns have referral hospitals, health posts and private clinics. The study used a case study approach and the case study sites were Adama and Bahir Dar universities.

#### **Adama University**

Adama is one of the busy towns and transportation center in Oromia region. The town is situated along the road that connects Addis Ababa with Dire Dawa (Figure 3.1). A large number of trucks use this route to travel to and from the seaport of Djibouti. Additionally, the Addis Ababa- Djibouti railway runs through Adama town. Adama University (formerly Adama Technical Teachers College) is located in the Adama town. The university was established in September 1993. Adama University was the first institute in Ethiopia to offer degree programs for technical and business teachers. Presently, the University has more than 18 degree and 6 diploma programs. The University of Adama had 4278 regular and 1361 evening students in the 2007 academic year. <http://www.tamted.50megs.com/reg.html>

### **Bahir Dar University**

Bahir Dar is situated at the southern end of Lake Tana, Ethiopia's largest lake (Figure 3.1). The town is a cheerful and relaxing with the variety of bars and restaurants in town. Bahir Dar University was inaugurated in May 2001 when Bahir Dar Teachers Collage and Bahir Dar polytechnic Institute joined together to become the Education and Engineering Faculties, respectively, of the new university. The two faculties provide degree level teaching and expertise in Education and Engineering for the country. The University has recently added two faculties, the faculty of Law and faculty of Business and Economics with courses in subjects including Accounting, Economics, Business Management, Law and Ethics. The university is situated in relaxing surroundings on the edge of Bahir Dar town, (<http://www.telecom.net.et/~bdu/index.html>)

Both Universities have medical centers in their compound and sexual and Reproductive Health (SRH) services centers are provided. Students have also potential access to SRH services at the hospitals and several nearby public and private health centers and pharmacies. Anti AIDS and Girls clubs are among the functioning clubs in the two universities. The Girls clubs in particular organize periodical workshops on key issues like assertiveness.

As the university campuses are surrounded by a number of night clubs, bars and "chat" houses, a good number of students have a regular to visit these places in turn vulnerable to unprotected sex and unintended pregnancy. MOH in its 2004 report indicated that the towns are known for their higher incidences of deaths related to unsafe abortion.

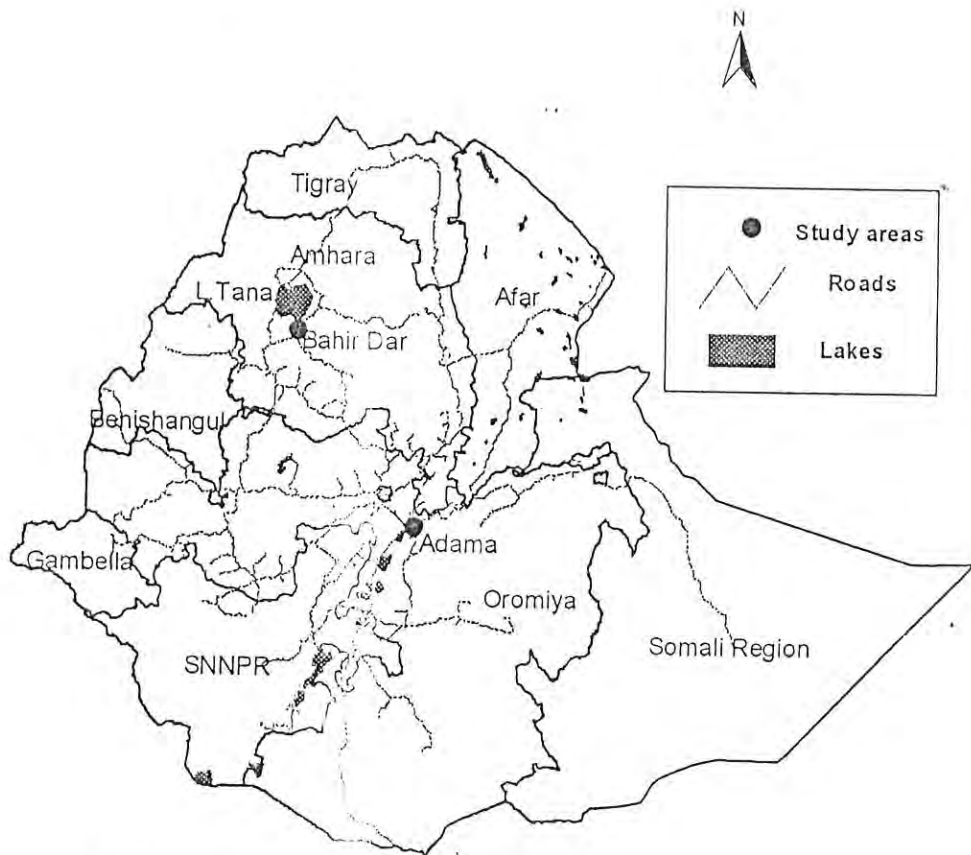


Figure 3.1. Location map of the study area

### **3.2. HIV/AIDS Prevalence in the Study Sites**

The prevalence of HIV/AIDS estimated from the survey results indicated that Bahir Dar has the highest sero prevalence rate (20.8 percent) from the whole country followed by Adama (18%). This is an indication of the fact that unprotected sex is common and HIV/AIDS is a serious threat to the public and is affecting a considerable proportion of people in the reproductive age category (MOH, 2004).

The annual report for reportable disease from the federal Ministry of Health 2004 report further showed that in 2003 about 14 percent of all reported AIDS cases were from Amhara and Oromia regional states. This coupled with the other risk factors like the prevalent early marriage, large influx of people to urban areas associated with the rapid growth of the towns, availability of large number of commercial sex workers. Furthermore, the low status of women is among the contributing factors for the "high" prevalence rate of HIV/AIDS in the regions.

### **3.3. Contraceptive Prevalence in the Study Sites**

Current use of any method of contraception among all women of reproductive age was found to be highest in Oromia (24%) followed Amhara with 20%. However, the levels of use for modern methods was lower (21 % in Oromia and 18% in Amhara). The use of contraception was considerably higher among currently married women in all the regions, compared to all women of reproductive age. About 31% in Amhara, 32% in Oromia, reported use of any method of contraception. Contraceptive use among women with no living children is very low in Ethiopia. In most urban parts, CPR is higher among married women with one or two children, while in rural areas, the peak level is observed among women with three or four children (Pathfinder and USAID, 2004).

### **3.4. Contraception and Related Health Indicators in Ethiopia**

According to the 2005 Ethiopian Demographic and Health Survey, 13.9% of sexually active women used a modern contraceptive method. Furthermore, a World Health Organization report estimated that about two in ten adults in Ethiopia are infected with HIV. Condoms are the most effective method of preventing HIV and STI transmission, yet only 17% of aged 15–49 reported condom use at last sexual intercourse.

The Family Guidance Association of Ethiopia (FGAE) first introduced contraceptive methods in Ethiopia. As it is evidenced by the rising contraceptive prevalence rate (CPR), the contraceptive use has been increasing in Ethiopia since then. However, 50 years from the introduction of contraceptive methods, the CPR is still low (14.7%). The unmet need is 34 % (EDHS, 2005).

The family planning (FP) methods officially available are: progestin-only pills, combined oral contraceptives, the copper-T IUD, Depot and implants. Other methods include condoms and the standard days method. According to the EDHS 2005 modern methods are more widely known than traditional methods. For example, 96 percent of women had heard of at least one modern method, while only 70 percent knew of a traditional method. Among all women, pills, injectables and the male condom were the most widely known FP methods, with at least 90 percent of all women saying they had heard of these methods (EDHS, 2005).

Some of the FP related health indicators include CPR, total fertility rate, maternal mortality ratio, infant mortality rate and adolescent pregnancy. The MMR in Ethiopia is 673/100 000 live births. The infant mortality rate is 66 deaths per 1000 live births for mothers with at least some secondary education compared to 104 deaths per 1,000 births for those whose mothers are not educated. Birth spacing is less than 2 years and maternal age influence child mortality in a negative way (EDHS, 2005).

### **3.5. Emergency Contraception in Ethiopia**

The need for emergency contraception (EC) in Ethiopia was identified in the late 1990's. The 1997 reproductive health needs assessment conducted by the Family Guidance Association of Ethiopia (FGAE) revealed that there was lack of knowledge and skill about EC, and recommended the promotion of this back up method and training of service providers. Considering the high rate of unsafe abortion in Ethiopia, ECP promotion and use in the country to reduce incidence of unwanted pregnancies was started far behind the unmet need.

In 2001, FGAE introduced ECP in selected youth center clinics in the country. In this project EC was provided in a repackaged attractive brand for adolescents and youth by cutting the regular contraceptive pills though the services were limited in scope and coverage. The project confirmed that EC was popular among young people, served as a learning experience, and showed the need to expand services in the public and NGO sectors.

Preventing unintended pregnancies by improving the existing family planning services through broadening of the method mix and ensuring access and availability of contraceptive methods, will ultimately contribute to the reduction of the morbidity and mortality of women. Emergency contraception, as a back up method, plays a special role in preventing unwanted pregnancies and reduction of induced abortion and its consequences (IPPF, 2004).

According to a national survey on abortion conducted by ESOG, abortion related mortality was 1,209 per 100,000 abortions (ESOG 2005). Inadequate information and access to family planning services and low status of women are the major factors that intensify this situation.

Abortion is a serious public health problem in Ethiopia. The situation has not improved in the past years. The EDHS 2005 shows 48.6 abortion admissions per 100 deliveries. In Ethiopia safe abortion is illegal except for saving mother's life, rape and incest.

The Ministry of Health officially introduced emergency contraception in Ethiopia in 2004 with the aim of improving SRH. The method, however, remained poorly known and unavailable (ESOG, 2005). Since then, the method was re-introduced by many non-governmental organizations. The method introduced was a dedicated product with the brand name Postinor (EPHA, 2006). EC has the strong potential to significantly reduce rates for unintended pregnancies but its capability has been dramatically blunted through numerous barriers witnessed in the literature (Eg. lack of awareness and accessibility). Increasing the use of emergency contraception is one means of reducing unwanted and teenage pregnancies.

### **3.6. Policies Impacting on Reproductive Health (RH) Issues in Ethiopia**

At present, there is a favorable policy environment that could have positive impacts on RH outcomes in the country. Such policy frameworks include the National policies on Population, Health, HIV/AIDS, Youth and Women. Government's special support for youth reproductive health is encouraging and reflects the concern on the part of Government authorities to prevent unintended pregnancies and unsafe abortion, STIs, and HIV among youth. The Ministry of Health in collaboration with many NGOs has been involved in reproductive health information and service provision. This would also result in a gradual improvement of SRH rights of young people in the country.

### **3.7. Summary**

This chapter presented description of the sites, location map, contraceptive prevalence and health indicators in the country and policies influencing Reproductive Health (RH) issues in Ethiopia. The following chapter presents results and discussion of the study.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

This chapter presents the results of the data analysis and discussion. Four hundred female university students (200 from Adama and 200 from Bahir Dar universities) completed the structured questionnaire and a total of 40 health service providers (22 from Adama and 18 from Bahir Dar) participated in KIIs and 16 female University students (8 from each sites) participated in the FGDs. In the first section of the chapter the demographic characteristics of the study subjects are described. This is followed by the findings related to knowledge, attitude and practice of the respondents on ECP. The information is presented in tables and bar charts.

#### **4.1. Socio-Demographic Characteristics of Respondents**

Respondents were asked personal details including age, marital status, origin, highest level of education etc. Questions about sexual history and contraceptive use and abortion among the potential users were also included in the survey.

**Table 4.1. Socio-Demographic characteristics of respondents**

Characteristics	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
<b>Age</b>						
15-19	40	20.0	34	17.0	74	18.5
20-24	160	80.0	165	82.5	325	81.3
25+	0	0.0	1	0.5	1	0.3
Total	200	100.0	200	100.0	400	100.0
<b>Origin</b>						
Rural	47	23.5	67	33.5	114	28.5
Urban	153	76.5	133	66.5	286	71.5
Total	200	100.0	200	100.0	400	100.0
<b>Marital Status</b>						
Single	200	100	194	97.0	394	98.5
Married			4	2.0	4	1.0
Divorced			2	1.0	2	0.5
Total	200	100	200	100	400	100
<b>Religion</b>						
Orthodox	126	63.0	148	74.0	274	68.5
Protestant	39	19.5	24	12.0	63	15.8
Catholic	7	3.5	9	4.5	16	4.0
Islam	19	9.5	13	6.5	32	8.0
Other	9	4.5	6	3.0	15	3.8
Total	200	63.0	200	100.0	400	100.0

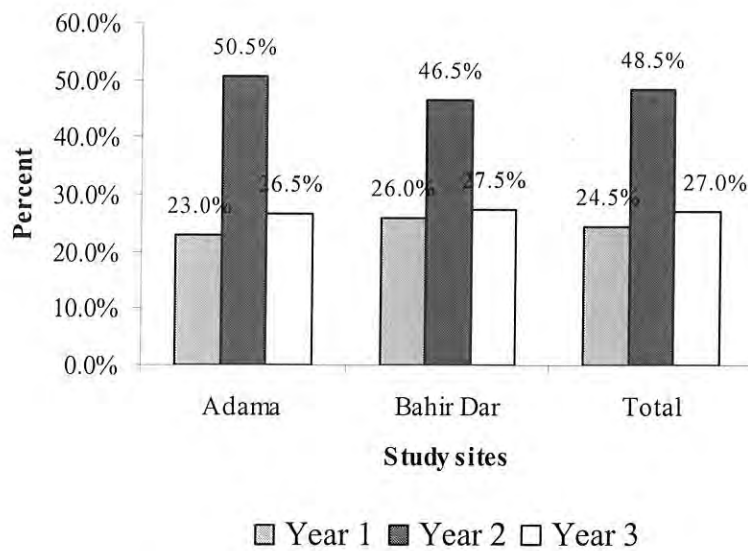
**Source: Own Survey, 2008**

More than 81% of the respondents were aged 20–24 while above 18% belonged to the teenage group. At the time of survey, majority of the students (98.5%) had never been married. Under normal situation, university students are not expected to get married at this age. The others were either married or divorced. All respondents who claimed to be

either married or divorced were from Bahir Dar University. This could be related with a high prevalence of early marriage in the Amhara region where Bahir Dar is the region's capital. A recent survey in the rural Amhara region in Ethiopia has found that as many as half the girls were married before their 15<sup>th</sup> birthday (Pathfinder, 2004). The survey results further indicated that more than 71% of the total respondents were from urban areas. This can be interpreted that the girls from urban areas were most favored to join higher level education. MOE in its progress report in 2002 indicated that the net primary education enrolment rate is at about 32% versus 75% in the cities. The gap between urban and rural areas is still striking despite the government's remarkable efforts which have led to increasing the gross enrolment rate by 50% during the last four years. The number of students from urban areas was higher in Adama than Bahir Dar University. Students from Adama University could have better access to information as urban areas have relatively favorable access to information. The respondents were asked to indicate their religious affiliation. Most of the respondents (67.3%) were followers of the Orthodox Christianity, which is the religion followed by most of the people in the country, followed by Protestants who account for 17.3%.

Regarding the educational characteristic of the respondents, Figure 4.1 shows that a quarter of them were in their first year of study, about half were in year two while 27% were in year three.

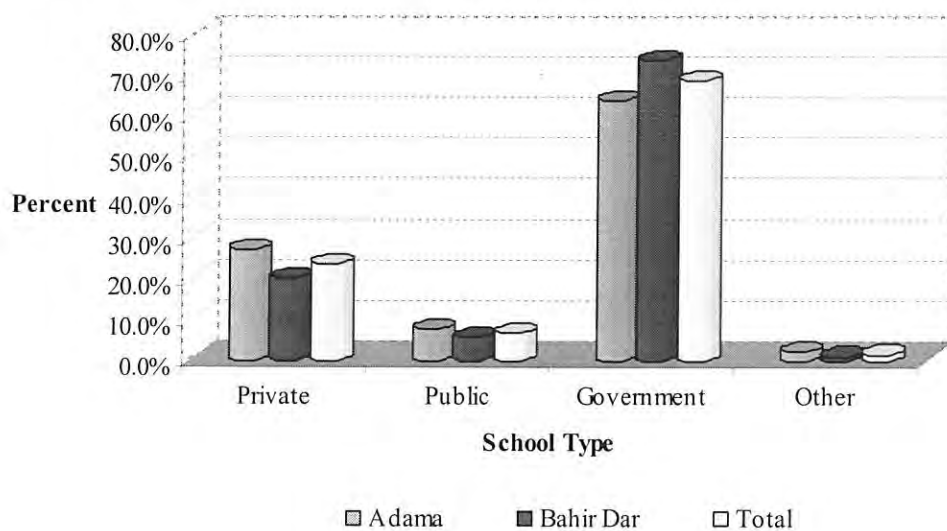
**Figure 4.1. Educational characteristics of respondents**



Source: Own Survey, 2008

Figure 4.2 shows that the majority (68.5%) of the respondents came from government schools while about one fourth of them came from private schools.

**Figure 4.2. Distribution of respondents by types of schools**



Source: Own Survey, 2008

Table 4.2 indicated the selected characteristics of health service providers from Adama and Bahir Dar.

**Table 4.2. Selected characteristics of health service providers from Adama and Bahir Dar**

Characteristics	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Male	10	45	9	50.0	19	47.5
Female	12	55	9	50.0	21	52.5
<b>Year of Experience</b>						
< 5	4	22.2	5	22.7	9	22.5
5-10	8	44.4	14	63.6	22	55.0
> 10	6	33.3	3	13.6	9	22.5
<b>Profession</b>						
Nurse	8	44	10	45.5	18	45.0
General Practitioner	4	22	6	27.3	10	25.0
Health Officers	1	6	2	9.1	3	7.5
Pharmacist	2	11	2	9.1	4	10.0
Peer Service Providers	3	17	2	9.1	5	12.5
<b>Employment sector</b>						
Public	8	36.4	8	44.4	16	40.0
Private	4	18.2	4	22.2	8	20.0
NGO	10	45.5	6	33.3	16	40.0
<b>Discusses FP with clients</b>						
Very often	14	77.8	16	72.7	30	75.0
Somewhat often	2	11.1	3	13.6	5	12.5
Hardly/ never	2	11.1	3	13.6	5	12.5

Source: Own Survey, 2008

Among these, 18 were Nurses, 10 were General Practitioners, 3 were Health Officers, 4 were Pharmacists and 5 were peer service providers. The youngest provider had 4 years experience and the oldest had served the government hospital for the last 23 years. In both towns, about half of the participants were female. Forty percent of the participants worked in the public sector while the other 40% worked in NGO's RH clinics and youth centers. The interview questions addressed a range of knowledge, attitude and practice issues regarding ECP. That will be discussed later in this chapter.

**Table 4.3. Percentages of students who had sex and their age at first intercourse**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
<b>Had sex</b>						
Yes	69	34.5	34	17.0	103	25.8
No	130	65.0	165	82.5	295	73.8
No response	1	0.5	1	0.5	2	0.5
Total	200	100.0	200	100.0	400	100.0
<b>Age at first sex</b>						
less than 15	4	5.8	2	5.9	6	5.8
15-19	41	59.4	12	35.3	53	51.5
20-24	24	34.8	16	47.1	40	38.8
No response			4	11.8	4	3.9
Total	69	100.0	34	100.0	103	100.0

At the time of the survey 25.8% of respondents had sex in the past. Of those who had sexual intercourse, about 5.8% started sex before the age of 15 and slightly higher than half (51.5%) started sex between 15 to 19 years of age while the remaining 38.8% had sex between 20-24 years old. Among the respondents who had sex before, majority were from Adama University. One of the KIs from Adama indicated that: "... we sometimes face very terrible conditions ... very young university students seeking ECP lately ..."

**Table 4.4. Number of partners ever had (n=103)**

Number of partners ever had						
	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
One	56	81.2	25	73.5	81	78.6
Two	12	17.4	7	20.6	19	18.4
Three	1	1.4	2	5.9	3	2.9
Total	69	100.0	34	100.0	103	100.0

**Source: Own Survey, 2008**

Respondents were requested to indicate the number of partners they had. Table 4.4 shows that the majority of respondents (78.6%) in the study had only one partner. The remaining (21.3%) respondents reported that they had more than one partner.

**Table 4.5. Use of contraceptives and their type**

Contraceptives used (n=103)						
	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	41	73.2	23	48.9	64	62.1
No	14	25.0	20	42.6	34	33.0
No response	1	1.8	4	8.5	5	4.9
Total	56	100.0	47	100.0	103	100.0

Type of contraceptive used (n=64)						
Pills	2	6.7	4	12	6	9.4
Condoms	21	70.0	15	44	36	56.3
Calendar method	5	16.7	12	35	17	26.6
Others			2	6	2	3.1
No response	2	6.7	1	3	3	4.7
Total	30	100.0	34	100	64	100.0

**Source: Own Survey, 2008**

More than 62% of those who had sex responded that they had used different contraceptive methods before. Among the respondents who claimed to have used

contraceptives, the majority were from Adama University. Respondents were asked to indicate what contraceptive methods they used if they had had intercourse before. Among the respondents who have had sex and used contraceptives, nearly half expressed that they (their partners) had used condom as a contraceptive method. The reason that condom was the most preferred contraceptive might be its dual function, prevention of unintended pregnancy and STIs including HIV/AIDS and its easy accessibility (prescription free method). The FGD participants from the two sites were probed their contraceptive preferences. Majority indicated that young people should use condom since it prevents HIV/AIDS and unwanted pregnancy at the same time and has no hormonal effect for their future fertility.

**Table 4.6. Ever been pregnant and age at first pregnancy**

<b>Ever been pregnant (n= 103)</b>						
	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	6	8.7	9	26.5	15	14.6
No	63	91.3	24	70.6	87	84.5
No response		0.0	1	2.9	1	1.0
Total	69	100.0	34	100.0	103	100.0
<b>Age at first pregnancy (n=15)</b>						
15-19	4	66.7	8	88.9	12	80.0
20-24	2	33.3	1	11.1	3	20.0
Total	6	100.0	9	100.0	15	100.0

**Source: Own Survey, 2008**

Table 4.6 shows that among the respondents who responded to have had sex before, a total of 15 respondents replied that they had been pregnant at least once previously. This represents 14.6% of the total respondents who reported to have had sex. The majority, 12 of them were below the age of 20 years and three of them were between 20-24 years old when they were pregnant. The proportion of respondents reporting their age at first pregnancy increasingly decreased with age. This could indicate that when they have sex later than teenage, they might have better information about sexual and reproductive

health issues and the chance of having unintended pregnancy is relatively lower. Teenage pregnancy was higher among the respondents from Bahir Dar University. This might have to do with the lower contraceptive use rate among the respondents from this University (Table 4.5).

The respondents who were pregnant were asked to indicate whether they have ever had induced abortion or not. Table 4.6 shows that over 93% of the respondents who were pregnant had practiced induced abortion at least once. Since the respondents were university students living on campus and not married, this rate is not surprising. In most cases, unwanted pregnancies among students are expected to end up with abortion, as students want to continue their education, avoid social stigma and have fear of economical burden. Though Ethiopia’s abortion law is restrictive and does not favor all abortion seekers, surprisingly, it was possible to know that all abortion procedures were done at hospitals and clinics. It can be interpreted as education has direct relationship with preference of abortion procedure. Two of the KIs from FGAE Youth Center, Adama indicated that the Adama University had referral agreement with FGAE Central Branch, Adama to provide medical services including RH services for the students. Students sometimes come and request safe abortion services.

**Table 4.7. Percentage of respondents who practiced induced abortion (n= 15)**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	6	100.0	8	88.9	14	93.3
No	0	0	1	11.1	1	6.7
Total	6	100.0	9	100.0	15	100.0

**Source: Own Survey, 2008**

The majority of the FGD participants explained that students in need of abortion service can access such services from health institutions using the excuse of the abortion law of the country. In Ethiopia abortion is permitted to save a woman’s life and protect her health, as well as in cases of rape, incest, and fetal impairment. It is also permitted when a woman is a minor or when she is physically or mentally injured or disabled. Prior to

2004, abortion was permitted only to save a woman's life and protect her health and in cases of rape (Guideline for Safe Abortion Services in Ethiopia, 2006). This may be one of possible reasons that help respondents to access safe abortion services from hospitals and clinics. All of the KIs confirmed that students from the universities were among the abortion seekers in their respective towns. They also confirmed that the students usually present with the country's law-friendly reasons so as to get the safe abortion services.

Generally, respondents from Adama University had better information about contraception than Bahir Dar University. The contraceptive deployment rate was higher among this group than their counterpart. The higher number of students with urban origin and the proximity of the town to the capital city and other bigger towns might have contributed in the improved results in the Adama University.

#### **4.2. Knowledge of ECP among respondents**

Respondents were asked whether they had ever heard about the ECP or not. Table 4.8 shows that the existence of ECP was known by 41.3% of the whole respondents. They reported that they had heard of ECP before. More than half of the respondents had not heard of the method. The rate of awareness was very low as majority of the respondents were from urban areas and all were university students who are assumed to have better awareness about contraception. Among the respondents who reported method familiarity, the majority were from Adama University. A Nurse Counselor from Adama University Youth clinic who participated in the KII indicated that the clinic conducted ECP promotion activity recently. This could be the possible reason for better awareness among Adama University students.

**Table 4.8. Percentage of students ever heard about ECP**

<b>Ever heard about ECP</b>						
	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	105	54	60	28.5	165	41.3
No	95	46	137	70	232	58.0
No Response	0	0	3	1.5	3	0.8
Total	200	100	200	100	400	100.0

**Source: Own Survey, 2008**

Overall, the proportion of potential users (particularly women from higher education institutions) who reported familiarity with the product was much lesser than expected. The study revealed that the proportion of the users who were aware of ECP was less than 50%. The result is similar to other studies conducted in Kenya, (53%), Nigeria (43%) and Jamaica (38%) (Cited in Ellertson, 2000).

From the FGDs conducted in the two sites, knowledge of ECP was assessed at the beginning of the focus group discussions by asking each participant to list down what she knew about ECP. Their descriptions revealed that nearly half of the participants (3 from Adama and 4 from Bahir Dar n=16) had heard of emergency contraception although majority had inadequate knowledge of the method. Majority mentioned that it is a form of contraception taken after intercourse to prevent unintended pregnancy. One of the FGD participants from Bahir Dar explained that: "... I guess it kills the baby in one way or another..."

The questionnaire also included a question regarding sources of information about ECP. Table 4.9 depicts that the majority of respondents in this study acquired the knowledge from friends and media. That was 57.6% from media (television, radio and newspapers) while 51 (30.9%) from friends. Leaflets were also among the source of information for

students from Adama University. More than 12% reported that they had accessed the information about ECP from leaflets distributed in the campaign conducted in the campus. The youth clinic staff from Adama University, who participated in the KII, stated that at the beginning of the academic year (November 2007) the clinic had distributed leaflets and information booklets to create awareness about ECP.

The knowledge questions focused on safety, time period of effectiveness and mechanism of action. Among the 40 health service providers (from both towns) who participated in the KII, 33 (82.5%) of them had heard about ECP. Among these, 17 were from Adama town. However, the majority of the respondents were unaware of the method's safety, time period of effectiveness or mechanism of action as it is expected from service providers.

**Table 4.9. Sources of information about ECP**

Source of information	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Friends	33	31.4	18	30.0	51	30.9
Family	1	1.0	2	3.3	3	1.8
Media	56	53.3	39	65.0	95	57.6
Other*	13	12.4			13	7.9
No response	2	1.9	1	1.7	3	1.8
Total	105	100.0	60	100.0	165	100.0

\* Leaflet: Developed by FGAE, 2005

This was also supported through findings from several previous studies (Muia et al., 1999 and Ellertson, 2000). The role of media (television, radio, news papers and magazines) as a source of information was significant. However, detail knowledge of the respondents was very low as acquiring detailed information from media and friends might not be easy. It is therefore possible to conclude that media can be used extensively to improve

the level of awareness and knowledge of the youth about ECP and other sources of knowledge as well.

**Table 4.10. Results of multivariate modeling to determine factors associated with awareness of ECP among respondents (n = 165)**

Variables	Estimate	Standard Error	Odds Ratio
<b>Origin</b>			
Rural			1.00
Urban	0.32	0.25	1.38
<b>Ever had Sex</b>			
Yes	1.44	0.25	4.2***
No			1.00
<b>Age</b>			
15-19	-0.29	0.28	0.75
20+			1.00

\*\*\* Significant at  $P < 0.001$

Table 4.8 shows that 41.3% of the respondents had information about ECP. To further examine the role of socio-demographic characteristics for ECP awareness, logistic regression model was used. The associations between respondents' characteristics and awareness of ECP are shown in Table 4.10. It showed that the only significant predictor among included explanatory variables (age, origin and sex practice) was if the respondent had sexual intercourse or not. Respondents who ever had sexual intercourse were 4.2 times more likely to have heard of ECP.

**Table 4.11. Respondents' awareness about ECP and their knowledge about its effectiveness**

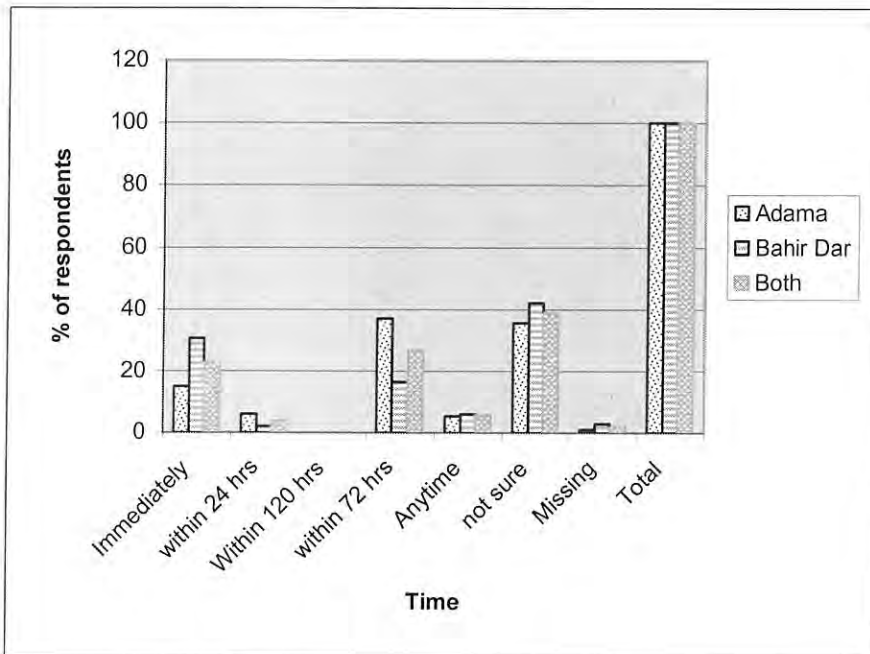
		ECP' effectiveness				
		Almost 100%	75%	25%	not sure	Total
<b>Heard about ECP</b>	Yes	23 (13.9)	30 (18.2)	6 (3.6)	106 (64.2%)	165
	No	0	0	0	235	235
<b>Total</b>		23	30	6	341(85%)	400

**Source: Own Survey, 2008**

In general, prior practice of sexual intercourse was a strong predictor of ECP use. Among women who had intercourse at least once before, the odds of using contraceptives were nearly four times as high as those among respondents who never had sex before.

Table 4.11 shows that respondents who were aware of ECP earlier had inadequate information about the method's effectiveness. Only 13.9% responded correctly that ECP reduces the chance of pregnancy by almost 100%. Among this same group who had heard of emergency contraception, 64.2% were not sure of its effectiveness. Less than 20% of them believed that emergency contraception was nearly 75% percent effective. Majority of the respondents among this group underestimated its effectiveness. Limited knowledge about its effectiveness may lead to the limited use of ECP. FGD participants from the two sites also depicted lack of detailed knowledge of the efficacy of ECP. Almost all of the FGD participants who reported familiarity with ECP were not sure about the efficacy of the method.

**Figure 4.3. Correct time to initiate ECP**



**Source: Own Survey, 2008**

Figure 4.3 presents the respondents’ knowledge of the correct time to initiate ECP. Among the respondents, more than 38% of them were not sure about the right time to initiate ECP. When they were asked about the window time of emergency contraception, only 26.8% of the respondents knew that the correct time for utilization of EC is within 72 hours (recently modified by the WHO’s 2007 study report to 120 hrs) of unprotected intercourse. Although the majority of the answer indicated within the 72 hours limit, such misinformation might inhibit youth who could still prevent a pregnancy from taking emergency contraceptives because they might think they had missed their “window” of effectiveness. About 23% of the total respondents thought that ECP would not work when initiated later than immediately after unprotected sex. Shortage of basic information about ECP was witnessed by this question as well. This was confirmed by a nurse from FGAE, Adama Model Youth Center, and a participant of the KII. She stated that “...some of the clients come and ask ECP when they know that their menstruation was late after a month....”

Among the service providers who knew that the ECP were to be taken after unprotected intercourse, the proportion of providers in each group who knew that the method is effective for up to 120 hours indicated in a guideline published by WHO (2007) was only 3 (9.1%) (n= 33). The majority believed that the method was effective up to 72 hours (as stated on the packaging).

**Table 4.12. Heard about ECP and knowledge of proper time to initiate ECP**

		Proper time to initiate ECP					Total
		Immediately	Within 24 hrs	Within 72 hrs	Anytime	Not Sure	
Heard about EC	Yes	60 (36.4%)	32 (19.4%)	43 (26.1%)	8 (4.8%)	22 (13%)	165
	No	0	0	0	0	235	235
Total		60	32	43	8	257	400

Source: Own Survey, 2008

As it is shown in Table 4.12, among the total respondents who had heard of the method, less than a quarter were knowledgeable about the correct time for initiation of EC. More than 36% among the group with prior knowledge of ECP thought that it only works immediately after unprotected sex. This kind of misinformation could lower the number of potential users. Thirteen percent of the rest belonged to the group who were not sure about the right time to initiate ECP. So respondents who had a chance to hear about the method also witnessed lack of the necessary basic information about the method.

The FGDs participants were invited to express their knowledge about the correct time to initiate ECP. Majority of the method familiar participants (more than 75%) were able to state the correct time to initiate ECP that was within 72 hours.

**Table 4.13. Knowledge about ECP ingredients**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Same as Regular Pill	17	9	15	7.5	32	8.0
Same but Stronger	53	27	24	12.0	77	19.3
Completely Different	42	21	63	31.5	105	26.3
Not Sure	88	44	98	49.0	186	46.5
Total	200	100	200	100.0	400	100.0

**Source: Own Survey, 2008**

More than 46% of the respondents replied that they were not sure about ECP ingredients. One hundred five (26.3%) of them stated that ECP is completely different from those of other oral contraceptives. About 19% of them responded that it is the same with other oral contraceptives but much stronger. The proportion of respondents who reported that the method is completely different from the regular contraceptive pills was larger in Bahir Dar University.

Among the respondents who reported familiarity with emergency contraception, a basic knowledge, ingredient of the method was found scarce. Among the same group, the majority claimed that they have no idea whether the ingredients in the method were the same or different from those in the regular contraceptives. The misconception as a result of lack of basic knowledge about the method was relatively higher among students from Bahir Dar University.

**Table 4.14. Respondents' knowledge of places where ECP are available**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Hospital/clinic	93	46.5	59	29.5	152	38.0
CHW*	18	9.0	17	8.5	35	8.8
Pharmacy	11	5.5	13	6.5	24	6.0
WSG	2	1.0	5	2.5	7	1.8
not sure	67	33.5	94	47.0	161	40.3
12**			3	1.5	3	.8
13***	9	4.5	9	4.5	18	4.5
Total		100.0		100.0	400	100.0

\*= Community Health Workers, \*\*= Hospital/Clinic and Community Health Workers

\*\*\*=Hospital/ Clinic and Pharmacy

**Source: Own Survey, 2008**

The pattern of knowledge of where to get emergency contraceptives followed the same trend as that for correct time to initiate ECP and ingredients of ECP. Respondents from Adama who had heard about ECP were more likely to know about the place where they can access ECP. More than half of the respondents were unaware of the method. Similarly, more than 40% of the total respondents were not sure about the places where they can find ECP if need arises. Of the total respondents, 152 (38%) reported that ECP can be found at hospitals or clinics, 24 (6%) thought that ECP are available at pharmacies while 47% of the respondents from Bahir Dar University were not sure about where to go to have access to the method.

**Table 4.15. Ever heard about ECP and knowledge of where to get ECP**

		Place where ECP can be accessed					Total
		Hospital	CHW	Pharmacy	WSG	Not sure	
<b>Heard about EC</b>	Yes	83	20	17	7	22	165
	No	69	15	7		139	235
<b>Total</b>		152	35	24	7	161	400

**Source: Own Survey, 2008**

Even if respondents were aware of the methods existence, their knowledge about where to access ECP was very low. Table 4.15 shows that 26.5% of those who claimed familiarity with the method were not sure about the place where they can access ECP. Students might have awareness about the method but lack information about where to access it could undermine the utilization rate significantly.

When asked to state mechanism of action of the method, more than half (20) of the method familiar providers participated in the KIIs correctly indicated that ECP prevent pregnancy; four of them incorrectly believed that they induce abortion, and five believed that it both prevents pregnancy and induce abortion. Another four said “I do not know”.

The finding from the KIIs indicated that majority of the service providers were not well informed about emergency contraceptives. The providers’ inadequate knowledge about mode of action and valid timing of taking the method will have implications on their prescription pattern. This finding was also shared by other studies conducted in Kenya, Thailand, and Nigeria (Olufunke et al., 2006 and Muia et al., 1999). It is possible to conclude that providers’ inadequate knowledge about ECP can be one of the major barriers to provision of the method.

### 4.3. Respondents' Attitude Towards ECP

The questionnaire included an open-ended question “what do you think about the method” that probes respondents to express their attitude about ECP. Majority of the method familiar respondents reported that emergency contraception is generally suitable for women at the time of emergency that is unintended intercourse.

**Table 4.16. Concerns about use of ECP**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	108	54.0	76	38.0	184	46.0
No	80	40.0	120	60.0	200	50.0
No response	12	6.0	4	2.0	16	4.0
Total	200	100.0	200	100.0	400	100.0

**Source: Own Survey, 2008**

The questionnaire included a question that requested respondents if they had any concern about the method or not. Although most of respondents surveyed expressed their support generally for emergency contraception as noted, nearly half (46 per cent) of the respondents nevertheless expressed concern about the method. The main concerns expressed were that it might cause health risk to users, and it might harm a fetus if it failed to prevent pregnancy. Some respondents also worried about the effects on the users' future fertility. Others expressed concern that emergency contraception would be misused by the youth, who might substitute it for normal family planning methods.

The most frequently cited concerns indicated by the FGDs participants were: a fear that it is similar to abortion, encourage unsafe sexual behavior, only prevent unwanted pregnancy and increase STIs rates and misuse.

**Table 4.17. Recommendation on the use of ECP**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Recommend	93	46.5	72	36.0	165	41.3
Not recommend	19	9.5	21	10.5	40	10.0
Not sure	88	44.0	107	53.5	195	48.8
Total	200	100.0	200	100.0	400	100.0

**Source: Own Survey, 2008**

Table 4.17 shows that nearly half (48.8%) of the total respondents were not sure whether they would recommend ECP for potential users in the future or not. More than 41% of the respondents agreed that they would recommend ECP if need arises. Ten percent of the respondents indicated that they would not recommend the method in any way. The number of those who agreed to recommend the method in the future was higher among the respondents from Adama University.

**Table 4.18. Relationship between awareness and recommendation**

Heard about EC	Willing to recommend ECP						
	Yes	Percent	No	Percent	Not sure	Total	
Yes	110	66.7	13	32.5	44	22.6	165
No	55	33.3	27	67.5	151	77.4	235
Total	165	100	40	100.0	195	100.0	400

**Source: Own Survey, 2008**

Table 4.18 shows that the respondents who were familiar with the method were particularly positive about the idea of emergency contraception and agreed to recommend in the future. However, 32.5% of the method familiar respondents had reservation about ECP. Majority (66.7%) of the respondents among those who had heard the existence of ECP before, were found to have positive attitude towards ECP and agreed to recommend

for any one when necessary. Few others were not sure about what they would do next and the rest rejected this idea with a fear that potential users could ‘misuse’ and ‘overuse’ the method. In the FGDs undertaken in the two sites, participants were generally positive about ECP. Nearly all supported the benefit of using ECP outweighs its damage. However, they showed their concern about the method such as misuse, behavioral change and contraception substitution and strongly recommended that caution must be taken if it is widely promoted and made available over the counter.

From my personal observation, potential users’ attitude towards ECP (particularly the method familiar) was favorable with certain reservations. This would have enormous role in the improvement of the methods use and reduction of unsafe abortion and its consequence in the future.

The KIIs were probed with attitude questions asked whether the method should be available without prescription, whether access to ECP is necessary to reduce unintended pregnancies and whether respondents were willing to provide the method to clients in a variety of circumstances. Almost all method familiar providers who attended the KIIs forwarded their recommendation to improve the method’s accessibility with possible cautions to minimize “misuse by young people”.

**Table 4.19. Places where ECP should be available**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Hospital/clinic	75	38	66	33.0	141	35.3
CHW	5	3	14	7.0	19	4.8
Pharmacy (PF)*	61	31	57	28.5	118	29.5
women support group	13	7	11	5.5	24	6
not sure	6	3	13	6.5	19	2.3
12**	34	17	32	16.0	66	16.5
13***	6	3	7	3.5	13	3.3
Total	200	100	200	100.0	400	100

\*PF= prescription free, \*\*= Hospital/Clinic and CHW \*\*\*=Hospital/ Clinic and Pharmacy

Source: Own Survey, 2008

Table 4.19 shows that more than 35% of the respondents preferred to recommend hospitals and clinics to make a place where ECP could be available. About 30% of the respondents however preferred pharmacies (prescription free access) where ECP should be available.

It is interesting to note that majority of the FGDs participants finally supported the availability of ECP in pharmacies to improve the opportunity to access and use ECP. Survey report from the KII revealed that pharmacists should be legally supported to be able to supply ECP free of prescription.

**Table 4.20. Awareness and recommendation on the place where ECP should be available**

Heard about ECP	ECP should be available							Total
	hospital/ clinic	pharmacy	RH center	WSG	Not sure	12*	13**	
yes	38	80	6	12	4	25	2	165
no	103	38	13	12	15	41	11	235
Total	141	118	19	24	19	66	13	400

\* Hospital or clinic and Pharmacy, \*\*Pharmacy and RHC (Reproductive Health Center)

Source: Own Survey, 2008

Among the respondents who were aware of the existence of the method, nearly half of them supported the availability of ECP at pharmacies (prescription free). The remaining half proposed to avail ECP at hospitals or clinics and other responsible institutions in which users are expected to get prescription. Majority (13) of the participants in the focus group discussions, however, supported availability of ECP in the pharmacies (prescription free). Their justification was improving the accessibility of the method to reduce the rate of unsafe abortion and unplanned pregnancy. Few among the participants, however, rejected the idea of accessing prescription free ECP. Justifications for this were fear of misuse and change in sexual behavior.

**Table 4.21. Restriction to access emergency contraception**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
No restrictions	119	59.5	107	53.5	226	56.5
For any except young girls	9	4.5	7	3.5	16	4.0
Only for married women	5	2.5	11	5.5	16	4.0
Only if contraception fails	4	2.0	12	6.0	16	4.0
Other*	21	10.5	27	13.5	48	12.0
No response	42	21.0	36	18.0	78	19.5
Total	200	100.0	200	100.0	400	100.0

\*Rape

Source: Own Survey, 2008

The questionnaire included a question if respondents had desire on restriction of use of ECP. Opinion on desirability of restricting emergency contraception to certain groups of women varied among respondents. Over half of the respondents (56.5%) thought that emergency contraception should be widely available to everyone who needs the method, while the remaining supported limited access. 16 students (4%) thought that young girls should be denied access to emergency contraception. Having made clarification about the basic concepts of ECP, all of the FGDs' participants categorized themselves under the "no-restriction" group.

Majority of the method familiar service providers (28) participated in the KIIs and willing to prescribe the method had not mentioned any group that ought to have restriction from ECP under emergency situation.

**Table 4.22. Possible objection from a partner**

	Adama		Bahir Dar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
They would not	46	23.0	34	17.0	80	20.0
They would	33	16.5	41	20.5	84	21.0
Not sure	121	60.5	125	62.5	236	59.0
Total	200	100.0	200	100.0	400	100.0

**Source: Own Survey, 2008**

The questionnaire also included information on possible objection from partner's towards use of ECP. Table 4.22 shows that majority of the respondents (59%) were not sure whether partners oppose the use of ECP or not. The possibility of partner opposition towards the ECP use was reported by 20% of the respondents. Twenty one percent of the respondents reported that there would not be partner opposition at all. The FGD participants fully agreed that there would not be partner opposition. If it happens so, the girls could access the method without their partner's approval.

The last open-ended question in the questionnaire invited participants to give additional comment about ECP. Majority 294 (73.5%) of the respondents addressed the question. Their answers were categorized in to three categories, namely positive comments, negative comments and neutral comments. The positive comments include: ECP are best alternatives for women with unprotected sex, saves many from unwanted pregnancy, help women continue with education, need to focus on awareness creation programs, and focus on youth. Negative comments were: the method can substitute regular contraception, less use of condoms and high risk of STIs including HIV/AIDS. More than 36 of the respondents' showed ambivalent comments by mentioning both negative and positive comments with recommendations like caution in improving easy accessibility of the method (prescription free).

Following a short description of the method by the FGD discussants, most students reacted positively to the concept of emergency contraception. The participants immediately perceived a potential benefit of the method for youth. All appreciated the method alternative as an option to minimize unintended pregnancy or abortion that could result from unprotected sex. They noted that ECP would be ideal for all particularly for university students. The participants talked about the risk of unprotected sex especially in their respective places which are fast growing towns with mushrooming night clubs and chat houses. They also noted the need for emergency contraception would help prevent not only unwanted pregnancies, but also other terrible consequences of it. An FGD participant from Bahir Dar University put it as: "... better to give the ECP than let the young girl go through the trauma (abortion)...."

One of the FGD participants from Adama University reported ethical concerns, or was worried that emergency contraception may act as an abortifacient. This concern was shared by four of the method familiar Key Informants who rejected the idea of prescription free access to ECP. A key informant from Bahir Dar stated that: "... for me it's sort of equivalent to having an early abortion really. I wouldn't prescribe the pill...I feel it's their responsibility to take precautions and their partner's too. It's not the baby's fault. So I think that's just wrong..."

#### **4.4. Use of ECP among respondents**

Table 4.23 indicates that respondents were asked if they had used ECP before. Only 11.4% of them indicated that they had used EC after engaging in unprotected sex. The majority (83.8%) did not use ECP because of barriers mentioned in the previous chapters.

**Table 4.23: ECP practice among respondents who ever had sex (n=103)**

	Adama		BahirDar		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	8	11.6	4	11.8	12	11.4
No	61	88.4	27	79.4	88	83.8
No response		0.0	3	8.8	3	2.9
<b>Total</b>	<b>69</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>	<b>105</b>	<b>100.0</b>

**Source: Own Survey, 2008**

Figure 4.24 shows that among the respondents who had been pregnant, only two (from both sites) had heard of the method. More than 86% of the respondents who had ever been pregnant had never heard about ECP. This finding shows that ECP utilization highly depends on awareness of the method. The KIs were asked regarding abortion clients awareness about ECP. Most of them (from both sites) indicated that abortion seekers had no information about ECP in most cases. Had the potential ECP users like students been informed about the existence of ECP with basic knowledge earlier, the possibility of reducing abortion rate could have been higher.

**Table 4.24. Ever been pregnant and awareness about ECP**

		Heard about ECP		
		Yes	No	Total
<b>Ever been pregnant</b>	<b>Yes</b>	2	13	15
	<b>No</b>	44	74	118
<b>Total</b>		46	87	133

**Source: Own Survey, 2008**

#### 4.25. ECP practice and number of partners

	Number of partners ever had			Total
	1	2	3	
<b>Used ECP before</b>	1	2	3	
Yes	4	7	1	12
No	0	0	0	88
No response	0	0	0	3
<b>Total</b>				<b>103</b>

**Source: Own Survey, 2008**

Table 4.25 shows that majority of the respondents who experienced ECP before had more than one sexual partner. The FGD participants from Adama revealed that students with multiple partners should have easier access to ECP; however this should not influence their decision-making with regard to unsafe sex or exposure to STIs.

#### 4.26. ECP awareness and practice among respondents from urban and rural origins

Heard about ECP before	Urban	Rural	Total
Yes	102	63	165
No	181	51	232
No response	3	0	3
<b>Used ECP before(n= 103)</b>			
Yes	8	4	12
No	57	31	88
No response	1	2	3
<b>Total</b>	<b>66</b>	<b>37</b>	<b>103</b>

**Source: Own Survey, 2008**

Table 4.26 shows that 165 respondents reported that they had heard about ECP before. Of these respondents 102 reported that they were from urban areas. Majority of the respondents who had previously used the emergency contraceptive pill were also from urban areas than those who came from rural areas. This may be because most of the

students from urban areas have better access to information and service about reproductive health including ECP.

#### **4.5. Providers' prescription pattern of the method**

KIIs were asked about their experience in providing the method, and their reasons for refusing to provide it to a client in such cases. Except nurses and peer service providers from reproductive health clinics who had discussed family planning issues regularly, a large majority of participants in each town (about 78% in Adama, 72.7% in Bahir Dar) reported that they discussed reproductive health issues with clients rarely. Nearly 98% of the service providers working in the non-RH clinics had not prescribed ECP before. Low level of awareness and accessibility of ECP were among the major reasons identified for the lower rate of prescription. Hence the KIIs revealed that they had not been trained or the method supply did not exist in their facility. Others reported that they were working for reproductive health clinics in which ECP were available and they were also provided with trainings on ECP. So they had prescribed ECP.

Majority (34) of the 40 service providers surveyed in this study were willing to prescribe ECP. In agreement with previous studies (cited in Olufunke M. E, etal, 2006), the respondents' average rate of prescription was very low and ECP were underutilized. However, the prescription rates were far better among service providers from reproductive health clinics. These results indicate that low rates of prescribing the method in the study sites were due to lack of adequate knowledge among providers and insufficient availability of the method in the country.

#### **4.6. Summary**

This chapter discussed the data analysis and interpretation. The main components of the questionnaire dealt with the demographic data and the major issues about ECP were presented. The FGDs and KIIs results were summarized. The study reflects various important findings like low level of awareness, insufficient basic knowledge, positive attitude and lower rate of utilization and prescription of the method. Chapter five summarizes and concludes the study and gives recommendations for further program improvement and research.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1. Summary**

The study was conducted to explore awareness of, knowledge about, attitudes and practice of ECP among youth and health service providers, with the view to identifying plausible strategies for reducing unwanted pregnancies and associated morbidity and mortality. Specifically it was meant to assess awareness of, knowledge about, use of and attitudes towards ECP among female university students from Adama and Bahir Dar Universities; to assess health care providers' knowledge, attitudes and prescription practice of ECP; and to recommend on possible strategies to expand EC prevalence rate in Ethiopia. A sample of 400 female university students and 40 service providers participated in the survey by completing the research questionnaire, attending FGDs and KIIs.

Majority of the students were from urban areas, between 15-19 years of age and second year students. As students in the two universities were from the same age brackets and living in a campus, the differences in demographic characteristics among the participants were found to be insignificant.

The analysis revealed that awareness, knowledge and use of the method were not adequate. Nearly half of the total students and majority of the providers participated in the survey reported awareness about the method, dearth of basic knowledge and few practiced it. Analysis of the research data indicated that there was a difference in perception, knowledge, and practice of ECP among the respondents from the two study sites.

The level of ECP awareness was particularly low in the Bahir Dar University with only 28.5% of students being aware of EC on direct questioning compared with 54% of respondents in the Adama University. The study demonstrated that improving awareness,

basic knowledge and access to ECP could be able to improve ECP intake with caution to control adverse effects like misuse and increasing risky sexual behavior.

As in prior researches indicated in chapter four, attitudes toward ECP were generally favorable among users and particularly with health service providers. Fear of increased risky sexual behavior, misuse of the method and discouraged regular contraceptive use were among the reasons for the ambivalence among few.

Respondents' ECP utilization patterns were very scanty. The majority of health service providers surveyed in this study were willing to discuss and prescribe ECP. However, the participants' average rate of prescription was very low.

In Ethiopia, ECP have been available in few public FP clinics since 2001. However the dedicated product was officially launched by the Ministry of Health in 2004. Recent national trends are moving toward improving access to ECP. The 1999 E.C Health indicator of Ethiopia expressed that the product is available in five regional states namely Addis Ababa, Oromia, Amhara, Tigray and Southern Nations and Nationalities Peoples Region. Yet, the method is underutilized option for preventing unwanted pregnancy. This was partly because knowledge of the method is often lacking, even among health service providers who are expected to be the primary actors to its access. Furthermore, unfavorable attitudes towards the method among health service providers can hinder the timely access of the product when youth are at the risk of unprotected intercourse.

## 5.2. Conclusions

The literature reviewed in this thesis witnessed that emergency contraceptive pills have been shown to be safe, easy to use and effective for preventing unintended pregnancies behind unprotected intercourse. ECP provide a second chance for young women who are particularly vulnerable to unprotected intercourse and unintended pregnancy. A dedicated ECP product is now available in five regions in the country. Yet, the great potential of emergency contraception to prevent unintended pregnancies is far-off from being realized.

Potential users' and providers' awareness, basic knowledge and perceptions of ECP are crucial in the utilization of ECP and in clearing the misconceptions about the method. However, barriers such as method's inadequate knowledge and negative attitude of users and providers and inaccessibility of ECP prevent the youth from having easy access to ECP. University students would be expected to have greater knowledge of emergency contraception than less-educated youth; however, the findings suggest that accurate knowledge about ECP was rather low among female university students and health care providers in the two towns. This indicates that there is an urgent need to educate youth about emergency contraceptives, with emphasis on available methods and correct timing of use. Friends and media are important sources of information regarding ECP. However, they were therefore not perfect sources of information about the method as the method familiar respondents were found less knowledgeable.

Although almost all of participating providers were willing to prescribe ECP and had generally favorable attitudes toward it moral concerns about risk of misuse were expressed.

Rates of users' utilization and providers' prescription of the method were low. Interventions targeting misunderstandings might help reduce missed opportunities to improve deployment of ECP. With their easy accessibility and their open hours on evenings, weekends and holidays pharmacies could be ideal source of ECP.

### **5.3. Recommendations**

Ethiopia is known with high prevalence of sexual violence and unprotected sexual intercourse, particularly among youth who usually end up with unplanned or unwanted pregnancies and often resort to unsafe abortions, which are a leading cause of disability and maternal mortality. Abortion is partially legalized in the country. Therefore, there is a great need for increased awareness of and access to emergency contraceptive pills.

Youth are more exposed to a high risk of unintended pregnancy. Such pregnancies often lead to abortion, increasing maternal mortality rate, and impeded educational and career opportunities. Emergency contraceptive pills provide an additional option for the youth to avoid pregnancy and these adverse outcomes. There is, therefore, an urgent need to educate the youth to improve their awareness and knowledge about emergency contraceptives including on available methods and correct timing of use and train health service providers about basics of the ECP to help avoid misconceptions and reluctance to prescribe ECP.

The promotional activities undertaken so far were not sufficient to improve the knowledge and intake of ECP. As promotion of the method could enhance the utilization rate, media campaigns and other activities such as development and distribution of information, education and communication materials should be undertaken widely.

Improving youth access to ECP can be facilitated through making the method available directly from pharmacists without a prescription.

The MOH officially launched the ECP three years back and the guideline on ECP was developed by ESOG. MOH presented ECP in five regions of the country since last year. To improve the rate of use and ensure easier access especially for youth who suffer from unintended pregnancy and unsafe abortion, advocacy for non-prescription sales and for availability of a dedicated product in public health services should continue in large scale. Few health service providers from reproductive health organizations were trained about ECP. To improve the situation, extensive training programs should be on track for health service providers, pharmacists and teachers.

Despite the NGOs effort and the new government initiative in improving the availability of ECP in Ethiopia, ECP is still underused. Strategies to promote ECP use should focus on spreading accurate information through information, education and communication through audio-visual media, which have been found to be reliable and associated with good knowledge on ECP. To increase the availability and use of ECP for all and especially for young girls all over the country, promoting ECP among policy-makers and providers are pertinent. Various actors should integrate ECP into reproductive health programs in Ethiopia.

Finally, the survey conducted for this study did not include administrative and support staff, such as receptionists and guards. Given that these individuals are often the first point of contact for potential users and can influence timely access to EC, it may be of value to survey this group in further studies.

## References

- Amnesty International (2005) *Women, Violence and Health*. London
- Consortium for Emergency Contraception (2004) ECP status and activity by country; Update.
- Mbambo, D.E., Ehlers, V.J., Monareng L.V. (2006) Factors influencing adolescent mothers' non-utilization of contraceptives in the Mkhondo Area: *Health SA Gesondheid* 11 (4):144-152.
- Ellertson, C. (2000) Emergency contraception: a review of the programmatic and social science literature. *Contraception* 61(3): 145-86.
- De Freitas, E. (2007) Adolescents Knowledge of Contraception in Selected Areas in Angola. MA Thesis, University of South Africa, .Department of Health Studies
- Central Statistical Authority. (2000) *Ethiopia Demographic and Health Survey 2000*. Addis Ababa.
- Central Statistical Authority. (2005) *Ethiopia Demographic and Health Survey 2005*. Addis Ababa.
- MOH (Ministry of Health) (1999 E.C.) *Ethiopia Health Indicator (1999 E.C)* Addis Ababa, MOH.
- Ethiopian Public Health Association (EPHA) (2006) Annual Report: Addis Ababa.
- Ethiopian Society of Obstetricians and Gynecologist (ESOG) (2005) Guideline for Safe Abortion Services in Ethiopia: Addis Ababa.
- ICPD (International Conference on Population and Development, Cairo) (1994).
- International Planned Parenthood Federation (IPPF)(2004) IMAP statement on emergency contraception. *Med Bull* 38(1):1-3.
- IPAS (2002), Responding to unsafe abortion in Ethiopia: A facility –based assessment of post abortion care services in public health sector facilities in Ethiopia, IPAS: Addis Ababa.
- Janz, N. K., Champion, V. L., & Strecher, V. J. (2002) The Health Belief Model.
- Kebede, Y (2006) Emergency Contraception: Knowledge and practice of Gondar University Students, Northwestern Ethiopia, *Ethiopia Medical Journal* 44 (3) 221-30.
- Klima, C.S. (1998). Unintended pregnancy. Consequences and Solution for a World

- Wide problem , *Journal of Nurse-Midwifery* 43: 483-91
- Ekstrand, E. (2008). Sexual Risk Taking– *Perceptions of Contraceptive Use, Abortion, and Sexually Transmitted Infections among Adolescents in Sweden*
- Michael E. Aziken, Patrick I. Okonta and Adedapo B.A. Ande (2003) Knowledge and Perception of Emergency Contraception among Female Nigerian Undergraduates *International Family Planning Perspectives*, 29 (2): 84-87.
- MOE (Ministry of Education Annual Report) (2002). Annual Report, Addis Ababa.
- MOH (Ministry of Health) (2006), National Reproductive Health Strategy 2006-2015, Addis Ababa.
- MOH (Ministry of Health) (2004), Annual Report, Addis Ababa.
- Ministry of Youth, Sports and Culture of Ethiopia (2004). National Youth Policy, Addis Ababa.
- Muia, E., C. Ellertson, M. Lukhando, B. Flul, S. Clarl and J. Olenja (1999). Emergency contraception in Nairobi, Kenya: Knowledge, Attitudes and Practices among Policymakers, Family Planning Providers and Clients, and University Students. *Contraception*, 60(4): 223-32.
- Mwaba, K. (2000) Perception of Teenage Pregnancy among South African Adolescents. *Health SA Gesondheid* 5(3):30-34.
- National Institutes of Health, US Department of Health and Human Services (2005). Theory at a glance: A guide for health promotion. US Department of Health and Human Services.
- Olufunke M. E, etal, (2006) Health Care Providers' Knowledge of, Attitudes Toward and Provision of Emergency Contraceptives in Lagos, *Nigeria International Family Planning Perspectives* 32 (2): 22-31.
- Onega L. L, (2001) Educational Theories, Models and Principles Applied to Community and Public Health Nursing. 5<sup>th</sup> Edition. St Louis: Mosby.
- Pathfinder and USAID (2004): Knowledge, Attitude and Practice of Family Planning in Four Regions of Ethiopia, Addis Ababa.
- Planned Parenthood Federation of America (PPFA) ( 2002). Emergency Contraception. Population Reference Bureau: 2004 World Population Data Sheet.
- Salles, (2001) cited in Engracia Da Gloria Gomes De, (2007) Adolescents Knowledge of

Contraception in Selected Area in Angola.

Schiappacasse. V and S. Diaz (2006) Access to Emergency Contraception, *International Journal of Gynecology and Obstetrics* (94) 301—309

Trussell, J. and Raymond EG. (1999) Statistical Evidence about the Mechanism of Action of the Yuzpe Regimen of Emergency Contraception. *Obstetrics and Gynecology*; 93(5):872-876.

Trussell, J. and F. Stewart (1992) Emergency contraceptive pills: a simple proposal to reduce unintended pregnancies. *Family Planning Perspectives*,. 24(6): 269-273.

United States, Department of Health and Human(2005) Services National Institutes of Health, Theory at a glance: A guide for health promotion 2005

Wegene. T and Fikre. E, 2007: Knowledge, Attitude, and Practice on Emergency Contraceptives among Female University Students in Addis Ababa, Ethiopia.

WHO (World Health Organization) (1994) Maternal Health and Safe Motherhood Program. 2nd ed. Geneva, WHO.

WHO (1998) Gender and Health: Technical Paper

WHO (2003) World Health Organization, Reproductive Health and Research. Improving Access to Quality Care in Family Planning: Medical Eligibility Criteria for Contraceptive Use. 3<sup>rd</sup> edition. Geneva, WHO.

WHO (2005) Women's Health Policies Facts. Geneva, WHO

WHO (2007) Unsafe abortion: Global and Regional Estimation of Incidence of Unsafe Abortion and Mortality in 2003. Geneva, WHO

### **Web Resources**

International Consortium for Emergency Contraception. Table 1. Dedicated Emergency Contraception Products Worldwide. Available at <http://www.cecinfo.org/html/res-product-issues.htm#table1>: accessed in May, 2008)

[www.britannica.com](http://www.britannica.com): accessed in June 2008

[www.hrsb.ns.ca/content/id/1008.html](http://www.hrsb.ns.ca/content/id/1008.html): accessed in June 2008

[www.tamted.50megs.com/reg.html](http://www.tamted.50megs.com/reg.html): accessed in June 2008

[www.telecom.net.et/~bdu/index.html](http://www.telecom.net.et/~bdu/index.html) accessed in February 2008

## Annex I

Date of Survey \_\_\_\_\_ Place \_\_\_\_\_

Questionnaire number \_\_\_\_\_ Data collector initial \_\_\_\_\_

### Background information

1. How old are you?
  - a. 15-19
  - b. 20-24
  - c. 25+
2. Origin of place
  - a. Rural
  - b. urban
3. The type of high school you studied with
  - a. Private
  - b. Public
  - c. Government
  - d. Other
4. What is your marital status?
  - a. Single
  - b. Married
  - c. Widowed
  - d. Divorced
  - e. Separated
  - f. Other
5. What is your religion?
  - a. Orthodox
  - b. Protestant
  - c. Catholic
  - d. Islam
  - e. Other
6. What is your year of study?
  - a. Year I
  - b. Year II
  - c. Year III
  - d. Year IV & above
7. Have you ever had sex?
  1. Yes
  2. No
8. What was your age at first sex?
  - a. less than 15
  - b. 15-19
  - c. 20-24
  - d. 25+
9. Number of partners ever had?

- a. One      b. two      c. three      d. more than three

10. Have you ever used any method of contraception?      1. Yes      2. No

11. If you use a method of contraception, which one is it?

- a) Pills  
b) Condoms  
c) Calendar method  
d) IUD  
e) Others: \_\_\_\_\_

12. Have you ever been pregnant?      1. Yes      2. No

13. If yes, what was your age at first pregnancy?

- a. less than 15      b. 15-19  
c. 20-24      d. 25+

14. How many times have you been pregnant? \_\_\_\_\_

15. Have you ever had induced abortion?      1. Yes      2. No

16. How many induced abortions have you ever had? \_\_\_\_\_

17. Where did you get the abortion service? \_\_\_\_\_

### **Knowledge about emergency contraception**

18. If a woman has had unprotected sex, for example if she has been raped, or her condom broke, or she forgot to use a method, is there anything she can do if she does not wish to become pregnant?

- a) She can go to the hospital or clinic (what for : \_\_\_\_\_)  
b) She can use some traditional remedies (specify : \_\_\_\_\_)  
c) She must wait to see if she will become pregnant and then she can get an abortion  
d) She can use emergency contraception  
e) Other: (*specify* \_\_\_\_\_)

21. Have you ever heard about emergency contraception?      1. Yes      2. No

22. If yes,

When did you first hear about emergency contraception? \_\_\_\_\_ E.c.

23. Where did you first hear about emergency contraception?

- a) clinic in the campus

- b) Friends
- c) family
- d) Media: TV, Radio, Read about it in newspapers, women's magazines
- e) Other: \_\_\_\_\_

24. Have you ever used emergency contraception? 1. Yes 2. No

25. Where do you think a woman can get emergency contraception?

- a) hospital/campus clinic
- b) Community health worker
- c) Pharmacy
- d) Private clinic
- e) women support group
- f) other: \_\_\_\_\_

26. Will emergency contraception work if a woman notices that her period is late?

1. Yes 2. No 3. Not sure

27. How well do you think emergency contraception works if used correctly?

- a) Almost 100% b) 75% c) 50% d) 25% e) Not sure

28. How soon after unprotected sex must emergency contraception be used in order for it to work?

- a) Immediately afterwards
- b) Within 24 hours
- c) Within 72 hours
- d) Within one week
- e) Anytime before the missed period
- f) Not sure

29. What do you think the emergency contraception pill is?

- a) The same as the regular birth control pill
- b) The same but stronger
- c) Completely different
- d) Not sure

## Attitudes toward emergency contraception

30. What do you think about this method?

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31. Would you have any concerns about this method?

1. Yes      2.No

If you have concerns, what would they be?

- a) It might cause health problems
- b) It will harm the baby if it does not work
- c) Women might not be able to have babies properly later
- d) It is abortifacient
- e) It might not be legal
- f) It will cause women to get STDs, and possibly HIV
- g) If men learn it is available, they will pressure women to use it
- h) It will be abused by women who take it too often instead of a regular method
- i) Other: \_\_\_\_\_

33. Where do you think the method should be available?

- a) hospital/clinic
- b) Community health workers
- c) Any pharmacy (prescription free)
- e) Women support group
- f) Not sure

34. Do you think there are any groups of women who should not get emergency contraception?

- a) No restrictions, it should be available for anyone who needs it
- b) It should be available for anyone except for young girls

- c) Only for married women
- d) Only for women who have been raped
- e) Only if regular contraception fails
- f) Other: \_\_\_\_\_

35. From what you know about emergency contraception, do you think you would ever use it or recommend it to a friend if the need arises?

- a) Yes
- b) No
- c) Not sure

36. Do you think men would object to their women using Emergency Contraceptive pills?

- a) No, they would not
- b) Yes, they would
- c) Not sure

37. What are the best ways to inform women about emergency contraception?

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*Thank you very much for your time.*

## Annex II

Issues to be raised during FGDs

Awareness about the ECP

Knowledge of Emergency Contraception

- the correct time interval for initiation of ECP
- The rate of efficacy of ECP
- Mechanism of Action

Attitudes and Beliefs about Emergency Contraception:

- The benefits and the risks of ECP
- ECP vs. regular contraceptive use
- ECP use vs promiscuity
- ECP vs religious/ethical reasons

What are the major barriers to ECP use

What should be done to improve the accessibility and intake of ECP

## **Annex III**

### **Questions included in the KIIs**

#### **Knowledge about ECPs**

1. Have you ever heard of the ECPs?
2. What is the correct time to initiate ECPs after unprotected sexual intercourse?
3. What is the mechanism of action of ECPs?
4. Efficacy of the Method

#### **Attitudes toward ECPs**

1. Should ECPs be available without prescription?
2. Are you willing to provide method?
3. Are you willing to provide method to male clients requesting method for their partners?
4. Are you willing to subscribe the method for any woman regardless of circumstances

#### **ECPs provision practices**

1. Did you have experience where a woman asked for ECPs? Characteristic of the clients
2. Have you ever prescribed/sold ECPs?
3. Had ever refused to prescribe/sell method? What were your reasons?

## **DECLARATION**

This is my original work and has not been presented for a degree in any other university and that all sources of materials used for this thesis have been duly acknowledged.

-----  
Mayet Hailu

This thesis is submitted for examination with my approval as an advisor of the candidate.

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Ignatious Mberengwa (PhD)