ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

Assessment of the Reproductive Health Needs of Unmarried Out-of-school Adolescents in Amhara Region South Wollo Zone, Dessie Zuria woreda

By
Tibebu Dejene

Addis Ababa
June, 2009

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By

Tibebu Dejene

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Approved by the Examining Board

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Dedication

This paper is dedicated to my baby son, *Adonias Tibebu*, for giving me enormous psychological satisfaction and devotion to work hard when I need it most.

Acknowledgement

I would like to pass my heart felt thanks to my advisor **Dr. C. Ramanujam** for his unreserved, enriching and continuous support through out the study period.

Special thanks go to my brother Bereket Tolcha, My sister Addis Alem Dejene and my uncle Demele Merawi for their encouragement and support through out my study years.

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LIST OF ACRONYMS/ABBREVIATIONS

ARH	Adolescent Reproductive Health
AYRH	Adolescent and Youth Reproductive Health
BSS	Behavioral Surveillance Survey
CSA	Central Statistical Authority
CSWs	Commercial sex workers
EDHS	Ethiopian Demographic and Health Survey
ESOG	Ethiopian Society of Obstetrics and Gynecology
FGM	Female Genital Mutilation
HEWs	Health Extension Workers
HIV/AIDS	Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome
ICPD	International Conference on Population and Development
IEC	Information, Education and communication
ISY	In-School Youth
MOH	Ministry of Health
MTCT	Mother to Child Transmission
NGOs	Non-Governmental organizations
OSY	Out-of-School Youth

PAI	Population Action International
PRB	Population Reference Bureau
RH	Reproductive Health
RTI	Reproductive Tract Infections
SES	Socio-Economic Status
STIs	Sexually Transmitted Infections
TBA	Traditional Birth Attendants
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children Fund
WHO	World Health Organization

Abstract

Assessment of reproductive health needs of unmarried out- of- school adolescents who are 10-19 years is required to prepare them as a responsible and healthy persons at later life.423 samples respondents selected from Dessie Zuria Woreda by stratified systematic random sampling method were interviewed.

Majority of respondents knows about physical changes during puberty. There is poor knowledge about risk of conception during menstruation. Knowledge about legal age at marriage is at moderate level but more among females than males. Majority believed that any intercourse will not result in pregnancy. Though problem of premarital sex is known, first sexual intercourse (38 percent) happened at mean age of 16 years. Abortion and rape are known to majority of respondents. Correct knowledge about contraception is known to more males than females. Injectables, oral pills and condom are known in higher proportion.

Knowledge about STI and HIV is at relatively moderate and low level respectively. Knowledge on modes of HIV transmission is at very low level. Health extension workers are the major source of knowledge on reproductive health matters. Knowledge on RH matters does not differ significantly between male and female adolescents. Less knowledge about availability of health centre and less accessibility to health centre are observed. Treatment seeking behavior of adolescents has to be improved. There is a need to create awareness about the importance of later age at marriage; knowledge on risk of conception, safe period, contraception, avoiding premarital sex, and mode of transmission of STI/HIV. In addition to the general population, Muslims, literates and those in low standard of living needs more attention in providing information on RH matters through IEC programmes to be implemented by governmental, non-governmental and community based organizations.

CHAPTER ONE

I. INTROUDCTION

1.1 Background of the Study

WHO defines reproductive health as a condition in which reproduction is accomplished in a state of complete physical, mental and social well-being and not merely as the absence of disease or infirmity of the reproductive process. (WHO, 1992)

Reproductive health implies people are able to have satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. It encompasses: providing access and choice in family planning, caring for women before, during and after pregnancy and controlling sexually transmitted diseases including HIV/AIDS, Preventing the health of adolescents and supporting positive health practices. (Habtamu, 1998)

The broad concept of reproductive health was propagated intensively after the 1994 Cairo ICPD when governments ratified the Cairo programme of action, which focused on the delivery of a comprehensive and client centered review of RH for the promotion of RH in addition to family planning. The dimension of reproductive ill-health encompasses problems such as female genital mutilation(FGM), malnutrition, anemia, abortion, reproductive tract infections (RTI) including sexually transmitted infections and HIV/AIDS, infertility, unregulated fertility, maternal morbidity and mortality , sexual and gender violence and other related problems . (Daniel A.Mesganaw F. Yamane B., 2007)

Although it had been apparent that the definition of Reproductive Health (RH) by the International Conference on Population and Development (ICPD) has been accepted by many developing countries including Ethiopia, many people have poorly understood the RH concept. The word RH covers the well-being of men, women and young people as it concerns their reproductive function. An important part of RH is making sure that men and women have a safe and enjoyable sexual relationship and can decide freely if, when and how often they want to have babies, it's equally important that a woman should be able to go

through pregnancy and childbirth without danger to herself or to her baby. In addition, the newborn baby and the mother should receive adequate care and support immediately after childbirth. It also involves the prevention of unintended pregnancies and diseases through sexual intercourse. (Tekle-Ab, 2001.)

On the other hand, adolescence is considered by WHO as the period between 10 and 19 years. WHO defines adolescence as progression form appearance of secondary sexual characteristics to sexual and reproductive maturity and transition from total socio-economic dependence to relative independence. (WHO, 1995) It is a major transitional stage during which a progressive disengagement from the family is combined with the desire to test one's independence, parting through risky conduct, which often takes the form of risky sexual behavior. (Potard C., R.courtois and E. Rusch 2008)

Adolescence is a time of natural experimentation, abstract thought contemplating the future, empathy and idealism. It is also a time increasing self-consciousness, building self-esteem a time of self-criticism and the questioning of others. A time of burgeoning sexual feelings and impulses, combined with the beginning of the capacity to reproduce. It is a time when new skills and knowledge are needed for positive relationship with others and to begin life in the workplace. A time to enjoy life before the responsibilities of adulthood begins in a way, which does not threaten their health and well-being. (WHO, 1999)

Adolescence is a period in human development characterized by rapid physical, social and psychosexual changes. It is a time when sexual exploration, intimacy and feelings of independence begin to have prime importance despite a hostile and unwelcoming physical and social environment. (Abebe, 2001)

1.2 Statement of the problem

Adolescents, having survived all childhood health problems, have been enjoying a relatively low morbidity and mortality period in the past. At present, due to changing conditions of civilization, urbanization and life style, the health of adolescents is increasingly at stake. Sexually transmitted diseases, HIV/AIDS

and other reproductive health problems are the greatest threats to their well-being. (Frehiwot B.etal, 2005)

Addressing adolescent problems is important because behaviors which start in adolescence frequently lead to health problems which may emerge in later life, at immense cost to the individual themselves and their society. Hence promoting and protecting adolescent's health is in fact an excellent investment, both in the short term and long term which is potentially low cost and with high return.

A number of programs are being implemented to meet the reproductive needs of adolescents in Ethiopia, but these programs tend to serve primarily urban populations, many of whom are also enrolled in formal schooling. With 84% of the country's youth and adolescents residing in rural areas and only 15% enrolled in school, the vast majority of young people remain underserved . (MOH, 2006)

With little or no knowledge and skills for negotiating sexual and reproductive preferences and needs, they embark on their sexual and reproductive lives. This in turn will expose them to early marriage and unprotected sex resulting in unwanted or mistimed pregnancies and unsafe abortion, sexually transmitted infections HIV/AIDS and early child bearing. (CORHA, 2007)

Though there are very limited number of studies conducted based on out –of – school adolescents, most were carried out in bigger urban centers. Therefore, there is lack of systematically collected and sound information on the reproductive health needs of adolescents in general and out-of-school and rural adolescents in particular. In addition, This study will focus on the reproductive health needs of adolescents because it is crucial to know their RH needs and problems to met their needs and bring cultural and behavioral changes in them and basically adolescents can influence the coming generation.

Out-of-school youths comprise a majority of the youth population and exposed to high risk as far sexual activity and its consequences are concerned and there are no previous studies conducted on this issue in the study area.

1.3 Significance of the study

Initiating sexual activity is a natural transition made nearly by all humans. Most sexual intercourses during this period are unprotected. Lack o accurate knowledge about reproduction and sexuality, lack of access to health services including contraception, and lack of other social services put adolescents at the highest risk. Moreover, the rapid social changes like urbanization, forced idleness, lack of parental support or oversight, places adolescents at considerable risks of unwanted pregnancy, unsafe abortion and STD including HIV.

Addressing the reproductive health needs of out of school rural adolescents often remains difficult since they are considered as hard to reach. So the findings of this study may help policy makers and adolescent reproductive health providers to know the reproductive health conditions of out of school adolescents and formulate appropriate strategies and programs to address their needs.

Furthermore, such kind of research has not been conducted in the study area so it will be a spring board for other researchers to conduct similar studies.

1.4. Objectives of the study

1.4.1 General objective

The broad objective of the study is to assess the knowledge and attitude about reproductive health components among out-of-school rural adolescents in Dessie Zuria woreda.

1.4.2 Specific objectives

The study has the following specific objectives:

- To describe the socio-economic and demographic characteristics of out-of-school rural adolescents;
- To assess knowledge and attitude of Adolescents' Reproductive health components;
- To identify factors influencing adolescents knowledge on reproductive health; &
- To assess the conditions of adolescent health services in the study area.

1.5 Research Questions

By assessing the reproductive health needs of out-of-school rural adolescents, the researcher wants to answer the following questions:

1. What knowledge and attitude about RH that adolescents have?
2. What factors influence adolescents' knowledge on RH?
3. Are there any RH services for Adolescents?

CHAPTER TWO

II.REVIEW LITERATURE

Reproductive health and health in general, is predetermined by the socio economic conditions in the society in which people are born and in which they live. It can be promoted or undermined by the individual's own lifestyle and improved by health care services and information and technological advances made through health research.

Our world currently carries a historic highest number of adolescents; about 1.2 billion adolescents need proper education, health and other life skill to ensure a better future for themselves and their countries. (UNFPA, 1998)

Reproductive Health (RH) in general and adolescent reproductive health (ARH) in particular is of growing concern in most developing countries. Sub-Saharan Africa is the youngest region of the word, with 44% of its population under age 15 in 2006. (PRB, 2007)

Adolescents are the forgotten millions in reproductive health programs. Although the numbers of young people who need information and services are enormous, services are scarce, fragmented and nonexistent. Recent research shows an increasing trend in sexual activity among adolescents in both developed and developing countries. This marked change of sexuality among teenagers is mainly caused by socioeconomic changes as urbanization and modernization, improved health and nutritional status resulting in low age at menarche, earlier sexual maturity ,low level of knowledge concerning human reproduction, liberalization of attitudes regarding sexuality, relaxation of mechanisms of tradition and control over sexuality and ignorance about sex and family planning . (UN, 1989)

Several countries in Sub-Saharan African have large and increasing adolescent population that exceed those from other parts of the world , the estimated total population of the 42 African countries that lie south of Sahara is 610 million. Approximately, 20% of this population (120 million) is adolescents aged 10-19 year. With an overall population growth rate of 2.7% in the continent, it is

projected that this adolescent population will double in the next 25 years. (F.E. Okonofua and R.C.Snow, 2000)

The adolescent population in Ethiopia has been increasing during the last few decades. They constitute about 24% while young adults (10-24 years) constitute about 30% of the total population. (CSA, 1995). Eleven percent of the population in 2007 is age 15-19 and 20% is age 15-24.Moreover, since Ethiopia is typical of a country with a youthful population 43% of the population of Ethiopia in 2007 is under 15 years of age .(U.S. census Bureau, International Data Base,2001)

Ethiopian youth face many challenges. Sexual initiation often occurs at an early age due to traditions and poor living conditions. Traditional practices such as early marriage, marriage by adduction, and female genital cutting adversely affect the health and well being of young people. Rape and sexual coercion are common among young women in both urban and rural settings. Sexually transmitted diseases pose considerable risk to the youth population because of the practice of having multiple sexual partners and the limited use of condoms, unintended pregnancies, pregnancies that occur within short intervals and abortions pose serious health risks to young women.

2.1 Physical changes during adolescence

Puberty is defined as a period during which secondary sexual characteristics develop, menstruation begins and psychological outlook of adolescents changes as they develops a more adult aspect to themselves. The end result of puberty is the establishment of the fully physically mature adult person capable of reproductive performance and fully psychologically developed as an adult. (Edmonds, 1999)

With the onset of puberty and sexual development, adolescents of both sexes are eager for information about their own reproductive systems and their physical, emotional and intellectual development. Boys tend to be concerned about masturbation and sexuality, while girls wonder about menstruation and their eventual roles as mothers. (UNICEF and UNAIDS, 2002).

Puberty occurs and terminates 2 years earlier in girls than in boys. The mean ages for the on set and termination for girls 12-14 years and 17 years, and for boys 15 years and 21 years. There are, however, considerable variations between the various cultural groups. (Mekdes, 1999)Among the major physical changes that happened during adolescence are: deepening of voice, growth of public, pelvic and facial hair, muscle strength, enlargement of breast etc.

Menstruation is the periodic (usually every 28 days) shedding of the inner lining (i.e. endometrium) of the womb (or uterus), and in practical terms, this shedding reveals itself as vaginal bleeding. The first menstrual period (menarche) normally beings between the ages of 11 and 16 years while cessation occurs at about the age of 45 to 52 years. Two to seven days of vaginal bleeding is usually considered normal (Mekdes, 1999)

Menarche is a feature of puberty and refers to the first menstrual period in woman's life-time. Normally it begins some 2 to 3 years after the start of breast development (which is 10-11 years).Like all features of puberty, the on set of menarche is influenced by a variety of factors. Notable among these factors are racial and familial tendencies , birth order , social class, diet and the overall health status of the individual .(ibid)

The results of few surveys conducted in Ethiopia on the problems of adolescent RH have shown that adolescents have a limited knowledge about their growth, development and maturation. The adolescent's knowledge of reproductive processes was particularly poor, and younger women had inaccurate perceptions of the function of menstruation. As girls enter adolescence and go through menarche, they need education on the physical and psychological change they are experiencing as well as information on menstrual hygiene, anemia, nutrition, and the connection between menstruation and conception. (Mehryar etal, 2003).

Although menstrual hygiene is an issue that every girl and woman has to deal with in her life , there is lack of information on the process of menstruation, the physical and psychological changes associated with puberty and proper requirements for managing menstruation. The taboos surrounding this issue in

the society prevent girls and women from articulating their needs and the problem of poor menstrual hygiene management have been ignored or misunderstood. (UNICEF, 2008).

Good menstrual hygiene is crucial for the health, education and dignity of girls and women. This is an important sanitation issue which has long been in the closet and there was a long standing need to openly discuss it. Equipping adolescent girls with adequate information and skills on menstrual hygiene and its management is seen as empowering them with knowledge which enhances their self-esteem and academic performance (ibid.)

According to a study conducted in India, Kerela, among the study subjects majority (60.8 percent) dealt with menstruation unhygienically. A statistically significant association was seen between menstrual hygiene maintenance and education, socio-economic status, knowledge prior to menarche, type of protection and accessibility to water, bathroom facilities and menstrual disorders. Hygiene related practices of women during menstruation are of considerable importance as it has a health impact in terms of increased vulnerability to infection. (Anuradha, 2007)

2.2 Adolescent Sexual Behavior

Adolescent sexual behaviors is an area of great interest because the period between sexual initiation and marriage is for many young people a time of sexual experimentation that may involve high-risk behaviors associated with STIS and HIV/AIDS.(CRDA, 2005)

Sexual behavior influences many aspects of reproductive health, notably pregnancy risk and the incidence of STIs, including HIV infection. It is determined in turn by the cultural and social context in which it takes place (WHO, 1992)

Among Ethiopian women age 25-49, 32% had sexual intercourse before age 15, 65% before age 18, and by age 25 most Ethiopian women have had sexual intercourse. The median age at first sexual intercourse for women age 25-49 years is 16.1 years, which is identical to the median age at first marriage. This

suggests that Ethiopian women generally begin sexual intercourse at the time of their first marriage. (EDHS, 2006)

A study conducted in Bahirdar, Dessie, Awassa, Jimma and DireDawa indicated that 33% of the youth reported to have had sexual intercourse prior to the study. Mean age of sexual initiation was 15.3 years. Two-thirds of the sexual initiations were unprotected and some occur with higher risk groups, including much older (15.5%) or casual /commercial sex partners (9.1%).Multiple partners were the most commonly reported lifetime risk behaviors. Although 56.7% of the youth ever used condoms, only less than half of these used them regularly. On the positive note, 83.4% of the youth expressed intentions to use condoms in the future.(Rahel A.et al,2003)

Nearly half of males and one-fifth of females participated in the study conducted in Harar reported to have ever experienced sexual intercourse.Fourty-eight percent of males and 37.8% of females had their first sexual intercourse at the ages of 15-17 years. The mean age at first sexual intercourse is found to be 17.2 years among unmarried youths,16.9 years for male and 18 years for females .(Antenahe K. And M.Haile, 2007)

According to a surveillance survey conducted in Ethiopia, among those who were sexually active smaller proportion of in-school-youths (ISY) (16.9%) than out-of-School youths (OSY) (35.1%) reported having more than one sexual partner in the previous 12 months. A grater proportion of males than females OSY had more than one sexual partner. (49.7 males and 22.4% of females). The percentage of ISY reporting more than one sexual partner in the previous 12 months (16.9%) was significantly lower than OSY (25.3%).Non commercial partners were reported by 52.5% of the OSY and 52.9% of ISY.In comparison commercial partners were reported by 19.5 of OSY and 1.5% of ISY.(MOH,2003)

2.3 Unintended Pregnancy and Unsafe Abortion

Globally, more than 10% of all births are to women 15-19 years old. In ten out of 11 sub-Saharan African countries, at least one out of every five adolescents had one or more children or is currently pregnant (Tadesse E.Gundufa A. And Mengistu G.1996)

Adolescent abortions are estimated to be between 1 million and 4 million per year and most are unsafe because they are performed illegally and under hazardous circumstances by unskilled practitioners. Adolescents account 24-37% of all hospitalized abortion patients in small studies in Malawi, Uganda, and Zambia. (Bongaart J and Cohen B, 1998)

The findings of EDHS 2005 indicated that more than one in three births to adolescent mothers was either unplanned or unwanted. Adolescent pregnancy predisposes to long-term unfavorable socio-economic outcome and is associated with increased risk of maternal morbidity and mortality as well as neonatal and infant mortality.

Unsafe abortion is mostly common among the adolescents because of early sexuality and unintended pregnancy. In Ethiopia abortion is illegal. The poor, the uneducated and the young females that encountered unwanted pregnancy indulge themselves to the traditional and untrained practitioner to induce abortion. The unsafe abortion thus may result in several complications such as sepsis, psychological stress and even death. (EPHA, 2003)

Studies carried out in Ethiopia indicated that complication from unsafe abortion account for almost 55% of all recorded maternal deaths, some 13% of which occur among women under the age of 20. (Korra A.Haile M.1999) Unsafe abortion is a preventable tragedy and is one of the neglected problems of health care in developing countries. The moral and religious controversies about abortion have continued to obscure its dimension as a serious public health problem. In Ethiopia 16.2% of the women presented with abortion were below age 20 and over 45% of all abortions occurred in adolescents and the younger age groups that are more likely to have irregular , unplanned , hurried and clandestine sexual behavior .(ESOG,2002)

2.4 STI and HIV/AIDS

Adolescents especially in developing countries are exposed to unsafe and early sex. Poverty and lack of appropriate information, which is very common in developing countries, makes the adolescents vulnerable for STI including HIV/AIDS. As a group, the adolescents tend to be uniformed or misinformed

about sexuality and reproductive health and reluctant to take action to protect them. Each year more than one out 20 adolescents contract curable STD, excluding viral infections. Globally more than half of all HIV infections are among 15-24 years old. (Bongart J. And Cohen B.1998)

Worldwide, more than 10 million young people aged 15 to 24 have HIV/AIDS every year, almost half of all new HIV infections and at least one-third of all new STIs occur among people under age 25 of the 14,000 new HIV infections acquired per day in 2003, almost 6,000 occurred among young people aged 15 to 24 the majority of them women. (PAI, 2004).

The Ethiopian Demographic and Health survey (2005) indicated that young women are particularly Vulnerable to HIV infection compared with young men. Among women age 15-19 the HIV prevalence level is 0.7% compared with 0.1% for men of he same age group. Among sexually active youth age 15-24,6 percent of women and 37 percent of men were engaged in higher risk sexual activity, only one quarter of these women and half of the men reported condom use in the last higher risk encounter. As most of them are engaged in high risk sex without any protection, they will be at increased risk of contracting HIV/AIDS and other STIs. Despite high awareness of HIV/AIDS, the level of comprehensive knowledge is low: only one-fifth of women and one-third of men age 15-24 have comprehensive knowledge about HIV/AIDS.

2.5 Contraceptive Use

The adolescent in developing countries are seen to be poor in the utilization of contraceptive. The reported reasons for not using contraceptives are lack of knowledge, lack of support from the community and cultural, religious and traditional objections and in accessibility of the service is some of the other reasons. (EPHA, 2003)

A study conducted to assess the determinants of contraceptives use among urban youth in Ethiopia reported that there is a large discrepancy between knowledge and actual practice of contraception. Only 15% of males used condom and 39% of females used contraceptives respectively. (Tesfaye, 1996)

Another study conducted in North Western Ethiopia among out of school youth revealed that the proportion of sexually active never married adolescents who used modern contraceptives was 57% compared to only 12% of those who had ever married. Only 13% of the rural and 35% of urban sexually actives had ever used condom. (Anteneh, 2001)

Obtaining contraception is one of the most serious problems confronting adolescents particularly those in rural areas. The 2005 EDHS result depicted that the level of actual contraceptive use was only 9 percent among married adolescents and 15 percent among young women age 20-24. The total unmet need for family planning among adolescents is 38 percent (30 percent for spacing and 8 percent for limiting)

According to BSS (2003), among the OSY who had non-commercial partners in the previous 12 months, 55.7 said that they had used a condom at their last sexual encounter and 39% had used condoms consistently. During their last sexual encounter with non-commercial partners, 52.4% of ISY had used a condom and 73.6% had used condoms consistently during the previous 12 months. (MOH, 2003).

2.6 Access to Information and Health Service Utilization

Young people rarely have access to detailed and accurate information about sexuality and reproduction. As a result, they often are ill-prepared for sexual relations or unable to protect themselves from unintended pregnancy and sexually transmitted infections (STIs). In Botswana, where more than one-third of the population is HIV positive and almost all young people are at least aware of the virus ,nearly two-third of girls still have misconceptions about transmission . Among married Ethiopian girls aged 15 to 19 only one-third knows that condom can protect against HIV/AIDS.(PAI,2004)

As a result of a cultural taboo, adolescents in many developing countries rarely discuss sexual matters explicitly with their parents. Most information for their patchy knowledge often comes from peers of the same sex, who may themselves be uniformed or incorrectly informed. Findings suggest that young people's knowledge on aspects of their sexuality is incomplete and not enough to

minimize risk-taking .Yet, more than half of them believed that is unacceptable to discuss growth changes and sexual issues with parents during adolescence.(Negussie T.et.al.,1999)

A study conducted in Addis Ababa reveals that the existing health services are not fully accessible, affordable and acceptable to adolescents. It also indicated that adolescents prefer to consult either peers or suffer in silence when they face reproductive health problems and mental stress. The majority of adolescents who suffered illness during the last three months did not seek medical care, particularly more for problems of reproductive health and mental stress. (Frehiwot B.Yemane B. And Mesganaw F., 2005)

2.7 Rape

Reported rape is on the rise in many countries, but most sexual violence still goes unreported. Both boys and girls are Vulnerable to sexual violence, including abuse and exploitation, but greater numbers of girls and young women are victimized. Abusers are unlikely to use a condom and the cuts and tears that result from forced sex increase the likelihood of HIV infection. (UNICEF and UNAIDS, 2002)

In Botswana, a 1998 study found that about one in five out-of-school adolescent girls reporting that it is difficult to refuse sex when money and gifts are offered .Over two-fifth of all rape cases reaching the courts involved children under the age of 16,58% were between the ages of 11 and 20. In Kwazulu Natal South Africa, 10% of adolescent girls reported their first sexual experience on force or rape. Surveys from 9 Caribbean countries found that 48% of adolescent girls who had intercourse reported that their first sexual intercourse had been forced. The perpetrators are not always strangers. They are at risk of being violated by relatives, family friends, employers, teachers and other adults they may trust. Adolescents who are sexually exploited also have virtually no negotiating power to ask for safe sex from their exploiters (Ibid)

Literature of studies related to unmarried out-of-school adolescents is limited which strengthen the need for undertaking the present study.

CHAPTER THREE

III.METHODOLOGY

3.1 Description of the study area

Amhara Region, where the study area is located, consists of ten zones and one special zone, 106 woredas and 208 Towns. The rural art of the region has 4,980 farmers' association areas while the urban parts have 337 Kebeles in the 208 towns (CSA, 1994).

South wollo zone which is one of the eleven zones in the region has a total population of 2,123,803 out of which 1,047,512 males and 1,076,291 are females. The zone has 15.4% of the region's total population and it's the largest of all (ibid).

The study area is Dessie Zuria woreda, which is one of the 21 woredas found in the zone. It has a total population of 285,306 of which 138,537 were males and 146,769 were females. The aerial size of the woreda is 1,105.86 sq. Km (including kebeles incorporated to Dessie town) (CSA, 2000).Dessie Zuria is located about 400 km north east of Addis. It has 31 Kebeles and the neighboring woredas are kutaber and Tehuledere woredas to the north, kalu and Kombolcha woredas to the east, Albeco woreda to the south, Legambo and Tenta woredas to the south west and west, respectively. (See map of dessie zuria from Annex iv).

3.2 Description of the study population

According to the Amahara National Regional state Bureau of Finance and Economic development population projection, the adolescent population of Dessie Zuria woreda is 37,938 (21.64%). Table 1 presents the adolescent population based on single age classification:

Table 1: Dessie zuria woreda Adolescent population by single age

Age	Male	Female	Total
10	2197	2227	4424
11	2131	2141	4272
12	2087	2078	4165
13	2019	1998	4017
14	1945	1916	3861
10-14	**10380**	**10360**	**20740**
15	1874	1836	3710
16	1793	1746	3539
17	1738	1687	3425
18	1681	1630	3311
19	1629	1583	3212
15-19	**8716**	**8482**	**17198**
10-19	**19096**	**18842**	**37,938**
TOTAL POPULATION	85,877	89,382	175,259

Source: Amhara National Regional state, Bureau of Finance and Economic Development, 2008.

Adolescents are a diverse group comprised, for example of in-school and out-of-school adolescents, married and unmarried adolescents, those at risk of early pregnancy i.e. sexually active and those who are not. This diversity requires that they be sub-divided (or segmented) into clear categories if their problems are to be clearly identified and adequately addressed.

In this study among the total adolescents, the most vulnerable ones, who are out-of-school and unmarried adolescents, will be addressed.

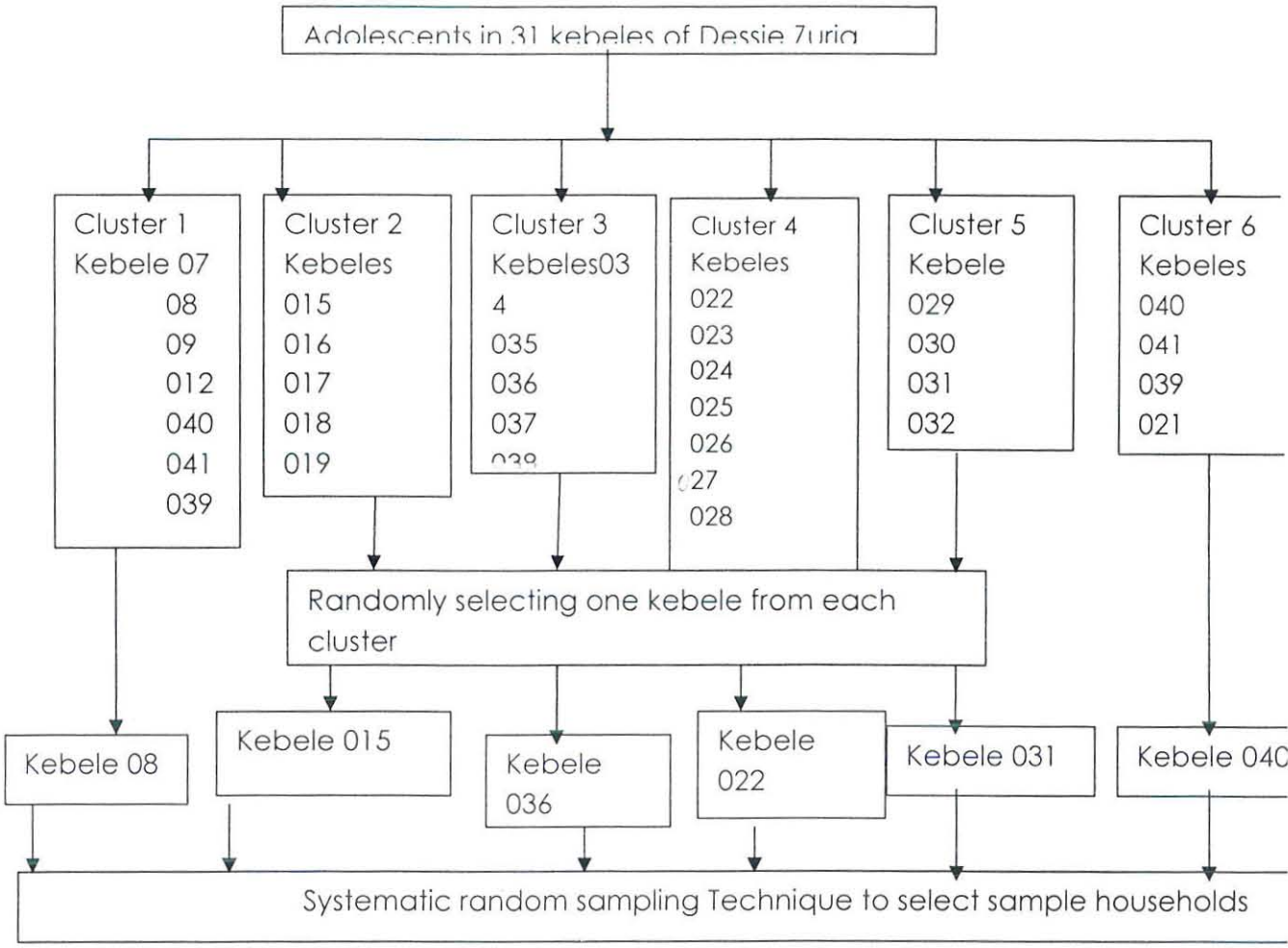
3.3 Sampling technique

To accomplish the goals of the study, cross sectional survey was conducted among out-of-school and unmarried adolescents. To keep the representatives of the sample Dessie Zuria woreda was stratified into six clusters based on proximity of the kebeles. All the 31 Kebeles included in one of the 6 clusters. Among each clusters, one kebele was randomly selected. Totally, 6 Kebles: Serdom (08), Hara (040), Abaso (015), Guguftu (036), Cherecha (031) and Ayata (022) were randomly selected.

Estimated number of the total population of each kebeles was taken from the woreda council and based on that the sample size allocated to each of the selected kebeles according to the principle of probability proportional to size.

To start the interview, a starting point was randomly selected together with direction of walk. Starting from the nearest cottage based on systematic random sampling technique, the data collectors interviewed the eligible (out-of-school and unmarried adolescents) persons from house to house

Figure 1: Schematic Representation of the sampling procedure



3.4 Sample size Determination

The prevalence of knowledge of reproductive health needs among study subjects is not known from previous surveys. Therefore, it's assumed that the prevalence to be 50% and the level of confidence interval 95% (possible error to be 5%).

$$n = \frac{P(1-p)(z)^2}{e^2}$$

Where:

n - The sample size

p - Prevalence of knowledge of RH among the study subjects

$(z)^2$ - Number of standard error units which is found from the normal probability table to correspond to be 1.96.

e^2 - margin of error or limit of accuracy which will be tolerated i.e. 5%

$$n = \frac{P(1-p)(z)^2}{e^2}$$

$$n = \frac{0.5)(1-0.5)(1.96)^2}{(0.05)^2} = 384$$

Considering a 10 percent non-response rate,

the sample size is 384+39 = 423

3.5 Definition of Variables and conceptual framework

Based on the reviewed literatures and the objectives, the dependent and independent variables to be included in the study identified.

3.5.1 Independent variables

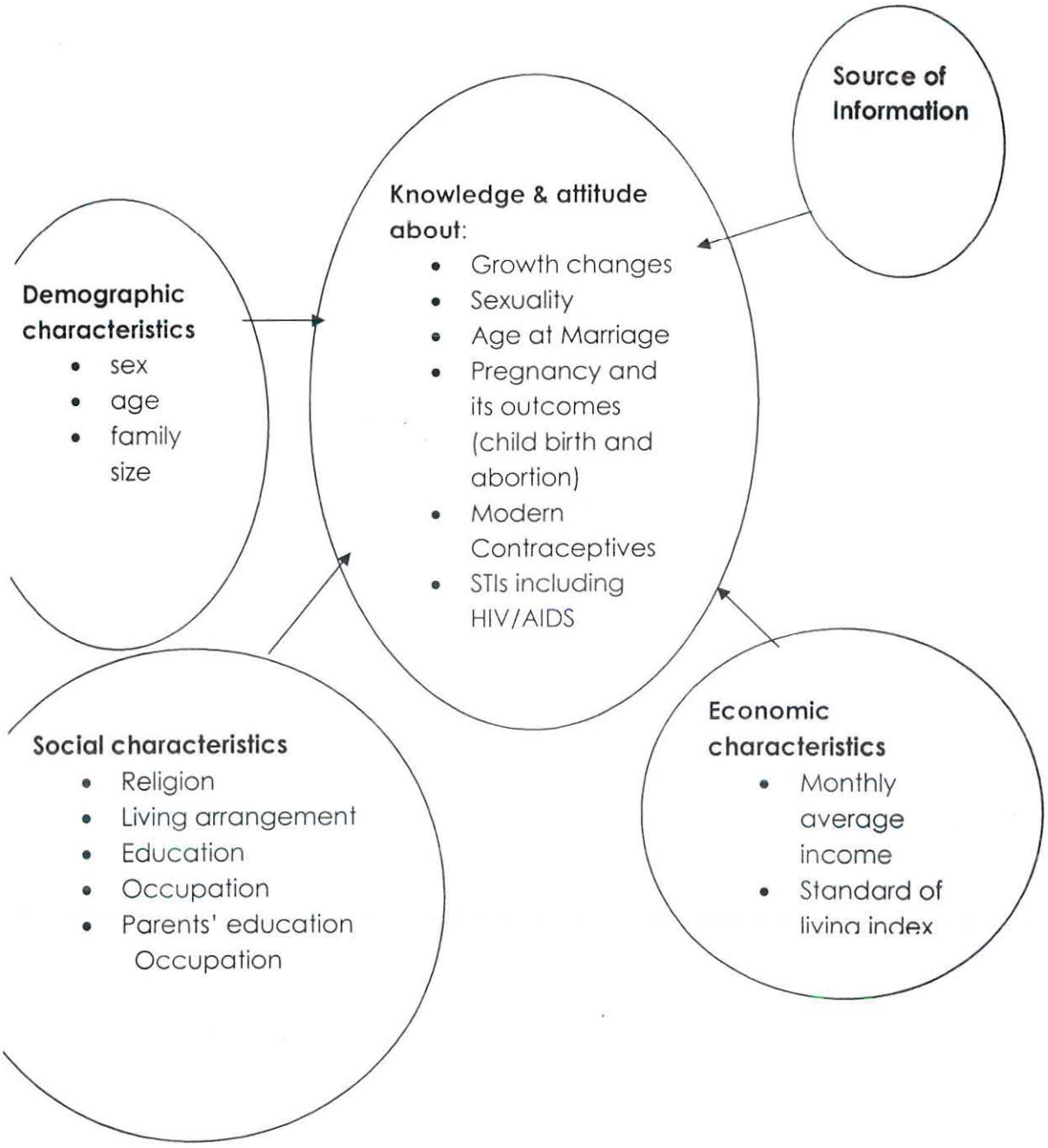
Independent variables are factors influencing or explaining variations to be included in the dependent variables. Under this lie the socio-economic & demographic characteristics of respondents and source of information about RH matters

- Demographic characteristics: Sex (male, female), age (10-14 and 15-19), family size (2-4, 5-6 and 7+).
- Social characteristics: religion (Muslim, Christian), living arrangement (with both parents, one parent, others), education (Illiterates, 1-4, 5-8 and 9+), occupation (working, non-working), mother education, father education, mother occupation, father occupation.
- Economic characteristics: Monthly average income(less than or equal to 120 birr per month(low),121-250 birr per month(medium) and greater than or equal to 251 birr per month(high)),Standard of living index(less than or equal to 9(low),10-11(medium) and greater than or equal to 12(high))
- Source of information about reproductive health components

3.5.2 Dependent variable

These are outcome variables to be influenced by the independent variables: Adolescents' knowledge, attitude and experience of growth changes, sexuality, marriage, pregnancy and its outcomes, contraceptives, STIs including HIV, drug and alcohol use, access to health services, reproductive morbidities and health seeking behavior.

Figure 2: Conceptual Framework of the study



Source: Researcher's own, 2009.

3.6 Method and instruments of data collection

Both quantitative and qualitative methods of data collection are employed. Semi-Structured questionnaire was prepared to gather quantitative information and focus group discussion guide was also prepared to collect qualitative information. To prepare the questionnaire, variable chart was developed based on the specific objectives of the study. After identifying the variables the respective questions are framed.

After preparing the first draft of the questionnaire, it was submitted to the advisor and valuable suggestions obtained. The final English version of the questionnaire, including the suggestions, was framed and translates to Amharic Version to undertake the pretest. The questionnaire had 137 questions categorized in ~~six~~ five parts. All questions don't concern every respondent. There were about 57 questions restricted only to one of the sexes and 11 questions only for those who had sex before. In addition there are 19 questions with skip rules.

Before undertaking the actual data collection, six data collectors were recruited and get training on the purpose of the study and the questionnaire. The data collectors were 3 females and 3 males, not more than 25 years old and all were at least 10th grade complete. A pretest of the questionnaire was made right after finishing training of data collectors. A total of 20 adolescents, 10 males and 10 females, are interviewed from the nearest selected kebele. There were some clarity and appropriateness problems on the questions and some alternatives were not provided appropriately. The actual data collection was undertaken form February 1 to 20, 2009. During the data collection period, the researcher closely supervised the process and supported the data collectors. Focus group discussion was also undertaken side by side. It was conducted by forming same sex adolescent groups (male group and female group) among the 6 selected Kebele adolescents (one from each). Each group consisted 8-12 adolescents, note taker and one moderator.

3.7 Data management and analysis

After the completion of data collection it was coded and entered to computer using SPSS version 15 software. Data was cleaned by running one way tables for missing and inconsistent values. Descriptive techniques like frequencies, percentages, means, and cross tabulations are used to describe the socio-economic and demographic variables of respondents and to describe some of the dependent variables.

Bivariate technique of data analysis, particularly, chi-square test and calculating p-value was undertaken to check the statistical significance of the association between dependent and independent variables. Finally, Multivariate technique of data analysis is also made to assess the net effect of independent variables on the dependent variables.

3.8 Ethical considerations

Before undertaking both the qualitative and quantitative data collections, participants were told about the purpose and objectives of the study. The participants' verbal consent was obtained and they were also assured about the confidentiality of their personal information to be used only for academic purpose. Furthermore, each respondent was told his/her right to participate or not to participate and also his/her right to interrupt the interview at any time they wish.

3.9 Data quality Assurance

To keep the quality of the data, proper training was given for data collectors and a pretest of the questionnaire was conducted before the actual data collection. Furthermore, the researcher gives close supervision and support for the data collectors to solve problems which may encounter on the spot.

3.10 Operational definition of terms and concepts

Adolescent Reproductive health components: Encompasses puberty, menstruation, sexuality, marriage, Pregnancy, contraceptive use, abortion, STI/HIV/AIDS & rape.

Reproductive health need: perceived and unperceived health needs related to RH components and access to Services and RH information.

Sexual behavior: refers to sexual intercourse, number of sexual partners, and the age at which sexual activity is commenced.

Out-of-school adolescents: those adolescents who are not attending School at all or who are drop-outs.

High risk sex: unsafe sexual intercourse with more than one sexual Partner.

Abortion: the conscious or unconscious act of terminating pregnancy Before birth

Menstrual hygiene: properly cleaning the monthly menstrual flow

Rape: sexual intercourse without the consent of the girl

3.11 Organization of the study

This study is organized in five chapters. The first chapter is an introduction comprising: Background of the study, statement of the problem, significance of the study, objectives of the study and the research questions. Chapter two is about literature review and chapter three is on methodology of the study. In this part, Description of the study area and population, sampling, definition of variables, data collection, management and analysis included. In chapter four Results obtained by the study presented and discussed. The final chapter is all about summarizing, concluding and giving recommendations.

CHAPTER FOUR

IV.RESULTS AND DISSCUSSIONS

4.1 BACKGROUND CHARACTERSTICS OF THE RESPONDENTS

Under this chapter, respondents' background characteristics, the knowledge and attitude of adolescents regarding puberty (physical changes), menstruation, sexual behavior, pregnancy, contraceptives, abortion, STIs including HIV/AIDS and rape will be presented. In addition. Adolescents' source of information, the availability, accessibility and affordability of RH services and adolescents' health seeking behavior will be analyzed.

4.1.1 The social characteristics of the respondents

Majority (94 percent) of respondents belongs to Muslims and six percent to Christians. More females than males belong to Muslims whereas more males (8 percent) than females (4 percent) belong to Christians. Three fourths of females (77 percent) are living with parents, 17 percent live with either father or mother and 6 percent with others (relatives, boy/girl friend, peers, and alone). More female respondents are living with both parents than males whereas more male respondents are living with one parent or others.

When we see the educational level of the study population, mean grades of respondents works out as 6.8.It is 7 for boys and 6.4 for girls. Sixty- four percent of respondents are in 5-8 grades and 17 percent in 9 or more grades. More males (27 percent) than females (8 percent) are better educated with 9 or more grades. There is no significant difference in educational status between father (with mean of 5.2 grades) and mother (with mean of 4.8 grades) of respondents. This is also true for either father or mother's education when comparing male and female respondents.

Majority (75 percent) of the respondent are replied as they are currently working in farming (34 percent), in non-forming (19 percent) and business (22 percent). More female (29 percent) than male (25 percent) respondents are not working. Majority (95 percent) of fathers of respondents are working mostly in farming (80 percent) followed by other business (14 percent and non-farming (2 percent) sector. This pattern is the same for both male and female respondent's father. Fifty-two percent of mothers of the respondents are housewives. Thirty

percent and 18 percent are respectively working in farm and non-farm activities. Working mothers are found to be more for male respondents than female respondents. (See table 2)

The above results reveals that there is difference in religion, living arrangement, education, occupation, age, family size and standard of living between male and female respondents, this is why it's proposed to analyze male and female separately in relation to variables considered in this study .

Table 2: The social characteristics of respondents

Social characteristics	**Male**		**Female**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**
Religion						
Muslim	177	91.7	220	95.7	397	93.9
Christians	16	8.3	10	4.3	26	6.1
Total	193	100.0	230	100.0	423	100.0
Living with:						
With both parents	135	69.9	190	82.6	325	76.8
With one parent	37	19.2	34	14.8	71	16.8
Others (relatives, boy/girl friend , peers, alone)	21	10.9	6	2.6	27	6.4
Total	193	100.0	230	100.0	423	100.0
Education of the respondents						
Illiterates	6	3.1	6	2.6	12	2.8
1-4 grades	25	13.4	54	21.1	79	19.2
5-8 grades	112	59.9	152	67.9	264	64.2
9 and above	50	26.7	18	8.0	68	16.5
Total	193	100.0	230	100.0	423	100.0

Social characteristics	Male		Female		Total	
	No.	%	No.	%	No.	%
Mean	7.17		6.42		6.76	
Standard Deviation	2.533		2.278		2.423	
Education of father						
Illiterates	99	51.3	96	41.7	195	46.1
1-4Grades	61	64.9	54	40.3	115	50.4
5-8 grades	21	22.3	66	49.3	87	38.2
9 and above	12	12.8	14	10.4	26	11.4
Total	193	100.0	230	100.0	423	100.0
Mean	4.5		5.67		5.21	
Standard Deviation	2.831		2.461		2.671	
Education of mother						
Illiterates	137	71.0	119	51.7	256	60.5
1-4Grades	31	55.4	57	51.4	88	52.7
5-8 grades	17	30.4	40	36.0	57	34.1
9 and above	8	14.3	14	12.6	22	13.2
Total	193	100.0	230	100.0	423	100.0
Mean	4.89		4.81		4.84	
Standard Deviation	2.89		2.675		2.74	
Occupation of the respondent						
Not working	48	24.9	66	28.7	114	13.9
Farming	66	45.5	86	52.4	152	34.2
Non farming	36	24.8	19	11.6	55	18.7
Other business	43	29.7	59	36.0	102	22.3
Total	193	100.0	164	100.0	309	100.0

Social characteristics	Male		Female		Total	
	No.	%	No.	%	No.	%
Occupation of father						
Not working	12	6.4	5	2.2	17	4.1
Farming	149	79.3	182	80.5	331	80.0
Non farming	4	2.1	6	2.7	10	2.4
Other business	23	12.2	33	14.6	56	13.5
Total	188	100.0	226	100.0	414	100.0
Occupation of mother						
Non-working	6	4.7	2	0.9	8	1.9
House wife	83	43.0	133	57.8	226	53.4
Farming	64	33.0	60	26.1	124	29.3
Non-farming	40	20.7	35	15.2	75	17.7
Total	193	100.0	230	100.0	423	100.0

Source: Filed survey, 2009

4.1.2 Demographic and economic characteristics of respondents

Among the total respondents included in the study, 54 percent are females and 45.6 percent males. The eligible subjects of the study are adolescents of age between 10-19.The mean ages of the respondents are found to be 16 years. (For boys 16.8 and for girls 15.3).Twenty-four percent are in 10-14 years age group and 76 percent in 15-19 years age group. More females (31 percent) than males (16 percent) are in 10-14 years. Whereas, more males (85 percent) than females (69 percent) are in 15-19 age groups. The average family size of the total respondents is 5.3 persons. Family size of 7 or more is reported by 27 percent of the respondents. It is reported by more male (31 percent) than female (24 percent) respondents.

Respondents were asked to guess their family's average monthly income. The mean monthly income was 290 Birr per month. Average monthly income of 251 or more Birr is reported by 36 percent of the respondents. It is also reported by more female (44 percent) than male (30 percent) respondents. Thirty-two percent of the respondents reported their family's average monthly income as 120 or less Birr per month.

The standard of living index is developed using the variables such as source of drinking water, type of house, source of lighting, cooking material, toilet facility, ownership of some key household items, and availability and amount of land ownership (See annex ii). Mean standard of living for the respondents is medium (11). Forty–two percent of respondents are in high standard of living, 27 percent in medium and 32 percent in low standard of living. The proportion of respondents in low and high standards of living differs. For example, more female (44 percent) than male (31 percent) respondents are in high standard of living (See table 3).

Table 3: Demographic and economic characteristics of respondents

Characteristics	Male		Female		Total	
	No.	%	No.	%	No.	%
Demographic characteristics:						
Sex of the respondent						
Male					193	45.6
Female					230	54.4
Age of the respondent						
10-14	30	15.5	71	30.9	101	23.9
15-19	163	84.5	159	69.1	322	76.1
Total	193	100.0	230	100.0	423	100.0
Mean	16.8		15.27		15.97	
Standard Deviation	2.204		1.857		2.167	
Family size						
2-4	78	40.4	74	32.2	152	35.9
5-6	56	29.0	102	44.3	158	37.4
7 and above	59	30.6	54	23.5	113	26.7
Total	193	100.0	230	100.0	423	100.0
Mean	5.32		5.37		5.34	
Standard Deviation	2.079		1.53		1.8	
Economic characteristics : Monthly average income						
<=120 birr (low)	59	40.7	25	22.7	84	32.9
121-250 Birr (medium)	43	29.7	37	33.6	80	31.4
>=251 (high)	43	29.7	48	43.6	91	35.7
Total	145	100.0	110	100.0	255	100.0
Mean	276.5		307.8		290.0	
Standard Deviation	300.1		295.3		298.0	

Characteristics	Male		Female		Total	
	No.	%	No.	%	No.	%
Standard of living index						
<=9 low	66	34.9	65	29.3	131	31.9
10-11 medium	50	26.5	59	26.6	109	26.5
>=12 high	73	38.6	98	44.1	171	41.6
Mean		10.96	11.03		11.0	
Standard Deviation		3.59	3.33		3.45	
Total	189	100.0	222	100.0	411	100.0

Source: Field survey, 2009

4.2 BIVARIATE ANALYSIS

4.2.1 Adolescent Knowledge about growth changes

Respondents were asked about their knowledge on the physical changes that will happen during puberty. Their responses are presented in table 4. Among the total respondents, 93 percent knows about the change in voice of males and 33 percent change in the voice of females. Religion of respondent only differentiates the level of knowledge. It's more among Christians than Muslims. Both male and female respondents knew more about the change in voice of males than females. Also there is no such difference in the knowledge between male and female respondents about both sexes voice change. Growth of pelvic hair for male is known by 75 percent of respondents and that of female is known to 87 percent of respondents. More males (87 percent) than females (65 percent) knew about growth of pelvic hair for males. Whereas more female (91 percent) than male respondents (81 percent) knew about growth of pelvic hair for female. None of the background characteristic of the respondents differentiates the level of knowledge.

Growth of pubic hair for male is known to 83 percent and for female it's known to 81 percent of respondents. Respondents belong to males, Muslims, in age 15-19 years with relatively higher education and non- workers are likely to have more knowledge about the growth of pubic hair than their counterparts. Enlargement of breast for female is known to 93 percent of total respondents. More female (98 percent) than male respondents (87 percent) knew it. More Christian and non- working respondents knew about this change.

Change in muscle strength for male is known to 87 percent of total respondent and for female it's known for 42 percent of respondent. The knowledge on change in muscle strength for males is more or less the same among both male and female respondents. But this knowledge for female is reported more by male (47 percent) than female (37 percent) respondents. Religion, age, education and occupation of respondents differentiate their knowledge on change in muscle strength during puberty. Knowledge on change in muscle strength of male is reported more by Christian's, respondents 15-19 years, less educated and non-working respondents compared to their counter parts. For the change among female, the knowledge is more among Muslims, older (15-19 years) and working respondents compared to their counterparts.

According to 95 percent of total respondents, menstruation indicates attainment of puberty for female. This is confirmed by more females (98 percent) than males (91 percent).The background characteristics of respondents are not making any difference in the knowledge about menstruation at time of puberty. Generally, less knowledge about the change that happens for the opposite sex and more knowledge about themselves have been observed.

Table 4:- percent distribution of respondents by their characteristics and their knowledge on Physical changes during puberty

Charac - teristics		Physical changes during puberty									
		Voice change		Pelvic hair		Pubic hare		Enlargement of breast	Muscle strength		Menst Ruation
	n	Male	Female	Male	Female	Male	female	Female	Male	female	Female
Sex											
Male	193	94.9	32.7	86.6	80.9	93.8	75.1	86.6	85.4	47.1	**90.6**
Female	230	91.7	33.5	64.8	91.3	72.2	86.5	98.3	**88.7**	**37.8**	**98.2**
Age											
10-14	101	92.1	31.7	69.3	87.1	70.3	82.2	92.1	87.1	30.7	**96.0**
15-19	322	93.5	33.5	76.4	86.3	86.3	81.1	93.1	87.2	45.6	**94.2**
Religion											
Muslim	397	92.6	33.7	74.5	87.1	82.9	81.6	92.4	86.9	42.3	**94.7**
Christian	26	100	23.1	76.9	79.9	76.9	79.9	100	92.3	38.5	**96.2**
Education											
Illiterate	12	100	-	75.0	75.0	75.0	75.0	100	100	75.0	**100**
1-4	79	97.5	39.2	81.0	89.9	81.0	86.1	93.7	91.1	30.4	**89.9**
5-8	264	92.0	27.7	68.6	85.6	81.0	79.1	92.5	88.3	40.5	**96.6**
9+	68	91.2	52.9	91.2	88.2	91.2	85.3	92.7	76.5	55.9	**92.6**
Occupation											
Working	309	92.6	35.9	72.8	86.7	81.2	80.6	91.6	84.8	50.2	**94.5**
Nonworking	114	94.6	25.5	79.8	86.0	86.0	83.3	96.5	93.8	20.1	**95.6**
All	423	93.1	33.1	74.7	86.5	82.5	81.3	92.9	87.2	42.1	**94.8**

Source: Field survey, 2009

n=number of respondents

4.2.2 Perception about menstruation

Respondents are asked about their perception about menstruation and materials used during menstruation. Majority (88 percent) perceived the correct meaning of menstruation and the remaining perceived wrongly or don't know (11 percent)(Table 5).More females (92 percent) than males (86 percent) understood the correct meaning of menstruation. But the duration of menstruation is reported as more than 5 days by 17 percent, 3-5 days by 58 percent and less than 3 days by 25 percent of respondents. Either more than 5 days or less than 3 days is reported by more females than males.

About 9 percent of respondents (10 percent of males and 9 percent of females) fells that menstruation is a sign of promiscuity. Forty percent of both male and female respondents wrongly understood that a girl can get pregnant during menstruation period.

Out of two hundred thirty female respondents, 55.2 percent already experienced menstruation. The mean age at menarche is 15.9 years. When they were asked about the materials used during menstruation, 50 percent used the cloth and reused it after washing, 46 percent used and throw cloth, 3 percent changed underwear after bath and 2 percent didn't respond.

Table 5: Perception about menstruation related matter and materials used during menstruation

Perception on	Male		Female		Total	
	No.	%	No.	%	No.	%
Menstruation means:						
disintegration of the uterus wall	121	62.7	126	54.8	247	58.4
If the egg cell can't meet the sperm cell	28	14.5	72	31.3	100	23.6
Both can be the definition	16	8.3	14	6.1	30	7.1
It's a proof of being female	3	1.6	3	1.3	6	1.4
I don't know	25	13.0	15	6.5	40	9.5
Duration of menstruation in a monthly cycle :						
<3 days	45	31.7	42	20.5	87	25.1
3-5 days	65	45.8	135	65.9	200	57.6
>5 days	32	22.5	28	13.7	60	17.3
Menstruation as a sign of promiscuity						
Agree	19	9.8	18	7.8	37	8.7
Disagree	174	90.2	212	92.1	386	91.2
A girl can get pregnant at the time of menstruation						
Agree	76	39.4	92	40.0	168	93.7
Disagree	117	60.7	138	60.0	255	60.3
Experience of menstruation:						
Yes			127	55.2		
No			103	44.8		
Total			230	100.00		
Management of menstruation:						
Use and throw			58	45.7		
Using by washing			63	49.6		
Taking bath and changing underwear			4	3.2		
No response			2	1.6		
Total			127	100.0		

Source: Field survey, 2009

Table 6: Distribution of Respondents by perception Safe Sex and their Characteristics

characteristics	Male							Female							Total							X^2
	n	1	2	3	4	5	6	n	1	2	3	4	5	6	n	1	2	3	4	5	6	
Age																						
10-14	30	53.3	67	20.0	6.7	-	13.3	71	49.3	2.8	16.9	8.5	2.8	19.7	101	50.5	4.0	17.8	7.9	2.0	17.8	X^2=28-496
15-19	163	44.2	4.9	20.9	2.5	14.7	12.9	109	39.0	13.8	29.6	1.9	1.3	14.5	322	41.6	9.3	25.2	2.2	8.7	13.7	P=0.000
Religion																						X^2= 17.630 P=.024
Muslim	177	45.5	5.6	18.7	3.4	11.3	14.1	220	41.4	10.9	25.9	4.1	1.8	15.9	397	44.1	8.6	22.4	3.8	6.0	14.7	
Christian	16	25	-	50	-	25.0	-	10	60.0	-	20.0	-	-	20.0	26	38.5	-	38.5	-	2.0	7.7	
Education																						X^2= 66.824 P=.000
Illiterates	6	-	-	50	-	-	50.0	6	-	50.0	-	-	-	50.0	12	-	25	25	-	-	50.0	
1-4	25	25	36	8	16	16.0	24	54	25.9	13.0	18.5	7.4	7.4	27.8	79	29.1	11.4	17.7	5.1	10.1	26.6	
5-8	112	54.5	5.4	18.8	1.8	7.1	12.5	152	49.3	9.2	27.0	3.3	-.	11.2	264	51.5	7.6	23.5	2.7	3.0	11.7	
9+	50	36	4	24	8	24.0	4.0	18	44.4	-	44.4	-	-	11.1	68	38.2	2.9	29.4	5.9	17.6	5.9	
Occupation																						X^2 = 11.003 P=.202
Working	145	51	6.9	15.2	4.1	12.5	10.3	164	40.2	9.8	26.8	1.8	1.2	20.1	309	45.3	8.4	21.4	2.9	6.4	15.5	
Not-work	48	29.2	-	37.5	-	12.5	2.8	66	47	12.1	22.7	9.1	3.0	6.1	114	39.5	7.0	28.9	5.3	7.1	12.3	
Monthly average Income																						X^2= 30.0732 P= 006
< 120 (low)	59	45.8	6.8	23.7	-	17.0	6.8	25	24	20	48	-	-	8.0	84	39.3	10.7	31.0	-	11.9	7.1	
121-250 (medium)	43	46.5	-	30.2	4.7	9.3	9.3	37	43.2	-	35.1	-	5.4	16.2	80	45	-	32.5	2.5	7.5	12.5	
>251 (high)	43	48.8	-	25.6	4.7	4.7	16.3	48	39.6	25	18.8	-	4.2	12.5	91	44	13.2	22	2.2	4.4	14.3	
SLI																						X^2= 32.674 p= 003
<9 (low)	66	56.1	3.0	16.7	3.0	9.1	12.1	65	52.3	9.2	21.5	-	-	16.9	131	54.2	6.1	19.1	1.5	4.6	14.5	
10-11 (medium)	50	40	12	22	-	12.0	14.0	59	32.2	16.9	35.6	3.4	-	11.9	109	35.8	14.7	29.4	1.8	5.5	12.8	
>12 (high)	73	39.7	2.7	2.7	5.5	13.7	13.7	98	44.9	6.1	20.4	5.1	4.0	19.4	171	42.7	4.7	22.2	5.3	8.2	17.0	
All	193	45.6	5.2	20.7	3.1	12.4	13.0	230	42.2	10.4	25.7	3.4	5.7	16.1	423	43.7	8.0	23.4	3.5	6.7	14.7	

Source: Field survey, 2009

1. Abstaining from sex before marriage
2. Not having more than one partner
3. Using condom always and consistently
4. Having sex with a CSW
5. combination (more than one) of the above
6. I don't have any idea

n = number of total respondents

4.2.4. Willingness to use and opinion about condom

Respondents are asked about their willingness to use condom while having sex with anybody in the future and the responses are presented in table 7 .Fifty eight percent of respondents expressed their willingness to use condom during intercourse with anybody in future. There's significant difference in their willingness between male (73 percent) and female (44 percent) respondents.

The willingness is more among respondents in 15-19 years (62 percent) Christians (85 percent) educated 9+ grades (79 percent) working (62 percent) medium family income (78 percent) and standard of living (62 percent) compared to their counterparts.

The proportion of willingness for use of condom is more among male than female respondents in all categories of characteristics of respondents except for education 9 and above grades (pattern reversed). Medium monthly family income (pattern reversed) and low standard of living where the proportion does not differ significantly.

Willingness is significantly associated with age, education of respondents and monthly family income.

When respondents are asked about their opinion on using condom is a sign of not trusting a partner, 29 percent agreed, 40 percent disagreed and 27 percent didn't give any opinion (table 8).

Disagreement is more for male than female respondents even after the control of characteristics of respondents except for medium standard of living where it's more for females than males.

Disagreement is more for respondents in 15-19 years (44 percent), Christian (54%) education of 9 and more grades (71 percent), working (42 percent) medium family income (53 percent) and high standard of living (40 percent) compared to their counter parts.

Respondents' opinion on using condom as a sign of not trusting a partner is significantly associated with age, education, occupation, and family income. The proportion of 'disagree' is significantly more among male (50 percent) than female (27 percent) respondents.

Table 8: percentage distribution of respondents by their opinion on using condom is a sing of not trusting the partner by characteristics of respondents.

Characteristics	n	agree	disagree	DK	X2 Values
Age					
10-14	101	17.8	25.7	56.4	X2= 39.70
15-19	322	32.9	43.8	23.3	P=0.000
Sex					
Male	193	31.6	49.7	18.7	X2=27.56
Female	230	27.4	30.9	41.7	P=.032
Religion					X2=7.220
Muslim	397	28.7	38.5	32.7	P=0.065
Christian	26	38.5	53.8	7.7	
Education					X2=42.940
Illiterates	12	25.0	-	75.0	P=0.000
1-4	79	29.1	27.8	43.0	
5-8	264	30.3	36.7	33.0	

Characteristics	n	agree	disagree	DK	
1+	68	26.5	70.6	2.9	
Occupation					X2=9.392 P=.025
Working	309	30.4	42.4	27.2	
Non-working	114	26.3	31.6	42.1	
Monthly average income					X2=32.972
120 low	84	32.1	47.6	20.0	P=.000
21-250 medium	80	288	52.5	18.8	
251	91	27.5	24.2	48.4	
Standard of living					X2=7.367
9 low	131	33.6	38.2	28.3	P=.288
0-11 medium	109	31.2	33.9	34.8	
12 high	171	26.9	39.8	33.4	
All	423	29.3	39.5	27.4	

Source: Field survey, 2009 DK = don't know

Opinion on discussing about condom with adolescents promotes promiscuity is probed with respondents. The result of the analysis in relation to characteristics of respondents is presented in table 9. Twenty percent of respondents agreed that discussing condom with adolescents promotes promiscuity, 47 percent disagreed and 33 percent did not given any opinion.

Disagreement is reported more by respondents in 15-19 years (52 percent), Christians (54 percent), studied 9 & more grades (65 percent), working (49 percent), in medium family income group (58 percent) and medium standard of living (48 percent) compared to their counterparts.

The proportion of disagreement is reported little more among male (48 percent) than female (45 percent) respondents. But considerable difference in the proportion of disagreement is found among respondents who belong to Christians, 5-8 and 9 & more grades of education, not working, medium and high family income /standard of living. It seems that religion, education, occupation and income/standard of living differentiating the stated opinion.

Table 9: Percentage distribution of respondents by their opinion on discussing condom or contraceptives with adolescents promotes promiscuity by their characteristics.

Characteristics	n	Agree	Not agree	Don't know	Chi – square
Age					
10-14	101	8.9	28.7	62.4	X^2=52.375
15-19	322	23.6	52.2	24.2	P=.000
Sex					
Male	193	27.5	48.2	24.3	X^2=17.264
Female	230	13.9	45.2	40.9	P=.046
Religion					
Muslim	397	19.9	46.1	34.0	X^2=5.464
Christian	26	23.1	53.8	23.1	P=.141
Education					
Illiterates	12	-	50.0	50.0	
1-4 grades	79	19.0	27.8	53.1	X^2=29.587
5-8grades	264	21.2	47.3	31.5	P=.000
9 and above	68	20.6	64.7	14.7	
Occupation					X^2=25.343
Working	309	22.3	49.5	28.1	P=.000
Not working	114	14.0	38.6	47.3	
Monthly average income					
<=120(low)	84	23.8	48.8	27.3	
121-250 (medium)	80	23.8	57.5	18.8	X^2=25.155
>=251 (high)	91	11.0	38.5	50.6	P=.000

Characteristics	n	Agree	Not agree	Don't know	Chi – square
Standard of living index					
<=9 (low)	131	19.1	44.3	36.6	
10-11(medium)	109	20.2	47.7	32.1	
>= 12(high)	171	22.2	43.9	33.9	
All	423	20.1	41.6	33.4	

Source: - field survey, 2009 n=number of respondents

4.2.5 Sexual behavior of adolescents

Out of the 423 total respondents, 38 percent of them ever had sex. The remaining 57 percent of the respondents replied that they never had sex (table 10). Higher percentage 45.6 percent of male respondents had sex compared to females 31.7 percent. The mean age at first sex for the total respondents is found to be 15.8 years, which is 16.5 years for males and 15 years for females. So, girls tend to have sex earlier than males. The median age at first sex is 17 years for total respondents (17 years for males and 15 years for females.)

The major reason presented by the respondents to have their first sex is falling in love with an opposite sex 58.4 percent. Self interest and being forced to have sex are equally responded reasons (12.4 percent each.). Peer pressure (9.9 percent) and desire to marry (6.8 percent) are also among the reasons.

When we categorize the respondents by their sex, majority of males had their first sex because of falling in love (72.7 percent) than females (41 percent). Whereas, more females than males had their first sex for self interest, wanting to marry, being forced and peer influence.

Among the total respondents, 72 percent of them had their first sex with their steady boy/girl friend. The remaining respondents had it with casual boy/girl friend (9.9 percent) & family members (8.1 percent). Nine percent of the total respondents don't remember with whom they had sex for the first time. More males (75 percent) had their first sexual intercourse with their steady girl

friend, than females (68.5 percent). Slightly more females had it with casual boy friend (11 percent) and family member (11 percent).

Majority of the respondents replied that they have one sexual partner out of which 70 percent is female and 66 percent is male respondents. Generally, males tend to respond to have more than one partner (20.5 percent) than female (9.9 percent).

Respondents were also probed about the age of their partner with whom they had sex for the first time. About 49 percent responded that he /she was older than them and 37 percent replied as they are of the same age. Only 15 percent of the respondents responded as their first sexual partner was below their age.

When we compare respondents by their sex, more female (56 percent) than male (42 percent) respondents had their first sex with a person who is older than them. Whereas, more males (47 percent) than females (25 percent) had sexual intercourse with same age partner. Nineteen percent of females had their first sex with younger boy than 11 percent of male respondents.

Table 10: Ever having sex, Age at first sex, reason for first Sex, relationship, number of partner and age of partner

Sexual behavior	Mae		Female		Total	
	No.	%	No.	%	No.	%
Ever had sex						
Yes	88	45.6	73	31.7	161	38.1
No	99	51.3	143	62.2	242	57.2
Non-response	6	3.1	14	6.1	20	4.7
Total	193	100	230	100.0	423	100.0
Age at first sex						
<10 years	2	2.3	8	11.0	10	6.2
10-15 years	31	35.2	36	49.3	67	41.6
>15 years	55	62.5	29	39.7	84	52.2
Mean		16.51		14.9		15.79
Median		17.0		15.0		17.0
Standard Deviation		2.1		3.2		2.8
Total	88	100	73	100	161	100
Reason for first sex						
Love	64	72.7	30	41.1	94	58.4
Self interest	7	8.0	13	17.8	20	12.4
Desire to marry	4	4.5	7	9.6	11	6.8
Being forced	5	5.7	15	20.5	20	12.4
Peer influence	8	9.1	8	11.0	16	9.9
Total	88	100	73	100	161	100
Relationship						
steady boy/girls	66	75.0	50		116	72.0
Casual boy/girl friend	8	9.1	9	68.5	17	9.9
Family member	5	5.7	8	11.0	13	8.1

Sexual behavior	Male		Female		Total	
	No.	%	No.	%	No.	%
Don't remember	9	10.2	7	11.0	15	9.3
Total	88	100	73	100	161	100
Number of sexual partners						
Only 1	58	65.9	51	69.9	109	67.7
2	10	11.4	4	5.8	14	8.7
>3	8	9.1	13	4.1	11	6.8
Don't remember	12	13.6	15	20.5	27	16.8
Total	88	100	73	100	161	100
Age of the partner						
same age	41	46.6	18	24.7	59	36.6
Older than me	37	42.0	41	56.1	78	48.5
Younger than me	10	11.3	14	19.2	24	14.9
Total	88	100.0	73	100.0	161	100

Source: field survey, 2009

4.2.5.1 Recent Sexual activity

In addition to ever having sex, respondents were also enquired about their recent (past three months) sexual activities (Table11). One hundred fourteen (27 percent) of the total respondents had sex three months prior to the survey time. More males (33 percent) tend to have sex than females (22 percent) during the period. Majority (62.3 percent) of those who have sex during the past three months have it only with one partner. Twelve percent of the respondents have sex with two partners and 9 percent with three partners. Generally females tend to have sex with more than one partner (35.3 percent) than males (9.5 percent). Seventy percent of those who had sex during the three months prior to the study period had it with their steady boy/girl friend, (74 percent males and 59 percent females).

Table11: having sex, numbers of sexual partners and relationship with the partner during the last three months.

Sexual behavior	Male		Female		Total	
	No.	%	No.	%	No.	%
Have sex						
Yes	63	32.6	51	22.2	114	27.0
No	124	64.2	165	71.7	289	68.3
Non response	6	3.1	14	6.1	20	4.7
Total	193	100.0	230	100.0	423	100.0
How many partners						
1	51	81.0	20	39.2	71	62.3
2	2	3.2	12	23.5	14	12.3
3	4	6.3	6	11.8	10	8.8
Don't remember	6	9.5	13	25.5	19	16.7
Total	63	100.0	51	100.0	114	100.0
Relationship						
steady boy/girl friend	50	79.4	30	58.8	80	70.2
Casual boy/girl friend	10	15.9	11	21.6	21	18.4
Family member	2	3.2	7	13.7	9	7.9
CSWs	1	1.6	-	-	1	0.9
Total	63	100.0	51	100.0	114	100.0

Source: Field survey, 2009

4.2.5.2 Adolescents recent sexual experience, relationship with Partner and Number of sexual partners

Respondents are also asked about their experience of sexual intercourse during the past three months (Table 12). It's significantly more among the males (32.6 percent) than female (22.2 percent). It's also significantly higher in age 15-19 (33.9%) than 10-14 (5%). The experience is more among Christians (39 percent) than Muslims (26 percent). Education of respondents is positively associated with sexual experience. Sexual experience is significantly higher among working (30.4 percent) than non- working (18 percent) groups. But sexual experience is not significantly associated with economic status and standard of living of respondents.

When respondents probed about the number of sexual partners they had during the past three months prior to the study, 62.3 percent reported to have only one sexual partner and this is higher for males (81 percent) than females (39 percent). Those who had two sexual partners are 12.3 percent of which females are the majority (23.5 percent) than males (3.2 percent). The number of sexual partners is strongly associated with age, education & occupation. Regarding the relationship of sexual partner, 73 percent of respondents' haven't mentioned the relationship of sexual partner. Steady boy/girl friend is predominant (18.9 percent) sexual partner followed by casual boy/girl friend (5 percent), and family member (2.1 percent).The steady boy/girl friend is reported in higher proportion by males, respondents in 15-19 years, Christians, studied 9 + grades, working, low income and high standard of living than their counterparts.

When respondents are asked use of condom during intercourse during the past three months, those who replied. always are 15.6 percent, sometimes 4.3 percent never 10.6 percent and the majority (69.5 percent) didn't report anything. Using condom always is found more among males, 15-19 years, Christians, studied 9+ grades, working, low income and medium standard of living compared to their counter parts.

Table 12: sexual Behavior of respondents during the past 3 months and their characteristics

Characteristics	Had sex				No. of sexual partners				
	n	Yes	No	X2	1	2	3	4	X2
Sex									
Male	193	32.6	67.4	X2=9.433	81.0	3.2	6.3	9.5	X2=11.014
Female	230	22.2	77.8	P=.0009	39.2	23.5	11.8	25.5	P=.051
Age									
10-14	101	5.0	95.0	X2=37.912	-	60.0	--	40.0	X2=37.912
15.19	322	33.9	66.1	P=.000	65.1	10.1	9.2	15.6	P=.000
Religion									
Muslim	397	26.2	73.8	X2=1.583	62.5	13.5	7.7	16.3	X2=.356
Christian	26	38.5	61.5	P=.453	60..0	-	20.0	20.0	P=.996
Education									
Illiterates	12	25.0	75.0	X2=24.317	-	100	-	-	X2=31.732
1-4	79	20.3	79.7	P=.000	62.5	12.5	-	25.0	P=.001
5-8	264	23.1	76.9		54.1	14.8	6.6	24.6	
9+	68	50.0	50.0		82.4	-	17.6	-	
Occupation									
Working	309	30.4	69.6	X2=11.176	60.6	14.9	8.5	16.0	
Notworking	114	17.5	82.5	P=.004	70.0	-	10.0	20.0	X2=18.393 P=.001
Monthly average income									
< 120	84	42.9	57.1	X2= 5.073	66.7	11.1	5.6	16.7	X2=23.764
121-250	80	21.3	78.8	P=.280	70.6	-	11.8	17.6	P=.342
>250	91	27.5	72.5		72.0	12.0	16.0	-	
SLI									
< 9	131	22.1	77.9	X2=2.573	62.1	17.2	13.8	6.9	X2=87.92
10-11	109	26.6	73.4	P=.280	65.5	6.9	13.8	13.8	P=.658
>12	171	29.2	70.8		60.0	10.0	4.0	26.0	
Total	423	27.0	73.0		62.3	12.3	8.8	16.7	

n=number of respondents

Table 12: sexual Behavior of respondents during the past 3 months and their characteristics(Continued)

Characteristics	Type of sexual partner						Used condom			
	1	2	3	4	5	Chi-Square	Yes Always	Sometimes	Never	Don't tell
Sex										
Male	25.9	5.2	1.0	0.5	67.4	X2=9.45	21.8	5.2	11.4	61.7
Female	13.0	4.8	3.0	1.3	77.8	P=.051	10.4	3.5	10.0	76.1
Age										
10-14	2.0	-	3.0	-	95.0	X2=38.50	2.0	-	4.0	94.1
15.19	24.2	6.5	1.9	1.2	66.1	P=000	19.9	5.6	12.7	61.8
Religion										
Muslim	18.6	4.8	2.3	0.5	73.8	X2=4.78	714.6	4.5	10.8	70.0
Christian	23.1	7.7	-	7.7	61.5	P=.310	30.8	-	7.7	61.5
Education										
Illiterates	18.7	5.1	2.2	1.0	75	X2=49.96 p	-	-	-	100.0
1-4	10.1	5.1	2.5	2.5	79.7	=.000	5.1	5.1	20.3	69.6
5-8	14.8	4.9	2.7	0.8	76.9		14.4	3.8	6.4	75.4
9+	44.1	5.9	-	-	50.0		35.3	5.9	17.6	41.2
Occupation										
Working	20.7	5.5	2.9	1.3	69.6	X2=14.751	16.8	5.2	12.6	65.4
Not working	14.0	3.5	-	-	82.5	P=.011	12.3	1.8	5.3	80.7
Monthly average income										
< 120	28.6	9.5	2.4	2.4	57.1	X2=9.857	21.4	9.5	14.3	54.8
121-250	18.8	2.5	-	-	78.8	P=.275	18.8	-	16.3	65.0
>250	17.6	-	7.7	2.2	72.5		8.8	4.4	8.8	78.0
SLI										
< 9	16.0	4.6	-	1.5	77.9	X2=5.359	15.3	4.6	4.6	75.6
10-11	16.5	4.7	3.7	1.8	73.4	P=.719	17.4	3.7	12.8	66.1
>12	21.6	4.7	29	-	70.8		13.5	3.5	14.6	68.4
Total	18.9	5.0	2.1	0.9	73.0		15.6	4.3	10.6	69.5

Source:Field survey,2009

Key 1. Steady boy/girl friend 2. Casual boy/girl friend 3. Family member

4. I don't remember 5. Don't tell

4.2.5.3 Sex with Commercial Sex Workers

Male respondents' were probed whether they had sex with commercial sex workers or not (Table13). Only 2.4 percent replied that they had sex while the remaining 43.3 percent respondents didn't have sex with CSWs.Fourty -percent of those who replied to have sex with CSWs used condom always. Whereas another 40 percent of them used condom sometimes and 20 percent never used condom while having sex with CSWs.

Table13: Percent distribution of males by sex with CSWs. and condom use

Variable	**No.**	**%**
Sex with CSWs		
Yes	10	5.2
No	183	94.8
Total	193	100
If yes, did you use condom?		
Always	4	40
Sometimes	4	40.0
Never	2	20.0
Total	10	100

Source: Field survey, 2009

4.2.6 Knowledge about legal age at first marriage and attitude Towards premarital sex

Fifty one and fifty two percent of male and female respondents, respectively, responded as they know about the enacted law specifying the minimum age at marriage for boys and girls. (table14).Among these respondents 8 percent of male and 5 percent of females reported the legal minimum age at marriage for boys to be below 18 years and 40 percent of the respondents (43 percent male and 38 percent female) mentioned 18 and more years. The enacted legal age for boys as 18 years is reported by 53 percent of all the respondents. More female (58 percent) than male (48 percent) of the respondents reported 18years.

Fifty three and 85 percent of total respondents respectively, mentioned the exact age at marriage to be 18 years for both boys and girls. More females (87.5 percent) than males (79.5 percent) mentioned the legal age for girls (Table 15). But the legal age at marriage of less than 18 years for girls is reported by only 7 percent male and 8 percent of female respondents. Only 6 percent of the total respondents reported the legal age at marriage for girls to be more than 18 years (8 percent males and 4 percent females).

Table 14: respondent's knowledge about legal age at marriage

Variable	Male		Female		Total	
	No.	%	No.	%	No.	%
Enacted law on age at marriage for:						
Boys						
Yes	97	50.3	118	51.3	215	50.8
No	96	49.7	112	48.7	208	49.2
Total	193	100	230	100	423	100
Girl						
Yeas	81	42.0	139	60.4	220	52.0
No	102	58.0	91	39.6	203	48.0
Total	193	100	230	100	423	100
Legal age at marriage for:						
Boys						
< 18years	8	8.4	5	4.5	15	6.2
18 years	46	48.4	65	57.5	111	53.4
>18 years	41	43.2	43	38.0	54	40.4
Total	95	10	113	100	210	100
Girls						
<18 years	10	2.1	11	8.1	21	9.5
18 years	66	79.5	119	87.5	185	84.5
>18 years	7	8.4	6	4.4	13	5.9
Total	83	100	136	100	219	100

Source: Field survey, 2009

4.2.6.1 Ideal age at First marriage

Seventy- one percent and 38 percent of respondents propose the ideal age for girls and boys to be 18 years, respectively (table 15) Majority (45 percent) of respondents prefer more than 18 years for boys to be the marriage age compared to only 9.3 percent for girls.

Slightly more male respondents prefer the boy's marriage age to be above 18 years (48 percent) than females (43 percent) whereas, 73 percent of males prefer girls to marry at age 18 compared with 69 percent for female respondents.

Table 15: Respondents knowledge about ideal age at marriage boys and girls

Variable	Male		Female		Total	
	No.	%	No.	%	No.	%
Ideal age at marriage for Boy						
<18 years	2	1.2	2	1.1	4	1.2
18 years	68	39.8	70	36.8	138	38.2
>18 years	82	48.0	81	42.9	163	45.1
Don't know	19	11.0	37	19.2	56	15.5
Total	191	100.0	190	100.0	361	100.0
Girls						
<18 years	12	7.4	8	4.0	20	5.7
18 years	118	73.3	136	68.7	254	70.8
>18 years	17	10.6	19	8.6	36	9.3
Don't know	14	8.7	37	18.7	51	14.2
Total	161	100	200	100	361	100

Source: Field survey, 2009

4.2.7 Knowledge & attitude about pregnancy

Ninety-two percent of total respondents (92.2 percent males and 92.6 percent of females) are considering that premarital pregnancy is a problem (Table 16). Twenty- eight percent of both male and female respondents understood that any sexual intercourse will result in pregnancy. But, seventy two percent of respondents perceived that any sexual intercourse will not result in pregnancy.

Table16: Perception about premarital pregnancy and any sexual intercourse will result in pregnancy

Perception on	**Male**		**Female**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**
Premarital pregnancy is not a problem						
Yes	15	7.8	17	7.4	32	7.6
No	178	92.2	213	92.6	391	92.4
Total	193	100.0	230	100	423	100.0
Any sexual intercourse result in pregnancy						
Yes	54	28.0	65	28.3	119	28.1
No	139	72.0	165	71.8	304	71.9
Total	193	100.0	230	100.0	423	100.0

Source: Field survey, 2009

When respondents are asked about the ideal age for first conception, majority (90 percent) reported less than 25 years as an ideal age for first conception (table 17). The mean ideal age at first conception is 19.9 years (19.8 years by male & 20 years by female respondents).

Regarding the ideal age at last conception, 49 percent of the respondents reported less than thirty years, 20 percent between 30-35 years, 17 percent between 36-40 years and 14 percent between 41-45 years. The mean ideal age at last conception is reported to be 32 years (32.8 by male & 31.2 by female respondents).

Table 17: Ideal age at first and last conception for a girl

Ideal age	**Male**		**Female**		**Total**	
	No	**%**	**No**	**%**	**No**	**%**
First conception						
< 25 years old	127	88.2	171	91.2	298	89.6
25-30 years old	13	9.0	14	7.5	27	8.2
>30 years old	4	2.8	3	1.6	7	2.2
Total	144	100.0	188	100.0	332	100.0
Mean		19.8		20		19.9
Standard Deviation		4.7		3.1		3.9
Last conception						
< 30 years old	44	35.9	72	38	116	49.1
30-35 years old	21	17.2	33	21.3	54	19.5
36-40 years old	30	24.6	16	10.3	46	16.6
41-45 years old	20	16.4	1811.6	38	13.7	
>45 years old	5	5.7	16	10.3	23	8.3
Total	122	100	155	100	277	100
Mean		32.8		31.2		32.0
Standard Deviation		10.8		11.2		11

Source: Field survey, 2009

4.2.9 Knowledge about contraceptive methods

Seventy percent of both male and female respondents know about contraceptive methods. Known methods among all respondents are injection (60 percent) oral Pills (46 percent), condom (44 percent), IUD (37 percent), sterilization (35 percent) and Norplant (34 percent)(Table 19) The knowledge of injectables and nor plant is more among females than males whereas, the knowledge about IUD is more among males than females.

Table 19: knowledge about contraceptive methods

Knowledge about	Male		Female		Total	
	No.	%	No.	%	No.	%
Any method						
Yes	135	69.9	162	70.4	297	70 .2
No	58	30.0	68	26.5	126	29.7
Total	193	100.0	230	100.0	423	100.0
Method :Oral pills						
Yes	91	47.2	104	45.2	195	46.1
No	102	52.8	126	54.8	228	53.9
Condom						
Yes	82	42.5	104	45.2	186	44.0
No	111	57.5	126	54.8	237	56.1
Injectables						
Yes	107	55.4	146	63.5	253	59.8
No	86	44.6	84	36.5	170	40.1
IUD						
Yes	70	36.3	88	142	158	37.4
No	123	63.3	38.3	61.7	265	62.6
Sterilization						
Yes	66	34.2	83	36.1	149	35.2
No	127	65.8	147	63.9	274	64.8
Norplant						
Yes	60	31.1	85	37.0	145	34.3
No	133	68.9	145	63.0	278	65.8
Total	193	100.0	230	100.0	423	100.0

Source: Field survey, 2009

When we asked about who uses each contraceptive methods mentioned above, incorrect knowledge (if the use of particular method is wrongly reported) about oral contraceptives (4 percent) injectable (3 percent) IUD (2 percent) nor is plant (1 percent) reported by all respondents (table 20). Incorrect knowledge about contraceptive methods is found among male respondents for oral contraceptives (7 percent), injectables (6 percent), IUD (2 percent), nor plant (3 percent). Among female respondents, it is for oral contraceptives (3 percent) injectables (3 percent), IUD (3 percent) and Norplant (3 percent). Majority of the respondents mentioned that sterilization is meant for female only (Male 40 percent and female 41 percent). Generally, the proportion of incorrect knowledge on contraceptive methods is ranging from 2-7 percent among males and 3 percent among females. It is little more among males than female respondents.

Table 20: knowledge about persons to use contraceptive methods

Contra - ceptives	n	male			n	female			n	total		
		M	F	DK.		M	F	DK.		M	F	DK.
Oral pills	193	7.2	53.9	42.0	230	3.0	53.5	43.5	423	4.9	53.6	428
Condom	193	39.4	28.0	52.3	230	37.4	222	54.3	423	38.3	24.8	51.8
InJectables	193	6.2	48.2	46.6	230	58.2	2.6	40.9	423	4.2	53.1	43.5
IUDs	193	2.0	40.4	58.5	230	3.0	43.0	53.9	423	2.6	41.9	56.0
Sterilization	193	11.4	39.9	60.1	230	6.6	40.5	58.7	423	8.8	40.2	59.3
Norplant	193	3.1	32.2	66.8	230	3.0	40.9	57.4	423	3.1	36.9	61.7

Source: Field survey, 2009

N=number of respondents

M=male

F=female

Dk=don't know

4.2.9.1 Future use of contraceptives

Respondents were probed about their willingness to use contraceptive methods in the future (before and/or after marriage) (table 21). Out of the total respondents, 45.5 percent males and 54 percent females, want to use contraceptives in the future. Among these future users, 60 percent want it after marriage and the remaining 40 percent want it before marriage. More males (48 percent) than females (34 percent) want to use contraceptives before marriage.Wheareas, more females (67 percent) than males (53 percent) want to use it after marriage.

Respondents were further asked which method they will use in the future. Condom is the most favored (39 percent) method of contraceptive (of course also to protect oneself from HIV/to be used before marriage. Sterilization (37.5 percent), pills (34.7 percent) and injectables (3.6 percent) are methods most preferred to be used after marriage.

Among the male methods condom is most preferred (80 percent) to be use before marriage and sterilization (37.5 percent). Pills (34.7 percent) and injectables (30.6 percent) are methods most preferred to be used after marriage. Female respondents prefer Norplant (67.6 percent) to use both before and after marriage similar with pills to use after marriage. Females also prefer injectables (59.5 percent) and IUD (40.5 percent) to use after marriage.

Table 21: willingness to use contraceptive method in the future (before and after marriage

Use of Contrastive	Male		Female		Total	
	No.	%	No.	%	No.	%
Want to use contraceptives						
• Before marriage	77	47.5	65	3.5	142	39.9
• After marriage	85	52.2	129	66.5	214	60.1
Total	162	100.0	194	100	356	100.0
Which method:						
Pills						
Before	-		12	32.4		
After	-		25	67.6		
Both	-					
Total			37	100.0		
Condom						
Before	28	80.0				
After	5	14.3				
Both	2	5.7				
Injectables	35	100.0				
Before			8	21.6		
After			22	59.5		
Both			7	18.9		
Total			37	100.0		
IUD						
Before			1	2.7		
After			15	40.5		
Both						
Total			16	43.2		
Sterilization						
Before						
After	16	45.7	11	29.7	27	37.5
Both	-					
Total	16	45.7	11	29.7	27	37.5
Norplant			3	8.1		
After			9	24.3		
Both			25	67.6		
Total			37	100		

Source: Field survey, 2009

Table 23: Percent distribution of respondents by their knowledge about HIV/AIDS and by their characteristics.

Characteristics of respondents		n	Heard about HIV/AIDS		Chi - Square
			Yes	No	
Sex	Male	193	74.6	25.4	
	Female	230	69.1	30.9	X^2=1.67
	Total	4.23	71.6	28.4	P=0.433
Age	10-14	101	63.4	36.6	
	15-19	322	74.2	25.8	X^2= 5.483
	Total	423	71.6	28.4	P=0.064
Religion	Muslim	397	70.3	29.7	
	Christian	26	92.3	7.7	X^2 = 6.301
	Total	423	71.6	28.4	p=0.043
Education	Illiterate	12	50.0	50.0	
	1-4 grades	79	77.2	22.8	
	5-8 grades	264	65.2	34.8	X^2=24.723
					p= 0.000
	9+ grades	68	94.1	5.9	
	Total	423	72.3	27.7	

N=number of respondents

Characteristics	n	1		2		3		4		5	
		Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue
Monthly average income											
<120	84	79.8	.116	66.7	.227	57.1	.636	35.7	.458	31.0	.621
121-250	80	77.5		65.0		46.3		25.0		25.0	
>251	91	87.9		73.6		52.7		36.3		34.1	
SLI				68.6							
<9	101	74.0	.034	58.0	.104	39.7	.126	22.9	.051	16.8	.10
10-11	109	87.2		69.7		56.0		40.4		34.9	
>12	171	82.5		67.8		49.1		28.7		29.8	
ALL	423	80.6		65.2		48.5		30.5		27.7	

Key: modes of HIV transmissions

1. Having unprotected sex with HIV positive person
2. contaminated blood transfusion
3. contaminated sharp tools
4. mother to child transmission
5. breast feeding

n=number of respondents

--Continued

Characteristics	n	6		7		8		9		10	
		Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue	Yes	Pvalue
Sex											
Male	193	17.6	.082	3.1	.207	2.1	.181	9.8	.284	4.1	.060
Female	230	10.4		1.7		.9		7.0		1.3	
Age											
10-14	101	5.9	.018	2.0	.061	-	.012	6.9	.045	-	.010
15-19	322	16.1		2.5		1.9		8.7		3.4	
Religion											
Muslim	397	13.1	.307	2.5	.166	1.5	.217	8.8	.026	2.8	.140
Christian	26	23.1		-		-		-		-	
Education											
Illiterate	12	-	.000	-	.000	-	.000	-	.000	-	.000
1-4	79	101		5.1		7.6		10.1		5.1	
5-8	264	6.8		2.3		-		8.0		1.1	
9+	68	47.1		-		-		8.8		5.9	
Occupation											
Working	309	16.2	.017	3.2	.033	1.3	.221	10.0	.057	3.6	.036

Generally favorable Attitude towards HIV/AIDS is found more among males, older ones, Christians, higher level of education, non-working, low level of family income, and adolescents working in medium standard of living families.

Table 26: Percentage distribution of respondents by their attitude towards HIV/AIDS and their characteristics.

Characteristics	Healthy person can have HIV			All should have HIV test			Undergone HIV test		
	n	Yes	No	N	Yes	No	n	Yes	No
Sex									
Male	193	56.5	43.6	193	75.6	24.4	193	62.7	37.3
Female	230	51.3	48.7	230	70.4	29.6	230	51.7	48.3
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3
Age									
10-14	101	43.6	56.5	101	66.3	33.6	101	27.7	72.5
15-19	322	56.8	43.2	322	74.8	25.2	322	65.8	34.1
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3
Religion									
Muslim	397	51.6	48.4	397	72.5	27.4	397	55.4	44.6
Christian	26	84.6	15.4	26	76.9	23.1	26	76.9	23.1
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3
Education									
Illiterates	12	50.0	50.0	12	50.0	50.0	12	25.0	75.0
1-4	79	49.4	50.7	79	70.9	29.1	79	53.2	46.8
5-8	264	48.5	52.58	264	70.5	29.5	264	51.9	48.1
9 and above	68	79.4	20.6	68	88.2	11.8	68	85.3	14.7
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3

Characteristics	Healthy person can have HIV			All should have HIV test			Undergone HIV test		
	n	Yes	No	n	Yes	No	n	Yes	No
Occupation									
Working	309	52.1	47.9	309	72.2	27.9	309	56.3	43.6
Not working	114	57.9	42.1	114	74.6	25.5	114	57.9	42.1
Total	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3
Monthly average income									
<120(low)	84	59.5	40.5	84	88.1	11.9	84	64.3	35.7
121-250(medium)	80	51.3	48.8	80.	67.5	32.5	80	71.3	28.8
>251(high)	91	52.7	47.3	91	69.2	30.8	91	33.0	67.1
Total	255	54.5	45.5	255	74.9	25.1	255	55.3	44.7
Standard of living index									
< 9 (low)	131	42.7	57.3	131	62.6	37.4	131	52.7	47.3
10-11(medium)	109	71.6	28.5	109	78.9	21.1	109	63.3	36.7
>12(high)	171	49.7	50.3	171	77.2	22.8	171	55	45
Total	411	53.3	56.7	411	73.0	27.0	411	56.4	43.6
All	423	53.7	46.3	423	72.8	27.2	423	56.7	43.3

Source: - field survey, 2009

n=number of respondents

Table 28: source of information about reproductive health component

Source of information	Safe sex				Menstruation				Pregnancy				Contraception			Rape				STIs/HIV/AIDS				
	Male		Female		Male		Female		Male		Female		Male		Female	Male		Female		Male		Female		
	N	%	N	%	n	%	N	%	N	%	N	%	N	%	N	%	n	%	n	%	n	%	n	%
Boy /girl friend	47	24.4	27	11.7	34	17.6	11	4.8	24	12.4	19	8.3	10	5.2	15	6.5	14	7.3	10	4.3	26	13.5	23	10.0
Peers	13	6.7	5	2.2	4	2.1	18	7.8	3	1.6	8	3.5	-	-	8	3.5	10	5.2	17	7.4	8	4.2	26	11.3
Parents	10	5.2	31	13.5	15	7.8	34	14.8	23	11.9	26	11.3	12	6.2	14	6.1	18	9.3	13	5.7	22	11.4	34	14.8
Other family members	4	2.1	-	-	13	6.7	11	4.8	7	3.6	8	3.5	13	6.7	6	2.6	10	5.2	3	1.3	6	3.1	2	0.9
Health personnel	35	18.1	39	17.0	36	18.7	41	17.8	46	23.8	59	25.7	78	40.4	81	35.2	55	28.5	64	27.8	179	92.7	183	79.6
Traditional healers	2	1.0	-	-	4	2.1	14	6.1	6	3.1	3	1.3	6	3.1	11	4.8	4	2.1	13	5.7	10	5.2	18	7.8
School	4	2.1	2	0.9	4	2.1	-	-	4	2.1	-	-	2	1.0	-	-	-	-	-	-	2	1.0	2	0.9
Media (radio, newspaper and TV)	11	5.7	26	11.3	11	6.7	10	4.3	8	4.1	11	4.8	12	7.3	24	10.4	26	13.4	23	10.0	48	24.5	31	13.4
More than one source	16	8.2	19	8.3	13	6.6	14	6.1	13	6.6	8	3.5	9	4.6	10	4.4	12	6.3	14	6.4	26	13.5	22	9.6

4.2.12 Availability, Accessibility and Affordability of Reproductive Health Services

Adolescents were asked whether there is a health facility in their respective kebele or not. (Table 29) Almost half of all the respondents replied that there's a health facility in their kebele (50.8 percent). About 51.4 percent o those who responded as there is a health facility in their kebele, said it will take one hour or more on foot to reach there. The remaining 48.6 percent replied that it will take 30 minutes or less on foot.

Respondents were also required to tell whether there is any payment for the services in the health facilities. About 38 percent of all the respondents don't know about it. Seventeen percent responded as there is some amount of payment and higher proportion (43.5 percent) of the respondents responded as there is no payment.

When further question raised to know the type of services provided in health centre, 54.6 percent replied as they don't know while only 15 percent know as there exists a counseling service in their Keble's health facilities.

Generally, half of adolescents don't have a complete knowledge about whether there is a health facility in their kebele or not. This may be due to the fact that they don't visit health centers. This problem is pronounced more among females compared to males.

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Generally, half of adolescents don't have a complete knowledge about whether there is a health facility in their kebele or not. This may be due to the fact that they don't visit health centers. This problem is pronounced more among females compared to males.

Table 29: Availability, accessibility and affordability of Reproductive Health Services for adolescents

Availability, accessibility and affordability of RHS	Male		Female		Total	
	No.	%	No.	%	No.	%
Availability of health centers in your kebele						
Yes	105	54.4	110	47.8	215	50.8
No	88	45.6	120	52.2	208	49.1
Total	193	100.0	230	100.0	423	100
Distance to the health centre :						
It takes more than an hour on foot	30	27.3	28	26.4	58	26.9
It takes one hour-on foot	20	18.2	33	31.1	53	24.5
It takes 30 minute on foot	45	40.9	34	32.1	79	36.6
It takes less than 30 minutes on foot	10	13.6	15	10.4	25	12
Total	115	100.0	110	100.0	225	100.0
Payment to get RHS in health centre :						
Yes	42	21.8	30	13.0	72	17.0
No	84	43.5	106	46.1	190	44.9
Don't know	67	34.7	94	40.9	161	38.1
Total	193	100.0	230	100.0	423	100.0
Types of services:						
I don't know	105	59.2	126	52.5	231	54.6
Sex education	6	3.1	18	7.8	24	5.7
Provides modern contraceptives	16	8.3	19	8.3	35	8.3
Counseling services	34	17.6	28	12.2	62	14.7
VCT	13	6.7	18	7.8	31	7.3
More than one of the above service	17	8.8	21	9.2	38	9.0

Source: Field survey, 2009

4.2.13 Treatment Seeking Behavior

Respondents are asked whether they experienced any health problem during the post three months prior to the survey table 30 shows that 8 percent of total respondents (7.3 percent males and 8.7 percent of females) experienced health problem. Among persons experienced health problem, 62 percent (78.6 percent of male and 50.0 percent of female) had treatment and the remaining 38 percent didn't have any treatment (21.4 percent of male and 50.0 percent of female). They had treatment in higher proportion in private clinic (43 percent) followed by government health center (24 percent), traditional healer (19 percent) and FGAE clinic (14 percent)

Table 3c : percentage distribution of respondents by treatment seeking behavior

Variable	Male		Female		Total	
	No	%	No	%	No	%
Had health problem						
Yes	14	7.3	20	8.7	34	8.1
No	178	92.2	210	91.3	38.90	91.9
Total	193	100.0	230	100.0	423	100.0
Had treatment						
Yes	11	78.6	10	50.0	21	61.8
No	3	21.4	10	50.0	13	38.2
Total	14	100	20	100.0	34	100.0
Place of treatment: government health center	3	21.4	2	10.0	5	14.7
Private clinic	7	50.0	2	10.0	9	26.5
FGAE clinic	1	7.1	2	10.0	3	8.8
Traditional healer	-	-	4	20.0	4	11.8
Combination of government and private health facilities	3	21.4	10	50.0	13	38.2
Total	14	100.0	20	100.0	34	100.0

Source : Feed Survey, 2009

4.3 Multivariate Analysis (Logistic Regression)

The logistic regression analysis is used to study the effect of independent variables on dependent ones and their explanatory power on dependent variables. In the logistic regression analysis, the following dependent and independent variables are used:

Dependent Variable	Correct knowledge on reproductive health
Independent Variables	Sex, religion, education of respondents Occupation of respondents, standard of living and source of information on reproductive health.

For the dependent variable, knowledge on reproductive health, a composite index is developed using suitable scoring procedure (annex ii). For all the components of reproductive health such as menstruation, safe period, conception, knowledge about contraception, STIs/ HIV/AIDS and rape. The total score for this variable is divided into two categories which are below and above average of frequency distribution of the total score and coded as 'O' for below of '1" for above the average.

All the independent variables are categorized. Regarding the variable on source of information, for each of the seven components of RH the weighted score is done as follows:

Table 31: Score for source of information

Source of information	Score
Mass media	4
Health worker	3
Individual (girl/boy friend, peers , parents and other family members)	2
Others	1

Results of logistic regression analysis are presented in table 32. The fitness of model used in the analysis is at 64%. All the independent variables considered explained 36% of variations in the dependent variable .i.e. correct knowledge on reproductive health matters.

Religion, education, source of information and standard of living are significantly associated with the correct knowledge on reproductive health. Sex of the respondents and their work status are not significantly associated with knowledge on reproductive health matters.

Females have correct knowledge on reproductive health 1.4 times more than males. However, sex of respondents did not have significant association with correct knowledge on reproductive health. Whereas, Christians having correct knowledge 2.8 times more than Muslims. Respondents who are in medium standard of living families are 1.9 times more likely to acquire correct knowledge on reproductive health than that of respondents in low standard of living families. Respondents working in farming and non-farming activities are 1.1 and 1.2 times more likely to acquire correct knowledge on reproductive health more than that of not working respondents, respectively, but not significant .Respondents who had information on components of reproductive health from effective sources of communication are 1.7 times more likely to acquire correct knowledge about reproductive health than that of respondents with less effective source of communication.

Table 32: Results of logistic regression

Variables	B	Sig.	Exp(B)
Step Source of information: Low®			
SI2(1) medium	-.246	.387	.782
SI2(2)High	.511	.046	1.667
Sex :male®			
Sex(1)female	.357	.109	1.429
Religion: Muslim®			
Religion(1)Christian	1.017	.045	2.765
Level of highest grade completed: illiterates®			
Level(1)1-4	-1.978	.009	.138
Level (2)5-8	-1.469	.039	.230
Level(3)9+	-.032	.967	.968
Respondents work: Not-working®			
Resp.Work(1)farming	.123	.655	1.131
Resp.work(2)non-farming	.217	.555	1.242
Resp.work(3)others	-.274	.365	.760
SLI(low)®			
SLI(1)medium	.665	.016	1.945
SLI(2)high	.064	.797	1.066
Constant	.871	.229	2.390

4.4 DISSCUSSION

In this discussion part, the results of focus group discussion highlights the quantitative results presented in the earlier chapter. Adolescents are at a critical life stage of development and they may not understand the physical and emotional changes that are happening to them. In this survey, when respondents were probed about the physical changes that are happening to them during puberty, for most of the physical changes of adolescents, less knowledge about the changes that are happening to the opposite sex and more knowledge about changes that are happening to themselves is found..

The major change a girl will have at the time of adolescence is menstrual bleeding. Majority of the respondents, more female than male, have correct knowledge that menstruation is the disintegration of prepared uterus wall when fertilization doesn't happen. However during discussion one girl was remembering the date of her menarche and she said," **It was really shocking to see my white skirt full of blood and thinking that everybody might think I am loosing my virginity.**" From her expression, what we can understand is she didn't have prior information about what menstruation is and her wrong attitude towards menstruation. Most of the girls themselves and some of the boys consider menstruation as a dirt and the girl during her menstrual period feel a sense of guilt and shame .

Most adolescents consider safe sex as abstaining from sex followed by use of condom and avoiding multiple partners. Discussion with adolescents reveals that they were infavour of abstinence rather than using condom and faithfulness. They were saying that **"The best way to make it safe is not to have it. Ones we are in it, we can only be sure of ourselves, not about the other partner and condom use is not a good habit because in our kebele, which is far from city and there is no shops selling condom, it is difficult to get it. Health extension workers are providing condom but we will be afraid to get from them because they know our families."** Focus group discussion implies that adolescents believe abstinence to be the safest way to protect oneself from unintended pregnancy, STI including HIV/AIDS.

Villingness to use condom in future is more among males than females. This is ecause the only condom known to the rural adolescents is male condom and he decision power in the use of condom is more for males than females. Moreover, the reported perception that use of condom is a sign of not trusting a artner implied that the correct understanding about use of condom has to be romoted among adolescents. The other wrong perception prevailing around ondom use is that it will promote promiscuity which should be corrected rough providing correct information.

study conducted in Harar also showed that more females than males isapproved pre-marital sex .(Antenahe K.and M.Haile, 2007)According to a urveillance survey conducted in Ethiopia, the proportion of out-of-school ouths (OSY)who ever had sex was higher for males than females. Among the -school-youths (ISY) 35 percent males and 29 percent females ever had sex. MOH, 2003).But this study revealed that 38 percent of adolescents, more ales (46 percent) than females (32 percent) had sexual intercourse before the udy period. The age at first sex for the adolescents is 16 years while it is 16.5 ars for boys and 15 years for girls. Love with boy/girl friend is the major ctor for premarital first sexual intercourse. Boys having sex with younger rtner and girls with older partner is observed. Male adolescents having sex ith CSWs (1.6 percent) and non-use of condom (60 percent) in the past three onths indicates the risk of being infected with HIV, which should be scouraged.

owever, the positive attitude of disapproving premarital sex is more among males than male adolescents. But the positive attitude has to be put in action. hen focus group discussion participants are discussing about their attitude wards premarital sex, most male respondents were arguing that **"For a male have sex before marriage doesn't mean he is loosing anything but if a rl is having premarital sex, she will loose her virginity and will not be nsidered as good girl by the society and also might face difficulty for arriage."** But saying this, boys have forgotten with whom they are having emarital sex.Most of the time boys have sex with same age or younger married adolescents.

5.3 Recommendations

- Adolescents' knowledge on safe period for sex during menstruation, conception, legal age at marriage, contraceptive methods, modes of preventions and transmission of STI /HIV /AIDS and related misconcepts should be improved by governmental and non-governmental organizations working on adolescent reproductive health issues .
- Ministry of Health and NGOs should improve adolescents' awareness about reproductive health issues by using highly effective sources of information like health workers and mass media.
- Health extension workers should increase adolescents' knowledge and access to reproductive health services and provide the services with privacy.
- Educate adolescent girls through informal education regarding consequences of premarital sex by using health extension workers.
- Ministry of health should incorporate adolescent reproductive health education in the health extension programme to create awareness about reproductive health matters and improve the utilization of health services among them.
- The government and the community should empower adolescent girls to

  Safeguard their sexual and reproductive health rights.

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Annex I

Questionnaire

Part I. Socio Economic and Demographic Variables

No.	Questions	Possible Answers
101	Sex	1.Male 2.Female
102	How old are you at your last birthday?	---------- Years
103	Family size	1.Male 2.Female 3 Total
104	What's your religion?	1. Orthodox 2. Protestant 3. Catholic 4. Muslim 88.Others ,specify____
105	With whom do you live most of the time	1. With both parents 2. With either of parents 88. Others ,specify _
106	Have you ever been at school?	1.Yes 2.No skip to Q.108
107	If yes, what's the highest grade you completed?	Write actual grade
118	Is your father educated?	1.Yes 2. No Skip to Q.110
109	If yes, what's the highest grade he completed?	Write actual grade _____

		88. Others ,specify
Conception		
156	What do you means by conception	1. The fusion of egg cell and **sperm cell in the** uterus 88. Others , specify
157	What is the deal age a girl to get her first pregnancy?	
158	What is the ideal age for a girl to get her last pregnancy	---------- Years ---------- Years
159	Premarital pregnancy is not a problem	1.Yes 2.No
160	Do you think that any sexual intercourse will lead to pregnancy?	1. Yes No
161	Have you ever been pregnant? (only for females)	1. Yes No skip to Q. 166
162	If yes, how many times? (only for females	----------
163	If yes, was it planned?	1.Yes 2.No
164	If yes , by whom did you get pregnant	1. Steady boy/girl friend 2. casual partner 3. Family member 88.Others, specify
165	What was the result of the pregnancy? (More than one answer possible)	1. induced abortion 2. Spontaneous abortion 3. Live birth

		Still birth
Contraception		
166	Did you know any methods to prevent or postpone pregnancy?	Yes No skip to Q.175
167	If yes, what are they? (More than one answer is possible)	1.Oral contraceptive fills 2.Condome 3.Injectables 4.IUDs 5.Sterilization 6.Norplant 88.Others , specify
168.	If the answer is yes , who can use the methods	1.Oral contraceptive pills 2.Condome 3.Injectables 4.IUDS 5.Sterilization 6.Norplant 88.Others , specify
169	Would you like to use Contraceptives?	1.Yes 2.No

170	If yes , which method (s)	Oral contraceptive pills Condom Injectables IUDs Sterilization Norplant 88.Others , specify
171	If not, why?	1. I have health problem 2. I want to get pregnant 3.Fear of side effects
172	Have you ever used modern contraceptives ?(only those who ever had sex)	1.Yes 2.No
173	If yes , what type of methods do you used ?(only those who ever had sex)	1. Oral pills 2. Condom 3. Injections 88.Others , specify
174	If no, why not? (more than one answer is possible)	4. I don't have frequent sex 5. Partner opposed 6. Lack of knowledge about contraceptive 7. Fear of side effects 8. Difficult to obtain contraceptive 9. Method was expensive

		88. Others, specify
	Abortion	
175	What do you mean by abortion?	----------
176	What are the different types of abortion?	----------
177	A woman deliberately terminating pregnancy?	1. I agree 2. I disagree
178	If yes, under what circumstances a woman can have abortion?	1. Raped and conceived 2. Unwanted pregnancy 3. Affecting mothers health 4. No preconditions are necessary Others, specify
179	If no, why?	1. It's a sin to kill human being 2. It's a crime to kill human being 88.Others, specify
180	Have you ever had abortion? (only Females)	1.Yes 2. No- skip to Q.177
181	If yes, what type of abortion did you have?	1. Induced Spontaneous
182	If yes, how many times?	1. Induced 2 Spontaneous

	HIV/AIDS	
191	Have you ever heard about HIV/AIDS	1.Yes 2.No **Skip to Q.198**
192	If yes , what's it	1. A **disease that weaken** the **boy's ability** to protect **itself** form disease 2. A **disease monthly** transmitted **by sexual** intercourse 88.Others, **specify**
193	Please mention all the ways you believe a person can get AIDS(multiple answers are possible)	1. Usage **sexual** intercourse 2. Sharing **needles** and razors 3. Blood **transfusion** 4. During **pregnancy** and **child birth** 5. Mosquito and Other insect bit 6. Through **breast** milk 7. Casual contract with a person (hand shaking, sharing

		food , coughing) 88. Others , specify _____
194	How can HIV/AIDS be prevented?	1. Abstaining from sex 2. Being faithful for a partner 88. Others, specify
195	A healthy looking person can have HIV	1.Yes 2. No
196	Did you ever undergo HIV test If you what is the matter?	1.Yes 2.No
197	Do you think that all boys /girls should undergo HIV/test before marriage?	
	Rape	
198	What do you understand by rape?	1. Forcing a women to have sex 88. Others, specify
199	What do you think of rape?	1. It's a sexual abuse 2. It's a crime 88. Others ,specify
200	Have you ever been raped ?(Only for girls)	1.Yes 2. No _____ Skip to Q.202

201	If yes, who did it to you?	1. Steady boy 2. Casual boy 3. Family member 4. Somebody I don't know 88.Others ,specify _____

201	Where or from whom did you hear about conception for the 1st time	1.My sexual partner 2. My peers 3.Parents 4.Other family members 5. Health personnel 6. Traditional leader 7. From radio 8. From newspaper 9. From TV 88.Others, specify 99. I don't remember
202	Where or from whom did you hear about contraception for the 1st time	1.My sexual partner 2. My peers 3.Parents 4.Other family members 5. Health personnel 6. Traditional leader 7. From radio

204	Where or from whom did you hear about STI for the 1st time?	1.My sexual partner 2. My peers 3.Parents 4.Otherfamily members 5. Health personnel 6. Traditional leader 7. From radio 8. From newspaper 9.From TV 88.Others,specify 99. I don't remember

No	Questions	Possible Answers
205	Where or from whom did you hear about HIV/AIDS for the 1st time?	1.My sexual partner 2. My peers 3.Parents 4.Other family members 5. Health personnel 6. Traditional leader 7. From radio 8. From newspaper 9.From TV 88.Others,specify

208	If yes , how far is it	1.More than 1 hr by walk 2. 1 hour by walk 3.30 minutes by walk 4. Less than 30 minutes by walk
209	Is there any payment to get RHS?	1.Yes 2. No Skip to Q.212
210	If yes, how much you paid and for which service?	
Part V. Health Seeking behavior		
211	During the last 3 months, have you experienced reproductive health problems?	1.Yes 2. No ~~skip to Q.225~~
213	If yes , what type of problem /complication	1. STIs 2.Aboration
214	Did you have treatment?	1.Yes 2. No

214	If yes, where	1. government 2.Privatehealth institution 3.FGAE clinic 88. Others
215	If you want to visit a health post, which one do you choose?	1.government health post 2. private health post 3.FGAE clinic 4. Traditional healer 88.Others, specify
216	Why did you choose that	1.Effective service treatment 2. Free /no payment 3. Less payment 4. It's too near 5. For keeping my secrets 6. Told by my parents 88. Others, specify

THANK YOU!!

Variable	Categories	Scores
	Telephone	3
	Local shop	4
	Car	4
	Tractor	4
	None of the above	0
Land ownership	None	0
	Less than 1 Timad (less than 0.4 hectare)	1
	1-3 'Timad' (0.4-1.2 hectare)	2
	More than 3 Timad (more than 1.2 hec)	3

Source: Dr. C. Ramanujam with slight modification, 2009

The total of the scores may vary from the lowest of 0 to a maximum of 40. On the basis of the total, score, households are divided in to three categories:

1. Low : if total score was less than or equal to 9
2. Medium : if to tal score was between 10 up to 11
3. High : if total score was greater or equal to 12

Annex III

Composite Index for correct knowledge on RH

Abortion	Yes	1
	No	0
Signs and Symptoms of STIS	Yes	1
	No	0
Prevention of STIs	Yes	1
	No	0
STI Can be Cured	Yes	1
	No	0
Heard about HIV/AIDS	Yes	1
	No	0
What is HIV/AIDS	Yes	1
	NO	0
	Others	0
Modes of HW Transmission of by having intercourse in HIV Positive person	Yes	1
	No	0
By contaminates transfusion	Yes	1
	No	0

MAP OF DESSIE ZURIYA WOREDA

Declaration

The thesis is my original work, has not been presented for a degree in any other university and that all sources of material used for the thesis have been duly acknowledged.

Tibebu Dejene		03/07/09
Student	Signature	Date

I confirm that this thesis has been submitted with my approval as the supervisor of the same.

Dr. C. RAMANUJAM	Ramanujam	03-07-09
Advisor	Signature	Date