

**FACTORS INFLUENCING MODERN  
CONTRACEPTIVES USE AMONG  
ADOLESCENTS IN NEPAL**

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52<sup>nd</sup> Master of Public health/International Course in Health Development  
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KIT (Royal Tropical Institute)  
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# **Factors influencing modern contraceptives use among adolescents in Nepal**

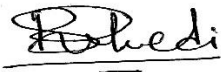
A thesis submitted in partial fulfillment of the requirement for the degree of  
Master of Public Health

By  
Ranjeeta Subedi  
Nepal

## 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 **Factors influencing modern contraceptives use among adolescents in Nepal** is my own work.



Signature:

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## **List of Abbreviations:**

WHO:	World Health Organization
GDP:	Gross Domestic Product
PHC:	Primary Health Care
PHCC:	Primary Health Care Centre
STIs:	Sexually Transmitted Infections
SRH:	Sexual and Reproductive Health
SRHR:	Sexual and Reproductive Health Right
AFS:	Adolescent Friendly Services
MoH:	Ministry of Health
HP:	Health Post
FCHV:	Female Community Health Volunteer
NDHS:	National Demographic Health Survey
NGO:	Non-Government Organization
ASRH:	Adolescent Sexual and Reproductive Health
CAC:	Comprehensive Abortion Care
FPAN:	Family Planning Association Nepal
UNICEF:	United Nations Children's Fund
MoHP:	Ministry of Health Population
DoHS:	Department of Health Services
ECs:	Emergency Contraceptives
SLC:	School Leaving Certificate
FGD:	Focus Group Discussion
FP:	Family Planning
IEC:	Information Education Communication
BCC:	Behavior Change Communication
MSI:	Marie Stopes International
ARH:	Adolescents Reproductive Health
NAHD:	National Adolescent Health Development
NARHS:	National Adolescent Reproductive Health Services
RH:	Reproductive Health
CREPHA:	Centre for Research on Environment Health and Population Activities

## Glossary

**Adolescent:** “World Health Organization (WHO) identifies adolescence as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19 years”(1).

**Youth:** According to WHO, youth refers to people between the ages of 15 to 24 years (2).

**Young people:** WHO defines young people to all adolescents and youth between 10 to 24 years (2).

**Modern Contraceptive:** “Modern contraceptive methods were invented so couples could act on natural impulses and desires with diminished risks of pregnancy. Modern contraceptive refers technological advances designed to overcome biology” (3). It includes methods like pills, condoms, Intrauterine devices, Injectable etc. which prevents pregnancy by interfering normal process of ovulation, fertilization and implantation. In the study contraceptive refers to modern contraceptive.

**Currently married:** “Respondents who at the time of interview were married, either in a formal marital union or living with someone as if married (cohabiting)” (4).

**Sexual and Reproductive Health (SRH):** “Sexual and reproductive health is a state of complete physical, mental and social well-being in all matters relating to the reproductive system. It implies that people are able to have a satisfying and safe sex life, the capability to reproduce, and the freedom to decide if, when, and how often to do so”(5). It includes comprehensive sex education, contraceptive, antenatal care, safe delivery, HIV/STDs, abortion care and other reproductive illnesses (5).

**Unsafe abortion:** “Unsafe abortion is defined as a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking minimal medical standards or both”(6).

**Age Specific Fertility Rate (ASFR):** Total number of live births per 1000 women population of a given age group (e.g.15-19 years) per year. “The numerator is calculated by identifying the number of live births that occurred in the three-year period to mothers age 15-19. The denominator represents

the number of woman-years lived by the survey respondents in ages 15-19 during those years. The resulting proportion is multiplied by 1,000 to measure number of births per 1,000 person-years" (4).

**Life Skill Training:** "Life skills is considered as a set of psychosocial competencies that enable young people to think critically about health risks, communicate effectively and make responsible decisions that impact on their health"(7).

**Comprehensive Abortion Care (CAC):** "Comprehensive abortion care is an approach to abortion services that takes into account the various factors that influence a woman's individual health needs—both physical and mental—as well as her personal circumstances and her ability to access services" (8). It is a comprehensive way to support pregnant woman which includes detection of early pregnancy, counselling, termination of pregnancy with management of post abortion complication and family planning services and counselling (9).

## **Abstract**

**Background:** In Nepal, contraceptive use among married adolescents is low and has remained nearly stagnant, while little is known about contraceptive use among unmarried. Nepal is committed to improve Sexual and Reproductive Health (SRH), promoting contraceptive usage among all adolescent to prevent unintended pregnancy, HIV/STIs and unsafe abortions but still contraceptive use is not increasing.

**Objectives:** The aim of the study is to explore the factors influencing modern contraceptive use among adolescents in order to help policy makers and planners to develop and/or improve appropriate interventions to increase contraceptive use which ultimately improve Adolescent SRH.

**Methodology:** The study is conducted through literature review using published and unpublished articles, documents, and reports. An adapted and modified socio-ecological model was used to explore the factors influencing contraceptive use.

**Findings:** Contraceptive use is persistently low among both married and unmarried adolescents. Various interrelated factors like socio cultural norms and traditions, lack of comprehensive knowledge, lack of Adolescent Friendly Services (AFS), and training to teachers and health workers are the major influential factors that limit adolescents to seek and use contraceptive services and information.

**Conclusion:** Multilevel approach addressing the adolescent's need of contraceptives and creating an enabling environment to obtain contraceptives information and services is required. Government and NGOs working in SRH should be committed to translate policies into practice.

**Recommendations:** Provision of training to teachers and health workers; sex education programme at school and out of school; involvement of community, family, and adolescents; and provision of AFS according to the written policy.

**Key Words:** Contraceptive, Adolescent, Barriers, Nepal.

**Word Count:** 12,789

## **Introduction and Organization of the Thesis:**

### **Introduction:**

In Nepal, a large number of both married and unmarried adolescents are sexually active. Low contraceptive use among adolescents contributing to unintended pregnancy, HIV/ Sexually Transmitted Infections (STIs), and unsafe abortion is a public health concern in Nepal. Adolescents lacking adequate information might not be able to access Sexual and Reproductive Health (SRH) services including contraceptives. So, they are more likely to engage in unsafe sexual practices leading them to become pregnant early and/or contract STIs.

In addition, Nepalese traditions favor early sexual activity because of early marriage. At the same time, married adolescents are under pressure to prove fertility soon after their marriage leading to early pregnancy. Early pregnancy not only threatens the health of mother and child but also creates other social problems like school dropout, unemployment, and low socio economic conditions (10). On the contrary, in the case of unmarried adolescent, the restrictive premarital intercourse contributes to them avoiding seeking contraceptive services due to the fear of being stigmatized as sexually active which leads to unsafe sexual practices.

Preventing consequences of harmful sexual practices through the promotion of contraceptive use is also directly linked with the accessibility of contraceptive and SRH services as well. Government of Nepal is committed to make the adolescent contraceptive services available, acceptable, accessible and affordable. Despite this effort, contraceptive use among adolescents is low. Hence, it is necessary to understand and explore the factors influencing contraceptive use among adolescents.

As a nursing coordinator, I was teaching about SRH, contraceptives to the nursing students- most of them are in their teenage and might be the service providers for many adolescents in SRH in the future. During the student's theoretical and practical sessions in the hospital and in community field, I came to encounter many cases of teenage pregnancy, unintended pregnancy, and unsafe abortion among adolescents. It made me interested

to identify the reason behind not using contraceptives which is a simplest and easiest means to avoid such harmful negative consequences.

This thesis will explore influencing factors in seeking and using contraceptives among adolescent. It will identify the best interventions to promote contraceptive use and also provide recommendations to the policy makers, planners, and implementers to support and create an enabling environment for the adolescents to seek and use services.

## **Organization of Thesis:**

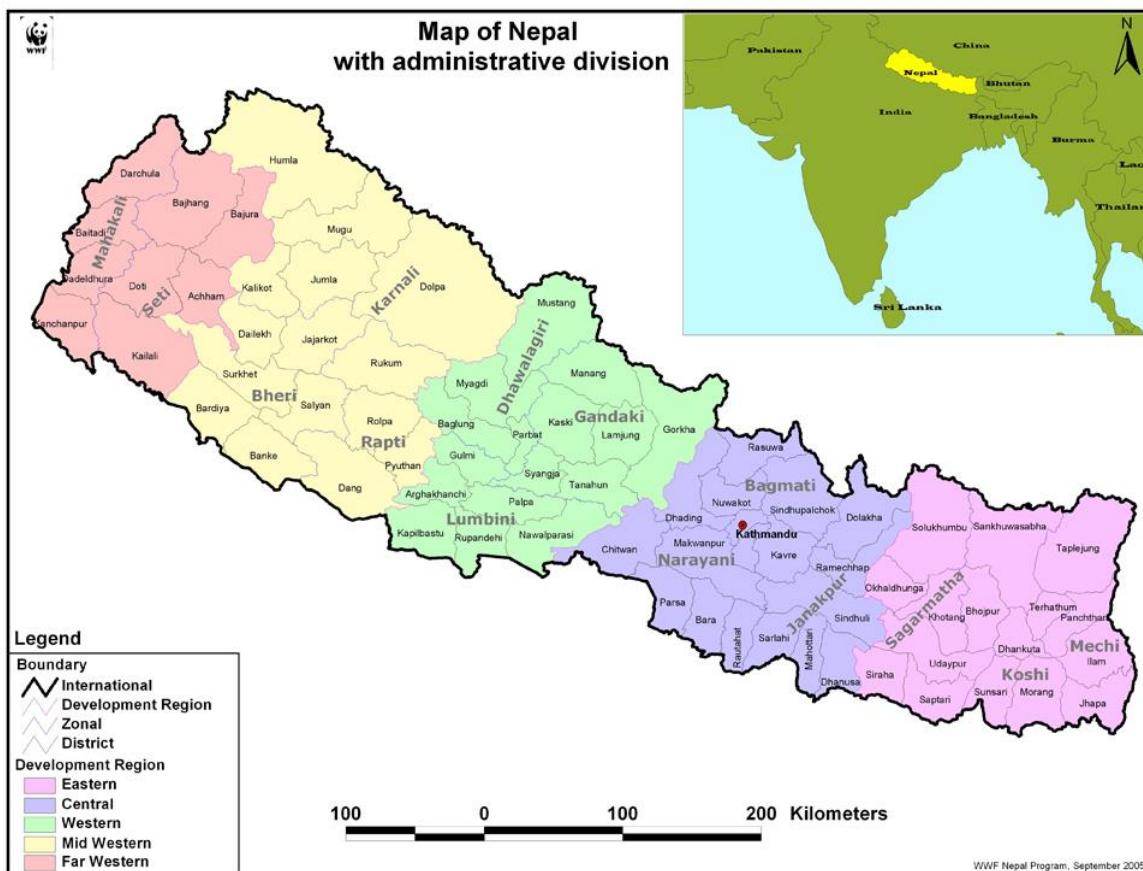
**Chapter One** gives background information on Nepal, the country of study. **Chapter Two** introduces the problem briefly, presents the objectives of the thesis, explains the methodology used for the literature review and arrives to the conceptual framework. **Chapter Three** discusses the prevalence and trends of contraceptive use among adolescents, trends of adolescent's fertility, and identifies and explores the factors influencing contraceptive use among adolescents in Nepal based on conceptual framework. **Chapter Four** explores evidence that worked in increasing contraceptive use nationally and internationally in other culturally similar countries to Nepal. **Chapter five** brings the findings of this thesis together and tries to attempt to make some conclusions and finally arrives to the recommendations.

# Chapter 1. Background Information of Nepal:

## 1.1 Country profile:

Nepal is a landlocked country bordered by India to the south, east and west and China to the North. Topographically, Nepal is divided into Hills with 43% of the population, Mountains with 7%, and Terai with 50% of population. For administrative purposes, it is divided into five development regions namely Eastern, Central, Western, Mid-Western and Far-western as shown in Fig. 1 with a total area of 147,181 sq. km(11).

**Figure 1: Map of Nepal with Administrative Division**



Source: <http://www.triphimalaya.com/images/nepal-map.jpg>

The total population of Nepal is 26.4 million with a population density of 181 per square kilometer and growth rate of 1.35% per annum. The male and female distribution of population is 48.5% and 51.5% respectively and an urban population constitute only 17.1% and rural population of 82.9%, whereas among adolescents, 53% are residing in rural and 46% are in urban areas (12). Majority of the population are adults in Nepal between the age group of 15-60 years, 39.3% of the population are under the age of 15 and 6.5% are over 60 years. The life expectancy of Nepalese people at birth is 66.7 years in 2011 (12).

## **1.2 Socio-Culture and Gender Roles:**

Nepal is a multi-religious country and consists of diverse cultures, language, ethnic groups and castes. The majority of the people follow Hinduism (81%), and other religious groups include Buddhists, Muslims, Christians and Kirants. Nepali is the official language and is the mother tongue of half of the population. It is used and understood by most of the people in Nepal, whereas there are other 92 mother tongues as well (11).

Nepal is a patriarchal society and on Gender Inequality Index (value of 0.479), it ranks 98<sup>th</sup> country among 187 countries. Gender roles in Nepal vary according to the context, ethnic group, religion and socio-economic class. In a very traditional family, women have to rely totally on men for decision-making about their own health care, household tasks and even visiting their family and relatives. Women and girls in Nepal are also disadvantaged by traditional practices like dowry system, early marriage, blaming widows, preference for sons, and separating them during menstrual cycle. Only 19.7% of the household have female ownership for land or house or both (13).

## **1.3 Economy:**

Nepal is a low income country with Gross Domestic Product (GDP) of USD 19.77 billion and GDP per capita of USD 426.48 in 2015 (14). Due to the devastating earthquake in 2015, the growth rate of GDP has decreased to 3% in 2015 from 5.1% in 2014. The main source of economy in Nepal is Agriculture with 70% of people engaged on it. It accounts for 33% of the total GDP (15). Out of the working age (15-59 years) population, 97.9% are



employed, but only 16.7% are paid employees and the large proportion among the employed (83.1%) are self-employed (16).

#### **1.4 Education:**

The overall literacy rate in Nepal among population above 5 years is 66%. Males are more literate than females with the literacy rate of 75% and 57% respectively. Literacy rate in urban areas is 82.3% in contrary to rural areas where it is only 62.5%. Literacy varies with the wealth quantile as well: 79% of the women with high wealth quantile are literate whereas only 45% of women in the lowest wealth quantile are literate (11).

#### **1.5 Health System:**

Ministry of Health under the Government of Nepal is the main body for the provision of health services in Nepal. The Ministry is responsible for formulating policies and making necessary arrangements for the effective delivery of preventive, promotive, and curative health services (17). The national health policy of Nepal in 1991 has adopted Primary Health Care (PHC) in order to provide basic health services to all the citizens of Nepal and improve conditions of the majority of people residing in rural areas (18).

Department of Health is one of the departments under the Ministry of Health which regulates all institutional framework, provides technical advice to MOH, determines and develops manpower according to need, and ensures the adequate supply of the equipment, drugs etc. (19). At the national level there are five centers and seven divisions followed by five regional directorates at the regional level. In Nepal, the first contact point is Health Post (HP) for basic health services. It is the referral point for community level cadres and activities like Female Community Health Volunteer (FCHV), PHC outreach clinics, and Expanded Programme on Immunization (EPI) clinics. According to the institutional framework, referrals are done from HP to Primary Health Care Centers (PHCCs) followed by district, zonal, regional hospitals, and lastly to the specialty hospitals in order to ensure an accessible and affordable primary health care services to the maximum population. According to annual report 2015, there are 8 Central hospitals, 10 Zonal and 75 district/other hospitals, 202 PHCCs, 3805 HPs (Annex 1) providing the service throughout the country (20). Furthermore, 459 NGO/INGOs and 645 Private Health institutions (PHI) also contribute in

providing health services in Nepal (18). However inadequate skilled manpower, centralization of financial and administrative activities, political instability and its influence, limited physical infrastructure and lack of repair and maintenance of the existing infrastructures, inter and intrasectoral coordination are the challenges of health care service delivery in Nepal (21).

## **1.6 Health Situation:**

Nepal has achieved significant improvements in maternal, neonatal and child health. Maternal mortality ratio has reduced from 539 maternal deaths per 100,000 live births in 1996 to 281 in 2006. Also the under-five mortality fell from 118 deaths per 1000 live births to 54 deaths and infant mortality decreased from 79 per 1000 live births to 46 from 1996 till 2011 (11). Despite these improvements, Nepal is struggling hard to deal with problems of malnutrition, lower rates of contraceptive use, and the outbreak of infectious diseases and health hazards during the post-disaster period. Abortion is legalized under certain circumstances whereas still unsafe abortion is high, more than 50% of the abortions were unsafe in 2006 (22).

## **Chapter 2: Problem statement, Objectives, and Methodology:**

### **2.1 Problem Statement and Justification:**

Contraceptive use is a basic necessity for safe motherhood and reproductive rights. Unintended pregnancy due to limited contraceptive use among adolescents is a rising public health issue in Nepal. Adolescents make up about 23% of the population in Nepal, nearly one quarter of the total population (23). Current population momentum predicts that this demographic will continue to grow for another 20 years (24). Due to the combination of biological, social and psychological factors, adolescents are more vulnerable to many different health problems like Sexually Transmitted Infections (STIs), HIV, early and frequent pregnancy. Nonetheless adolescents in general are very energetic and receptive to the information applicable to them. Their curious and learning attitude offers opportunity to improve reproductive health. However, in Nepal, sexual and reproductive health education and services are disproportionately low in comparison to these needs of the adolescents (24)(25).

A large number of adolescents, both married and unmarried, are sexually active. Early sexual debut i.e. before the age of 16 years is highly prevalent in Nepal, at 39.2% with the mean age of coital debut at 17.9 years. According to National Health Demographic Survey (NDHS), in 2011, 40.4% of young women and 22.2 % of young men among the age groups of 15-24 years reported having started their first sexual intercourse by the age of 18 years, irrespective of their marital status (11)(26). Significant association is found between early sexual debut and multiple sexual partners, inconsistent condom use, teenage pregnancy and increased risk of acquisition of STIs and HIV (26).

The cultural norm in Nepal highly value virginity before marriage (27), which is more prominent for girls than boys (28), despite this, the trend towards premarital sexual intercourse has increased (27)(29). Premarital intercourse among adolescent boys between the ages of 15-19 years has increased from 11.8% in 2006 to 14.7% in 2011. Whereas, in the case of females, sexual intercourse takes place mostly within union. Only 0.6% of never married adolescent girls between 15-19 years in 2011 had sexual intercourse, a 0.3% rise from 2006(11)(26). However, this low percentage is likely to be influenced by underreporting from the adolescents as they are more likely to

hide their sexual activity because of the embarrassment and fear of being stigmatized (30). This is supported by the study done on factory workers revealing that 38% and 18% of unmarried boys and girls between ages of 14-19 years had experienced one form of sexual activity (31). A survey conducted among teenagers in 7 districts of Nepal showed risky sexual behavior especially among young boys. About 22% of the boys interviewed had premarital sexual experience and only two thirds of them used condom (30). The societal norm that obliges girls and boys to remain chaste before marriage, leads those who are engaged in premarital sex to feel embarrassed and ashamed to seek contraceptive methods (25).

Sexual activity of adolescents, mostly females, is also influenced by early marriage. In Nepal, social and cultural norms favor early marriage. The median age of first marriage is 17.5 years for girls and 21.6 years for boys (11). An estimated 41% of the young women and 11% of the men between the age group of 20–24 years were married by the age of 18 years in 2011 (23). Although early marriage provides social recognition and approval for sexual relations, it also places pressure on the couples, particularly girls, to prove their fertility. This aids in the low use of contraception prior to first child causing early pregnancy (25)(32).

Adolescent pregnancy provides threat to both the mother and the child's health. Babies born to adolescent mothers face a substantially higher risk of dying than those born to women aged 20-24. The median age of first childbearing in Nepal ranges from 19.3-21.5 years. It was found that 17% of the adolescents between 15-19 years are already mothers or pregnant with their first child. Adolescent pregnancy complications are the second most common leading cause of mortality among these age groups (10). In developing countries like Nepal, 32% of maternal and 10% of childhood deaths can be averted by the use of Family Planning (FP) (33). Early pregnancy also cause the adolescents to drop out from the school and have a long term negative impact for themselves, community and nation as well (10).

According to the NDHS 2011, the knowledge of contraceptive is almost universal among the adolescent boys and girls between the ages 15-19 years in Nepal, but contraceptive prevalence rate is only 14.4% among married adolescents between 15-19 years (11). Mostly unmarried adolescent's contraceptive use is highly influenced by societal stigma. Studies done on Nepal showed that adolescents are reluctant to go to health facilities and pharmacies to obtain contraceptive as they fear recognition by the providers and community members who might then label them negatively as being sexually active (32).

National Demographic survey also showed that there is a demand of contraceptive use among the married adolescent between 15-19 years, but these demands are often not fulfilled. In Nepal, married adolescents between the ages of 15-19 years experienced highest unmet need of contraceptive use (42%) among all other married women's age group (11). A comparative study around the world has shown that an unmet need on contraceptives is even higher in unmarried adolescents than currently married adolescents (4). High levels of unmet need of contraceptives lead to unintended pregnancies, and frequently to abortions. In Nepal, unintended pregnancy in an unmarried adolescent girl usually end up with induced abortion (34). Adolescents often avoid the access to legal, high quality abortion services due to the fear of negative attitude of health care providers, lack of confidentiality, and stigma from the society, causing most of these abortion to be unsafe (25)(35).

Adolescents are fighting with many Sexual and Reproductive Health (SRH) challenges (25). It is now critical to understand their sexual reproductive desire and enable them to achieve necessary information and services regarding safe sexual practices and contraceptives. Many adolescent are sexually active, whereas they want to avoid, delay or limit pregnancy, but they are not able to make their decision regarding their reproduction.

The government of Nepal has pledged committed to improve Adolescent Sexual and Reproductive Health (ASRH), promoting contraceptive uses among adolescents to prevent unintended pregnancy, HIV/STIs and other consequences but still the problem is not under control. Although many government and Non-Government organizations (NGOs) are working to provide information and services to the adolescent, adolescent contraceptive use is minimal. In order to help adolescents to use contraceptive services, we need to understand the factors affecting the demand, access and use of contraceptives.

This study aims to determine the factors influencing modern contraceptive use among adolescents in Nepal. The findings of this study aim to guide sexual and reproductive health program planners and policy makers to understand various factors influencing contraceptive use and to assist in implementation of the reproductive health program. This will decrease unintended pregnancy, HIV/STIs, unsafe abortions as well as reduce the risk of maternal and infant morbidity and mortality. Though there are few studies on contraceptive use in Nepal, this type of research focusing specifically on adolescent contraceptive use has not yet been undertaken.

## **2.2 Objectives:**

### **General Objective:**

The main aim of the study is to explore the factors influencing modern contraceptive use among married and unmarried adolescent in order to help policy makers and planners to develop and/or improve appropriate interventions to increase contraceptive use which ultimately improve Adolescent Sexual and Reproductive Health in Nepal.

### **Specific Objectives:**

- To describe and critically analyze the prevalence and trends of modern contraceptive use and fertility rate among adolescents in Nepal.
- To explore the factors influencing the modern contraceptive use among the adolescents.
- To identify and critically analyze various national and international interventions that have been effective on improving modern contraceptive use among adolescents.
- To make recommendations to policy makers, planners and the implementers to strengthen or adopt policies, strategies and interventions that are proven to improve modern contraceptive use by adolescents.

## **2.3 Methodology**

### **Search Strategy:**

The methodology used for this study is literature review of both published and unpublished literature. Google, Google Scholar, Yahoo search, PubMed and the VU e- library are the major databases used for the review.

Google was used to find various sources like WHO, UNICEF, Guttmacher Institute, Nepal Ministry of health and population (MoHP), NDHS, Department of Health Service (DoHS) and Central Bureau of Statistics. The

information from the facts, figures, publications, reports, policy documents, guidelines was retrieved from the institutional websites.

Google Scholar and PubMed were used to find the peer reviewed articles and journals. These articles were further screened by going through their abstracts and relevant articles were selected for detailed study. The selected articles which full texts were not found were extracted searching from the VU e-library and Yahoo search. Bibliographies of these articles were also used to search for other relevant articles. Key words were used to find literatures for every objectives as illustrated in table below.

**Table 1: Search Table**

<b>Objectives</b>	<b>Source</b>	<b>Key Words</b>
<b>Objective 1</b>	PubMed Google scholar Websites of Ministry of Health, Nepal Demographic Health Survey, Department of Health Service Central Bureau of Statistics	"Trends contraceptive Nepal", "adolescent contraceptive and Nepal" "contraceptive prevalence rate", "adolescent fertility Nepal"
<b>Objective 2</b>	PubMed Google scholar VU e-library Websites of Ministry of Health, Nepal Demographic Health Survey, Department of Health Service WHO, UNICEF, CREPHA, Marie Stopes International, Sunaulo Parivar Nepal, Guttermacher Institute	"Barrier of contraceptive" "factors influencing contraceptive use adolescent and Nepal", "Socio-demographic factor contraceptive and Nepal", "Attitude, perception on contraceptive young people", "Culture and contraceptive use Nepal", "adolescent friendly services Nepal", "access to family planning adolescent", "Young people and contraceptive use", "Policies, adolescent and contraceptive in Nepal", "Sex education in Nepal"
<b>Objective 3</b>	PubMed Google scholar	"contraceptive interventions", "evidence based intervention contraceptive use and adolescent" promoting contraceptive use among adolescent"

## Limitations of the study:

The literature published in English and Nepali was only used. Literature related to modern contraceptive methods were only included in the study. The literature which is only on traditional methods was excluded. The articles which full text was not available were not included in the study. The data on recent contraceptive use was obtained from NDHS due to which data on unmarried adolescent contraceptive use could not be obtained as it was not included in NDHS and no other studies are done on it and this study does not collect primary data. So, data on unmarried adolescent contraceptive prevalence in Nepal is lacking.

## Conceptual Framework for the study:

The literature shows that there are numerous interrelated factors which shape the sexual behavior of adolescents and use of contraceptives. The study uses adapted socio ecological model originally designed by McLeroy, et al. in 1988 (36) and also used by Diclemente et.al (37), and Decat peter (38) which describes the determinants of use and non-use of contraceptives by adolescents. It provides a framework for understanding the interactive effects of personal and environmental factors that determine the behavior.

Other models like Andersen and Newman framework and conceptual model by Kinaro Joyce et. al. (39) were also considered to examine individual and service related factors. The socioecological model is selected over other models as it is more comprehensive, including factors from individual level, societal level to policy level and their interaction at various levels. In addition, due to the complex nature of the determinants of contraceptive use, this model contains higher level determinants facilitating the exploration of a complex issue.

The socio ecological model is widely used to identify the factors that determine the health behavior and also to identify the effective interventions for health promotion. The model is used by Diclemente et al. to discover broader intervention of preventing risky sexual behavior among adolescents (37). Similarly the model was used by Decat Peter to explore the factors of unmet need of contraceptives among unmarried adolescents and youth in china and Latin America (38) and also used to identify the determinants of



adolescent fertility in Nicaragua (40). This study also explores the factors affecting contraceptive use among adolescents and identifies the best possible interventions that addresses the factors at different levels rather than only at one level. Therefore, an updated version of socioecological model was developed in the study on the basis of frameworks by McLeroy et.al, Diclemente et.al, and Decat peter which is described as follows:

**Individual level** is the innermost sphere in the concentric sphere which includes factors like education, knowledge, perception of adolescents, their attitude, economic status, marital status, personality traits and behavior towards sexual activity which influence their decision of contraceptive use.

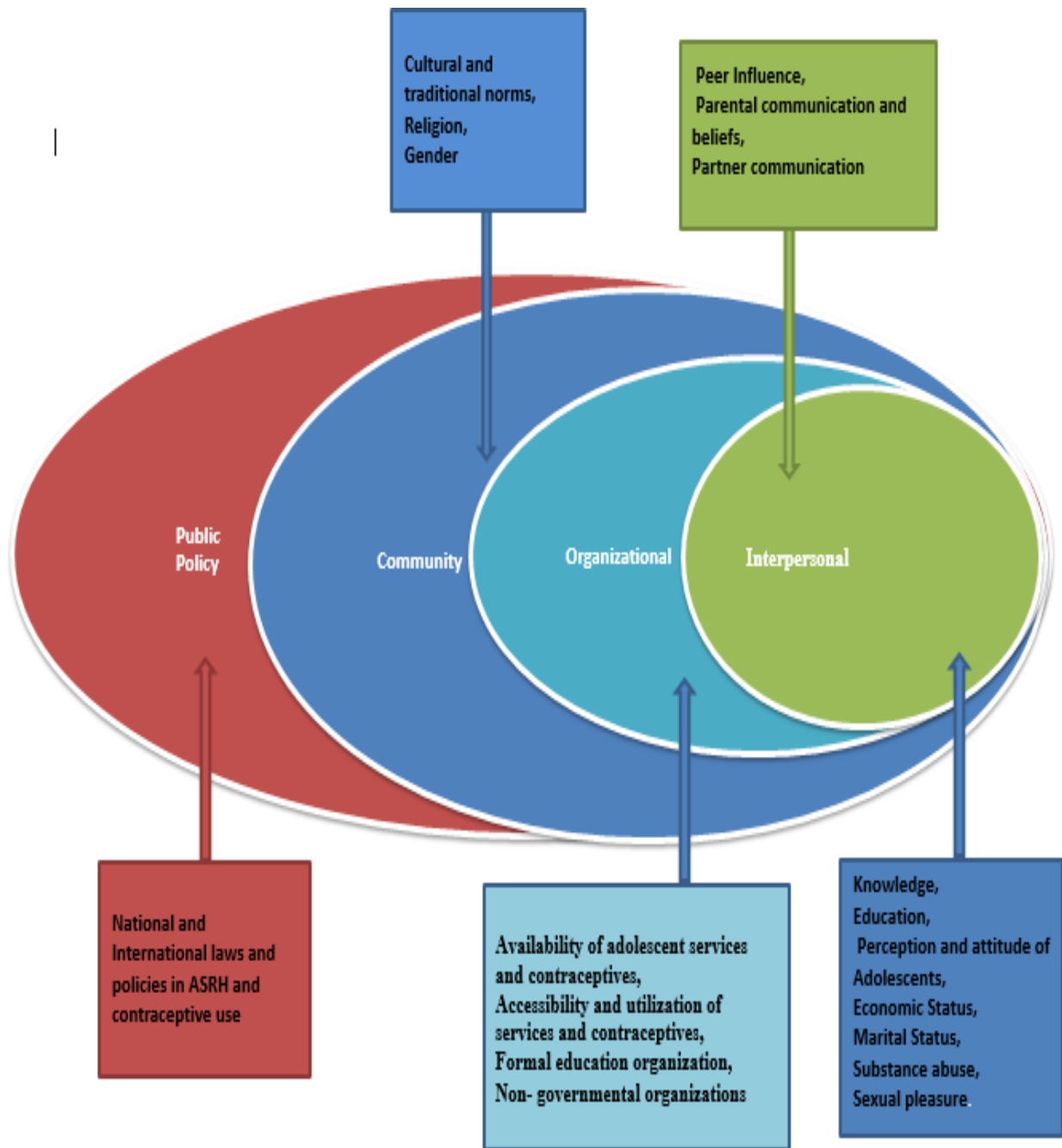
**Interpersonal level** describes the positive and negative influence of family members, peers and intimate partners in influencing the adolescents' behavior in contraceptive use.

**Organizational level** includes the organizational characteristics like availability of adolescent services and contraceptives, accessibility and utilization, and formal education organization which support or constrain the adolescent behavior.

**Community level** analyses informal networks like gender, societal norms, cultural values, religion which influence the behavior of adolescents to seek SRH services including contraceptives.

**Policy level** describes the national policies and laws promoting healthy behavior.

**Figure 2: The socio-ecological Model**



**Source: Adapted from McLeroy et.al (36), Diclemente et.al (37), and Decat peter (38).**

## **Chapter 3: Overview of modern contraceptive use prevalence and trends, fertility rate, and factors influencing contraceptive use among adolescents:**

This chapter follows the order of the specific objectives, which includes objective one discussing the prevalence and trends of contraceptive use and fertility rate among adolescent in Nepal related to the outcome of the conceptual framework. This is followed by objective two, which will explore the factors influencing contraceptives among adolescents in line with the conceptual framework.

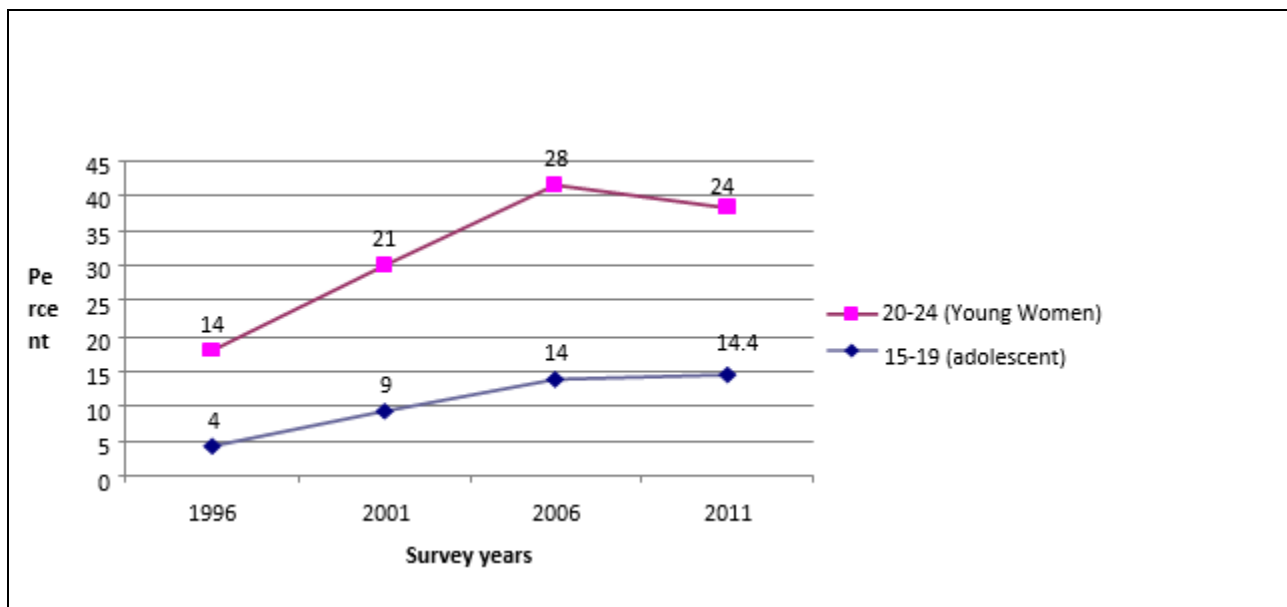
### **3.1 Prevalence and Trends of contraceptive use:**

Many literatures suggest that unmarried adolescents are not seeking to be pregnant. They note that married adolescent girls do not want to be pregnant at a young age either, and if they are already mothers, they want to delay their second pregnancy (41). However, the contraceptives prevalence rate among the currently married adolescents is 17.6% for any method of contraceptives and only 14.4% for modern contraceptive methods in 2011 (11).

The use of modern contraceptives among the currently married adolescent girls increased from 4% in 1996 to 14% in 2006, but since then it remained nearly stagnant till 2011. The modern contraceptive use among these adolescents is nearly 10% lower than among the currently married young women of age group 20-24 years, although the use of contraceptives in young women had decreased since 2006 as shown in the graph below (4).

A comparative study of demographic and health survey done around the world showed that unmarried adolescents use more modern method of contraceptives and also have more unmet need of contraceptives than currently married young girls (42). However NDHS of Nepal does not include unmarried adolescent girls in the survey. So there is no data regarding contraceptive use among unmarried adolescents.

**Figure 3: Trends of Modern Contraceptive Use among Currently Married Adolescent and Young Women by Age Group**



**Source: Nepal Adolescent Youth Survey (NAYS), 2013 (4).**

According to NDHS 2011, the most commonly used modern method of contraceptives among married adolescent women is male condom (45.2%), followed by injectable (34%) and pills (20.8%) whereas male condom is the only modern method used by unmarried adolescents in Nepal (11)(43). However, some of the studies have shown that use of Emergency Contraceptives (ECs) has been increasing rapidly since 2009 and it is more common among unmarried girls and married women below 25 years of age (44). Experts working on SRH, doctors and medical shop keepers quoted in the newspaper about the misuse or overuse of ECs, more specifically they say that the ECs are being used as a substitute of other contraceptives (45).

Similarly, following the legalization of abortion and initiation of Comprehensive Abortion Services (CAC) since 2004, the trend of women using abortion services has increased rapidly. Legalization has helped in preventing unintended pregnancies, complications of unsafe abortions whereas the potential of using abortion as a contraceptive measure by the young people has become a subject of concern in Nepal (46)(44). In recent years it has been discussed at policy level as well. However, no studies were found to be done to explore the relation of contraceptive use and use of ECs and abortion. In addition, NDHS also has not collected information about

ECs. Although, a small scale descriptive study done in Pokhara on 2016 in which nearly 50% of the respondents using ECs were below 25 years of age showed that ECs are used to prevent unintended pregnancy not as a routine means of contraceptive (44).

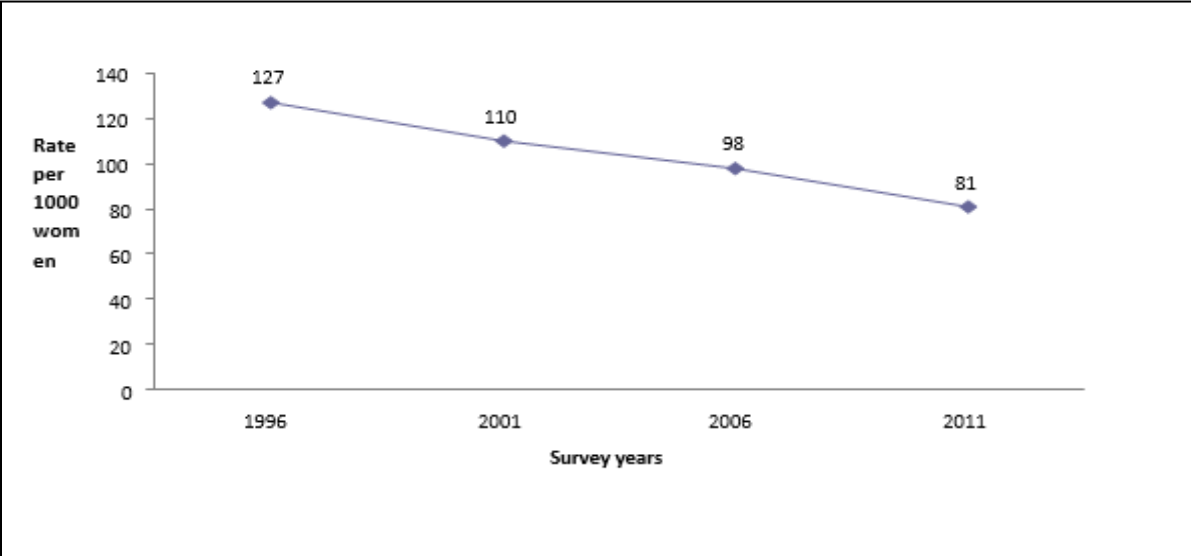
On further analysis of contraceptive use, Nepal Adolescent and Youth Survey (NAYS) reported that 33% of males between the ages of 15-19 years do not use contraceptive during the first sexual intercourse. It is even more higher in females: 59% of the females of the same age group were reported not using contraceptives during their first intercourse (4)(47).

### **3.2 Trend of adolescent fertility:**

Fertility starts with the beginning of menarche which ranges at 11-17 years in girls in Nepal (48). However at that time, they are not physically and mentally mature for pregnancy and child birth. As discussed in the problem statement, in Nepal pregnancy usually starts after marriage (4). Early marriage is highly prevalent even though the law does not permit marriage before the age of 20 years for both girls and boys without parental consent and before the age of 18 years in the presence of parental consent (49). In a study done on 15 districts in Nepal in 2012, it was found that the prevalence of child marriage before 18 years among 20-24 years was 52.3% among females and 33.8% among males (49). However, the trend of early marriage is decreasing in Nepal. In 2006, 10% of the boys and 32% of the girls between the age of 15-19 years were married whereas it has decreased to 7% and 28.8% in boys and girls respectively in 2011 (11).

The Age Specific Fertility Rate (ASFR) among adolescents between 15-19 years is also on a decreasing trend with decreasing early marriages, but at a slower rate as shown in the graph below. For five years from 2006 till 2011, it has declined by only 1.7%. The fertility rate also varies according to the residence of the adolescents. It is two times higher among adolescents living in rural areas compared to urban, highest in Mountains than in Hills and Terai region and maximum in the Mid-western and Far-western development regions compared to the other development regions.

**Figure 4: Age Specific Fertility Rate among Women 15-19 Years**



**Source: NAYS, 2013 (4).**

The contraceptive use is low among adolescents, even fertility rate is high and decreasing at a slower rate. The underlying cause for this will be explored in the following sections.

### **3.3 Factors influencing modern contraceptive use among adolescents:**

This section will present detail findings and analysis of the influencing factors that could hinder or support contraceptive use as protective sexual behavior of adolescents in the context of Nepal.

#### **3.3.1 Individual Factors:**

##### **3.3.1.1 Knowledge:**

Studies have shown that awareness or knowledge about contraceptives will help adolescents make decisions about contraceptive use and avoid misconceptions related to contraceptives(50). However, adolescents do not necessarily translate high level of knowledge into safer sexual practices and contraceptive use (51)(52) as stated in the problem statement. Considerably high proportion of people of reproductive age group (15-49 years) i.e 99.8% of unmarried women, 100% of married women, similarly 99.6% of unmarried men and 99.8% of married men are aware of at least one method of contraceptive. Whereas knowledge regarding ECs is very low, 28.8% in women and 38.7% in men (11)(53). Although, NDHS has not measured knowledge separately among adolescents, and as adolescent are also included in the age group, it is assumed that almost all adolescents are aware of at least one method of contraceptive, mostly condoms or pills (50)(4)(31). Further, it shows that married adolescents are slightly more knowledgeable than unmarried and females are more knowledgeable than males, except about ECs.

While a study done on married adolescents in Nepal, found that only one fourth of the married adolescent girls know about the four major methods namely pills, condoms, injectable and ECs (50). Likewise, adolescents do not have comprehensive knowledge on contraceptive methods like their efficacy, side effects, source, and proper ways to use. Only one in three married adolescent women who do not use contraceptive know that contraceptive methods can be obtained from either health post or the sub health post. Surprisingly the contraceptive user women also have inadequate knowledge about the method's efficacy (50). The married adolescents fear about contraceptive's side effects and have misconceptions that hormonal

contraceptives like pills if used before first pregnancy, have negative impact on fertility (54) (50). This leads to lower contraceptive use among the adolescents. Similar fear of side effects and infertility was found to be a main barrier in not using any contraceptive methods in Pakistan (32).

Nepalese adolescents do not have adequate information on SRH services as well. Even when the services are available they are unaware about their existence (55), which will be described in detail in later parts. Basic sexual education is provided in school starting from the secondary level. However it is not comprehensive (47) (more will be described under organizational factor). The main source of sexual health information for the adolescents are the peers and media (27). However, coverage of media is not adequate and mostly the adolescents gain information on SRH and contraceptives targeted to the general population (56)(57). In a study done by Mathur et al. it was found that girls are more vulnerable than boys as they have less access to formal ways of information like school, health service facility etc. They are also less likely to get appropriate information from the informal sources (58).

## Education:

Education has a positive impact on contraceptive use among adolescents as evidenced by the fact that condom use among the young men between 15-24 years in Nepal with education of School Leaving Certificate (SLC) and above is 53.7 % in comparison to 5.3 % among youth with no education (4). According to NDHS 2011, young people between 15-24 years who don't have any education are 6 times more likely to have sexual intercourse by the age of 18 years. Furthermore, the fertility rate is also inversely proportional to education level i.e. 3.7 births among women without education whereas 1.7 births among those with education of SLC and above (11).

In Nepal, lack of education contributing to early marriage, early child bearing, and low socio economic status runs in chain. Education empowers young people to make decisions about their sexual behavior in negotiation with the partners (59) which helps in delaying sexual intercourse and increasing use of contraceptive methods.



## Perception and attitude of adolescents:

The perception and attitudes of adolescents towards contraceptives depends on the beliefs they have (60). In a study done on Nepal, young people were found to believe that if they go to pharmacies or health facilities for buying contraceptives, they would be recognized and they feared that the service provider may share the information with their friends and families. It led to the adolescents avoiding to seek contraceptive methods (56).

There are many misperceptions about the contraceptives among the adolescents as well. A cross sectional study by Mac Manus et al. among urban school adolescent girls between 14-19 years in India reported that 32% of the adolescent girls think that contraceptive pills should not be taken by unmarried girls, its only for the married women, 21% of them perceive that the oral contraceptive could protect from HIV infection (60). In Nepal Stone et al reported that a high number of respondents i.e. 57.8% of boys and 47.6% of girls says that the same condom can be used more than once (7).

Similarly, young people do not want to use condoms with their partner whom they consider 'clean' on the basis of physical appearance and social status. They also interpret asking to use a condom as a sign of having a disease and condom-free intercourse as a sign of trust (61). In Nepal, more than half of adolescent men have had sexual intercourse with sex workers. In a study done on the border areas of Nepal, it was reported that 69% married and 56% unmarried adolescent men of 18-24 years had not used condom regularly during their sexual intercourse with their causal partners including sex workers. They believe that they are capable of choosing disease free women as partners (62). Such misperceptions around contraceptives have negative impact on the adolescent's use of contraceptives.

A 22 years old unmarried student in the study done by Tamang et.al said, "As I have sex with clean or disease-free women, there is no need to use condoms... As this disease [AIDS] has spread everywhere, it is natural to fear it, but I take precautions by being selective about my partners"(62).

## Economic status:

Wealth of the family is positively associated with the use of contraceptives (11). In low income countries like Nepal, the economic condition is one of the constraints to buying contraceptives or to seeking out sexual and reproductive health services (32). While contraceptive methods are provided free of cost from the public facilities, nearly half of the adolescents rely on non-governmental sources most commonly private pharmacies (4) due to various reasons like very few public health facilities in the rural areas, attitude of the health care provider, fear of societal stigma etc. (56).

As mentioned earlier, poverty is also linked with early marriage and early child bearing. Poor girls are 3 times more likely to get married before the age of 18 years and twice as likely to become mothers as compared to women in the highest wealth quintile (50). The relation between early marriage and contraceptive use will be described below.

## Marital status:

Marital status of adolescents also determines their use of contraceptives. As stated before, early marriage is a common tradition in Nepal. Most of the parents in both rural and urban areas favor early marriage for their daughters even more so than sons (7). The proportion of girls who are married by the age of 18 years is 4 times more than boys (11). The married adolescents are also forced to prove their fertility within 1-2 years of marriage (7) causing low contraceptive use and early pregnancy.

However, as mentioned earlier early marriages are in a declining trend. Education and rapid urbanization are the contributors of this move towards delayed marriage. On the other hand, delay in marriage could increase the young people's chances of involving in premarital sexual intercourse (7). Premarital sexual intercourse is highly restricted in Nepalese society as stated in the problem statement. The attitude is most easily understood in a common saying, "You are a beautiful rose, and each time you engage in premarital sex a precious petal is stripped away. Don't leave your husband or wife holding a bare stem."(63) Nonetheless, a study among college male students in Nepal reported 34.6% between the ages of 15-19 years had premarital sexual intercourse (30). Because of the cultural and societal restrictions, disclosure of premarital sex is rare (30) which indicates that

there might be a higher prevalence than reported. The strong restrictive norm of premarital sex, causes the adolescents to avoid seeking the use of contraceptive measures because of the feeling of shame and embarrassment (25).

### Substance abuse:

Literature has suggested that consumption of alcohol and drugs leads to risky sexual behaviors including sexual intercourse without contraceptive use and multiple sexual partners. In the study of border towns in Nepal, the odds of young men who reported alcohol consumption also involving in casual sex is four times higher than young men who do not consume alcohol (64).

Similarly a qualitative study done among injecting drug users with most of the respondents between 10-25 years reported that most of the male participants have experienced unsafe sexual practices like multiple sexual partners, sex workers and group sex without condoms. The respondents reported that they had more pleasure during sex while in a drug trip (7).

Many young people believe that alcohol gives them strength to propose and initiate sex and if their partner is also drunk there would be less chance of refusal (65). The young people reveal that the consumption of alcohol lowers their concern about disease prevention, safer sexual practices and even if they are aware about the occurrence of unsafe sexual activities, alcohol influences their decisions on safer sexual activity and contraceptive use (7)(65) .

A rural unmarried girl of 17 years said in the FGD done by Regmi et.al. "Many people may get involved in unsafe sex...I know about safe sex but I could not even remember if we used a condom at that time. We were drunk." (65).

## Sexual pleasure:

Sexual pleasure and curiosity are some of the major factors that promote sexual activity and as a result also influence contraceptive use. The adolescent boys often perceive that the use of contraceptives like condom decreases enjoyment in sex. This, in turn, influences their decisions regarding contraceptive use.

A 19-year-old, married boy with fifth standard of education in the study done by Puri mentioned "Using condoms is no fun. When you are doing it without a condom, bang into her vagina, then you can enjoy. A condom does not let our liquids meet and give that sticky reaction. As for the girls, it does not affect their enjoyment whether the guy is wearing a condom or not". (31)

### 3.3.2 Interpersonal Factors:

#### Peer Influence:

In Nepal, sexuality and contraceptives are difficult topics to discuss with family. So peers have a greater impact on the knowledge, perception and attitude towards sexuality for adolescents (30). Adolescent girls are more likely to discuss about sexual relations and contraceptives with peers than boys (64).

A study done on "Social Network Effects in Contraceptive Behavior among Adolescents" shows that peers contraceptive use has positive and statistically significant relation with individual contraceptive use. With an increase in 10% of the close friends who use contraceptive, the likelihood to use contraceptive by the individual increases by 0.8% (coefficient=0.079 at p value=0.000)(66). Similarly Walter et al and Dicelemente found in their studies that sexually active adolescents with friends who do not use contraceptives during sexual intercourse are more likely to be involved in risky sexual behavior and adolescents whose peers support contraceptive usage are using contraceptives more consistently (31).

Peers have a remarkable influence on sexual activity as well. It was found in Jo et al study that an adolescent female with a sexually active best friend is more likely to be sexually active and adolescent males prefer to choose their friends on the basis of longevity of sexual experience (31). In a study done on Nepal it was also found that adolescent men who have unmarried friends that experienced premarital sex are 8 times more likely to be sexually active than those who do not (30). Peers thus have a great impact on sexual activity and the use and non-use of contraceptives.

A quote on the reason for not using condoms with a non-regular partner, from an 18 year unmarried adolescent in the study conducted by Mahesh Puri: "No, that time we went in a hurry. I did not have one neither did my friends. That girl should have had but she did not have it either. Since I was in a hurry I did not go to buy condoms. My friends also had sex without it. I too did it (without it)..." (31) shows the peer influence on the use of contraceptives.

### Parental communication and beliefs:

In Nepal, sexual and reproductive health issues including contraceptives are rarely discussed openly in the families. Parents in Nepal believe that the young people are too young to know about sexual issues and they often perceive that providing sex education means encouraging their children to have sex (59). A survey conducted among 15-19 years adolescents on rural areas of Nepal reported that only half of the adolescent's i.e. 50.8% of males and 55.4% of females received information about puberty and changes in the body from their parents (47).

Literature suggests that if the parents are more open with their children about sex and sexuality, contraceptives and pregnancy, especially early on, then the adolescents are more likely to delay sexual debut and have safer sex using contraceptives (67) (47). A descriptive cohort study among 15-24 years women in Israel shows a good communication between mother and daughter is correlated with the increase in reliable means of contraceptives and also a decrease in elective abortion (67).

In addition, Nepalese parents often believe that contraceptive use should be limited for married people and they are against contraceptive use by unmarried adolescents (55).

A quote from the parent of adolescent in the FGD done by UNICEF "Family planning are used after marriage and birth of the children but why they are used when adolescents are not married"(55).

### Partner communication:

Studies have shown that women's autonomy and spousal communication about FP increases the use of contraceptives despite other inhibiting factors (32) (68). In Nepal, a study has found that the communication between the spouses on FP, family size, and women's participation in income generation activities as the important determinants of contraceptive use (68). This is likely to be true for married adolescents as well.

### 3.3.3 Organizational factor:

#### Health Services:

#### Availability of adolescent services and contraceptives:

The source of contraceptives for the adolescents in Nepal is through public and private health facilities, which includes local pharmacies, doctors, nurses, community health workers etc. (56). In public facilities, they could obtain contraceptives from FP clinics and now ASRH clinics targeted only to the adolescents. The National ASRH programme is scaling up in Nepal and has already initiated Adolescent Friendly Services (AFS) in 1140 health facilities within 63 districts out of 75 districts by 2015 in the support of various national and international NGOs in meeting the characteristics of AFS adopted from WHO (Annex 2). However in the public facilities where AFS are not initiated, regular services including FP services to adolescents are going on (20). Unfortunately, nearly half of the population are at least a 30 minutes walking distance away from the health facilities (69). Also where the facilities are available it does not contain all the requirement as written in

the guidelines of AFS, which will be described in detail in following sections. In addition, in AFS there are no adequate manpower, no quality assurance of the facilities, inadequate monitoring of the services and inadequate collaboration with other facilities like FP. Most of the services are allocated to urban regions and there is also no proper budget allocation for AFHS (20).

### Accessibility and utilization of services and contraceptives:

One of the major barrier to accessibility of the ASRH services is due to the lack of awareness that such facilities are provided in the health facilities. Although around half of the adolescents seek public health facilities for contraceptives, they are not aware that the adolescent friendly services are provided from the public facilities. In a qualitative study done by UNICEF in 2015, in 72 health facilities where AFHS was already initiated, no any adolescent girls and only a few adolescent boys among the FGD and in depth interviews were aware that there are specific services to the adolescents (55). This shows that even when the government and the non-government organizations are expanding the AFHS to 63 (20) out of 75 districts, most of the adolescents are unaware of these facilities.

An adolescent girl in FGD from the area where AFS including contraceptives are provided says, "There are no such services targeted for adolescents like us in our community."(55)

According to the WHO standard, non-judgmental attitude of the health worker, confidentiality, short waiting hours, and convenient opening hours are the factors which attract adolescents to access and utilize available services. In Nepal, although the existing policy does not distinguish between married and unmarried individuals for obtaining FP services, the judgmental attitude of most health care providers hinder unmarried adolescents to seek services (55). A study conducted by Mathur et al. found that the access to any sexual and reproductive services are poor for married girls as well. The study reported that the service providers are reluctant, and often feel embarrassment and discomfort in discussing about sex and sexuality with the adolescents. Furthermore, they lack adequate knowledge and recognition of different needs for married and unmarried adolescents, and show judgmental attitude when conveying information to the unmarried

adolescents (58). Likewise, another barrier for accessing the services including contraceptives is the opening hours of the health facility. The existing opening time of the facilities, schools and most of the colleges are same. So the adolescents have to skip school if they need to access the services, which is inconvenient (7).

In many of the health facilities, the clinics are not separated from general services, and adolescents thus avoid accessing these services due to the embarrassment that other people who might know them might see them. Most often the sex of the provider also acts as barrier. Adolescents feel free and open to discuss their curiosity and need only with providers of the same sex (55) (56).

An unmarried adolescent student in the study done by UNICEF illustrates the difficulty in accessing services due to lack of same sex health worker, "It is really difficult and embarrassing to express our problems in front of male doctors. We feel comfortable to tell our health problems including internal problems to female doctors"(55).

Similarly, a quote of rural adolescent male from the qualitative study done by Regmi et.al, shows the barrier to accessibility of services and supply of contraceptives, "We have one health post there, and it is very far. The doctors in this health post know almost everybody. We know that we can get condoms from there but we do not visit because we feel too embarrassed to get condoms. Some people even try to get condoms from the hospital but the stocks are not maintained regularly"(56).

This signifies that in Nepal although the adolescent-friendly health services including contraceptives are available, there are numerous barriers for accessing the services. While the government has adopted all the standard guidelines according to WHO to make services adolescent friendly, AFHS is not adolescent-friendly in practice.



## Formal education organization like school about contraceptives and sexual Reproductive Health:

Evidence from various countries have reported that appropriate sexual education in school has a positive impact on young people's knowledge and behavior towards safer sexual practices, using contraceptives, and contributing in preventing unintended pregnancy and STIs (70) (71). However, for sustainable change, such education should be started early before the adolescents become sexually active and get involved in sexual practices without the use of reliable means of contraceptives (71).

In Nepal, sex education is first introduced from the secondary level, in the subject "Health Population and Environment" (71). However, only 44.3% of the men and 38.2% of women between the age of 15-24 years were enrolled in secondary school in 2011 (4). The subject includes basic education on reproductive health like safe motherhood, family planning, physiology of reproduction, and adolescent health. However, there is no provision of effective sex education. The quality of sex education delivered to the students is very poor. Teachers only focus on anatomy whereas other portions related to sexuality and FP topics are neglected or dealt with very superficially (72). Inadequate support from the school, family and community, inadequate teaching materials, lack of adequate knowledge of the teachers in teaching these topics are some of the reasons for teacher's reluctance. In addition teachers themselves have judgement attitude while delivering information (72).

Taking into consideration the necessity of quality sex education in the schools, Department of International Development (DFID), an NGO, started safe passages to adolescents (71). Apart from this very few organizations have initiated life skill training to the young people (7). MoH has also included school based programmes and outreach programmes for out of school in its policy but those have not been implemented except for some awareness raising programmes to the adolescents and teachers in schools about the availability of AFS in few districts (24)(73).

## Non-Governmental Organizations:

Various NGOs are supporting healthy practices for adolescents including contraceptive use, especially at the grassroots level. Family Planning Association of Nepal (FPAN) is the largest and oldest NGO which is providing advocacy, Information, Education and Communication (IEC), youth and gender friendly services, and FP services in 34 districts of Nepal (74). Another NGO, Ama Milan Kendra, works with FCHV and mothers to encourage male involvement, and empower adolescent girls to make their own decisions regarding their social, health and economic rights. Similarly, PHECT-Nepal is providing FP along with STI and safe motherhood services to adolescents (57). Marie Stopes International (MSI), in partnership with Sunaulo Pariwar Nepal (SPN), is also implementing programmes like FP, safe abortion, contraceptives marketing services, youth friendly service and reproductive health trainings in 32 districts through 36 centers (75)(76). In addition MSI has launched "Guff2Y" ("Chat to Youth") project in 4 districts: youth are provided friendly SRH services along with contraceptives. Through this project 18,265 youth have received counseling via centers and helpline and 1,674,299 youth have accessed information on SRH by pop-up services, radio and Facebook (77). This shows that the NGOs have a significant role in providing adolescents SRH services including contraceptives. However, most of these programmes are mainly concentrated in urban and semi urban regions and a coordination mechanism between them and with public facilities is also lacking (56).

### 3.3.4 Community Factors:

#### Cultural and traditional norms:

Strong traditional norms and beliefs regarding sex and sexuality exist in Nepal which influence the contraceptive use among adolescents (56). Sex related topic is seen as a taboo in Nepal as in many other Asian countries (27). Adolescents, particularly unmarried ones, do not feel open to discuss these matters with family, friends, teachers and health workers due to fear and embarrassment. Worsening the scenario is the fact that even the parents and teachers are reluctant to discuss these issues as described earlier.

Another belief in Nepalese society, more prevalent in rural areas, is the idea that even friendship should be with people of the same sex. In many of the rural areas, friendship between girls and boys are to be avoided. Parents discourage their children, especially daughters, from meeting and talking with boys. Premarital and extramarital relationships are not accepted in Nepalese culture (56). Despite these cultural restrictions there is a high proportion of sexual intercourse outside marriage. These traditional norms and cultural values make individuals more curious about sex (56) and at the same time acts as barrier for adolescents to seek SRH services and contraceptive methods due to the fear of being stigmatized as sexually active and violating societal norms (25).

An adolescent male in the FGD done by Regmi et.al illustrates, "Our parents are very strict... When they do not allow us to do something then we start thinking like what happens if we do this and that? Sometimes it makes us more curious and we attempt to do that. Sex is also similar thing"(27).

Similarly, a rural married man in another qualitative study by Regmi et.al said that, "We cannot keep condoms in our pocket because, if anyone knew about it [condom], it is not taken positively. When we get opportunity, we cannot arrange condoms at the same time as we do not have time for that. We do [sex] without it [condom]"(56).

These quotes demonstrate how the traditional practices affect the sexual behavior and contraceptive use among adolescents.

Similarly, another cultural norm is early marriage which often leads to early and unintended pregnancy. Adolescents do not have adequate knowledge about contraceptive measures at the time of marriage, and even if they are aware, they could not easily access them or are also often pressurized to have children soon after marriage (32).

## Religion:

The religion adolescents and their family member follow also influences their sexual behavior and contraceptive use. In Hindu religion (which 81% of the population follow), premarital sex is considered as a sin. In other religions like Buddhism and Islam too, premarital sex is not allowed but can be relatively more flexible and less restrictive than Hinduism. Such restrictions often prove counterproductive. In a study done on college boys, it was found that the adolescent boys who follow Hindu religion are nearly 3 times (odds ratio=2.56) more likely to involve in premarital sex than who believe in other religions (30). This could be out of curiosity or a sense of rebellion.

Other studies however show a greater influence of religion on the use of contraceptives (78) (79). For example in India, a national family health survey shows that Muslim women are less likely to use contraceptive methods and prefer more children than non-Muslim women. Among the users, they also favor temporary methods than the permanent methods and select private sector rather than public sector for privacy (32). This could potentially be applicable in the case of adolescents as well since they follow the same norms and religious values.

## Gender:

Nepal is a patriarchal society where women have low decision-making power than men (13). Nearly half of the adolescent girls are married at an early age (11), leading to school dropouts, low level of education, less economic engagement and also in most of the cases the age difference with their male partner is nearly four years (80). In addition, culturally boys are given more value and power than girls (28). As a result, husbands have more control on decision making about contraceptive use and pregnancy than wives (28). At the same time, contraceptive use is viewed as women's business and FP programmes are mainly targeted to married women. Women are made responsible for contraceptive use but have limited autonomy (81) and the existing power difference could also influence their communication and negotiation for contraceptive use with the partner.

### 3.3.5 National and international laws and policies in ASRH including contraceptive use:

Nepal government has shown its commitment towards the right of every adolescent to get SRH information and services including contraceptives as the signatory of International Conference on Population and Development (ICPD) 1994 in Cairo and International Conference on Women 1996 in Beijing.

Initially National Reproductive Health Strategy was adopted in 1998 in which Adolescent Reproductive Health (ARH) was an integral part of Reproductive Health (RH) services. In 2000, National Adolescent Reproductive Health Development (NAHD) strategy specific to adolescents was developed by Family Health Division (FHD) which focuses on health and socio-economic development of adolescents. The Adolescent Friendly Health Service which also includes contraceptive services is the key concept of NAHD (55). FP programme was adopted by Nepal government since 1968 providing FP services to the married adolescents through public facilities (82) whereas the contraceptive services were made available to unmarried adolescents since 2003 (57).

In order to operationalize NAHD strategy and support district level managers to implement activities, in 2007, an implementation guideline was established following the WHO guideline for delivery of AFS (Annex 3). Lastly, in 2010, National Adolescent Reproductive Health Services (NARHS) Programme was developed by FHD on the basis of the lessons learned from pilot study done in 26 districts and the review of activities done by Reproductive Health Initiatives for Youth in Asia (RHIYA), an NGO. The main aim of "NARHS programme is to promote sexual reproductive health of the adolescent" (18). The NARHS programme addresses comprehensive services to adolescents which includes contraceptive (including ECs), counseling, CAC, prevention of STIs and HIV, information and education. It also includes outreach services by FCHV for the promotion and referral of AFS and provision of condoms and contraceptive pills. The policy has addressed all the adolescents irrespective of their marital status and gender in planning, implementation and evaluation of the programme and has also included marginalized and disabled adolescents. The NARHS programme is also required to have trained health workers, friendly services, well equipped,

maintenance of privacy and confidentiality of adolescents, appropriate opening hours and both male and female health providers (55). The collaboration of facility with the school, workplace and youth clubs to cover in and out of school adolescents is also included in the strategy. However, every elements of policy are not always translated into practice as described in previous sections.

The Ministry of Health has also adopted National RH/FP IEC strategy in 1996 in which adolescents cover a section. The strategy carried out IEC programme in 55 districts of Nepal focused on school students. They distributed posters and brochures. In addition, "Jana Swasthya Karyakaram" ("Public Health Programme") (57) is aired from national radio in which information about contraceptives is also provided. However it is not targeted to adolescents. There are other mass media programmes relating to adolescents and contraceptives also going on in Nepal. One FM programme named Teen Plus was initiated based on Kathmandu only but it was closed due to its ineffectiveness (57). A UNICEF supported life skill programme was launched on national radio as well as in 30 Frequency Modulated (FM) radio stations named "Sathi Sanga Man Ka Kura" ("chatting with my Best Friend") (83)(57) where the adolescents could get and share information about SRH and contraceptives. Similarly, a national television programme "catmandu" developed by young people for young people is also ongoing (84). Such media programmes could be an important way to deliver information to the adolescents about contraceptives as media is also a major source of information among them as described earlier.

Therefore, multiple factors are interrelated in influencing contraceptive behavior of adolescents. In the next chapter the best interventions to address the contraceptive behavior of adolescents on the basis of the findings above will be described.

## **Chapter 4: National and international interventions to improve contraceptive use among adolescents:**

This chapter describes the best interventions within Nepal and international countries which have proven to be effective in improving contraceptive use among adolescents as stated on the specific objective. The interventions chosen are taken from the systemic review that looked at the effectiveness of interventions as described below.

A systemic review "Intervention to improve adolescents' contraceptive behaviors in low- and middle-income countries: a review of the evidence base" (85) done by Lisney B. et al, 2014 has described various contraceptive interventions done among the adolescents and their impact in Low and Middle Income Countries (LMIC). The review included interventions of 12 countries from Africa, Latin American and South Asia.

From this review three countries namely Nepal, India and Brazil are selected. Nepal is the country of the study and the intervention proven to be effective at a part of Nepal could be adopted for the whole country. India is selected as it has similar cultural norms and values as Nepal and also most of the factors influencing contraceptive use are similar as that with Nepal. Brazil is selected because it has very high contraceptive prevalence rate among both married and unmarried adolescents, the interventions done by Brazil had shown an effective impact and Government of Nepal has not yet introduced such intervention. Hence, Nepal can learn and adopt those interventions applied in Brazil.

### **4.1 Nepal:**

ACQUIRE project in association with CARE Nepal and USAID had launched a two year (2005-2007) pilot project "Reproductive Health for Married Adolescent Couples Project (RHMACP)"(85)(54) in two districts of Nepal to improve the reproductive health of married adolescents. The project was implemented at various levels based on ecological model i.e. training to the peer educators, supporting to the local health facilities to provide AFS and developing an enabling environment among the community and family members that enables adolescents to seek and use the services (54) .

Married youth: equal number of male and female (1242 in total) representing the project districts were selected and trained. Training on RH and dissemination skills, facilitation and communication skills, leadership and street drama performance was provided to the peer educators. The married adolescents were provided RH information through the door to door visit, individual and group meetings by the peer educators. The peer educators develop community groups, held community talk programme and public hearing. Discussion sessions with mother in law and sister in law were held focusing on the benefits of using contraceptives in delaying first pregnancy and effects of early marriage and childbearing. Advocacy workshops were held with the influential members of the community like religious leaders, teachers, politicians and community leaders to make aware about the Sexual and Reproductive Health and Right (SRHR) of married adolescents and prevention of early marriage. Various street dramas, wall paintings with messages on contraceptives, early marriage and dowry were held. Sensitizing meetings with the unmarried adolescents and newly married females on gender issues, SRHR, and FP were carried out. Health care providers were trained on the friendly adolescent services and counselling and health facilities were supplied with adequate commodities. In addition, condoms and contraceptive pills were distributed from the public places and health facilities (54).

The impact of the intervention was found to be significant at all levels. The findings showed that the knowledge on contraceptive had increased i.e. almost all adolescents showed awareness of 2 or more methods of contraceptives and the source of contraceptives. Perception of the couples that FP is the decision of couple was increased by 37% to 67% in females and 57% to 79% in males. After the project, 97% of the married adolescents showed knowledge that delaying pregnancy will decrease the health risk. Despite this, use of contraceptive before the first pregnancy was very low (4.8% in females and 11.3% in males). In addition, mother in laws reported common belief of infertility if contraceptives are used before first pregnancy, which shows strong societal norms toward fertility that decreases contraceptive use among adolescents (54).

Hence from the project, it is found that the multilevel interventions based on ecological model is an effective way of increasing knowledge of contraceptives and changing the attitude of the community members



whereas it could not show influential impact on behavior change of contraceptive use among adolescents but author claimed that if the project is continued for more years, it is likely to improve contraceptive use as well (54).

## **4.2 India:**

In India PRACHAR project was launched for 2 years (2002-2004) on Bihar state where fertility among adolescents is high whereas contraceptive use is low with strong traditional norms relating to early marriage and childbearing. The interventions are targeted at different levels as in Nepal. An enabling environment was developed by training RH team which contains community leaders and most influential community members. Group discussion was done with the parents and mother in law of newly married young couples about the existing traditional norms on early childbearing. A Similar message was disseminated through wall paintings and street performance. Education on RH and services was provided to the unmarried young males and females 15-24 year through the workshop and to the married via infotainments whereas unmarried adolescents were excluded in ACQUIRE project in Nepal. Counselling was done to married couples, pregnant and postpartum females through the home visit. Separate meetings with the married young males and females on contraceptives and RH were held which was also not carried out in Nepal. Similarly, rural service providers were trained on RH and contraceptives. Facilitation of monthly MCH clinics, encouraging the young mother to seek services and motivating the suppliers to keep a regular stock of condom and pills were done in order to improve access to contraceptive and RH services (86) as illustrated in Annex 4. Male involvement was found to be strong in the project as compared to ACQUIRE project in Nepal.

After the project, the contraceptive use among the young couple to delay first pregnancy as well as to space second pregnancy has increased. It has been able to increase demand for contraceptives as well. The project has shown an effective impact not only towards the attitude change of community, family members and young people but also it brings behavior change i.e use of contraceptives increase (OR= 1.40 Intervention versus control group, OR= 1.68 follow-up versus baseline). As the project was not only focused on individual but also on the environment i.e. the most influential members of individual; family and community, it has helped in

developing an enabling environment and has a positive impact on behavior change to use contraceptives (86).

### **4.3 Brazil:**

A school-based education programme "PEAS"(87) was launched in public schools of Brazil. The programme is designed on the principle that sex education is adolescent's right and an important aspect of personal and social development. The education not only focuses the risk of unsafe sexual practices but also the positive part of sexuality that sexuality could be a positive and healthy experience. The programme integrated educators, health providers, parents of students and the local community to discuss and select the theme and to develop research projects within the school environment. The adolescents were encouraged to develop a positive relationship with adults, teachers and health providers were trained and the trained teachers help the adolescents to work on the various projects related to sexuality and reproductive health like plays, radio programmes, school newspaper, workshops etc. (87).

The findings of the programme showed that the use of condoms during the last sexual intercourse has increased from 68.1% to 78.5% and is statistically positive. Similarly the consistency in using condoms with casual partner, has increased from 58.8% to 70.1% (statistically +ve) and with steady partner it has also increased from 58.3% to 71.8% (statistically -ve). Whereas the age of sexual debut and adolescents involvement in sexual activity remained unchanged. This shows that the sex education programme has a positive change in sexual behavior and contraceptive use of adolescent rather than stimulating to sexual activity (87).

The summary of the interventions and their impacts are indicated in table below:

**Table 2: List of evidence based intervention and their impact**

<b>Programme</b>	<b>Activities</b>	<b>Target Group</b>	<b>Country</b>	<b>Success/Impact</b>
Adolescent-friendly services; community engagement ; peer education	Educated married adolescents as peer educators to provide reproductive health (RH) info for individual and group events; created an enabling environment for accessing RH info and services by raising awareness among family and community; supported local health facilities to provide youth-friendly services	Married women <20 years old & their husbands	Nepal	Use of contraception before first pregnancy (females):4.4% versus 4.8% Use of contraception before first pregnancy (males):11% versus 11%
Community engagement ; multimedia	Provided workshops and behavior change communication; parents in the community targeted about early marriage and childbirth; home visits by female change agents for young married couples	Married women ages 15–24 (newlyweds, first pregnancy, with one child) and their husbands  Unmarried women and men ages 15-24	India	Use of contraception, OR=1.40 (Intervention versus control group)  Use of contraception, OR=1.68 (Follow up versus baseline)
Adults; school-based sexual education	Included both in-and out of classroom activities; systematic training of education and health professionals; teacher-taught comprehensive sex education with a focus on adult-child relationships	Adolescents 10-19years	Brazil	Use of modern contraception at last intercourse; OR=1.68; statistically positive  Consistent use of modern contraception with steady partner; OR=1.82; statistically positive  Consistent use of modern contraception with causal partner; OR=2.19; statistically negative.

**Source: Lisney B.et.al, 2014 (85)**

## Chapter 5: Discussion, Conclusion and Recommendations:

This chapter discusses the findings of the study from the various literature reviewed in the previous chapters and will draw conclusion and provides recommendations accordingly.

### 5.1 Discussion:

The findings suggest that contraceptive use among married adolescents had remained low and nearly constant since 2006 (11). The low use of contraceptives despite the need of both married and unmarried adolescents is found to be influenced by many interrelated multi-layered factors. Literature suggests that **socio-cultural norms and beliefs as a fundamental factor that influence contraceptive use** among adolescents as it cross-cuts all level factors. Deeply rooted socio-cultural norms around sexuality as a subject of privacy restrict adolescents to get information and services, make the parents, teachers and even health workers reluctant to discuss and provide contraceptives (56). There is a persistent need to address the indigenous traditional norms. Community sensitization, use of IEC and Behavior Change Communication (BCC) at the local level as done by ACQUIRE (54) and PARCHAR (86) project could be very effective to address and bring change in attitude towards traditional norms.

Unmarried adolescents face more barriers accessing contraceptives than the married whereas **premarital intercourse which is highly restricted in Nepalese society is increasing with slowly declining early marriage** (7). Premarital intercourse is higher in adolescent's boys than girls. Due to the restrictive norms, the unmarried adolescent's fears of being identified as sexually active. They feel embarrassed to seek contraceptives because of stigmatization by HWs, and community people. Although the policy does not discriminate married and unmarried from giving contraceptive services, the judgmental attitudes of health care providers and parents which are persistently influenced by the societal norms and values exist, that prevents accessibility of services by unmarried adolescents.

In addition, the **rise in the use of ECs and abortion** is thought to be because of using them as substitute of contraceptives, mostly by unmarried

girls and married women below 25 years for ECs (44). However, till yet research regarding this link has not conducted. NDHS which is national monitoring body has neglected monitoring of unmarried adolescent's contraceptive use and ECs in the survey. Research regarding this rapid increase in the use of ECs and abortion services should be conducted and more effective programmes to promote modern contraceptive use among adolescents is required in order to minimize the use of ECs and abortion as an alternative of contraceptives as they are more invasive having larger health risk.

Although, most adolescents have awareness of at least one method of contraceptives, they **lack comprehensive knowledge about contraceptives** and hold many misconceptions regarding use and effect of contraceptives e.g.: same condom can be used more than once, hormonal contraceptives before first pregnancy causes infertility. This signifies the need of providing complete knowledge and life skills training for adolescents. Sex education is incorporated only from the secondary level curriculum at public and private schools of Nepal, in addition, the quality of sex education is very poor (72). **Family planning topic is often neglected. Teachers are not trained for sex education, they don't have adequate teaching materials and also lack support from the society. Furthermore, their own belief shaped by traditional norms makes them reluctant and judgmental to provide information** (72). There are no school-based programs out of curriculum regarding contraceptives information. A coordinated programme between MoH and MoE to link the school-based programme with the health facility, similar to the intervention carried out in Brazil could be effective. Moreover, the curriculum should be revised and sex education should be initiated earlier than the secondary level in school so that adolescents become aware before they drop out from the school and before they become sexually active.

The low education affects the use of contraceptives (4), decision making capacity of adolescents and also the communication with their partners (59) which influence contraceptive use. As described by Acharya et.al there is a vicious cycle between low education, early marriage, early pregnancy and low socioeconomic conditions. The cultural norms of **early marriage** which is more in adolescent girls than boys cause adolescents to involve in sexual activity early and the **norm to proof fertility soon after marriage** hinders

them from using contraceptives resulting in early pregnancy followed by consequences like maternal and child health complications. Although the law exists prohibiting early marriages but it is not enforced. Proper guidelines for tracking and punishing those who violate law is neglected.

Poor communication of adolescents with parents has a negative impact on the sexual behavior and contraceptive use. Parents believe that providing **sex education to the children will encourage them in involving in sexual activity** (59). In addition, societal norms of taking sexuality as a taboo influence the communication of adolescents not only with their parents but also with teachers and HWs as described above. However, many studies have suggested that if the parents have open communication with their children, they delay sexual debut and use more reliable means of contraception (67). Similarly, peers have a great influence on adopting contraceptive behavior in adolescents. As peers are one of the significant source of information among adolescents in Nepal, peers have both positive and negative impact on contraceptive use. This signifies that peer educators could be an important intervention in improving contraceptive knowledge and use among adolescents as in ACQUIRE project where peer educators played a significant role in increasing awareness and changing attitudes towards contraceptives.

Despite the MoH has an **adolescent health strategy addressing the contraceptive needs of different groups of adolescents** (24) and formulated guidelines as well, it is **not implemented well and the services are not adolescent friendly**. Many of the elements in the written documents are lacking in practice. Firstly, adolescents are not aware of the availability of AFS. The service providers are not well trained, could not identify the different needs of the married and unmarried adolescents, show judgmental attitude in providing information and services. The arrangement of the facilities do not ensure adolescents privacy and confidentiality which is one of the most leading causes of avoiding seeking contraceptives by the adolescents. In addition, the facility does not have HWs of both gender due to which adolescents could not share their needs and problems to HWs of opposite sex. The opening hours of the services and the school time is same causing inconvenience to seek services for school going adolescents. The MoH in coordination with many existing stakeholders needs to be committed to the application of policies into effective practices.

The existing policy **addresses both married and unmarried, males and females**, whereas many programmes on contraceptives are **targeted on married women** (81). In addition, the **scope of contraceptive service for unmarried adolescents is limited to male condoms** only. At the same time, the deeply rooted gender norms influence communication with the partner and favor male as a decision maker for contraceptive and pregnancy. Hence as male plays an important role in decision making about contraceptive use, male involvement in FP programme addresses gender concerns, improves programme outcome and gender equality simultaneously. In addition, women and girls should be empowered in negotiation and decision making skills.

Many of the project working on adolescents SRH including contraceptives are **concentrated in urban and semi-urban regions** (56), **leaving more than half (53%) of adolescents in rural areas** (12) **unaddressed**. Similarly, AFS from government also has not been expanded to all the districts. In addition, the duration of the projects are usually short without continuation for e.g. the ACQUIRE project which had shown positive impact but was limited for 2 years only. In addition, coordination is lacking, quality assurance, monitoring, and evaluation is not always carried out.

The **multi-level approach** in promoting contraceptive use among married adolescents in which interventions like mobilizing peer educators, involving adolescents, creating enabling environment through community and family engagement, using mass media like wall paintings, street performances, providing adolescents friendly services and distributing condoms and pills from local places done in Nepal by ACQUIRE project had shown an effective result (54). The project was able to increase awareness and help adolescents to provide a favorable environment to seek the contraceptive information and services, whereas it was not more effective in bringing behavior change. However, similar multi-level interventions done in India by PARCHAR project had shown impact in knowledge, attitude and even behavior change in contraceptive use among the adolescents (86).

The PARCHAR project in India had included **male involvement** in every aspect of the interventions, provided education to **unmarried male and female adolescents**, and conducted a **separate discussion** for both married male and female adolescents which were not carried out by ACQUIRE project in Nepal. This could be one of the reasons for the less

effective result in Nepal as males have a significant role in decision making for contraceptive use and their meaningful engagement could have a very positive impact. Similarly, we can assume that many of the married adolescents have unmarried adolescent friends and educating unmarried adolescents have a good impact for themselves as well as they could also influence their peers. In my opinion, the intervention of separate discussion among married male and female adolescents could provide them ground to explore their difficulties without fear of their partners. Nepal could adopt those missing activities for the better result. In addition, although both the project were for two years, the traditional norms in the context of Nepal could be more grounded than in India. Hence the short duration of the project might not be able to bring significant change in sociocultural norms and behavior as stated by the author. However, the two examples manifest that interventions targeting multilevel are effective in promoting contraceptive knowledge and behavior among adolescents. Interventions focused on one level only would not be effective as we know from the findings that every level factors are very influential and equally important especially the factors relating to society.

Although school-based programme was addressed in the NARHS programme, only awareness regarding the availability of AFS was given to adolescents and teachers in some districts from government side, and very few NGOs are running some school-based programmes to adolescents. **The school-based sex education programme** done in Brazil (87) showed a very effective result. They provided training to the teachers and HWs. The trained teachers help the adolescents to carry out various projects and research promoting contraceptive use within and out of school. The involvement of adolescents, parents of the adolescents and local community members during the planning and implementing of various projects, make it more effective. The lesson learnt can be replicated in Nepal as well to strengthen the school-based sex education. In addition out of school, adolescents should also be addressed through youth clubs, women's groups, workplace ASRH programme like condom distribution, infotainments, and the existing health facilities should be linked with schools. The concept of the sex education provided in Brazil that sexuality could be a happy and healthy experience could have a more positive impact. Though, the cultural norms in Nepal restrict in discussing sexuality, sex education has already been included in schools. So, I think that the way of providing sex education



focusing on positive concept of sexuality would be possible in Nepalese context and is required to have an effective impact.

**Relevance of conceptual Framework:** The adapted and modified socio-ecological model used in the study has been very useful to answer the research objectives. It has helped to explore the factors influencing contraceptive use among adolescents and analyze the linkages at various levels. It was also effective for the interventions in promoting contraceptive use among adolescents as described in the project from Nepal and India. Hence the model has become very helpful in my study to identify the linkage between the factors and the best possible interventions.

## 5.2 Conclusion:

Hence, contraceptive use among adolescents is low and has remained nearly constant since 2006, which has been a persistent public health concern in Nepal. Deeply rooted socio-cultural norms and traditions, lack of comprehensive knowledge on contraceptives, lack of adolescents friendly services in the service provision sites, lack of training to the teachers and HWs are found to be the major influential factors that limit adolescents to seek and use contraceptive services and information.

Comprehensive knowledge regarding contraceptives is lacking among both married and unmarried adolescents. It was found that unmarried adolescents face more difficulty in obtaining contraceptive information and services due to their own fear and embarrassment and also the judgmental and negative attitude of HWs, parents and community members. However, married adolescent also face barrier to use contraceptives as they are pressured to have children soon after marriage.

In order to promote contraceptive use among adolescents, the interventions should be comprehensive covering individual as well as his/her environment. A Multi-level approach which includes providing comprehensive education on contraceptives to all the subgroups of adolescents, training to the teachers and HWs, sensitizing the most influential members of the family, community leaders, religious leaders, peer educators and acceptable, available and accessible adolescent friendly health services is required. School-based programmes and out of school programmes like a workplace, youth clubs, and outreach areas to include out of school adolescents is also effective.

Initiating sex education early prior to secondary level and providing sex education focusing on the positive aspect of sexuality, not only on the negative consequences of unsafe sexual practices is more successful. Adolescents should be engaged themselves in the interventions. Use of IEC, BCC is required at the grassroots level. Therefore Nepal required multiple interventions targeting all married and unmarried, male and female adolescents to promote contraceptive knowledge and use and protect the adolescents from various negative consequences.

### **5.3 Recommendations:**

#### **For Ministry of Health, NGOs and different Stakeholders:**

MoH in coordination with local NGOs and National Health Training Centre (NHTC) should provide in-service training to HWs regularly on ARH and BCC in order to develop adequate knowledge, non-judgmental and positive attitude. Regular follow up and supervision should be done to ensure application and impact of training.

MoH in collaboration with international donors, NGOs should be committed for the fulfilment of the required guidelines adopted from WHO for AFS. The AFS should be supplied with adequate commodities like contraceptives, information materials, and guidelines. MoH should ensure availability of adequate manpower and convenient opening hours of the facilities.

MoH should enable the implementation of policies by the involvement of the males in FP programme through capacity building of HWs and sensitizing the community members. This will give better programme outcome and also helps to increase gender equality.

MoH should consult with New Era to make sure that information on contraceptive use among unmarried adolescent and ECs use are included and made available in the national survey or MoH should collaborate with National Health Research Council (NHRC) to make information available through research.

MoH should consult NHRC with to conduct research on the cause of rising use of ECs and abortion services.

Government and NGOs working in SRH should involve the adolescents as peer educators in planning, implementation and evaluation of the programmes. Similarly, family members and community should be engaged in the implementation of programme to ensure enabling environment for adolescents to seek and utilize contraceptive information and services. Raising awareness about the impact of unsafe sex and sensitizing adolescents, community and family about the social norms and beliefs which have negative impact on contraceptive behavior among adolescents should be carried out.

MoH should ensure that outreach sex education programmes like youth clubs, women's groups, and workplace to reach out of school adolescents are carried out by the health workers and NGOs working in SRH according to written policy.

**For Ministry of Education, MoH and other stakeholders:**

MoE in coordination with MoH should provide training to the teachers about ARH and BCC. Positive attitude towards sexuality should be focused on. Regular supervision of the quality of the training and adequate supply of the teaching materials in schools should be ensured.

MoE in coordination with MoH and involvement of experts, community leaders and religious leaders should revise the curriculum and topics related SRH should be included from the primary level education in order to make adolescents aware before they become sexually active. Sex education should be provided focusing on the positive aspect of sexuality.

MoE and MoH should work together for the provision of sex education programmes at school and linking schools with the health facilities.

**For Service Providers:**

District Health Officers should provide awareness to adolescents about the availability of AFS through mobilization of FCHVs, local media, women's groups and youth clubs. Peer educators should be trained and mobilized to raise awareness on SRH.

HWs should provide supportive environment for adolescents seeking contraceptive information and services, provide family planning counselling to both couples and help adolescents to make informed choices.

HWs should supply condoms and other contraceptives in an easily approachable manner without discrimination between married and unmarried.

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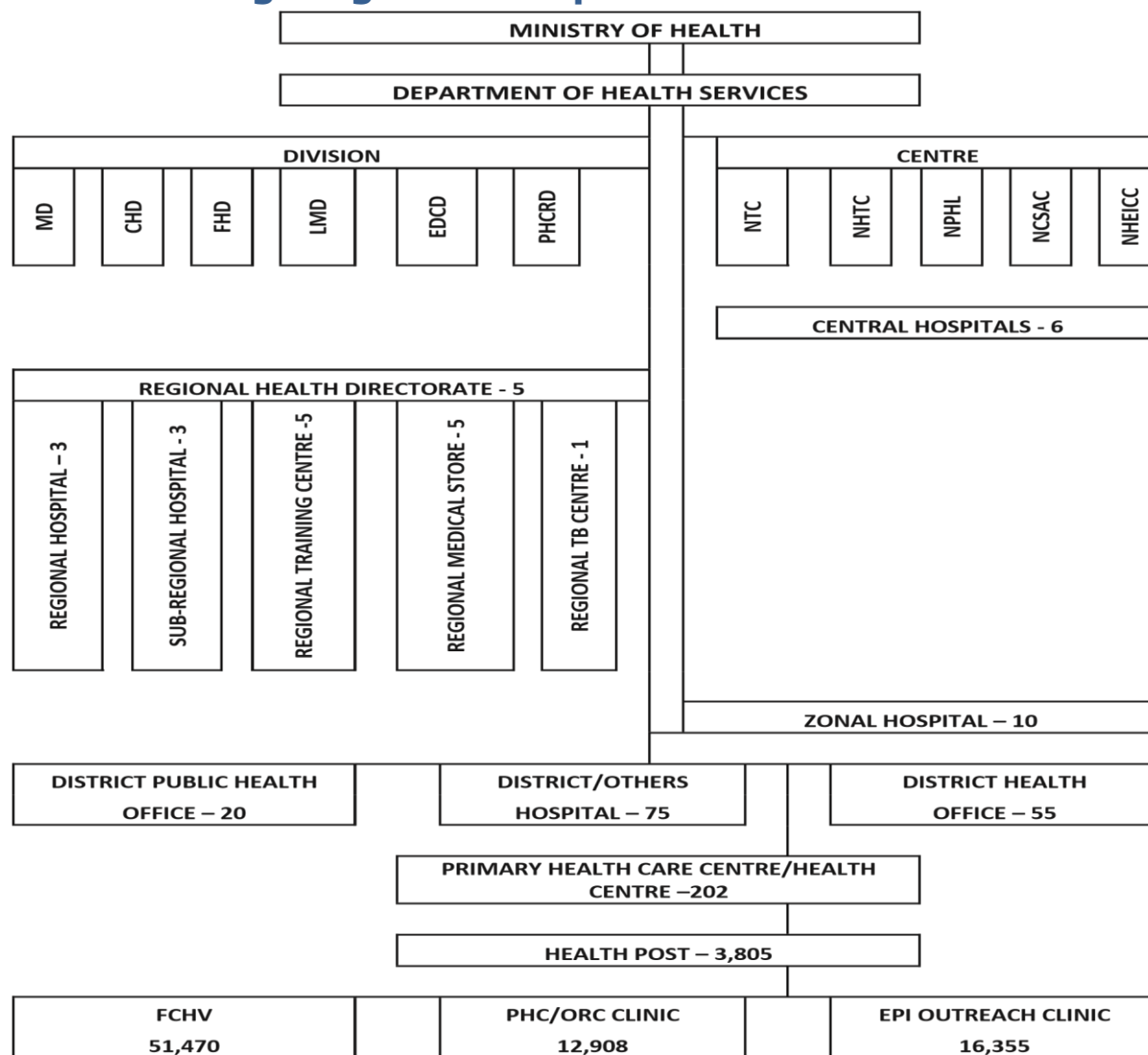
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# Annexes

## Annex 1: Organogram of Department of Health Service



Source: HMIS, DoHS

### Acronyms

**MD** Management Division

**FHD** Family Health Division

**CHD** Child Health Division

**EDCD** Epidemiology and Disease Control Division

**LMD** Logistics Management Division

**LCD** Leprosy Control Division

**PHCRD** Primary Health Care Revitalization Division

**NHEICC** National Health Education, Information and Communication Centre

**NHTC** National Health Training Centre

**NTC** National Tuberculosis Centre

**NCASC** National Centre for AIDS and STD Control

**NPHL** National Public Health Laboratory

**FCHV** Female Community Health Volunteer

**PHC/ORC** Primary Health Care Outreach Clinic

**EPI** Expanded Programme on Immunisation

Source: Annual Report, 2015 (20)

## Annex 2: Characteristics of AFS

### **Programmatic:**

- Involvement of adolescents in program development and implementation
- Male and female adolescents welcomed and treated equally
- Unmarried clients welcomed and served without prejudice
- Parental involvement encouraged but not compulsory
- Adequate supply of contraceptives
- Short waiting time
- Availability of IEC materials at facility
- Services in locations frequented by adolescents and AFHS details promoted in the community
- Coordination with schools, youth clubs and other institutions
- Provision of alternative ways for adolescents to access information, counselling and services outside routing health care delivery system

### **Facility:**

- Convenient opening hours for adolescents
- Convenient location
- Adequate space
- Appropriate place for registration and waiting
- Ensure sufficient privacy (visual and auditory)
- Welcoming environment (quiet, availability of drinking water, toilet facilities)
- Availability of IEC and BCC materials

### **Health service providers:**

- In-depth knowledge and skills concerning counselling, examination and referral
- Trained on ASRH issues (through National Health Training Centre)
- Shows respect without prejudice
- Ensures privacy and confidentiality
- Spends adequate time with clients
- Trained and capable of providing counselling on ASRH issues

**Source: UNFPA, CREPHA, UNICEF, MoHP, 2015 (55)**

## Annex 3: WHO, global standards for quality services for adolescents

**Standard 1.** Adolescents are knowledgeable about their own health, and know where and when to obtain health services, and use them.

**Standard 2.** Parents, guardians and other community members and community organizations recognize the value of providing health services to adolescents. They support such provision, and utilization of services by adolescents.

**Standard 3.** The health facility provides a package of information, counseling, diagnostic, treatment and care services that fulfill the needs of all adolescents. Services are provided in the facility, through referral linkages and outreach.

**Standard 4.** Health care providers demonstrate technical competence required to provide effective health services to adolescents. Both health care providers and support staff respect, protect and fulfill adolescents' rights to information, privacy, confidentiality, non-judgmental attitude and respect.

**Standard 5.** The health facility has convenient operating hours, a welcoming and clean environment, and maintains privacy and confidentiality. It has the equipment, medicines, supplies and technology needed to ensure effective service provision to adolescents.

**Standard 6.** The health facility provides quality<sup>2</sup> services to all adolescents irrespective of their ability to pay, age, sex, marital status, schooling, ethnic origin, sexual orientation or other characteristics.

**Standard 7.** The health facility collects, analyzes and uses data on service utilization and quality of care disaggregated by age and sex to support quality improvement. Health facility staffs are supported to participate in continuous quality improvement.

**Standard 8.** Adolescents are involved in the planning, monitoring and evaluation of health services, in decisions regarding their own care as well as in certain appropriate aspects of service provision.

**Source: UNFPA, CREPHA, UNICEF, MoHP, 2015 (55).**



## Annex 4: Interventions and its level on PARCHAR project:

Element	Level
<p><b>Social environment building</b></p> <ul style="list-style-type: none"> <li>• Formation of reproductive health teams comprising community leaders and other influential community members</li> <li>• Orientation and training of reproductive health teams</li> <li>• Group meetings and infotainment programs for parents of young married men</li> <li>• Street theater performances</li> <li>• Wall paintings</li> <li>• Training rural providers in reproductive health and contraception</li> </ul>	<p>Community Community Community Community Community</p>
<p><b>Providing information on reproductive health and services</b></p> <ul style="list-style-type: none"> <li>• Education of unmarried females aged 15–24 and unmarried males aged 15–24</li> <li>• Counseling through home visits to young women with 0–1 child, young married men without children, young women with first pregnancy and young postpartum women who have delivered their first child</li> <li>• Infotainment parties for newly married couples</li> <li>• Educational meetings on reproductive health and contraception for young married persons (separate meetings for women and men)</li> </ul>	<p>Individual Individual Couples Group</p>
<p><b>Improving access to reproductive health services</b></p> <ul style="list-style-type: none"> <li>• Facilitating monthly maternal and child health clinics conducted by government auxiliary nurse midwives</li> <li>• Encouraging young mothers and their children to obtain services from government maternal and child health clinics</li> <li>• Encouraging vulnerable and high-risk mothers and children to obtain referral services available at secondary-and tertiary-level health centres</li> <li>• Training rural health practitioners on reproductive health and family planning issues</li> <li>• Training traditional birth attendants on safe delivery, postpartum contraceptive counselling and referral of pregnant women with complications</li> <li>• Motivating chemists and village convenience shops to keep regular stocks of condoms and pills</li> </ul>	<p>Community Community Community Community Community Community</p>

**Source: Daniel EE. et.al, 2008 (86).**