

Determinants of Adolescent Risky Sexual Behavior and Possible Effective Interventions in Ethiopia

Tadesse Gedefa Mekonnen
Ethiopia

51st International Course in Health Development/Master of Public Health (ICHD/MPH)
September 22, 2014 – September 11, 2015

KIT (KONINKLIJK INSTITUUT VOOR DE TROPEN)
Vrije Universiteit Amsterdam
Amsterdam, The Netherlands

Determinants of Adolescent Risky Sexual Behavior and Possible Effective Interventions in Ethiopia

A thesis submitted in partial fulfillment of the requirement for the degree of
Master of Public Health


By

Tadesse Gedefa Mekonnen
Ethiopia

Declaration:

Where other people's work has been used (either from a printed source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis "Determinants of Adolescent Risky Sexual Behavior and Possible Effective Interventions in Ethiopia" is my own work.



Signature:

51st International Course on Health Development (ICHHD)
September 22, 2014 – September 11, 2015
KIT (Royal Tropical Institute) / Vrije Universiteit Amsterdam
Amsterdam, The Netherlands

September 2015

Organized by:

KIT (Royal Tropical Institute) Health Unit
Amsterdam, The Netherlands

In co-operation with:

Vrije Universiteit Amsterdam/ Free University of Amsterdam (VU)
Amsterdam, The Netherlands

Table of Contents

List of Figures	iii
Acknowledgement.....	iv
Abstract.....	v
Abbreviations/Acronyms.....	vi
Glossary	vii
Introduction and Organization of the Thesis	ix
Chapter One 1: Background Information about Ethiopia	1
1.1. Geography and Population.....	1
1.2. Socio – cultural context	1
1.3. Administrative (Political) structure	1
1.4. Economy	1
1.5. Literacy Rate	2
1.6. Health System	2
1.7. Health care Financing	3
1.8. Health Situation	3
1.9. Adolescent and youth Reproductive Health	3
Chapter Two 2: Problem Statement, Objectives, Methodology, Conceptual Framework and Limitations of the study	4
2.1. Problem statement	4
2.2. General objective	6
2.2.1. Specific Objectives.....	6
2.3. Methodology	6
2.3.1. Search strategy.....	6
2.3.2. Inclusion and exclusion Criteria:.....	6
2.4. Conceptual framework	7
2.5. Study limitation.....	8
Chapter 3: Magnitude and Determinants of Adolescent Risky Sexual Behaviors in Ethiopia	9
3.1. Magnitude of adolescent Risky sexual behavior.....	9
3.2. Determinants of adolescent risky sexual behavior in Ethiopia	13
3.2.1. Individual characteristics.....	13
3.2.2. Relationships	18

3.2.3.	Community	20
3.2.4.	Societal Level.....	21
Chapter Four	4: Evidence Based Interventions.....	26
4.1.	Building the evidence: WHO, UNESCO, CDC and Cochran	26
4.2.	How it works?	27
4.2.1.	UNESCO International technical guidance for sexuality Education.....	27
4.2.2.	WHO framework for development of Youth friendly services	29
4.2.3.	Experiences from other countries.....	30
4.3.	What Does not Work?.....	34
4.4.	Government Initiatives	34
Chapter 5:	Discussion, Conclusions and Recommendations	36
5.1.	Discussion	36
5.2.	Conclusion.....	39
5.3.	Recommendations.....	40
Reference	42
Annexes	52
Annex 1:	Map of Ethiopia.....	52
Annex 2:	Demographic, Economic and Health profile	52
Annex 3:	Framework for development of Youth friendly services (WHO, 2002)...	54

List of Figures

Figure 1. Ethiopian Healthcare Delivery System	2
Figure 2. Ecological Model for assessing adolescent sexual behavior	8
Figure 3. Trends of age at first sexual intercourse in Ethiopia	10
Figure 4. Trends in Recent sexual Activity in Ethiopia	12
Figure 5. Knowledge of Contraception among Rural Adolescent in North West Ethiopia	16
Figure 6. Parent Communication about SRH by young People's in Nekemte District, Ethiopia	19

Acknowledgement

First and foremost, I would like to thank the Government of The Netherlands for awarding me the NUFFIC scholarship. Without the support of NUFFIC, I would never be here today.

My gratitude also goes to KIT course coordinators, teachers, course administration officers and all other staff for their valuable support and inspiration.

My special thanks also go to both my thesis advisor and back-stopper for your guidance and support during my writing. You are a pioneer contributor to my success.

Also, I would like to thank all my classmates, a 51st batch of ICHD. I shared many experiences with you all.

Lastly but not least, thank you my Mom, Mrs. Asnakech Jebessa Jilcha and thank you my Dad, Mr. Gedefa Mekonnen Nagawo for your spiritual support. You showed me the value of education without learning. My success is your success, thank you once again.

Thanks God, you opened a new chapter in my life.

Abstract

Background: Ethiopia is the oldest independent country located in the horn of the African Continent. The government of Ethiopia, particularly the ministry of Health has been committed to improving the health of all its citizens. However, there is a gap in addressing adolescent sexual and reproductive health problems in the country.

Objective: The main objective of this research is to identify the extent and determinants of adolescent risky sexual behaviors in Ethiopia and to explore ways of reducing such risky behaviors.

Study Method: the method of the study was conducting a literature review. Both published and unpublished scientific articles, gray literature and reports were included. The analysis was based on ecological models adapted from WHO.

Findings: the magnitude of adolescent risky sexual behavior such as early sexual initiation and having multiple sexual partners is declining for the last 15 years. Further, condom use among adolescent is also on an increase. The findings also indicate that adolescent risky sexual behavior is influenced by multiple factors such as individual characteristics and behaviors, family and peer relationship, community networks and the broader societal factors that can lead to volubility to unwanted pregnancy and STIs including HIV infections in Ethiopia.

Conclusions: Though there is a progress towards improving adolescent sexual and reproductive health in Ethiopia, risky sexual behaviors are still remains a problem. Thus, government should focus on a comprehensive approach that addresses the needs of adolescents sexual and reproductive health.

Recommendation: Governments have better focus on implementing comprehensive and interactive interventions such as sexuality education, economic empowerment, youth-friendly services, providing information, parental training and mass media following WHO and UNESCO recommendations and based on experiences from other countries.

Key Words: determinants, factors, adolescent, sexual, behavior, risky, young, people, youths, gender, systematic, interventions, evidence, sex educations, friendly, services and Ethiopia.

Word Count = 12,669

Abbreviations/Acronyms

ADB	Africa Development Bank
AIDS	Acquired Immune Deficiency Syndrome
CDC	Centers for Disease Control and Prevention
CSA	Central Statistics Agency
CSE	Comprehensive Sexuality Education
DISHA	Development Initiative Supporting Healthy Adolescent
EDHS	Ethiopia Demographic and Health Survey
EPHI	Ethiopian Public Health Institute
FHI	Family Health International
GDP	Growth Domestic Product
GNI	Growth National Income
ICHD	International Course on Health Development
IHDC	Institute of Health and Development Communication
IPPF	International Planned Parenthood Federation
KIT	Koninklijk Instituut voor de Tropen
MoFED	Ministry of Finance and Economic Development
MOH	Ministry of Health
MoYWC	Ministry of Women's, Children's and Youth Affairs
NGO	Non-Governmental Organizations
SNNP	Sothorn Nation and Nationality People
SRH	Sexual Reproductive Health
STIs	Sexual Transmitted Infections
THE	Total Health Expenditure
UNAIDS	United Nations Progamme on HIV/AIDS
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
VU	Vrije Universiteit
WHO	World Health Organization
YFHS	Youth Friendly Health Services

Glossary

Adolescent: WHO defines adolescent as a period of human growth and development that occurs after childhood and before adulthood and age ranges from 10-19 and youth ranges in between 15-24 years. Further, younger population represents 10 – 24 years of age.

Determinants: WHO defines determinants as those factors that combine together to affect the health of an individual or community. Adolescent sexual and reproductive health is influenced by factors such as where we live, genetics, the state of our environment, income, education level, and the relationships with friends and family.

Reproductive health: “A state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity, in all matters related to the reproductive system and to its functions and process. Reproductive health addresses the human sexuality and reproductive processes, functions and system at all stages of life and implies that people are able to have a responsible, 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” (Glasier et al. 2006).

Risky sexual behavior: For the purpose of this research risky sexual behavior constitutes having unprotected sexual intercourse, early initiation of sexual intercourse (sexual intercourse before the age of 18) and having multiple sexual partners (Coyle et al. 2011).

Sexuality: “ is a central aspect of humanity and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviors, practices, roles, and relationships. Although sexuality can include all of these dimensions, not all are always experienced or expressed. Sexuality is affected by the interaction of biological, psychological, social, economic, political, cultural, ethical, legal, historical, religious, and spiritual factors” (Glasier et al. 2006).

Sexual health: “Sexual health is a state of physical, emotional, mental, and social wellbeing in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health needs a positive and respectful approach to sexuality and sexual relationships, and the possibility of having

pleasurable and safe sexual experiences that are free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all individuals must be respected, protected, and satisfied”(Glasier et al. 2006).

Sexuality Education: “is defined as an age-appropriate, culturally relevant approach to teaching about sex and relationships by providing scientifically accurate, realistic, non-judgmental information. Sexuality education provides opportunities to explore one’s own values and attitudes and to build decision making, communication and risk reduction skills about many aspects of sexuality” (UNESCO 2009). The evidence review in chapter four of this thesis refers to this definition.

Introduction and Organization of the Thesis

Introduction

Adolescence is a period of transition from childhood to adulthood and is characterized by a remarkable step in growth and development (Gupta et al. 2014; UNESCO and UNFPA 1998). Many aspects of this growth and development are driven by physiological, psychological, and social changes and are fairly universal across all adolescents; however, the duration and defining characteristics of this period may vary across age, cultures, and socioeconomic situations (UNESCO and UNFPA 1998). According to World Health Organization (WHO) definition, adolescents are people whose age fall in between 10 and 19 years (WHO 2001c) and youths covers age between 15 to 24 while the young people covers 10 to 24 (Gupta et al. 2014; UNESCO and UNFPA 1998). For the purpose of this research youth encompassing the ages 15 to 24 are the study population because of data limitation regarding younger adolescents.

Despite the fact that sexual exploration is a normal and typically healthy part of adolescent development, certain behavior occurring during adolescent period increases the risk for a number of health consequences (Schantz, 2012). Many survey research's conducted in Ethiopia shows that a certain number of adolescents and youths are involved in unsafe sexual practices and hence face undesired reproductive health outcomes such as unintended pregnancy, abortion and STIs including HIV infections. The focus is now on determinants of adolescent risky sexual behavior because of the assumption that clear identification of influencing factors (determinants) of adolescent risky sexual behavior can help policy makers and planners as well as other stakeholders in designing effective interventions and this in turn reduces the negative consequences resulting from such risky behaviors. The analysis of the thesis is based on ecological models.

Therefore, in this thesis, all determinants that contribute to adolescent risky sexual behavior will be analyzed based on an ecological framework with evidence from supporting literature. Evidence based interventions from Ethiopia and other similar countries will also be analyzed in the thesis in order to help the country to share experiences. Recommendations will also be provided for ministry of health and other policy makers, researchers, health care providers, school and community in general.

Organization of the thesis

Chapter one introduces background information of Ethiopia, including geography and population, socio-cultural context, political, economic, literacy rate, health system, health care financing, health situation and adolescent sexual and reproductive health. Chapter two present problem statement on risky sexual behaviors, objectives of the study, methods and the conceptual framework for the study. Indeed, chapter three explores the magnitude and determinants of adolescent risky sexual behavior in Ethiopia from both published and unpublished literature. Further, chapter four discusses evidence based interventions that worked in reducing adolescent risky sexual behaviors from both Ethiopia and neighboring countries that Ethiopia could learn from the experiences. Chapter five provides a brief discussion on the findings that leads to conclusions and recommendations.

Chapter One 1: Background Information about Ethiopia

1.1. Geography and Population

Ethiopia is the oldest independent country located in the horn of the African Continent. It is bordered by neighboring countries: Eritria to the north, Djibouti and Somalia to the east, Sudan and southern Sudan to the west and Kenya to the south. The population of Ethiopia is nearly 83.7 million in 2011 making it the most populous country in Africa next to Nigeria with an annual growth rate of 2.6% (EDHS 2011). The urban to rural distribution of population is 16.1% and 83.9% respectively. Nearly 47 % of the population are under 15 years and 4% are above 65 years of age (EDHS 2011). Male to female ratio is almost equal, and women of reproductive age constitute about 24% (EDHS 2011). See Annex 2.

1.2. Socio – cultural context

Ethiopia has a variety of cultures, religions and languages. The National Census reported that, the main dominant religions in the country are Christianity (Orthodox 43.5% and Protestant 18%) and Muslims (33.9%). The rest, 3%, are followers of other denominations (ECSA 2007). Ethiopia is a patriarchal society with high male dominance resulting in gender inequality exposing girls to less power in regards to access to resources, education, information, property, decision making and bearing a high burden of daily life (Debsu 2009).

1.3. Administrative (Political) structure

Ethiopia is governed by federalism with decentralization of power by devolution. The country has nine independent Regional States and two independent City Administrations - Addis Ababa and Dire Dawa City and these regional and city administrations further subdivided into 817 administrative Woredas (districts) (MoH 2010). The 817 Woredas are further divided into 16,253 villages called Kebeles, the smallest administrative units in the governance structure (MoH 2010).

1.4. Economy

The country has a GDP of 54.80 billion USD and GNI per capita of 550 USD with a GDP growth rate of 9.9% per annum (World Bank 2014). Three in every four adolescent girls aged 14 to 24 are looking for jobs, while 80% of the younger boys were participating in the labor force in 2012 (UNFPA 2012).

1.5. Literacy Rate

The general literacy rate of Ethiopia is 39% in 2011, where nearly half of women 15-49 (51%) and one-third of men 15-59 (33%) have never been to school (EDHS 2011). The literacy rate among youth aged between 15 – 24 is 66% (56.9% girls and 75 % of boys) (EDHS 2011).

1.6. Health System

Ethiopia has a comprehensive framework in regards to health policies, strategies and Health sector development plans that has a direct link to the national growth and development plan. The National health policy gives strong emphasis to fulfilling the needs of the less privileged rural population (MoH 1993). The country has a decentralized three tier health care delivery system where level one is a wired health system comprised of a primary hospital, health centers and their satellite health posts, connected to each other by a referral system (MoH, 2010). The primary hospital, health centers and health posts together form a primary health care level. Level two is a general hospital and level three is a specialized hospital. For more information, see figure 1.

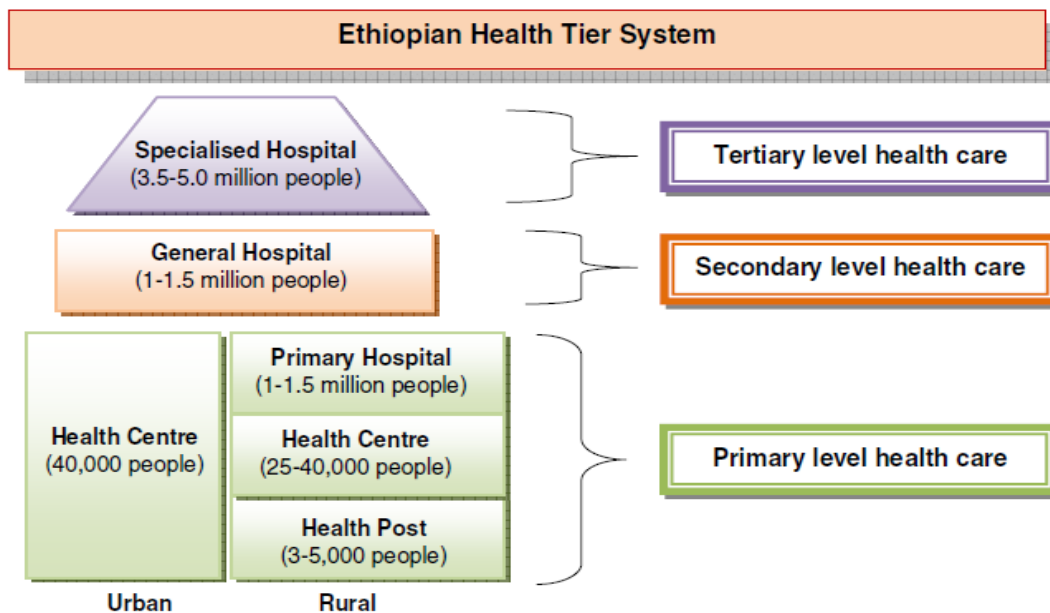


Figure 1. The Ethiopian Health care delivery System (MoH 2010).

Further, the private for the nonprofit health sector and private-for-profit sector has rapidly expanded since 2005 (MoH 2010). Expansion of primary health care services has been the priority area over the past two decades following the Abuja declaration (MoH 2010).

1.7. Health care Financing

The health care system is primarily financed from: the federal and regional governments; grants and loans from bilateral and multilateral donors; nongovernmental organizations; and private contributions (MoH, 2010). The total health expenditure (THE) per capita is US\$ 20.77 in 2011 (EPHI 2014). This figure is very low compared to World Health Organization (WHO) minimum recommendations (US\$ 30- 40 per person) needed to cover essential health care (WHO 2001a). The government health budget is not more than 5.6 % and is very low compared with the Abuja Declaration of African countries to raise their funding to at least 15 % (WHO 2001b).

1.8. Health Situation

Though Ethiopia has made sound improvement in health outcome, the burden of communicable diseases as well as maternal and child health issues still remains high (MoH 2015). A recent report from the Ethiopian ministry of health on health indicators like maternal mortality ratio (MMR) shows progress, but it is still high at 420 per 100,000 live births (MoH 2015). The Infant, Neonatal and Under - 5 mortality rates are estimated at 44, 28 and 64 per 1000 live births respectively (MoH 2015). Furthermore, the Crude death rate is 7.6 per 1000 population (MoH 2015). Life expectancy at birth is 62 and 65 years for male and female respectively (MoH 2015). See Annex 2.

1.9. Adolescent and youth Reproductive Health

In 2011, 41% of youths aged 20 - 24 were married by the age of 18 (EDHS 2011a). Twelve percent of girls age 15-19 have already started childbearing; 10% have had a live birth, and 2% were pregnant with their first child in 2011. By the age of 19, 34% of women were either mothers or pregnant with their first child in 2011 (EDHS 2011a). Concerning contraception, recently MoH declared that overall prevalence rate reached at 42%¹ for currently married sexually active girls in 2014. However, in 2011 the overall CPR was 29% and 57% for sexually active unmarried girls whereby only 23% of married and 52% unmarried female adolescents used a modern method of contraception (EDHS 2011a). This rate increases to 33% among young married, and 56% among unmarried women aged 20 to 24. However, only 12% of unmarried sexually active women aged 15 to 19 used a male condom (EDHS 2011a).

¹ Mini EDHS 2014

Chapter Two 2: Problem Statement, Objectives, Methodology, Conceptual Framework and Limitations of the study

2.1. Problem statement

Despite the fact that sexual exploration is a normal and typically healthy part of adolescent development, certain behavior occurring during adolescent period increases the risk for a number of health consequences such as unwanted pregnancies and STIs including HIV infections (Schantz 2012). Centers for Disease Control and Prevention (CDC) define risky sexual behavior as having a sexual contact with a person known to have, or to be at risk of HIV or STI infections without using condom (Nguyen et al. 2012). According to CDC, having multiple partners is also considered a risky behavior because the probability of being exposed to HIV or STIs increases with each sexual partner. Further, having sexual intercourse at an early age and having sex while under the influence of alcohol or other drug is considered as risky because it increases the probability of such behaviors (Chan et al. 2011; Nguyen et al. 2012).

Each year, there are an estimated 2.2 million unintended pregnancies among adolescent aged 15-19 in Sub-Saharan Africa, where 54% occur among married girls (IPPF 2010). In terms of HIV infections, globally, an estimated 35.3 million people were living with HIV at the end of 2012; of these, 2.1 million were adolescents aged 10–19 years, of which the majority were girls (56%) (Idele et al. 2014). The gender disparity has persisted over time, with this number remaining largely unchanged over the past 5 years (Idele et al. 2014). In Ethiopia, the national prevalence of HIV is 1.5 % of the population aged 15-49 where women have a higher HIV prevalence (1.9 %) than men (1.0 %) (EDHS 2011a). Younger age girls have a two to six fold higher HIV prevalence than young boys (ranging from 15-17 years: 0% males vs 0.2% females to 20-22 years: 0.1% males vs. 0.6% females) (EDHS 2011a). From this evidence, the incidence and prevalence of HIV and unintended pregnancy among youths are generally higher relative to cases in adults almost everywhere in the world. This is probably because of their sexual activity and the tendency to frequently engage in unsafe sexual practices. This is also noted among youths in Ethiopia and hence, the high prevalence of HIV/AIDS cases in this population.

Both Anecdotal evidence and survey research conducted in Ethiopia clearly shows that many unmarried younger populations, engage in sexual behaviors

that put them at risk for HIV infection and make them vulnerable to other sexual and reproductive health problems. For instance, a cross sectional study conducted in the Northern part of Ethiopia on sexual activity among unmarried female adolescents aged between 15-20 indicated that out of the total 624 sample, 29.3% reported having sexual intercourse preceding the survey (Salih et al. 2015). According to Salih et al (2015), 38% of the girls reported they had used a condom at their last sexual activity. Another cross-sectional study conducted among high school youth aged 15-24 in Addis Ababa indicates that 5.4% have had ever oral sex and 4.3% have had anal sex, where consistent condom use was reported only by 12.2% of those practicing oral sex and 26.1% of anal sex (Cherie & Berhane 2012).

Unprotected sexual intercourse can also lead to complications, including higher proportions of unsafe abortion, stillbirths and increased risk of school expulsion and social exclusion and even leads to death. WHO (2014) estimates that worldwide, 16 million adolescent girls give birth every year, and an estimated 3 million undergo unsafe abortions Worldwide, unsafe abortions are estimated at an average of 21/22 per 1,000 women worldwide. These figures are highest in Ethiopia, where in 2008, an estimated 382,500 induced abortions were performed, or an annual rate of 23 abortions per 1,000 women aged 15–44 (Ipas 2010). According to Ipas (2010) report, women seeking induced abortion in 2008 had a mean age of 23, and the majority (54%) were unmarried in Ethiopia.

Adolescence marks the start of sexual activity for many individuals. For these reasons they do need sexual and reproductive health education and services. However, reproductive health services for adolescents are limited and the ones that exist are not appropriate for the younger population in Ethiopia (MoH 2006). For instance, the provision of youth friendly services is lacking or inappropriate, and promotion of adolescent sexual and reproductive health is hardly addressed in the country (MoH 2006).

Hence, there is a need to more fully understand the determinants and ways of preventing such risky behaviors of adolescents in the country. Thus, the purpose of this research is to assess the magnitude of adolescent risky sexual behaviors; analyze determinants of that behaviors; and explore ways to make that behavior less risky. Further, the study also identifies evidence from systematic reviews and experiences from other low and middle income countries where lessons learned are applicable to the Ethiopian context.

2.2. General objective

The main objective of this research is to identify the extent and determinants of adolescent risky sexual behaviors in Ethiopia and to explore ways of reducing such risky behaviors.

2.2.1. Specific Objectives

- To assess the magnitude of adolescent risky sexual behavior in Ethiopia
- To critically analyze factors influencing adolescent risky sexual behavior in Ethiopia
- To identify and critically analyze evidence of interventions and promising initiatives to prevent adolescent risky sexual behavior in Ethiopia
- To provide recommendations to Ministry of Health and other stakeholders in designing appropriate interventions for promoting adolescent sexual health.

2.3. Methodology

This research is a literature based research. First, the researcher reviewed relevant documents on adolescent risky sexual behavior from scientific articles, documents from MOH, national and regional reports, NGO reports, and international organization reports by searching their official websites. Relevant literature on promising initiatives for prevention of risky adolescent sexual behavior in Ethiopia and neighboring countries and recommendations for specialized institutions (WHO, UNESCO and CDC) is included.

2.3.1. Search strategy

The search strategies used to get the information were: Search of library databases from PubMed & Google scholar and search of relevant websites such as WHO, IPPF, UNFPA, KIT, Guttmacher, FHI, Pathfinder and VU websites. Google was frequently used to access generic data throughout the process.

Keywords: The following keywords were used separately and/or in combination to capture all relevant sources. Determinants, factors, adolescent, sexual, behavior, risky, young, people, youths, gender, interventions, evidence, sex educations, friendly, services and Ethiopia.

2.3.2. Inclusion and exclusion Criteria:

Literatures related to adolescent risky sexual behaviors from Ethiopia and from other low and middle income countries, particularly from Sub-Saharan Africa Countries were included. Further the literatures only written in English and journal articles that present full documents were included.

2.4. Conceptual framework

The analysis is based on ecological models for adolescent sexual behavior adapted from WHO (Fig 2). It will help as a guiding framework for this thesis. This is because it provides a comprehensive framework to understand multiple and interacting determinants of adolescent sexual and reproductive health behaviors and outcomes. In addition, it has been widely used by many researchers to understand determinants of a wide range of adolescent sexual behaviors and outcomes (Svanemyr et al. 2015). Moreover, the framework also suggests the interventions that address adolescent risky sexual behavior at multiple levels.

Description of the model

According to the ecological model, adolescent sexual and reproductive health can be described by four levels: individual, relationship, community and societal levels.

Individual level: The individual level determinants include biological and personal factors that affect the sexual and reproductive health of individuals. These include age, sex, physical development, attitude, knowledge and skills that increase the likelihood of becoming a victim of risky sexual behavior.

Relationship Level: It examines an individual's proximal (close) relationships that increase the risk of experiencing risky sexual behaviors. It includes family, intimate and other sexual partners, and peers, which can positively or negatively influence adolescents sexual behaviors. To prevent the negative influence at relationship level, there is a need to build relationships that support and reinforce positive sexual behavior of adolescent.

Community Level: This explores settings, such as places of origin (urban/rural), ethnic groups, religious institutions (church, mosque, other religious institutions), the school, neighborhoods and community networks in which social relations occur and seeks to identify the characteristics of these settings that are associated with becoming a victim of risky sexual behavior. Thus, there is a need to create community support networks for adolescents to practice safer sexual behaviors and provide access to SRH information and services.

Societal Level: Looks at broader social factors (Social context), such as health systems, culture, politics, laws and policies, social norms and values, media and gender norms all of which have a potential effect on adolescent

sexual behavior. Gender norms seem to be pervasive across all levels. The multiplicity of these factors shapes, all young people's sexual behavior.

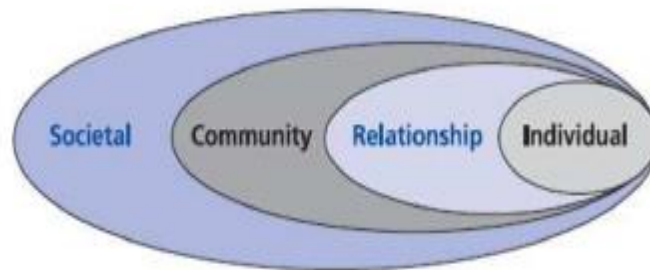


Figure 2. Ecological Model for assessing risky sexual behavior of Adolescent and possible interventions (Svanemyr et al. 2015).

2.5. Study limitation

This thesis is based on both published and gray literatures. Hence, it does not fit the highest standard of a systematic literature review. Many of the literatures found were conducted on school youths while limited studies done on out of school youths. Additionally, most of the analysis was based on the Ethiopian Demographic Health Survey (EDHS) of 2011 while 2014 DHS was not released.

Chapter 3: Magnitude and Determinants of Adolescent Risky Sexual Behaviors in Ethiopia

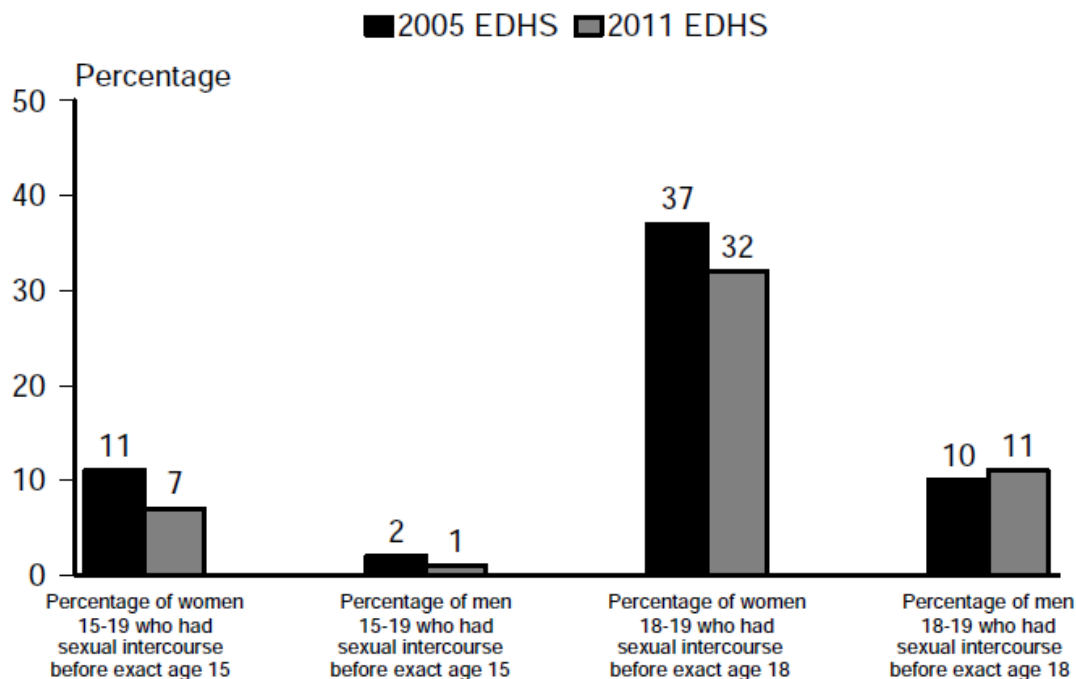
3.1. Magnitude of adolescent Risky sexual behavior

Early initiation of sexual intercourse: Young people who initiate sex at an early age of adolescence face a higher risk of becoming pregnant or contracting an STIs than young people who delay initiation of sexual activity (Ugoji 2014). In some parts of the world, for example in North Africa and parts of Asia, most sexual activity, reported at the age between 10–15 years and is mostly takes place within the context of marriage (Bearinger et al. 2007). According to Bearinger et al (2007), the context of early sexual experience often differs between young boys and young girls, especially in developing regions. For boys, most sexual relationships during the teenage years are non-marital. However, in girls, a sizeable proportion - notably the largest proportion in some developing countries - occur within marriage (Bearinger et al. 2007).

For Ethiopian adolescents, the trends of age at first sexual intercourse seem similar to North Africa and some parts of Asia. Eleven percent of young girls and nearly 1 % of young boys had had sexual intercourse before age 15; 37% of young girls and 10% of young boys had had sex before age 18 in 2005 (EDHS 2011a). According to EDHS (2011), the percentages of young girls who have had sexual intercourse before ages 15 and 18 have decreased somewhat since the 2005 EDHS, while the percentages among young boys have remained almost the same. See figure 3.

The comparison of age at first sexual intercourse between married and never married adolescents shows, among ever-married young girls, 26% had sexual intercourse before age 15 and 64% before age 18. Of never married young girls <1 % had sexual intercourse before age 15 and 3% before 18, respectively (EDHS 2011a). This figure varies by demographic variables such as place of residence, education level and marital status (EDHS 2011a).

Figure 3: trends in age at first sexual intercourse in Ethiopia



EDHS 2011

Source: Ethiopian Demographic and Health Survey, 2011

Among young girls, a higher proportion of rural residents had sex before age 15 and before age 18 than their urban counterparts (EDHS 2011). Education has an inverse relationship with sexual debut. Indeed, young women with no schooling are considerably more likely than those who go to school to have had sex by age 15 (26% compared with 7% or less) (EDHS 2011). Variation in young boy's sexual debut across background characteristics is small, except for variation associated with marital status (EDHS 2011a).

Multiple sexual partners: together with unprotected sexual intercourse, having multiple sexual partners increase the likelihood of exposure to unwanted pregnancies and STIs, including HIV infection (Bearinger et al. 2007; Buzzini et al. 2006; Chilman 1988). In developing countries especially in Sub-Saharan Africa, a substantially larger proportion of adolescent boys have had two or more partners than girls (Uchudi et al. 2012).

However, in Ethiopia there is a marked decline in the proportion of sexually

active boys age 15-24 who had two or more sexual partners between 2000 and 2005 (19% and 5%, respectively) (EDHS 2005). There had been no change in the proportion of sexually active men reporting multiple sexual partners between 2005 and 2011 (EDHS 2011a). Among sexually active girls age 15-24, there was a slight decline in having multiple sexual partners between 2000 and 2005 (3% versus 1% respectively). Yet, similar to boys, there has been no change in multiple sexual partner since 2005 (EDHS 2011b).

Sexual intercourse without a condom: Correct and consistent use of condoms during sexual intercourse can effectively prevent the transmission of HIV infections and unwanted pregnancies (WHO 2004). Though data from sub-Saharan Africa and the developed world suggest that condom use by adolescents is increasing, the proportion of sexually active young people who report condom use is still small (Blanc et al. 2009).

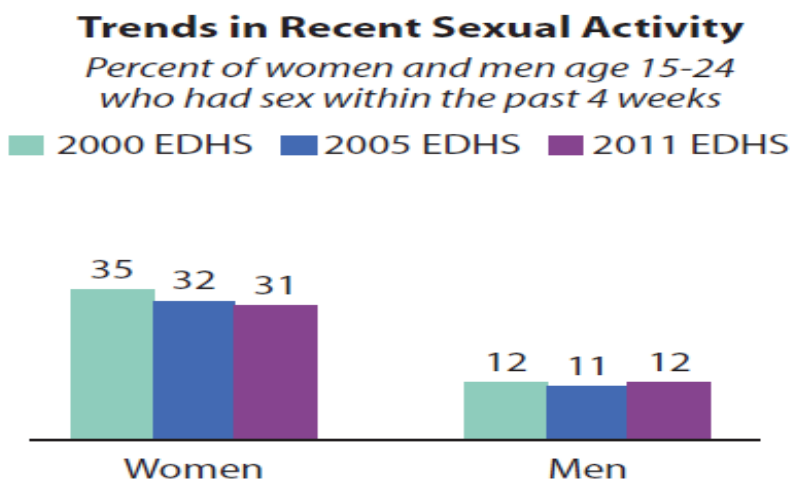
Analysis of survey data from 2006 to 2012 indicates that condom use among adolescents aged 15–19 years who reported multiple sexual partners in the last 12 months before the survey was at least 60% or more in only 2 countries among adolescent girls and in 20 countries among adolescent boys (Idele et al. 2014). According to Idele et al (2014) analysis, adolescent girls were less likely to report condom use than boys in their most recent sexual experience. These may be due to decision making and power relation between girls and boys or girls simply don't know the boy is using a condom. For example, in Ethiopia sexual practices between girls and boys limit girl's negotiation in sexual relationships because of male dominance and decision is on the part of boys. Further, girls are highly dependent on boys because of economic insecurity (Pathfinder International 2007).

Premarital Sexual activity: Premarital sexual activity is not a problem by itself, however, in countries like for example in Ethiopia, premarital sex is a moral issue and is considered as a taboo (Taffa et al. 2002). Indeed, adolescents' comparatively low experience in sexuality and the cultural stigma attached to their sexual activity creates vulnerability to STIs and unwanted pregnancies, particularly for adolescent girls (Salih et al. 2015).

EDHS indicated that the trend in premarital sexual activity among youth in Ethiopia has been a slight decrease in the past ten years in the proportion of girls age 15-24 who were sexually active during the four weeks preceding the

survey (EDHS 2011a). In 2000, 35% of girls age 15-24 reported having sex in the past four weeks, compared to 31% in 2011. This is probably because girls gradually marry at later ages, and almost all sexual activity of girls occurs in marriage. However, there has been no change in the proportion of boys age 15-24 who reporting having sex in the past four weeks (EDHS 2011b). See figure 4

Figure 4: Trends in Recent Sexual Activity



Source: Ethiopian Demographic and Health Survey, 2011

3.2. Determinants of adolescent risky sexual behavior in Ethiopia

WHO defines determinants as those factors that combine together to affect the health of an individual or community. Adolescent sexual and reproductive health is influenced by factors such as where we live, genetics, the state of our environment, income, education level, and the relationships with friends and family (Svanemyr et al. 2015). The following section analyzes determinants of adolescent risky sexual behavior in Ethiopia based on ecological models as explained in chapter two.

3.2.1. Individual characteristics

Influencing factors that are classified under individual characteristics are age, sex, physical development, attitudes, knowledge and previous sexual behavior of individual adolescent (Wellings et al. 2006).

Age: Not surprisingly, as adolescents become older they are more likely to engage in sexual intercourse (Coyle et al., 2011). Some of this age effect is biological, including physical maturity and higher hormone levels. Because of the age effect, there are also cultural and social causes (will be explained latter) such as more pressure from peers to have sex, changes in perceived norms about sex, and increased opportunity to have sex, which comes from greater independence of older ages (Coyle et al. 2011).

Youths who begin sexual activity earlier are more likely to have multiple sexual partners and are less likely to use condoms (Mazengia & Worku 2007). This is because adolescents are not much knowledgeable about sexuality at the early age. In addition, power and dependency at an early age coupled with the lack of knowledge and social pressure lead to unsafe sex. The physiology of very young girls increases the risk of tearing during sex which is exacerbated by violence and female genital mutilations (FGM) and this leads to a critical channel of vulnerability to STIs and HIV infection (Alemu 2006).

In most Sub-Saharan African country girls are expected to marry and conceive in their adolescence age, before physical and mental maturity (Uchudi et al. 2012). Similarly, Ethiopia is one of the highest early marriage prevalence in the world where an estimated 63 % of girls marry before the age of 18 (EDHS 2011a). The legal age of marriage in Ethiopia is 18 years. Despite the law, tens of thousands of girls are married every year by the age of 15 (Unesco 2013). Many girls are forced to marry in secret ceremonies. The practice varies from region to region and from urban to rural communities (EDHS 2011a).

One of the female respondents in a study conducted by UNESCO (2013) said that " *I was 14. I'd just come home from school and there were so many people at my house. Everyone was dressed up and I asked my mother what was going on but no one would tell me. More and more people just kept coming. Then my mother brought me a dress and said 'Here. Put this on. You're getting married.'* After the wedding, they took me to his house in the next village. He was so old. He started pushing me towards the bedroom. I didn't want to go inside but no one would listen to me. I woke up in the hospital. The nurses told the police what happened. My stepfather and the man they forced me to marry went to jail, my mother did too. The marriage was annulled. It was hard, but I've come out stronger. Before this happened I was shy and couldn't look people in the eye. Now, I'm not scared of anything"

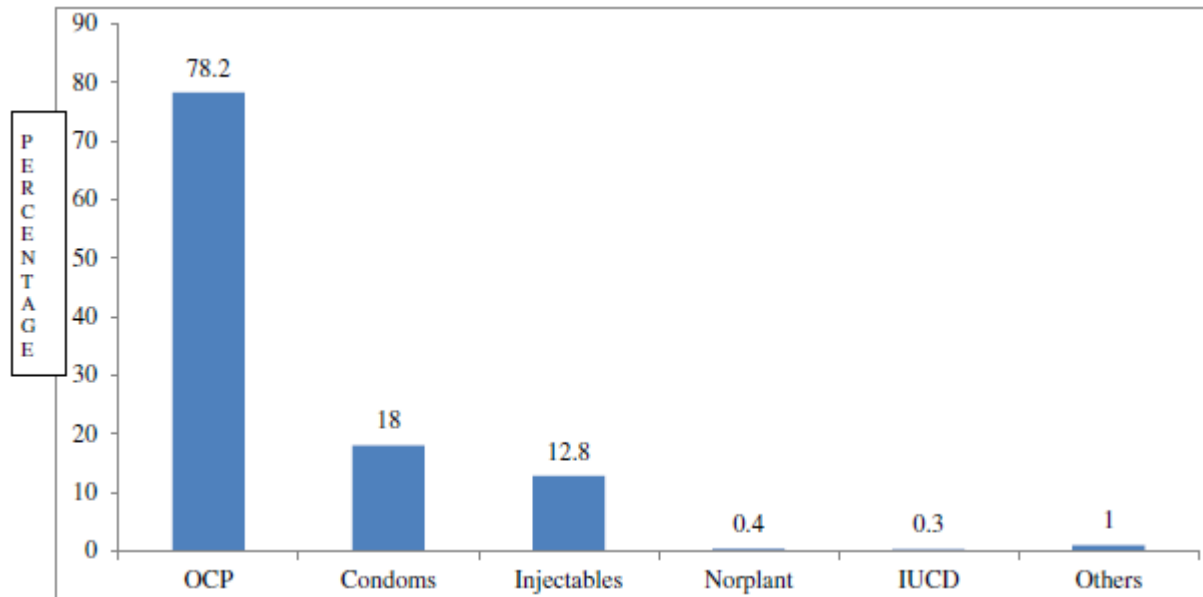
Sex: Girls are more vulnerable to sexually transmitted infections, including HIV because of biological factors (Buzzini et al. 2006). This is due to increased surface area of the body parts such as the cervix, vagina and possibly the uterus where HIV and other STIs transmission can happen for girls compared to the areas of the penis, the foreskin, urethra and small tears on the head of the penis, where transmission can happen in boys (Canadian Aids Society 2012). In many parts of Sub-Saharan African countries boys have more sexual partners and use condoms more often than girls and inversely girls are more likely to contract STIs including HIV (UNICEF 2011). Furthermore, girls are more likely to have engaged in early sexual intercourse than boys because they marry and mature earlier. As explained earlier, the trend is similar for Ethiopian adolescents where boys have more sexual partners and use condoms more often compared to girls and girls enter into sexual activity earlier because marriage even occur before the age of 15 in the country (EDHS 2011a).

Physical (Pubertal) development: Kontchik et al (2001) reported that early pubertal development is a significant predictor of male adolescent transition to intercourse and the risk ratio is about two times greater among earlier versus later maturing boys. If girls mature physically at an early age, begin menarche early, and appear older than their age (Kotchick et al. 2001). There is no study on adolescent physical development and risky sexual behavior in Ethiopia.

Knowledge, attitude and perception about risks: Knowledge may affect behavior, both directly or indirectly (Coyle et al. 2011). Colye et al. (2011) further explain that, if adolescent girls who is sexually active for example knows she is supposed to take a contraceptive pill every day, she is more likely to take that pill every day which is direct. However, according to Colye et al (2011), if adolescent do not know their parents' values about sexual intercourse among teens, their own values about sexual intercourse may be shaped more by their peers and the media and they may be more likely to engage in sexual activity at an earlier age which is indirect.

Many studies conducted in Ethiopia support this fact (Shiferaw et al. 2014; Tilahun & Ayele 2013; Tiruneh 2004). For example, a community-based cross-sectional study conducted to assess the level of reproductive health knowledge and service utilization of rural adolescents in northern Ethiopia indicates that only 18% of adolescents in the district have knowledge about condoms (Abajobir & Seme 2014). However, knowledge about oral contraceptive pills (OCP) stands at 78.2%, which is quite high compared to condom. Figure 5 shows knowledge of contraceptive methods of rural adolescents in Mechakel district, northwest Ethiopia. This low knowledge of condom may be due to the wrong perceptions about the male condom in the community.

Figure 5: Knowledge of contraception, method of rural adolescent in Machakel district, Northwest Ethiopia, February 2012



Source: Abajobir & Seme, 2014

Furthermore, misconception regarding sexual relations with the opposite sex and how to avoid subsequent risks like unwanted pregnancy were not uncommon among rural adolescents in Ethiopia (Abajobir & Seme 2014; Adinew et al. 2013; Tesso et al. 2012).

One of male adolescent respondent for the study conducted by Abajobir & Seme (2014) to assess knowledge about reproductive health among rural adolescents said that: *"I believe that a girl cannot become pregnant from a single act of sexual intercourse; therefore, to avoid pregnancy, some young men prefer to have sex in a causal relationship or have sex only once in a month with the same girl"*. Another young adolescent respondent said: *"We young people are not believed to use condoms, because our reproductive organs are still small; condoms are manufactured for adults only."* *"I do not think that these methods like pills are good for adolescents of our age group; when we use them they can harm our future fertility and if used for a long time there will be a lot of abortions"*. This response shows an indicators for lack of comprehensive knowledge and misunderstanding of adolescent about their own risk.

Having sex while under the influence of alcohol or drugs: Many studies show that, having sexual intercourse while under the influence of alcohol is risky because the couple may not be fully aware of their actions, which may lead to failure to use a condom or any other protective methods (Buzzini et al. 2006; Fentahun & Mamo 2014; Mulu et al. 2014; Mulugeta & Berhane 2014). Using an alcohol and drug among adolescent may lead to earlier sexual initiation, unprotected sexual intercourse, and having multiple partners as well as putting young people at risk for sexually transmitted diseases (STDs), unintended pregnancy, and sexual violence (Keaiser 2002).

For instance, a study conducted by WHO in eight developing countries on the relationship between alcohol consumption and risky sexual behavior indicated a significant relationship between increased alcohol consumption and increased risk of HIV infection (WHO 2005). According to a WHO (2005) study, alcohol and other drug consumption increase the possibility of sexual abuse/sexual violence, unprotected sexual intercourses and unsafe sex.

Alcohol or other drugs like Khat - an evergreen plant with amphetamine-like properties- Hashish and Shisha are widely used among youths and younger adolescents in Ethiopia (Kebede et al. 2005; Mulugeta & Berhane 2014). A study conducted to assess the magnitude of substance use and associated factors among Haramaya university students in Ethiopia indicated that about two-thirds (62.4%) of the study participants used at least one substance (either alcohol or other drugs like Khat, Shisha or Hashish) (Tessfaye et al. 2014). According to Tessfaye et al (2014), the most commonly used substance was alcohol (50.2%) followed by khat (41%), cigarettes (22%), and other illicit drugs (17.4%). Being male had a strong association with substance use. However, being a follower of Muslim and Protestant religions was shown to be protective of substance use. Tessfaye et al (2014) further indicated that, married and depressed students were more likely to use substances than others.

Another study conducted to assess the association of Khat and alcohol use with HIV infection and age at first sexual initiation among youths visiting HIV testing and counseling centers in South West Ethiopia indicated that HIV infection was positively associated with being in the age of 20 – 24 years, being female, alcohol use, having no education or primary education level (Maju & Asale 2013). Maju and Asale (2013) further showed that, for both male and female youths early sexual initiation was positively associated with

being unemployed, not having comprehensive knowledge on HIV/AIDS, alcohol use and khat use.

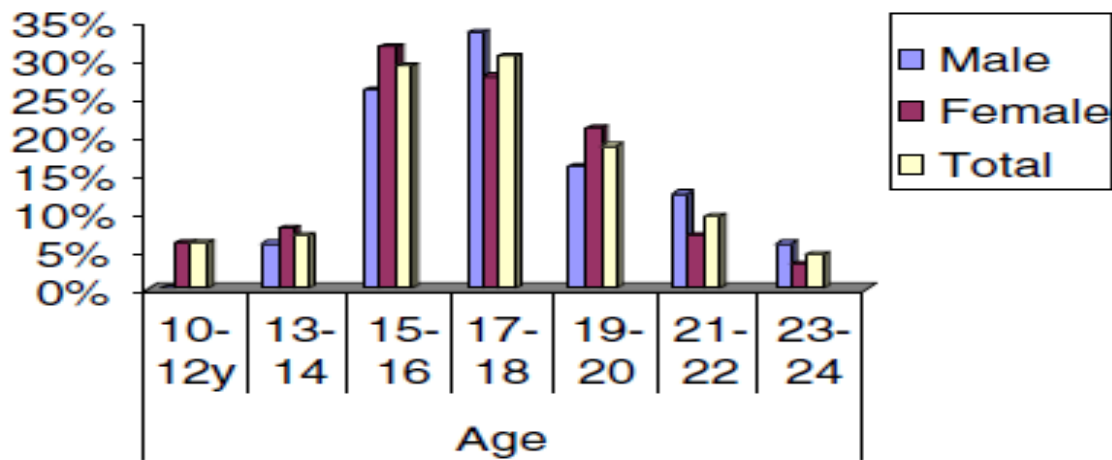
3.2.2. Relationships

The relationship is an important determinant of adolescent risky sexual behavior (Wang et al. 2015). A relationship can be a parent - child relationship and/or adolescent - peer relationship.

Parent Child relationship: Studies show that parents and members of the extended family have an important role in sexual and reproductive knowledge and development of young people (Svanemyr et al. 2015). A good parent child relationship can highly influence the kind of sexual activity, children would engage in at the later ages and is used as a protective factor (Ogbada 2013). According to Ogbada (2013), good communication on the issues of sexuality by the parent reduces the risk of engaging in risky sexual behavior of their children. This is because, sexual communication is a principal means of transmitting sexual values, beliefs, expectations, and knowledge between parents and children (Svanemyr et al. 2015). Yet, in most African countries, discussions on sex-related matters are a taboo (Uchudi et al. 2012).

The situation of parent-child communication on the issues of sexuality is very poor in Ethiopia. For example, a study conducted by Tesso et al (2012) in Western Ethiopia shows that only 32.5% of girls and 32.7% of boys reported to discuss with their parents on topics related to sexual and reproductive health during the past six months preceding the survey (see figure 6). These low parent children-communication may result in misinformation, a lack of knowledge and skills, and negatively affect attitudes towards sex and this, in turn has resulted in early sexual initiation and unprotected sexual intercourse among adolescent.

Figure 6: Parent communication about SRH by young people's age category, Nekemte, Ethiopia, 2012



Source: Tesso et al, 2012

Peer relationship and Peer pressure: Adolescents develop very close relationships with their peers, conforming to language, dress and customs. This helps them feel safe and secure and gives them a sense of belonging to a large group (Cherie 2012). Given the significance of peer influence, this power can influence adolescents and young people toward greater or lesser risk taking. Many studies show that adolescents and young people tend to match their sexual behavior, including timing of sexual debut and use of contraceptives, to what they perceive their peers are doing (Buzzini et al. 2006; Fentahun & Mamo 2014; Mulu et al. 2014; Svanemyr et al. 2015; Tiruneh 2004; Ugoji 2014). Furthermore, peer pressure combined with gender inequities within a sexual relationship, can mean that males have undue power to dictate sexual decisions to females.

Many adolescents in Ethiopia are engaged in risky sexual behavior due to their peer influences (Abebe et al. 2013; Bogale & Seme 2014; Mulugeta & Berhane 2014). For instance, a study conducted in Bahirdar city, Northern part of Ethiopia, indicated that youths who have sexually active peers are three times more likely to initiate pre-marital sexual debut than their counterparts (Mulugeta & Berhane 2014). Another study conducted to assess risky sexual behavior and associated factors among preparatory students living with parents in Southern Ethiopia indicated that, out of 273 students, 59.3% were under high influence from their peers to initiate sexual intercourse (Abebe et al. 2013).

3.2.3. Community

Community can be defined in several ways: through its geographic boundaries; through the predominant racial or ethnic makeup of its members; or through the shared values and practices of its members (Satcher 2001). Adolescents are part of several communities, including neighborhood, school, religious affiliation and ethnic groups in which their sexual behavior is determined. In the following section I will present how school, neighborhood and community network can affect the sexual behavior of adolescents in Ethiopia.

An 18 years old girl who participated in an interview on the study conducted in Ethiopia by Abebe et al (2013) said that: *"I am worrying about my friends, because after I came to Agaro (Jimma) high school two of my best friends have boyfriends and they enforced me to join them"*. This shows that there is an implication that adolescents are influenced by peers to initiate sexual practices.

Schooling: School connectedness is a protective factor for adolescents sexual and reproductive health (Svanemyr et al. 2015). According to Svanemyr et al (2015), education, particularly secondary education, has frequently been found to be associated with a whole range of better sexual and reproductive health outcomes such as increased use of contraceptives, decreased age of marriage, limited number of births, and increased use of health services.

Similarly, a study conducted to assess reproductive health service utilization and associated factors among adolescents (15–19 years old) in Northwest Ethiopia indicated that accessing VCT services was about two times higher for in school adolescents than out of school ones (Feleke et al. 2013). According to Feleke et al (2013), schooling status creates an opportunity to engage with different health promotion programs, like school based VCT service programs and school clubs which allowed many adolescents to obtain more new information and knowledge related to reproductive health services.

Sexuality Education at School: In Ethiopia, comprehensive sexuality Education (CSE) that includes sexual and reproductive health and rights (SRHR) including information about services, sexual pleasure, love and affection, relationship, violence and gender power is almost absent either as integrated or standalone course (Tessema 2007). Students at the primary

level are introduced to only “family life education” such as personal hygiene, harmful traditional practices, menstrual hygiene and environmental hygiene.

The family life program has very limited information on reproductive health topics such as physiology, reproduction cycle, and life skills education. Issues of family planning, contraception and HIV prevention are included in a biology student text book from grade seven onwards. Yet, CSE that could be delivered based on age specific and culturally sensitive criteria is lacking for both adults and children and for both in school and out of school youths (Tessema 2007).

Neighborhood: Neighborhood can influence adolescent sexual behavior either positively or negatively. Adolescents who live in areas where future opportunities are low, where there is insufficient monitoring of children, socioeconomic disadvantages (low socioeconomic status of the neighborhood) and instability (where parents are not in a position to fulfill the needs of their children or at times benefit from their children’s activities) are prone to engage in transactional sex (Tiruneh 2004; UNICEF 2012).

Community networks: Community beliefs on sexual reproductive health can influence an individual’s attitude and behavior with regards to sexual activities (Satcher 2001). A community can also influence the accessibility of health care services and social support systems. There is no study conducted on community networks and adolescent sexual health in Ethiopia.

3.2.4. Societal Level

Societal context, such as culture, social norms, social values, poverty, government health policies, inequality, religion and gender norms are a potential determinant of adolescent risk sexual behavior (Buzzini et al. 2006).

Culture, Norms and Values: cultural norms and values can shape adolescent sexual behavior either positively or negatively (Wellings et al. 2006). Ethiopia is one of the countries with many diversified cultural practices. Among the many cultural and traditional practices early marriage, marriage by abduction, forced marriage and polygamy are particularly important influencing factors for adolescent risky sexual behavior in the country (Eruker 2010).

Early marriage is a common cultural practice in many regions, particularly in rural Ethiopian communities where it is thought to ensure virginity (Muthengi & Erulkar 2011; Erulkar 2010). People practice early marriage for traditional

reasons in the country. For instance, according to Erulkar (2010) study conducted in northern part of Ethiopia shows that, if a girl is not married at an early age, other members of the community may think she must be too unattractive or ill-behaved to get a husband. This attitude usually causes shame to both the girl and her family. Most marriages happen when the young adolescent or preadolescent girl is not ready, physically and psychologically, for intercourse, pregnancy, or childbearing and rearing. In some societies it is forbidden even to mention the word 'sex', which can imply sexual experience and promiscuity that may damage reputation. Hence, many adolescent girls ignore discussion of sexual issues in order to preserve their reputation (Erulkar 2010).

The second common traditional cultural practice that puts adolescents at risk of early pregnancy and STIs including HIV, in Ethiopia is marriage by abduction (a cultural practice used by men to take a girl as a wife by force) (Gage 2013; Erulkar 2010). It is a form of sexual violence against the woman. The would-be abductor forms a group of intimate friends and relatives to kidnap the girl without the slightest clue or information being given to the girl's family, relatives or friends (Gage 2013). In some cases abduction is followed by rape in the country. UNICEF and Ministry of Finance and Economic Development of Ethiopia reported that 90.8% of women of reproductive age had been married by abduction in the Southern region of Ethiopia (MoFED 2012).

Another cultural practice in Ethiopia is polygamy where a person marries more than one spouse. About 11% of married girls in Ethiopia are in polygamous unions (EDHS 2011). It is usual for a young girl to be married to an older married man. In most rural parts of Ethiopia, girls have no power to choose their husbands. It is usually their parents, particularly their father, who decides whom they will marry and the marriage is usually arranged by the parents.

Gender Norms: Gender refer to the socially constructed roles, obligations, behaviors and attributes assigned to girls and boys as a result of their sex; while gender norms refer to the social and cultural meanings associated with masculinity and femininity (UN 2006). Although boys and girls, worldwide, are treated differently from birth onward, it is during adolescence that gender role difference intensifies (Wellings et al. 2006). More often than not, boys achieve more autonomy, mobility, and power, whereas girls tend to get fewer of these

privileges and opportunities. Importantly, boys' power relative to girls' translates into dominance in sexual decision-making and expression, often leaving girls unable to fully assert their preferences and rights to protect their health and these exposed them to coercion and further to risky sexual behavior (Wellings et al. 2006).

Gender role plays a significant role in shaping adolescent sexual behavior (Bearinger et al. 2007). These social expectations cover attitudes towards marriage and fertility, including, in some societies, early marriage, particularly for girls, and in others proof of fertility before unions are formalized. Expectations for boys may include gaining sexual experience as well as proving their fertility (WHO 2012). The patriarchal nature of the Ethiopian societies and the least economic power of girls further influence the risks of adolescent sexual health.

Inequality: Studies indicate that the role of gender power is a fundamental issue in addressing sexual reproductive health problems (Kamal 2002; Kong & Brown 2008; Kabagenyi et al. 2014). Decision-making power on resources, access to education and earning power can affect the health choices available to girls (Kabagenyi et al. 2014). Many young females suffer of inequality in Ethiopia. For example, traditionally females have low status in most families and commands little respect relative to her brother and other counterparts in Ethiopia (Abeya et al. 2012). This low status of females characterizes every aspect including sexual and reproductive health. For example, given the heavy workload imposed on girls at an early age, early marriage without choice, abduction, gang rape and others leave the girls with few opportunities to make and act on their own decisions and these further exposes females to engage in highly risky sexual behavior.

Religion: Religion shapes attitudes and behavior regarding sexuality. Parents often use religion as a context for teaching important social norms and values and for setting behavioral standards (Simons et al. 2009). According to Simons et al. (2009), these behavioral standards might include the time of sexual initiation, limiting number of sexual partners and with whom to form a partnership.

In Ethiopia, a study conducted to assess risky sexual behavior and associated factors among school youths in the Western zone of Tigray, Ethiopia, indicated that participation in religious education have significant association with early

sexual initiation and having multiple sexual partners and serves as a protective factor (Dadi 2014). According to Dadi (2014) study those who were not participating in religious education or didn't visit church were found to be six times more likely to practice unsafe sex than those who participated. Similar findings were observed in Jimma Zone, Ethiopia (Abebe et al. 2013).

However a similar study conducted among Bahirdar University Students disagrees with the above two findings (Mulu et al. 2014). According to Mulu et al. (2014) the proportion of students who ever had sex, having multiple sexual partners and unprotected sexual practices do not vary with religious affiliation. However, in both studies the degree of religiosity was not mentioned.

Poverty: Poverty is one of the crosscutting risk factors for adolescent sexual and reproductive health. Currently, it is estimated that 29.6% of the population of Ethiopia live below the poverty line (EDHS 2011a). Young people are among the groups most affected by poverty as they have very limited access to employment in Ethiopia (Atnafu & Oucho 2013; Kibru 2012).

Studies show that unemployment is associated with high risk of exposure to HIV/AIDS among younger adolescent in Ethiopia. For instance, a cross sectional study conducted to assess factors associated with age at first sexual initiation among youths in South West Ethiopia indicated that unemployed youths are almost seven times more at risk to practice early sexual initiation than those who are employed (Tilahun & Ayele 2013). Further, girls from low socioeconomic status are more exposed to rape and abuse, transactional sex and eventually are exposed to HIV/AIDS and other STIs and unwanted pregnancies. Poverty along with other factors also resulted in unequal distribution of sexual power among adolescents.

Extreme poverty in rural areas of Ethiopia gave rise to overloaded urban areas due to migration of adolescents for searching job (Temin et al. 2013; Erulkar et al. 2006). Different groups of young people, who are dislocated from their families, and lost his/her job tend to live on the street in urban cities (Tiruneh 2004). Living on the street exposes adolescents to high-risk behavior. For instance, the increasing number of street children, especially younger girls in urban areas of Ethiopia, particularly in Addis Ababa, is a major problem, which worsens adolescent risky sexual behavior (Tiruneh 2004). Tiruneh (2004) found that adolescents living in a high poverty inner city neighborhood react

to their uncertain future by abandoning hope, leading them to engage in a high level of risky sexual behavior.

Policy: Adolescent sexual and reproductive health is highly influenced by laws and policies that exist in the country (WHO 2010). The policy helps as a milestone in addressing the health and development needs of adolescents and youth reproductive health. Ethiopia has made a commitment to adapt national youth policy since 2004 and National Adolescent sexual reproductive health strategies (2007 – 2015) in 2006 (MoWCYA 2004; MoH 2006). It has also been put in practice currently.

However, the policies and strategies have a gap both in development and implementation level (MoWCYA 2004; MoH 2006). For example, both the policies and strategies don't address or recognize fully the issues of the same sex. Both male and female same-sex sexual activity is illegal in the country. This is a gap at the policy development level. At the implementation level, for example, there is a policy which prohibits marriage before 18. This was adopted since 1993.

Reproductive Health Services: In 2005, Ethiopian Ministry of Health and Pathfinder International introduced a youth friendly service program to the public health system (Pathfinder International 2013). Indeed, MoH also adopted a health extension program to strengthen the delivery of preventive, promotional and basic health care in the rural area to reach women, adolescents and youth at the community level (MoH 2010). However, the service is limited to only certain hospitals or health centers due to shortage of manpower who are trained for youth friendly services (Abebe & Awoke 2014).

For instance, a study conducted to assess RH service utilization among adolescent in the northern part of Ethiopia shows that among 690 adolescents who were participating in the study, only 45% utilized service (Dagnew et al. 2015). According to Dagnew et al. (2015), concerns about confidentiality, discomfort, absence of adequate counseling, attitude of health care providers and geographical accessibility of services were the main reason for low utilization of adolescent SRH services in the area.

Chapter Four 4: Evidence Based Interventions

This chapter presents interventions that have demonstrated effectiveness or are promising in addressing risky sexual behavior. Priority is given to evidence from systematic reviews and experiences from programs in countries like Kenya, South Africa and India who have well evaluated programs and lessons learned are applicable to the Ethiopian context. Preference is given to programs implemented in recent years that have had an outcome evaluation from which Ethiopia could learn.

4.1. Building the evidence: WHO, UNESCO, CDC and Cochran

Nine years back, WHO in collaboration with London School of Hygiene and Tropical Medicine, UNICEF, UNAIDS and UNFPA conducted a systematic review of intervention studies from developing countries (WHO 2006). The review includes over 80 studies that have proven the effectiveness of interventions in preventing HIV among young people. Though the emphasis was on HIV and AIDS infections the same strategies apply to adolescent sexual health. The authors also come up with classifications of interventions into four major categories depending on whether the evidence is strong enough to be recommended as indicated below.

- **Go:** Implement on a Large Scale now (with monitoring of coverage and quality)
- **Ready:** Implement widely (with a strong evaluation component to clarify the impact of intervention and mechanisms of action)
- **Steady:** Further research and development of the intervention is needed, though it shows promise of potential effectiveness
- **Do not go:** The evidence is against the implementation of the intervention (WHO 2006).

According to WHO, the recommended interventions are those categorized under Go (for example school based, health service based and mass media) and Ready for example, interventions that target young people using existing structure organizations with geographically defined communities and facility based programs that also have an outreach component and that provide information and services to reach the most at risk including adolescents) (WHO 2006).

Cochran collaboration also conducted a systematic review of intervention studies to assess the effectiveness of primary prevention of unintended pregnancy among adolescents aged 10-19 (Oringanje et al., 2009). Forty one randomized control trials that enrolled 95,662 adolescent were included in the analysis where the participants were ethnically diverse. The results indicate that the combination of education, such as sex and HIV education, intensive youth development program, skill building and contraception interventions lowered the rates of unintended pregnancies among adolescents (Oringanje et al., 2009).

A report from Guttmacher Institute also support, that comprehensive school based sexuality education is an effective way to educate adolescents (Biddlecom et al., 2007). Biddlecom et al. (2007) indicated that, comprehensive sexuality education is effective in improving knowledge and reduce risky sexual behavior and underlined that comprehensive sexuality education does not increase sexual activity.

Further, an impact evaluation conducted by the World Bank in seven countries on gender identified that effective interventions for decreasing pregnancy and child bearing includes conditional cash transfer for schooling, reduction in the cost of education, provision of vocational training, and providing information on health and risky behaviors including HIV infection (Parsons & McCleary-Sills, 2011).

In general, from the evidences discussed above, implementing comprehensive and interactive interventions in school and community setting, economic empowerment, youth-friendly services, access to reproductive health information, parental training and mass media have demonstrated the most effective positive outcome for adolescent sexual and reproductive health (UNESCO, 2009; Oringanje et al., 2009; WHO, 2006).

4.2. How it works?

4.2.1. UNESCO International technical guidance for sexuality Education

In 2009, UNESCO together with UNAIDS, UNICEF, WHO and UNFPA developed "*International technical guidance for sexuality education*" to promote sexual behavior of younger population based on rigorous review of evidences from developing countries (UNESCO, 2009). The team of experts, indicates that sexuality education equips children and young people with knowledge and

skills and values and help them make choices about their sexual and social relationship (Boonstra, 2011; UNESCO, 2009). According to a UNESCO team of experts, effective sexuality education can provide adolescent with age-appropriate, culturally relevant, and scientifically accurate information (UNESCO, 2009). They also indicated that comprehensive sexuality education includes structured opportunities for young people to explore their attitudes and values, and to practice decision-making and other life skills that might be needed to be able to make informed choices about their sexual lives (UNESCO 2009).

During the development of sexuality education curriculum, the following should be considered (UNESCO, 2009).

- Involving experts from different discipline such as expert of sexuality education, behavior change and related pedagogy
- Assessing the needs and behaviors of young people on the issues of sexuality
- Using a logical model that specifies the health goals, the types of behavior affecting those goals, the risk and protective factors affecting those types of behavior, and activities to change those risk and protective factors
- Developing activities that are sensitive to community values and consistent with available resources (e.g. Staff time, staff skills, facility space and supplies)
- Conducting pilot-test the program and obtain on-going feedback from the learners about how the program is meeting their needs (UNESCO, 2009).

UNESCO also further recommends that the content of the curriculum should have included the following (UNESCO, 2009).

- Clear goals and the goal should include the prevention of HIV, other STIs and/or unintended pregnancy
- Focus narrowly on specific risky sexual and protective behaviors leading directly to these health goals
- To address specific situations that might lead to unwanted or unprotected sexual intercourse and how to avoid these and how to get out of them
- Give clear messages about behaviors to reduce risk of STIs or pregnancy
- Focus on specific risk and protective factors that affect particular sexual behaviors and that are amenable to change by the curriculum based program, for example knowledge, values, social norms, attitudes and skills.
- Address personal values and perceptions of family and peer norms about engaging in sexual activity and/or having multiple partners.
- Address individual attitudes and peer norms concerning condoms and contraception
- Provide scientifically accurate information about the risks of having unprotected sexual intercourse and the effectiveness of different methods of protection (UNESCO, 2009).

4.2.2. WHO framework for development of Youth friendly services

In 2002, WHO developed a comprehensive framework for youth friendly health services emphasizing on equitable, accessible, acceptable, appropriate and effective for adolescent services (WHO 2002). According to this framework, equitable health service delivery is one in which policies and procedures are in place and address issues that might hinder the equitable provision of health care for young people (WHO 2002). In terms of accessibility services are either free or affordable to all young people, provided with convenient working hours, convenient location, good information about the services available and how to obtain the services. Indeed, acceptability of the services includes when health care providers are technically competent, non-judgmental, have good interpersonal communication, have motivated and devoted to the best of their clients (WHO 2002).

The appropriateness of health services for young people is best achieved if it addresses each adolescent's physical, social and psychological needs and provide a comprehensive package of health care and have well organized referral linkages to other appropriate services (WHO 2002). The effectiveness of health services for young people increased if providers have required competencies, guided by technically sound protocols and guidelines and necessary equipment, supplies, and basic services are available to deliver health services (WHO 2002). For further information, see Annex 3

4.2.3. Experiences from other countries

Lessons were drawn from three countries: Kenya, South Africa and India. The example from Kenya is used to present proven interventions to address parent-child communications. The example from South Africa is to present multiple level interventions at societal, community and relationship level. The example from India is also to present multiple level interventions, including at the individual level and to show how addressing social and economic constraints can improve adolescent sexual health. All countries taken as an example, are developing countries and have diversified cultures and ethnicity like Ethiopia and have evaluated programs and lessons learned are applicable to the Ethiopian context.

Families Matter! Program in Kenya:

The program was a US evidence based parent focused intervention designed to promote positive parenting and effective parent-child communication about sexuality and risk reduction, including risks for child sexual abuse and gender based violence for parents or caregivers of children aged 9-12 years old across Africa (Hilde et al., 2010; CDC, 2014). The main purpose of the program is to help parents/caregivers understand the risk their children face and their unique role in helping their children make a decision about sex and communicating about their own values to their children (Hilde et al., 2010). It is to enhance positive parenting skills to strengthen their relationship with their children and protect them from health risks and peer pressure and to equip parents the knowledge, skill, comfort and confidences to talk with children early, often comprehensively and effectively about sex and sexuality (Hilde et al., 2010).

The program was delivered to primary caregivers of pre-adolescents by trained facilitators in a small group of 12-16 parents for five consecutive weeks (3- hour participatory session per day) at the community venues (CDC, 2014).

At the fifth week session children were invited to participate in a guided communication exercise.

An evaluation of the program shows that parenting skills were positively changed and there was an increase in parent-child communication about sexuality and sexual risk reduction (Bastien et al., 2011). The impacted frequency of parent-child sexuality, communication were changed from 17% of children reporting having asked their parent a question about sexuality at baseline to 38% at 12 months follow-up, and 14% of parents reporting being asked a question about sexuality from their child at baseline, to 50% at follow-up (Bastien et al., 2011). In addition, parents skill and confidence development, and overall attitude towards sexuality education, including the belief that communicating about sexuality leads to early sexual experimentation were changed positively (Bastien et al., 2011). Currently the program is widely accepted in Sub-Saharan African countries such as Botswana, Ivory Coast, Tanzania, Zambia, South Africa and Mozambique (CDC, 2014).

Soul City Institute for health and development, South Africa:

Another interesting experience is from South Africa called "Soul City Institute for Health and development". The objective of "The Soul City Institute for Health and Development Communication (Soul City IHDC)" is to improve the health status of South Africans, including through the reduction of HIV, by promoting social change through mass media, social mobilization and advocacy (Wamoyi et al., 2014; USAID, 2008). It was also to establish and maintain an effective and efficient program management capacity to undertake quality health and development, communication; build institutional and human capacity to undertake quality health and development, communication; and scale up mass media communication and social mobilization programs and activities across the region to reach 35 million people during the entire period of the project (USAID, 2008). The project has the following components.

- **Soul City:** Aimed at adults aged over 16 years, -works through edutainment through television drama, radio drama and print to promote health and social change.
- **Soul Buddyz:** Aimed at children ages 8 -12, their teachers and their caregivers – works through edutainment model that includes television drama, a radio program and a life skills booklet targeting grade 7 students.
- **Advocacy campaigns:** is working to increase women’s legal protection and effective implementation of the Domestic Violence Act, together with its Soul City program
- **One Love – Talk, Respect, Protect Campaign:** is working to reduce multiple concurrent partnerships, a practice among men and women but particularly a high-risk male norm and behavior, as a key issue that must be addressed in HIV prevention efforts and jointly devoted resources toward this effort.
- **Social mobilization activities:** These activities are part of the Soul City IHDC model and encourage target population members to think critically about barriers to and facilitators of social or behavior change (USAID, 2008).

The evaluation of the results indicates significant shifts in social norms, particularly those that are sexual in nature (Wamoyi et al., 2014; USAID, 2008). During the evaluation the proportion of respondents disagreeing with the statement that a man is right to expect a woman to have sex with him without a condom increased significantly (Wamoyi et al., 2014). The program also impacted by changes in self-perception of risk and encouraged young people to resist peer pressure. Findings also suggest that civil society and leadership participants in the assessment saw Soul City not simply as entertainment, but were also personally influenced by it with respect to awareness-raising and attitudinal change (Wamoyi et al., 2014).

Development Initiative Supporting Healthy Adolescent (DISHA) - India:

India is one of the countries with a multicultural society like Ethiopia. India has developed the program called DISHA which was one of the first large scale integrated community based intervention programs in the country (Kanesathan et al., 2008). The main objective of the program was to

address the broader context of young people SRH needs; to provide youths with sexual and reproductive health information and services and to tackle social and economic constraints that often limit adolescent choices and actions (Kanesathasan et al., 2008). The program was designed for adolescents aged between 14-24 year olds and is implemented in two least developed regions of India - Bihar and Jharkhand. The key intervention components include the following:

- 1.** Youth groups were formed to provide youth with safe spaces and the opportunity to learn sexual and reproductive health information, to learn communication skills, negotiation skills, and leadership, and to improve self-confidence.
- 2.** DISHA trained cadre of volunteer peer education (PEs) both married and unmarried, males and females to provide information, counseling, support and referrals through youth groups and individual sessions. Youth were given training on income generating skills. The implementing organizations also attempted to develop income generating opportunities for the youth.
- 3.** The implementing organizations also built community support for youth SRH needs through individual and group meetings, mass communication, plays, information fares, mobile health clinics, sports events. Adult groups and youth-adult partnerships were also formed.
- 4.** To make youth friendly, SRH services and other health services were revised. Youth contraceptive depot holders were trained and stocked. Further, NGO capacity building activities and training were conducted throughout the program.

The rigorous evaluation results indicate that DISHA successfully improved key behaviors of both adolescent and adults (Kanesathasan et al. 2008). For example mean age at marriage in the community increased by nearly 2 years; contraception use increased by 60% among youths and knowledge and attitude of early marriage was changed by 7-14% among the community (Kanesathasan et al., 2008).

4.3. What Does not Work?

Abstinence only approaches: Several systematic reviews of intervention studies indicate that programs that exclusively encourage abstinence only are not effective at stopping or delaying sexual initiation. For example, Cochran collaboration systematic intervention in high income countries supports this evidence (Underhill et al., 2009). According to Underhill et al (2009), strategies that promote abstinence while withholding information about the needs of adolescents can actually put young people at an increased risk of pregnancy and STIs. This argument is further supported by a field experiment conducted in Kenya, where the official abstinence-only HIV curriculum had no impact on teen pregnancy (Dupas, 2011).

4.4. Government Initiatives

There are many initiatives running in Ethiopia for adolescent sexual and reproductive health. However, most of them were not evaluated for its impact. I only discuss one project initiative by the Ethiopian Ministry of Women, children and youth in collaboration with the Population Council and UNFPA as follows.

Berhane Hewan pilot project (2004–2008):

Berhane Hewan “Light for Eve” is a program of the Ethiopian Ministry of women, Children and Youth and Amahara Regional Women, Children and Youth Office in partnership with UNFPA and Population Council. The program was one of the first rigorously evaluated interventions to delay early marriage in Sub-Saharan Africa (Erulkar & Muthengi, 2007). The main objective of the program was to delay the age of marriage and to support girls who were married as children in rural parts Amahara regional states of Ethiopia, where nearly half of women marry before the age of 15 (Erulkar & Muthengi, 2007).

The strategies used were social mobilization and group formation through four female mentors; participation in girls group and support to remain in school and community conversation on harmful traditional practices. During the discussion key issues such as early marriage, family planning, HIV/AIDS and other collective problem solving was raised (Erulkar & Muthengi, 2007).

The impact evaluation of the program was focused on four main areas such as social networks and participation, education, marital status, and reproductive health. The result indicates the program has made a significant

impact in all areas. For example, early marriage was decreased by 90% before the age of 15 in that district but not in the control group. Girls school enrollment increased significantly, knowledge of contraception use also increased, particularly among girls aged 10–14 (Erulkar & Muthengi, 2007).

Chapter 5: Discussion, Conclusions and Recommendations

The purpose of this research is to identify the extent and determinants of adolescent risky sexual behaviors in Ethiopia and to explore ways of reducing such risky behaviors. Based on this primary objective, findings of literature reviews and evidence based interventions from other countries where lessons learned are applicable to the Ethiopian context were analyzed in chapter three and four respectively. In this chapter a brief discussion of these findings, conclusions and recommendations will be made.

5.1. Discussion

The findings of this literature review show that the magnitude of adolescent risky sexual behaviors such early initiation of sexual intercourse, having multiple sexual partners and premarital sexual activity among adolescents in Ethiopia is declining. Almost all sexual experiences of girls are taking place within marriage in Ethiopia, however a significant number of boys start sexual activities before marriage. These experiences are similar to Northern parts of Africa and in some parts of Asia. Furthermore condom use among adolescents is increasing for the last 15 years. However, adolescent girls were less likely to report condom use than boys in their most recent sexual experience. These may be due to decision making and power relation between girls and boys or girls simply don't know the boy is using a condom during sexual activity.

The finding of this literature review also shows that adolescents, particularly female adolescents face many risks in terms of their sexual and reproductive health and behavior in Ethiopia. For example, there is a risk of early pregnancy, abortion, and of STIs including HIV/AIDS. These reproductive health problems are the results of their sexual activities. Individual characteristics and behaviors, family and peer relationship, Community networks and broader social context contribute to such risks.

Moreover, the findings show that, young people in the country, especially female adolescents have limited access to sexuality education, information on HIV and reproductive health, insufficient life skills to adequately face known challenges and negotiate safer sex, inadequate information and program to reduce early marriage and early childbearing and limited programs to prevent coerced sex. All these determinants contribute to adolescent sexual ill-health problems in Ethiopia.

The findings indicate that adolescents, particularly girls, have limited information on sexuality issues. Yet, adolescents need reproductive health information and services on such basic issues as menstruation, reproductive anatomy and physiology to protect themselves from risky behaviors. In Ethiopia, it is shame and fear to discuss sexuality with adolescents. This may result in misinformation, a lack of knowledge and skills, and negatively affects attitudes towards sex and this, in turn, has resulted in risky sexual behaviors.

Evidences indicate that adolescence marks the start of sexual activity for many individuals. For this reason they do need sexuality education and services. However, reproductive health services for adolescents are limited and the ones that exist are not appropriate for the younger population in Ethiopia. For instance, the provision of youth friendly services is lacking or inappropriate, and promotion of adolescent sexual and reproductive health is not evidence based and is hardly addressed in the country. Thus, government should take action on this issue and start evidence based interventions by adopting best experiences within and from other countries.

Premarital sexual activities, particularly for girls are a shame in Ethiopia, which is rooted in cultural practices. Because of fear of this social exclusion and other social and economic reasons hundreds of thousands of girls marry before the age of 15 particularly in the northern part of the country. Such early marriage practices create enormous social, economic and reproductive health problems and increase the dependency of girls to boys.

When it comes to parent-child relationship with the issues of sexuality, parents will often avoid and show unwillingness to discuss sexual matters. The perception is that discussing sexuality makes adolescents sexually active and for girls, talking about sex means she is a prostitute or promiscuous and she will receive lower credit from parents or friends and is considered as taboo in most parts of the country (Tesso et al. 2012). These perceptions (misconceptions) root in the culture and society of the country. This might leave adolescents to search for themselves, picking up information about sexuality from others (for example from peers). Indeed, the information they received from other persons may not always be accurate or may even disseminate precarious misconceptions and these directly or indirectly put adolescents under risky sexual behaviors or unsafe sexual practices.

The findings also indicate that parents can have a positive influence on adolescent sexual health, from delaying sexual initiation, limiting number of partners and

unplanned pregnancy (Biddlecom et al. 2009; Ayalew et al. 2014; Bogale & Seme 2014). More importantly, parents should build better relationships that support and reinforce positive sexual health behaviors for their children. Governments can also learn or share and implement experiences from other countries, for example from the Kenyan's Family Matter Project, where the program changed the attitude and perceptions of the parents about sexual matters.

The findings also indicate that many of the programs running in the country for both in-school and out of school youths are trying to convince the young population to delay sexual initiation until marriage. This approach is based on the promises that sexual intercourse by itself is considered a problem and sex before marriage is counted morally and culturally wrong. However, this makes young people not to be well equipped with knowledge and skills about the alternative options of sex practices that can be used to promote their sexual health especially if they are disinclined to abstain from sex. Several systematic reviews of intervention studies indicate that programs that exclusively encourage abstinence are not effective at stopping or delaying sexual initiation.

Furthermore, many of the programs running in the country are concentrated in urban areas and for the university students. However, many adolescents who are at risks are living in rural areas. Thus, government should also focus on other program areas in order to reach more vulnerable young adolescents, in rural areas too. The government can share experiences from Indian initiatives where many adolescents and adults improved their sexual and reproductive health.

The findings also indicate that gender inequality contributes to adolescent risky sexual behaviors in Ethiopia. It is noticed that the decision-making power on resources, access to education and earning power can affect the health choices available to girls. Many young females suffer of inequality in the country. For example, traditionally females have low status in most families and commands little respect relative to her brother and other counterparts in Ethiopia. This low status of females characterizes every aspect including sexual and reproductive health. Thus, government should focus on addressing this issue by empowering women both economically and educationally. Economic empowerment such as, for example, providing incentives for educational fees and for other basic services. DISHA of India can be the best experience in this case.

The findings also indicate that adolescent sexual behavior is determined by poverty and socioeconomic status. For example, due to extreme poverty, some young girls engage in transactional sex with older men, and others decide to go into prostitution to support their families and this might put them at greater risk for STIs including HIV infection. Further, the poor have little or no access to counseling, treatment, and care services, and are discriminated against by society. Further, poverty limits the younger girls in negotiation during sexual relationship, because girls are highly dependent on men because of economic insecurity and this puts girls at a greater risk. Indeed, there is a need to focus on empowering adolescents, including through efforts such as those that build the economic and social assets as well as the resources of adolescents.

5.2. Conclusion

Even though, the magnitude of adolescent risky sexual behavior such as early sexual initiation, having multiple sexual partners and premarital sexual activity in Ethiopia is declining, there are still gaps in addressing the determinants for such risky behaviors. Still adolescents are at increased risk of sexual and reproductive health problems. Individual characteristics and behaviors, family and peer relationship, community networks and broader social context contribute to the problem.

Thus, government should focus on a comprehensive approach that addresses the needs of adolescents. Sexuality education should not be limited to technical matters. It also must challenge social and cultural norms that put young people at increased risk of sexual reproductive health. Adolescents need support and guidance to avoid high risk sexual behaviors.

Hence, universal access to adolescent sexual and reproductive health information, knowledge, skills, enabling them for informed choices is essential. Economic empowerment of girls is essential to address the gender inequality still existing in the country. In addition, programs and reproductive health services for adolescents need to be more gender-sensitive. Innovative approaches, particularly those that involve adolescents themselves are essential to be able to reach the multiple social context of adolescent sexuality and the many different youth subcultures found in the country. Lastly, the government should rely on scientific evidences to adopt evidence based effective interventions which will benefit adolescents, particularly female adolescents.

5.3. Recommendations

In fact, there is no magic formula for interventions that will eradicate poor adolescent reproductive health outcomes. However, based on the findings the researcher would like to recommend the following.

For Ministry of Health and government policy makers

- There is a need for collaboration and coordination between ministries of health, Ministry of Women, Youth and Children, Ministry of Education, religious organization and other stakeholders to work together to come up with coordinated, timely, appropriate and efficient interventions.
- The government should design and implement a comprehensive (multiple level) approach that addresses gender equality, empowerment, rights and responsibilities, negotiation and decision-making skills and have better strengthened at all levels to address adolescent risky sexual behavior, particularly in order to address girls' vulnerability to high risk behaviors.
- Further, government has better guarantee the meaningful participation of adolescents in the process of developing and adapting youth and adolescent sexual and reproductive health programs at all levels.

For Health Care providers

- In order to increase young people's use of health services it is essential to train health service providers and other health center staff in how to provide high quality adolescent youth friendly health services for young people.
- Adolescent health facilities should be made more accessible and acceptable at all levels to adolescents in the country.

For school

- Schools have better revised their curriculum in a manner that addresses adolescent sexual and reproductive needs. Sexuality educations should be provided for students as integrated or as a standalone course in an age specific and culturally relevant manner. UNESCO International guidance for sexuality education can help in this regard.
- Training have better provided for school teachers in order to build their capacity in providing sexual and reproductive health information in

schools for their students with the right tools with regards to their sexual practices.

For community

- Providing training for parents and caregivers on the issues of sexuality to increase parent- child communication on the issues of sexuality. Experiences can be drawn from Kenya's Family Matter program.
- Work also needs to be done in the community to generate demand and support for the services for young people.
- Other sectors, in particular the media, can assist in creating demand by improving young people's overall knowledge about sexual behavior and encouraging health seeking behaviors for adolescents. Experiences can be shared from the Soul City program in South Africa.

For Researcher

- Most of the research conducted on adolescents in Ethiopia is on an in-school youths. Thus more research is needed for out of school youths in order to better understand the situation of out of school youth too.
- Further, most studies conducted on adolescent sexual and reproductive health in the country are self-reported survey research which has a high probability for response bias. Therefore, researchers have a better, more focus on qualitative research to better understand and identify the needs of adolescent in the country.
- Research needs to be more focused on parent- child communication on sexual matters because some research from other countries has demonstrated that parents can be a protective factor for adolescent sexual and reproductive health problem.

Reference

- Abajobir, A.A. & Seme, A., 2014. Reproductive health knowledge and services utilization among rural adolescents in east Gojjam zone, Ethiopia: a community-based cross-sectional study. *BMC health services research*, 14(1), p.138.
- Abebe, M. & Awoke, W., 2014. Utilization of Youth Reproductive Health Services and Associated Factors among High School Students in Bahir Dar , Amhara Regional State , *BMC health services research*, pp.69–75.
- Abebe, M., Tsion, a. & Netsanet, F., 2013. Living with parents and risky sexual behaviors among preparatory school students in Jimma zone, South west Ethiopia. *African Health Sciences*, 13(2), pp.498–506.
- Abeya, S., Afework, M. & Yalew, A., 2012. Intimate partner violence against women in west Ethiopia: a qualitative study on attitudes, woman's response, and suggested measures as perceived by community members. *Reproductive Health*, 9(1), p.14.
- Adinew, Y.M., Worku, A.G. & Mengesha, Z.B., 2013. Knowledge of reproductive and sexual rights among University students in Ethiopia: institution-based cross-sectional. *BMC international health and human rights*, 13(1), p.12.
- Alemu, B., 2006. Early marriage in Ethiopia : Causes and health consequences. *Exchange Organizational Behavior Teaching Journal*, (July), pp.4–6.
- Atnafu, A. & Oucho, L., 2013. Migration and Poverty and the Implications for Reproductive and Sexual Health in Ethiopia Migrating Out of Poverty Research Programme Consortium University of Sussex, pp.1–4.
- Ayalew, M., Mengistie, B. & Semahegn, A., 2014. Adolescent - parent communication on sexual and reproductive health issues among high school students in Dire Dawa, Eastern Ethiopia: a cross sectional study. *Reproductive Health*, 11(1), p.77.
- Bastien, S., Kajula, L. & Muhwezi, W., 2011. A review of studies of parent-child communication about sexuality and HIV/AIDS in sub-Saharan Africa. *Reproductive Health*, 8(1), p.25.

Bearinger, L.H. et al., 2007. Global perspectives on the sexual and reproductive health of adolescents: patterns, prevention, and potential. *Lancet*, 369(9568), pp.1220–1231.

Biddlecom, A., Awusabo-Asare, K. & Bankole, A., 2009. Role of parents in adolescent sexual activity and contraceptive use in four African countries. *International perspectives on sexual and reproductive health*, 35(2), pp.72–81.

Biddlecom, A.E. et al., 2007. Protecting the Next Generation in Sub-Saharan Africa: Learning from Adolescents to Prevent HIV and Unintended Pregnancy.

Blanc, A.K. et al., 2009. Patterns and trends in adolescents' contraceptive use and discontinuation in developing countries and comparisons with adult women. *International perspectives on sexual and reproductive health*, 35(2), pp.63–71.

Bogale, A. & Seme, A., 2014. Premarital sexual practices and its predictors among in-school youths of shendi town, west Gojjam zone, North Western Ethiopia. *Reproductive Health*, 11(1), p.49. Available at: <http://www.reproductive-health-journal.com/content/11/1/49>.

Boonstra, H.D., 2011. Advancing Sexuality Education in Developing Countries : Evidence and Implications. *Guttmacher Policy Review*, 14(3), pp.17–23. Available at: <http://www.guttmacher.org/pubs/gpr/14/3/gpr140317.pdf>.

Buzzini, S.R.R., Gold, M. a. & Murray, P.J., 2006. 26: Sexual risk and protective factors among juvenile detainees. *Journal of Adolescent Health*, 38(2), p.125.

Canadian Aids Society, 2012. Women's Biological Susceptibility to HIV, (April, 2012).

CDC, 2014. The Families Matter! Program Families Matter! Notable Accomplishments.

Chan, Y.-F. et al., 2011. HIV risk behaviors: risky sexual activities and needle use among adolescents in substance abuse treatment. *AIDS and behavior*, 15(1), pp.114–124.

Cherie, A., 2012. Peer Pressure Is the Prime Driver of Risky Sexual Behaviors among School Adolescents in Addis Ababa, Ethiopia. *World Journal of AIDS*, 02(03), pp.159–164.

Cherie, A. & Berhane, Y., 2012. Oral and anal sex practices among high school youth in Addis Ababa, Ethiopia. *BMC Public Health*, 12(1), p.5.

Chilman, C.S., 1988. *Risking the future: Adolescent sexuality, pregnancy, and childbearing*,

Coyle, K. et al., 2011. *Reducing Adolescent Sexual Risk: A Theoretical Guide for Developing and Adapting Curriculum-Based Programs*,

CSA, 2014. Federal Democratic Republic of Ethiopia Central Statistical Agency Population Projection of Ethiopia for All Regions At Wereda Level from 2014 – 2017. , (August 2013).

Dadi, A.F., 2014. Risky Sexual Behavior and Associated Factors among Grade 9-12 Students in Humera Secondary School, Western Zone of Tigray, NW Ethiopia, 2014. *Science Journal of Public Health*, 2(5), p.410.

Dagneu, T., Tessema, F. & Hiko, D., 2015. Health and Reported Satisfaction among Adolescents in Dejen District , Ethiopia : A Cross-Sectional Study. *Ethiopian journal of health sciences*.

Debsu, D.N., 2009. Gender and culture in Southern Ethiopia: An Ethnographic analysis of Guji-Oromo women ´s customary rights. *African Study Monographs*, 30(1), pp.15–36.

Dupas, P., 2011. Do teenagers respond to HIV risk information? Evidence from a field experiment in Kenya. *American Economic Journal*, 3(January), pp.1–34.

ECSCA, 2007. Central Statistical Agency, 2007 report. , p.385. Available at: [http://www.csa.gov.et/surveys/Population and Housing census/ETH-pop-2007/survey0/data/Doc/Reports/National_Statistical.pdf](http://www.csa.gov.et/surveys/Population%20and%20Housing%20census/ETH-pop-2007/survey0/data/Doc/Reports/National_Statistical.pdf).

EDHS, 2005. Ethiopia Demographic and Health Survey 2005. *Health San Francisco*, p.[446]. A

EDHS, 2011a. Ethiopia Demographic Health Survey. *Report*.

EDHS, 2011b. Trends in Key Demographic and Health Indicators for Young Adults.

EPHI, 2014. An Evidence brief for policy: Improving Health Care Financing in Ethiopia. , (August 2014).

Erulkar, A.S. et al., 2006. Migration and Vulnerability among Adolescents in Slum Areas of Addis Ababa, Ethiopia. *Journal of Youth Studies*, 9(3), pp.361–374.

Erulkar, A.S. & Muthengi, E., 2007. Evaluation of Berhane Hewan - A pilot program to promote education and delay marriage in rural Ethiopia. *Population Council*.

Erulkar, B.A., 2010. Early Marriage , Marital Relations and Intimate Partner Violence in Ethiopia.

Feleke, S.A. et al., 2013. Reproductive health service utilization and associated factors among adolescents (15--19 years old) in Gondar town, Northwest Ethiopia. *BMC health services research*, 13(1), p.294.

Fentahun, N. & Mamo, A., 2014. Risky sexual behaviors and associated factors among male and female students in Jimma Zone preparatory schools, South West Ethiopia: comparative study. *Ethiopian journal of health sciences*, 24, pp.59–68.

Gage, A.J., 2013. Social Science & Medicine Child marriage prevention in Amhara Region , Ethiopia : Association of communication exposure and social influence with parents / guardians ' knowledge and attitudes. *Social Science & Medicine*, 97, pp.124–133.

Glazier, A. et al., 2006. Sexual and reproductive health: a matter of life and death. *Lancet*, 368(9547), pp.1595–1607.

Gupta, M. Das et al., 2014. The power of 1.8 billion Adolescents, Youth and the transformation of the future. Available at:
http://www.unfpa.org/sites/default/files/pub-pdf/EN-SWOP14-Report_FINAL-web.pdf

Hilde, V. et al., 2010. Evaluation of a US evidence-based parenting intervention in rural Western Kenya.pdf.

Idele, P. et al., 2014. Epidemiology of HIV and AIDS among adolescents: Current status, inequities, and data gaps. *Journal of Acquired Immune Deficiency Syndromes*, 66(SUPPL. 2), pp.S144–S153.

Ipas, 2010. Facts on Unintended Pregnancy and Abortion in Ethiopia. Available at: <https://www.guttmacher.org/pubs/FB-UP-Ethiopia.pdf>

IPPF, 2010. Facts on the Sexual and Reproductive Health of Adolescent Women in the Developing World. Available at: <http://www.guttmacher.org/pubs/FB-Adolescents-SRH.pdf>.

Kabagenyi, A. et al., 2014. Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda. *Reproductive health*, 11(1), p.21.

Kamal, I.T., 2002. Field experiences in involving men in safe motherhood. *Programming for Male Involvement in Reproductive Health. Report of the meeting of WHO Regional Advisers in Reproductive Health WHO/PAHO, September 2001*, (September 2001), pp.63–84.

Kanesathasan, A. et al., 2008. Catalyzing Change: Improving youth sexual and reproductive health through DISHA, an integrated program in India. Available at: <http://www.icrw.org/files/publications/Catalyzing-Change-Improving-Youth-Sexual-and-Reproductive-Health-Through-disha-an-Integrated-Program-in-India-DISHA-Report.pdf>.

Keaiser, H.J., 2002. Substance Use and Risky Sexual Behavior : Attitudes and Practices Among Adolescents and Young Adults. , 94025(February), pp.24–25.

Kebede, D. et al., 2005. Khat and alcohol use and risky sex behaviour among in-school and out-of-school youth in Ethiopia. *BMC public health*, 5, p.109.

Kibru, M., 2012. Employment Challenges in Ethiopia. Available at: <http://www.fes-kenya.org/media/publications/Employment%20Challenges%20-%20Ethiopia.pdf>

Kong, S. & Brown, M., 2008. Community Health Workers: Ethiopia. , pp.1–13.

Kotchick, B. a et al., 2001. Adolescent sexual risk behavior: a multi-system perspective. *Clinical psychology review*, 21(4), pp.493–519.

Maju, M.T. & Asale, G.A., 2013. Association of Khat and alcohol use with HIV infection and age at first sexual initiation among youths visiting HIV testing

and counseling centers in Gamo-Gofa Zone, South West Ethiopia. *BMC Int Health Hum Rights*, 13(1), p.10.

Mazengia, F. & Worku, A., 2007. Age at sexual initiation and factors associated with it among youths in North East Ethiopia.

MoFED, 2012. Progress in abandoning female genital mutilation / cutting and child marriage in self-declared woredas. , (November 2012). Available at: http://www.unicef.org/evaldatabase/files/Ethiopia_FGM_Final.pdf.

MoH, 1993. Health Policy of the Transitional Government of Ethiopia. , pp.1–11.

MoH, 2010. Health Sector Development Programme IV 2010/11-2014/15. , 39(October 2010), pp.1–110.

MoH, 2015. Health Sector Transformation Plan (HSTP); 2015/16-2019/20. , 20(May 2015).

MoH, 2006. National Adolescent and youth reproductive health strategy 2007 - 2015. , 2013(July 2012).

MoWCYA, 2004. Federal Democratic Republic of Ethiopia, National Youth Policy.

Mulu, W., Yimer, M. & Abera, B., 2014. Sexual behaviours and associated factors among students at Bahir Dar University : a cross sectional study. , pp.1–12.

Mulugeta, Y. & Berhane, Y., 2014. Factors associated with pre-marital sexual debut among unmarried high school female students in bahir Dar town, Ethiopia: cross- sectional study. *Reproductive Health*, 11(1), p.40.

Muthengi, E. & Erulkar, A., 2011. Delaying early marriage among disadvantaged rural girls in Amhara, Ethiopia, through social support, education, and community awareness. , (20), pp.1–4.

Nguyen, H. V. et al., 2012. Risky sex: Interactions among ethnicity, sexual sensation seeking, sexual inhibition, and sexual excitation. *Archives of Sexual Behavior*, 41(5), pp.1231–1239.

Ogbada, A.E., 2013. Determinants Of Risky Sexual Behavior Among Senior High School Students, In La Dade-Kotopon Municipality. (Thesis).

Oringanje, C. et al., 2009. Interventions for preventing unintended pregnancies among adolescents. *Cochrane database of systematic reviews (Online)*, (4), p.CD005215.

Parsons, J. & McCleary-Sills, J., 2011. Advancing Women ' s Sexual and Reproductive Health : Lessons from World Bank Group Gender Impact Evaluations. , pp.1–10.

Pathfinder International, 2013. Bringing Youth-Friendly Services to Scale in Ethiopia Pathfinder ' s Global Approach to YFS. , (april 2012), pp.1–8.

Pathfinder International, 2007. Women's empowerment in Ethiopia: new solutions to ancient problems. Available at:
http://www.pathfind.org/site/DocServer/PI_WE_paper_final.pdf?docID=10202.

Salih, N.A. et al., 2015. Premarital sexual activity among unmarried adolescents in northern Ethiopia: a cross-sectional study. *Sexual & Reproductive Healthcare*, 6(1), pp.9–13.

Satcher, D., 2001. the Surgeon General ' S Call To Action To Promote Sexual Health and Responsible sexual Behavior. Available at:
http://www.ncbi.nlm.nih.gov/books/NBK44216/pdf/Bookshelf_NBK44216.pdf

Schantz, K., 2012. Substance Use and Sexual Risk Taking in Adolescence. Research Facts, (July 2012). Availabe at:
http://www.actforyouth.net/resources/rf/rf_substance_0712.pdf

Shiferaw, Y. et al., 2014. Perception of risk of HIV and sexual risk behaviors among University students: implication for planning interventions. *BMC Research Notes*, 7(1), p.162.

Simons, L.G., Burt, C.H. & Peterson, F.R., 2009. The Effect of Religion on Risky Sexual Behavior among College Students. *Deviant Behavior*, 30(5), pp.467–485.

Svanemyr, J. et al., 2015. Creating an Enabling Environment for Adolescent Sexual and Reproductive Health: A Framework and Promising Approaches. *Journal of Adolescent Health*, 56(1), pp.S7–S14.

Taffa, N. et al., 2002. HIV prevalence and socio-cultural contexts of sexuality among youth in Addis Ababa, Ethiopia. *Ethiopian Journal of Health Development*, 16(2), pp.1–8.

Temin, M. et al., 2013. Girls on the Move: Adolescent Girls & Migration in the Developing World, A Girls Count Report On Adolescent Girls. Available at: http://www.popcouncil.org/uploads/pdfs/2013PGY_GirlsOnTheMove.pdf

Tesfaye, G., Derese, A. & Hambisa, M.T., 2014. Substance Use and Associated Factors among University Students in Ethiopia : A Cross-Sectional Study. , 2014.

Tessema, Z.K., 2007. Addressing Barriers to Expanding Sexuality Education in Ethiopia. , pp.2–3.

Tesso, D.W., Fantahun, M. a. & Enqusilassie, F.G., 2012. Parent-young people communication about sexual an reproductive health in E/Wollega zone, West Ethiopia: Implications for interventions. *Reproductive Health*, 9(1), p.13.

Tilahun, M. & Ayele, G., 2013. Factors associated with age at first sexual initiation among youths in Gamo Gofa, south west Ethiopia: a cross sectional study. *BMC public health*, 13(1), p.622.

Tiruneh, Y.M., 2004. Beyond Knowledge : Patterns Of Sexuality And Correlates Of High-Risk Behaviour Among Urban Youth In Addis Ababa , Ethiopia. , (March 2004).

Uchudi, J., Magadi, M. & Mostazir, M., 2012. A multilevel analysis of the determinants of high-risk sexual behaviour in sub-Saharan Africa. *J Biosoc Sci*, 44(3), pp.289–311.

Ugoji, F.N., 2014. Determinants of risky sexual behaviours among secondary school students in Delta State Nigeria. *International Journal of Adolescence and Youth*, 19(3), pp.408–418.

UN, 2006. Gender equality, UN coherence and You, Glossary A-Z, pp.1–7. Available at: <http://www.unicef.org/gender/training/content/resources/Glossary.pdf>

UNAIDS, 2010. Adolescents, young people and HIV. , pp.1–2.

Underhill, K., Montgomery, P. & Operario, D., 2009. Cochrane review: Abstinence-plus programs for HIV infection prevention in high-income countries. *Evidence-Based Child Health: A Cochrane Review Journal*, 4(2), pp.400–815. Available at: <http://dx.doi.org/10.1002/ebch.377>.

UNESCO, 2009. WHO (2009) International Technical Guidance on Sexuality Education. *An Evidence-Informed Approach for Schools, teachers and health educators*. Available at:
<http://unesdoc.unesco.org/images/0018/001832/183281e.pdf>

Unesco, 2013. YOUNG PEOPLE TODAY . Time to Act now . , pp.1–114.
Available at: <http://unesdoc.unesco.org/images/0022/002234/223447E.pdf>

UNESCO and UNFPA, 1998. Handbook for Educating on Adolescent Reproductive and Sexual Health Book Two: Strategies and Materials on Adolescent Reproductive and Sexual Health Education. *United Nations Educational, Scientific and Cultural Organization*.

UNFPA, 2012. Status Report, Adolescent and Young people in Sub-Saharan Africa, Challenges and Opportunities. Available at:
<http://www.prb.org/pdf12/status-report-youth-subsaharan-Africa.pdf>

UNICEF, 2012. Evaluation of the UNICEF/MOWCYA adolescent/youth development programme in Ethiopia (2007-2011). , (November 2012).
Available at: http://www.unicef.org/evaluation/files/Ethiopia_2012-049_Adolescent_Development_Final_Report.pdf

UNICEF, 2011. *The state of world's children*, Adolescence an age of opportunity. Available at:
http://www.unicef.org/adolescence/files/SOWC_2011_Main_Report_EN_02092011.pdf

USAID, 2008. Soul City Institute for Health and Development Communication. , 1(March 2008).

Wamoyi, J. et al., 2014. A review of interventions addressing structural drivers of adolescents' sexual and reproductive health vulnerability in sub-Saharan Africa: implications for sexual health programming. *Reproductive Health*, 11(1), p.88. Available at: <http://www.reproductive-health-journal.com/content/11/1/88>.

Wang, B. et al., 2015. Dynamic Relationships Between Parental Monitoring , Peer Risk Involvement and Sexual Risk Behavior Among Bahamian Mid-Adolescents. *International Perspectives on Sexual and Reproductive Health*, 41(2), pp.89–98.

Wellings, K. et al., 2006. Sexual behaviour in context: a global perspective. *The Lancet*, 368(9548), pp.1706–1728.

WHO, 2002. Adolescent Friendly Health Services: Agenda for change.
Available at:
http://apps.who.int/iris/bitstream/10665/67923/1/WHO_FCH_CAH_02.14.pdf

WHO, 2005. Alcohol Use and Sexual Risk Behaviour: A Cross-Cultural Study in Eight Countries. Available at:
http://www.who.int/substance_abuse/publications/alcohol_sexual_risk_cross_cultural.pdf

WHO, 2010. Developing sexual health programmes. A framework for action. *Reproductive Health*, p.55.

WHO, 2012. Early marriages , adolescent and young pregnancies Report by the Secretariat. *Sixty-Fifth World Health Assembly*, (March), pp.16–19.

WHO, 2001a. Macroeconomics and Health: Investing in Health for Economic Development: Report of the Commission on Macroeconomics and Health. , 8(6), pp.1–200. Available at:
<http://www.nature.com/doi/10.1038/nm0602-551b>.

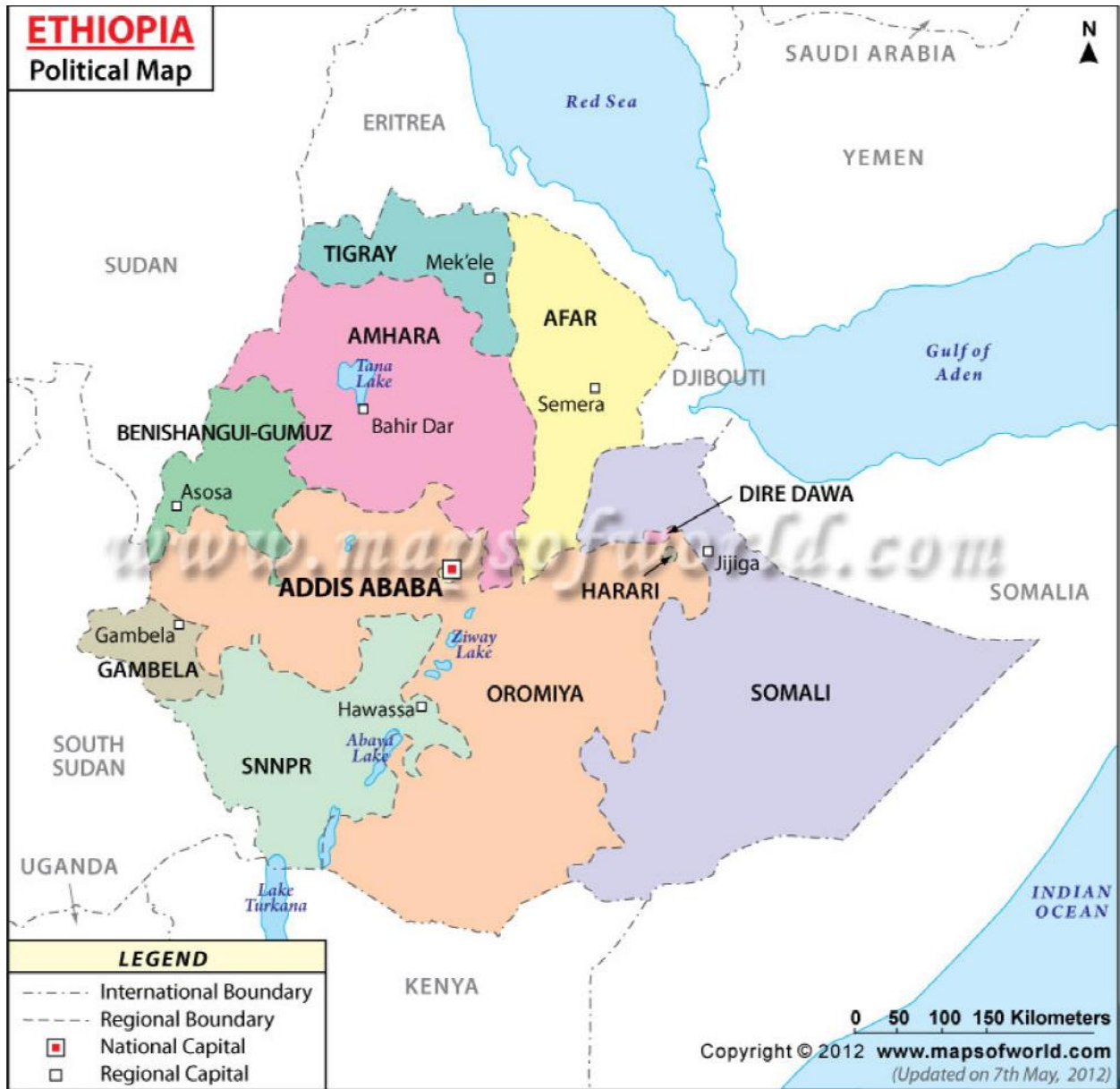
WHO, 2004. Position Statement on Condoms and HIV Prevention Condom use is a critical element in a comprehensive , effective and sustainable approach to HIV prevention and treatment. *Sexually Transmitted Infections*, (July 2004).

WHO, 2006. Preventing HIV/AIDS in young people: Evidence from developing countries on what works. *Young*, (February).

WHO, 2001b. The Abuja Declaration : Ten Years On. *Health (San Francisco)*, (September 2000), pp.1–4.

WHO, 2001c. The Second Decade: Improving adolescent health and development. *World Health Organization*.

Annexes
Annex 1: Map of Ethiopia



Source: <http://www.mapsofworld.com/ethiopia/ethiopia-political-map.html#>

Annex 2: Demographic, Economic and Health profile

Category	Indicator	Rank	Source
Population	Total (million), 2011	83.7	Ethiopian Demographic Health Survey , 2011
	Rural (%)	83.9	
	Urban (%)	16.1	
	Age <15 (%)	47	
	Age between 15-65 (%)	49	
	Age <65 (%)	4	
	Age between 10- 24 (%)	34	
Economy	GNI per capita 2014, US\$	550	World Bank 2014 http://www.worldbank.org/en/country/ethiopia
	GDP per capita 2014, PPP US\$ (Billion)	54.80	
	GDP per capita annual growth rate (%), 1990 - 2012	9.9	
	Population below international Poverty line of US\$1.25 per day (%), 2011	30.7	
Health Indicator	Crude Birth rate (per 1000 population)	33	Ethiopian Ministry of Health, 2015. Transformation Plan; 2015/16 -2019/20
	Infant Mortality rate (per 1000 live births)	44	
	Neonatal Mortality rate (per 1000 live births)	29	
	Under five Mortality rate (per 1000 live births)	64	
	Contraceptive prevalence rate (%)	42	
	Life expectancy at birth	63	
	Total Fertility rate	4.6	
	Maternal Mortality Ratio (per 100,000 live births) 2015	420	
	Antenatal care coverage (at least one visit) (%)	58.3	
	Skill birth attendance	40.9	

Adolescent Health Indicators	Population age 10-19, thousands 2012		22993.3	http://www.unicef.org/infobycountry/ethiopia_statistics.html#126
	Population aged 10-19, proportion of total population in (%) 2012		25.1	
	Adolescent currently married /in union (%) 2002-2012*, male		2.2	http://www.unicef.org/infobycountry/ethiopia_statistics.html#126
	Adolescent currently married /in union (%) 2002 - 2012*, female		19.1	
	Births by age 18 (%) 2008-2012*		22.2	
	Adolescent Birth rate , 2006-2010*		79	
	Age at first birth			
	Use of Mass media among adolescent (%) 2002-2012*	Male		
Female			38.4	
Disparities by sex	Comprehensive knowledge of HIV (%) among adolescent 2008-2012*	Male	31.8	
		Female	24	
Disparities by residence	Comprehensive Knowledge of HIV (%) female 15-24 2008-2012*	Female (urban)	37.7	
		Female (rural)	18.7	
		Ratio urban to rural	2	
Education	Youth (15-24) literacy rate (%) 2008-2012*, male		63	
	Youth (15-24) literacy rate (%) 2008-2012*, female		47	

Annex 3: Framework for development of Youth friendly services (WHO, 2002)

<p>1. Adolescent friendly policies that</p> <ul style="list-style-type: none"> ○ fulfil the rights of adolescents as outlined in the UN Convention on the Rights of the Child and other instruments and declarations, ○ take into account the special needs of different sectors of the population, including vulnerable and under-served groups, ○ do not restrict the provision of health services on grounds of gender, disability, ethnic origin, religion or (unless strictly appropriate) age, ○ pay special attention to gender factors, ○ guarantee privacy and confidentiality and promote autonomy so that adolescents can consent to their own treatment and care, ○ ensure that services are either free or affordable by adolescents. <p>2. Adolescent friendly procedures to facilitate</p> <ul style="list-style-type: none"> • easy and confidential registration of patients, and retrieval and storage of records, • short waiting times and (where necessary) swift referral, • consultation with or without an appointment. <p>3. AFH care providers who</p> <ul style="list-style-type: none"> • are technically competent in adolescent specific areas, and offer health promotion, prevention, treatment and care relevant to each client's maturation and social circumstances, • have interpersonal and communication skills, • are motivated and supported, • are non-judgmental and considerate, easy to relate to and trustworthy, • devote adequate time to clients or patients, • act in the best interests of their clients, • treat all clients with equal care and respect • provide information and support to enable each adolescent to make the right free choices for his or her unique needs. <p>4. Adolescent friendly support staff who are</p> <ul style="list-style-type: none"> • understanding and considerate, treating each adolescent client with equal care and respect, • competent, motivated and well supported. 	<p>5. Adolescent friendly health facilities that</p> <ul style="list-style-type: none"> • provide a safe environment at a convenient location with an appealing ambience, • have convenient working hours, • offer privacy and avoid stigma, • provide information and education material. <p>6. Adolescent involvement, so that they are</p> <ul style="list-style-type: none"> • well informed about services and their rights, • encouraged to respect the rights of others, • involved in service assessment and provision. <p>7. Community involvement and dialogue to</p> <ul style="list-style-type: none"> • promote the value of health services, and • encourage parental and community support. <p>8. Community based, outreach and peer-to-peer</p> <ul style="list-style-type: none"> • services to increase coverage and accessibility. <p>9. Appropriate and comprehensive services that</p> <ul style="list-style-type: none"> • address each adolescent's physical, social and psychological health and development needs, • provide a comprehensive package of health care and referral to other relevant services, • do not carry out unnecessary procedures. <p>10. Effective health services for adolescents</p> <ul style="list-style-type: none"> • that are guided by evidence-based protocols and guidelines, • having equipment, supplies and basic services necessary to deliver the essential care package, • having a process of quality improvement to create and maintain a culture of staff support. <p>11. Efficient services which have</p> <ul style="list-style-type: none"> • a management information system including information on the cost of resources, • a system to make use of this information.
--	---