

Adolescent Girls Reproductive Health Situation in Nepal: A Case Study from Mahottari District

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By

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Acronyms and abbreviations

ANC	Anti-Natal Care
CBO	Community Based Organization
CBO	Community Based Organization
CBR	Crude Birth Rate
CBS	Central Bureau of Statistics
CDR	Crude Death Rate
CPR	Contraceptive Prevalence Rate
CYP	Couple Year of Protection
DDC	District Development Committee
DPHO	District Public Health Office
FCHV	Female Child Health Volunteers
FGD	Focus Group Discussion
FPAN	Family Planning Association of Nepal
GBV	Gender Based Violence
GER	Gross Enrolment Ratio
GoN	Government of Nepal
KII	Key Informant Interview
MCH	Maternal and Child Health
MoH	Ministry of Health
NDHS	Nepal Demographic Health Survey
NER	Net Enrolment Ratio
NGO	Non-governmental Organization
PHC	Public Health Center
PNC	Post-Natal Care
RTI	Reproductive Track Infection
SRH	Sexual and Reproductive Health
STDs	Sexually Transmitted Diseases
TFR	Total Fertility Rate
UNFPA	United Nations Fund for Population
VDC	Village Development Committee
WDO	Women and Development Office
WHO	World Health Organization

Chapter 1

Introduction

Adolescence is a period of transition from childhood to adulthood in which individuals acquire their identity, moving towards physical maturity and economic independence. The adolescence period is a time in which individuals explore and develop their sexuality, gender and sex roles. It is the period of transition from childhood to adulthood. It includes maximum physical, psychological and behavioral changes on the one hand. On the other hand, it is a period of preparation for undertaking greater responsibilities and a time of exploitation and health hazardous because of the lack of proper nutritional care, family co-operation, proper guidance, proper use of leisure and lack of sharing of ideas.

The concept of adolescence has been variously defined. Yet the widely used definition of adolescent is of the definition of World Health Organization (WHO). It defines adolescence as progression from appearance of puberty to sexual and reproductive maturity; development of adult mental progress and adult identity and transition from total socio-economic dependence to relative independence. It has defined adolescent as the period of life span between the ages 10 to 19 years.

The adolescent girls' issues have become pertinent today both because of their considerable share in the population and the extent of vulnerability of falling into worst condition. In terms of their size, about one-fifth of world population is adolescents; four out of five adolescents live in developing countries. In South Asia more than 30 percent of the total population is aged 10 to 24, in which about 48 percent are growing into adolescence below the age of 15-19. On the average, 9 percent of adolescents give birth each year; and a considerable proportion of them get married during their adolescent states but without information and services which are unknown to promote healthy and responsible sexual and reproductive behavior (Khanas, 1997).

In Nepal, about 23 percent population constitutes adolescents (CBS, 2002) and according to Nepal Demographic Health Survey (NDHS) 2006, about 20 percent of late adolescent girls (15-19 years) become mothers or pregnant with the first child. This figure is much higher than that some SAARC countries such as Pakistan (16%) and India (16%). This means the reproductive health (RH) situation of adolescents is not satisfactory with reference to Nepal. It is worse in rural area than in urban area due to lack of education, information and awareness programs. Adolescents' fertility is a major social and health concern. Teenage mothers are more likely to suffer from complication during pregnancy and child birth, which determine the health and survival of both mother and child.

In addition, the practice of early marriage or the child marriage is common in the most part of rural Nepal. According to NDHS 2006, almost 50 percent of girls aged 15 get married and 40 percent bear their first child between ages 15-19 years in which ages mostly a woman is not being well prepared to become a mother either physically or mentally. The contraceptive prevalence rate is very low accounting 29 percent. The married teenagers are more likely to expose to the higher risk of maternal mortality due to pregnancy, childbirth complications and unsafe abortion (MoH, 2006).

Adolescent girls' issues have been widely recognized both at the international and national level. The Cairo Program of Action (1994) emphasized the services concerning reproductive and sexual health, including the prevention of HIV/AIDS and other STDs. Access to and confidentiality and privacy of their services were also emphasized, as well as parental guidance and support. The Beijing Plate Form of Action 1995 also emphasized the adolescent girls' reproductive and sexual needs.

The Government of Nepal (GoN) is the state party of these international conventions. In line with the international commitments, the GoN has adopted long term health policy that includes adolescent health issues as one of the important health issue in Nepal. The three-year Interim Plan (2006/07-2009/10) also emphasized the needs of adolescent girls in terms of their sexual and reproductive health and promised to promote the services of

Sexual and Reproductive Health (SRH) to the adolescent girls especially living in the rural areas.

1. 1 Statement of the Problem

Due to the fast moving lifestyle and the influence of western culture in our society the adolescents are the least protected class of people. They should be aware of the contraceptive method available and their proper utilization. They should also know the hazardous of indiscriminate termination of pregnancy in case of pregnancy.

Adolescents often lack information about SRH. Consequently, there is early marriage, early and frequent child bearing, unsafe abortion, STD/HIV/AIDS and substance abuse. Although some progress in information, education and communication has been made during the last decade in Nepal, most societies are still closed and traditional with myth and misconceptions about sexuality, reproductive health, contraceptives, STDs/HIV/AIDS and sexuality education. Adolescence is a crucial age and full of curiosity about sexuality. Knowledge of adolescents regarding puberty, reproduction, masturbation, premarital sex, contraceptives and STD/HIV/AIDS is low. There are several factors contributing to low level of SRH knowledge among adolescent girls in Nepal. It may differ from one cultural group to another and one region to another.

The NDHS has provided some profile of the adolescent girls according to their fertility, age at marriage and their sexual and reproductive behavior. But one of the lacking aspects of the NDHS is that it does not provide the disaggregated data according to different cultural groups. There is also lacking of specific studies dealing with SRH knowledge, attitudes and behavior among adolescent girls at the micro-level comparing the two or more communities. Needs, aspirations and access to SRH services among adolescent girls may entirely differ from the national level to local level. This is because of specific culture of marriage including reproductive behavior and health seeking practices.

1.2 Objectives

The overall objective of the study is to understand the knowledge, attitude and practice of adolescent girls in Mahottari district on SHR needs. The specific objectives are the following:

- To examine the level of knowledge, attitude and practice on family planning, maternal care, safe abortion, safer sex, STIs, HIV/AIDS among adolescent girls in Mahottari district between Madheshi and hill communities
- To explore the social and cultural barriers to effectively promote the SRH information and services in these communities.
- To assess to what extent the governments and NGOs/CBOs is reaching out to these communities regarding SRH needs among adolescent girls

1.3 Literature Review

Very little information is available among Nepalese adolescents (Pradhan et al., (1997: 83). Whatever information is available, it is mostly confined to married women of reproductive age of 14-49 years. No particular focus on adolescents' SHR needs is found. However, there are some literatures that show the status of adolescent girls in terms of their SHR needs and problems at the national level in Nepal. Here, we have summarized some of the major findings from the NDHS and other key studies conducted so far in Nepal to understand the problems about SRH among adolescent girls in Nepal.

According to a study on reproductive care, knowledge, attitude and practice among adolescents sponsored by PLAN International in Makwanpur district, there is a high level of ignorance among adolescent girls about genital hygiene or safe sanitation practices during menstruation, over two-thirds of the adolescent girls faced some menstruation related health problems immediately before or at the end of menstrual

period. A large majority of adolescent girls mentioned that they were experiencing some symptoms of urinary tract infection. One in four adolescent girls complained about burning with urination, one in eight experienced smelling discharge, and one in 20 complained about sore or ulcer around genital area. Unmarried adolescents are becoming more sexually active. One in 10 unmarried adolescent boys of age between 15-19 years is sexually active. More than half of them (54%) had multiple sex partners. Interestingly, close to half of the sexually active adolescent boys did not feel themselves to be at risk of contracting STD and HIV/AIDS and one-fourth (27%) perceived to be at risk of contracting such diseases.

Adolescents' pregnancy before marriage is a growing problem in many parts of the world (WHO (1992: 7). Access to family life education and information on sexuality, the prevention of pregnancy, AIDS and STD is frequently not available to young people. Many adolescents face with the problem of unwanted pregnancy and seek an unsafe abortion. The same study concluded that early marriage, pregnancy and child bearing are likely to have a severely detrimental affect on the physical, mental and social development of an adolescent girl, limiting her education, training and immediate and long term employment prospects.

The NDHS 2006 showed that 23 percent of rural adolescents had begun childbearing, compared with only 13 percent of urban adolescents. Only 17 percent of adolescents living in the hills had begun childbearing, compared with 20 percent in the mountains and 26 percent in the Tarai area. Regionally, the highest level of adolescent childbearing was observed in the central development region (24%). The proportion of adolescents, who had begun childbearing, declines with increasing education, from 32 percent among those with no education to 8 percent among those with SLC and higher levels of education.

Some studies indicated the contraceptive knowledge among adolescent girls is of satisfactory level but a few have had effective knowledge on it (Ghimire and Kuwar, 2002). A study by Valley Research Group (1999: 103) found that 99 percent adolescents

heard of a family planning method. Over 44 percent defined the term family planning method as to 'stop having many children', which indicates that their knowledge about family planning is about limiting the number of births and about 94 percent said that they had heard of female sterilization. The respondents had better knowledge of modern methods than the natural method of contraception. However, knowledge about availability of oral pills seems to be prevalent only among a few adolescents whereas its effectiveness in preventing pregnancy was known to the majority of them. A large proportion of the adolescent said that use of oral pills could produce bad effects on health (38%) and 24 percent adolescent did not know any advantages of Depo-Provera. Thirty eight percent said that use of Depo-Provera could produce bad effects on health, while more than three-quarter (77%) of the adolescents had heard of STIs and more than 90 percent reported HIV/AIDS as an STD were transmitted through having multiple sex partners (78%) and from commercial sex worker (53%). Avoiding sex with multiple partners and using condoms during sexual intercourse were reported to be the major precautionary measures against STDs transmission. The majority (86%) of adolescents had heard of HIV/AIDS. A remarkable large proportion of adolescent were familiar with the precautionary measure against HIV/AIDS transmission. Most frequently reported measures were to use condoms during sexual intercourse (72%) and avoiding unprotected sex with multiple sex partners.

Some studies also showed the differences in mean ages of sexual exposure between girls and boys. Mean ages of sexual exposure were 14.8 years for unmarried boys, 16.6 years for married boys, and 13.9 years for unmarried girls at the time of first sexual experience. Studies also showed that parents of young girls try to prevent them from being friendly with boys. On the other hand, they often go unaccompanied to work on the field and to fetch firewood in the forest. It is specially, in such situation and places that they are of exposure to sexual activities (CREPHA, 2002).

The incidence of HIV/AIDS is increasing among the adolescents. Of the 1,050 reported HIV/AIDS cases in Nepal in 1998, 168 were from 14-19 years age group, which was 16 percent of the total reported cases. It may be as high as 34 percent among the female

(Ban: 1998). The Nepal Family Health Survey (NFHS), 1996 showed that about one quarter of women aged 15-19 years had heard of AIDS. A survey conducted by Pokheral (1996) using clinical data among 1,008 married male and female revealed that 16 percent male and 15 percent female had premarital sex experience.

Similarly, a study conducted by CREHPA among men in five border towns of Nepal showed that 41 percent of unmarried adolescent aged 18-19 years were sexually active. Moreover, among the sexually active unmarried men, a large majority (77%) had their first sexual contact while they were 19 years or below. The mean age of first sexual contact was 17.9 years. The first sex partner of those unmarried men were also adolescents, either younger to their age (42%) or the same age (35%). The first sex partner for one in 10 was a commercial sex worker. One in five men of age 18-19 has had a non-regular sex partner in the last 12 months preceding the study.

Young people's premarital sexual encounters are generally unplanned, infrequent and sporadic. Data on premarital sexual activity is not available in Nepal. However, recent studies revealed that adolescents are engaged in premarital sex. According to the survey findings conducted in Kathmandu, Makwanpur and Chitawan district 19 percent of adolescents had premarital sex (Gourbacharya and Subedi, 1992). Similarly according to Macfarlane (1976), among the high caste Hindus there is a high value placed on virginity before marriage but for the other ethnic group there is no particular concern that the bride be a virgin.

Although these studies show the SRH needs and problems among adolescent girls in general, they failed to explore how their needs and problems differ from one cultural group to another, and they also failed to show the caste/ethnic variation in adolescents' knowledge, attitudes and behavior about SRH.

1.4 Research Questions

- What is the level of knowledge, attitude and practice on family planning, maternal care, safe abortion, safer sex, STIs, HIV/AIDS among adolescent girls in hill and Madheshi communities? What are the source of information on these issues and access to services? What is the prevalence of early age at marriage, age at first pregnancy and number of pregnancies among adolescent girls?
- What are the social and cultural barriers to effectively promote the SRH information and services in these communities? What are the myths or misconceptions regarding SRH? How the adolescent girls are viewed in the family and in the community?
- To what extent the governments and NGOs or CBOs are reaching out to these communities to promote information and services about SRH needs among adolescent girls?

1.5 Methodology

The combined both qualitative and quantitative research methods. The study has the following dependent and independent variables:

Dependent Variables

- Marriage
- Family planning
- Maternal care
- Safe abortion
- STIs/HIV/AIDS
- Adolescent reproductive health and their physical growth

Independent Variable

- Caste/ethnic groups (hill groups and Madheshi groups)

This study is both descriptive and comparative. It is descriptive in the sense that it has analyzed the level of knowledge, attitudes and practices on the different components of SRH among the adolescent girls. Further, the study has compared the SRH knowledge, attitudes and practices among the hill and Madheshi groups.

1.5.1 Study Site and its Justification

The study was carried out in Mahottari district. This district is one of the backward districts in central Tarai region. The female literacy level is very low (22%), more than 2 per cent of children aged 10-14 years get married and the ratio of population to health institutions is very high (7,188 population: one health institution). This is also the district in which different caste/ethnic groups of Madheshi and hill communities reside and an overwhelming population speaks Maithili language (82.5%) as their mother tongue. Thus, selection of the district would contribute to generalize the results in the Tarai region of Nepal.

Among the 76 VDCs in Mahottari district, two VDCs from the northern side of the district and two VDC from the southern side of the district were purposively selected. The selection of these VDCs was planned to represent the different hill and Madheshi communities such as Dalit, Janajati, Muslims and Hindu High caste groups.

1.5.2 Sample Size and Criteria for Sample Selection

The sampling was involved three stages. In the first stage, wards were selected from the selected VDCs. From each VDC, three wards were selected by using lottery methods. In the second stage, 25 households were selected using the simple random

sampling procedure. The voter lists of the wards used in the last Constituent Assembly Election provided the sampling frame. In the third stage, one adolescent girl aged 10-19 years irrespective of the marital status was interviewed in each sampled household.

Table 1.1 Sample size

Name of VDCs	Wards selected for the study	No. of households to be surveyed in each ward	Total number of households surveyed	Total number of adolescent girls surveyed	Ward wise major caste/ethnic groups
Bardibas	Ward numbers: 4, 6 and 9	25	74	74	Ward 4- Janjati Ward 6 - Thakuri, Chhetri, Brahman Ward 9 - Dalits
Gauribas	Ward numbers: 1, 2 and 3	25	76	76	Ward 1- Janjati Ward 2- Dalits Ward 3- Brahman, Chhetri
Sugabhawani	Ward numbers: 1, 6 and 7	25	75	75	Ward 1 - Brahman, Karna, Bhumihar Ward 6- Dalit Ward 7 - Muslims
Simardahi	Ward numbers: 4, 6 and 9	25	71	71	Ward 4- Dalits Ward 6 - Muslims Ward 9 - Bhumihar, Muslims
Total			296	296	

1.5.3 Tools and Techniques for Data Collection

- Semi-structured questionnaire for adolescent girls
- Focus group discussion with adolescent girls
- Key informant interview with knowledgeable persons

Semi-Structured Questionnaire

A semi-structure questionnaire was developed to administer the questions among the adolescent girls. The questionnaire was designed in Nepali language with gender and cultural friendly. Some key issues covered in the questionnaire were the following:

Background characteristics: Place of residence, caste/ethnic group, marital status, age, education, schooling status, occupation and education of parents, economic condition of the family, household assets and facilities.

Sexual and Reproductive Health: Knowledge, attitudes and behavior on family planning, maternal care, safe abortion, sex education, STIs/HIV/AIDS, adolescent reproductive health and their physical growth; information and access to these SHR issues.

Focus Group Discussion (FGD)

In order to identify the SRH needs of adolescent girls in the study sites, it was envisaged that two FGD was done from each community i.e. two from the Madheshi community and two from the hill groups. There were 6 to 10 participants in each FGD. The FGD was conducted with the help of a FGD guideline. FGD was conducted with the help of a trained female moderator and note taker. The FGD guideline was developed, which included the issues of social and cultural barriers of effectively access to information and services to the adolescent girls in the study sites.

Key Informant Interview (KII)

In order to identify the perceptions and attitudes of knowledgeable persons towards adolescent girls need on SRH, key informant interviews were carried out in sampled VDC and district headquarter. Key informants were

- government health personnel

- staff members and volunteers of the local NGOs and CBOs
- women groups
- representative of local governments
- schools teachers
- elderly people

For KII interview, a guideline was developed. The guideline included the issues related to perception towards the adolescent girls in the community, access to information and services about SHR in the village and district, social and cultural barriers of information and services about SHR among adolescent girls and the role of the state and the NGOs reaching out to these girls.

Data Management

In the field: the filled questionnaires were checked by the co-principle investigator every day and if there were inconsistencies or missing, a revisit was done.

In the data entry phase: recoding was done before data entry. Data were entered in SPSS/PC. In case of qualitative data, the issues were reviewed, they were translated from Nepali language to English and contextualized.

Validity and Reliability of the Research

The validity and reliability of the research will be maximized by adopting the following procedures and techniques:

- Pre-testing of the survey instruments was done. A total of 10 adolescent girls were interviewed for this purpose. The feedback of the pre-testing was incorporated to finalize instrument. In the pre-test, sequencing of questions, simplicity, understandable to the adolescent girls and cultural and gender sensitive issues was examined.

- The core research team members visited the field to conduct the field operation and supervise field operation. They also facilitated conduction of the FGDs and KIIs. The co-principle investigator supervised the whole field operation process. The field surveyors were required presenting the every day key findings, problems and challenges during the field work to the principle and co-principle investigators.
- The field surveyors were hired from the same community and they were given three-days training in Jaleshowar, Mahottari district. The training covered the thematic issues of SRH and the technical issues of how to collect the data.
- The identity gap between the field surveyors and the adolescent girls was minimized by employing the female field researchers from the same communities.
- The same issues were discussed with different people for cross-checking and verification of the information and in the different locations.

Chapter 2

Profile of the Study Area

This chapter deals with the socio-economic condition of Mahottari and study VDCs in order to set the context of the research.

2.1 Socio-Economic Condition of Mahottari District

2.1.1 Demographic Profile

Mahottari district had population of 553,481 in 2001 (Table 2.1). The annual population growth rate was 2.30 in the district while the comparable figure for as a whole Nepal is 2.25. The density of population is very high in the district - 552 persons per square Kilometer. The population is entirely rural one (96%) and almost depends upon agriculture. There is only one government designated Municipality in the district. Overall dependency ratio is 88 - meaning that there are 88 old and child population per 100 adult populations. The average family size of the district is moderate - on the average, there are 5 persons in a family.

Age at first marriage of the females is lower in Mahottari district compared to Nepal. For example, the first age at marriage for females is 17.5 years while the comparable figure for Nepal as a whole is 19.5. The age at first marriage for males is also low in the district compared to Nepal as a whole (22.2 years vs. 22.9 years). The three indicators of fertility - Crude Birth Rate (CBR), Total Fertility Rate (TFR) and Child Women Ratio - all show that fertility is high in the district compared to Nepal's averages on the whole. For example, the CBR is 33.6 per 1,000 populations in the district while the comparable figure Nepal as a whole is 33.1. Similarly, the Child Women Ratio is much higher in Mahottari district (582 per 1000 women) compared to Nepal as a whole (492 per 1000 women).

Mortality rates in the district are also high. Child mortality rate is much higher in the district i.e. 118 per 1000 live births while it is only 64.4 in case of Nepal. Life expectancy at birth is also low in the district compared to National average.

Table 2.1 Demographic Profile of Mahottari District in Comparison to Nepal

Description	Mahottari District	Nepal
Population composition		
Total Population	553481	23151423
Sex Ratio (females per 100 males)	108	100
Average Family Size	4.9	5.4
Average Population Growth (% per annum)	2.29	2.25
Population Density (per sq. km.)	552	157
Urban Population (in %)	3.98	14.2
Rural Population (in %)	96.02	85.8
Dependent Population (in %)	88.38	84.69
Child Dependent Population (in %)	76.14	72.69
Old People Dependent Ratio (in %)	12.24	12
Age at first marriage		
Males (in years)	22.2	22.9
Females (in years)	17.48	19.5
Fertility		
Crude Birth Rate (per 1000 population)	33.6	33.1
Total Fertility Rate (per woman)	4.2	4.1
Child Women Ratio (per 1000 women)	582	492
Mortality rates		
Crude Death Rate (per 1000 population)	9.62	9.6
Child Mortality Rate (0-1 Year) (per 1000 live births)	118	64.4
U-5 Mortality Rate (per 1000 live births)	47.5	91.2
Maternal Mortality Rate (per 100,000 live births)	NA	539
Life expectancy at birth		
Both sexes (in years)	59.9	60.4
Male (in years)	59.8	60.1
Female (in years)	60	60.7

Source: CBS, 2001, District Profile, DDC, Mahottari

2.1.2 Social Composition

Both Madheshi and Hill origin people reside in the district. In the northern side of the district, majority of settlements are of hill origin people while in the southern side of the district Madheshi origin people reside. In between north and south, Tarai Janjati people like Tharu, Dhanuk reside. In terms of population size, the five largest groups in the district are Yadav (15.53%), Muslims (13.51%), Tarai Brahmans (6.55%), Dhankus (6.26%) and Koiri (5.20%). Among the hill origin groups, majority are of Magars (2.56%), followed by Brahman (1.8%), Chhetri (1.61%), Tamang (1.35%), Sunuwar (1.34%) and the Newars (1.01%) (see Appendix 2.1).

An overwhelming majority constitute for Hindu population (84%), followed by Muslims (13.5%) and Buddhists (2%). In terms of language, the five major languages spoken are Maithili (84.4%), Nepali (8%), Magar (2.6%), Tharu (1.69%), and Tamang (1.36%) (see Appendix 2.1).

2.1.3 Economic Condition

One of the major indicators of measuring the economic condition of households is the landholding pattern. This is very important indicators in case of Mahottari district as more than 85 per cent of population depend upon agriculture. According to the District Agricultural Profile, the proportion of landless households accounted for about 30 per cent while another 15 per cent possessed only less than 0.1 hectares land. This indicates that about 45 per cent of the total households in the district are extremely land poor households. This has resulted due to skewed distribution of land. There are a tiny fraction of households who hold more than 50 per cent of the total land (Table 2.2).

Table 2.2: Distribution of Agriculture Land, Mahottari District

Land Distribution (In Hectors)	No. of households	Percentage	Cumulative %
Landless households	27,799	29.5	29.5
Less than 0.1 Hectors	14,134	15.0	44.5
0.1-0.5 Hectors	16,207	17.2	61.5
0.5-1.0 Hectors	13,286	14.1	75.5
1-3 Hectors	14,134	15.0	90.5
3-5 Hectors	5,748	6.1	96.6
5-10 Hectors	2,356	2.5	99.1
10 Hector and above	565	0.6	99.7
Total	94,229	100.0	

Source: District Agriculture Profile, Mahottari, 2001

2.1.4 Literacy and Education

Mahottari district has very low literacy rate, especially for females (22%). Mass illiteracy among females is due to mainly cultural barriers to send daughters to schools and rampant poverty especially among Dalits and Muslims. The current schooling status of children as measured by the Gross Enrolment Rate (GER) and Net Enrolment Rate (NER) is also poor in the district. Further, there is gender discrimination in sending children to school. For example, the primary level GER for the district is 54.9 while it is much lower for girls i.e. 44 (Table 2.3)

Table 2.3 Literacy and Educational Status, Mahottari District

Indicators	
Adult Literacy Rate (%)	
Both sexes	34.7
Males	45.9
Females	22.4
Primary Level Gross Enrolment Rate (GER) (in %)	
Both sexes	54.9
Boys	65.8
Girls	44.0
Primary Level net enrollment rate (NER) (in %)	
Both sexes	67.5
Boys	77.2
Girls	51.0
Primary level completion, repletion and drop out rates (%)	
Completion rate	62.7
Repetition rate	23.7
Drop-out rate	15.6
Teachers and Students Ratios	
Primary	1.52
Lower Secondary	1.56
Secondary Level	1.26
Total numbers of teachers in (primary, lower secondary and secondary levels)	
Both sexes	1487
Males	1272
Females	215

Source: District Education Office, Mahottari, 2004

2.1.5 Health Situation

In terms of district's population, the numbers of health facilities are very low - resulting a high population to health workers ratio. According to Department of Health Service, 2006/07, there is only one government owned hospital, 3 PHC clinics, 6 Health Posts, 67 Sub-health Post, 321 PHC outreach clinic, 373 EPI Clinic, 684 FCHV and 310 TBS in Mahottari district.

It is learnt from the data of DHO, Mahottari, 2002 that safe-motherhood program is not satisfactory in the district. Only, 7.4 births are delivered by trained health personal, 15 per cent of the pregnant women go to health check-up. Data are also available for Anti-

Natal Care (ANC) visits from Annual Report of Fiscal Year 2007/08 of DHO Mahottari district. Accordingly, the proportion of women ANC first visit as percentage of expected pregnancy is about 77 per cent, and the average number of ANC visits is 2.9 and almost half of the pregnant women are reported to have completed their four ANC visits (Table 2.4).

Table 2.4 Levels and trends of ANC Visits, Mahottari District

Categories	Fiscal Year					
	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08
ANC 1 st visits as % of expected pregnancy	37.0	94.0	99.0	95.0	87.0	77.4
Average No. of ANC visits	1.4	2.5	2.7	2.9	2.9	-
% of completing 4 ANC visit	38.0	69.0	62.0	70.0	60.0	53.0

Source: Annual Report FY 2007/08, DHO, Mahottari

Family Planning Program

As indicated by the DHO Mahottari data, the family planning program is expanding its coverage in the district (Table 2.5). The Contraceptive Prevalence Rate (CPR) was reported to be 51 in 2007/08, which increased from 34 in 2002/03. Similarly the Couple Year of Protection (CYP) was 48 as percent of Married Women of Reproductive Ages (MWRA) in 2007/08. There are about 3 per cent of MWRA using permanent method and it contributed to about 39 per cent in the CPR in the district. This indicates that permanent method is still a dominant family planning method.

Table 2.5 Levels and Trends of CPR, CYP, Users of Permanent Methods and New Acceptors, Mahottari District

Categories	Fiscal Year					
	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08
Contraceptive prevalence rate (CPR)	34.0	43.0	48.0	53.0	52.0	51.0
Couple year of protection (CYP) as % MWRA	35.0	54.0	60.0	58.0	52.0	47.6
Permanent methods new users as of % MWRA	2.3	3.3	3.6	3.0	3.5	2.3
Permanent methods (target Vs achievement)	89.0	100.0	100.0	94.0	103.0	67.8
Permanent methods current users as of % of MWRA	29.0	32.0	34.0	37.0	38.0	38.8
New acceptor recruitment rate as % of MWRA (spacing method only)	-			9.0	9.8	8.3

Source: Annual Report FY 2007/08, DHO, Mahottari

SRH Counseling and Education

SRH counseling, education and services are provided to the adolescent girls in the districts. The major organizations working in this sector are District Public Health Office (DPHO), Family Planning Association of Nepal (FPAN), Mary Stops, Red Cross. We have cited the coverage of SHR counseling and education by the FPAN as per example.

According to the FAPAN data, it has carried out a number of SRH related programs focusing on adolescents like family planning counseling, RH counseling, Maternal and Child Health (MCH) counseling, adolescent health counseling, Gender Based Violence (GBV) counseling, condom demonstration, STI/RTI counseling, MCH education, infertility counseling, VCT counseling and abortion counseling. As FPAN's data indicate that of the total adolescent population in the district, about 12 to 17 per cent were covered in different SHR counseling and education program (Table 2.6).

Table 2.6: Coverage of SRH Counseling and Education among Adolescent Population to the Total Population of Adolescent Population, Mahottari District

Types of counseling	No. of services
	<20 yrs.
FP counseling	12.3
RH counseling	13.2
MCH counseling	15.2
AYSRH counseling	-
AYSRH education	-
GBV counseling/screening	-
Condom demonstration	-
STI/RTI counseling	13.5
MCH education	12.3
Infertility counseling	13.4
VCT counseling	16.7
Abortion counseling	13.6

Source: FPAN, Mahottari, Jan-Dec, 2008

According to FAPN data, it has also provided SRH and other related services to the adolescent population in the district. The main SRH services provided to the adolescent population include: MCH services (16% of the total adolescent population), STI/RTI services (20%) and gynecological services (15%).

HIV/AIDS

According to the DPHO report 2008, there were 48 reported HIV/AIDS cases from VCT centers, 548 reported cases of STI. Similarly, there were 3 VCT centers functioning the in Mahottari district.

Organizations Working in Providing SRH Information and Services in Mahottari District

- UNFPA/PARHI-CBP, Mahottari, Jaleswor
- Nepal Red Cross Society, Mahottari Branch, Jaleswor
- Community Development Project, Mahottari, Jaleswor
- Nepal Family Health Program Mahottari, Jaleswor
- Care Nepal Core Polio Program Mahottari, Jaleswor
- Family Planning Association of Nepal, Bardibas, Mahottari
- Women Cultural Promoting Center, Bardibas
- Nepal *Utpidit Utthan* Project (NUUP), Mahottari, Jaleswor

- Rural Community Development Service Council (RCDSC), Mahottari, Jaleswor
- Meristops Center, Bardibas
- Women Conscious Group, Jaleswor-5, Mahottari
- Women Awareness Project, Gaidhabhetpur-1, Mahottari
- Community Development and Advocacy Forum Nepal, Bardibas-7, Mahottari
- Integrated Rural Development Society Bardibas-7, Mahottari
- Local Development Training Center, Bardibas-3, Mahottari

Besides, there are other organizations working in social development in Mahottari district (Table 2.7).

Table 2.7 Community Based Project/Program Conducting in Mahottari District

S.N.	Name and Program	Program Conducting Institution	VDCs
1	Village Development Program (VDP)	DDC, Mahottari Local Development Fund	Kahuwa Bageya, Bhataulya, Hatisarwa, Ratauli, Laxminiya
2	Women Development Program	Women Development Office (WDO)	Pipara, Akarahiya, Pigauna, Khuttapipara, Dhi, Akadara, Damhimadi, Mahadaiya Tapanpur, Ramnagar, Gaushala, Sahodawa
3	Women Jagriti and Income Generating Program	WDO	Dhamaura, Banauta, Loharpatti, Maisthan, Gauribas, Sugar, Bhrrmarapura, Sahadawa, Banauli, Dananli, Kohhuwa, Bageya, Itilarwakatti, Batwa, Pokharbhinda, Dathanaha, Khayarbana, Laxminiya, Nigaul Sundarpur
4	<i>Garib Sang Bishewhwar</i> Program	District Development Committee (DDC)	Bagada, Nainhi, Sahasaula, Hariharpur, Harinamari, Raghunathpur, Parsadeload, Padaul Gaidhabhetpur
5	Small Farmer Development Project	Agriculture Development Bank Jaleswar Branch, Gaushala Branch, Loharpatti Sub-branch, Balba Sub-branch	Halkhori, Bishnpur, Gauribas, Hatilet, Kantibazar, Bhangaha, Ramgopalpur, Badiya Banchaur, Itaharwaketty
6	Banking Program	Central Rural Development Bank Aaurahi Branch Piapara Branch Loharpatti Branch Matihari Branch	Meghanath Gorahanna, Ramgopalpur, Hatisarwa, Sonamai
7	National Development Voluntary Service (NDVS) working Area: Agriculture, Health	DDC	Pigauna, Prakanli, Dhirapur, Suga , Kolhuwa Bageya, Mahottari, Simurdahi
8	STEP-CBER Leprosy Control Program	Lalagadh Leprosy Hospital	Aaurahi, Gaushala, Loharpatti
9	Self-Help Development Program by the Deprived Group to Deprived Group	Village Self-help Development Center	Anakar, Italkhori, Sisawa Kataiya, Akadara, Manara, Itaharwakatti, Pokharbhinda, Sangrampur, Gaidhabhetpur, Samsi, Parsadewad, Bajhbitti, Raghunathpur

10	Land Erosion Office	District Landslide Office	Bardibas, Gauribas , Maisthan, Khayaramara,
11	Child Development Program Working Area: Birth Registration, Child Labour Elimination	Aasaman Nepal	Meghanath Gorhanna, Ramgopalpur, Sonamai, Nigaul, Sripur, Basabilti, Khupi
12	Health Program	Care Nepal	All VDCs

Source: DDC Profile, Mahottari, 2060BS (2003)

United Nations Population Fund (UNFPA)/PARHI Community Based Program

UNFPA started its direct assistance in selected districts through the District Development Committee (DDC) in areas of its mandate by the name of Population and Reproductive Health Integrated (PARHI) project. In 2007, based on the need to engage at the community level, as recommended by various assessments and reviews, more emphasis of the project's assistance has been given to the community based activities. However, some activities of UNFPA support have been covering the entire districts as well. The UNFPA has been also providing technical support to strengthen capacities of health service delivery point and frontline service providers in RH through mobile RH unit. Besides, in consultation with the DPHO it has also engaged in providing services directly especially when there is a need for specialized service and during crisis and emergencies.

The PARHI project was implemented in eight VDCs namely Samsi, Pokharvinda, Gaidabhethpur, Khopi, Sonama, Raghunathpur, Khairboni and Parasadebad. The PARHI program, however, has not been implemented in the studied VDCs: Bardibas, Gauribas, Simardahi and Sugabhawani.

2.2 Profile of Study VDCs

This study was carried out in four VDCs of the districts. Two VDCs, namely, Bardibas and Gauribas were selected from the northern part of the district and Simardahi and Suga Vawani were selected from the southern part of the district. The VDCs of northern part and the VDCs of southern part show variation in infrastructure development, population distribution and composition, settlement patterns, language and religion as well.

In terms of population, the VDCs of northern part have more than 1100 households in each VDC while there are about 800 households in each VDC in the southern part of the VDCs selected for the study. The average family size is lower in the VDCs from northern part of the district and sex ratio is much imbalance in the southern part of the VDCs (Table 2.8).

Table 2.8: Distribution of Population, Average Family Size and Sex Ratios, the Study VDCs, Mahottari District

Name of VDCs	Average. family size	Population			Sex Ratio
		Total	Male	Female	
Bardibas	5.4	8859	4569	4290	106.5
Gauribas	5.2	5732	2872	2860	100.4
Simardahi	6.3	5072	2637	2435	108.3
Suga Vawani	6.4	5180	2691	2489	108.1

Source: CBS, 2001

In terms of caste/ethnic groups, the northern VDCs have almost hill group population while southern VDCs have almost Madheshi group population (Table 2.9). In Bardibas and Gauribas VDCs, several caste/ethnic groups of hill origin people reside. Majority are Brahman/Chhetri, followed by Janajati and Dalits.

Table 2.9: Percentage Distribution of Population by Cast/Ethnic Groups, the Study VDCs, Mahottari District

Caste/ethnic groups	Bardibas	Gauribas	Simardahi	Sugavawani
Hill groups				
Brahman/Chhetri	42.5	42.2	0.0	0.0
Janajati	23.4	39.3	0.0	0.0
Dalit	9.0	15	0.0	0.0
Others	21.0	1.1	0.0	0.0
Madheshi groups				
Brahman /Bhumihar/Kaystha	0.0	0.0	6.6	32.2
Non-Dalits like Yadav, Malah	0.5	0.3	12.2	0.0
Muslims	2.0	0.0	30.0	16.3
Dalit	0.0	0.0	29.4	4.5
Janajati	0.1	0.2	1.7	0.0
Others	0.2	0.0	19.8	47.0
Total population	8,859	5,732	5,072	5,180

Source: CBS, (Village Development Profile, 2001).

In VDCs of southern part, several Madheshi group people reside. They include: Brahman/Bhumihar/Kayasth, Yadav, Teli, Muslims and Tharus. In Simardahi, the highest proportion of population is from Muslims, followed by Dalit and non-Dalit Hindu caste groups (excluding Brahman, Bhumihar and Kayastha). In case of Sugavawani, one-third of population comes from Hindu high caste people i.e. Brahman, Bhumihar and Kayastha.

Adolescent Population

The population of adolescent is very substantial in each of the study VDC. It ranges from 20 to 25 per cent - much higher in the northern side VDCs compared to the VDCs of the southern side. There is not much variation in the proportion of adolescent population between males and females in each of the studied VDCs. Within adolescent population, the proportion of early adolescent (10-14 years) is much higher compared to the late adolescent (15-19 years) in each studied VDC. The proportion of early adolescents ranges from 11 per cent in the southern side VDCs to 13 per cent in the northern side VDCs while the proportion of late adolescent ranges from 9 per cent in southern side VDCs to 11 per cent in the VDCs of northern side (Table 2.10).

Table 2.10 Percentage of Adolescent Population in the Total Population, the Study VDCs, Mahottari District

Name of VDCs/Age groups	Both	Male	Female
Bardibas			
10-14	13.0	13.4	12.6
15-19	10.5	10.1	10.9
10-19	23.5	23.5	23.5
<i>Total Population</i>	8,859	4,569	4,290
Gauribas			
10-14	13.3	13.0	13.2
15-19	11.8	11.3	12.1
10-19	25.1	24.3	25.3
<i>Total Population</i>	5,732	2,872	2,860
Simardahi			
10-14	10.7	10.9	10.5
15-19	9.2	9.8	8.4
10-19	19.9	20.7	18.9
<i>Total Population</i>	5,072	2,637	2,435
Sugavawani			
10-14	11.9	12.1	11.8
15-19	8.9	9.1	8.8
10-19	20.8	21.2	20.6
<i>Total Population</i>	5,180	2,691	2,489

Chapter 3 Family Planning

This chapter deals with the knowledge, attitudes and practices (KAP) of family planning methods among adolescent girls.

3.1 Knowledge of Family Planning

Knowledge of contraceptive method among adolescent girls appears to be low in the study VDCs as indicated in Table 3.1. Data indicate that 57 per cent of the total adolescent girls know at least one method of family planning. This figure is very much lower compared to the national average as provided by the Nepal Demographic Health Survey (98%). The most widely known modern contraceptive methods among adolescent girls are female sterilization (63%), followed by condoms (58%), Depo (53%) and male sterilization (43%). According to social groups, knowledge of contraceptive method is more than double for the hill groups (83% compared to Madheshi groups (32%). This holds for all methods presented in Table 3.1.

Table 3.1 Percentage distribution of adolescent girls (10-19) who know any contraceptive method by specific method, according to social groups

Method	Hill groups	Madheshi groups	Percent	Difference H to M
<i>Any method</i>	82.7	31.5	57.4	51.2
Condom	76.7	29.5	53.4	47.2
Pills	54.0	21.9	38.2	32.1
Depo	74.7	28.1	51.7	46.6
Foam/jelly	15.3	0.7	8.1	14.6
Norplant	36.7	15.1	26.0	21.6
IUD	37.3	15.8	26.7	21.6
Male sterilization	58.0	15.1	36.8	42.9
Female sterilization	92.0	32.3	62.5	59.7
Total number	150	146	296	

Knowledge of family planning methods, however, varies with the age and educational level of the adolescent girls (Table 3.2). This holds for both social groups considered here. According to age groups, 74 per cent of the late teens have knowledge of any family planning method while the comparable figure for the early teens is just 35 per

cent. The difference of knowledge between Hill and Madheshi groups is very high for age groups 10-14 (54.2) than the age group 15-19 (41.9).

Table 3.2 Percentage distribution of adolescent girls (10-19) by contraceptive method known according to background characteristics

Characteristics	Knowledge of any modern method		Total	Differences H to M
	Hill groups	Madheshi groups		
Age group				
10-14	65.5	11.3	34.9	54.2
15-19	92.6	50.7	74.1	41.9
Educational level				
No education	72.7	15.2	20.9	57.5
Non-formal education	50.0	0.0	12.5	50.0
Some primary	50.0	25.0	43.8	25.0
Secondary	88.6	81.3	87.2	7.3
SLC and above	95.3	94.1	95.0	1.2
Total number	150	146	296	

The level of education is positively associated with the level of knowledge of family planning. It implies that higher the level of education, higher will be the level of knowledge and vice-versa. The difference of knowledge of family planning between Hill and Madheshi groups decreases with the increase in level of education.

What are the sources of knowledge of family planning methods? This information is summarized in Table 3.3, according to specific method of contraception. More than one-half of adolescent girls who have heard of family planning reported to have heard from one of the electronic media, followed by friends/relatives (32%) and print media (10%). Condom is most popularly heard from electronic media (85.4%), followed by Depo-Provera (66.7%), and Pills (59.3%). Hill adolescents maintain the similar trend where for Madheshi adolescents; role of electronic media for expanding information about condom is excessively high. Although the trend is similar to the total sample population, role of electronic media weighs higher for Madheshi adolescents. Hill adolescents rely on friends following the electronic media for information on family planning methods whereas Madheshi adolescents rely on print media for obtaining information about methods of family planning.

Table 3.3 Percentage of distribution of the adolescent girls (10-19) who know any contraceptive method by source of information, according to specific method

Methods	Electronic media	Print media	Friends/ relatives	Health workers	Others	Total	N
Condom	85.4	3.2	3.2	5.1	3.2	100.0	158
Pills	59.3	15.9	15.9	6.2	2.7	100.0	113
Depo	66.7	10.5	14.4	5.9	2.6	100.0	153
Foam/jelly	29.2	29.2	25.0	4.2	12.5	100.0	24
Norplant	48.1	18.2	18.2	11.7	3.9	100.0	77
Copper T	45.6	24.1	15.2	15.2	-	100.0	79
Male sterilization	35.8	13.8	42.2	8.3	-	100.0	109
Female sterilization	37.5	9.7	47.2	4.2	1.4	100.0	144
Hill groups							
Condom	81.7	2.6	4.3	7.0	4.3	100.0	115
Pills	60.5	7.4	19.8	8.6	3.7	100.0	81
Depo	64.3	7.1	17.0	8.0	3.6	100.0	112
Foam/jelly	30.4	26.1	26.1	4.3	13.0	100.0	23
Norplant	40.0	12.7	25.5	16.4	5.5	100.0	55
Copper T	41.1	17.9	19.6	21.4	-	100.0	56
Male sterilization	33.3	10.3	46.0	10.3	-	100.0	87
Female sterilization	24.0	8.0	60.0	6.0	2.0	100.0	100
Madheshi groups							
Condom	95.3	4.7				100.0	43
Pills	56.3	37.5	6.3			100.0	32
Depo	73.2	19.5	7.3			100.0	41
Foam/jelly		100.0				100.0	1
Norplant	68.2	31.8				100.0	22
Copper T	56.5	39.1	4.3	-	-	100.0	23
Male sterilization	45.5	27.3	27.3	-	-	100.0	22
Female sterilization	68.2	13.6	18.2	-	-	100.0	44
Total number of respondents							296

Note: Others category includes school teachers, community people and parents etc.

3.2 Use of Contraception

Two questions were asked to examine the prevalence of contraception among the married adolescent girls: Have you or your husband ever used any contraceptive method? Are you or your husband currently using a contraceptive method? The responses are summarized in Table 3.4.

Here, ever user refers to the married users who have once used a family method, but they may or may not be using the contraceptive method at the time of the survey. Out of the total married adolescent girls (n=71), 22.5 percent have ever used of any method of the contraception. However, the proportion of ever users is much higher among hill groups (44%) compared to the Madheshi (5%) groups. According to a specific method, Depo stands out to be the most popular, followed by condom (7%) and pills (3%).

Table 3.4 Percentage distribution married adolescent girls who have ever used of any contraceptive method and current users according to specific method

Method	Hill groups	Madheshi groups	Total
Ever Use			
<i>Any method</i>	43.8	5.1	22.5
Condom	15.6	-	7.0
Pills	6.3	-	2.8
Depo	21.9	5.1	12.7
Current users			
<i>Any method</i>	34.4	5.1	18.3
Condom	9.4	0.0	4.2
Pills	3.1	0.0	1.4
Depo	21.9	5.1	12.7
Total number of married adolescent girls	33	38	71

Current use of contraception is defined as the proportion of the married adolescent girls who reported themselves as using a family planning method at the time of survey. The prevalence rate of contraception is 18 per cent with much higher among hill groups compared to the Madheshi groups. Data implies that there are very few contraceptive users among Madheshi adolescent girls. The reason for this difference between the Madheshi and hill groups is related to the cultural barriers to use the contraceptive among Madheshi groups.

A question was asked among the current users about the sources of contraception. This information is important for family planning program managers and health workers from where the adolescent girls received the contraceptive methods. Data reveal that the Government organization like hospitals, health posts, sub-health posts is found to be the major source of contraceptive methods in the study area for both groups i.e. hill and Madheshi groups. While there were only 8 per cent current users who received the contraceptive method from the private sector like pharmacy, family planning association of Nepal, Mary Stops.

3.2.1 Non-use of Contraceptives

Table 3.5 provides the distribution of married adolescent girls 10-19 years who have knowledge about any method of contraception but are not using contraceptive according to main reasons for not using. Of the total non-users (24), around 46 percent of the non-users reported desired to have baby as the main reason for non-use of family planning, followed by oppose to husband (25%) and no sex now (17%) respectively. Other reasons include pregnant, oppose to religion and no knowledge on source. In Madheshi groups around 82 percent of the respondents reported that the desire to have baby is the main reasons for non use of the contraception however oppose to husband is the main reasons for Hill groups.

Table 3.5 Percentage distribution of adolescent girls who are not using a contraceptive method, according to main reason for not using

Reasons	Hill groups	Madheshi groups	Percent
Desired to have baby	15.4	81.8	45.8
Pregnant	7.7	-	4.2
Oppose to religion	-	9.1	4.2
Oppose to husband	38.5	9.1	25.0
No knowledge on source	7.7	-	4.2
No sex now	30.8	-	16.6
Total number	13	11	24

Note: religious reasons include: religious opposition and parent/in-law opposition

3.2.2 Future Use of Contraception

An important indicator of the changing demand for family planning is the extent to which non-users of contraception plan to use family planning in the future. Adolescent girls who are not using contraception at the time of survey were asked about their intention to use family planning in the future. The result is shown in Table 3.6. Among adolescent married girls who are not using contraception, 58.3 percent reported that they intend to adopt a family planning method in the future, 33.3 percent said that they did not intend to use a method and 8.3 percent were unsure of their intention. The intention to use contraception in the future is higher in Hill groups however the intention to non use of contraception is higher for Madheshi groups.

Table 3.6: Percentage distribution of adolescent girls (non users) according to intention to use in the future

Intention	Hill groups	Madheshi groups	Percent
Yes	76.9	36.4	58.3
No	7.7	63.6	33.3
Unsure	15.4	-	8.3
Total number	13	11	24
Preferred methods			
Depo.	10.0	25.0	14.3
Female sterilization	90.0	75.0	85.7
Total number	10	4	14

Future demand for specific methods of family planning can be assessed by asking to non-users who intend to use in the future which methods they prefer to use. Table 3.6 provides some indication of adolescent girl's preferences for the method they might use in the future. The results indicate that most adolescent girls preferred to use female sterilization (85.7%) and Depo (33%) respectively. The female sterilization is the most future prefer method for both Hill and Madheshi groups.

3.2.3 Reasons for not Intending to Use Contraception in the Future

An understanding of the reasons that people do not like to use family planning methods is critical in designing program that could include the quality of services. Table 3.7 shows the distribution of married adolescent girls 10-19 years who are not using a

contraceptive method and who do not intend to use in the future by the main reason for not intending to use. Fifty percent of the respondents reported that to want children is the main reasons for not intending to use contraception in future. Likewise, to want children is the main reasons for not intending to use contraception in future for both Hill and Madheshi groups.

Table 3.7 percentage distribution of currently married adolescent girls who are not using a contraceptive method and who do not intend to use according to main reasons for not intending to use

Reasons	Hill groups	Madheshi groups	Percent
Want children	100.0	42.9	50.0
Religious opposition	-	14.3	12.5
Oppose to husband	-	14.3	12.5
Oppose to in-laws	-	14.3	12.5
No knowledge on methods	-	14.3	12.5
Total number	1	7	8

3.2.4 Availability and Accessibility of Desired Methods (opinion)

Of the total 40 adolescent married girls who have knowledge about the any method of contraception, 90 percent opined good access to service of desired family planning followed by 7.5 percent who perceived to no access to good service. Majority of the respondents belong to both Hill and Madheshi groups reported that the good access of family planning services in their locality (Table 3.8).

Table 3.8: Percentage distribution of currently married adolescent girls according to opinion on availability and accessibility of desired FP method in the locality

Opinion on access and availability of services	Hill groups	Madheshi groups	Percent
Good access to service	92.6	84.6	90.0
No access to good service	3.7	15.4	7.5
Don't know	3.7	-	2.5
Total number	27	13	40

CHAPTER 4

Maternal Care

This chapter deals with the knowledge and practice of maternal care among adolescent girls. It also compares the knowledge and practice of maternal care among two groups of adolescent girls: hill groups and Madheshi groups.

4.1 Number of Pregnancies and Age at First Birth

Table 4.1 presents the percentage distribution of married adolescent girls by number of pregnancies and age at first birth of those who have at least one pregnancy. Of the total 71 married adolescent girls, 38 percent had no pregnancy, 35 percent had one pregnancy and 3 percent had three and more pregnancies. Data reveal the patterns of pregnancies among adolescent girls between the hill and Madheshi groups show a variation especially in case of first and second pregnancies. For example, there are 41 per cent of married adolescent girls from Madheshi groups who have one pregnancies, the comparable figure for the hill groups is just do not vary largely although there is some higher proportion of adolescent girls 28 per cent.

Table 4.1 Percentage distribution of married adolescent girls, according to number of pregnancies and age at first birth of those adolescents who have at least one pregnancy

No. of pregnancies	Hill groups	Madheshi groups	Total
None	37.5	38.5	38.0
One	28.1	41.0	35.2
Two	31.3	17.9	23.9
Three and more	3.1	2.6	2.8
Total number	32	39	71
Age at first birth			
Below 15 years	10.0	37.5	25.0
Above 15 years	90.0	62.5	75.0
Total number	20	24	44

Of the total married adolescent girls who had at least one pregnancy (n=44), three-fourth had age at first birth above 15 years of age and one-fourth had below 15 years of age. With respect to social groups, Madheshi girls give birth at their early teens compared to the hills group girls. For example, there were only 10 per cent of the hill group

adolescent girls who had given birth when they were below 15 years of age, the comparable figure for Madheshi group is 38 per cent.

4.2 Antenatal Care (ANC)

4.2.1 Knowledge on ANC Services

It seems that knowledge on the ANC among the adolescent girls is poor. This holds particularly for the Madheshi groups. Overall, only 36.5 percent adolescent girls have knowledge about TT Vaccine, 36 per cent have ANC check up, 35 per cent have Iron/Folic and 4 per cent have knowledge on Calcium (Table 4.2). Radio and Television were the major sources of information on all components of ANC for both Hill and Madheshi groups, which is followed by friends/ relatives and newspapers/ magazines (Table 4.3).

Table 4.2: Percentage distribution of adolescent girls with knowledge on ANC, according to major components

ANC components	Hill groups	Madheshi groups	Total
ANC checkup	57.3	13.7	35.8
TT Vaccination	58.0	14.4	36.5
Iron/Folic	56.7	13.0	35.1
Calcium	6.7	2.1	4.4
Total number	126	170	296

Table 4.3 Percentage distribution of adolescent girls (10-19) who have knowledge of ANC by source of information according to source of ANC components

ANC	Radio/ TV	Newspapers/ Magazines	Friends/ relatives	Health workers	Total	No. of women
ANC checkup	48.1	21.7	18.9	11.3	100.0	106
TT Vaccination	43.0	16.8	29.0	11.2	100.0	108
Iron/Folic	40.4	14.4	30.8	14.4	100.0	104
Taken Calcium	53.8	-	7.7	38.5	100.0	13
Total no						296
Hill groups						
ANC checkup	52.3	19.8	19.8	8.1	100.0	86
TT Vaccination	53.8	18.8	18.8	8.8	100.0	80
Iron/Folic	55.0	18.8	17.5	8.8	100.0	80
Taken Calcium	40.0	40.0	10.0	10.0	100.0	10
Madheshi groups						
ANC checkup	30.0	30.0	15.0	25.0	100.0	20
TT Vaccination	31.3	18.8	18.8	31.3	100.0	16
Iron/Folic	33.3	13.3	20.0	33.3	100.0	15
Taken Calcium	33.3	33.3	0.0	33.3	100.0	3

4.2.2 Use of ANC Services

Of the total 44 married adolescent girls with at least one pregnancy, 79.5 percent have received ANC service during last birth/pregnancy. This proportion however is much higher for hill groups (90%) compared to the Madheshi groups (71%).

Among the married adolescent girls with at least one pregnancy and who received ANC service, an overwhelming majority (86%) received service from the health personnel, followed by Traditional Birth Attendant (TBA) (9%). Almost all the respondents belong to Madheshi groups received ANC services from health personnel whereas this percentage is about 72 for Hill groups (Table 4.4).

Table 4.4 Percentage distribution of adolescent girls with at least one pregnancy who have ever received ANC services, ANC service providers, number of ANC visits and no of TT dose during pregnancy for the most recent birth/current/pregnancy

Categories	Hill groups	Madheshi groups	Total
Types of ANC service			
Received any ANC services	90.0	70.8	79.5
ANC check-up	38.9	52.9	45.7
TT vaccination	94.4	58.8	77.1
Iron/Folic	88.9	76.5	82.9
ANC service providers			
Health personnel	72.2	100.0	85.7
TBA	16.7	-	8.6
Others	11.1	-	5.7
No. of ANC visits			
None	10.0	29.2	20.5
1	5.0	4.2	4.5
2-3	35.0	50.0	43.2
4+	50.0	16.7	31.8
Number of TT doses			
None	10.0	29.2	20.5
One	85.0	41.7	61.4
Two or more	5.0	29.2	18.2
Total number of adolescent girls with at least one pregnancy	20	24	44

Data show that one-fifth of the adolescent girls have no visits for ANC purposes while about one third have four and more visits for ANC check-up during their pregnancies. In the Hill groups 50 percent of the adolescent girls visit four and more than four times for

ANC check-up during the pregnancies. However, in case of Madheshi groups, 50 percent of the adolescent girls visit 2-3 times for ANC check-up during the pregnancies. Likewise, the percentage of adolescent girls who have not visited for ANC check-up is higher for Madheshi groups than that of Hill groups.

TT injection, an important component of ANC care, is given during the pregnancy primarily for the prevention of neonatal tetanus. For full protection, it is recommended that a pregnant woman should receive at least 2 doses of TT during her pregnancy. Five doses of TT injection are considered to provide lifetime protection. Of the total 44 married adolescent girls 10-19 with at least one pregnancy, 61.4 percent have one TT dose during their last pregnancy and it followed by two or more with 18.2 percent respectively. It is however worth noting that still more than one-fourth of the adolescent girls have no TT at all. In the Hill groups majority (85.0%) of the adolescent girls take one time TT dose during their last pregnancy and it followed by none (10.0%). In Madheshi groups, 41.7 percent of the adolescent girls take one times TT dose during their last pregnancy and it followed by none and two or more with same percent.

4.2.3 Reasons for Non-Use of ANC Services and Intention to Use

It is important to understand why married adolescent girls were not using any ANC services and what is their future desired regarding the use of ANC services. Data show that the main reasons for non-use of ANC services include 'no informed', 'too far' and 'no need'. However, all respondents from the hill groups reported that they were not using ANC services because they were not informed about ANC services while for Madheshi groups, all three reasons were important reasons for not using ANC services.

Table 4.5 Number of married women adolescent girls (non-users i.e. mothers and currently pregnant) of ANC use according to their reasons for non-use of ANC and those non-users of ANC who intends to use ANC in future by ANC user status

Categories	Hill groups	Madheshi groups	Total
Reasons for non-use of ANC			
No informed	100.0	42.9	55.6
Too far	-	28.6	22.2
No need	-	28.6	22.2
Intention to use ANC			
Yes	100.0	14.3	33.3
No	-	14.3	11.1
Not decided	-	71.4	55.6
Total number	2	7	9

Similarly, the married adolescent girls (non-user of ANC) were asked about their intention to use ANC services in future. It is revealed that 55.6 percent were unsure about the intention to use ANC in the future while 33.3 percent showed their intention to use ANC services in future. While all the adolescent girls of the Hill groups reported their intention to use ANC services in future, only 56 per cent adolescent girls of the Madheshi groups were unsure about the future use (Table 4.5)

4.3 Delivery Care

Traditionally, Nepalese children are delivered at home either without assistance or with the assistance of TBAs or relatives and friends. As shown in Table 4.6, more than two-thirds of adolescent girls delivered their births at home. This figure is 79 per cent for Madheshi groups and only 55 per cent for hill groups - revealing the fact that majority of Madheshi girls are still compelled to give births at risk situation.

Table 4.6 Percentage distribution of married adolescent girls (10-19) who have given births (last) by place of delivery

Categories	Hill groups	Madheshi groups	Total
Place of delivery			
Home	55.0	79.2	68.2
Health facility	45.0	20.8	31.8
Assistance during delivery			
Health professional	60.0	33.3	45.5
TBA	10.0	29.2	20.5
Relatives/friends	30.0	33.3	31.8
None	-	4.2	2.3
Total number	20	24	44

Who assisted the delivery? Assistance by health personnel is vital for the reduction of maternal and neonatal mortality. Births delivered at home are usually more likely to be delivered without assistance from a health personnel whereas births delivered at a health facility are more likely to be delivered by health personnel with at least minimal training in the provision of normal delivery services. In the study area, 46 percent of the adolescent girls are assisted by health personnel; 32 percent by relatives/friends and 21 percent by TBA. With regard to social groups, majority of the adolescent girls for Hill groups are assisted by health personnel compared to the Madheshi groups during delivery. For example, three-fifths of the adolescent girls from hill groups are assisted by health personnel while the comparable figure for Madheshi groups is only 33 per cent.

4.4 Postnatal Care

The National Safe-motherhood Program recommends that mothers should have a postnatal checkup within two days of delivery. This recommendation is based on the fact that a large number of maternal and neonatal deaths occur during the 48 hours after the delivery. To examine the extent of utilization of postnatal care, respondents with at least one birth (last) were asked whether they received a postnatal checkup.

Table 4.7 Percentage distribution of adolescent girls who had a birth (last) by timing of post natal care for the last birth and types of service providers

	Hill groups	Madheshi groups	Total
Timing of post natal care			
None	70.0	45.8	56.8
Within two days of delivery	20.0	16.7	18.2
Weeks after delivery	5.0	20.8	13.7
Don't know	5.0	16.7	11.4
Total number	20	24	44
Service providers			
Health professional	100.0	76.9	84.2
Relatives/friends	-	23.1	15.8
Total number	6	13	19

Data reveals that postnatal care is uncommon in the study area. Around 57 percent of the adolescent girls do not receive any postnatal checkup. Around 18 percent received postnatal care within two days of delivery (within 48 hours) while 14 per cent received weeks after delivery. Regarding the social group, 70 percent of the adolescent girls from the hill groups did not receive any postnatal checkup while the comparable figure is much lower among the adolescent girls from Madheshi groups (46%). Of the total adolescent girls (n=29) who had a birth (last) and postnatal checkup (first), around 84 percent of them had undergone a checkup by the health personnel and 16 per cent by the relatives/friends. In case of Hill groups, all had a checkup by the health personnel.

4.5 Availability and Accessibility of Married Care in Locality

Of the total respondents, around 39 percent complain about the availability and accessibility of maternal services and around 32 percent opined good availability and accessibility of the maternal care services in the locality. Likewise, the higher percent of the adolescent girls for each group reported no good availability and accessibility of maternal services in their locality.

Chapter 5

Abortion

Prevention and management of abortion is regarded one of the important aspects of SRH. This section deals with level of knowledge of abortion, perceived consequences of unsafe abortion, source of information on abortion, use of abortion and availability of accessibility of abortion services in the locality.

5.1 Level of Knowledge of Abortion

In this study, information on abortion was collected from the adolescent girls 10-19 years. Table 5.1 presents the level of knowledge of abortion among the adolescent girls. As shown in the Table, 48 percent of the adolescent girls have some knowledge of abortion.

Table 5.1: Percentage distribution of adolescent girls (10-19) having knowledge of abortion

Knowledge of abortion	Hill groups	Madheshi groups	Total
Yes	73.3	22.6	48.3
No	26.7	77.4	51.7
Total number	150	146	296

Adolescent girls who have knowledge on abortion were further asked about the main reasons for abortion. The results are presented in Table 5.2. Of the total respondents having knowledge of abortion (n=143), around 55 percent reported 'carrying of heavy load' as the main reason for abortion followed by 'bad health' (70%) and use of medicine without doctors consult (6%) respectively.

In the Hill groups around 72 percent of the adolescent girls reported that carrying of heavy load as the main reasons for abortion. However, in Madheshi groups higher percent of the adolescent girls (30%) reported that the bad health as the main reason of the abortion.

Table 5.2 Percentage distribution of adolescent girls who have knowledge of abortion by social groups, according to main reasons for abortion

Main reason	Hill groups	Madheshi groups	Total
Carrying of heavy load	71.8	0.0	55.2
Bad health	0.0	30.3	7.0
Use of medicine without Doctor's consultancy	7.3	0.0	5.6
No check at on time	6.4	3.0	5.6
Long distance	5.5	6.1	5.6
Regency at young stage	0.9	18.2	4.9
Get injured	0.0	15.2	3.5
Bitten by husband	1.8	3.0	2.1
Own will	0.9	3.0	1.4
Unwanted regency	0.0	6.1	1.4
Short spacing of births	0.0	6.1	1.4
If fetus is daughter	0.0	6.1	1.4
Deficiency of diet	0.9	0.0	0.7
Sex at regency stage	0.9	0.0	0.7
Spontaneous abortion	0.9	0.0	0.7
Smoking	0.9	0.0	0.7
Don't know	1.8	3.0	2.1
Total number	110	33	143

Adolescent girls who have knowledge of abortion were also asked about the main source of information on abortion. Table 5.3 depicts that around 54 percent of the adolescent girls are unknown about the source of information on abortion, followed by school (14.7%) and Radio (11.9%). The other sources of information include villagers, health post and friends/neighbor. Most of the adolescent girls belongs to Hill groups (61%) are unknown about the sources of information compared to Madheshi groups (30%).

Table 5.3: Percentage distribution of adolescent girls who have knowledge of abortion by social groups, according to main source of information on abortion

Main source of information	Hill groups	Madheshi groups	Total
School	19.1	-	14.7
Radio/TV	5.5	33.3	11.9
Villagers	7.3	18.2	9.8
Health post	6.4	6.1	6.3
Friends/neighbor	.9	12.1	3.5
Don't know	60.9	30.3	53.8
Total number	110	33	143

In the study, adolescent girls who have knowledge of abortion were further asked whether they have heard of recent Abortion Act. Majority of the adolescent girls (85%) do not have heard of Abortion Act. This holds for both hill groups and Madheshi groups.

5.2 Use of Abortion and Availability and Accessibility of Abortion Services

The married adolescent girls aged with knowledge of abortion were asked whether they have ever aborted fetus. As shown in Table 5.4, out of 71 married adolescent girls 10-19, only about 3 percent have ever aborted fetus. Data show that there is no any cases abortion among Madheshi groups whereas few cases (6.3%) have been reported among the hill groups.

Table 5.4: Percentage distribution of married adolescent girls with knowledge on abortion, according to whether aborted fetus

Ever aborted	Hill groups	Madheshi groups	Total
Yes	6.3	-	2.8
No	93.8	100.0	97.2
Total number	32	39	71

The adolescent girls aged 10-19 were also asked to provide the opinion as to the availability and accessibility of abortion services in the locality. Table 5.7 shows that 77.5 percent of the adolescent girls reported that they don't still know availability and accessibility of abortion services in the locality. This is followed by no access with around 14 percent. It indicates that there is no good availability and accessibility of abortion services in the locality for each group.

Table 5.5: Percentage distribution of married adolescent girls having knowledge on abortion, according to the opinion (main) as to the availability and accessibility of abortion services

Availability and accessibility	Hill groups	Madheshi groups	Total
Good access	6.3	-	2.8
No access	28.1	2.6	14.1
Sin of abortion	-	10.3	5.6
Don't know	65.6	87.2	77.5
Total number	32	39	71

Chapter 6

Infertility

Prevention and management of infertility is also regarded as one of the important aspects of SRH. Information on knowledge of infertility, source of knowledge of infertility and accessibility and availability of infertility services in the locality has been collected in the study from adolescent girls.

6.1 Knowledge on Infertility

Table 6.1 presents the percentage distribution of adolescent girls by knowledge of infertility. Of the total adolescent girls (296), 54 percent have knowledge on infertility. However, there is a remarkable difference about the knowledge of infertility between the Hill and Madheshi groups. In the Hill groups, the majority of the adolescent girls (83%) have knowledge about the infertility while this figure is 75 per cent for Madheshi groups.

Table 6.1: Percentage distribution of adolescent girls according to knowledge of infertility

Knowledge of infertility	Hill groups	Madheshi groups	Total
Yes	82.7	24.7	54.1
No	17.3	75.3	45.9
Total number	150	146	296

The adolescent girls who have knowledge of infertility were solicited to provide information on the main source of their knowledge on infertility. As shown in Table 6.2, 51 percent of the adolescent girls reported that the source of infertility is their own observation of infertile person in a society followed by villagers (16%) and learn from society (15%). The other sources of information include health personnel, FPAN, friends and Radio/TV. There is no considerable difference about the sources of infertility for both Hill and Madheshi groups.

Table 6.2: Percentage distribution of adolescent girls who have knowledge of infertility according to main source of knowledge

Main source of knowledge on infertility	Hill groups	Madheshi groups	Total
Own observation of infertile person	49.2	55.6	50.6
Villagers	19.4	5.6	16.3
Learn from society	13.7	19.4	15.0
School	12.9	0.0	10.0
Friends	0.0	16.7	3.8
Health personnel	3.2	2.8	3.1
FPAN	0.8	0	0.6
Radio/TV	0.8	0.0	0.6
Total number	124	36	160

6.2 Perception about Infertility

The adolescent girls who have knowledge about infertility were further asked their perception on infertility. As shown in Table 6.3, the adolescent girls understand infertility as synonymous to 'infertile women', 'hate and co-wife', 'no good luck while walking', 'bad woman', 'childless woman', 'no touch of other's children', 'misfortune' and 'witch'. This indicates that the informants are not actually knowledgeable about what is really infertile and how a person can be infertile.

More than one-thirds of adolescent girls from hill groups perceived that infertility means infertile women. This is followed by hate and co-wife (17%). In the Madheshi groups, the majority of the adolescent girls reported their perception about infertility as hate and co-wife, which is followed by no good luck while walking (14%).

Table 6.3: Percentage distribution of adolescent girls who have knowledge of infertility according to their perception who can be infertile

Perception about infertility	Hill groups	Madheshi groups	Total
Infertile woman	35.5	8.3	29.4
Hate and co-wife	16.9	52.8	25.0
No good luck while walking	15.3	13.9	15.0
Bad women	12.1	11.1	11.9
Childless women	8.9	5.6	8.1
No touch of others children	4.8	-	3.8
Misfortune	-	8.3	1.9
Infertile person	1.6	-	1.3
Witch	.8	-	.6
Don't know	4.0	-	3.1
Total number	124	36	160

Chapter 7

Adolescent Sexual and Reproductive Health

Adolescent sexual and reproductive health is one of the major components of SRH. In this study, information on various aspects of this component has been collected from the adolescent girls.

7.1 Knowledge of Physical Changes

Of the total respondents (296), the survey shows that overwhelming majority of adolescent girls (89%) have knowledge on physical changes with increasing ages. In the Hill groups, 94 per cent of the adolescent girls have knowledge about physical changes.

Table 7.1: Percentage distribution of adolescent girls (10-19) having knowledge of physical changes with increasing age

Knowledge of physical change	Hill groups	Madheshi groups	Total
Yes	94.0	83.6	88.9
No	6.0	16.4	11.1
Total number	150	146	296

Of the total respondents who noticed physical changes (263), 93 per cent noticed change in height with increasing ages and followed by started of menstruation (92%). Similarly, majority of the respondents (50 to 90%) noticed changes of sound, growth of vagina, growth of hair in vagina, change in weight and growth of breast. In the hill groups almost all adolescent girls (99%) notice change in height with increasing ages and 9 in 10 noticed growth in breast. In Madheshi groups, almost all adolescent girls (99%) noticed the start of menstruation with increasing ages.

Table 7.2: Percentage distribution of adolescent girls who have ever noticed of physical changes with increasing age according to changes

physical change	Hill groups	Madheshi groups	Total
Change in height	98.6	86.1	92.8
Menstruation started	85.8	99.2	92.0
Growth in breast	90.1	91.0	90.5
Change in weight	85.8	76.2	81.4
Growth of hair in <i>kakhi</i>	46.1	81.1	62.4
Growth of hair in vagina	41.1	67.2	53.2
Change in sound	37.6	68.0	51.7
Growth in vagina	36.9	65.6	50.2
Total number	141	122	263

The study also collected information about the perception of adolescent girls towards their male peer groups. Majority of adolescent girls view boys as their friends, other see boys as equal to them, while others view boys as exciting, shyness to talk and as romantic. It is interesting to note that four-fifth of the hill groups adolescent girls view boys as friends while the comparable figure for Madheshi groups is just 12 per cent. Half of the adolescent girls interviewed from the Madheshi groups did not response regarding this question.

Table 7.3 percentage distribution of adolescent girls about the perception about the opposite sex

Perception opposite sex	Hill groups	Madheshi groups	Total
As friend	80.0	11.6	46.3
No positive attitude	0.0	17.8	8.8
Equal	4.7	9.6	7.1
As brother	12.7	0.7	6.8
As exciting	0.0	6.2	3.0
Shyness to talk	1.3	3.4	2.4
As romantic	0.0	0.7	0.3
Don't know	1.3	50.0	25.3
Total number	150	146	296

7.2 Attitudes of Parents to Adolescent Girls

Adolescent girls were asked how their parents see them. This question was important to understand to what extent parents are aware on the needs and priorities of adolescent

girls. Data reveal that 46 percent of adolescent girls perceive that their parents' behavior is OK while one-third viewed that their parents understand their problems.

Table 7.4: Percentage distribution of adolescent girls (10-19) according to their perception as to the behavior of the parents

Perception about parents	Hill groups	Madheshi groups	Total
Ok	53.3	38.4	45.9
Understands the problem	32.7	35.6	34.1
Good	10.0	16.4	13.2
Good & strict	0.0	6.8	3.4
Not understand any problems	0.7	2.1	1.4
Friendly	1.3	0.0	0.7
Like as God	0.7	0.0	0.3
Don't know	1.3	0.7	1.0
Total number	150	146	296

7.3 Expected SRH Information and Services

When enquired to the adolescent girls regarding the type and quality of SRH information and services, majority are unaware. This shows that either the adolescent girls are reluctant to discuss on SRH issues or they are really unaware on the issue. This is especially true for Madheshi groups.

Table 7.5 Percentage distribution of adolescent girls according to expected type of SRH information

Type of SRH information	Hill groups	Madheshi groups	Total
Awareness program	10.7	9.6	10.1
Information from electronic media	15.3	-	7.8
Understandable by all	1.3	10.3	5.7
Wished information from health worker	8.0	2.7	5.4
Available of female volunteers in village	5.3	.7	3.0
Effective and creative	1.3	4.1	2.7
Need training in village	4.0	.7	2.4
Hooding board	4.7	-	2.4
Nothing need	3.3	-	1.7
Education in village	1.3	.7	1.0
Free distribution of drugs	-	2.1	1.0
No knowledge about problems	-	2.1	1.0
Service available in own village	-	2.1	1.0
<i>Aama samuha kholera</i>	.7		.3
Provide information at school	.7	-	.3
Don't know	43.3	65.1	54.1
Total number	150	146	296

Those who expressed concerns, the highest percent expected to have awareness program. Several expectations – information from electronic media, information from health workers, female volunteers in the community, effective and confidential services among others, are reported. There are certain variations in the expectation between Hill and Madheshi adolescence girls.

When enquired about the types of services required for promoting SRH in future, more than half could not provide any suggestions. This proportion is higher for Madheshi adolescent girls compared to their counterpart. Of the total adolescent girls, 18 per cent were in favor of free health check-up and medicine, followed by providing quality services (11%) and availability of health centre in proximity (9%). Other suggestions are related to how to campaign the SRH services in the villages such as campaigning through health workers, mothers groups and through media. Some informants also reported that they do not like to discuss on this issue as they perceive that it

Table 7.6 Percentage distribution of adolescent girls (10-19) according to expected type of SRH services

Type of SRH services	Hill groups	Madheshi groups	Total
Free check-up & medicine	24.7	11.7	18.3
Provide qualitative services	2.7	19.8	11.1
Availability of health center closer to the village	16.0	1.4	8.8
STD & reproductive health services should be near	2.7	0.7	1.7
Shame to talk about this topic	2.0	1.4	1.7
Discussion from health volunteers at village	2.0	0.0	1.0
Health worker should be at village	0.0	2.1	1.0
Open mothers' group in the village	1.3	0.0	0.7
Provide information from Radio/TV	0.7	0.7	0.7
Don't know	48.0	62.3	55.1
Total number	150	146	296

Chapter 8

STIs/HIV/AIDS

Prevention and management of STIs and HIV/AIDS has been recognized as one of the major components of sexual and reproductive health. Series of questions related to the subject have been asked in the study to the adolescent girls aged 10-19 years.

8.1 Level of Knowledge about STIs

Table 8.1 provides the distribution of the adolescent girls having knowledge of STIs. Of the total respondents (296), around 53 percent have knowledge of STIs. Among hill groups, the majority of the adolescent girls (72.7%) have knowledge about STIs whereas this percentage is only around 32 for the Madheshi groups.

Table 8.1: Percentage distribution of adolescent girls (10-19) having knowledge of STIs

Knowledge of STIs	Hill groups	Madheshi groups	Total
Yes	72.7	32.2	52.7
No	27.3	67.8	47.3
Total number	150	146	296
Type of STIs			
HIV/AIDS	38.5	53.3	43.6
Virangi	52.3	10.6	39.7
Dhatu	9.2	34.0	16.7
Total number	109	47	156

Adolescent girls who have knowledge of STIs were further asked to report the main types of STIs. Of the total respondents (156), 44 percent reported HIV/AIDS as the main type of STIs, followed by Virangi (40%) and Dhatu (17%). In case of hill groups, a higher percent of the adolescent girls reported Virangi as the main type of STIs, followed by HIV/AIDS (38.5%) and Dhatu (9%). However, among Madheshi groups, a higher percent of the adolescent girls (53%) reported HIV/AIDS as the main type of STIs, followed by Dhatu (34%) and Virangi (11%).

8.1.1 Source of Information on STIs

Table 8.2 provides the information on the distribution of the respondents who have knowledge of STIs by source of information about STIs. The main sources of information reported include schools and electronic media. Other sources include health workers (12%), friends and relatives (10%) and print media (8%). Among the hill groups a higher percent of the respondents (41%) reported that the school as the main source of information whereas Radio/TV (43%) as the main source of information for the Madheshi groups.

Table 8.2 Percentage distribution of adolescent girls (10-19) who have knowledge of STIs by main source of information about STIs

Source of information	Hill groups	Madheshi groups	Total
Radio/TV	30.3	42.6	34.0
Print media	8.3	8.5	8.3
School	41.3	21.3	35.3
Health workers	11.9	12.8	12.2
Friends and relatives	8.3	14.9	10.3
Total number	109	47	156

8.1.2 Precaution Taken

Respondents who have knowledge of STIs were further asked to suggest the precaution to be taken for STIs prevention. Multiple responses have been obtained on this subject. Table 8.3 presents the percentage distribution of respondents who have knowledge of STIs by hill and Madheshi groups, according to types of precaution to be taken to prevent STIs infection.

Main precaution measures suggested by the adolescent girls include: sex only with husband-wife, consistent use of condom (58%) and absent from multiple sex (42%) as the main precautions to be taken to prevent from HIV/AIDS. By Hill and Madheshi groups, higher percentage of Hill groups report consistent use of condom (71%)

compared to Madheshi groups (28%). Around 68 percent of the respondents from Hill groups report sex only with husband-wife compared to Madheshi groups (40.4%).

Table 8.3 Percentage distribution of adolescent girls who have knowledge of STIs according to types of precautions to be taken to prevent STIs infections

Type of precautions	Hill groups	Madheshi groups	Total
Absent from sex	45.9	34.0	42.3
Sex only with husband-wife	69.7	40.4	60.9
Consistent use of condom	70.6	27.7	57.7
Total number	109	47	156

8.2 Knowledge about HIV/AIDS

The survey has also solicited information from the respondents about the knowledge of HIV/AIDS. Table 8.4 shows that 65 percent of the respondents have heard of HIV/AIDS. In terms of social groups, 87 percent of the respondents of the Hill groups have heard of HIV/AIDS while the comparable figure for Madheshi group is 41 percent.

Table 8.4 Percentage distribution of adolescent girls by knowledge about HIV/AIDS

Heard of HIV/AIDS	Hill groups	Madheshi groups	Total
Yes	87.3	41.1	64.5
No	12.7	58.9	35.5
Total number	150	146	296

Respondents who have knowledge about HIV/AIDS were also asked about their main source of information on HIV/AIDS. As seen in Table 8.7 electronic media is the most important source of information (61%), followed by school (16%), print media (11%), friends and relatives (9%) and health workers (2%). In the Hill groups around 65 percent of the respondents reported that electronic media is the most important source of information compared to 53 percent for Madheshi groups.

Table 8.5 Percentage distribution of adolescent girls having knowledge about HIV/AIDS by main source of information on HIV/AIDS

Source of information	Hill groups	Madheshi groups	Total
Electronic media	64.9	53.3	61.3
Print media	9.9	13.3	11.0

School	19.8	8.3	16.2
Health workers	1.5	3.3	2.1
Friends and relatives	3.8	21.7	9.4
Total number	131	60	191

8.2.1 Ways of Transmission

Respondents who have knowledge about HIV/AIDS were asked to cite the perceived ways of HIV/AIDS transmission. Data reveal that 31 percent of the respondents have perceived 'transfusion of infected blood' as one of the important ways of HIV/AIDS transmission, followed by 'unsafe sexual intercourse' (28%), 'sharing of needles and syringes' (28%) and 'use unsafe blade' (11%) and 'through an infected mother to her unborn child' (1.6%). Among the Hill groups, a higher percent of the respondents (36%) perceive sharing injection as a main ways of HIV/AIDS transition whereas in case of Madheshi groups, it is use of unsafe blood as main ways of transition (52%).

Table 8.6 Percentage distribution of adolescent girls who have knowledge about HIV/AIDS according to perceived way of HIV/AIDS transmission

Ways of transmission	Hill groups	Madheshi groups	Total
Unsafe sexual intercourse	31.8	20.3	28.3
Transfusion of infected blood	22.0	52.5	31.4
Sharing needles and syringes	36.4	8.5	27.7
Use unsafe blade	9.8	13.6	11.0
By an infected mother to her unborn child	-	5.1	1.6
Total number	132	59	191

The respondents were also asked in which condition the virus of AIDS is not spread. Majority of the respondents did not know about it. While some educated respondents especially from the hill groups reported that it is not spread though shaking hands, living together, playing together; through food, water, communication cups and through insects and toilets seats.

8.2.2 Precaution about HIV/AIDS

Respondents who have knowledge about HIV/AIDS were asked to cite the type of precaution to be taken for the prevention and management of HIV/AIDS in the locality.

Of the total respondents (191), 55 percent reported mutually faith full with partners as main type of precaution, followed by no sharing of injection (50%), use condom (44%), no sex (35%) and no sharing of blade (27%). With regard to social groups, a higher percentage of Hill groups are more likely to report no sharing of injection, mutually faithful with partner and use of condom as main type of precaution compared to Madheshi groups (Table 8.7).

Table 8.7 Percentage distribution of adolescent girls who have knowledge about HIV/AIDS by age according to type of precautions

Type of precautions	Hill groups	Madheshi groups	Total
No sex	41.7	18.6	34.6
Mutually faith full with partner	59.8	44.1	55.0
Use condom	52.3	23.7	43.5
No sharing of Injection	63.6	18.6	49.7
No sharing of blade	23.5	35.6	27.2
Avoid drugs use	3.8	33.9	13.1
Total number	132	59	191

Note: Multiple responses

8.3 Attitudes towards HIV/AIDS Patients

Respondents who have knowledge on HIV/AIDS also provided us with their attitudes towards HIV/AIDS patients. More than two-thirds of the respondents have been found to be positive but there are still 20 percent of the respondents who have negative attitude towards the infected persons. However, there is a significant difference between hill and Madheshi groups about the attitudes towards HIV/AIDS. It is revealed that an overwhelming majority (87%0 percent of the respondents of the Hill groups have positive attitudes towards HIV/AIDS patients while the comparable figure for the Madheshi groups is only 20 percent (Table 8.8).

Table 8.8 Percentage distribution of adolescent girls who have knowledge on HIV/AIDS by type of reactions towards HIV/AIDS patient

Types of attitudes	Hill groups	Madheshi groups	Total
Positive	88.6	20.0	66.9
Negative	7.6	46.7	20.0
Don't know	3.8	33.3	13.1
Total number	131	60	191

Chapter 9

Summary and Conclusions

Adolescence is the period of transition from childhood to adulthood. It includes maximum physical, psychological and behavioral changes on the one hand and on the other hand, it is a period of preparation for undertaking greater responsibilities. The adolescent girls' SHR issues have become pertinent today both because of their considerable share in the population and the extent of their vulnerability of falling into worst condition. There is widespread early marriage, early and frequent child bearing, unsafe abortion, STD/HIV/AIDS and substance abuse. Although some progress has been made in recognizing the issues of adolescent girls at both national and international levels, and there has been some improvement in access to information and services about SHR among adolescent girls in Nepal, such progress has not been evenly distributed. Most societies are still closed and traditional with myth and misconceptions about sexuality, reproductive health, contraceptives, STDs/HIV/AIDS and sexuality education.

The NDHS 2006 has provided some profile of the adolescent girls in terms of age at marriage, fertility and their sexual and reproductive behavior but it fails to provide the disaggregated data according to different cultural groups. Further, there are also very few studies focusing on the adolescent girls from the Madheshi and hill communities either. Their needs, aspirations and access to SRH services may entirely differ from the national level because of cultural and geographical variation. This warrants a differentiated approach to examine the knowledge, attitudes and behavior of SRH among adolescent girls from this community. Thus, the main research questions of the study are: What is the level of knowledge, attitudes and behavior on SRH among adolescent girls from the Madheshi and hill communities? What are the social and cultural barriers to increase access to SRH information and services in these communities? To what extent the state is reaching out to these adolescent girls?

9.1 Summary

To answer the research questions stated above, the research site is selected in Mahottari district. It is a district with very high proportion of Madheshi population. The district has also a remarkable proportion (8 to 9%) of hill community. It is one of the backward districts in central Tarai region in terms of access to education and health services to adolescent girls. The female literacy rate is less than 25 per cent. Out of 76 VDCs, 4 VDCs were purposively selected for the study. The studied VDCs were Bardebas and Gauribas from northern side of the district and Sugabhawani and Simardahi from the southern side of the district. The former two VDCs have majority of hill groups while the later two VDCs have majority of Madheshi population.

From each selected VDC, 3 wards were selected and from each of the selected ward, 25 households were selected using a simple random sampling method. This provides a total of 300 households. However, a total of 296 households were successively visited for the interview of adolescent girls. In each sampled household, one adolescent girls aged 10-19 were interviewed. Three types of instruments were used to collect information: i) semi-structured interview - administered for adolescent girls, ii) FGD with the adolescent girls and iii) key informant interviews with different stakeholders.

The field work was conducted about one month in April-May, 2009. Six female field surveyors were hired to collect the information. All the seven components of Reproductive Health - Family planning, maternal health, abortion, infertility, and adolescent sexual and reproductive health, STIs/HIV/AIDS - have been dealt with.

The population of adolescent is very substantial in the VDCs. It ranges from 20 to 25 per cent - much higher in the northern side VDCs compared to the VDCs of the southern side. Within adolescent population, the proportion of early adolescent (10-14 years) is much higher compared to the late adolescent (15-19 years) in each studied VDC.

Family Planning

- Knowledge of contraceptive method among adolescent girls is low in the study VDCs with about 57 per cent of the total adolescent girls knowing at least one method of family planning. At the same time, there is high knowledge gap between Madheshi and hill groups - the latter group have much lower level of knowledge on family planning.
- The CPR among married adolescent girls is 22.5 per cent with only 5 per cent CPR among Madheshi groups compared to 44 per cent for hill groups. The reason for this difference between the Madheshi and hill groups is associated with the cultural barriers attached in Madheshi groups.
- Major sources of family planning methods are the government organizations, private organizations like pharmacy, family planning association of Nepal, Mary Stops.
- Among the married adolescents (71), about 78 per cent are not using a contraceptive method. Among them, 46 percent reported to have baby as the main reason for non-use of family planning, followed by opposed by husband (25%) and no sex now (17%) respectively.
- Among adolescent married girls who are not using contraception, 58 percent reported that they intend to adopt a family planning method in the future. The most preferred methods for the adolescents are female sterilization (86%) and Depo (33%) for both Hill and Madheshi groups.
- Majority of the respondents belong to both Hill and Madheshi groups reported that the good access of family planning services in their locality.

Maternal Care

- Of the total 71 married adolescent girls, 38 percent had no pregnancy, 35 percent had one pregnancy and 3 percent had three and more pregnancies. Three-fourth of the married adolescent girls had age at first birth above 15 years of age and one-fourth had below 15 years of age. With respect to social groups, Madheshi girls give birth at their early teens compared to the hills group girls.
- Knowledge on the ANC among the adolescent girls is poor: 37 percent have knowledge about TT Vaccine, 36 per cent in ANC check up, 35 per cent in Iron/Folic and 4 per cent in Calcium. There is a wide difference between Madheshi and hill groups' adolescent girls with much lower knowledge on ANC among the former groups compared to the lower groups.
- Of the total 44 married adolescent girls with at least one pregnancy, four-fifth has received ANC services during last birth/pregnancy with 90 per cent for hill groups and 71 per cent for Madheshi groups.
- Among the married adolescent girls with at least one pregnancy and who received ANC services, an overwhelming majority (86%) received service from the Health personnel and TBA.
- The main reasons for non-use of ANC services include 'no informed', 'too far' and 'no need'. However, all respondents from the hill groups reported that they were not using ANC services because they were not informed about ANC services while for Madheshi groups, all three reasons were important reasons for not using ANC services.

- With regard of the intention to use ANC services in future, 56 percent were unsure about the intention to use ANC in the future while one-third showed their intention to use ANC services in future.
- With regard to delivery care, more than two-thirds of adolescent girls delivered their births at home with 79 per cent for Madheshi groups and 55 per cent for hill groups.
- Of the total respondents, majority (39%) complain about the availability and accessibility of maternal services in their locality.

Abortion

- About half of the adolescent girls interviewed had heard about abortion. However, this proportion is much lower among Madheshi groups (23%) compared to the hill groups (73%).
- According to the respondents, carrying heavy load by women and bad health are the main causes of spontaneous abortion. More than half of the respondents do not know how they heard about abortion, while others reported they have heard it from school, Radio and health personnel.
- It is found that of the married adolescent girls, three have already undergone abortion. All of them were from hill groups.

Infertility

- Of the total adolescent girls, 54 percent have knowledge on infertility with 83 per cent for hill groups and 75 per cent for Madheshi groups.
- More than half adolescent girls in the sample reported that the source of infertility is their own observation of infertile person. Other sources include

villagers, schools, peer groups and through electronic media including through health personnel.

- The adolescent girls understand infertility as synonymous to 'infertile women', 'hate and co-wife', 'no good luck while walking', 'bad woman', 'childless woman', 'no touch of other's children', 'misfortune' and 'witch'.

Adolescent Sexual and Reproductive Health

- Of the total respondents, an overwhelming majority of adolescent girls (89%) have knowledge on physical changes with increasing ages. Of the total respondents who noticed physical changes, 93 per cent noticed change in height with increasing ages and followed by started of menstruation (92%).
- Majority of adolescent girls view boys as their friends, other see boys as equal to them, while others view boys as exciting, shyness to talk and as romantic.
- About 46 percent of adolescent girls perceive that their parents' behavior is OK while one-third viewed that their parents understand their problems.
- When enquired to the adolescent girls regarding the type and quality of SRH information and services, majority are unaware. This shows that either the adolescent girls are reluctant to discuss on SRH issues or they are really unaware on the issue. This is especially true for Madheshi groups.
- When enquired about the types of services required for promoting SRH in future, more than half could not provide any suggestions. This proportion is higher for Madheshi adolescent girls compared to their counterpart.

STIs/HIV/AIDS

- Of the total respondents, around 53 percent have knowledge of STIs. Among hill groups, the majority of the adolescent girls (73%) have knowledge about STIs whereas this percentage is only around 32 for the Madheshi groups.
- The main sources of information on STIs reported include schools and electronic media. Other sources include health workers (12%), friends and relatives (10%) and print media (8%). Main precaution measures suggested by the adolescent girls include: sex only with husband-wife, consistent use of condom (58%) and absent from multiple sex (42%) as the main precautions to be taken to prevent from HIV/AIDS. By Hill and Madheshi groups, higher percentage of Hill groups report consistent use of condom (71%) compared to Madheshi groups (28%).
- With regard to knowledge of HIV/AIDS, 65 percent have heard of HIV/AIDS with 87 per cent for hill groups and 41 per cent for Madheshi groups. Data reveal that 31 percent of the respondents have perceived 'transfusion of infected blood' as one of the important ways of HIV/AIDS transmission, followed by 'unsafe sexual intercourse' (28%), 'sharing of needles and syringes' (28%) and 'use unsafe blade' (11%) and 'through an infected mother to her unborn child' (1.6%).
- Respondents who have knowledge about HIV/AIDS were asked to cite the type of precaution to be taken for the prevention and management of HIV/AIDS in the locality. Of the total respondents (191), 55 percent reported mutually faith full with partners as main type of precaution, followed by no sharing of injection (50%), use condom (44%), no sex (35%) and no sharing of blade (27%).
- More than two-thirds of the respondents have been found to be positive but there are still 20 percent of the respondents who have negative attitude towards the infected persons.
- Almost half of the respondents have knowledge about some form of gender discrimination practiced in the family and in the community. The proportion

reporting knowledge on gender discrimination is much higher among Hill groups (69%) compared to Madheshi groups (27%).The gender discrimination is reported in education, food, clothing and health care.

9.2 Conclusions

This study has concluded the following

Access to SRH information and services differs according to the social groups - between Madheshi and hill groups. In almost all the indicators of SRH considered in this study reveal the fact that adolescent girls of Madheshi groups are of low level of knowledge on any of the SRH components compared to the hill groups. The main reason for this difference is the cultural variation between these two groups. The rigid patriarchal values attached among high Hindu caste people are one of the fundamental barriers to adequate and effective access to SRH information and services.

The study indicates that adolescents need appropriate information and advice to cope with the changes that they are experiencing physically, mentally, emotionally and socially. At the same time, they can be confused by the conflicting message they received about reproductive sexuality and contraception. Therefore, before entering into the reproductive life, they need to have appropriate knowledge on SRH. The proper information about reproduction, sex and family planning should be provided regarding the subsequent consequences of their sexual and fertility behavior.

The finding of the study justifies in developing a differentiated approach to intervene effectively in the backward communities regarding SRH needs among adolescent girls.

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Appendix 2.1

Distribution of Population According to Caste/Ethnicity, 2001, Mahottari District

Caste/Ethnicity	Total Population	Male	Female	Percentage of district's total population
Magar	14185	7282	6903	2.56
Brahmin (hill)	9939	5082	4857	1.80
Chhetri	8916	4587	4329	1.61
Tamang	7471	3817	3654	1.35
Sunuwar	7402	3852	3550	1.34
Newar	5580	2888	2692	1.01
Kami	3595	1794	1801	0.65
Sarki	1953	986	967	0.35
Damai/Dholi	1529	769	760	0.28
Gharti/Bhujel	1331	662	669	0.24
Sanyashi	1186	637	549	0.21
Sherpa	1121	588	533	0.20
Thakuri	725	384	341	0.13
Rai	480	241	239	0.09
Bhote	256	139	117	0.05
Churaute	166	87	79	0.03
Gurung	72	39	33	0.01
Nurang	55	29	26	0.01
Limbu	13	6	7	0.00
Yakaha	6	0	6	0.00
Chepeng	5	3	2	0.00
Darai	5	0	5	0.00
Jirel	5	1	4	0.00
Lepcha	4	0	4	0.00
Thakali	2	0	2	0.00
Chantel	2	1	1	0.00
Bote	2	0	2	0.00
Badi	1	0	1	0.00
Madheshi groups				
Yadav	84836	45070	39766	15.33
Muslims	74779	38435	36344	13.51
Brahmin/Bhumihar	36270	18941	17329	6.55
Koiri	28758	15055	13703	5.20
Teli	24066	12693	11373	4.35
Mushar	18226	9331	8895	3.29
Chamar/Haritan Ram	16206	8262	7944	2.93
Khatbe	12708	6545	6163	2.30
Dushadh/paswan/pasi	12315	6409	5906	2.23
Tatma	6937	3671	3266	1.25
Bantar	2586	1327	1259	0.47
Halkhor	236	109	127	0.04
Dum	724	376	348	0.13
Chidimara	12	6	6	0.00
Tharu	9025	4629	4396	1.63
Dhanuk	34660	18175	16485	6.26
Kebat	5781	2974	2807	1.04

Dunuwar	1903	946	957	0.34
Dhuniya	384	183	201	0.07
Santal/Satar	214	115	99	0.04
Thagar/Dhagar	109	60	49	0.02
Dhimal	37	15	22	0.01
Rajabhar	35	15	20	0.01
Tajpuriya	11	3	8	0.00
Rajabanshi	8	4	4	0.00
Sundi	14203	7407	6796	2.57
Nuniya	11170	5866	5304	2.02
Kalabar	8351	4332	4019	1.51
Hajam/Thakur	7660	4030	3630	1.38
Kurmi	7479	3835	3644	1.35
Sonar	7246	3775	3471	1.31
Malah	6106	3162	2944	1.10
Lohar	5545	2940	2605	1.00
Kanu	5372	2820	2552	0.97
Barai	4984	2614	2370	0.90
Rajaput	4833	2561	2272	0.87
Halubai	4637	2378	2259	0.84
Dhobi	3783	2020	1763	0.68
Kumhar	3730	1952	1778	0.67
Kayasth	3664	1777	1887	0.66
Badhai	2954	1524	1430	0.53
Baniya	2811	1453	1358	0.51
Mali	1703	859	844	0.31
Behdiyar	1390	733	657	0.25
Kumal	1196	621	575	0.22
Majhi	830	451	409	0.15
Bing/Binda	544	286	258	0.10
Panjabi/Shikh	165	86	79	0.03
Madwari	150	74	76	0.03
Kishan	26	10	16	0.00
Gangai	22	7	15	0.00
Bangali	22	10	12	0.00
Hayu	12	9	3	0.00
Meche	7	3	4	0.00
Raji	7	3	4	0.00
Byangsi	5	1	4	0.00
Koche	5	2	3	0.00
Munda	3	1	2	0.00
Kushunda	2	0	2	0.00
Gaine	1	0	1	0.00
Caste/ethnicity not stated	1	1	0	0.00
Balung	1	0	1	0.00
Other's Dalit	358	178	180	0.06
Other's Caste	5640	2901	2739	1.02
Total	553481	287905	265576	100.00

Source: National Census, 2001

Distribution of Population According to Religion, Mahottari District

Religion	Population	Percentage
Hindu	467078	84.4
Muslim	74783	13.5
Buddha	10729	1.9
Others (Jain, Christyan, Kirat, Sikh, Bahai)	378	0.1
Not stated	513	0.1
Total	553481	100.00

Source: National Census, 2001.

Distribution of Population According to Language, Mahottari District

Mother Tongue	Population	Percentage
Maithili	467241	84.42
Nepali	44330	8.01
Magar	15162	2.64
Tharu	9392	1.69
Tamang	7522	1.36
Newari	2871	0.52
Local language	1660	0.30
Bhojpuri	1434	0.23
Bangali	1107	0.20
Mahuni	830	0.15
Mardwari	276	0.05
Gurung	221	0.04
Limbu	110	0.02
Abwadhi	51	0.01
Jhangad	55	0.01
Others	1216	0.22
Total	553481	100

Source: CBS, 2001.