Addis Ababa University
School of Graduate Studies
Institute of Gender Studies

DETERMINANTS OF KNOWLEDGE AND SERVICE AVAILABILITY AND UTILIZATION OF SEXUAL AND REPRODUCTIVE HEALTH: A COMPARATIVE STUDY OF PREPARATORY STUDENTS IN MENELIK II AND DANGILLA

By

Shewaye Lulu

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Acronyms

BCC	Behaviour Change Communication
CSA	Central Statistical Authority
E.C	Ethiopian Calendar
EC	Emergency Contraception
EDHS	Ethiopia Demographic and Health Survey
ETB	Ethiopian Birr
FDRE	Federal Democratic Republic of Ethiopia
FGAE	Family Guidance Association of Ethiopia
FGDs	Focus Group Discussions
FGM	Female Genital Mutilation
HC	Health Center
HIV/AIDS	Human Immune Deficiency Virus/Acquired Immunodeficiency Syndrome
ICPD	International Conference on Population and Development
IEC	Information, Education and Communication
ISAPSO	Integrated Services for Aids Prevention Services Organization
IUD	Intra Uterine Device
KII	Key Informant Interview
LGI	Lymphogranuloma Inguinale
LGV	Iymphogranuloma Venerum
MDGs	Millennium Development Goals
MIE	Marie Stops International Ethiopia
NCTPE	National Committee on Traditional Practice in Ethiopia
NGOs	Non-Governmental Organizations
PPS	Proportionate to Population Size
RH	Reproductive Health
RTIs	Reproductive Tract Infections
SRH	Sexual and Reproductive Health
STDs	Sexually Transmitted Diseases
STIs	Sexually Transmitted Infections

TT	Tetanus Toxoid
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNIFEM	United Nations Fund for Women
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

Abstract

With expansion of access to education, more young people spend a reasonable time of their youth in schools. As a result, preparatory school students are among the fast growing segments of adolescents in Ethiopia. Although this development has a positive impact on Sexual and Reproductive Health (SRH) and the future of in-school adolescents, there are also factors that increase the SRH risks of this group. Lack of comprehensive knowledge of the risks, preventive and protective methods and limited access to SRH services are said to be contributories to the vulnerability of this group to SRH problems.

The general objective of this study was to assess the status of, and factors to SRH service availability and utilization of preparatory students in rural/urban settings – at Dangilla (Amhara Regional State) and Menelik II (Addis Ababa) Preparatory Schools. A cross sectional comparative study was undertaken among students enrolled in the two schools during the academic year 2009/2010. Quantitative and qualitative methods were deployed which applied questionnaires, interviews, Focus Group Discussion (FGDs), document reviews, and observations. A total of 1068 randomly selected students (442 females and 626 males) participated in completion of the survey questionnaire. Twenty nine (29) purposively selected informants were interviewed; eight (8) FGDs were separately conducted with female and male students, teachers and parents; and relevant documents were reviewed.

The findings indicate that in-school adolescents in general and females in particular are considered to be the most vulnerable groups to SRH problems. While most students have good knowledge of key SRH issues such as about most commonly used contraceptive methods and HIV transmission methods, however, rural-urban and male-female disparity in some of the issues is observed. Although female groups in most cases are at the same level, specifically in identifying basic transmission and prevention methods of HIV, misconceptions seem to be more prevalent among female respondents from Dangilla. Discussion on SRH issues among family circles still remains a taboo. In some cases SRH information and services are felt as unnecessarily available. Available RH services widely differ between the two study areas. In Addis, there are various types of SRH services provided by many agencies whereas in Dangilla these are limited both in type and providers. However, in-school SRH services, both curricular and co-curricular were more of the same and focus mainly on HIV/AIDS. Utilization of out of school healthcare services by adolescents is very limited. Some of the main factors that limit use of services were attributed to: lack of comprehensive knowledge and limited awareness on available services; concern over providers and non-youth friendliness of services (privacy/confidentiality, preference for same-sex provider, and miscommunication); societal expectations and fear of stigma (cultural and religious norms and taboos), and economic. The role of these factors varies between sites and among groups.

Key words: Addis Ababa, Dangilla, knowledge, schools, reproductive health, students, utilization

CHAPTER ONE
INTRODUCTION

1.1 Background

The International Conference on Population and Development (ICPD), Cairo 1994, presented a Programme of Action (PoA) which had pledges to achieve the goal of universal access to reproductive health (RH) services for everyone in all countries till 2015. The ICPD has broadened the spectrum of reproductive health with a paradigm shift from the long held belief that RH was all about family planning. One hundred seventy nine (179) countries, including Ethiopia, were signatories to the PoA and made promises to make necessary legal and policy provisions. One of the identified goals was to ensure access to reproductive and sexual health services (UN, 1994).

The Cairo Plan of Action also recognized, within the larger context, the specific sexual and reproductive health needs of young people and the provision of reproductive health information and services as a basic right of individuals who needs them, irrespective of age and sex (United Nations Population Fund (UNFPA), 1996). In addition to, and in line with the ICPD, the Maputo Plan of Action on Sexual and Reproductive Health and Rights in Africa (2006) identifies the young people as one of the priority target groups that need to be given emphasis. It puts the sexual and reproductive health needs of adolescents and youth as a key to the sexual and reproductive health component of the PoA (African Union, 2006).

Almost 1.5 billion people in the world are between 10 and 25 years old; in developing countries, an estimated half of their total population is under 20 years old (UNFPA 2007). On the other hand, the challenges for young people are greater today than ever before. Increased poverty, emergence of HIV/AIDS, and social and gender-based inequalities contribute to the high prevalence of reproductive health and related problems.

Adolescence is a critical life stage when lifestyle choices including health related behaviors are established that may be perpetrated over a lifetime and with impacts throughout life

(WHO, 2002). Thus, ensuring the diverse sexual and reproductive health needs and realities of young people is crucial to nations to guarantee healthy, productive and empowered citizens who can decide on their own lives. This again enables countries to achieve sustainable development and meet the commitments of ICPD and Millennium Development Goals (MDGs) (FDRE, 2007; UNDP, 2005).

Acknowledging this fact and the severity and complexity of reproductive health problems, the Ethiopian government initiated steps to implement the ICPD PoA. In 1997, it conducted a national RH Needs Assessment to identify RH needs and priorities and develop intervention strategies accordingly (FDRE 2006). As a result, the National Reproductive Health Strategy (2006-2015) was developed. The strategy among others focuses on the unmet sexual and reproductive health needs of the country's youth, both in rural and urban, as well as in-and-out-of-school (FDRE, 2006). Based on this national strategy, the Government of Ethiopia adopted a five-year Adolescent and Youth Reproductive Health Strategy (2007-2015). Two of the four goals of this strategy focus on the need for access and quality of RH services for adolescents and young people, and increase awareness and knowledge of the youth on RH issues (FDRE, 2007).

In addition, the Health Policy of Ethiopia (1993) focuses among others, on the development of an equitable and acceptable standard of health service system that will reach all segments of the population with special attention to the specific health needs of adolescents, women and children. It also emphasizes on information, education and communication (IEC) as a key strategy to enhance public awareness and to inculcate attitudes of responsibility for self-care in health (The Federal Democratic Republic of Ethiopia, 1993).

Furthermore, as a demonstration to its high-level commitment in ensuring the equality and empowerment of women, the Government of Ethiopia has formulated National Policy on Ethiopian Women (1993). One of the objectives of the Policy is to ensure easy access to basic health care facilities, and to have education and information about traditional and modern family planning methods (The Transitional Government of Ethiopia, 1993).

The formulation of the National Youth Policy in 2004 is another policy milestone taken by the Government of Ethiopia. The policy underscores the need to improve access to information, education and counseling services in the areas of RH including HIV/AIDS and other STIs. In addition, the policy points out female youth among groups that need special attention (FDRE, 2004).

Likewise, the National Policy on HIV/AIDS (1998) identifies strategies to improve women's access to information and services, to help them make informed decisions and choices to protect them from STI/HIV infection. The policy underscores the provision of IEC services including to school communities, through media and other methods with emphasis to children, women and youth to empower them to protect themselves against HIV/AIDS. In addition to advocating for abstinence and faithful sexual relationship, the policy included ensuring availability of condoms at affordable costs as a key component of the strategies for reducing the risk of STI/HIV infection (FDRE, 1998).

Although SRH issues are not cited in the Education and Training Policy of Ethiopia (FDRE, 1994), however, the above landmark policy commitments and affirmative actions have come a long way in creating a favorable enabling environment for strengthening reproductive and sexual health services. Yet, much more is desired in translating these into meaningful actions that benefit those most at need. Overall, while there is encouraging progress in the right direction, it needs to be underscored that the challenges are immense. Thus, it is imperative that achievements thus far need to be consolidated and scaled-up to meet reproductive and sexual health needs as spelt out in the various policy statements and strategic directions.

1.2 Statement of the Problem

According to the Ethiopian population and housing census report of the 2007, youth aged 10 to 24 comprise about 35% of the population, the largest group ever to be entering adulthood in Ethiopian history (FDRE, 2008). The reproductive health issues of this age

group are multi-faceted, ranging from sexually transmitted diseases, including HIV infection, to sexual violence; from early marriage, and unwanted pregnancy to pregnancy-related mortality (Hirut 2010). Studies document that 54% of pregnancies to girls under age 15 are unwanted; girls under age 15 are three times more likely to end their pregnancy in abortion. Abortion accounts for nearly 60% of gynecological and almost 30% of all obstetric and gynecological admissions in Ethiopia. Young girls and women aged 15-24 years are seven times more likely to be HIV positive than boys of the same age (UNAIDS/WHO, 2008; FDRE, 2007; FDRE and National HIV/AIDS Prevention and Control Office, 2005). These figures underscore the daunting task ahead in addressing reproductive health issues in the country.

Reducing maternal mortality and stopping/reversing the spread of HIV/AIDS which are among the goals for MDGs would be a difficult task without addressing reproductive health needs. Despite expansion of health facilities, access to existing health facilities remains a challenge for various reasons. Moreover, health care providers' attitudes and community norms, services that fail to recognize specific needs of girls and boys are major barriers in the field (Hirut, 2010; FDRE, 2007).

Adolescents are more vulnerable to sexual and reproductive health problems due to lack of knowledge, high risk taking behavior, poverty, religious and socio-cultural (including gender-related) factors. In some societies, including Ethiopia, adolescent sex and sexuality is culturally extremely sensitive and a taboo to discuss about (Hirut 2010; Dessalegn, 2006). In such situations, there is resistance to the introduction and utilization of reproductive and sexual health services (UNFPA & UN System Staff College, 2001). Societal denial of prevalence of adolescent premarital sex and pregnancy, misconceptions about RH services including belief that these would encourage promiscuous behavior among adolescents contribute to societal resistance for services (*ibid*).

Due to these and other factors, this group of population has been underserved, and always considered as "children," and homogeneous. The available services which often are designed in 'top-down/adult- adolescent' approaches do not cater for the special needs of

different groups of young people. As a result, they are often neglected and do not have either the economic or political power to demand for their reproductive rights and services. This leaves young people, specifically females more vulnerable and frustrated with unmet needs and subsequent problems (Mwale, 2008: citing Cullen 2000; FDRE, 2007; Shaik, 2006).

While this being the case with young people, gender-based discrimination in access to sexual and reproductive health (SRH) information and services also makes reproductive health and related problems worse to females, specifically to females in rural areas. Thus, as SRH problems of young people are immense, so do are the factors that determine access to SRH services multi-faceted; it ranges from cultural to social and economic.

In view of the above perspectives, this study looks into the determinants for access to, and utilization of SRH information and services by female students in urban and rural settings.

Guiding questions

This research attempted to answer the following guiding questions:

1. What do students know about sexual and reproductive health issues?
2. What are the available SRH services for students in and around the respective schools?
3. What is the attitude of the respective communities towards SRH problems of adolescents, and SRH information and services?

1.3 Objective of the Study

The general objective of this study is to assess the status of, and factors to sexual and reproductive health services for female preparatory students in urban and rural settings.

Specific Objectives include:

1. To assess knowledge of preparatory school students on sexual and reproductive health issues, in relation with males and females, and in comparison with the two settings;
2. To assess availability and utilization of sexual and reproductive health services for preparatory students in the respective settings; and
3. To identify the perception of the community towards SRH services and related factors in the respective settings.

1.4 Significance of the Study

Young people in general and females in particular are the most vulnerable groups to SRH problems. There are inter-connected factors that contribute to their vulnerability and determine access to SRH services. This, therefore, calls for interventions in the field to consider determining factors including gender-related and regional disparities in designing strategies for addressing reproductive and sexual health services. Thus, context, and gender-specific research is imperative for such interventions.

This study by manipulating both quantitative and qualitative data, has tried to identify key strengths, challenges and gaps in the area. Finally, it forwarded recommendations for feasible interventions to improve SRH services. Therefore, it is the researcher's belief that the study (based on prior researches) and by providing empirical data for local action, would contribute to address research gaps and serve as a background work for appropriate intervention and advocacy for strengthening adolescent SRH services, particularly for in-school students.

The immediate and direct beneficiaries of the study include students, school clubs, teachers and school principals with whom summary findings and recommendations have been shared and also the respective government health and education departments with whom copies of the research report will be shared. Others include students in academic circle who

can learn both from the drawbacks and strengths of the research, and NGOs working in reproductive and sexual health.

1.5 Scope of the study

The overall scope of the study is to assess availability and access to reproductive health services for young students in two selected preparatory schools and to identify determinants for access to services. As reproductive health encompasses wide issues of concern from menarche to menopause, the study focuses on immediate sexual and reproductive health issues of young people, particularly to school girls and boys. Such issues include, but are not limited to, menstruation, unwanted pregnancy, and STIs including HIV/AIDS. It is worth noting that the study, thus, does not attempt to address other components of reproductive health, such as female genital mutilation, early marriage, sexual violence, and other pregnancy related issues such as fistula and maternal mortality.

1.6 Operational Definition

Reproductive health services: for the purpose of this study is defined as the availability and access to information, prevention, care and counseling services on menstruation and related problems; for prevention and managing unwanted pregnancy and; for prevention, screening and managing of STI/HIV/AIDS. Awareness of reproductive health services, then means being able to cite where to seek such services.

Awareness of contraceptive methods: is defined as having ever heard about availability of one or more of contraceptive methods for prevention of unwanted pregnancy and STIs/HIV/AIDS due to unprotected sexual intercourse.

Knowledge of contraception methods: is not mere awareness of natural and modern contraceptive methods. Students are expected to have factual information about different contraceptive methods.

Accessibility of reproductive health services: is defined as the opportunity and right to make use of different SRH services to meet sexual and reproductive health needs in health

facilities (government, public, private, and NGOs) and elsewhere, where young people including school boys and girls could easily and freely (with privacy, dignity and confidentiality) obtain the service. The term also includes the notion of user-friendliness.

School clubs: are co-curricular, and student-based forums formed voluntarily from school communities (teachers, male and female students) with specific purpose, where members take an active role in the functioning of their respective fields. These include among others forums working directly or indirectly on sexual and reproductive health areas mainly, Mini-Media, Girls', and Anti-HIV/AIDS.

Preparatory School: a school level with formal and daytime schooling that include grade levels of 11 and 12.

Community: is defined as residents of the study areas including students, teachers, parents and healthcare providers.

1.7 Challenge

The researcher has among others the following key challenges during the research process. The entry point for reaching health institutions in Addis Ababa was the Addis Ababa Health Bureau. However, it took a couple of weeks to get ethical clearance which affected the researcher on her time management. In addition, it was challenging to organize FGDs with parents, specifically in the case of Addis Ababa due to time inconvenience, lack of cooperation from parents, and fear of students to extend invitation to their parents.

CHAPTER TWO
THEORETICAL FRAMEWORK AND REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

2.1.1 Background

The term 'reproductive rights,' originated as early as 1830's was often synonymous with 'birth control movements'. Birth control was raised as an issue related to women's suffering from repeated pregnancies and consequently demands for availability of contraceptives and contraceptive knowledge (Correa and Rosalind, 2003, citing Sanger 1920; Bryson, 2003). However, it was gradually related not only to social and political emancipation of women, but also to controlling women's bodies and obtaining sexual knowledge and satisfaction. In addition, attitude towards sexuality has changed, from the concept of 'a sin or purely animal activity' to a source of human pleasure; and from only an individual matter to an issue related to power structure in a society (Bryson, 2003).

As the birth control movement was followed by women's health movements in the late 1970 and early 1980s (Correa and Rosalind, 2003, citing Sanger 1920), the concept of reproductive rights was also expanded to include sexual rights (ibid; Bryson, 2003) and has become a major focus for feminists. Thus feminists contributed a lot for its genesis and subsequent international landmarks on the issue.

2.1.2 Feminist Thinking: from Sameness to Difference

At early times, the center of feminist theories has been women in relation to men. However, with the emergence of Third World, Lesbian, Postmodern and Multicultural or Global Feminists since 1970s, a new theorizing has emerged that opened up a space to examine the significance of difference among women; a shift from the previously shared assumptions and unquestioned orthodoxies of the 'universalized' to 'contextualized' women (Bryson, 2003).

'Difference' was articulated *"not only as gender difference that united women as distinct from men, but also as an index of incommensurability among women of different races, classes, ethnicities and sexualities"* (Kim and McCann, 2003:148, citing Schmitz et al, 1995). Such an argument was also seen for example from a Postmodernist Joan Scott's views that, " *[I]n the world in which no two people are identical, equality does not mean that they should somehow become 'the same', but that their differences can both demand entry into male-dominated areas"* (Bryson, 2003:236, citing Scott 1990). This connotes that feminists should go beyond comparing women with men and see inequalities among women. Similarly, African Feminists such as Oyèrónké Oyěwùmi criticized thinking of women as homogeneous groups in saying that *'common biology is not a common interest,'* therefore, women should be treated based on the reality they live in (Oyěwùmi, 2005).

The 'difference" feminists believe that women are differently contextualized or located by geography, age, class and marital status; thus have different experiences, needs and problems. Thus, women suffer from different types and levels of oppression which needs to be addressed contextually. According to the postmodern feminists, universalizing discourses and commonalities within groups is 'dangerous' (Tong, 1998), because it shutters the potential inequalities among women (Annandale & Clark, 1996).

Multiculturalists clarify more on differences as *'..even in one nation, . . . all women are not created or constructed equal, depending on her race and class but also on her sexual preference, age, religion, education attainment, occupation, marital status, health condition, and so on, each and every woman . . . experience her oppression differently*" (Tong, 1998: 212). They claim that as not all American kids are '*baseball-playing, apple-pie-eating, blue-eyed, blond-haired',* so do women differ based on their experience and oppression. For them, it is possible to oppress people by denying human differences and by denying human sameness (Tong, 1998). In line with this, Valerie said that women's oppression could not be squeezed to a single cause, or generalized as the condition of all women in all societies in all places; thus no simple explanation or one-dimensional theory can explain the gender inequality and claim to have found the key problem related to sexuality, reproduction, or culture can not be adequate. Political choices should be context

dependent and can be no 'one size fits all' means that feminist theories need not be restricted (Bryson, 2003).

2.1.3 Feminists' Thinking on Sexual and Reproductive Health of Women

All feminists in common believe that basically women's health is socially-constructed rather than built directly upon the women's biology (Annandale & Clark, 1996). According to feminists of liberal thinking women's SRH problems can be explained due to lack of equal access to public opportunities (Tong, 1998). On the other hand, radicals see male domination as primary and universal cause of women's oppression, in this case by causing inequality in relation to SRH which oppresses women by controlling the female body, institutions, thinking and attitudes, norms and cultures and male-centered sexual satisfaction (Correa and Rosalind. 2003; Annandale & Clark, 1996; Smyth, 1994). These groups believe that such institutions as culture and religion are central to the maintenance of patriarchy (Haker, 2006) and, suggest more radical strategies and not merely equal rights, as suggested by liberals.

In most cases, feminists believe that governments and programs that fail to address SRH of both males and females equally are accountable for disproportionate SRH outcomes and vulnerability of females than males. They based their arguments that women have equal right to decide on their sexual and reproductive lives, and to do so they need the presence of certain ***enabling conditions*** [the researcher's emphasis]: of power and resources. Power to make informed decisions about ones own fertility, health, sexual activity and, resources to carry out those decisions safely and effectively, such as comprehensive health services that are accessible, humane, and well staffed and access to education (Correa and Rosalind, 2003, citing Morsy 1994 and others). In terms of women's rights, feminists say that it should not be alienated from her sexual and reproductive capacity, by for example coerced sex or marriage, or FGM, denial of access to birth control, lack of informed consent on contraceptives, freedom from sexual violence, from unsafe contraceptive methods, and from safe abortion. For such vulnerability of women and girls than men and boys, to HIV/AIDS and other diseases thus, they criticize the social, cultural and religious, and

government structures as they fail to put in place a supportive social and cultural environment. They further suggest the necessity of sex education and focus on male and female socialization (Correa and Rosalind. 2003).

Feminists also believe that women's right should go beyond mere self-determination and to claim all political and social rights, basic healthcare, information and education on birth control and health-related practices, and generally equal rights to their well-being and freedom (Haker, 2006). They have also been contesting key issues of access to reproductive rights of minority women, many of whom face the twin realities of their rights being denied, and their needs being dissatisfied. Women with low income often depend on government funding for their RH needs being at a disadvantage in *"exercising their choices either because of cultural constraints that may pose a threat to their reproductive rights or because of popular prejudices from the side of policy makers, medical practitioners and social workers"* (Trehan and Crowhurst 2006: 189).

This research is therefore based on a two-staged analysis, but within the conceptual framework of feminist principle, of equality and women's rights. Thus, in general, the researcher uses feminist perspectives to discuss the findings of the research.

2.2 Review of Related Literature

2.2.1 Background

In the 1980s, the issue of reproductive health including family planning gained a momentum as women's rights. The premise of this perspective is the principle that every woman has a right to reproductive health, among others to regulate her fertility; to understand and enjoy her own sexuality; and to remain free of disease, disability, or death associated with her sexuality and reproduction (Dixon,1993). While there had been earlier several international conferences on population and women, they rarely addressed SRH from the above perspective. The only few exceptions were the First World Conference on Human Rights (Iran 1960s), which made a mention of the right to determine the number and spacing of one's children. The Second International Conference (Vienna 1993)

affirmed that women's rights are human rights and called for eradication of discrimination on the basis of sex in the context of access to health care including family planning services (WHO, 2001).

The **Convention on the Elimination of All Forms of Discrimination against Women**, adopted in 1979 by the United Nations General Assembly was ratified by the Ethiopian Government in 1981 (UNDP, 2008). The Convention formally recognized the influence of culture and tradition on gender relations. In this Convention, three articles stress on equal rights of men and women, and among women themselves, in the area of sexual and reproductive health. These articles call for: elimination of discrimination against women in the field of education and the need for governments to work on the reduction of female student drop-out rates, and access to information including family planning (article 10); to have equal access to health care services (article 12); and to eliminate rural/urban discrimination among women in accessing healthcare services in a wider context (article 14) (UN, 1993).

In a related development, (articles 17 and 24) of the **Convention on the Rights of the Child** (1989), ratified by Ethiopia in 1991 (UNDP, 2008) focus on the importance of child's access to mass media and information. It also request States Parties to ensure the promotion of the child's health and the enjoyment of the highest attainable standard of health and access to health care services (UN General Assembly, 1989).

The **International Conference on Population and Development (ICPD)**, Cairo, 1994, was monumental as it was for the first time to reach to a global consensus on what reproductive health constitutes. As seen in the previous parts, Ethiopia is one of the signatories to its Programme of Action. The Conference defined RH as: "*a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes*" (UNFPA, 1996: 45, emphasis added). The definition implies among others that people (irrespective of sex and age) have the capability to reproduce and the freedom to decide on the timing and numbering of children, to get information, have access to safe,

effective, affordable and acceptable methods of family planning of their choice, and the right to access health-care services. It also includes sexual health for the enhancement of life and personal relations and not merely counseling and care related to reproduction and STIs (*Ibid*). Thus, unlike prior international conferences, the ICPD links population and development, and puts a goal of ensuring universal access to reproductive health by 2015 (*Ibid*).

The **Fourth World Conference on Women (**Beijing, 1995) was a reaffirmation of commitment of nations towards the agenda of the ICPD. It explicitly recognized and reaffirmed the determination of nations to the right of women to control all aspects of their sexual and reproductive health (United Nations, 1995).

Furthermore, the **Millennium Declaration** and the subsequent **Millennium Development Goals** (MDGs) reinforced the priorities and objectives of ICPD (UNDP, 2006, citing UN 2005b) and stressed that the progress towards the MDGs depends on attaining the ICPD reproductive health goals. Thus, today, many international, regional and local level initiatives related to SRH take the above points, specifically the ICPD PoA as a point of reference.

2.2.2 Analysis of the problem

Overview and gender dimension of the problem

The world population is nearly 7 billion, and adolescents and young people under the age of 25 is almost 3 billion, i.e., nearly half of the world's population (UNFPA, 2009). Specifically, those between the ages of 10-25 constitute more than 1.5 billion (UNAIDS, 2008). In Ethiopia, youth aged 10 to 24 comprise about 35% of the total population, the largest group ever to be entering adulthood (FDRE, 2008).

Globally, although with considerable regional variation, death and disability due to SRH accounted for 18% of the total disease burden and 32% of the disease burden among women of reproductive age in 2001. Due in large part to the HIV/AIDS crisis, the

reproductive health disease burden accounts for about one third of Africa's total disease burden, which is almost double that of most other regions (UNDP, 2006). However, the large share of this disease burden is on adolescents and youth. Although adolescents as a group are vulnerable to sexual and reproductive health problems, female adolescents are specifically in greater risk than their counterparts (Awol, 2007; UNFPA, 2005; UNDP, 2006).

Sexual and reproductive health problems have a strong gender dimension. Poverty drives many young women and girls to 'survival' sex. Although poorer girls, as a group, are not necessarily engaged in sex for exchange of money, there are situations where the combination of gender and poverty increase the likelihood of engagement (UNAIDS, 2008; UNFPA, 2005). Illustrations of practical examples for the role of gender in SRH issues are presented below.

Worldwide, the highest reported rates of STIs (60%) are found among people between 15 and 24 years, however, STIs and reproductive tract infections (RTIs) are particularly common among young people of developing countries. Sub-Saharan Africa hosts over 10% of the world's population but accounts for (67%) of all people living with HIV in 2007, i., e., two thirds of the global total, and among which is with the highest proportion of women and girls. Likewise, young people aged 15-24 in the world account for an estimated (45%) of the new HIV infection (UNAIDS, 2008; UNFPA, 2007).

In Ethiopia, the prevalence of STI among 15-24 age groups is (53.6 %), while for the age groups 25-35 is only (26.3%) (Mohammed, 2008, citing Ministry of Health 2003). In addition, the national HIV prevalence in 2005 is estimated to be (3%; 4%) among males and females, respectively. Females are seen to disproportionately affected by the virus in that, of the estimated 1.32 million people living with the virus in 2005,(55%) were females. Likewise, females accounted for (54.5%) of AIDS deaths and (53.2%) of new HIV infections in the same year. The number of adult AIDS deaths in urban Ethiopia is estimated to have been larger than that in rural Ethiopia until 2005 but were projected to be higher in rural Ethiopia from 2006 onwards due to the greater availability of anti-retroviral

treatment (ART) in urban areas (UNAIDS/WHO, 2008; FDRE and National HIV/AIDS Prevention and Control Office, 2005).

Biological factors account for the disproportionate suffering of women and girls from STIs including HIV/AIDS. As a result, women are more likely to suffer asymptomatic STIs with (70%) which could remain untreated compared to (10%) men. In addition, greater transmission rate is also a factor for greater vulnerability of women to STIs including HIV. For example, the risk of transmission as a result of one act of sexual intercourse with an infected person for Gonorrhea is 50-90% from male to female while it is only (20%) from female to male. In addition, the rate of transmission for HIV, from male to female is 0.1 to (20%) while from female to male is 0.01 to 10% (Hyde and Delamater 2006).

In the 1980s, when first AIDS emerged, HIV/AIDS primarily affected men. However, the proportion of infected women compared to men has risen steadily, from (35%) in 1990 and (41%) in 1997, to (48%) in 2004 (Belainesh, 2006; WHO, 1997). Now, the face of the epidemic is increasingly that of women and specifically that of young girls. Women account for half of all people living with HIV worldwide, and nearly (60%) of HIV infections are in sub-Saharan Africa (UNAIDS, 2008).

According to the UN Theme Group on HIV/AIDS Advocacy Technical Working Group, of all new cases of young people, the majority are women and girls; (67%) of all new cases of HIV among people aged 15-24 years are young women; and young women represent (76%) of young people living with HIV (UN Theme Group on HIV/AIDS, 2006). As a result, elsewhere and in Ethiopia, HIV has become essentially a girls' or 'feminine epidemic' (FDRE, 2006; Population Council, 2001).

This fact goes with the trend of HIV/AIDS in Ethiopia. The prevalence rate to male-female shows variation towards increase in females (FDRE and National HIV/AIDS Prevention and Control Office, 2005). According to the National Adolescent and Youth RH Strategy (2007-2014), young girls and women aged 15-24 years are seven times more likely to be HIV positive than boys and men of the same age. Unmarried, sexually active women have

the highest risk of HIV infection, with a (9%) prevalence rate (FDRE, 2006). On the same note, the ratio of HIV prevalence among the Ethiopian young people (15-24 year olds), in 2007 show for male 0.2 and female 1.1 (for low estimate), and male 0.7 and female 1.9 (for high estimate) (UNAIDS/WHO, 2008; FDRE and National HIV/AIDS Prevention and Control Office, 2005).

Unplanned pregnancies and their consequences are common problems for women globally, with an estimated 76 million each year. This corresponds to annual pregnancy risks of (3.2%) among modern users (due to inconsistency, incorrect use or failure), (15.6%) among users of traditional methods, and (36.5 %) among non-users (UNDP 2006, citing AGI and UNFPA 2003). Forty percent (40%) of all unsafe abortions among adolescents occur in developing countries and there are an estimated five million unsafe abortions among adolescents in sub-Saharan Africa every year (UNFPA, 2005). While the global trend has decreasing, the number of abortions in sub-Saharan Africa has increased, and almost all are performed in unsafe conditions (WHO, 2008).

Similarly in Ethiopia and as noted previously, abortion accounts for nearly (60%) of gynecological and almost (30%) of all obstetric and gynecological admissions. Young girls are the most affected group which (54%) of pregnancies to girls under age 15 are unwanted and girls under age 15 are three times more likely to end their pregnancy in abortion. The earlier the age of adolescent girls' sexual debut, it is more likely for the pregnancy to be unwanted, and again more likely to end in illegal abortion. As a result, according to the DHS 2005 Ethiopia, (54%) of pregnancies to girls under age 15 are unwanted compared to (37%) unwanted for the ages 20-24 (FDRE, 2007, citing Ministry of Health, 2006; CSA & ORC Macro, 2005).

Menstrual problems account for much of the morbidity that occurs in women of reproductive age, being one of the four most common reasons for consulting general practitioners (Yared, 2004, citing Warner, 2001). Women and girls irrespective of socio-economic status, race or cultural background are affected with menstruation related, and a complex combination of psychological symptoms, including irritability, aggression,

tension and depression (Yared, 2004). Most females experience some degree of pain and discomfort during menstrual period, which can impact on their daily activities, and disturb their productivity at home, at the workplace or performance at school. Yared's study in school girls in Addis Ababa showed that the prevalence of dysmenorhea was (71%) in the year 2003/2004, out of which (15%) reported that it has affected their daily life activities, including absence from school (Yared, 2004).

Gender-based violence knows no boundary, and is a human rights violation that causes enormous harm to girls' and women's physical and mental well-being. Its consequence may expose women and girls ranging from psychological trauma to unwanted pregnancy or contract of STIs including HIV (Alem, 2008; UNFPA & UNIFEM, 2005). Despite the legal provisions and efforts to reduce and eliminate violence against children, particularly girls, violence and abuse seem prevalent (Save the Children Denmark, Ministry of Education, and Ministry of Women's Affairs, 2008). Studies on students show that it is prevalent in all regions with varying proportions (Hirut, 2010; Save the Children Denmark et. al, 2008). In a society like Ethiopia where sexual violence is implicitly and explicitly accepted, it has a direct impact on women's and girls reproductive health.

Generally, despite international conventions, agreements and consequently national level initiatives as seen in the prior sections, adolescents in general and females in particular are seen disproportionately affected by problems related to their reproductive health. A lot of factors, ranging from biological, socio-cultural and economic are said to be linked to these problems as can be seen in the following sections.

2.2.3 Factors Influencing Utilization of Sexual and Reproductive Health Services

A lot of factors directly or indirectly contribute to either utilization or low utilization of SRH services. These factors are discussed in the following sections.

2.2.3.1 Norms about Sexuality in Ethiopia

Societal norms and expectations play important role with either negative or positive impact on adolescents' behaviours with regards to sexual and reproductive health knowledge and

practices. Culturally, there is an assumption that youth are healthy and less vulnerable to life threatening diseases (Hirut, 2010; UNFPA & UN System Staff College, 2001). On the other hand, there is a widely held belief that teaching or discussion about sex to young people promote sexual activity (Langhaug, 2003). In Ethiopian society which is constituted by patriarchal family model, as in the case elsewhere, young females are expected to know little about sexual matters, to the extent that those who raise the issue of condom or contraceptive use might be suspected of being unfaithful or promiscuous and with 'deviant' behavior (Hirut, 2010; Alem, 2008; UNFPA, 2005). Alem explains the Ethiopian family system as follows:

> *A central principle of hierarchical relationships occurs at all levels of local social structure, including the family. The Ethiopian family system is guided by the principle of domination of age over youth, and male over female, and is by the overriding concept of patriarchy* (Alem, 2008: 75).

Child-parent relationship in Ethiopia is formal and authoritarian, with little or no discussion of sex-related subjects between parents and children, specifically with the girl child (Alem, 2008; NCTPE, 2003). Since marriage is considered as the ultimate level of male-female relationship by the dominant religions, sexuality in Ethiopia is a taboo subject for young and unmarried school adolescents in general and for females in particular. According to a study undertaken in schools around Shashemene and Awassa, even biology instructors are ashamed of talking about sexual organs during their classes. The same study also indicates that teachers sometimes embarrass female students in class and limit them from discussion of sexuality (Hirut, 2010). Such differential treatment as a result of cultural gender-based expectations results with fear and shame relating to speaking about anything sexual; and the traditional norms for female modesty and propriety exclude any possibility of an open discussion about sexuality (Alem, 2008). As a result, lack of information and neglect of female health needs prevent many female students from taking a full part in their own bodies and sexual lives.

The societal beliefs, norms, customs and practices defining 'masculine' and 'feminine' behaviour, plays a major role in determining who should get what services and at the same

time influencing the health seeking behaviour of adolescents (WHO, 2001; WHO, 2003). Apart from gender-based sexual violence, gender inequality also is manifested with differential access to opportunities and services, (Alem, 2008; UNFPA, 2005; Population Council, 2001).

Human perceptions to risk are shaped by experiences and largely by information and guidance received from sources such as family**.** Studies show that adolescents who have got strong and positive relationship with trusted adults who are close to them, such as parents and teachers are with lower prevalence of risky sexual behaviours, committed to school, and are socially competent showing higher self-esteem than adolescents without such a connection (WHO, 2002). However, in most cases, the Ethiopian culture seems to be restrictive to communication on SRH issues, specifically considers it a taboo among family members. As a result, according to local studies undertaken with high school students, there is very limited or no discussion between parents and children on sexual issues in general and RH in particular and more specifically with girls (Hirut, 2010; Mohammed, 2008). On the other hand, adolescents also fear that initiating such discussions could result to be labeled as 'bad boy' or 'bad girl' (Dessalegn, 2006).

Many studies show that although most adolescents consider their parents as the most ideal information resource for sexual issues, however, most parents are 'clueless' as to what their children's real sex life looks like and what reproductive health needs of their children is. Sometimes parents are with less sexual and reproductive health knowledge than their children (Sax, 2005; Temin, Okonofua and others, 1999). As a result, peers are easily accessible, private and understandable sources of RH information for most of adolescents (Kouta, 2008; Temin, & others, 1999). Same is true with Ethiopian context where adolescents tend more to peers for SRH information and advice that may themselves lack or are incorrectly informed (Feven, 2008; Mohammed, 2008; Dessalegn, 2006).

Thus, in general, vulnerability of school girls is compounded with gender-and age-based cultural discrimination - as females and unmarried, and as young people. Such gender-related and cultural norms on the other hand, restrict female students access to full information about sexuality and reproductive health services as a result to remain ignorant

and passive about sexual matters unlike boys. Thus, hinders communication between partners and family members and limit negotiation power of females on their sexual and reproductive lives, as a result of which determine the benefits that could be brought from communications.

2.2.3.2 Lack of Comprehensive Knowledge of Adolescents on SRH issues

Human perceptions to risk are shaped by experiences and largely by information and guidance received from different sources and the accuracy of the information and reliability of the sources**.** Young people without appropriate information and guidance are at higher risks of SRH problems.

However, different researches show different realities regarding knowledge of adolescents on SRH issues. Some say that majority of adolescents still does not have full access to information and education on such issues, thus, do not have accurate knowledge (Kotwal 2008; UNAIDS, 2008). They further note that those who happen to have, are even not happen to be generally not well informed, but with patchy knowledge of issues related to sexuality. Even among adolescents, females are less knowledgeable than males on sexual and reproductive matters (Mohammed, 2008; UNAIDS, 2008; UNDP, 2005; WHO, 1997). However, on the other hand, Hirut's research show that despite lack of RH and HIV/AIDS-related services, the awareness level of youth (10-24) around Awassa and Shashemene is very high (Hirut, 2010).

Knowledge to accurately understand the risks of HIV and how to prevent exposure is a prerequisite to risk reduction. According to UNAIDS 2007 study, many young people lack basic knowledge about HIV prevention with only (40%) of males and (38%) of females aged 15–24 with accurate and comprehensive knowledge about HIV transmission and prevention. In line with this, more than (70%) of young men know that condoms can protect against HIV exposure, while only (55%) of young women cite condom use as an effective prevention strategy (UNAIDS, 2008).

Unlike this finding however, the EDHS report of 2005 reads that knowledge of AIDS is widespread in Ethiopia with (90%) of women and (97%) of men age 15-49 have heard of AIDS and (about 63%) of women and (about 79%) of men being aware of preventive

means of limiting sex to one uninfected partner or by abstaining from sexual intercourse. Knowledge of condoms for preventing AIDS virus is much less common, particularly among women (CSA, Macro, 2005).

On the other hand, according to the 2008 Epidemiological Fact Sheet on HIV and AIDS of Ethiopia, the percentage of young people aged 15–24 who both correctly identify two ways of preventing the sexual transmission of HIV and who reject two misconceptions about HIV transmission represent (33%) for males and (21%) for females. Hirut's study indicates that the level of awareness of the youth on HIV/AIDs is very high (Hirut, 2010). Another study conducted by Population Council on Adolescent Girls shows that, **(**93%) of respondents named sexual intercourse as a mode of HIV transmission. The greatest proportion of respondents knew that a healthy looking person can be living with HIV (91%) and that there is no cure for AIDS (87%). Fifty nine percent (59%) of respondents were aware that people can get HIV from sharp instruments, a most common misperception in Ethiopia (Population Council, 2009). This seems that although there might be a lot of factors for the discrepancy, among different studies, however, the knowledge level of females to that of males is much less in all the studies.

Studies in Ethiopia and elsewhere show that even in countries with relatively low contraceptive prevalence, awareness of contraceptive methods is often widespread (Population Council, 2009; Save the Children USA, 2007; UNDP 2006). On the same note, there are often widespread misconceptions and lack of knowledge about the effectiveness of specific methods, proper usage of available methods, side effects and the long-term effects of methods. Users of natural family planning methods (i.e., periodic abstinence) are too frequently unaware of the proper timing of low pregnancy risk. These information gaps are most pronounced among young people (Save the Children USA, 2007; Population Council, 2009). Among high school adolescents in 2007, only (28.4%) were able to correctly identify the time of month when pregnancy risk is the highest. Females appeared significantly better than their male counterparts in correctly identifying the time of month when pregnancy risk is the highest (32.4% females and 24.2% males) (Save the Children USA, 2007).

When it comes to STIs, according to Save the Children USA report of research done on

high school adolescents, the most frequently reported STI symptoms by the students were genital ulcers, pain during urination, genital discharge, and itching. This shows that despite the recorded improvements and irrespective of their exposure to the school interventions, youths' knowledge of STI symptoms are not comprehensive, with about one third of all survey respondents unable to identify a single STI symptom. Furthermore, some of the most important signs and symptoms of STIs including genital rash and swelling in the genital area were rarely identified (Save the Children USA, 2007).

2.2.3.3 Lack of youth-friendly in and out of school reproductive health services

Improving young people's sexual and reproductive health is determined by and large, with the availability of both information and services**.** However, culturally, there is an assumption that youth are healthy and less vulnerable to life threatening diseases (Hirut, 2010; UNFPA & UN System Staff College, 2001). On the other hand, there is also a widely held belief that teaching about sex and provision of services including reproductive health information, to young people promote sexual activity (Langhaug, 2003). This is despite the studies showing that providing young people with accurate information discourages early sexual activity and encourages safe sexual practices for teenagers or adolescents (Feven, 2008 citing SIECUS, 1995). This is also the environment which in most cases those health professionals are functioning. As a result, reproductive health of adolescents has by far been neglected and the majority of adolescents still do not have full access neither to information and education, nor to preventive and curative services (Hirut, 2010; Kotwal, 2008).

Quality of care refers to services that are affordable, appropriate, confident, effective and responsive to the user's needs. More specifically, quality of care from the user's perspective consists of: choice of methods (reliable and in variety); information given to clients during the service, attitude of service providers and the community, technical competence and communication skills of service providers (UNDP, 2006). The quality of SRH care has an impact on the client's use of these services.

On this juncture, the reality in Ethiopia shows adolescents and youth have very limited access to quality youth-friendly services and are at increasing risk of negative RH

outcomes. This is due to the fact that there is a tendency of provision of generic, age-and gender-blind information and service due to cultural influence on the side of health service providers, and program managers that fail to recognize the distinct needs of girls and boys at different ages (FDRE, 2007). As a result, adolescents' visit to health facilities for sexual and reproductive health and related problems is very low (ibid; UNDP, 2006). A study done in Oromiya, Southern Nations Nationalities, and Peoples Region (SNNPR), Tigray and Amhara by Ministry of Health (MOH) identified that providers' attitudes and community norms are a major barrier to the provision of youth-friendly services. Thus, it further noted that respondents preferred seeking services from the private sector or from the community traditional healers than visiting public sector (FDRE, 2007).

According to a study done, by Amare on youth programmes, youth do not choose for various reasons to go to health facilities where it provides services to adults too, in fear of being seen by their families or someone they know. In addition, lack of information about the availability of services, limited access and poor quality of services provided, societal attitudes towards youth RH services (fear of confidentiality and privacy), women's low decision-making power; cost of services, are major factors for adolescents' low use of health facilities in relation to SRH needs (UNDP, 2006; Amare 2001). This is more so when it comes to females and specifically school girls. Factors such as unavailability of school clinics due to policy gap and lack of proper functioning of school counseling services to address SRH issues of in-school youth stresses that SRH issues are critical but no one wants to approach (Hirut, 2010).

Education is an important determinant of the quality of life and is strongly associated with healthy reproductive health outcomes. In-school adolescents spend most of their time in schools. Thus, the role of information and knowledge through curricular and co-curricular activities is very significant in imparting knowledge and bringing about positive behavior change. In-school adolescents are said to be reached through curricular and co-curricular activities. Although the school syllabus on Family Life Education (FLE) is integrated from grade 7 onwards with very limited RH issues, mainly in biology, HIV prevention programs are seen integrated into other school subjects and to a greater extent in biology. However, there was no reported link or integration with RH topics (FDRE, 2007).

In addition, in-school youth are said to be reached out by the Government and other stakeholders through school clubs mainly Anti-HIV clubs, and girls' Clubs. However, there is lack of harmonization of activities (FDRE, 2006). Despite this, school clubs are serving as forums to discuss not only issues concerning school matters, but also enable them to exercise their rights, fight violations, and create awareness among peers (Save the Children Finland, Ethiopia Country Office, 2008). At the same time, schools are the best defense against HIV infection. Evidence suggests that girls who stay in school longer delay their first sexual experience; they have more knowledge about HIV prevention and greater understanding of HIV testing. And schools offer the best means to deliver HIV prevention information, as well as the long term social skills that help protect against infection (Belainesh, 2006).

A study was conducted to evaluate school based Adolescent RH Education Programmes among high schools in Hawassa City in 2007 and (84.4%) reported being taught RH related education in schools from club programmes and during Biology class with related topics. The overall provision of RH related education, participation of in-school youth in extracurricular activities, supply and distribution of IEC/BCC materials on RH in high schools were achieved fair results (59%) in compliance with the intentions to reach adolescents with RH related education and information in high schools (Fikru 2007).

Despite greater significance of clubs, clubs are contributing to only club members; the RH-related clubs run by limited clubs members were not able to do anything effective (Hirut, 2010). However, a study undertaken by Save the Children USA to evaluate in-school adolescent and reproductive interventions, those club members participated in clubs related to RH and mini media, demonstrated significantly higher knowledge SRH issues including knowledge of where to find ARSH services and higher utilization of available SRH services, unlike the general school youth (Save the Children USA, 2007).

To conclude, adolescents are the most vulnerable groups to SRH problems. They need the information and healthcare services in order to protect themselves. However, as seen in the reviewed literatures, there are a lot of factors that hinder them from accessing quality services.

CHAPTER THREE
STUDY AREAS AND METHODOLOGY

3.1 Background to the Study Area and Selection Criteria

This study was conducted in Dangilla Preparatory School located in Dangilla *Wereda* in Awi Administrative Zone (Amhara Region), 485 km from Addis Ababa, and Menelik II Preparatory School located in *Arada Kefele Ketema* in Addis Ababa. The background information about the two study areas are presented here below.

Figure 1: Map (location) of Dangilla and Menelik II

3.1.1 Dangilla Preparatory School

Dangilla *wereda* is one of the 105 *weredas* in the Amhara Region located in Awi Administrative Zone. The capital of the *wereda* is also called Dangilla. The *wereda* covers an estimated area of 1,540.63 square kilometers and has a population of 157,390 of which 79, 416 (50.45%) are males and 77, 974 (49.54%) are females. The people residing in rural

areas constitute: 66, 288 (50.74%) male and 64, 364 (49.26%) female, and those living in urban include 13, 128 (49.09%) males and 13, 610 (50.9%) females (FDRE, 2008).

According to the information received from the school administration of Dangilla Preparatory School, the school has been established in 1960 (E.C.) as Junior High School with a total of 46 students (39 male and 7 female), and 2 male teachers. In 1970 (E.C.), it was promoted to Dangilla Senior Secondary School with a total of 291 male and 185 female students and 32 male teachers. After 14 years, i.e., in 1994 (E.C.), the school was again promoted to preparatory school, as the only preparatory school in the *wereda*.

During the time of the research (2009/210 academic year), Dangilla Preparatory School consisted of a total of 888 (327 females and 561 males) and 719 (186 female and 533 males) students enrolled in grades 11 and 12, respectively. At this point, the School has 64 male and 6 female teachers, and 14 administrative personnel.

3.1.2 Menilik II Preparatory School

Menelik II Preparatory School is located in what is traditionally called *Arat Killo* in *Arada Kefle Ketema*, one of the 10 *Kefle Ketemas* of Addis Ababa, next to *Arat Kilo* Campus. The School was founded by Emperor Menelik II and it is documented as the first modern school in the Ethiopian history.

At the beginning, the school was mainly providing religious education, Ethiopian History, Law and *Ge'ez* language with most of the teachers and the principals coming from Egypt until 1928 E. C. The School began first in the Emperor's Palace, in 1898 (E.C) after sometime was moved out of the Palace to '*serategna sefer'*. It is in 1901 that the School again moved to the now *arat killo* area (Menelik II School, 1995). At its early age, students were only children of the elites, however, with the emergence of other schools, more and more children including girls were able to attend in the school. Until 1934, it was providing education up to grade 5, and it is through time that it started to provide education up to grade 12 (Menelik II School, 1995).

Starting from 2007/2008 academic year, the school has become one of the preparatory schools in Addis Ababa. During 2009/2010 academic year, and at the time of the study, there were a total of 1457 (674 males and 783 female) and 1500 (782 *males* and 718

females) students in both grades 11 and 12, respectively. It has a total of 123 (96 male and 27 female teachers) and 32 administrative staff.

3.1.3 Selection of the Study Sites

The two study sites were purposively selected. The researcher has been familiar with both study areas. In addition, the sites are also said to ideally represent both rural and urban settings in that Menelik II Preparatory School is located in the capital city, and Dangilla Preparatory School is also located in at *wereda* level being the only preparatory school in Dangilla *wereda*.

3.2 Study Design

This study is a cross sectional comparative study between female and male preparatory school students of Menelik II (in Addis Ababa) and Dangilla (Amhara Region, Dangilla *wereda*). The study populations were female and male reparatory school students enrolled in the academic year of 2009/2010 in grades 11 and 12 in the two schools. The research employed both quantitative and qualitative methods which apply different data collection tools so as to overcome limitations that may arise from single source methods. The inclusion criterions were attending regular day time school, being in grade 11 and 12, and unmarried at the time of data collection; those married students were excluded.

3.3 Data Collection Methods and Data Collection Procedure

Both quantitative and qualitative data collection instruments were employed to collect both primary and secondary data. A predefined interview and FGD guides, a pre-tested structured questionnaire, and a predefined observation checklist were used to collect the qualitative and quantitative data (annexes 15, 16 & 17).

Quantitative data was collected through structured questionnaire and qualitative data was collected using a combination of techniques: key informant interviews, focus group discussions, document review/content analysis, and direct observations. This is because, *"[f]eminist research is amoeba-like; it goes everywhere, in every direction… It reaches into all the disciplines and uses all the methods, sometimes singly and sometimes in combinations"* (Reinharz, 1992: 243). In addition, feminist research should use "*any method available and any cluster of methods needed to answer the questions it sets for itself"* (Reinharz, 1992: 213). Using these methods thus, enabled the researcher to collect

a range of, and in-depth, triangulated information, in order to reach to sound and generalizable conclusion.

3.3.1 Structured Questionnaire

The survey questionnaire was prepared in English and translated into Amharic for data collection. Translation was done by the researcher for she has adequate knowledge and experience of both languages and knowledge of the dialects used both in Addis Ababa and Gojjam. However, due to the sensitivity of the issue, and to ensure high quality translation, the questionnaire was also reviewed by a professional translator, and then pre-tested.

The researcher used the survey instrument prepared for UNDP/UNFPA/WHO/World Bank Special Program of Research specifically designed to study the sexual and reproductive health of young people who have reached puberty but are not yet married. The tool is commonly used to yield information on sexual and reproductive health knowledge and services (Cleland, John. (ND). However, since this generic instrument was prepared for global use, it was adapted to the local context for both clarity of language and cultural acceptability. To maintain the desired variables, the Amharic version was further reviewed with inputs from a public health expert. Then, this was adjusted to the reading and cognitive level of the study population by making each statement simple and direct; and adopting vocabularies that are clear in meaning and are commonly used.

3.3.2 Key Informant Interview

Twenty Two (22) purposively selected informants from 18 institutions (Health Bureaus, Government Health Centers, Public, Private and NGOs working on RH related activities), 6 club coordinators and 1 Red Cross Clinic personnel were interviewed. The interviews were designed to elicit in-depth information and perception on SRH problems of youth, available services, challenges in availing services and remedial suggestions. In all the cases, pre-defined discussion guides (annex 16) were used and interviews were recorded on audio cassette. For those not at ease to be audio-recorded, summary notes of responses were compiled in a written form.

3.3.3 Focus Group Discussion

A total of 8 FGDs (4 in each study site) comprising a total of 96 participants were conducted separately with groups of female and male students, teachers and community

members/parents. Discussion was held using pre-identified guiding questions (annex 16) and recorded with audio cassettes. This was done to explore their opinions and feelings about issues around SRH and services.

3.3.4 Document Review

Rapid survey of relevant documents such as policies and school syllabus were reviewed to see the level of accommodation of SRH issues. Although content analysis is a full-fledged research technique by itself, the attempt made here was only aimed to have an overview of the curriculum with regard to SRH issues.

3.3.5 Observation

Direct observation was used as supplementary technique to obtain non-verbal information using a predefined observation tool (annex 17). This included observing physical facilities and audiovisuals such as posters, leaflets and health facilities as appropriate. This was done because the absence and presence of physical facilities and audiovisuals would have some degree of impact on members of school community for permanent behavioral change, and as potential risk reducers.

In the schools, observations also included the presence of co-curricular activities and the degree of involvement of the students in such activities; listening to programs of school mini media and attendance of HIV/AIDS club; and listening of audio recorded cassettes of female club members discussing RH related issues. Data obtained from observation was crucial to verify and validate responses from other data sources.

3.4 Sampling Techniques for Survey

3.4.1 Sample Size determination

Sample size was determined by using a general formula for two population proportions designed by Kirkwood and Sterne for (Kirkwood and Sterne, 2001):

$$n = \left[\frac{Z_a P_1 (1 - P_1) + Z_\beta P_2 (1 - P_2)}{(P_1 - p_2)^2} \right]^2 + 10\% \text{ Non response rate}$$

Where n is the estimated sample size

P_1: is the prevalence of adolescents with previous knowledge of STI and unwanted pregnancy in the first group

P_2: is the prevalence of adolescents with previous knowledge of STI and unwanted pregnancy in the second group

α: level of significance

1-β: the power of the test

Assuming that the proportion of adolescents with knowledge of STIs or unwanted pregnancy 50% and a difference of 15% between Dangilla and Addis Ababa adolescents and the level of significance to be 5% and the power to be 90%.

$$n = \left[\frac{1.64 * 0.5(1-0.5) + 1.28 * 0.65(1-0.65)}{(0.5-0.65)^2} \right]^2 + 10\% \text{ Non response rate}$$

n=971+10 % of 971=1068

Accordingly, the estimated total sample size was 1068 students, which was distributed into two equal populations and come up with estimated sample size of 534 for each school.

3.4.2 Sampling procedure

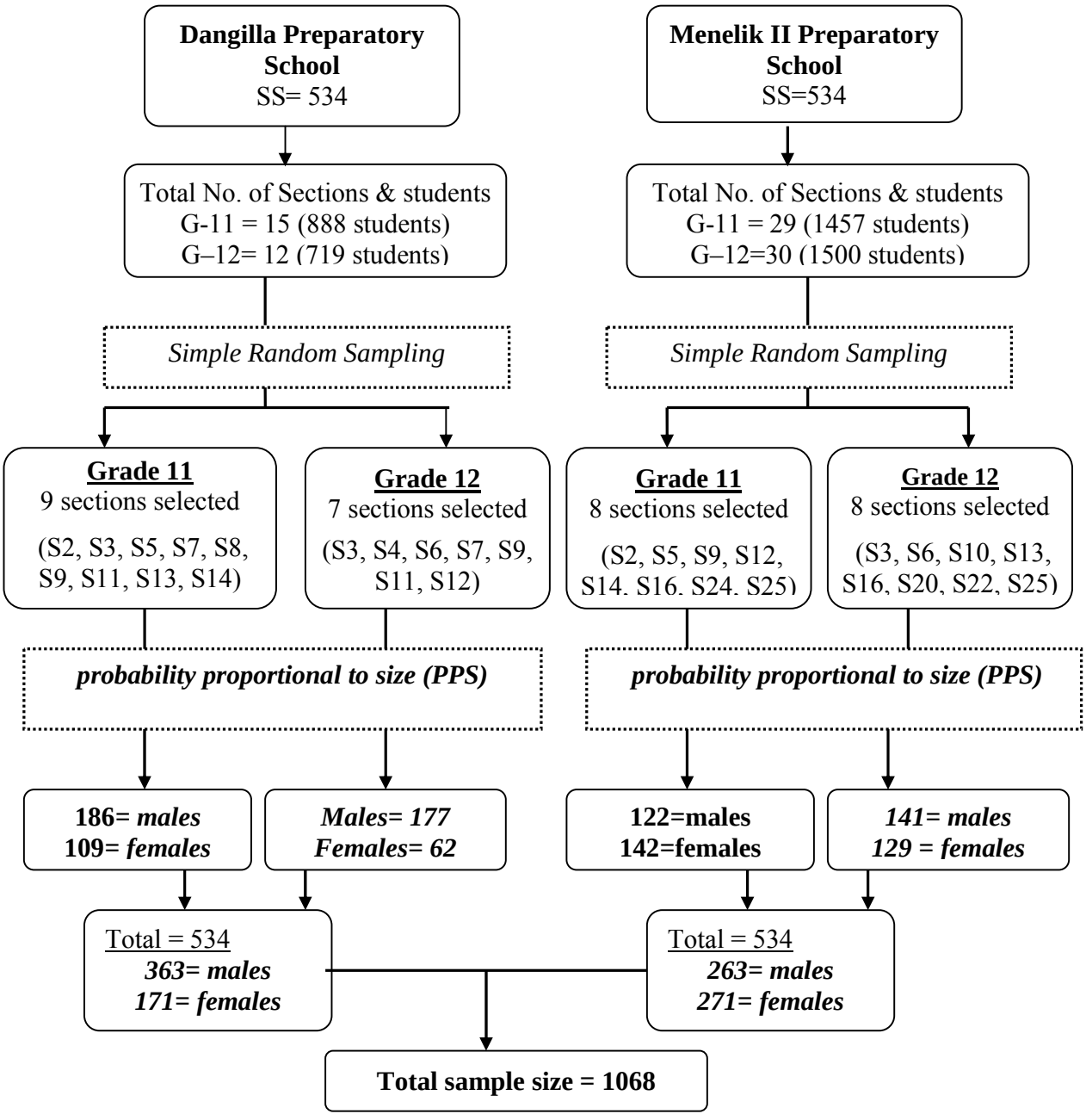
Multi-stage sampling was used to come up to the required sample size of both study sites. Schools were purposively selected.

Menelik II Preparatory School: A total of 1457 (674 males and 783 female) and a total of 1500 (782 males and 718 females) were enrolled in grades 11 (29 sections) and 12 (30 sections), respectively. Eight sections from each grade were randomly selected (using lottery system) considering homogeneity within each section; secondly, by using probability proportional to size (PPS) formula 264 students from grade 11, and 270 from grade 12 were selected.

Dangilla Preparatory School: similar sampling procedures were employed to Dangilla preparatory school. There were 888 grade 11 students (327 females and 561 males) within 15 sections, and 719 grade 12 students (186 female and 533 males) in 12 sections. Eight sections from grade 11 and 7 sections from grade 12 were randomly selected (using lottery system); then to reach to a sample size of 534 probability proportional to size sampling

procedure were employed. Accordingly, 295 students (186 males and 109 females) from grade 11, and the rest 139 students (177 males and 62 females) were selected from grade 12. Figure 2 demonstrates how the sections were selected from each school, sample size and the sampling technique employed at each level.

Fig 2: Diagram of Sampling Procedure



3.4.3. Sampling procedure for the qualitative data

Lists of health institutions were obtained from Dangilla and Addis Ababa Health Bureaus. Based on the list, purposive sampling was used in order to identify facilities working in the area of reproductive health from the two sites. As far as possible, representation of institutions was ensured.

Based on the above criteria, a mix of government, public, private and where available NGO facilities were identified in both study sites (annex 14). From each facility, personnel working in SRH related services were identified for key informant interview. In addition, coordinators of reproductive health related: (HIV/AIDS), Mini-media and Gender or Girls' school clubs and one personnel from a Red Cross Clinic based in one of the schools were purposively selected. Finally a total (22) purposively selected informants from 18 institutions (Health Bureaus, Government Health Centers, Public, Private and NGOs working on RH related activities), 6 club coordinators and 1 Red Cross Clinic personnel were selected.

Participants for separate male and female FGDs were purposively selected excluding those who participated in pre-testing and completion of the survey questionnaire. For the FGD with community members/parents, considerations were made to maintain a balance of female/male representation.

3.5. Administration of the Survey Questionnaire

Administration of survey questionnaire was carried out by the researcher with the help of research assistants. A consensus was reached between the administrations of the respective schools on timing and process of data collection. In Dangilla Preparatory School, which has a shift system, students were made available in-between the morning and evening shifts. Those who were randomly sampled administered the questionnaire in one specific location.

In Menilik II Preparatory School, respondents from each randomly sampled section filled out the questionnaire during class-free hours. Thursday and Friday were chosen, as most sections had had free time during these days.

3.6 Pretest

Before the actual data collection, the researcher visited both study sites to get the consent of respective schools and health officials, to pre-test the instrument, get the list of study population, and to finalize administrative and logistic preparations for the study. The pre-test for the survey was done with students of Dangilla Preparatory School. The researcher also identified sample of institutions and communicated with respective key informants from both school community and health institutions.

Observations from the pre-test included among others, the need for clarity on some questions and instructions, a need for exclusion criteria for married students, and a questionnaire to be completed at a point in time and with the presence of the researcher, which is unconventional method of questionnaire administration.

3.7 Data Analysis

After completion of data collection, filled forms were checked for completeness, coded and entered into a computer. Data were analyzed using statistical techniques with the aid of SPSS version 15.0 and simple descriptive statistics and tables were applied. The qualitative data gathered from interviews, FGDs, personal observation and document/book reviews was categorized into groups and analyzed using thematic analysis.

3.8 Ethical Consideration and Method of Entry

Doing research in sexual and reproductive health, in the Ethiopian setting with a lot of personal, social, cultural and religious sensitivity is often a complex issue. In some cases, talking about it might be considered a taboo and invasion of one's privacy and surrounded with silence.

In cognizant with this, this research therefore, to the extent possible abided to ethical principles of: informed consent, privacy, confidentiality, respect to individual rights and cultural and religious norms. Ethical clearance and permission was requested from the respective health officials of Addis Ababa and Dangilla. Similarly verbal consent was sought from preparatory school administrations of Menelik II and Dangilla, and from all individual respondents included in the study.

The researcher used Addis Ababa Health Bureau, Dangilla Health Office and the two respected Preparatory Schools as entry points. After obtaining a written ethical clearance (in the case of Addis Ababa Health Bureau), the researcher received list of health facilities for sampling. In addition, the Addis Ababa Health Bureau wrote a letter of cooperation to sampled health facilities which helped a lot in the course of data collection.

Likewise, total number of students enrolled in the academic year of 2009/2010 were received from the respective schools to determine the sample size. The researcher had selected a total of 4 research assistants for the two sites with defined terms of reference. The research assistants were briefed in detail on the purpose of the study, instruments used and on the overall process of data collection.

CHAPTER FOUR: FINDINGS

DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS AND KNOWLEDGE OF STUDENTS ABOUT SRH ISSUES

4.1 Demographic and Socio-economic Characteristics of Respondents' and Parents

4.1.1 Socio-Demographic Characteristics of Respondents

A total of 1068 preparatory school (female and male) adolescents enrolled during the academic year 2009/2010 in grades 11 and 12 were randomly sampled to the survey. Among these, 1064 responded with a response rate of (99.6%). However, 37 (3.5%) of the respondents did not complete the forms appropriately and thus excluded from analysis (effective sample size of 96.2%). Final analysis was carried out on 1027 respondents (41.2% females and 58.8% males).

Table 1: Socio-Demographic Characteristics of Students (Menelik II and Dangilla Preparatory Schools, February 2010, N=1027)

Socio-demographic variables		Menelik II		Dangilla		Both
		Male (n=252)	Female (n=261)	Male (n=352)	Female (n=162)	Average/ Total
Age (yrs)	16-19	234 (92.8%)	235 (90%)	329 (93.5%)	159 (98.1%)	957 (93.1%)
	20+	11 (4.3%)	5 (1.9%)	15 (4.2%)	3 (1.8%)	34 (3.3%)
	No response	7 (2.7%)	21(8.1%)	8 (2.3%)	0 (0)	36 (3.5%)
Religion	Orthodox Christian	197(78.2%)	212(81.2%)	342(97.2)	153 (94.4%)	904(88.1%)
	Muslim	32(12.7%)	24(9.2%)	4(1.1%)	5 (3.1%)	65(6.3%)
	Others Christian denominations	23(9.1%)	25(9.6)	6(1.7%)	4 (2.5%)	58(5.6%)
Living with	With both parents	132(52.38)	124(47.5)	166 (47.15)	72 (44.4 %)	494 (48.1%)
	With single parent	59(23.5%)	67(25.6%)	28 (8%)	12 (7.4%)	166 (16.16%)
	Other relatives	54 (21.4%)	68 25.2%)	28 (7.4%)	16 (9.9%)	166(16.16)
	With friend/ alone rented dormitories	7(2.8%)	2(0.8%)	130(36.9)	62 (38.3%)	201 (19.6%)

All the respondents belong either to Christianity or Islam, with the former being the most predominant religion of the respondents in both sites; most from Orthodox denomination (88%). Christians from other denominations and Muslims constitute the minority. With regard to proportion of religious practices among study sites, almost all respondents from Dangilla belong to the Orthodox denomination. Considerable number of respondents from Menelik II lives with their parents. As seen in table 1, great variation is visible in the living arrangement of students. Since it is the only preparatory school in the *wereda* and most secondary schools are scattered throughout, large number of respondents from Dangilla lives alone or by renting dormitories in groups.

4.1.2 Socioeconomic and Demographic Characteristics of Respondents' Parents

The socioeconomic status of parents plays important role not only in education, level of awareness and choices in career path of adolescents, but also on their attitudes and practices related to sexual and reproductive health. With this in mind, the study assessed the socioeconomic characteristics of parents based on responses of respondents with emphasis on educational status, occupation and estimated household income. Thus, the characteristics summarized below are proxy indicators as provided by respondents.

The findings indicate that, more proportion of parents of respondents do not have formal education (87.6% vs 36.9%) for mothers; and 80% vs 24.4%) for fathers from Dangilla and Menelik II, respectively. On the other hand, in the cases of formal education, the proportion from Addis Ababa is higher than Dangilla. In all the cases, mothers happen to be with less education than fathers; specifically the highest number of mothers from Dangilla is with no formal education. Relatively more fathers from Dangilla than Menelik II (12.8% vs 8.3%), respectively attended primary level education, and (26.7% vs 4.5%) of mothers are seen at secondary level in Menelik II and Dangilla, respectively. Unlike mothers from both sites, increase in the percentage of fathers is observed as they go higher from secondary to diploma and above. In general, there is marked difference in parents' educational level between the two sites, and among parents (fathers and mothers) within the same site (table 2).

Table 2: Socio-Economic Characteristics of Respondents' Parents (Menelik II and Dangilla Preparatory Schools, February 2010 (n=1027)

Socio-demographic variables of parents		Menelik II	Dangilla
		Layer Column N %	Layer Column N %
Father's Education	No formal education	24.4%	80%
	Primary (Grade 1-6)	8.3%	12.8%
	Secondary (Grade 7-12)	31.1%	2.6%
	Diploma and above	36.2%	4.6%
Mother's Education	No formal education	36.9%	87.6%
	Primary (Grade 1-6)	18.6%	5.5%
	Secondary (Grade 7-12)	26.7%	4.5%
	Diploma and above	17.8%	2.4%
Monthly income	<=400	10.0%	2.5%
	400-1000	27.2%	3.5%
	1001-2000	24.4%	3.5%
	2001-3000	15.1%	1.2%
	>3001	12.5%	1.2%
	Skipped	10.8%	88.1%
Parents' annual farm income	<=5000	5.5%	43.3%
	5001-12000	2.2%	26.1%
	12001-24000	.8%	12.5%
	24001-36000	.4%	4.9%
	>36000	.6%	3.7%
	Skipped	90.6%	9.4%
Mother's Occupation	Housewife/Daily laborer	45.4%	93.7%
	Governmental Employee	20.0%	3.1%
	Private business/employee	34.6%	3.1%
Father's Occupation	Farmer/Daily laborer	13.7%	89%
	Governmental Employee	37.8%	5.8%
	Private business/employee	48.5%	5.2%

There is wide difference in income level of respondents' parents from the two sites. Compared to (75.4 %) of parents from Dangilla, only (34.9%) of parents from Menelik II earn less than ETB 1000 a month (less than US$2 a day). However, in interpreting these observations it is prudent to consider the purchasing power of money and differences in the cost of living at the two study sites. As most parents for respondents in the latter are

farmers, monetization of farm produces is not always optimal, and hence there could be either under or over estimation of income as well.

Occupation of respondents' fathers in Dangilla, is predominantly, i. e., (89%) farming, and accordingly (93.7%) of mothers are housewives/farmers. On the other hand, fathers of Menelik II students are predominantly employed (government or private). Mothers of this group also constitute (45.4%) housewives, (20%) government employees, and (34.6%) employees of private business or owning their own business.

4.2 Sexual and Reproductive Health Knowledge of Students

Acquiring the right knowledge and attitude often results in developing skills and establishing healthy behavior. This interdependence is no more pronounced than in adolescence which are formative ages for establishing sexual and reproductive behaviors with a significant outcome in life. Considering this linkage, the study assessed knowledge of students and related areas on selected RH issues of importance to the study group, including STIs/HIV/AIDS, pregnancy and contraception, and menstruation/safe period. The key observations are summarized below.

4.2.1 Knowledge of Students on Selected Sexual and Reproductive Health Issues

4.2.1.1 Awareness about contraceptive methods

Almost equal proportion of respondents from both Menelik II and Dangilla are aware about one or more methods of prevention of unwanted pregnancy. Both female and male students in the two study sites have heard about different modern and natural methods of contraceptives. Similar pattern of awareness is noted in both study sites. As a result, condoms, injectable, oral pills, and Norplant were the four most heard about and cited by both Menelik II and Dangilla preparatory students (table 3 and 4).

There is high awareness level of students from Dangilla for injectable and oral pills than Menelik II (P=0.000 for the two). On the other hand, students from Menelik II are highly aware of emergency pills than students from Dangilla (P=0.000).

Table 3: Awareness of Contraceptives between Schools (Menelik II and Dangilla Preparatory Schools, February 2010)

Aware about	**Menelik II (N=513)**		**Dangilla (N=514)**			
	Count	N %	Count	N %	X^2	Sig. (2-sided)
Oral pills	398	77.6%	472	91.8%	40.314	.000*
Emergency contraception	330	64.3%	218	42.4%	55.293	.000*
Condom	489	95.3%	490	95.3%	3.419	.181
Injectable	414	80.7%	469	91.2%	23.988	.000*
Implant/Norplant	382	74.5%	387	75.3%	2.813	.245
IUCD/Loop	309	60.2%	339	66.0%	5.722	.057
Female/Male Sterilization	281	54.8%	229	52.3%	3.731	.155
Periodic Abstinence	344	67.1%	336	65.4%	2.273	.518

Note: Multiple response questions

* *The Chi-square statistics is significant at P< 0.01.*

Same pattern of awareness is also noted for female students of the two schools: condom, injectable, oral pill and loop in a decreasing order. In addition, female students seem almost with equal awareness level. However, there is also an exception of a two-fold difference in the proportion of respondents who have heard about emergency pills and some difference for the natural method (table 4).

Table 4 also shows that far more proportion of males compared to females from Menelik II have heard about condom and sterilization (P=0.005, P=0.001, respectively), while far more females cite injectable, oral and emergency pills (P=0.037, P=0.002, and P=0.022, respectively). Significant difference from Dangilla is also observed, for more males citing emergency contraception, loop and sterilization (P=0.006, P=0.010, and P=0.028, respectively).

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Table 4: Awareness of Contraceptives between Males and Females of each School (Menelik II and Dangilla Preparatory Schools, February 2010)

Whether heard of the following?	Menelik II				Dangilla			
	Male (N=252)	Female (N=261)		Sig-(2-sided)	Male (N=352)	Female (N=162)		Sig-(2-sided)
	Total N %	Total N %	X^2		Total N %	Total N %	X^2	
Oral pills	180(71.4%)	218(83.5%)	12.379	.002**	319(90.6%)	153(94.4%)	2.604	.272
Emergency Contraception	150(59.5%)	180(69.0%)	7.598	.022**	165(46.9%)	53(32.7%)	10.371	.006**
Condom	243(96.4%)	246(94.3%)	10.553	.005**	337(95.7%)	153(94.4%)	1.839	.399
Injectable	194(77.0%)	220(84.3%)	6.614	.037**	319(90.6%)	150(92.6%)	1.227	.541
Implant/Norplant	184(73.0%)	198(75.9%)	3.928	.140	265(75.3%)	122(75.3%)	.934	.627
IUCD/Loop	151(59.9%)	158(60.5%)	3.822	.148	246(69.9%)	93(57.4%)	9.151	.010**
Female/Male Sterilization	154(61.1%)	127(48.7%)	13.483	.001**	197(56.0%)	72(44.4%)	7.164	.028**
Periodic abstinence	161(63.9%)	183(70.1%)	5.217	.074	240(68.2%)	96(59.3%)	4.828	.185

Note: Multiple response questions

** *The Chi-square statistics is significant at P< 0.05 level.*

Although not statistically significant, same pattern is noted from the descriptive statistics with more females than males citing oral pills and injectable from both schools as well as emergency pill from Menelik II. This shows the gendered nature of awareness of contraceptives.

4.2.1.2 Knowledge of Students about Contraceptives

To ascertain knowledge on the various contraceptive methods that respondents have heard about (or aware of), assessment was done using statements related to specific contraceptive methods where respondents were made to provide correct responses. Frequency of responses with Chi-square test was derived from the data.

Despite knowledge of considerable students from both cites about the most commonly used modern methods (pills, condom, injectable and loop), however, in general disparity exist between knowledge of students between the two schools. As can be seen from table 5, students from Dangilla seem knowledgeable about oral pills, loop, injectable and in identifying abstinence as a method to protect from unplanned pregnancy. However, more proportion of students from Menelik II are knowledgeable than students from Dangilla

about female and male condom, post pill, permanent methods (male and female sterilization), as well as in identifying safe periods. It is important to note that although more proportion of students from Dangilla know abstinence as a protective method for unplanned pregnancy, however, they seem with less knowledge of the exact safe periods. In addition, more proportion of students from Dangilla think that condom and pills can protect unplanned pregnancy 100%.

Table 5: Knowledge of Students about Contraceptives between Schools (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements		**Menelik II (N=513)**		**Dangilla (N=514)**			
		Count	N %	Count	N %	X^2	Sig. (2-sided)
Women can take a pill every day to prevent unwanted pregnancy	*Yes*	425	83.7%	440	85.6%	37.471	.000*
Men can put rubber sheath on their penis before sexual intercourse to prevent unplanned pregnancy	*Yes*	462	90.1%	442	86.0%	34.454	.000*
Women can use a female condom to prevent unplanned pregnancy	*Yes*	434	84.6%	333	64.9%	97.628	.000*
Women can have a loop placed inside their uterus by health professionals	*Yes*	411	80.1%	434	84.4%	30.828	.000*
Women can have an injection by healthcare providers to prevent unwanted pregnancy for one or more months	*Yes*	464	90.4%	474	92.2%	9.830	.020**
There is a pill that can be taken by women within 72 hours after intercourse to prevent unplanned pregnancy	*Yes*	327	63.7%	182	35.4%	201.450	.000*
Women can use permanent surgical method if they decide not to have any more children	*Yes*	322	62.8%	313	60.9%	102.946	.000*
Men can use permanent surgical method if they decide not to have any more children	*Yes*	338	65.9%	272	52.9%	88.036	.000*
A women can get pregnant from 1 up to 10 days of her menstrual cycle if she has unprotected sex	*No*	188	36.6%	167	32.5%	20.336	.000*
It is possible to prevent unplanned pregnancy by using periodic abstinence	*Yes*	404	78.8%	419	81.5%	17.394	.002**
Pills and condom cannot 100% prevent from unplanned pregnancy	*Yes*	265	51.7%	238	46.3%	28.813	.000*

* *The Chi-square statistics is significant at P< 0.01 level.* ** *The Chi-square statistics is significant at P< 0.05 level.*

In addition to comparison between schools, table 6 also shows whether there is knowledge difference between females and males within each school. Generally, female students from both Menelik II and Dangilla preparatory schools have good knowledge

measure on contraceptive methods; more than 75% from each school responded correctly to statements for injectable, oral pill, condom and loop.

Table 6: Contraceptive Knowledge between Females and Males of each School (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements		Menelik II				Dangilla			
		Male (N=252)	Female (N=261)			Male (N=352)	Female (N=162)		
		Total N %	Total N %	X^2	Sig-(2-sided)	Total N %	Total N %	X^2	Sig-(2-sided)
Women can take a pill every day to prevent unwanted pregnancy	*Yes*	205 (81.3%)	220 (84.3%)	5.421	.247	301 (85.5%)	139 (85.8%)	2.421	.298
Men can put rubber sheath on their penis before sexual intercourse to prevent unplanned pregnancy	*Yes*	232 (92.1%)	230 (88.1%)	8.718	.033**	320 (90.9%)	122 (75.3%)	23.788	.000*
Women can use a female condom to prevent unplanned pregnancy	*Yes*	223 (88.5%)	211 (80.8%)	14.186	.003**	249 (70.7%)	84 (52.2%)	18.779	.000*
Women can have a loop placed inside their uterus by health professionals	*Yes*	205 (81.3%)	206 (78.9%)	9.423	.051	301 (85.5%)	133 (82.1%)	1.058	.589
Women can have an injection by healthcare providers to prevent unwanted pregnancy for one or more months	*Yes*	227 (90.1%)	237 (90.8%)	5.918	.116	323 (91.8%)	151 (93.2%)	.499	.779
There is a pill that can be taken by women within 72 hours after intercourse to prevent unplanned pregnancy	*Yes*	149 (59.1%)	178 (68.2%)	8.714	.069	129 (36.6%)	53 (32.7%)	6.076	.048**
Women can use permanent surgical method if they decide not to have any more children	*Yes*	167 (66.3%)	155 (59.4%)	13.909	.003**	227 (64.5%)	86 (53.1%)	7.711	.021**
Men can use permanent surgical method if they decide not to have any more children	*Yes*	187 (74.2%)	151 (57.9%)	30.207	.000*	219 (62.2%)	53 (32.7%)	40.428	.000*
A women can get pregnant from 1 up to 10 days of her menstrual cycle if she has unprotected sex	*No*	97 (38.5%)	91 (34.9%)	5.548	.136	114 (32.4%)	53 (32.7%)	.3.472	.176
It is possible to prevent unplanned pregnancy by using periodic abstinence	*Yes*	203 (80.6%)	201 (77.0%)	7.651	.105	291 (82.7%)	128 (79.0%)	1.007	.605
Pills and condom cannot 100% prevent from unplanned pregnancy	*Yes*	126 (50.0%)	139 (53.3%)	6.369	.095	167 (47.4%)	71 (43.8%)	2.042	.360

* *The Chi-square statistics is significant at P< 0.01 level.*

** *The Chi-square statistics is significant at P< 0.05 level.*

Despite the knowledge level of females, however, there is female-male knowledge disparity for some of the methods. As a result, the findings show that, from both schools and with the same pattern, high knowledge level is noted by males than females, basically about male and female condoms, post pill (Dangilla), and permanent methods (male and female). On the other hand, both males and females in both schools are with equal level in their knowledge about oral pills, injectable and loop.

Worth to note is that although high proportion of female and male students are aware of using periodic abstinence to protect from unplanned pregnancy, less than half of them know the appropriate safe period when the risk for pregnancy is low (table 6). Natural methods mentioned by students as derived from open ended response are withdrawal (mostly mentioned by males) and breast feeding and total abstinence (mostly by females). In addition, about 50% of students from each school think that condom and pills are 100% effective to protect unplanned pregnancy. However, this is more pronounced by females from Dangilla. In addition, same sex comparison table (annex 1) shows that considerable proportion of females from Menelik II know more about female condom, emergency pill and female and male sterilization (with all P=0.000) than females from Dangilla.

4.2.1.3 Knowledge of HIV/AIDS and STIs

Almost all male and female respondents at both study sites have heard about HIV/AIDS. Almost all who have heard were also able to identify two or more **modes of HIV transmission** correctly. The most frequently cited modes of transmission include unprotected sexual intercourse, sharing unclean and non-sterilized sharp objects and receiving HIV infected blood in a decreasing frequency and in a similar pattern (table 7).

Marked and statistically significant difference is observed in relation to transmission methods between the two schools. More proportion of students from Dangilla happen to be more knowledgeable than Menelik II, citing 3 of the 4 transmission methods. Significant difference is observed in their responses about sharing of unclean, sharp and

non-sterilized objects (P=0.000); HIV+ blood transfusion (P=0.001); HIV+ mother to unborn baby and child (P=0.001 (table 7).

Table 7: Knowledge on HIV Transmission between Schools (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements		**Menelik II (N=513)**		**Dangilla (N=514)**			
		Count	N %	Count	N %	X^2	Sig-(2-sided)
Unprotected sexual intercourse	*Yes*	503	98.1%	495	96.3%	7.427	.024**
Sharing sharp, unclean and non-sterilized objects	*Yes*	456	88.9%	477	92.8%	16.205	.000*
HIV+ blood transfusion	*Yes*	437	85.2%	461	89.7%	15.116	.001**
From HIV+ mother to unborn baby and child	*Yes*	386	75.2%	396	77%	7.757	.021**
Sharing food with HIV+ person	*Yes*	25	4.9%	21	4.1%	6.756	.034**
	No	487	94.9%	484	94.2%		
Sharing toilet with HIV+ person	*Yes*	20	3.9%	18	3.5%	6.530	.038**
	No	492	95.9%	487	94.7%		
By carefully looking at a person one can identify whether s/he is an HIV+	*Yes*	33	6.4%	37	7.2%	24.769	.000*
Girls and women are more vulnerable than boys and men to contract HIV	*Yes*	418	81.5%	362	70.6%	28.363	.000*
These days an HIV+ person can be cured completely	*Yes*	122	23.8%	51	9.9%	57.193	.000*

Note: Multiple response questions

* *The Chi-square statistics is significant at P< 0.01 level.*

** *The Chi-square statistics is significant at P< 0.05 level.*

In addition, more respondents from Menelik II compared to from Dangilla (P=0.000) know the vulnerability of girls and women to contract HIV than boys and girls. However, there is no awareness gap between females and males of each school.

Table 8 shows the female-male knowledge gap (if any) on student's knowledge about HIV modes of transmission. As a result, the descriptive results show higher proportion of males than females from Dangilla correctly responding to the three (out of four) of the HIV transmission methods. Despite this, however, it was only with those methods namely, HIV+ blood transfusion and HIV+ mother to baby and child that significant difference of knowledge exist between males and females (P=.000 and P=.001), respectively. On the other hand, except for HIV+ blood transfusion, there is no

statistically significant difference on knowledge about three of the HIV transmission methods between female and male students from Menelik II (table 8).

Table 8: Knowledge of HIV Transmission between Females and Males of each School (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements		**Menelik II**				**Dangilla**			
		Male (N= 252)	**Female (N=261)**		Sig-(2-sided)	**Male (N=352)**	**Female (N=162)**		Sig-(2-sided)
		Total N %	Total N %	X^2		Total N %	Total N %	X^2	
Unprotected sexual intercourse	*Yes*	247(98%)	256 (98.1%)	1.115	.573	339 (96.3%)	156 (96.3%)	.024	.988
Sharing sharp, unclean and non-sterilized objects	*Yes*	226 (89.7%)	230 (88.1%)	1.521	.468	331 (94%)	146 (90.1%)	3.081	.214
HIV+ blood transfusion	*Yes*	224 (88.9%)	213 (81.6%)	7.001	.030**	328 (93.2%)	133 (82.1)	17.032	.000*
From HIV+ mother to unborn baby and child	*Yes*	192 (76.2%)	194 (74.3%)	1.361	.506	288 (81.8%)	108 (66.7%)	15.097	.001**
Sharing food with HIV+ person	*Yes*	12 (4.8%)	13 (5.0%)	1.049	.592	10 (2.8%)	11 (6.8%)	4.447	.108
	No	239 (94.8%)	248 (95%)			336 (95.5%)	148 (91.4%)		
Sharing toilet with HIV+ person	*Yes*	11 (4.4%)	9 (3.4%)	1.335	.513	8 (2.3%)	10 (6.2%)	5.024	.081
	No	240 (95.2%)	252 (96.6%)			338 (96.0%	149 (92%)		
By carefully looking at a person one can identify whether s/he is an HIV+	*yes*	15 (6.0%)	18 (6.9%)	4.039	.257	20 (5.7%)	17 (10.5%)	6.912	.032**
Girls and women are more vulnerable than boys and men to contract HIV	*yes*	204 (81%)	214 (82.0%)	.207	.902	253 (71.9%)	109 (67.7%)	.970	.616
These days an HIV+ person can be cured completely	*yes*	56 (22.2%)	66 (25.3%)	.872	.646	29 (8.2%)	22 (13.6%)	4.876	.047**

Note: Multiple response questions

* *The Chi-square statistics is significant at P< 0.01 level.*

** *The Chi-square statistics is significant at P< 0.05 level.*

In addition, while looking at whether there is marked difference among same sexes (annex 2), more proportion of male students from Dangilla than males from Menelik II cite three of the four transmission methods: sharing sharp, unclean and non-sterilized objects (P=0.008), HIV+ blood transfusion (P=0.013), and HIV+ mother to unborn baby and child (P=0.041). On the other hand, except for the response about the statement of sharing of unclean and unsterilized objects, which females from Dangilla happen to be

more knowledgeable (P=0.043), more proportion of females from Menelik II happen to know more on the rest of the statements than their counterparts from Dangilla (annex 2).

Misconceptions: also do exist with regard to HIV/AIDS (table 7 and 8). There are still students who believe that sharing of food and toilet with HIV+ people transmit the disease. It is worth noting that the percentage of females with this misconception is twice their male counterparts at Dangilla Preparatory School.

Similarly, people tend to think that an HIV+ person is sick and who loses weight. On this juncture, a statement was provided that one can identify a person whether s/he is an HIV+ by looking at him/her carefully. The result shows that (10.5%) of females and (5.7%) of males from Dangilla and (6.9%) of females and (6%) of males from Menelik II believe the statement to be true.

In addition, a great deal of misconception was observed regarding treatment for AIDS and there are students from both sites who still believe that there is complete cure for HIV (table 7 and 8). Considerable number of students from both sites believe that these days, there is complete cure for AIDS; this is observed by more proportion of students from Menelik II (P=0.000). Male-female gap (P=0.047) is seen in Dangilla than among groups from Menelik II. The open-ended response also indicates that females say that it can be cured with *tsebel* (more of Dangilla) and prayers (more so from Menelik II).

Prevention methods: Consistent with the level of knowledge on HIV transmission, most respondents (more than 82%) were able to correctly identify at least two methods of prevention (table 9). Most of the students from both sex groups and study sites identified abstinence as the top most preventive method. Likewise, (90.7%) of females and (90.3%) of males from Dangilla, and (88.9%) females and (82.9%) of males from Menelik II believe that limiting sex to one partner can protect a person from contracting HIV. Rural-urban comparison (annex 3) shows that more proportion of students from Dangilla know about two of the preventive methods than Menelik II: limit sex/stay faithful to one partner (P=0.007), and avoid receiving HIV+ blood transfusion (P=0.003).

On the other hand, male-female comparison shows that there is no significant difference noted between male and females of Menelik II regarding protective methods. However, more males than females from Dangilla cite two of the five preventive methods, proper use of condom (P=0.033) and avoid sharing of sharp and unclean objects (P=0.050), while no significant difference for the rest (table 9).

Table 9: Knowledge about Protective Methods for HIV between Females and Males (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements	**Menelik II**				**Dangilla**			
	Male (N=252) Total N %	Female (N=261) Total N %	X^2	Sig(2-sided)	Male (N=352) Total N %	Female (N=162) Total N %	X^2	Sig-(2-sided)
Abstain from sex until marriage	235 (93.3%)	92.7%	3.704	.157	332 (94.3%)	154(95.1%)	.185	.912
Limit sex/stay faithful to one partner	209 (82.9%)	232 (88.9%)	5.797	.055	318 (90.3%)	147 (90.7%)	.160	.923
Proper use of condom	193 (76.6%)	198 (75.9%)	3.319	.190	278 (79.0%)	112 (69.1%)	6.800	.033**
Avoid receiving HIV+ blood transfusion	188 (74.6%)	187 (71.6%)	4.098	.129	286 (81.3%)	127 (78.4%)	.948	.623
Avoid sharing sharp, unclean and non-sterilized objects	174 (69%)	169 (64.8%)	4.647	.098	251 (71.3%)	99 (61.1%)	6.009	.050**
A person can take simple test to know whether he/she is HIV+ *Yes*	249 (98.8%)	255 (97.7%	8.916	.012**	348 (98.9%)	159 (98.1%)	.489	.783

Note: Multiple response questions ** *The Chi-square statistics is significant at P< 0.05 level.*

As voluntary counseling and testing is an important element of HIV/AIDS prevention and mitigation strategies, the study assessed the awareness and knowledge of respondents on HIV test. Almost all the respondents are aware that it is possible to know one's HIV status by using a simple test, and know that such service is available around their respective sites.

STIs: While most respondents (91.5%) have heard about STIs apart from HIV that can be transmitted through sexual contact, this rate is far less than for HIV (most likely the result of the intensive IEC campaign focusing on the subject). The most heard STIs are gonorrhea (**ጨብጥ**), followed by syphilis (**ቂጥኝ**) and chancroid (**ክርክር**). The least heard

about are lymphogranuloma venerum –LGV (**ባንበሉ**), lymphogranuloma inguinale – LGI (**እባጭ**).

The rural-urban and same sex comparisons (annex 4 and 5) show that there is no significant association on the level of awareness about STIs between Menelik II and Dangilla preparatory schools. Similarly, no association of knowledge of STIs was observed between males and females from Menelik II. However, higher proportion of male respondents than females from Dangilla have heard about all STIs. Thus, the least proportion for awareness of STIs is indicated to be females from Dangilla (table 10).

Table: 10: Awareness about STIs, between Males and Females (Menelik II and Dangilla Preparatory Schools, February 2010)

	Menelik II				**Dangilla**			
	Male (N= 252)	**Female (N=261)**			**Male (N=352)**	**Female (N=162)**		
	Total	Total	X^2	Sig. (2-sided)	Total	**Total**	X^2	Sig. (2-sided)
Gonorrhea	220 (87.3%)	232 (88.9%)	.763	.683	319 (90.6%)	132 (81.5%)	8.845	.012**
Syphilis	218 (86.5%)	224 (85.8%)	.059	.971	316 (89.8%)	134 (82.7%)	6.557	.038**
Chankroid	161(63.9%)	135 (51.7%)	8.441	.015**	251 (71.3%)	75 (46.3%)	30.201	.000*
LGV	126 (50.0%)	121 (46.4%)	.699	.705	184 (52.3%)	60 (37.0%)	13.202	.001**
LGI	86 (34.1%)	99 (37.9%)	.871	.647	133 (37.8%)	32 (19.8%)	19.572	.000*

Note: Multiple response questions

* *The Chi-square statistics is significant at P< 0.01 level.*

** *The Chi-square statistics is significant at P< 0.05 level.*

Knowledge of symptoms could increase health service seeking behaviour of students and at the same time could help in treating the diseases at early time before it become severe. Among those who heard about sexually transmitted diseases apart from HIV, most of the respondents were also able to correctly identify the three main symptoms of STIs (swelling/itching on genitalia area, burning sensation on urinating, and foul genital discharge) in a decreasing order.

Table 11: Knowledge about Symptoms of STIs (Menelik II and Dangilla Preparatory Schools, February 2010)

Symptoms of STIs	Menelik II				Dangilla			
	Male (N= 252)		Female (N=261)		Male (N=352)		Female (N=162)	
	Count	Col. N %	Count	Col. N %	Count	Col. N %	Count	Col. N %
Infection, swelling and itching around genital organs	207	82.1%	205	78.5%	306	86.9%	127	78.4%
Burning while urinating	198	78.6%	200	76.6%	306	86.9%	120	74.1%
Genital discharge with unusual smell	172	68.3%	174	66.7%	264	75.0%	113	69.8%
Lower abdominal pain	90	35.7%	85	32.6%	210	59.7%	69	42.6%

Note: Multiple response questions

Although there was no marked difference among females, more proportion of males and specifically males from Dangilla seem more knowledgeable on identifying symptoms of STIs than other groups as indicated in the descriptive findings (table 11). However, more percentage of females from Dangilla knows about genital discharge and lower abdominal pain as opposed to less percentage of females from Menelik II.

4.2.2 Factors for Knowledge and Service Utilization

4.2.2.1 Sources of SRH Information

The findings indicate that respondents' source of SRH information vary greatly between the two sites and among the sexes (annex 6). For most students, radio, television, friends, and schools are the major source of information. However, it is worth noting that the family and health institutions are the least frequently mentioned sources of information. This is also in conjunction with the findings of FGDs that show very limited parent-child discussion about SRH issues.

There was marked difference on the type of communication identified between the two study sites among the most common sources of information, radio, television, and friends, were identified in a decreasing order; for respondents from Menelik II. On the

contrary, schools, radio, and friends, in a decreasing order are the top sources of SRH information for respondents from Dangilla. Worth to note from annex 6 is that females, specifically from Dangilla seem with less access to information sources, more importantly to radio and television than their male counterparts.

For respondents from Menelik II, families and journals are also an important source of information while the role of these for those from Dangilla was very limited. Contrary to expectations due to high number of health facilities in Addis Ababa, their role as source of SRH information for students was the least. Internet, books (other than textbooks) and youth centers are the most mentioned from the open-ended responses mostly by students of Menelik II.

Health facilities are thought to be one source of information. Students who said have visited health services were asked whether they received any reading materials (annex 7). Only few proportions who had visited these facilities reported receiving reading materials (11.1% & 13.4%) of females; and (14.8% and 15.5%) males from Dangilla and Menelik II, respectively. However, out of which only less than half were on SRH and related issues.

4.2.2.2 Parent-Child Discussion about SRH issues

Parents are considered as the most ideal source of information on SRH issues and one of the three preferred sources of SRH information by survey respondents (annex 8). However, this study shows more than half of the groups discuss SRH issues with their families, among which, the proportion of female students from Menelik II was much higher (P=0.000) than other groups of both schools (table 12). The result of 'discussed' with family members in this survey seems exaggerated and not with conformity to the findings of the FGDs.

According to the following table, among those who discussed with family members, except in the case of boys in Menelik II, the least discussed with are fathers. On the other hand, the findings show that boys report that they discuss more with their brothers

(P=0.008 and P=0.000); girls do so with their sisters (P=0.000 and P=0.004) and/or mothers (P=0.001 and P=0.006) for Menelik II and Dangilla, respectively. This significant association between females and males from each school is also observed with a similar pattern in both schools (table 12). All these findings underscore the gender-sensitive nature of SRH issues.

Table 12: Discussion of SRH Matters with Family Members (Menelik II and Dangilla Preparatory Schools, February 2010)

	Menelik II				**Dangilla**			
	Male (N= 252)	**Female (N=261)**		Sig. (2-sided)	**Male (N=352)**	**Female (N=162)**		Sig. (2-sided)
	Count/%	Count/%	X^2		Count/%	Count/%	X^2	
Do you discuss SRH issues with family members?								
Yes	133 (52.8)	184 (70.5%)	18.535	.000*	244 (69.3%)	97 (59.9%)	5.087	.079
Never	119 (47.2%	76 (26.1%)			107(30.4%)	65 (40.1%)		
Those who said 'yes' with whom? (multiple response questions)								
Father	36 (14.3%)	29 (11.1%)	2.100	.350	34 (9.7%)	11 (6.8%)	1.624	.444
Mother	54 (21.4%)	94 (36%)	14.471	.001**	67 (19%)	51 (31.5%)	10.083	.006**
sister	55 (21.8%)	97 (37.2%)	15.663	.000*	107 (30.4%)	64 (39.5%)	4.525	.004**
Brother	80 (31.7%)	53 (20.3%)	9.558	.008**	173 (49.1%)	21 (13%)	62.721	.000*
Other family members/cousins	28 (11.1%)	35 (13.4%)	1.622	.444	109 (31%)	22 (13.6%)	18.902	.000*

* *The Chi-square statistics is significant at P< 0.01 level.*

** *The Chi-square statistics is significant at P< 0.05 level.*

Contrary to the survey finding, FGDs and interviews revealed that in both sites there is very limited or lack of open parent-child communication on SRH issues. While parents being one of the three most *preferred* sources of information for all female and male survey groups (annex 8), however, the qualitative data from FGDs with students and parents in the respective sites showed that parent-child discussion specifically on SRH issues is very limited or non-existent. Despite the limited opportunity for discussion and in accordance with the quantitative findings, however, it is worth noting that female students prefer to discuss with their sisters and mothers than fathers; and males with

brothers. For females of both sites, brothers are *'small fathers who always want to control us [sisters]'*. The following narrative with a female discussant further shows that SRH issue is also a taboo to discuss with brothers:

> *My younger sister was watching a TV ad on sanitary pads. Unaware about it, she asked my brother, 'Is it a chocolate?' He first seemed not to have heard what she said… but my sister continued to ask… He yelled at her and said, '.. This is none of your business get out of here'* **You see they [brothers] shout, so it is better to keep quiet**. [the researcher's emphasis] (Story as told by a female discussant from Menelik II)

Almost all female students also are to the opinion that they rarely discuss their pains and needs for relief of menstrual problems with family members, unless conditions force them to do so. Specifically, females never discuss about menstruation with male family members. As a result, they are obliged to save money for sanitary pads and pain killers from their transport allowances by walking to/from school. For rural female students the situation is even worse as parents are often farmers and uneducated; hence discussion on SRH issues is '*unthinkable*'.

Limited knowledge of parents on SRH issues was also raised by discussants as a determinant for parent-child discussion. All the discussants agreed that although limited knowledge of parents can be a factor, however, there are also parents with knowledge of SRH issues, but rarely discuss such issues with their children. As a result, most of student groups from both sites said lack of open discussion to some extent could be due to limited knowledge of parents on SRH issues. On the other hand, student discussants noted that this limited or lack of SRH knowledge of parents' is usually covered up with yelling, insult and feeling of reluctance as noted, "**ወላጆቻችን አለማወቃቸውን የሚሸፍኑት ሁሌም በቁጣና በስድብ አለበለዚያም በዝምታ ነው**" (male student discussant, Menelik II). Student discussants are to the opinion that the factor for not to initiate discussion on the side of the students is fear of not to be labeled as '*bad boy* 'or '*bad girl'*.

The story of a female student on lack of open family discussion on SRH issues reflects what many girls, irrespective of family background, have to endure. The following

narrative indicates how painful it is when females are left with no sympathetic ears from family members.

> *I usually have painful and heavy menses that require at least two packets of sanitary pads for one cycle. One day, as I had used my transport allowance my father had given me to buy pads, I had to ask my father again. Difficult as it was, I thought over it for two days. Finally, I decided to ask him. And, when I did, he asked me..; 'What did you do with all the money I gave you?' I told him that I bought sanitary pads with it. Although he was unhappy, he gave me some money for my transport. Next month same thing happened, I finished my money, had to ask him again…. But he said, 'I gave you last time… listen to me… I don't want to listen to such things anymore',. .. But it [menses] will be there again, it is natural…they [parents] don't seem to understand it that way….* (A story told by a female student, Menelik II)

Most student discussants say that parents are controlling and authoritarian and more so when it comes to SRH issues, and particularly with their daughters. All the FGDs members agree that due to cultural, religious and other related taboos, the closest and understanding source of SRH information to students are not parents and family members but friends and peer groups. The experience of a female discussant highlights a need for more openness among family member to create an environment of support and understanding on SRH issues. A story hereunder indicates that lack of understanding leads to an intended outcome.

> *Some time back I had a boyfriend but we had no sex. My families heard that I got a boyfriend… they got mad… no one talks to me at home. One day, my uncle called me with a pistol in his hands… I was so terrified, with my tears freely flowing. Still in rages, he yelled at me 'If I hear again that you are with that boy... this is what I will use to kill you first and then myself because, you brought shame to our family.' But after sometime, all those threats did harm than good. …If I were given a chance for open discussion and understanding, I wouldn't have indulged into sex and endure subsequent problems which I faced.* (A story told by female student, Dangilla)

Generally, societal attitudes and perceptions have an impact on SRH service provision, dictating both service providers and service seekers.

4.2.2.3 The role of School Clubs on students' SRH knowledge

Different FGDs held with students and teachers and most of club coordinators believe that clubs are contributing a lot to members than non-members. RH related club members: (32) males and (38) females from Dangilla; and (32) males and (33) females from Menelik II took part in the survey. An association was made whether there is relationship between membership and knowledge of SRH issues.

In accordance with the FGDs opinion, the survey also showed a clear and statistically significant association between SRH knowledge and club membership. Annex 9 reveals club members to be found more knowledgeable by far than non-club members in almost all RH related issues. For example, for a statement '*There is a pill that can be taken by women within 72 hours after intercourse to prevent unplanned pregnancy'*, more club members responded it to be true unlike non-club members (P=0.000).

4.2.2.4 Risk Perception and Utilization of Services

Sixty three (25%) males and 30 (11.5%) females from Menelik II, and 73 (20.7%) males and 30 (18.5%) females from Dangilla are found to be sexually active. Among those who has started sex, 34 (54.8%) of males and 9 (32.1%) of females from Menelik II; and 14 (19.44%) males from Dangilla did not perceive any risk while indulging into their first sexual activity (annex 10).

Risk perception is said to lead into action. However, considerable proportion of students, who even perceive risk, reported that they did not use condom or contraceptives during sexual intercourse. For example, among 30 female students from Dangilla who are sexually active and who perceive risk, 14 (46.7%) did not use condom/contraceptives. This shows that there are other factors apart from knowledge about the risks that limit service utilization.

On the other hand, the responses of females from both sites indicate that they abstain from sex because they decided not to start sex before marriage, followed by protection from unwanted pregnancy; while protection from HIV being the last. This shows that the risk perception of students is sex-specific, thus the priority for females is protection from unwanted pregnancy than from HIV/AIDS with more likelihood of using only

contraceptives during sex. This was also in accordance with FGDs with teachers, parents and healthcare providers of both sites saying that female students fear pregnancy more than HIV/AIDS because of the fact that the social stigma for unwanted pregnancy specifically for school adolescents is very high since it is visible.

This underlies the fact that risk perception depends on many factors such as societal attitude and information or knowledge about the risks. In this sense students need to have more comprehensive knowledge that shows clearly the consequences of unprotected sex.

4.2.2.5 Role of Parents' Education to Students' knowledge of SRH Issues

The socioeconomic status of parents plays important role not only in education, level of awareness and choices in career path of adolescents, but also on their SRH knowledge, and consequently attitudes and practices. To ascertain this, association was made between parents' education and students' knowledge of selected SRH issues, mainly contraceptives and HIV/AIDS.

To do so, those who know 1 and 2 methods of contraceptives were considered with 'low' knowledge; those who responded 3 to5 methods with "medium' knowledge; and those who correctly responded for 6 and more methods were taken as having 'high' knowledge of contraceptives. Same was done for HIV transmission methods: from the listed six statements related to HIV transmission, those who provided only 1 correct response were considered with 'low' knowledge; 2-4 methods with "medium' knowledge; and those who correctly respond to 5 of the statements were taken as with 'high' knowledge. As a result, the Pearson chi-square test indicates that there is a significant association between mothers' education and students' knowledge of contraceptive and HIV transmission methods (P=0.018) as seen in table 13 and annex 11A.

Table 13: Association of Mother's Education with Students Knowledge of Contraceptives (Menelik II and Dangilla Preparatory Schools, February 2010)

Mother's education versus knowledge of contraceptive cross tabulation						
			knowledge of contraceptive			Total
			Low	Medium	High	
Mother's education	illiterate	Count/%	22(47.8%)	123(44.6%)	254(36.1%)	399(38.9%)
	primary	Count/%	16 (34.8%)	95(34.4%)	244(34.7%)	355(34.6%)
	secondary	Count/%	4 (8.7%)	27(9.8%)	128(18.2%)	159(15.5%)
	higher	Count/%	4 (8.7%)	31(11.2%)	78(11.1%)	113(11.0%)
Total		Count/%	46 (100.0%)	276(100.0%)	704(100.0%)	1026 (100.0%)

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.366[a]	6	.018**
Likelihood Ratio	16.224	6	.013

** *The Chi-square statistics is significant at P< 0.05 level.*

In addition, fathers' education is observed to be associated with knowledge of HIV/AIDS (P=0.021). However, no association is observed between fathers' education and students' knowledge of contraceptive methods (P=0.430), annex 11 B and C.

CHAPTER FIVE

PERCEPTION ABOUT SRH ISSUES, AND AVAILABILITY AND UTILIZATION OF SRH SERVICES

5.1 Community Perception towards SRH Problems

Perception of community members, particularly parents, teachers and healthcare service providers on SRH and related problems can have an impact on availability and utilization of SRH services. With regard to this, there is general consensus among students, parents, teachers and health service providers that students are the most vulnerable group to SRH and related problems due to various factors, despite their high knowledge on the issue. They identified age-specific behaviors such as wide networking of adolescents in and outside of the school; peer influence; lack of accurate information on the risks, preventive and protective methods; socio-economic and cultural factors, as main reasons for the increased vulnerability of adolescents to SRH problems. Apart from these, healthcare providers and medical officers cited absence of youth-friendly SRH facilities and services at appropriate location and with appropriate staffing as key factors for increased risk of students particularly female adolescents to SRH problems.

However, on the other hand, there are also few discussants but worth mentioning who said that *'these days we did not hear girls dying from unsafe abortion, as it used to be in the past'* (discussant, Addis Ababa) and *'these days there is no as such prevalence of STIs in Addis Ababa'* (interviewees, private heath institutions, Addis Ababa and Dangilla), as opposed to the researcher's observation, for example, of STI cases of both sexes on youth centers of FGAE and other interviewees from health facilities. With regard to sexual violence (rape) and unwanted pregnancies, most of the discussants and informants believe that these are some of gender specific problems witnessed in their respective areas. Prevalence of rape and unsafe abortions; girls dropping out of schools and running away from families due to unplanned pregnancies show the disproportionate vulnerability of females. Societal stigma, fear and shame from unplanned pregnancies,

and factors that hinder counseling and care, which they believe, force girls to unsafe abortion which could lead to either death or serious complications.

Specific opinion unlike the others is the view raised by considerable male student discussants from Menelik II who feel that both males and females are equally vulnerable to SRH problems. Interestingly, with regard to sexual violence against girls, male discussants are to the opinion that it does not exist. One discussant stated *"sexual violence against girls is only on films or radio or television dramas and does not exist"*, **ዘንድሮ እኮ አስገድዶ መድፈርን የምናይው ፊልም እና ድራማ ላይ ብቻ ነው፣ ከዚህ ውጭ የለም**,' (male student discussant, Menelik II). However, on the other hand, one interviewee from NGOs noted that apart from the very limited reported cases transmitted over the television, she has witnessed a lot more rape cases which the victims were counseled and referred to their model clinic for legal issues.

Most of the discussants and interviewees **from Dangilla** share similar views as the above groups on the vulnerability of females to SRH related problems than males. They noted that sexual violence and unwanted pregnancy, forcing girls to run away from home, to drink poisons to abort, and even suicide are reported problems in their area. In relation to sexual violence, few FGD with parents held some how responsible the clothing and hair styles of females – sort of blaming the victim. They also feel that female students with rural background are more affected due to economic problem, ignorance, as well as sense of freedom from parental control while studying away from home. As indicated from the demographic profile of the study population, this group (students away from home during their study) constitutes (38.3%) and (36.9%) of the female and male respondents, respectively from Dangilla.

The findings from almost all the FGDs and interviews indicate that girls and women are more vulnerable to SRH problems; factors identified for the vulnerability to be biological, socio-cultural and economic (poverty). Some male student discussants from Menelik II, however, have the opinion that both males and females are equally vulnerable. This was backed with the quantitative findings which most respondents

believe that females are more at risk of getting HIV as compared to males, despite difference between rural and urban (table 7).

5.2 Availability and Utilization of Sexual and Reproductive Health Services

One of the main objectives of this research is to assess availability of SRH services for the students of preparatory schools. Interviews were held with school club coordinators, as well as service providers from health institutions to determine what services do exist at both study sites. Moreover, review of syllabus of relevant subjects was made to assess extent of inclusion of SRH issues to the school curriculum. The findings are presented here below in two main categories: services provided in the schools, services provided through health facilities and consequently utilization of services.

5.2.1 School-based SRH Services

Ideally**,** one of the important sources of SRH information for the students is the school environment, through curricular and extra-curricular activities. To ascertain whether school curricula incorporate SRH information, a review was made to the contents of text books of grades 11 and 12. The review shows that text books of Biology, Amharic, Civic, English and Geography incorporate SRH related information. The most widely discussed topic in these text books is HIV/AIDS.

Among those with SRH related information, grade 11 **Biology** text book incorporates a whole unit on *"Biology in the Fight against HIV/AIDS"*. The unit provides detailed information on HIV/AIDS, transmission and prevention, and on responsible sexual behavior (Ministry of Education, 2006). The text book for grade 12 contains further information on counseling and testing, and consequences and prevention of unintended pregnancies (Ministry of Education, 2005).

Similarly, the text books for **Amharic** contain information on HIV/AIDs (including basic facts, exercises and discussion points on transmission, prevention and VCT), (**የኢትዮጵያ ትምህርት ሚኒስትር፣** 1998 **ዓ፡ም** (a)). Interestingly, the Amharic text book for grade 12 provides more detailed information on risk factors and impact of HIV/AIDS

with case examples, and on the role of school-based Anti-AIDS clubs in preventing the spread and mitigating the consequences of the menace (**የኢትዮጵያ ትምህርት ሚኒስትር፣** 1998 **ዓ፣ም**:b).

Furthermore, the curricula of **Civic Education** for both grades 11 and 12, incorporate substantial information on SRH issues, even though like the other subjects it is more focused on HIV/AIDS and related issues. What is outstanding in Civic Education is its emphasis on the role of community-based organizations, in this case '*idirs'* and school-based clubs in prevention and mitigation of HIV/AIDS (Netsanet et.al 2003).

In addition to the curricula of the above subjects, it was interesting to note that substantial information was also included in the text books of **Geography** and **English**. However, like most of the contents in the above, the focus was on HIV/AIDS and contains either few or no topic(s) on other SRH issues of importance to school students (Gashaw and Belete, 2006; Belainesh, 2006).

Another in-school service observed by the researcher has been school libraries. Unlike in the library of Dangilla Preparatory School, the library in Menelik II contains among others, different types of materials on SRH issues. However, the materials were mainly on HIV/AIDS and STDs.

Extracurricular activities: constitute important avenues for shaping adolescents' behavior, including on SRH issues. In addition to formal/curricular sources of information, school clubs play critical role to improve awareness, impart knowledge and healthy life styles. Recognizing their important role, both schools have established different clubs, among which are Health and Anti-AIDS, Gender and Mini-media at Dangilla; and Anti-HIV/AIDS, Girls' Club and Mini-Media at Menelik II Preparatory Schools. While both females and males in both study sites actively participate in the clubs, it was interesting to note that there is more proportion of males participating in Gender from Dangilla as compared to female students. On the other hand, Menelik II Preparatory School has gender-specific - Girls' Club - where also interesting to note male

students as members. The following table shows membership and composition of RH-related school clubs (table 14).

Table 14: Membership and Composition of RH-related Clubs (Menelik II and Dangilla Preparatory Schools, February 2010)

RH-related Clubs	Menelik II		Dangilla		
	Male	**Female**	**Male**	**Female**	**Total**
Anti-HIV/AIDS or Health and HIV/AIDS	70	83	38	103	294
Girls' or Gender Club	17	53	142	48	260
Mini-media	36	10	99	22	167
Members Total	**123**	**146**	**279**	**173**	**721**
Total No. of Students in each school	**1456**	**1501**	**1094**	**513**	**3564**

The activities of the RH-related school clubs in **Dangilla** range from organizing discussions on SRH issues, to media dissemination on topics of interest such as HIV/AIDS, and organizing poetry and drama plays to school students. Occasionally, the school clubs also take part in organizing street dramas and information dissemination campaigns as a wider reach to the public. The Clubs in Dangilla also participate in other SRH issues of local importance such as early marriage and gender-based violence. Unlike in Dangilla Preparatory School, **Menelik II** Preparatory School has Red Cross Clinic within the school, which among others provides sanitary pads for unexpected menstruation and painkillers for female students who suffer from dysmenorhea. The HIV/AIDS Clubs from both sites has been working with some NGOs: in the case of Dangilla with Anti-Malaria Association, and Menelik II with ISAPSO and Mary Missionary (MM).

In both cases, the researcher had had a chance to observe discussions of Anti-HIV/AIDS Club members in Menelik II, where more females than males (37 vs 12) actively took part in one of their twice a week programs to discuss one issue per week. In addition, the researcher also listened to audio-recorded discussion (all female voices) undertaken among Health and HIV/AIDS Club in Dangilla (2 weeks before the data collection).

There was variation in topics of interest: the importance of pornographic films in future sex lives of students versus sexual violence and early marriage as problems for female students.

Role of School Clubs: Quantitative and qualitative data was collected to assess the role clubs are playing in the area of RH, specifically in disseminating information and imparting SRH knowledge to school students. A question was included whether respondents can remember any program on SRH issues organized by clubs in their respective schools in the past 1 month of the data collection. The result shows that (45.1%) of females and (47.3%) of females from Dangilla and (48.3%) females and (52.4%) males from Menelik II remember SRH related programs organized by different clubs. In both cases, more number of males remember organized events than females (annex 12).

Respondents gave two reasons for not remembering any issue; one '*was no program organized'*: (70.9% females and 74.1% males) from Dangilla, and (45.1% females and 50% males) from Menelik II. As indicated in (annex 12), considerable number of students in Dangilla said that there was no program organized during the previous 1 month of data collection. Apart from the response, '*no program organized'* (29.1%) of females and (25.9%) of males from Dangilla, and (54.9%) of females and (50%) of males from Menelik II gave other reasons. Reasons from an open-ended response include: '*I am not a club member'*, by most respondents; '*I didn't have any means to know when and where the programs took place*'; '*the programs do not have substance*'; '*I am not interested at all'*; *'I have enough knowledge'*; '*I want my time for study and have not time';* and *'may be I missed the programs'.*

In addition, all participants to the FGDs (female, male and teachers) from both Menelik II and Dangilla feel that while school clubs can potentially play important role, at present the activities do not reach the general student community. Thus, said that a lot is expected from them but are not productive as expected - **ስማቸው ትልቅ ነው ግን እንደስማቸው እየሰሩ አይደሉም** (teacher discussant from Menelik II). Some club coordinators acknowledge this opinion while others think that the clubs are doing satisfactorily. Most

of the discussants of the school community said that every activity of each club is occasional: "**ህዳር 22 ቀን፣ ሰልፍ ወይንም ስብሰባ እናደርጋልን፣ከዛ በፊትም በኋላም የኤች.አይ.ቪ. ኤድስን ክለብ አናውቀውም**" (female student, Dangilla).

According to the observation of some of the teachers, there is lack of commitment from members or coordinators. A very differing opinion was aired by a teacher and student discussant who felt that the clubs are defeating the very purpose of their existence by creating a form for courtship as, according to their opinion, *"most members are sexually active, some what beautiful and vulnerable students, who seem with little intention of changing their behavior and to save others"* (teacher and student discussant from Dangilla). However, it is important to note that student discussants who perceive SRH risk, provided the programs are strong, and they benefited the most from club activities. Generally, there was an overall consensus among student and teachers that their is a greater scope for strengthening the activities through improving both their reach, coverage of issues of interest, using more interactive methods, and with more regularity.

5.2.2 Availability of Out of School SRH Services

The researcher assessed availability and type of SRH services at out of the school environment, including at government, non-governmental, public and private institutions, students, teachers and parents in the respective study areas. This was carried out through key informant interviews, facility visits of healthcare services and the researcher's observation, and FGDs.

While the number and mix of facilities providing SRH services among the two study sites differ, the type of services available were more of similar (table 15) --- mainly for STI management, IEC activities, and social marketing of condoms and contraceptives. Available family planning services include short and long term contraceptive methods, (except vasectomy and sterilization in Dangilla), oral pills, emergency pills, injectable, Norplant and loop. In addition to contraceptives, the researcher also observed the availability of take away fliers on post pills and STIs including HIV in some of healthcare facilities. Furthermore, facilities also offer voluntary counseling and testing for HIV/AIDS; and in some facilities safe abortion for unwanted pregnancies. Moreover,

treatment is provided for irregular menstruation and dysmenorhea, while tetanus toxoid vaccination (albeit to protect their future offspring, particularly in Dangilla) is provided to female students in coordination with school clubs. Except at private facilities and for the services of STI diagnosis and treatment in government institutions, services are charged with 'fair' price, and if necessary freely (table 15).

Table 15: Types of Available SRH Services (Dangilla and Addis Ababa, February 2010)

Type of services		Dangilla	Addis Ababa
STI/HIV/AIDS	IEC	Yes	Yes (NGOs & School Lib.)
	Condom social marketing	Yes	Yes
	Treatment of STIs	Yes	Yes
	VCT	Yes	Yes
Family Planning	IEC	Yes (Private)	Yes (NGOs)
	Contraceptives	Yes	Yes
	VCT	Yes	Yes
	Safe abortion	Yes	Yes
Menstrual disorders	VCT	Yes (Gov't)	Yes (Gov't, NGOs)
	Management- pain relievers	Yes	Yes
VCT for rape cases	VCT & referral to rape cases	No	Yes (FGAE)

In **Dangilla,** both the government health center (the only government healthcare provider) and private facilities (drug shops and clinics) provide services mainly IEC activities, VCT, contraceptives, and management of menstrual pains. Referral and counseling for rape cases is limited only in Addis. There is only one medium clinic involved in provision of RH services including safe abortion and treatment of post abortion complications among others. Other private institutions rural drug vendors and drug shops are mainly involved in social marketing of contraceptives and medications.

The situation of available SRH services **in Addis** was a bit different. There are more diverse groups of service providers, ranging from government and public facilities, to youth-friendly clinics and youth centers operated by the Addis Ababa Red Cross Society and the Family Guidance Association of Ethiopia (FGAE), and Marie Stopes International Ethiopia. Likewise, there are some more services provided in Addis that are not available in Dangilla, such as permanent methods of family planning.

Five (5) of the 28 Youth Centers of FGAE are found in Addis Ababa which the researcher visited two - *Sheger* and *Cherkos*. The Centers are said to be strategically located and youth-focused providing multi-faceted services: VCT for HIV/AIDS, treatment of STDs, provision of counseling on contraceptives and family planning services and other services such as library, and counseling and referral of rape victims to the model FGAE clinic for legal cases. The services provided by FGAE have started to link to school clubs (train the coordinators on managing school clubs, use these as outlet for distribution of IEC materials, and train students in family life education skills).

In addition to the multi-faceted activities of FGAE in Addis Ababa, Marie Stopes International Ethiopia (MIE) has five clinics and provides SRH services, mainly "fertility regulation", otherwise also called VCT and safe and post-abortion care for unwanted pregnancies. See the column of 'NGOs' for the price (table 16). The organization also has Reproductive Health Programs in three secondary schools in Addis Ababa, providing condom and contraceptives. However, currently, the program is not active and it is being revised to change target groups from junior and secondary to preparatory and colleges.

Table 16: Cost in Eth. Birr for Selected SRH Services (Dangilla and Addis Ababa, February 2010)

Service Type	**Dangilla**			**Addis Ababa**				
	Govt HC	**Pvt. Clinic**	**Drug store**	**Gov't HC**	**Pvt Clinic**	**Pvt. Pharmacy**	***Kenema* Pharmacy**	**NGOs***
Condoms 3pc)	free	0.50	0.50	Free	.90	0.50 – 13	0.50-–1	free
Contraceptives								
Oral pills	free	5	5	Free	2	2.50- 7.50	0.90	5
Injectables	free	5	No	Free	No	No	3.80	8
Norplant	free	6-25	No	Free	No	No	No	25
Loop	free	55	No	Free	No	No	No	15
Post-pill	Free	5	5	free	No	5	5	5
Abortion	35	200-300	N0	Free-60	300	No	No	185&200
Preg test	8	15	No	10	10	3.50 **	No	15
VCT	free	No	No	Free	10	No	No	Free-10

* NGO = Marie Stopes ** Instant pregnancy test

The role of the **private sector in Addis** was also remarkable. All sampled private institutions have SRH services for adolescents including STI treatment, contraception, pregnancy test and safe and post abortion services among others. The private and *kenema* clinics also noted contributing in marketing of contraceptives with counseling, medications and instant pregnancy test device (private). Most of these institutions are part of a network, and work in close collaboration with organizations such as IPAS, Engender Health and DKT-Ethiopia.

On the other hand, the research also sought opinion of the community (parents, students, teachers and healthcare providers) on availability and utilization of RH related services. As a result, most parents and most teachers are to the opinion that there is no problem of availability. Similarly it was found out that for almost all the student discussants in both sites, availability is not an issue.

However, on the other hand, all parent and most teacher discussants from Dangilla said that SRH services are unnecessarily available, for example the safe abortion and too-much information on SRH issues, thus, to be a factor for increased vulnerability. Interestingly, this opinion is also pronounced by female discussants (teachers and parents) of Addis Ababa and interviewees from some NGOs. Almost all healthcare providers have the opinion that some of the services, specifically emergency pills and safe abortion are abused and need to have a mechanism for proper use.

Apart from identifying the available services and opinion about the services, data were also obtained to understand whether students know the available services in their respective areas. Respondents were asked where students can obtain SRH services if they need any. As presented below (table 17), considerable number of both sexes from both sites mentioned government, NGOs, Private or combination of the three in addition to other places such as: shops by many respondents, traditional practitioners from respondents from Dangilla, and hotels.

Table 17: Perceived Healthcare Service of Students (Dangilla and Addis Ababa, February 2010)

Where do you think students in this school will go if they need to visit for RH and related problems?	**Menelik II**		**Dangilla**	
	Male	**Female**	**Male**	**Female**
	Count & %	Count & %	Count & %	Count & %
Government health institutions (hospitals, health centers, clinics)	200 (79.4%)	199 (76.2%)	264 (75%)	120 (74.1%)
NGO reproductive health providing centers	174 (69%)	152 (58.2%)	39 (11.1%)	35 (21.6%)
Private hospital and clinics	146 (57.9%)	127 (48.7%)	252 (71.6)	111 (68.5%)

Note: Multiple response questions

As indicated in the table, the majority of all the groups in both sites, (more than 75% of respondents) perceived that students go to government health institutions. This is again followed by significant percentage of respondents from Menelik II indicating NGOs, while significant number of respondents indicating private institutions in Dangilla. This is in accordance with the findings above on the availability of NGOs working on reproductive healthcare provision in Addis Ababa unlike in Dangilla, thus this shows that their preference is determined by available services.

5.2.3 Utilization of SRH Services and related Factors

Most of the healthcare providers interviewed indicated that the existing services are not adequate and at the same time not user-friendly; therefore, utilization by adolescents is very limited. Specifically, government health institutions are the least preferred by adolescents.

In line with this, students were also asked whether they feel comfortable to visit health institutions. As a result, the findings (table 18) show that, fear of privacy and confidentiality, finance, same sex preference and distance (P= 0.000 for all) are problems noted by students from Dangilla as issues that limit utilization of healthcare facilities. While on the other hand, getting permission is more of a problem for students from Menelik II than Dangilla (P=0.017).

Table 18: Perceived Factors for limited Utilization of Health Institutions between Schools (Menelik II and Dangilla Preparatory Schools, February 2010)

Perceived factors	Menelik II		Dangilla		X^2	Sig-(2-sided)
	Count	%	Count	%		
Getting permission from parents	75	14.6%	65	12.6%	8.157	.017**
Finance	67	13.1%	116	22.6%	15.980	.000*
Same sex preference	51	9.9%	115	22.4%	29.349	.000*
Distance	13	2.5%	59	11.5%	31.774	.000*
Fear of privacy and confidentiality	135	26.3%	197	38.3%	18.583	.000*

Note: Multiple response questions

* *The Chi-square statistics is significant at P< 0.01 level.*

** *The Chi-square statistics is significant at P< 0.05 level.*

On the other hand, cited reasons significantly vary between female and male students. Finance is more a problem to males than females in both schools (P=0.000) while same sex preference (P=0.002 and P=0.000), fear of privacy and confidentiality (P=0.000 for Dangilla) and getting permission P=0.045 and P=0.000) for Menelik II and Dangilla, respectively are problems more pronounced by females than male in both schools (table 19).

Table 19: Perceived Factors for Limited Utilization of Health Institutions between Males and Females (Menelik II and Dangilla Preparatory Schools, February 2010)

Perceived factors	Menelik II		X^2	Sig. (2-sided)	Dangilla		X^2	Sig. (2-sided)
	Male	Female			Male	Female		
Getting permission from parents	30 (11.9%)	45 (17.2%)	6.198	.045**	49 (13.9%)	16 (9.9%)	51.671	.000*
Finance	48 (19.0%)	19 (7.3%)	16.121	.000*	81(23.0%)	35 (21.6%)	51.163	.000*
Same sex preference	15 (6.0%)	36 (13.8%)	12.593	.002**	48 (13.6%)	67 (41.4%)	57.459	.000*
Distance	12 (4.8%)	1 (.4%)	10.204	.006**	45 (12.8%)	14 (8.6%)	47.552	.000*
Fear of privacy and confidentiality	66 (26.2%)	69 (26.4%)	2.350	.503	80 (22.7%)	117(72.2%)	119.325	.000*

Note: Multiple response questions

* *The Chi-square statistics is significant at P< 0.01 level.*

** *The Chi-square statistics is significant at P< 0.05 level.*

Fear of confidentiality is a problem more to females from Dangilla than Menelik II. This is in accordance with the socio-demographic data that shows (38.3%) of females and 36.9%) from Dangilla living away from their parents, thus, feel relative freedom to seek service and parents' permission not to be an issue.

Finance: Since (75.4%) of parents from Dangilla earn less than ETB 1000 a month, compared to (34.9%) of parents from Menelik II, **finance** is seen as a problem for females and males from Dangilla unlike students from Menelik II. Interestingly, finance is a problem more to males than females in both study sites (table 19). Consistent to the quantitative findings, discussants from Dangilla identify finance as an important determinant for access to SRH services, particularly a reason for girls to opt for private practitioners for abortion services. This, most believe compels girls to seek illegal and unsafe abortions. Other issue cited by service providers indicated concern that pregnant girls are often lured to unsafe abortion services by solicitors (specifically hang around Marie Stopes clinics) and who liaise with illegal practitioners. The solicitors offer either much cheaper fee to attract, or use the opportunity to request for higher price for service and divert to illegal and often performed under unsafe conditions. This is also confirmed by the researcher and the key informant from Marie Stopes. In addition to finance, this also underscores that there are also other factors that limit the physical access and put service seekers at risk.

Same Sex Preference: In both sites, the findings of the FGDs with students and healthcare providers show that **sex preference** is a factor for accessibility as females in general and young girls in particular prefer female providers, unlike their male counterparts. The quantitative data (annex 13) also indicate that female respondents of both sites prefer young female healthcare providers than males (P=0.000). On the other hand, males in both sites almost similarly do not have any sex and age preference (P=0.000). However, few female student discussants from Menelik II are to the opinion that same-sex alone does not guarantee quality and gender-sensitive service provision, citing an example in their school. On the other hand, the researcher's observation also

shows that in almost all the visited healthcare institutions, there are either all females or both sexes, except few private institutions with only male professionals.

Services are not adolescent friendly: Discussions with service providers in both sites indicate that while the services are available, utilization by adolescents and young people is often limited. This, they believe is due to the social stigma attached to seeking these services in public. Yet, according to one doctor at private clinic; *"young people often prefer to come and seek such services indirectly and in quite hours"* and females through their partners or small boys, as observed by the researcher. According to the opinion of most of the discussants from Addis Ababa while SRH services are available, these are not adolescent-friendly. They feel that the services do not consider the special needs of this group.

On the part of the young people too, the available services are not user-friendly and do not have privacy. The researcher was able to corroborate these views during the visit to, and discussion with a health worker at government health center in Dangilla. The dedicated adolescent clinic with inscriptions of the same was at an open space in the waiting area of other services (which at the data collection, was no more in place). The healthcare provider informed that despite the availability of some services, it is seldom used by young people. Discussions with school girls also showed that while available services are limited, access to even these, especially at public/government facilities is often low due to issues of privacy and providers' attitude. In fact, respondents prefer to seek such services at private facilities.

Despite these views, however, observation of the researcher show that there are differences in types, and the **accessibility and quality of services** between the two study sites. While there are more diverse services in Addis Ababa, those in Dangilla were very limited. Students view of the presence of NGOs working on reproductive healthcare provision, and private institutions contribute to bridge gaps of inaccessibility of SRH services from government health institutions.

On the other hand, FGD participants from Dangilla said that the **location of healthcare facilities** is a major factor that limits accessibility. The researcher has also similar observation; all the health institutions are located just on the roadside which makes it difficult for school students to visit them freely due to fear of being identified by any passer-by. It is also difficult not to think of privacy and confidentiality where in one facility, **all-services, for all groups, at one time** are provided at one spot.

The issue of **privacy and confidentiality** is stressed by the students since SRH issue is attached more to culture and community attitudes. A female discussant said that in such a conservative community, it is very difficult to say *'its okay and let me go and obtain the service'*. Parent discussants backed this opinion in that, in a small community like Dangilla, to seek RH related healthcare services is very difficult even for adults and male, let alone for females - "**እንኳን ለሴት፣ ያውም ለተማሪ፣እግዚአብሔር አያምጣውና እኔ እንኳን እንደዚህ አይነት ችግሮች ቢደርሱብኝ ደፍሮ አኪም ቤት ለመሄድ በጣም ይከብደኛል።** (male parent discussant, Dangilla). FGDs show that government health facilities are the least visited due to lack of confidentiality and privacy, and the judgmental behaviour of most healthcare providers. Thus, instead, most male and female students opt for nearby shops, private places (mostly pharmacies and clinics) and traditional medical practitioners.

The above views of students' and the researcher's observation were backed by the Health Bureaus who accepted that almost all government facilities do not have a youth-only SRH service facility. Health care workers also agreed that SRH services are not conducive to youth, specifically for females. On the other hand, many feel that the **location of** the Youth Centers of the FGAE and the Marie Stopes clinic are suitable to visit without fear of stigma, as specifically FGAE Centers also provide library services. Fear of young girls being noticed while seeking SRH services was witnessed by one of healthcare providers as follows:

One day a student came seeking family planning services. After she received the service, she opened the door to leave but immediately stopped, closed the door and started crying. I was so startled by her reactions. Puzzled by this sudden turn of events; I asked her; 'What happened and why are you crying". Still crying she replied; "There is a lady sitting out there who knows me and my parents. I am so afraid that she will tell to my parents that I was here and they will be mad at me". And, hurriedly, she continued "I will not leave from this room until the lady leaves". Left with no options, with colleagues, we arranged for the lady sitting outside to have her services before her turn so that the girl could leave without being noticed. (A nurse from government health center, Addis Ababa)

In addition to factors related to community attitudes, **s**tudents from Dangilla stressed their limited **knowledge of available services**, as critical element for use of services. Female discussants agree that promotion campaigns are not necessarily pushing girls into sex, as opposed to other groups of discussants. Thus, they say there is lack of audience-specific information and more emphasis is on certain aspects of services such as condom promotion (and not on how to prevent or not to get sexually involved). Similarly, healthcare providers (including the Health Bureau) share the opinion that there is no adequate promotional activity which is comprehensive enough to address SRH needs of adolescents and young people.

Another issue, raised by students from both places is judgmental and non-attractive attitude of health professionals. Attitude of healthcare professionals (often not adolescent friendly) is expressed in the following way: *"Most health professionals are treating us [adolescents] in the same way like our mothers and fathers do. They make a big deal out of SRH issues and judge us as if they didn't pass through adolescence"* (Female student discussant, Menelik II).

Sharing the above opinion of girl students', female parents from Dangilla feel that conditions are not at all different for them [mothers] either. Although very few courageous female students can access these services in compelling situations, however, it is difficult to have access to such services comfortably without shame and discrimination; yet they are mostly victims of SRH problems such as unwanted pregnancy and its consequences.

The following true stories demonstrate the fear and stigma females face to access SRH services**.** The first story is from a female discussant that has had painful menstrual time sometime ago and went to the nearby health institution accompanied by her aunt; the narrative questions competence of healthcare providers.

> *.. .* [*A]fter I narrated my problem to the healthcare provider; he told me that "I should start sex to get relief from my pain during menses either by marriage or any form." Since I am committed to my education, I cried on hearing this. My aunt came and asked me what was wrong, I told her the story. Since my aunt was educated, she went back to the healthcare provider with rage and confronted him. We left the health facility and went to a drug store where we bought a painkiller. The healthcare provider at the drug store advised that "whenever you have pain, take it.* (Female discussant from Dangilla)

From this incident, one can understand how inadvertently young girls could be misled to sex. Similarly, another female discussant also shared her story that indicates lack of communication/explanation on the benefits of services. The story shows that female students are still with fear of misconceptions.

> *….. I usually had pain during menstruation. If I am lucky it falls during weekends and may not have to be absent from school. Otherwise, I don't go to school mostly the first days. I told my cousin whom I am close to and she took me to a Health Center. The health professional gave me birth control pill to take for 2 months and go back. Thus, I thought he misunderstood me. I didn't want birth control, I haven't started sexual intercourse. And, what if my mum discovers that I am using this and think that I am sexually active? But, even then I started taking the pills secretly. But then could not stand the vomit and heart burn. Thus, after 3 days I stopped it…I thought the monthly pain is better than the heartburn I will have for 2 months*. (Female student discussant, Menelik II)

In general quantitative findings and such stories indicate utilization of services to be low. Factors for utilization also range from finance to sex preference, attitude of service providers to non-friendly health institutions.

CHAPTER SIX
DISCUSSION, CONCLUSION AND RECOMMENDATION

6.1 Discussion

6.1.1 Knowledge of Students on SRH Issues and Sources of Information

According to the findings of this study, society's perception towards SRH issues hinders students to have access to services including information. The community often perceives that students are either knowledgeable or do not require to be informed about SRH issues, more so regarding female students. Quantitative data from the study shows that female students in general are less knowledgeable on SRH issues as compared to their male counterparts. This reflects the gender dimension of access to information and is well supported by other literatures (Mohammed, 2008; UNAIDS, 2008; WHO, 1997).

Individuals with knowledge on SRH issues are better able to make informed choices and decisions regarding their sexual and reproductive lives. However, gender-related and cultural norms restrict female students' access to full information about their sexuality and reproductive health. As a result, they largely remain ignorant and passive about sexual matters (Hirut, 2010; Alem, 2008; UNFPA, 2005).

Although other studies show that awareness on contraceptive methods is widespread, there are misconceptions about some of the methods (Population Council, 2009; Save the Children USA, 2007; UNDP, 2006). This study also documented that while female students have good knowledge measure on contraceptive methods, there are also misconceptions. For example, while a lot of students citing abstinence as a method to prevent unwanted pregnancy, however, less than half of all female respondents know the safe period of the month, (43.8% vs 49.4% for Dangilla and Menilik II, respectively). The study consistent with other findings shows that females are less knowledgeable than males in this regard (Save the Children USA, 2007). Students from Dangilla happen to be knowledgeable about the most common contraceptives such as injectable and oral pill, while on the other hand, students from Menelik II are by far knowledgeable about relatively recent ones such as female condom, emergency pills and permanent methods.

In general, for almost all the statements about contraceptive methods, less proportion of females than males and the least from Dangilla provided correct responses.

It is worth noting that almost all heard about HIV/AIDS and more than (80%) of them were able to identify two or more modes of HIV transmission correctly. These proportions are much higher than an earlier study conducted in Addis Ababa where (93%) correctly identified at least one mode of HIV transmission. The finding from earlier literature show that (87%) of adolescents believe HIV has no cure (Population Council, 2009), while in this research, less number (73.6%; 77.2%) from Menelik II and Dangilla, respectively believe so. Among the two sex groups, higher proportion of females than their male counterparts has misbelieves and misconception with regard to HIV transmission. More proportion of female respondents than males believe that HIV can also be transmitted by sharing food and toilet with HIV+ people. This difference is more marked among respondents from Dangilla where it is about three times greater. Unlike literature, on the contrary, that show rural population with less knowledge (FDRE, 2007), marked and statistically significant difference is observed in relation to transmission methods between the two schools. This seen in that more proportion of students from Dangilla happen to be more knowledgeable than Menelik II on HIV transmission methods.

Likewise, less proportion of female students in both schools were able to describe proper use of condom to prevent STIs/HIV. In the same pattern, more proportion of female respondents in Dangilla believe that one can tell whether one is HIV+ by looking at him/her. On a similar note, the result of the other literature done in Addis Ababa (91%) was about the same with the findings of this study that is (91.7%) males and (92.7%) females from Menelik II, while a bit lower with Dangilla (88.4% males and 79.6% females) (Population Council, 2009). This shows more of the regional as well as gender disparity when it comes to misconceptions. With regards to STIs other than HIV, while many could give examples such as gonorrhea, syphilis and chancroid; awareness about others was very low. Among the two sex groups, slightly less proportion of female respondents from both schools, and least from Dangilla have heard about STIS.

In general, the study findings show sex and site specific nature of contraceptive knowledge. There is gap of knowledge regarding SRH issues among the female and male students. Although female groups in general are at the same level, specifically in identifying basic HIV transmission and prevention methods, disparity in misconceptions and misbelieves are prevalent among female groups. This difference is more pronounced among respondents from Dangilla. These observations are in line with findings of other studies as documented from international and national literatures (UNAIDS, 2008; Awol, 2007; Shaik, 2006; WHO, 1997; UNDP, 2005), and feminist thinking (Trehan and Crowhurst, 2006).

6.1.2 Availability and Utilization of in-and out-of School Services

The findings from this study document that majority of both sex groups in both sites, know where to obtain SRH services if they desire so, both in-school and out-of school services. More than 75% of respondents identify Government institutions.

Schools create the best environment to impart preventive and protective SRH related knowledge to students without being subject to regional and sex-based discrimination. This is done basically through school curriculum and co-curricular activities in a form of clubs. In recognition of the mounting public health and social problems associated with adolescent sexual behavior, the importance of school-affiliated programs designed to reduce sexual risk-taking behavior are immense (Hirut 2010; Save the Children USA, 2007; Belainesh, 2006; Fekru, 2007). Effective in-school interventions have the potential to bring behavioral change that reduces the risk of SRH problems. More importantly, they contribute to delay sexual initiation and help students to abstain (Feven 2008).

The findings in this study show that the types of in-school services, including in school curricula, were more of the same and mostly on HIV information. The only difference was that Menelik II also to some extent provides sanitary pads and pain relievers for unexpected menstruation and dysmenorhea. This is a unique initiative which needs to be further strengthened and expanded in terms of other services related to menses and also replicated in other schools. Despite these, most of the subjects concentrate on HIV/AIDS and do not address the wider aspect of RH issues of importance to adolescents and young

people. This was also noted by the government as "there was no reported link or integration with RH topics" (FDRE, 2007: 16).

One important aspect of in-school initiatives is the organization of school clubs which have some elements of SRH activities as well. It is noted that the effectiveness of the existing school clubs for the wider community is questioned by students and teachers because clubs have very limited members and at the same time cannot reach the whole student community. This was in conjunction with other literature (Hirut, 2010). Despite this, the findings from this research also show clear positive correlation between knowledge of students and club membership. On the other hand, factors that limit (although to some extent) the effective contribution of clubs such as resource (for Dangilla) and manpower (for both) are also worth to be mentioned as part of the findings. Thus, based on lessons to date, it is important to strengthen school clubs for more comprehensive SRH activities that can benefit most of the school community.

Most of the out-of school (facility-based) services focus on STI management, IEC activities, and social marketing of condoms and contraceptives. While these services are available in both study sites, there was huge difference on the diversity and number of facilities providing these services. For example, counseling and testing and safe abortion services are available at many facilities in Addis Ababa as compared to Dangilla. Understandably, the variety and accessibility of the services is more in Addis Ababa where several government, private and NGO facilities exist (such as FGAE and Marie Stopes). With differences in the number and type of facilities; and the skills and training of healthcare providers, one can make inference that the quality of services do differ widely.

In the area of SRH, feminists believe that girls and boys, both in rural and urban, should have enabling conditions such as resources to safely and effectively exercise their human rights, including demanding for and accessing to quality services (Correa and Rosalind, 2003, citing Morsy 1994 and others). Although trying to compare the available services in Dangilla with services in the capital city does not seem appropriate, however, is worth to note that this rural-urban differential service availability is an important factor for access to quality SRH services which may lead to differential vulnerability to SRH risks.

Improving young people's sexual and reproductive health will be effective with the availability of gender-and age sensitive services that are easily and comfortably accessed**.** However, availability of services alone does not guarantee their use (FDRE, 2007, UNDP, 2006; WHO, 2001)**.**

From this study, it was noted that despite availability of services at varying degrees in both sites, utilization of these by students specifically by female students is often limited. Several factors ranging from cost, privacy and confidentiality, to trust in service providers (preference for same-sex healthcare provider, and miscommunications) were mentioned. Inadequate knowledge about available services is also a factor cited, especially by female respondents from Dangilla Preparatory School. However, there were differences in the degree of role of these factors among the two study sites. These findings were consistent with other studies which also identified social, cultural, and economic factors as key determinants for access to available services (Hirut, 2010; Alem, 2008; Haker, 2006; NTCPE, 2003; Langhaugh 2003).

One key observation was that despite their less cost, government health institutions were the least preferred sources of SRH services for students. This finding is in agreement with earlier studies (Hirut, 2010; Amare, 2001). The main reasons were that the services were not youth-friendly, and more so for female students, and specifically for female students from Dangilla. This underscores the importance of ensuring positive client perception and satisfaction to services. As a result, healthcare institutions, that are commonly accessible to the general public, but with unwelcome attitude of healthcare providers towards youth, and lack of gender sensitivity are not places where students can easily and comfortably obtain services (FDRE 2007). Although such problems of availability and access of services is well noted in different policy and strategic documents (chapter 1), the findings of this study show that adolescent RH is almost non-existent on the structure of government healthcare services and even the existing services are the least visited. This underscores that policies alone cannot bring about the desired outcome unless translated into meaningful action. On this note then, feminists held the government accountable for not putting into place an environment for adolescents to exercise their rights either

because of cultural constraints that may pose a threat to their reproductive rights, or because of popular prejudices from the side of policy makers and healthcare providers (Trehan and Crowhurst 2006; Correa and Rosalind, 2003). Thus, they suggest such rights should be claimed for (Haker, 2006).

In addition to the client positive perceptions and satisfaction, quality of SRH care has an impact on use and outcome of such services. Quality encompasses not only degree of care and level of skills of healthcare providers but also their attitude and communication skills. Even if the standard of care may be good as measured by available facilities for services, negative attitude of service providers can discourage young people from using available services. Age-and gender-discriminatory attitudes can discourage young people to seek such services from other unsafe sources (such as illegal abortions, substandard treatment for STIs). The observations of this study are in accordance to literatures reviewed (FDRE, 2007; UNDP, 2006; Amare, 2001).

In general, lack of youth-friendly services in the government health institutions, location of health care institutions, fear of being seen by others, finance, lack of full functionality of some services due to various reasons (safe abortion) and judgmental service from healthcare providers are identified factors for limited accessibility and quality of SRH services as supported by both quantitative and qualitative data and supported by literatures reviewed.

6.1.3 Other Underlying Factors for Knowledge and Utilization of SRH Services

6.1.3.1 Sources of SRH information

According to the survey result, respondents' source of SRH information varies greatly between the two sites. In more rural Dangilla as compared to urban Addis Ababa, television and also journals are scarce and not among the top sources of information. This reflects the impact of socio-demographic variations as important determinant for access to SRH information. Another important finding was that students prefer to seek information from same-sex family member; underscoring the gender-sensitive nature of SRH issues (see also below). The findings underscore, while multiple channels of IEC

reinforce messages, there is also a need to identify and adapt appropriate and accessible channels of communication, and at the same time the need to design SRH messages within the gender perspective (FDRE, 2007).

6.1.3.2 Family-Child Discussion on SRH issues

Parents are considered as the most ideal source of information on SRH issues. As a result, different studies highlight on the importance of parent-child and teacher-student communication in decreasing the prevalence of risky sexual behavior (Kouta, 2008; Temin, et.al. 1999). However, several literatures show the limited family-child discussion of SRH issues (Hirut, 2010; Mohammed, 2008; Alem, 2008; Dessalegn, 2006; NTCPE, 2003). The two differing observations indicate that while parents could be ideal sources of information, its practicality is governed by local circumstances such as culture and traditions. This was corroborated by the current study where even in the same country those from rural community (Dangilla) have far less opportunity to discuss with their parents on SRH issues as compared to their urbanite counterparts (Addis Ababa), as also raised by feminists (Bryson, 2003).

There is also a gender dimension in that wherever such discussions occur, there is preference to same-sex discussion. Female students are the least to either seek consultation or welcomed to initiate discussion on such issues (Hirut, 2010; Alem, 2008). This gender disparity is justified, by differential treatment of society where gender-based expectations are associated with fear and shame relating to speaking about anything sexual or female body (Alem, 2008; Dessalegn, 2006). In both cases (Dangilla and Menelik II), the traditional norms exclude adolescents, specifically females with any possibility of open discussion about sexuality with family members. This is in accordance with the findings of other researches (Hirut, 2010; Alem, 2008; FDRE, 2007; NTCPE, 2003). In line with feminist theories and other literatures, culture plays a dominant role to limit the role of women and girls and make them passive and ignorant about matters of sexuality and reproduction (Haker, 2006; Correa and Rosalind. 2003; Annandale & Clark, 1996; Smyth, 1994). The power imbalance as a result of patriarchy has an impact on communication, negotiation power in relationships and gender roles and norms; as a result of which are factors for female students' low level of knowledge on

SRH issues (Alem, 2008; UNFPA, 2005) and low level of health service seeking behavior.

In summary as observed by Valerie, women's oppression could not be squeezed to a single cause, or cannot be generalized as the condition of all women in all places (Bryson, 2003). As a result factors that determine access and utilization of SRH services by female students are multifaceted, and different at different localities, influenced by both intrinsic (students, school environment, community) and extrinsic factors (such as national policies and strategies).

6.2 Conclusion

The findings show that there is good level of understanding by most of the students with regard to key SRH issues. Despite this, disparity in knowledge exists between rural and urban, and among the groups. More proportion of students from Menelik II know about most of modern and natural contraceptive methods; while on the other hand, students from Dangilla know more about HIV transmission methods. Misconception and misbelieve seem to be more prevalent among female respondents from Dangilla. Discussion of SRH issues specifically among family members is still considered a taboo with varying degree between the sites and among groups.

School-based services, curricula and clubs at both study sites, are more of the same and focused more on HIV and few other topics at different depth. The role of school clubs to members is evident than non-club members. In addition, there are different out-of school SRH related services in both study sites. Yet, the type of services available in the facilities largely vary due to differences in the number and type of service providers. Despite availability and awareness of available SRH services, utilization by students specifically by females is very limited. Regardless of their less cost, government health institutions were the least preferred as a result, young people tend to seek such services from private and other unsafe sources. This is more of an issue to female students than males, and specifically to female students from Dangilla.

Several factors play key role in limiting students' access and utilization of SRH services: lack of awareness, paying capacity, non-user friendliness and quality of services, and attitudes of families, healthcare providers and society. However, there were differences in the degree of role of these factors among the two study sites. Inadequate knowledge about available services, location of health institutions are also factors cited, especially by female respondents from Dangilla for low utilization. The findings emphasized on the role of culture in influencing attitudes of families, healthcare providers and the community at large.

6.3 Recommendation

Healthy and productive citizen is an asset for nations. Yong people constitute the majority of the population in developing countries and they need their needs to be met, feel safe, and acquire skills that make them productive citizens. The age of preparatory school is the base for establishing a healthy adult life. Yet, it is also a time with life challenges. This is an age with risk for SRH problems due to lack of appropriate information and skills to protect themselves. To ensure the well-being and successful future of young people in general and female preparatory students in particular, it is imperative to address the various and multifaceted issues surrounding their academic, economic, and SRH lives. Addressing this issue calls for nothing short of a paradigm shift on the views and attitudes of society towards gender and SRH rights. While the development of various policies and strategies are a move in the right direction, there is even an urgent need that these be translated into a meaningful tool for community action.

Thus, building on the progress made to date; it is indispensable to explore mechanisms for addressing SRH problems of students. Based on the findings from this study, the following recommendations are proposed for consideration by respective schools and stakeholders working in the area of RH.

I. For School Administrations (Menelik II and Dangilla Preparatory Schools)

1. Recognize and reward club members and coordinators with exemplary contribution to promote SRH issues both in curricular and extracurricular activities.

2. Review the performance of School Clubs and devise ways to strengthen delivery of comprehensive and quality SRH services and ensure continuity of activities.
3. Clubs/school administrations to devise ways either to increase the number of members or to reach out the wider school community.
4. Building on lessons from HIV/AIDS clubs, establish/strengthen girls clubs to address gender-specific SRH needs such as menses, unwanted pregnancies, sexual violence.
5. Conduct separate and periodical female only panel discussions, consultations and trainings on SRH and gender issues by inviting appropriate people.
6. Strengthen the existing Red Cross Clinic by youth-friendly staff and ensure continuity of the provision of pads and medications (Menelik II), and establish such initiatives (Dangilla).
7. Initiate regular mini-media programs on SRH issues to reach more audience and promote active participation of students in activities such as dramas, poetry, song.
8. Support preparatory students with needs in their academic studies through tutorial classes (particularly female students).
9. Ensure availability of different IEC materials in the school libraries in open and accessible places, and in the school compound.
10. Respective school administrators preferably school clubs to create forum for improved parent-child communication and awareness on RH issues at community levels: through traditional associations such as *idirs, mahebers*, and government structures such as *kebeles* by inviting respected people.
11. Organize forums for parents specifically mothers' on SRH issues and 'proper' communication with their children as they are close to their daughters.
12. Liaison with the respective health offices to start weekly school health programs to promote education on SRH and other topics of interest.
13. Avail school-based health facilities with female health professionals in the school compound, with the necessary skill to handle youth SRH issues with gender sensitivity.

II. For Respective Health and Education Bureaus, and Gender Offices

1. Building on the lessons from HIV/AIDS, review school curricula and incorporate additional reproductive health topics of importance to students.
2. Avail youth-friendly RH services within the government health and other related institutions with appropriate professional and communication skill, and ensure accessibility by females.
3. Provide support to the school administration and clubs to ensure continuous education on SRH issues, preferably through school clubs.
4. Recognize and reward schools and clubs with exemplary SRH related programs.
5. Organize, in coordination with relevant stakeholders, annual "SRH and gender symposium" to promote gender-friendly school environment.
6. Institutionalize school-based health programs in coordination with relevant health offices incorporating health education on SRH issues and beyond; and practical hygiene and sanitation activities.

III. For NGOs Working on SRH and Related Areas

1. Expand geographic coverage of current SRH and related programs/projects, including both in-and-out of school youth.
2. Support school-based SRH activities through materials such as IEC materials, logistics for mini-media clubs, and in organizing annual school-health days.
3. Devise programs/projects on capacity building of school clubs such as training in leadership, training of trainers on SRH issues, communication skills for mini-media.
4. Sponsor media programs with appropriate channels on parent-child communication on SRH issues with culture, age and gender appropriate messages.
5. Strengthen coordination with stakeholders, especially with education, health bureaus, and youth and women bureaus to promote comprehensive and feasible SRH interventions.
6. Document lessons and best practices from SRH programs; identify needs and support schools in strengthening their efforts in addressing SRH needs of students.

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የኢትዮጵያ ትምህርት ሚኒስትር፣ (1998 **ዓ፣ም** (b))**::** ***አማርኛ፣ የተማሪ መማሪያ፣ 12ኛ ክፍል::*** **አዲስ አበባ: ኩራዝ ኢንተርናሽናል አሳታሚና የትምህርት ሥራዎች አማካሪ ድርጅት::**

Annex 1

Knowledge of Contraceptives between Same Sexes (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements		Males				Females			
		Menelik II (N= 252)	Dangilla (N=352)		Sig-(2-sided)	Menelik II (N=261)	Dangilla (N=162)		Sig-(2-sided)
		Total N %	Total N %	X^2		Total N %	Total N %	X^2	
Women can take a pill every day to prevent unwanted pregnancy	Yes	205(81.3%)	301(85.5%)	21.701	.000*	220(84.3%)	139 (85.8%)	19.812	.000*
Men can put rubber sheath on their penis before sexual intercourse to prevent unplanned pregnancy	Yes	232(92.1%)	320 (90.9%)	14.514	.002**	230(88.1%)	122 (75.3%)	31.106	.000*
Women can use a female condom to prevent unplanned pregnancy	Yes	223(88.5%)	249(70.7%)	52.129	.000*	211(80.8%)	84(52.2%)	64.360	.000*
Women can have a loop placed inside their uterus by health professionals	Yes	205(81.3%)	301(85.5%)	21.629	.000*	206(78.9%)	133(82.1%)	9.500	.009**
Women can have an injection by healthcare providers to prevent unwanted pregnancy for one or more months	Yes	227(90.1%)	323(91.8%)	6.512	.089	237(90.8%)	151(93.2%)	5.064	.080
There is a pill that can be taken by women within 72 hours after intercourse to prevent unplanned pregnancy	Yes	149(59.1%)	129(36.6%)	95.848	.000*	178(68.2%)	53(32.7%)	112.517	.000*
Women can use permanent surgical method if they decide not to have any more children	Yes	167(66.3%)	227(64.5%)	70.827	.000*	155(59.4%)	86(53.1%)	41.826	.000*
Men can use permanent surgical method if they decide not to have any more children	Yes	187(74.2%)	219(62.2%)	57.206	.000*	151(57.9%)	53(32.7%)	56.575	.000*
A women can get pregnant from 1 up to 10 days of her menstrual cycle if she has unprotected sex	No	97(38.5%)	114(32.4%)	14.472	.002**	91(34.9%)	53(32.7%)	11.393	.003**
It is possible to prevent unplanned pregnancy by using Periodic abstinence	Yes	203(80.6%)	291(82.7%)	15.054	.005**	201(77.0%)	128 (79.0%)	4.014	.134
Pills and condom can not 100% prevent from unplanned pregnancy	Yes	126(50.0%)	167 (47.4%)	13.987	.003**	139(53.3%)	71 (43.8%)	20.914	.000*

* *The Chi-square statistics is significant at P< 0.01 level.* ** *The Chi-square statistics is significant at P< 0.05 level.*

Annex 2

Knowledge of HIV Transmission Methods between Same Sexes (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements		Males				Females			
		Menelik II (N= 252)	Dangilla (N=352)			Menelik II (N=261)	Dangilla (N=162)		
		Total N %	Total N %	X^2	Sig-(2-sided)	Total N %	Total N %	X^2	Sig-(2-sided)
Unprotected sexual intercourse	*Yes*	247 (98%)	339 (96.3%)	2.866	.239	256(98.1%)	156 (96.3%)	4.868	.088
Sharing sharp, unclean and non-sterilized objects	*Yes*	226(89.7%)	331 (94%)	9.571	.008**	230(88.1%)	146 (90.1%)	6.305	.043**
HIV+ blood transfusion	*Yes*	224(88.9%)	328 (93.2)	8.646	.013**	213(81.6%)	133 (82.1%	5.150	.076
From HIV+ mother to unborn baby and child	*Yes*	192(76.2%)	288 (81.8%)	6.399	.041**	194(74.3%)	108 (66.7%)	6.865	.032**
Sharing food with HIV+ person	*Yes*	12 (4.8%)	10 (2.8%	3.661	.160	13 (5.0%)	11 (6.8%)	5.553	.062
	No	239(94.8%)	336(95.5%)			248 (95%)	148 (91.4%)		
Sharing toilet with HIV+ person	*Yes*	11 (4.4%)	8 (2.3%)	4.220	.121	9 (3.4%)	10 (6.2%)	6.706	.035**
	No	240(95.2%)	338 (96%)			252 (96.6)	149 (92%)		

* *The Chi-square statistics is significant at P< 0.01 level.* ** *The Chi-square statistics is significant at P< 0.05 level.*

Annex 3

Knowledge about HIV Protective Methods between Schools (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements	Menelik II (N=513)		Dangilla (N=514			
	Count	Total N %	Count	Total N %	X^2	Sig-(2-sided)
Abstain from sex until marriage	477	93%	486	94.6%	5.545	.063
Limit sex/stay faithful to one partner	441	86%	465	90.5%	10.035	.007**
Proper use of condom	391	76.2%	390	75.9%	2.311	.315
Avoid receiving HIV+ blood transfusion	375	73.1%	413	80.4%	11.841	.003**
Avoid sharing sharp, unclean and non-sterilized objects	343	66.9%	350	68.1%	2.717	.257
A person can take simple test to know whether he/she is HIV+	504	98.2	507	98.6%	.299	.861

Note: Multiple response questions

** *The Chi-square statistics is significant at P< 0.05 level.*

Annex 4

Awareness of STIs between Schools (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements	Menelik II (N-513)		Dangilla (N=514)			
	Count	N %	Count	N %	X^2	Sig. (2-sided)
Gonorrhea	452	88.1	451	87.7	.149	.928
Syphilis	442	86.2	450	87.5	1.716	.424
Chankroid	296	57.7	326	63.4	4.624	.099
LGV	247	48.1	244	47.5	.150	.928
LGI	185	36.1	165	32.1	1.805	.406

Note: Multiple response questions

Annex 5

Knowledge of STIs between Same Sexes of the two Sites (Menelik II and Dangilla Preparatory School, February 2010)

Statements	Males				Females			
	Menelik II (N= 252)	Dangilla (N=352)		Sig-(2-sided)	Menelik II (N=261)	Dangilla (N=162)		Sig-(2-sided)
	Total N %	Total N %	X^2		Total N %	Total N %	X^2	
Gonorrhea	220 (87.3%)	319 (90.6%)	1.827	.401	232 (88.9%)	132 (81.5%)	4.582	.101
Syphilis	218 (86.5%)	316 (89.8%)	1.590	.452	224 (85.8%)	134 (82.7%)	2.981	.225
Chankroid	161(63.9%)	251 (71.3%)	3.729	.155	135 (51.7%)	75 (46.3%)	3.163	.206
LGV	126 (50.0%)	184 (52.3%)	.583	.747	121 (46.4%)	60 (37.0%)	5.040	.080
LGI	86 (34.1%)	133 (37.8%)	1.088	.580	99 (37.9%)	32 (19.8%)	16.253	.000*

Note: Multiple response questions

* *The Chi-square statistics is significant at P< 0.01 level.*

Annex 6

Sources of SRH information (Menelik II and Dangilla Preparatory Schools, February 2010)

	Menelik II				Dangilla			
	Male (N= 252)		Female (N=261)		Male (N=352)		Female (N=162)	
	Count	Col. N %	Count	Col. N %	Count	Col. N %	Count	Col. N %
News/Journals	110	43.7%	74	28.4%	57	16.2%	21	13.0%
Radio	214	84.9%	226	86.6%	297	84.4%	109	67.3%
Television	195	77.4%	195	74.7%	171	48.6%	65	40.1%
Health institutions	34	13.5%	26	10.0%	128	36.4%	52	32.1%
School	170	67.5%	162	62.1%	286	81.3%	111	68.5%
Family	79	31.3%	117	44.8%	63	17.9%	20	12.3%
Friends	172	68.3%	173	66.3%	277	78.7%	93	57.4%

Multiple response questions

Annex 7

Whether or not Received Reading Materials from Health Facilities (Menelik II and Dangilla Preparatory Schools, February 2010)

Did you receive any brochure(S) or education materials to read from any health institutions?	Menelik II		Dangilla	
	Sex		Sex	
	Male	Female	Male	Female
	Total	Total	Total	Total
Yes	15.5%	13.4%	14.8%	11.1%
Didn't receive	42.9%	41.4%	56.8%	47.5%
Didn't go to health centers	41.6%	45.2%	28.4%	41.4%
For those who said 'yes," what were the subjects?				
RH Related	55.0%	38.2%	35.2%	32.5%
Other subjects	45.0%	61.8%	64.8%	67.5%

Annex 8

Preferred Sources of Information from Survey Respondents (Menelik II and Dangilla Preparatory Schools, February 2010)

Who do you prefer to receive RH information from?	**Menelik II**		**Dangilla**	
	Male (N= 252)	**Female (N=261)**	**Male (N=352)**	**Female (N=162)**
	Total	**Total**	**Total**	**Total**
Parents/ family members	103 (40.9%)	142 (54.4%)	193 (54.8%)	105 (64.8%)
Boy/girl friends	137 (54.4%)	146 (55.9%)	190 (54.1%)	80(49.4%)
School clubs	109 (43.3%)	120 (46.0%)	186 (52.8%)	74 (45.7%)
Female health workers	75 (29.8%)	113 (43.3%)	154 (43.8%)	100 (61.7%)
Male health workers	57 (22.6%)	49(18.8%)	206 (58.5%)	39 (24.1%)
Male teachers	38 (15.1%)	38 (14.6%)	84(23.9%)	28 (17.3%)
Female teachers	45 (18.7%)	67 (25.7%)	75 (21.3%)	57 (35.2%)
Media (Radio, TV, magazines)	131 (52.0%)	148 (56.7%)	212 (60.2%)	72 (44.4%)

Multiple response questions

Annex 9

Association of Club Membership with Students' Knowledge of SRH Issues (Menelik II and Dangilla Preparatory Schools, February 2010)

Statements		Are you a member of RH related clubs?					
		No (N=892)		Yes (N=135)		X^2	Sig(2-tailed)
		Count	Total N %	Count	Total N %		
Women can take a pill every day to prevent unwanted/Unplanned pregnancy	Yes	732	82%	133	98.5%	24.099	.000*
Men can put rubber sheath on their penis before sexual intercourse to prevent unplanned pregnancy	Yes	773	86.7%	131	97.0%	13.534	.004**
Women can use a female condom to prevent unplanned pregnancy	Yes	644	72.3%	123	91.1%	22.113	.000*
Women can have a loop placed inside their uterus by health professionals	Yes	717	80.4%	128	94.8%	16.851	.002**
Women can have an injection by healthcare providers to prevent unwanted pregnancy for one or more months	Yes	807	90.5%	130	97.0%	6.284	.005**
There is a pill that can be taken by women within 72 hours after intercourse to prevent unplanned pregnancy	Yes	413	46.3%	96	71.1%	29.636	.000*
Women can use permanent surgical method if they decide not to have any more children	Yes	513	57.5%	122	90.4%	53.810	.000*
Men can use permanent surgical method if they decide not to have any more children	Yes	503	56.4%	107	79.3%	25.637	.000*
A women can get pregnant from 1 up to 10 days of her menstrual cycle if she has unprotected sex	No	291	32.6%	62	45.9%	20.846	.001**
It is possible to prevent unplanned pregnancy by using the natural rhythmic method	Yes	701	78.6%	122	90.4%	10.509	.033**
Unprotected sexual intercourse	Yes	864	96.9	134	99.3%	2.952	.229
Sharing sharp, unclean and non-sterilized objects	Yes	802	89.9%	131	97.0%	7.486	.024**
HIV+ blood transfusion	Yes	768	86.1%	130	96.3%	11.458	.003**
From HIV+ mother to unborn baby and child	Yes	663	74.3%	119	88.1%	12.440	.002**
By looking at a person, you can identify whether he/she is HIV+	Yes	789	88.3%	127	94.1%	4.985	.025**

Note: Multiple response questions * *The Chi-square statistics is significant at P< 0.01 level.* ** *The Chi-square statistics is significant at P< 0.05 level.*

Annex 10

Sexuality and Risk Perception (Menelik II and Dangilla Preparatory Schools, February 2010)

	Menelik II				Dangilla			
	Male	**Female**			**Male**	**Female**		
	Count/%	**Count/%**	X^2	Sig. (2-sided)	**Count/%**	**Count/%**	X^2	Sig. (2-sided)
Have you started sexual intercourse?								
Yes	63(25%)	30(11.5%)	15.757	.000*	73 (20.8%)	30(18.5)	.820	.664
No	189(75%)	231 (88.5%)			278(79.2%)	132(81.5%)		
Those who said 'No', what was the reason for you not to start sex?								
Not start before marriage	114(62.6%)	192(85.7%)	28.806	.000*	227 (82.2%)	111 (86%)	.920	.338
To protect myself from STIs/HIV/AIDS	94 (51.6%)	105(46.9%)	.916	.339	201 (73.1%)	84(65.1%)	2.687	.101
To prevent unwanted pregnancy	37 (20.1%)	159(53.1%)	45.646	.000*	121 (44%)	91(70.5%)	24.806	.000*
[those sexually active] 'Was there any perceived risk during your first sex?'								
Yes	28 (45.2%)	19 (67.9%)	3.982	.046**	58 (80.6%)	30 (100%)	6.761]	.009**
No	34 (54.8%)	9 (32.1%)			14 (19.4%)	0 (0%)		
Did you use condom/contraceptives during your first sexual intercourse?								
Yes	39 (63.9%)	19 (67.9%)	.130	.718	32 (45.1%)	16 (53.3%)	.577	.447
No	22 (36.1%)	9 (32.1%)			39 (54.9%)	14 (46.7%)		

* *The Chi-square statistics is significant at P< 0.01 level.*

** *The Chi-square statistics is significant at P< 0.05 level.*

.

Annex 11

Association between Parent Education and Knowledge of Students about HIV and Contraceptives (Menelik II and Dangilla Preparatory Schools, February 2010)

A. Knowledge of HIV transmission Vs Mother's Education

			Knowledge of Method HIV transmission_			Total
			Low	medium	High	
Mother's education	illiterate	Count & %	8(80.0%)	8(26.7%)	384(38.9%)	400(38.9%)
	primary	Count & %	2(20.0%)	13(43.3%)	340(34.4%)	355(34.6%)
	secondary	Count & %	0(.0%)	2(6.7%)	157(15.9%)	159(15.5%)
	higher	Count & %	0(.0%)	7(23.3%)	106(10.7%)	113(11.0%)
Total		Count & %	10(100.0%)	30(100.0%)	987(100.0%)	1027(100.0%)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.251[a]	6	.018**

B. Association between Father's Education and knowledge of contraceptive

			knowledge of contraceptive			Total
			Low	Medium	High	
Father's Education	illiterate	Count & %	7 (15.2%)	59(21.5%)	117(16.6%)	183(17.9%)
	primary	Count & %	25(54.3%)	128(46.7%)	282(40.1%)	435(42.5%)
	secondary	Count & %	6(13.0%)	39(14.2%)	121(17.2%)	166(16.2%)
	higher	Count & %	8(17.4%)	48(17.5%)	184(26.1%)	240(23.4%)
Total		Count & %	46(100.0%)	274(100.0%)	704(100.0%)	1024(100.0%)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.871[a]	6	.021**

C. Knowledge of HIV transmission Vs Father's Education

			Knowledge of HIV transmission			Total
			low	medium	High	
Father's Education	illiterate	Count & %	4(40.0%)	4(13.3%)	176(17.9%)	184(18.0%)
	primary	Count & %	5(50.0%)	13(43.3%)	417(42.3%)	435(42.4%)
	secondary	Count & %	1(10.0%)	5(16.7%)	160(16.2%)	166(16.2%)
	higher	Count & %	0(.0%)	8(26.7%)	232(23.6%)	240(23.4%)
Total		Count & %	10(100.0%)	30(100.0%)	985(100.0%)	1025(100.0%)

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.939[a]	6	.430

** *The Chi-square statistics is significant at P< 0.05 level.*

Annex 12

Whether or not Remember Programs Organized by RH-related Clubs (Menelik II and Dangilla Preparatory Schools, February 2010)

Do you remember programs on SRH organized by clubs in your school?	**Menelik II**		**Dangilla**	
	Male	**Female**	**Male**	**Female**
	Total N %	Total N %	Total N %	Total N %
Yes	131 (52.4%)	126 (48.3%)	165 (47.3%)	73 (45.1%)
No	119 (47.6%)	135 (51.7%)	184 (52.7%)	89 (54.9%)
If 'No', what was the reason?				
No program organized by clubs	56 (50.0%)	60 (45.1%)	140 (74.1%)	61 (70.9%)
Other reasons	56 (50.0%)	73 (54.9%)	49 (25.9%)	25 (29.1%)

Annex 13

Sex and Age Preference of RH Service Providers by Students (Menelik II and Dangilla Preparatory Schools, February 2010)

Whom do you prefer to receive SRH related health care services?	**Menelik II**		**Dangilla**	
	Male	**Female**	**Male**	**Female**
	Total N%	Total N%	Total N%	Total N%
Young female	45 (17.9%)	104 (39.8%)	35 (9.9%)	70 (44%)
Young male	58 (23%)	18 (6.9%)	31 (8.8%)	3 (1.9%)
Female and adult	12 (4.8%)	26 (10%)	12 (3.4%)	23 (14.5%)
Male and adult	26 (10.3%)	6 (2.3%)	30 (8.5%)	1 (0.6%)
Any age and sex	111 (44%)	107 (41%)	244 (69.3%)	62 (39%)

Pearson Chi-Square Tests

		School	
		Menelik II	**Dangilla**
		Sex	**Sex**
Who do you prefer to receive the SRH service from?	Chi-square	62.008	117.415
	df	4	4
	Sig.	.000(*)	.000(*)

* The Chi-square statistics is significant at the 0.05 level.

Annex 14

List of Identified Institutions/Club Coordinators for Interview

1. STUDY SITE: ADDIS ABABA

A. Out of School

1. Addis Ababa Health Bureau

Government Health Centers

2. Arada t Health Center
3. *Kazanchis* Health Center
4. *Shiro-Meda* Health Center
5. *Woreda* 17 Health Center

NGO Licensed health institutions

6. Marie Stopes, Health Center NGO & OG
7. Family Guidance Association of Ethiopia: *Kirkos* and *Sheger* Youth Centers

Private Clinics

8. *Addis Hiwot* – Lower clinic
9. *Janmeda* Higher clinic
10. *Bole Medhanialem* Medium clinic

Pharmacies: public and private

11. *4 Killo Kenema* Pharmacy
12. St. Urael Pharmacy

B. In school Club-Coordinators and Clinic

13. Anti HIV/AIDS Club
14. Girls' Club
15. Mini Media Club
16. Red Cross Clinic

2. STUDY SITE: DANGILLA

A. Out of school

1. Dangilla City Health Bureau
2. Dangilla Government Health Center
3. Kidist Mariam Medium Clinic
4. Nahom Rural Drug Vendor
5. Tsion Drug Store

B. In-School

6. Health and Anti-HIV/AIDS Club
7. Gender Club
8. Mini-Media Club

Annex 15
Survey Questionnaire

Determinants Knowledge and Service Utilization of Sexual and Reproductive Health: A Comparative Study of Preparatory Students in Dangilla and Menelik II
Questionnaire to be completed by female& male students

School code (_____) Questionnaire Code (_____)

The objective of this study is to assess the status and identify key determinants for access and use of in and out of school SRH services by preparatory school students, particularly females.

Instruction: You will not write your name on this questionnaire. Hence, do not worry since there is no chance to know who completed this questionnaire. Kindly answer the following questions by circling the number of your choice/s and/or by writing your response on the blank space.

Thank you in advance for your kind cooperation.

Part I. Demographic and Socio-economic

No	Question	Coding & Categories	Skip to	Answer code
101	Age in completed years?	_____ years old		1 2
102	Sex?	1. Male 2. Female		1 2
103	Your grade level?	1. 11^{th} 2. 12^{th}		1 2
104	Your religion?	1. Orthodox 2. Protestant 3. Catholic 4. Muslim 5. Other, specify:_____		1 2 3 4 5
105	With whom are you living now?	1. With both mother and father 2. With mother only 3. With father only 4. With sister or brother 5. With relatives 6. Alone (hiring dormitory) 7. Other, specify_____		1 2 3 4 5 6 7
106	Mother's education level?	1. Cannot read and write 2. Read and write 3. Grade1-6 4. Grade 7-12 5. Diploma 6. Degree and above 7. Other (specify) _____		1 2 3 4 5 6 7
107	Father's education level?	1. Cannot read and write 2. Read and write 3. Grade1-6 4. Grade 7-12 5. Diploma 6. Degree and above 7. Other (specify) _____		1 2 3 4 5 6 7

108	Mother's occupation?	1. Housewife (including farmer) 2. Daily laborer 3. Government employee 4. Private business employee 5. Has own or private business 6. Other (specify) _____		1 2 3 4 5 6
109	Father's occupation?	1. Farmer → 2. Daily laborer 3. Government employee 4. Private business employee 5. Has own or private business, 6. Agriculture/Farmer 7. Other (specify) _____	111	1 2 3 4 5 6 7
110	If your parents are employees or own private business, what is the estimated annual income?	1. Up to 400 birr 2. From 401-1000 birr 3. From 1001 – 2000 birr 4. From 2001 – 3000 birr 5. 3001 and above *0. Skipped*	112	1 2 3 4 5 0
111	If your parents are farmers, what is the estimated annual income?	1. Up to 5000 birr 2. From 5001-12000 birr 3. From 12001 – 24000 birr 4. From 24001 – 36000 birr 5. 36 001 and above *0. Skipped*		1 2 3 4 5 0
112	Apart from food and educational expense, how much pocket money do you get per month from your parents?	1. Do not receive pocket money 2. up to 50 birr 3. 51-100 birr 4. 101-200 birr 5. 201-500 birr 6. Other, specify: _____		1 2 3 4 5 6

Part II. Knowledge of Sexual and Reproductive Health issues

A. Knowledge of Contraceptives

201	Have you ever heard of contraceptive methods?	1. Yes 2. No →	216	1 2
202	If your answer is 'yes' to the above question, which method/s have you ever heard of? ***(Multiple answers possible)***	1. Pills 2. Emergency contraception 3. Condom 4. Injectable 5. Implant/Norplant 6. IUCD/Loop 7. Female/male sterilization 8. Periodic abstinence 9. Other, specify: _____ 0. Skipped		1 2 3 4 5 6 7 8 9 0
203	Women can take a pill every day to prevent unwanted/unplanned pregnancy.	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0

204	Men can put a rubber sheath on their penis before sexual intercourse to prevent unwanted/unplanned pregnancy.	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
205	Women can use a female condom to prevent unwanted/unplanned pregnancy?	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
206	Women can have a loop placed inside their uterus by skilled healthcare providers to prevent unwanted/unplanned pregnancy.	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
207	Women can have an injection by healthcare providers to prevent unwanted/unplanned pregnancy for one or more months.	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
208	There is a pill that can be taken by women within 72 hours after intercourse to prevent unwanted/unplanned pregnancy	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
209	Women can use a permanent surgical method if they decide not to have any more children.	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
210	Men can use a permanent surgical method if they decide not to have any more children.	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
211	A woman can get pregnant from day one upto day 10 of her menstrual cycle if she has unprotected sex.	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
212	It is possible to prevent unwanted/unplanned pregnancy by periodic abstinence	1. Yes 2. No 3. Don't know 0. Skipped		1 2 3 0
213	Have you heard of any other ways or methods that women and men can use to prevent unwanted/unplanned pregnancy?	1. Yes, specify: _____ 2. No 0. Skipped		1 2 0
214	Pills and condom can not **100%** protect a woman/a girl from unwanted/unplanned pregnancy.	1. Yes 2. No 3. Don't know		1 2 3
215	Which method (among the above listed), do you think is most suitable for students (both male and female) of your age who want to use? ***(Multiple answers possible)***	1. Pills 2. Condom 3. Emergency contraception 4. Injectable 5. Implant/Norplant 6. IUCD/Loop 7. Sterilization (female/male) 8. Rhythm Standard days method 9 Others, specify _____		1 2 3 4 5 6 7 8 9

B. Knowledge of HIV/AIDS and STIs/STDs

216	Have you ever heard of HIV/ADS?	1. Yes 2. No →	 226	1 2
217	HIV can be transmitted from person to person.	1. yes 2. No →	 219	1 2
218	Which are possible ways for transmission of HIV ? ***(Multiple answers possible)***	1. Sexual intercourse 2. Sharing sharp, unclean and non-sterilized objects such as needles for injections and razors for shaving 3. HIV+ blood transfusion 4. From HIV+ mother to unborn baby and child 5. Sharing food with HIV+ persons 6. Sharing toilet with HIV+ persons 7. Others(specify) _____		1 2 3 4 5 6 7
219	Can we protect ourselves from HIV?	1. Yes 2. No →	 221	1 2
220	If 'yes' what can a person do to protect himself/herself from HIV infection? ***(Multiple answers possible)***	1. Abstain from sex until marriage 2. Limit sex/stay faithful to one partner 3. Proper use of condoms during sex 4. Avoid blood transfusion without screening 5. using clean and sterilized sharp objects such as needles for injections and razors for shaving 6. Others (specify)_____ 0. skipped		1 2 3 4 5 6 0
221	A person can take simple test to check whether he/she is HIV+.	1. Yes 2. No 3. DK 0. skipped		1 2 3 0
222	Girls and women have more chance of getting infected with HIV than boys and men	1. Yes 2. No 3. DK 0. Skipped		1 2 3 0
223	By carefully looking at a person, you can identify whether he/she is HIV+ .	1. Yes 2. No 3. DK 0. Skipped		1 2 3 0
224	Condom can protect from HIV and other STDs 100%.	1. Yes 2. No 3. DK 0. Skipped		1 2 3 0
225	These days, an HIV+ person can be cured completely?	1. Yes 2. No 3. DK 0. Skipped		1 2 3 0
226	Apart from HIV, have you heard of any diseases (STDIs) transmitted through sexual contact?	1. Yes 2. No →	 301	1 2 3

227	Which of the following have you heard of? ***(Multiple answer possible)***	1. Gonorrhea 2. Syphillis 3. Chankroid 4. LGV 5. LGI 6. Others, specify: _____		1 2 3 4 5 6
228	What are the symptoms of STDs/STIs? ***(Multiple answer possible)***	1. ulcer/ infection/swelling and itching around genital organs 2. Burning and/pain while urinating 3. Genital discharge with unusual smell 4. abdominal pain 5. Others (specify) _____ 6. Don't know 0. Skipped		1 2 3 4 5 6 0

Part III. Sources of information

301	From whom/where do you mostly hear reproductive health issues such as STDs and HIV/AIDS, unwanted pregnancy and sexuality? ***(Multiple answers possible)***	1. News/journals 2. Radio 3. Television 4. Health institution 5. School 6. Family 7. Friend 8. Other (specify) _____ 9. Have not heard of any	303	1 2 3 4 5 6 7 8 9
302	If your answer for question 301 is 'have not heard of any,' what is the reason? ***(Multiple answers possible)***	1. Don't have access to News/journals 2. Don't have access to radio 3. Don't have access to television 4. Don't have time 5. Don't have interest or habit of watching TV & listening to radio 6. Other (specify) _____ 0. skipped		1 2 3 4 5 6 0
303	Can you remember programs organized by clubs in your school such as HIV/AIDS and Mini-media) on SRH and related issues during the last one month?	1. Yes → 2. Didn't attend any	305	1 2
304	If your answer for the above question is 'didn't attend any,' what was the reason?	1. There was no program organized 2. Other, (specify) _____ 0. skipped		1 2 0
305	Are you a member of the following school clubs: HIV/AIDS, Mini-media, Gender/Girls'?	1. Yes 2. No		1 2
306	Among your family members, with whom have you ever discussed sexual and reproductive health matters freely? ***(Multiple answers possible)***	1. Father 2. Mother 3. Sister/s 4. Brother/s 5. Other cousins 6. No discussion with any one of them		1 2 3 4 5 6

307	Did you receive any brochure(s) or educational materials to read from any health institutions during the last 12 months?	1. Yes 2. Didn't receive → 3. Didn't go to health centers →	309	1 2 3
308	If your answer to the above question is 'yes', what are/is the subject(s) covered in the material/s? ***(Multiple answers possible)***	1. Maternal health 2. Contraception 3. STIs/HIV/AIDS 4. unwanted pregnancy & abortion 5. Other: _____ 0. skipped		1 2 3 4 5 0
309	From whom/where do you prefer to obtain sexual and reproductive health information? ***(Multiple answers possible)***	1. Parents/family members 2. Boy and girl friends 3. School clubs 4. Female Health workers 5. Male health workers 6. Male teachers 7. Female teachers 8. Media (Radio, TV, Magazines) 9. Other, (specify) _____ 0. skipped		1 2 3 4 5 6 7 8 9 0

Part IV: Assessment of awareness & knowledge of SRH services

401	Have you ever heard of voluntary HIV counseling and testing?	1. Yes 2. No		1 2
402	Where do you think students in this school can get services such as VCT, diagnosis and treatment of STIs, unwanted pregnancy, contraceptives? ***(Multiple answers possible)***	1. Government hospitals, clinics, health centers 2. NGO reproductive health providing centers 3. Private hospitals and clinics 4. Other, (specify) _____ 5. Don't know		1 2 3 4 5
403	Have you visited any health institution for the last 12 months?	1. Yes 2. No →	405	1 2
404	If your answer to the above question is 'yes,' what was the reason for you to visit? ***(Multiple answers possible)***	1. About unwanted pregnancy and counseling on contraceptive s 2. STI diagnosis/treatment 3. HIV counseling and test 4. Menstruation-related counseling and treatment ***(only for girls)*** 5. Other, specify: _____ 0. skipped		1 2 3 4 5 0
405	Would you feel comfortable visiting health institutions around your area for sexual and reproductive health services?	1. Yes → 2. No, I don't feel comfortable	407	1 2

406	Which of the following are the reasons for not being comfortable to visit health institutions for sexual and reproductive health services?	1. Getting permission from parents to go to health centers 2. Financial problem 3. Whether there is a female health provider in the health center 4. Distance of the health institutions **5.** Privacy and confidentiality 6. Other: _____ 0. skipped		1 2 3 4 5 6 0
407	If you need any of reproductive health services from health centers/clinics/hospitals, who do you prefer to receive the service from?	1. Young and female professional 2. Young and male professional 3. Female and adult professional 4. Male and adult professional 5. Any age and any sex		1 2 3 4 5

Part II: C- Sexuality

229	Have you ever practice sexual intercourse?	1. Yes ⟶ 2. No	231	1 2
230	If you didn't practice sexual intercourse, what is the reason? ***(Multiple answers possible)***	1. Decided not to start before marriage 2. To protect myself/my partner from STIs/HIV/AIDS 3. To prevent unwanted pregnancy 4. Other, (specify)_____ 0. skipped		1 2 3 4 0
231	If your answer to question 229 is 'yes,' is there any perceived risk?	1. Yes ⟶ 2. No ⟶	232 End	1 2 0
232	What do you think is/are the risks of sexual activity? ***(Multiple answers possible)***	1. STIs/HIV/AIDS 2. Unwanted pregnancy 3. Other, (specify) _____ 0. skipped		1 2 3 0
233	Did you use condom?	1. Yes 2. No 0. skipped	End	1 2 0

Again thank you for completion of this questionnaire.

Annex 16
Interview and FGD Guides

Determinants Knowledge and Service Utilization of Sexual and Reproductive Health: A Comparative Study of Preparatory Students in Dangilla and Menelik II

Adolescents and youth are groups that are greatly affected by sexual and reproductive health problems. Female students of this group are believed to be more vulnerable to these problems. The purpose of the study is to assess and identify key determinants for female students' access and use of Sexual and Reproductive Health (SRH) services, and accordingly call for interventions in the field to consider both gender and regional disparities in designing strategies when addressing the issue.

In order to achieve its objectives, this research has designed instruments such as interviews and FGDs. You are thus, chosen to participate in the interview/FGD as part of this study. Your participation is only on voluntary basis and you have full right either to participate or to refuse this interview. May I now ask that you participate in the interview?

Thank you for your kind cooperation.

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1. Teachers

1.1 Key Informant interview Guide for Club Coordinators

1. Do you feel students in general and female students in particular have special sexual and reproductive health needs?
2. If 'yes', are there services to address these needs in this school? [*probe for specific services]*
3. In your opinion, how would you rate the relevance of the available services to address SRH needs of female students? *[useful to some extent, very useful, not useful and ask for more elaboration]*
4. What is your role in providing these services? *[probe for specific roles]*
5. Provide examples of involvement of female students in the club you are responsible? *[link discussion to specific clubs, e.g., Health & Anti-AIDS, Gender and Mini-Media]*
6. What are the strengths of existing SRH services and challenges in delivering SRH services to female students in the school environment?
7. How should these challenges be addressed? *[probe for specific suggestions & recommendations]*
8. Do you get any support from health care providers? *[probe for specific examples]*

1.2 FGD Guide for Teachers

1. What do you think are the main SRH issues/problems for students in general and female students in particular?
2. Do you feel there is the need for availing SRH Services in the school to address the needs of female students? *[group opinion]*

3. Discuss examples of services available in and out of the school environment. *[probe for types of services for STIs/HIV/AIDS, counseling on SRH issues]*
4. In your opinion, how would you rate the relevance of the available services to address SRH needs of female students? *[useful to some extent, very useful, not useful and ask for more elaboration]*
5. In your opinion, how is the communities' attitude to SRH needs of female students? *[public opinion and awareness]*
6. What are the key challenges in your opinion to establish/strengthen SRH services?
7. What solutions do you propose to establish/strengthen SRH services in-and-out of the school

2. Students

2.1 FGD Guide for Male students *(Awareness, demand, availability, accessibility)*

1. In your opinion do you believe that STIs, HIV/AIDS, unwanted pregnancy are issues of concern to students in this school?
2. Discuss services required to address these issues
3. What services are available in and out of school for students?
4. Are these services easily accessible to school students? *[probe for female/male students]*
5. If 'not accessible, what are the reasons?
6. What do you suggest to address problems of availability and accessibility to SRH services?
7. Unwanted pregnancy: Do you think males have a role in preventing unwanted pregnancy by females? *[probe for specific roles]*
8. Have you ever discussed issues of sexuality (puberty, menstruation, unwanted pregnancy, STIs HIV/AIDS) with your parents and other family members?
9. If not with family members, whom do you discuss with about these issues?
10. What do you think is/are the reason/s for reluctance of family members to openly discuss SRH issues with their children?
11. What do you suggest should be done to improve child-parent discussions?

2.2 FGD Guide for Female students *(Awareness, demand, availability, accessibility)*

1. In your opinion do you believe that STIs, HIV/AIDS, unwanted pregnancy are issues of concern to students in this school?
2. In your opinion are STIs, HIV/AIDS, and unwanted pregnancy more of a problem of female students?
3. Discuss services required to address these issues.
4. What services are available in and out of school for students?
5. Are these services easily accessible to school students? *[female/male]*
6. If 'not accessible, what are the reasons?
7. What do you suggest to address problems of availability and accessibility to SRH services?
8. Have you ever discussed issues of sexuality (puberty, menstruation, unwanted pregnancy, STIs HIV/AIDS) openly with your parents and other family members?
9. If not with family members, whom do you discuss with about these issues?
10. What do you think is/are the reason/s for reluctance of family members to openly discuss SRH issues with their children?
11. What do you suggest should be done to improve child-parent discussions?

3. Key Informant interview Guide for health service providers (Health Officials, Public and private institutions)

1. Are there any SRH services that can serve school adolescents? *[Describe specific services]*
2. How do you monitor the quality and adequacy of those services?
3. What are the challenges in your opinion in addressing SRH issues of school youth?
4. What needs to be done in improving and scaling up the existing services?
5. In your opinion, are the services evenly distributed and easily accessible by the youth?
6. Are there any school-based SRH programmes or activities *[such as health education, training of club members etc.]*
7. If 'yes' do you have any coordination with schools to deliver these programs?
8. What are most frequent SRH problems that youth come for? *[probe for female/male]*

4. FGD Guide for Parents

1. Identify some examples of SRH issues of concern (STIs/HIV/AIDS, unwanted pregnancy) to school students *[probe for specific issues for male/female students]*
2. Do you think that there is a need for availing special SRH services (education/information), counseling, treatment/care] to school students? *[probe for specific examples]*
3. If 'yes' do you think that these services are available and accessible to them?
4. Whom do you think should provide these services? [parents/public institutions (schools) and private institutions, NGOs)
5. What do you think should be done to strengthen the SRH services?
6. Do you discuss with your children issues of sexuality and RH (puberty, menstruation, unwanted pregnancy, STIs HIV/AIDS)? *[probe for specific examples]*
7. If not, what are the reasons?
8. What do you suggest should be done to improve child-parent discussions on SRH? ●

Annex 17

Observation Checklist

Determinants Knowledge and Service Utilization of Sexual and Reproductive Health: A Comparative Study of Preparatory Students in Dangilla and Menelik II

I. Checklist for observation of schools

1. Name of school _____

Sexual and Reproductive Health Information

2. Whether there are posters on SRH in the school compound: walls, notice board/s Yes/No
   If yes, type and content _____
3. Whether there are booklets, brochures in the library Yes/No
4. If yes, type and content_____

Co-curricular activities

5. Whether any occasion/s organized by clubs during the researcher's stay. Yes/No
   If yes, whether the contents contain any issue of SRH. Yes/No
   If any detail

_____

6. Gender sensitivity of the messages Yes/No

Health facility

6. Clinic in the school compound_____
7. Health personnel within the school _____
   If yes, sex composition of health personnel

II. Checklist for observation of selected healthcare institutions and youth Centers

Name of Institutions: _____

1. Whether female health personnel: Yes/No

2. Whether there are brochures, pamphlets and other types of materials in the waiting room, and elsewhere Yes/No
   If yes,
   a) Type (brochure, pamphlet, wall chart etc.):
      _____
   b) Content on: Contraceptives, unwanted pregnancy, consequences of unsafe abortion, HIV/AIDS/STI/STD
      _____
   c) If special for youth: Yes/No

DECLARATION

I, the undersigned student declare that this is my original work and has not been presented for a degree in any other university and all the references used for the thesis have been fully acknowledged.

Student's Name: Shewaye Lulu

Signature: _____

Date of Submission: 08 June, 2010

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

Advisor's Name: Dr. Hirut Terefe

Signature: _____

Date of Submission: 08 June, 2010