

CHAPTER- I

INTRODUCTION

1.1 Background of the Study

AIDS was first recognized internationally in 1981. AIDS is caused by HIV and when infected with it a large proportion of people dies within (5-10) years (World Health Org. 1992). The HIV and AIDS pandemic is one of the most serious health concern in the world today because of the high-case fatality rate and the lack of a curative treatment or vaccines. Epidemiological studies have identified sexual intercourse, intravenous injection, fetal transmission from infected mother, girls trafficking, migration as the main routes of transmission of AIDS (Acharya, 2002).

Adolescent was the period of rapid emotional growth and development. The word adolescent was derived from Latin word 'Adolescere' which means grow to maturity. Adolescence was defined as the stage of life span during which individual reach sexual maturity; it was the period of transition from puberty to maturity. Some adolescents become sexually active in early age. In many countries unmarried girls and boys had sexual intercourse in their adolescent stage and had greater possibility to attack with Human Immunodeficiency Virus (HIV) and other STIs (Acharya, 2002).

The adolescents were at greater risk of STI and HIV infection due to ignorance, risky behavior and lack of information, services and menstrual hygiene. The main purpose of reproductive and sexual health education was to make young people aware of the various mental, physical and emotional changes at the period of adolescence. Furthermore, they should emphasis on providing knowledge about the disadvantages of early sexual intercourse especially unsafe sex. The higher secondary level students will involve in sexual activities after marriage in the very near future and therefore are needed to be well informed about the various diseases that were easily transmitted by unprotected sexual intercourse. Sexual behavior and activity during adolescence were the fundamental causes of STIs, AIDS and unwanted pregnancies (Aryal, 2003).

STIs increase the likelihood of HIV transmission considerably, as well as having other reproductive health consequences such as chronic pain, infertility or life-threatening ectopic pregnancies. While data on STIs in developing countries were

scarce particularly for young people, WHO estimates that at least a third of the more than 333 million new cases of curable STIs each year occur among people under age of 25 years. Young people were also substantially more likely than adults to become re-infected after having been treated.

International Conference on Population and Development (ICPD) had recognised the special needs of adolescents and recommended for formulation of policies and programmes addressing their needs. Following the ICPD recommendations, various governments had formulated policies and programmes. The World Population Day 2003 was celebrated all over the world by a slogan: *One Billion Adolescent: Right to Health, Information and Services* (Adimora, 2005).

AIDS is a sexually transmitted disease (STD) spreading at a geometric proportion. Infact it is not itself a disease, but a syndrome, a group of symptoms that weaken the body's defense mechanism. It is caused by an infectious germ called the human immuno deficiency virus (HIV). The HIV progressively destroys the body's ability to fight against illness due to even simple infection like common cold (Bekalo, 1994). Moreover, for the first three months the virus is not detected by any conventional method of Laboratory testing. But the infected person could infect others during this silent period. As of today there is no preventive vaccine against it and there is no curative drug against it "it is a dreadful silent killer" (Kabir, 2010).

Sexually transmitted diseases spread from one individual to another through sexual contact in our society, where the sexual interaction before marriage is illegal and unacceptable. In fact, illegal or multiple partners for sexual interaction may lead to serious health problem and cause various sexually transmitted diseases. One of them is HIV and AIDS which is caused by undisciplined sexual behavior. It is taken as serious sexually transmitted fatal/stigmatized disease which has been considered as a burning issue all over the world (WHO, 2012).

The single most important preventive measure for people was to know their own HIV status. If they were uninfected, this knowledge helps them protect themselves; if they were infected, the information helps them to protect their partners.

Testing also provides the entry point to appropriate treatment and care for individuals who test positive.

HIV and AIDS being incurable and fatal disease, many people believe that knowledge of the disease itself will stimulate people to protect themselves from it. Hence, this study was focused on the knowledge of adolescents studying at higher secondary schools regarding this issue.

Adolescent population has less access to information regarding puberty, physical changes, reproductive health, contraceptives, STIs and HIV infection. If adolescent boys and girls are supported with proper information as mentioned above, knowledge creates positive attitude and positive attitude leads towards healthy behavior.

1.2 Statement of the Problem

The population in age group 10-19 years was defined as adolescents. Adolescence was further categorized into two categories namely as early adolescence (10-14) and late adolescence (15-19). Adolescent was the period of transition from childhood to adulthood. All adolescents experience biological as well as social change during this period. For instance, many adolescent of this age go through puberty, experience change in their body structure, leave home, leave school and get married (Acharya, 2002).

HIV and AIDS have been increasing since the first case was detected in 1988 in Nepal. Only three male and one female were detected of HIV infection for the year when it was diagnosed at first in the year 1988. Since then the incidence rate was increasing each year and the new cases detected in the year 2005 was 560 for male and 207 for female (NCASC, 2005).

The national data as of February 28, 2005 reveal 4755 individuals having HIV of which 856 have developed Acquired Immune Deficiency Syndrome (AIDS). Of the total AIDS cases, 237 had died. HIV transmission was increasing in population of 14 to 49 years age group.

Inaccessibility to adequate information and education on adolescent sexual and reproductive health is still a major problem among youths in Nigeria and this is more

worry with the issue of HIV and AIDS. The similar situation may be seen in any developing country like Nepal if the adolescents lack proper knowledge on the issue.

In addition this district experiences a high prevalence of women's trafficking for commercial sex work in India. These women return to their villages after they were identified with HIV and AIDS and many of them stay with their family and marry (CREHPA, 2005).

In Nepal, adolescents comprise of more than one fifth (22%) of the total population (CBS, 2011) which was rather more (23.3%) in 2011 (CBS, 2012) owing to high fertility and a youthful population. The proportion of adolescents in the total population was likely to increase in the coming years. A number of socio cultural factors and traditional beliefs operating in Nepalese society had contributed to a high level of illiteracy, early age at marriage, early and frequent child-bearing and their associated complications, unintended pregnancies and unsafe abortion.

Different researches have been carried out on HIV/AIDS and related issues, women trafficking, sexual exploitation etc. Most of them have mainly focused on highway restaurant, school, carpet workers, paper mills, professional sex workers etc. Some of the studies were done previously in Nepal but they all were focused on broad reproductive health area. They did not enter into specific reproductive health issue like STIs, HIV and AIDS with respect to higher secondary school students' perception in Araniko highway. Therefore, the researcher wants to investigate such specific issue. So, the research problem is stated as "A Study on Knowledge, Attitude and Practice towards HIV/AIDS among Higher Secondary School Students in Araniko Highway Area of Bhaktapur District".

1.3 Objectives of the Study

The main objective of the study is to reflect the picture of Knowledge and Practice towards HIV/AIDS among Higher Secondary School Students in Araniko Highway Area to Bhaktapur District in selected schools. The specific objectives of the study were set as follows:

- a. To assess the knowledge and practice towards HIV and AIDS among the Higher secondary level school students in Araniko highway area to Bhaktapur district.
- b. To identify the knowledge on causes, modes of transmission, sign and symptoms of HIV/AIDS.
- c. To identify the level of knowledge and main sources of preventive measures of HIV/AIDS

1.4 Significance of the Study

In Nepal, adolescents constitute over one-fifth of the total population. They were the backbone of the society and parents of tomorrow. They had great responsibility to make the society developed in future. The adolescents were vulnerable; they had high risk of increasing and transmitting STIs; including HIV and AIDS. That was why the research study will help to know the knowledge and attitude of adolescents regarding STIs and HIV and AIDS. The available studies on adolescent sexuality were limited in number and were rarely studied from the viewpoint of demographic perspective. So, micro level researches are important for every individuals and organizations who are working at grass root level.

Moreover there had not been conducted any studies regarding knowledge, attitude and practice towards STIs and HIV and AIDS among higher secondary school of Araniko highway adolescents to Bhaktapur District. It will also help to know the prevention as well as transmission knowledge of STIs and HIV and AIDS of adolescents and the research had great significance for the policy makers and planners to develop appropriate curricular and co curricular activities.

1.5 Rationale of the Study

The rationale of this study is to find out the existing level of knowledge and practice picture of HIV and AIDS among the students of grade 11 and 12. The target group of this study are those adolescent students who will enter into sex activities life in near future. So the sex education is most necessary for them. Students are the future generation of the nation and they should essentially possess the basic knowledge about private health and killer diseases such as STD and HIV & AIDS. What extent of

the existing perception are true and what amount of knowledge is false must be assessed. The rationale of the present study were as follows:-

1. The present research would be help to make HIV and AIDS prevention education more effective and fruitful at higher secondary school level.
2. The finding of the research would be helpful to know the level of knowledge and attitude of higher secondary school students on HIV and AIDS.
3. This study would be beneficial for organizations interested to pursue such type of research works in future.
4. The study would be helpful for those organization interested to develop appropriate programme and implement them focusing school student.
5. The recommendations of this research would be helpful to develop IEC materials focusing school youth.

1.6 Delimitations of the Study

As the proposed study is an academic research, there was delimited time and economic factors. So the study was delimited in the following areas:

1. This study was delimited to the four private higher secondary schools of Bhaktapur District.
- 2 This was completely school-based study, so it may not represent out of school adolescent and population group other than adolescent. Even in adolescent group the study may ignore the early adolescents. Therefore, this study was concentrated only on late adolescents of four private higher secondary schools in Bhaktapur District.
- 3 The scope of the study was delimited to the study of knowledge and attitude of respondents regarding HIV/AIDS.
4. This study was delimited within the 152 respondents.
5. This study was delimited in only Araniko Highway Bhaktapur district

1.7 Definition of the Terms Used

Age of Respondents The completed years age of respondents. The study was delimited to the adolescent of age group 15 to 19. Two boxes had been provided to enter the two digits age in questionnaire. So all the respondents were within this age limit.

Caste/Ethnicity of Respondents Five caste/ethnic groups were included in questionnaire, however, one more caste was found so all respondents have fallen into six caste/ethnic groups.

Family Members The number of persons living together in the same household. Two boxes were provided to enter the number of family members.

Knowledge on Modes of Transmission of STIs

The major modes of transmission of STIs were precoded. There were four major modes of transmission and some more modes were found in others category after data collection. The respondent was categorized as high, middle or low category for knowledge on modes of transmission of STIs if he/she reports more than three, two to three or less than two modes respectively.

Knowledge on Preventive Measures of STIs

The respondent was categorized as high, middle or low category for knowledge on preventive measures of STIs if he/she reports more than four, two to four or less than two modes respectively.

Knowledge on Modes of Transmission on HIV and AIDS

The respondent was categorized as high, middle or low category for knowledge on modes of transmission of HIV and AIDS if he/she reports more than three, two to three and less than two modes respectively. Beside this various statements were given and the respondents were asked to state whether true or false.

Marital Status	Two categories for marital status were included in the questionnaire. Other categories such as divorced, separated were not included assuming its inapplicability.
Parents' Occupation	The current major occupation of their parents. The occupation of father and mother were asked separately and all respondent reported their parent's occupation within the given category.
Parent's Education	The highest level of educational attainment of respondent's father and mother. Respondent could report their parents' education within six categories. Knowledge on Symptoms of STIs: The major symptoms of STIs were pre coded. There were five categories and some more symptoms were noted in others categories after data collection. The respondent was categorized as high, middle and low knowledgeable on symptoms of STIs if he/she reports more than four, two to four and less than two symptoms respectively.
Place of Residence	The respondent's current place of residence, whether they reside into municipality (urban) or within VDC (rural).
Religion of Respondent	The religion of respondents had been categorized into two religions whether they were Hindu or Buddhist. The information about religion was gathered in pre study of schools. It was informed that there were some Muslim students in Public Higher Secondary School. However, they did not appear in systematic sampling so the respondents were included in Buddhist and Hindu groups.
Sex of Respondents	The respondents can be categorized either as male or female, which was nominal scale.

CHAPTER –II

REVIEW OF RELATED LITERATURE AND CONCEPTUAL FRAMEWORK

2.1 Review of Related Literature

Human Immunodeficiency Virus (HIV) was an infectious agent that causes acquired immunodeficiency syndrome (AIDS), a disease that leaves a person vulnerable to life-threatening infections. Scientists have identified two types of this virus. HIV-1 was the primary cause of AIDS worldwide and HIV-2 was found mostly in West Africa. HIV belongs to the retrovirus family of viruses (UNFPA, 2003).

HIV transmission occurs when a person was exposed to body fluids infected with the virus, such as blood, semen, vaginal secretions, and breast milk. The primary modes of HIV transmission were (1) sexual relations with an infected person; (2) sharing hypodermic needles or accidental pricking by a needle contaminated with infected blood; and (3) transfer of the virus from an infected mother to her baby during pregnancy, childbirth, or through breast-feeding (UNFPA, 2003).

When HIV enters the body, it infects lymphocytes, white blood cells of the immune system. The virus commandeers the genetic material of the host cell, instructing the cell to replicate more viruses. The newly formed viruses break free from the host, destroying the cell in the process. The new viruses go on to infect and destroy other lymphocytes.

Over a period that may last from a few months to up to 15 years, HIV may destroy enough lymphocytes that the immune system becomes unable to function properly. An infected person develops multiple life-threatening illnesses from infections that normally do not cause illnesses in people with a healthy immune system. Some people who have HIV infection may not develop any of the clinical illnesses that define the full-blown disease of AIDS for ten years or more. Doctors prefer to use the term AIDS for cases where a person had reached the final, life-threatening stage of HIV infection (CBS and MOPE, 2003).

AIDS was first reported in 1981 in United States of America. The causative organism of AIDS- HIV was identified in 1983. The pandemic nature and the magnitude of the

private health problems associated with HIV infection were recognized much later when the proportion of persons infected with HIV rose very rapidly. However, considerable efforts were being made to reduce the spread of HIV, as the impact of HIV and AIDS seem to be very serious in a long-term aspect. The HIV virus does not respect geographical boundaries so no country of the globe was immune to HIV and AIDS. This was why this issue needs an issue of global thinking and intervention (Aryal, 2003).

The number of people living with HIV had been rising in every region, compared to two years ago, with the steepest increases occurring in East Asia, and in Eastern Europe and Central Asia. The number of people living with HIV in East Asia rose by almost 50 percent between 2002 and 2004, an increase that was attributable largely to China's swiftly growing epidemic. In Eastern Europe and Central Asia, there were 40 percent more people living with HIV in 2004 than in 2002. Accounting for much of that trend was Ukraine's resurgent epidemic and the ever-growing number of people living with HIV in the Russian Federation (NCASC, 2005).

Sub-Saharan Africa remains by far the worst affected region, with 25.4 million people living with HIV at the end of 2004, compared to 24.4 million in 2002. Just under two thirds (64%) of all people living with HIV were in sub-Saharan Africa, as were more than three quarters (76%) of all women living with HIV (UNAIDS, 2005)

Studies had found a connection between higher AIDS incidence and lower income. For instance, a study of African American women in North Carolina found that those with HIV infection were more likely than non-infected women to be unemployed; receive private assistance; had had 20 or more lifetime sexual partners; had a lifetime history of genital herpes infection; had used crack or cocaine; or had traded sex for drugs, money or shelter (CDC, 2005).

Researchers and analysts also pointed out that to be effective, prevention efforts must address the contextual factors of people's real lives—such as poverty, discrimination, illicit drug use in the community, the ratio of men to women in a given population, and racial segregation—and their influences on sexual behavior (Adimora, 2005).

The worldwide incidence of STI was high and increasing. The situation had worsened considerable with the emergence of HIV epidemic. Although the incidence of some STIs had established in parts of the world, there had been increasing cases in many regions (CDC, 2005).

2.2 Implications of the Review for the Study

HIV and AIDS in Asia

Asia was not just vast but diverse, and HIV epidemics in the region share that diversity, with the nature, pace and severity of epidemics differing across the region. Overall, Asian countries can be divided into several categories; according to the epidemics they were experiencing. While some countries were hit early (for example, Cambodia, Myanmar and Thailand), others were only now starting to experience rapidly expanding epidemics and need to mount swift, effective responses. They include Indonesia, Nepal, Viet Nam, and several provinces in China. In Myanmar and in parts of India and China, HIV had become well entrenched in some sections of society, despite modest efforts to halt the virus' spread. Other countries were still seeing extremely low levels of HIV prevalence, even among people at high risk of exposure to HIV, and had golden opportunities to pre-empt serious outbreaks. These countries include Bangladesh, East Timor, Laos, Pakistan, and the Philippines (Acharya, 2002).

National HIV infection levels in Asia were low compared with some other continents, notably Africa. But the populations of many Asian nations were so large that even low national HIV prevalence means large numbers of people were living with HIV. Latest estimates show some 8.2 million people were living with HIV at the end of 2004, including the 1.2 million people who became newly infected in the past year. AIDS claimed some 540,000 lives in 2004. Among young people 15–24 years of age, 0.3 percent of women and 0.4 percent of men were living with HIV by the end of 2004 (Adimora, 2005).

China, although moving at a varied pace, HIV had spread to all of China's 31 provinces, autonomous regions and municipalities. In some parts, such as Henan, Anhui, and Shandong, HIV was already spreading a decade ago among rural people

who sold blood plasma to supplement their incomes. Elsewhere, the virus had established a more recent but firm presence among injecting drug users and, to a lesser extent, sex workers and their clients. Much of the current spread of HIV in China was also attributable to injecting drug use and paid sex. HIV prevalence among drug injectors was measured at between 18 percent and 56 percent in six cities in the southern provinces of Guangdong and Guangxi in 2002, while in Yunnan province some 21 percent of injectors tested positive for HIV in 2003. Sexual transmission of HIV from injecting drug users to their sex partners looks certain to feature more prominently in China's fast-evolving epidemic. Some 47 percent of surveyed female drug injectors in Sichuan province and 21 percent in neighbouring Yunnan province reported selling sex for money or drugs in the previous month, according to recent studies. Condom use was reportedly quite high but it was hardly the norm. Once HIV becomes well-established in commercial sex circuits, onward spread of the virus could be quite rapid if current behaviour trends persist. In 2003, almost one quarter of surveyed sex workers in Guangxi never used condoms and about one half used them only occasionally. In Sichuan, only around 40 percent of sex workers reported using condoms with all their clients in the previous month, according to a 2002 study. Little was known about the possible role of sex between men in China's epidemic. A rare survey of men who had sex with men in Beijing, conducted in 2001-2002, found that approximately 3 percent of the men were HIV-infected (Adimora, 2005).

India's epidemics were even more diverse than China's. Latest estimates show that about 5.1 million people were living with HIV in India in 2003. Serious epidemics were underway in several states. In Tamil Nadu, HIV prevalence of 50 percent had been found among sex workers, while in each of Andhra Pradesh, Karnataka, Maharashtra and Nagaland, HIV prevalence had crossed the one percent mark among pregnant women. In Manipur, meanwhile, an epidemic driven by injecting drug use had been in full swing for more than a decade and had acquired a firm presence in the wider population. HIV prevalence measured at antenatal clinics in the Manipur cities of Imphal and Churachand had risen from below 1 percent to over 5 percent, with many of the women testing positive appearing to be the sex partners of male drug injectors. Several factors look set to sustain Manipur's epidemic, including the large proportion (about 20%) of female sex workers who inject drugs and the young ages of

many injectors (40% of male injectors surveyed in 2002 were under 25 years of age) (Adimora, 2005)

There were signs that injecting drug use was playing a bigger role in India's epidemics than previously thought. Most surveillance sites for injecting drug users were in the northern states where injecting was common behaviour, but other parts of the country had yielded equally troubling evidence. In the southern city of Chennai, for example, 26 percent of drug injectors were already infected with HIV when a sentinel site was established there in 2000; by 2003, 64 percent were infected. In most cities where injecting drug users had been surveyed, at least one quarter of them and, in Chennai, 46 percent said they lived with a wife or regular sex partner. This had probably contributed to the fact that Chennai also had among the highest HIV-prevalence rates among pregnant women in the country. It was likely that partners who injected drugs infected many of those women (Adimora, 2005).

Most new HIV infections in Asia occur when men buy sex and large numbers of men do so. Household-based surveys in a number of Asian countries suggest that between 5 percent and 10 percent of men buy sex, which makes commercial sex a large and lucrative industry in Asia. Many sex workers especially very young women from rural areas were either coerced into the industry or join it under duress, because they lack other employment opportunities. Nepal had reported earning around 2200 rupees or US\$ 30 a week, six times the average wage income (UNAIDS, 2005).

HIV and AIDS in Nepal

HIV and AIDS had been increasing since the first case was detected in 1988 in Nepal. Only three male and one female were detected of HIV infection for the year when it was diagnosed at first in the year 1988. Since then the incidence rate has been increasing each year.

The major mode of transmission of HIV in the country was heterosexual. It had been estimated that there were 58,000 people living with HIV and AIDS in Nepal at the end of 2001. There were an estimated 2400 AIDS deaths in 2001 in Nepal. These estimated figures were higher than the reported figures for a variety of reasons, mainly the lack of an adequate surveillance system. However, the recent estimation as

per the prevalence rate could reach more than seventy thousand infected cases (DOHS, 2005).

Unsafe injecting drug use was the wellspring of Nepal's epidemic, too. Use of non-sterile injecting equipment was widespread and accounts for the high HIV prevalence 22 percent to 68 percent across the country in 2002 among male injectors, many of them younger than 25. Younger injectors appear more likely to report risky practices in parts of Nepal; in the east, for example, injectors under 25 were three times as likely to report using non-sterile equipment at last injection compared with older injectors. Nepal's epidemic also highlights the potential links between HIV infection and mobility. Injecting drug users from cities with low prevalence, but who had injected drugs elsewhere, had been found to be two to four times more likely to have acquired HIV than those who had remained in their home cities. Half of the sex workers surveyed in central Nepal and who said they had worked in Mumbai (India) were HIV-infected, compared with 1.2 percent of those who had never been to India (UNAIDS, 2005).

HIV and AIDS and sexually transmitted infection now a day were emerging as a major threat Nepalese context. Since the first case of AIDS detected in 1988 in Nepal, the number of cases over the years had been gradually increasing. For example, the cumulative HIV and AIDS situation in 1996/97 was recorded to be 790 cases of which 61.6 percent were females. This situation in 1998/99 had sharply increased to 1108 cases, an increase of 1.4 times as HIV positive in 1996/97, 152 cases recorded had had AIDS. This figure for 1997/98 was recorded at 25 cases. Additionally, 62 of the 152 AIDS patients and 108 of the 225 AIDS patients were also recorded had had died. This suggests that death due to AIDS in 1997/98 was 1.5 times greater as compared to that of 1996/97 (Pant, 2006).

Global Situation of STIs

There were a number of pressing sexually related private health and social policy issues facing countries around the world today. According to the United States Centers for Disease Control and Prevention, in the United States a teen becomes pregnant every 30 seconds, and every 13 seconds a teen contract a STI. For most people in the United States, engaging in heterosexual intercourse without the use of a

condom was the behavior that puts them at greatest risk for infection with HIV, which can lead to AIDS and was often ultimately fatal. Although there was currently no cure for AIDS, there were medications that can help delay the onset of symptoms. Another serious STI was syphilis, which if left untreated for many years, can lead to paralysis, psychiatric illness, and death. Gonorrhea and Chlamydia may produce no obvious symptoms in a woman, but they can lead to sterility if she was not treated. STIs should be diagnosed and treated by qualified medical practitioners, and all sexual partners must be treated in order to avoid re-infection (Hak-su, 2004).

Genital lesions, such as those caused by herpes, increase one's chance of contracting HIV three- to five-fold. And a person who was co-infected with HIV and another STI was more likely to spread HIV to others (Fleming and Wasserheit, 2005).

Individuals can reduce their exposure to such sexual risks by practicing abstinence, using appropriate methods of contraception to avoid unwanted pregnancies, and using of safer sex practices. Such practices include using condoms to avoid exchanging bodily fluids, limiting the number of sexual partners, and restricting sexual behaviors to those with less risk, such as manual stimulation and massage.

STIs continue to be a major and growing private health problem in many parts of the world, especially in developing countries with an estimated annual incidence of 340 million curable STIs in 2012.

The epidemic of STIs in the developing countries was characterized by high incidence and prevalence, high rate of complications, increasing problem of antimicrobial resistance due to inadequate treatment and increasing risk of transmission and acquiring HIV infection (WHO, 2012). The increasing urbanization and industrialization in developing world leads to migration of young men and women in search of employment in urban areas and even in other countries. This growing phenomenon often results in increased unsafe commercial sexual activities that help to the spread of STIs and HIV epidemic.

The Situation of STIs in Nepal

Nepal being a landlocked and one of the least developing countries in the world with immense problem of poverty, illiteracy, ignorance and number of young unemployed population, had all the predisposing factors of increasing proportion of population being at the risk of STI and HIV.

Regarding the symptoms of STD, nearly one-fourth (24%) had suffered from sores/ulcer around vagina and slightly less than one fifth (18%) from too much pain inside vagina during intercourse. The corresponding figures were 18 percent and 13 percent in the control areas respectively. Similarly, about eight percent of the CSWs in the project area and five percent in the control area also had experienced purulent discharge (New ERA, 2005).

STI prevalence among sex workers (SWs) was notably higher. Data from Pokhara, Bhaktapur and *Tarai* revealed that syphilis prevalence among SWs was about 18.8 percent in *tarai*, 19 percent in Kathmandu and 13.8 percent in Pokhara. Clients of sex workers (truckers) were found to have 5.3 percent syphilis. Among other STIs bacterial vaginosis was found in 21.6 percent, Trichomoniasis in 21.1 percent, Chlamydia in 2.8 percent, Gonorrhoea in 0.8 percent and HIV in 0.8 percent among SWs in Pokhara. Trochomonas infection in female STI varied from 6 percent in FP attendees, 9.3 percent in female STI patients, 9 percent in female SWs of *tarai* and 21 percent in SWs of Pokhara (NCASC, 2006).

A study on HIV/Syphilis prevalence in pregnant women in four urban areas of Nepal showed that the prevalence rate of syphilis in the study population suggests a marked risk for pregnant women of contracting HIV infection for at least two reasons: the modes of transmission of HIV and other STIs were similar, the important role of STIs in facilitating the transmission of HIV (Bista and Kanpay, 2007).

Knowledge on STIs and HIV and AIDS

Gubhaju (2002) had conducted Two notions “too young to be pregnant” and “unprotected intercourse just once could not lead to conception or STD transmission” were factors that lead to risky behaviour among adolescents .

Knowledge about STIs was generally poor among young people. A study among young sex workers in Cambodia found that their limited knowledge was based on a mixture of facts, myths and rumors and was not always correct (Skhom, 2002). An unfortunate misconception among many young people, including in Kampala, Uganda, and Ho Chi Minh City, Viet Nam, was that STI symptoms will go away over time or that good personal hygiene will prevent STIs (and HIV). One in five female university students in Ilorin, Nigeria, 30 per cent of youth in parts of Chile and half of young men and women in sites in Guatemala also hold this belief (UNFPA, 2003).

Hak-Su, (2004) found that the response to tackle the pandemic also had to be multi-sectoral, combining the efforts of government and civil society, including the private sector. Governments need to integrate HIV and AIDS concerns into national development planning, sectoral plans and poverty reduction strategies. They also need to pay more attention to health, nutrition, education, gender equality and social justice. All level of government must be mobilized.

UNAIDS (2005) conducted study on HIV and AIDS knowledge, sex and condoms in first grade high school adolescents in Gombe State, North East Nigeria reports that 676(80%) hadheard of HIV and AIDS through Radio 261(31%), health worker 245 (29%) and friends118 (14%). Six hundred and sixteen (73%) had heard of AIDS related death and included school mate 49(8%), brother 55(9%), sister 49(8%). Six hundred and eight (72%) of students haddiscussed AIDS with a friend (170) 28%, schoolmate157 (26%). Six hundred and seventy six (80%) hadreceived sex education from one or both parent. Similarly three hundred and thirty (39%) haddiscussed AIDS with parents. Six hundred fifty (77%) of students hadreceived lectures on HIV and AIDS from their teachers. How one gets HIV and AIDS include sexual intercourse 659 (78%), unscreened blood 616(80%) sharing needles and blades 633(75%), and mother to child 625(74%). Three hundred and four (36%) hadever had sexual intercourse, 63(21%) made Sexual debut at 13years 63(21%) at 15years, 52(17%) at 18years.

Pathak (2005) found that three programmatically important ways to avoid the transmission of HIV and AIDS were abstaining from sex, using condoms, and limiting the number of sexual partners. Women were much less knowledgeable about programmatically important ways to avoid HIV and AIDS than men. Nearly twice as

many women (62%) as men (33%) were not aware of any programmatically important ways to avoid the disease. Four times as many men as women mentioned one way (20% and 5 % respectively) and one in three women and nearly one in two men mentioned two or three ways to avoid HIV and AIDS. Younger respondents, those residing in urban areas, respondents living in the hill zone, and those living in the western development region were more aware of programmatically important ways of HIV and AIDS prevention than their counterparts. The relationship between respondent's level of education and AIDS prevention knowledge was very strong. Eighty-seven percent of women with and SLC and above knew two or three programmatically important ways of HIV and AIDS prevention, compared with only 19 percent of women with no education. A similar pattern was observed for men.

Pathak (2005) conducted study by FPAN reveals that 85 percent of respondent had knowledge of STIs. Two thirds of respondents reported HIV and AIDS as the main type of STIs, followed by syphilis (20%) and gonorrhea (13%). Fifty two percent of the respondents said electronic media as main source of information; followed by school (19%), print media (12%), friends and relatives (10%) and health workers (7%). The role of parents as source of information on STIs was negligible in the study area. The overwhelming majority (94%) had heard of HIV and AIDS. Ninety three percent of the respondents perceive unsafe sexual intercourse as one of the important ways of HIV and AIDS transmission, followed by unsafe blood transfusion (78%) and sharing injection (74%).

A KAP survey among 1400 young people in seven different districts of Nepal shows that Nepalese were highly aware of the HIV risk, but that this awareness does not necessarily translate into safe sexual behavior. Although an overwhelming majority (92%) of teenagers had heard about HIV and AIDS, only 74 percent of teenagers knew that they should use condoms while having sex, and only two thirds (69%) said that they should not have sex with commercial sex workers. The study also shows that almost 20 percent teenagers considered premarital sex as proper, one in five boys and nearly one in ten girls interviewed that they had sexual experience. Sixty-five percent boys said that they had used condoms while 74 percent of girls said that their partners used a condom during intercourse.

Pant (2006) found that twenty percent among adolescents and about 26 percent among youth reported that they knew how to avoid AIDS. The knowledge of protecting one for deadly sexually transmitted disease among the adolescent and youths shown by the data was far from satisfactory because these groups of population were considered to be highly vulnerable to AIDS exposure.

UNFPA, (2012) found that the incidence of HIV and AIDS among adolescents was limited but increasing particularly among girls. For example in Nepal, adolescents constitute about 16 percent of the HIV and AIDS cases with adolescents girls representing 72 percent of the cases. Knowledge of HIV and AIDS was limited among adolescents: for example, only 19-24 percent of married adolescent girls were reported to have ever heard of HIV and ADIS in Bangladesh and Nepal.

Kabir (2010) stated that the adolescents were at greater risk of RTI/STI/HIV infection due to ignorance, risky behaviour and lack of information and services, menstrual hygiene.

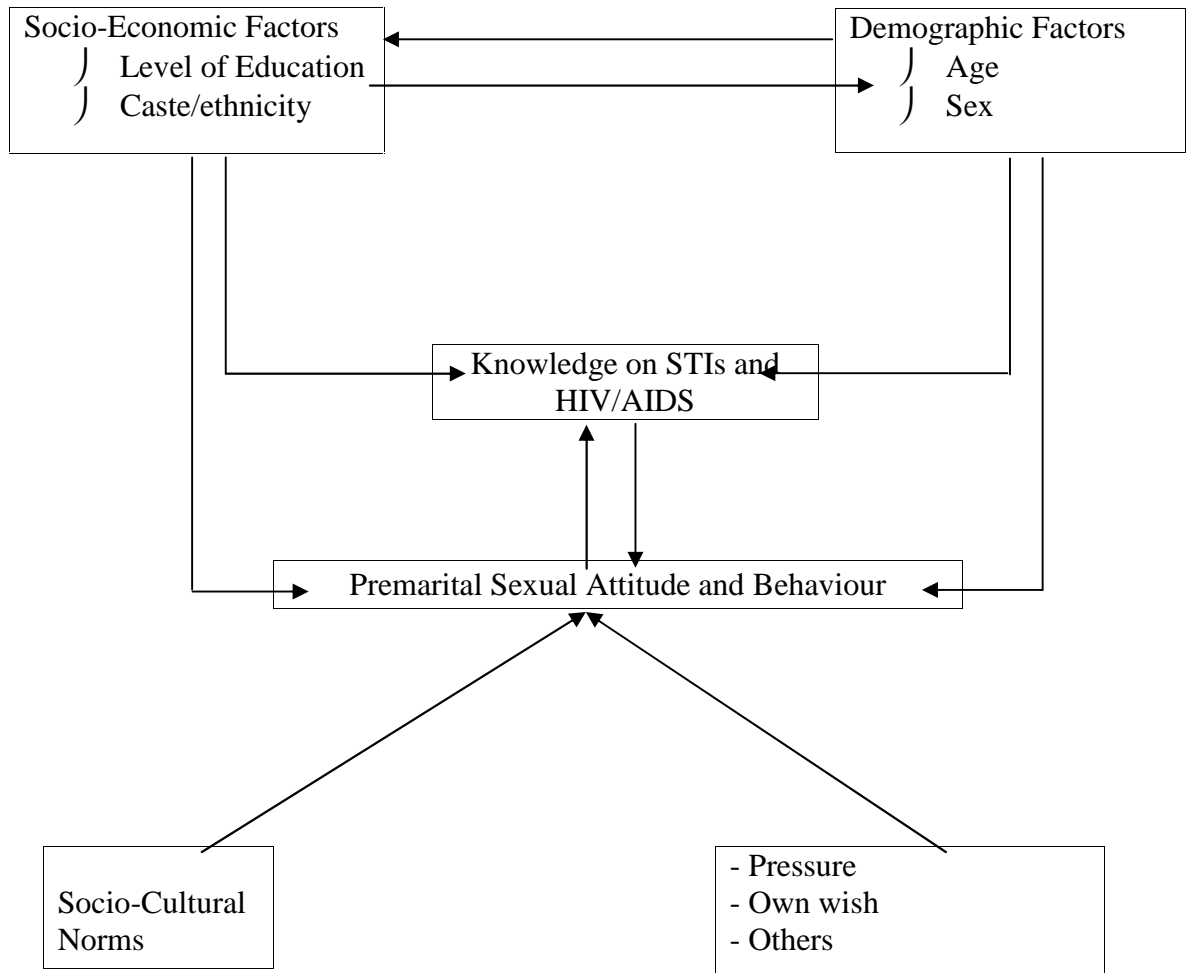
The proposed study done at selected higher secondary schools of Bhaktapur district, significantly differs in its objectives and methods from those of aforementioned studies in the ground that it basically concerns on the knowledge and practice regarding STIs, HIV and AIDS. Similarly, more studies and researches were carried out on STIs, HIV and AIDS on global basis. Thus, to some extent, to fulfill this research gap, the researcher tried to examine the knowledge and practice towards STIs, HIV and AIDS. The researcher believes that this study will be proved to be a significant and valuable literary asset on this ground.

2.3 Conceptual Framework

In this research study, the conceptual framework assumes to explain Knowledge and Practice Towards HIV/AIDS Among Higher Secondary School Students in Highway Area of Bhaktapur District and use of condom as influenced by socio-economic and demographic factors as well as socio-culture norms, by force, peer pressure or influence of friends. Here socio-economic factors affect demographic characteristics and both influence knowledge on STIs and HIV/AIDS as well as knowledge on sexual behaviour and use of condom. Similarly knowledge on STIs and HIV/AIDS

affect knowledge and sexual behaviour and it is also affected by practice and behaviour.

Proposed Conceptual Framework



CHAPTER- III

METHODS AND PROCEDURES OF THE STUDY

This study had been made to access the current stage on knowledge, attitude and practice towards HIV and AIDS. This section describes the selection of study area and population, sampling techniques and selection of respondents, construction of tools, pilot study, nature of data and method of data collection, data processing techniques and methods of data analysis and interpretation.

3.1 Research Design

Research design is the blue print for any study. Research design helps to follow certain plans and procedure of the study and it also helps to control external variables. This study was based on quantitative and descriptive types of study. Design was the most important element of any study, which represents the type of study, and it's characteristics. This study entitled Knowledge, attitude and practice of STIs and HIV and AIDS among Higher Secondary level students in Bhaktapur district had been based on descriptive research design.

3.2 Sources of the Data

The study was mainly based on the primary data. Primary data were collected from the field by conducting a field survey. All the boys and girls studying at higher secondary school of highway area of Bhaktapur district were the source of data in this study. Besides, secondary data and information have also been used wherever necessary

3.3 Population of the Study

Bhaktapur district had diverse geographical and socio-cultural nature. The total population of four schools were 278. There were 36 higher secondary schools in Bhaktapur District and 12 higher secondary school in Araniko Highway. Out of these 36 higher secondary schools, most of them have enrolled students in both grade eleven and twelve. This study had been carried out in four higher secondary schools with grade twelve. Likewise, the schools were selected in different locations so that

they are representative to the whole District. Four of the schools were located in urban area.

3.4 Sampling Procedure and Sampling Size

According to the review of school enrollment registers, there were a total of 278 students in selected four higher secondary schools. Out of this universe, researcher had taken 152 samples, which was approximately 54 percent of the total population. The population size in the selected four schools and the sample size were listed in table 1.

Table 1
Distribution of Sampling Population

S.N.	School's Name	Size of the Universe Population		Sample size		
		Class		Male	Female	Total
1	Jana Premi Higher Secondary School	12	103	31	34	65
2	Modern College of Management	12	65	25	20	45
3	Araniko Higher Secondary School	12	74	16	16	32
4	Jaya Higher Secondary School	12	36	5	5	10
	Total		278	77	75	152

The total samples of 152 had been selected on the basis of proportionate random sampling method for four schools at first stage. It was worth to note that the enrollment of girls and boys were almost similar in the selected schools i.e. 103, 65, 74 and 36 for boys and girls respectively. Hence, at second stage, boys and girls respondents had been selected on the basis of proportionate random sampling method. For this purpose, the sampling frame was prepared separately for boys and girls on the basis of attendance register at the survey date.

3.5 Tools of Data Collection

The semi-structured questionnaire was designed for the quantitative data collection. Most of the questions were pre-coded and some open questions had also been included in the questionnaire.

The study questionnaire included the socio-economic and demographic characteristics of the respondents. The whole set of questionnaire was divided into five aspects:

- i. Individual Characteristics of respondents
- ii. Household Characteristics of respondents
- iii. Knowledge and practice towards STIs
- iv. Knowledge and practice towards HIV and AIDS
- v. Knowledge and practice on role of different authorities to decrease the incidence.

Similarly, qualitative information was collected from a FGD guideline.

3.6 Validation of the Tools

-) Pre-Test: The questionnaire was pre-tested among 15 person of respondents of the total sample population using pre-scheduled questionnaire to identify the practicality and to determine validity and objectivity at Araniko Higher Secondary School.
-) Revision of tools: The research tools was revised and finalized on the basis of result obtained from pre-test and comments made by the advisors as well as other experts.

3.7 Data Collection Procedure

Study used primary source of data. Literature review was based on secondary source whereas data was colleted through primary source. Basically, the study was conducted on the basis of quantitative technique approach, however qualitative technique FGD was also applied as a supplement of quantitative method.

The quantitative data was collected using self-administered questionnaire. The study was focused on late adolescent age group of 15 to 19. Before administering questionnaire, students were pre-informed by researcher herself in the orientation hour about the importance and objectives of the study. Since, there was no need to write name and roll number of the respondents, they were made fully confidential about the secrecy of the information they provide. The selected students were asked to go to the ground to give their personal and private information confidently. Two FGDs were also conducted among two groups of males and females separately including 8 students in each group.

3.8 Data Processing Techniques

The filled questionnaires were edited thoroughly. After all questionnaires were edited, a codebook was prepared for the semi-open and open questions. The questionnaires were coded according to the codebook. All the questionnaires were edited to see if there were mistakes in skipping as well as other errors. After completing the manual edition, the master table was created with the help of professional and all data were entered. When the data entry was completed then they were edited to find out the entry errors known as data cleaning.

3.9 Data Analysis and Interpretation Techniques

The data analysis was simply based on descriptive type of analysis. The frequency table, cross tabulation and other necessary information were extracted from edited data in SPSS. On the basis of this information, the analysis and interpretation had been made. The interpretation was made according to the researcher's observation and literature review. The qualitative information was included to supplement the quantitative description as needed.

CHAPTER- IV

RESULT AND DISCUSSION

Background characteristics of the respondents have greater influence on practical aspect of an individual. Besides all factors positive, background characteristics provide a greater impact on the perception an individual. Background characteristics include socio-economics, demographic information. In particular, age, sex, caste/ethnicity, religion and occupation were included in this chapter.

4.1 Individual Characteristics of the Respondents

Several variables were included in questionnaire to examine the socio economic characteristics of respondents as well as to find out the relationship between dependent and independent variables. The variables used to collect individual background characteristics had been described within this subsection.

4.1.1 Age-Sex Composition

Sex is also considered as a very important aspect regarding HIV and AIDS. It is the interplay of biological, cultural and economic factors that make young girls particularly vulnerable to the sexual transmission of HIV and Aids while both girls and boys engage in consensual sex, girls are more likely than boys to be uninformed about HIV. The respondents were selected from late adolescent age group of 15 to 19. Table 2 shows the distribution of respondents by age and sex.

Table 2
Distribution of Respondents by Age and Sex

Age	Male		Female		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
15	1	1.3	-	-	1	0.7
16	8	10.4	14	18.7	22	14.5
17	25	32.5	17	22.7	42	27.6
18	24	31.2	27	36.0	51	33.6
19	19	24.7	17	22.7	36	23.7
Total	77	100.0	75	100.0	152	100.0

Table 2 shows that more than one-third (33.6%) respondents were of 18 years old followed by 17 years old (27.6%). Only one male of 15 years had been found in this study. Table 2 shows that there were dissimilarities in age by sex. The female dominates in ages 16 and 18 while number of male respondents was higher in rest of other ages. The reasons for the respondents being age group 17-18 is that most of the respondents got married in this age in the urban area.

4.1.2 Marital Status

Marital status of the respondents can be considered as one of the key factors for knowledge and practice on STIs and HIV and AIDS.

Table 3
Distribution of Respondents by Marital Status and Sex

Marital Status	Male		Female		Total	
	N	Per cent	N	Per cent	N	Per cent
Married	6	3.9	9	5.9	15	9.9
Unmarried	71	46.7	66	43.4	137	90.1
Total	77	50.7	75	49.3	152	100.00

As seen in table 3, about one in every ten students in higher secondary school were married. More girls (5.9%) than boys (3.9%) were married. The data show that girls get married earlier than boys. This was due cultural barrier in Nepalese society.

4.1.3 Caste/Ethnicity

Caste and ethnicity is considered as one of the important variables related to any study and research, they are the inseparable features of demography. The variation affected by caste and ethnicity is intensively analyzed in this study. The respondents are classified as per their ethnic identity, which is given in table No. 4

Table 4
Distribution of Respondents by Caste/Ethnicity

Caste/Ethnicity	Number	Per cent
Brahmin	61	40.1
Chhetri	32	21.1
Newar	51	33.6
Dalit	8	5.2
Total	152	100.0

Table 4 gives the information about the caste and ethnicity of the respondents. The total respondents fall into six caste/ethnic groups. Among them the highest number of respondents were Brahmin (40.1%) followed by Newar (33.6%), Chhetri (21.1%), and Dalit (5.2%). This can be attributed that the enrollment of minority people in higher secondary level was low.

4.1.4 Religion

From the beginning of human civilization religion is deeply rooted in the perceptual and behavioral part of human being. It has been regarded as the function of social control. The faith on any religion directly influences the human behaviour as well as it determines the individual value system. Sometimes the religious belief may support for the risky behaviour, which may result in getting HIV and AIDS. The norms and values of different religions are not the same. The norms of some religious groups are against using contraceptive. There are different religions in study area and the majority of the students studying at higher secondary schools were Hindu.

Table 5
Distribution of Respondents by Religion

Religion	Number	Per cent
Hindu	126	82.9
Buddhist	26	17.1
Total	152	100.0

Table 5 shows that the majority of the students studying at higher secondary schools were Hindu (82.9%). The remaining (17.1%) students fell under the Buddhism. There were two Muslim students at Private Higher Secondary School; however, they did not appear in the sample.

4.1.5 Type of Previous School

The question was asked to the respondents whether they had studied in government or boarding school in their S.L.C. level. Table 6 shows the distribution of respondents by the type of their previous school.

Table 6
Distribution of Respondents by Type of School Previously Attended

Type of School	Number	Per cent
Government	142	93.4
Boarding	10	6.6
Total	152	100.0

According to table 6, only 6.6 per cent of the respondents had studied in boarding school in the past whereas the overwhelming portions of the students were from government schools.

4.1.6 Place of Residence

All the respondents were asked their current place of residence. According to table 7, more than three in every five students (60.5%) live in rural area and remaining (39.5%) live in urban area.

Table 7
Distribution of Respondents by Place of Residence

Place of Residence	Number	Per cent
Urban	60	39.5
Rural	92	60.5
Total	152	100.0

4.2 Household Characteristics

In this subsection the household background of the respondents was aimed to collect. Household characteristics include parents' education, parent's occupation and family size. The questions regarding these household characteristics were included in the questionnaire.

4.2.1 Educational Level of Parents

Education is one of the important means of attaining social and economic development. It plays a key role to improve the knowledge and practice towards HIV and AIDS. Generally, education leads a person towards the betterment of life. What level and quality of education a person deserves determine the success in life. The educational attainment of the parent's is an important socio- economic factor. This factor can play vital role for the level of knowledge of their children. In questionnaire the educational level of father and mother was asked separately. The result combined for both of the parents was shown in table 8.

Table 8
Distribution of Respondents by Parent's Educational Attainment

Level	Father		Mother	
	N	Per cent	N	Per cent
Illiterate	19	12.5	47	31.0
Non formal	18	11.8	58	38.2
Primary(1-5)	44	29.0	22	14.5
L. Secondary(6-8)	14	9.2	12	8.0
Secondary(9-10)	16	10.5	8	5.3
SLC and above	41	27.0	5	3.3
Total	152	100.0	152	100.0

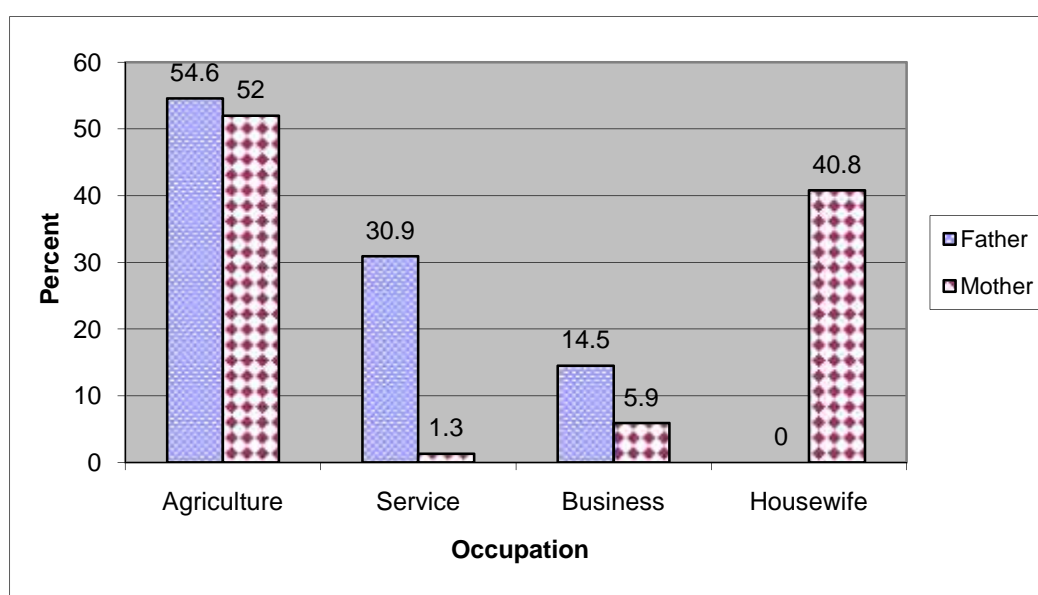
From table 8, it was seen that nearly 31 percent of the respondent reported that their mothers were illiterate which was about 13 percent for father. There was higher proportion of mothers (38.2%) have non-formal education comparing to fathers (11.8%). Only about 4 percent of the respondent reported that their mother's

educational attainment was SLC and above, the corresponding figure for father was nearly 27 percent. It is concluded that respondent's mother's education level was lower than their father's educational status in this study.

4.2.2 Parent's Occupation

An income source of the family is a very important variable. It can play a vital role to determine the awareness level about health and disease. It is significantly associated with knowledge and practice towards of HIV/AIDS. The occupation of the parents can also be taken as important variable that determines the socio-economic status of the household and also affects the knowledge on STIs and HIV and AIDS. Figure 1 shows the occupation of father and mother of the respondents.

Figure 1
Distribution of Respondents by Parent's Occupation



As stated in figure 1, most of the respondent's parents were dependent on agriculture. 54.6 percent fathers were involved in agriculture followed by 30.9 percent in service and 14.5 percent in business. In case of mother, 52 percent respondents reported that their mothers were engaged in agriculture and 40.8 percent were in household work. The share of mother engaged in business was 5.9 and only 1.3 percent mothers were in service sector. The study concluded that majority of the father were involved in

agriculture and service sector as compared to mother. But majority of mother were engaged in agricultural and household work as compared to service sector.

4.2.3 Family Size

Small family size is an indicator of healthy and happy family. There is more possibility of family relation as well as frankly discussion on health related topics and others in small family. To find out the family size of the respondents at the field survey, an open question was asked to fill the number of their family members and the result was presented in figure 2. Later on, the number of family members had been recorded to three categories only.

Figure 2
Distribution of Respondents by Family Size

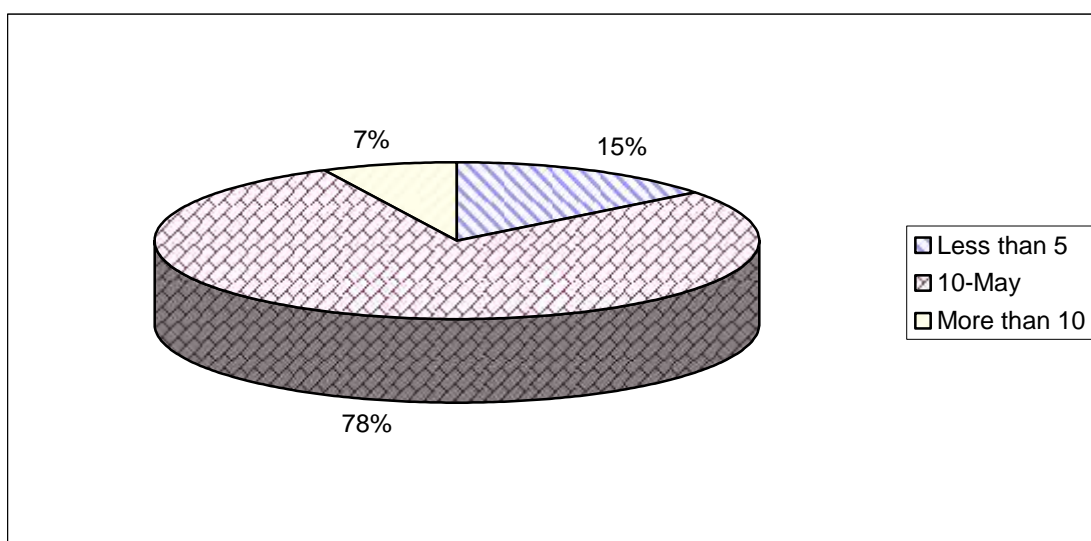


Figure 2 shows that nearly four in every five respondents (78.0%) had the family size of five to ten persons. The percent of respondents that fall in the family size of less than five members was more than 15 and the respondents who had family size of more than ten constitute about 7 percent. The study concluded that majority of respondents were living in joint family

4.3 Knowledge and practice towards SITs

The knowledge on sexually transmitted infection was measured in terms of several variables. First of all it was examined whether the respondents had heard about STIs

or not. Then, knowledge on symptoms, knowledge on modes of transmission and knowledge on preventive measures had been examined. The knowledge was categorized into high, medium and low based on the number of options respondent reported.

4.3.1 Heard of STIs

The foremost important variables to assess the knowledge on STIs can be taken as heard of STIs. The question was asked if the respondent had heard about STIs or not. According to the table below almost all (99.3%) had heard about sexually transmitted infection. Only one female respondent reported that she had not heard about STIs.

Table 9
Distribution of Respondents by Hearing of STIs According to Sex

Heard of STIs	Male		Female		Total	
	N	%	N	%	N	%
Yes	77	100.0	74	98.7	151	99.3
No	-	-	1	1.3	1	0.7
Total	77	100.0	75	100.0	152	100.0

The respondents who had heard about sexually transmitted infection were further asked to state which STIs they had heard. The following table gives the distribution of responding reporting different STIs.

Table 10
Distribution of Respondents by Type of STIs

STI Types*	Number	Per cent
Gonorrhea	94	61.8
Syphilis	62	40.8
HIV/AIDS	150	98.7
Others	13	8.6

*Multiple responses

As stated in table 10, the HIV and AIDS was very common type of sexually transmitted infection which was heard by almost all respondents (98.7%). Only two respondents did not mention HIV and AIDS under STIs. The next common name of STI was Gonorrhea which was heard by nearly 62 percent and Syphilis by 41 percent. Some other diseases such as Trichomoniasis, Venereal Wart, Chancroid were reported by only about 9 percent of the respondents.

4.3.2 Knowledge on Symptoms of STIs

The diseases which are transmitted through sexual intercourse are grouped in STIs. There are more STIs for example HIV, Hepatitis-B, Gonorrhea, syphilis, chlamydia and trichomoniasis. It was important to ask the symptoms of sexually transmitted infection to evaluate the knowledge about it. First of all respondents were asked whether they know about symptoms of STI or not. Table 11 gives the distribution of respondent by knowledge on symptoms of STI.

Table 11
Distribution of Respondents by Knowledge on Symptoms of STIs

Knowledge	Number	Per cent
Yes	146	96.1
No	6	3.9
Total	152	100.0

Note: The Percentage was taken to 152

According to table 11, 146 respondents (96.1%) know the symptoms of STIs. The five respondents (3.9%) stated that they do not know the symptoms of sexually transmitted infection. The respondents who know the symptoms of sexually transmitted infection were asked to mention the symptoms. According to table 14, 128 respondents (84.2%) reported foul white discharge from vagina, followed by sores/abrasion around vagina, itching around sexual organs (82.9%), pus from penis (66.4%), lower abdominal pain during intercourse and in normal situation (33.6%), bleeding other than menstruation period (26.3%) as the symptoms of STIs. Some respondents (5.3%) reported change in weight as symptoms of sexually transmitted infection.

Table 12
Distribution of Respondents by Knowledge on Symptoms of STIs

Symptoms	N	Per cent
Foul white discharge from vagina	128	84.2
Lower abdominal pain during intercourse	51	33.6
Bleeding other than menstruation period	40	26.3
Sores/Abrasion around vagina, itching	126	82.9
Drop of pus from Penis	101	66.4
Change in weight	8	5.3

Note: Total percentage may exceed hundred due to multiple response

N=152

The points recorded in focus group discussions (FGD) also supported the above symptoms of sexually transmitted disease. On the issue of symptoms of sexually transmitted infection both group male and female reported the similar types of symptoms. Male participants in Jana Premi Higher Secondary School, Bhaktapur added that pain in penis during intercourse was also symptoms of STIs. The female group in Jana Premi Higher Secondary Boarding School, Bhaktapur raised two new symptoms of sexually transmitted infection: forgetting habit and hair losing.

Only two percent of respondents in grade twelve had no knowledge whereas nearly one fourth (23.5%) had high knowledge on symptoms of STIs. The corresponding figure for grade eleven was (5%) and (10.9%) respectively.

4.3.3 Knowledge on Transmission of STIs

STIs generally transmitted through sexual intercourse. The main cause of these infection is unsafe sex. Unsafe sex means to have sexual relations with many sexual partners without using condom, sharing common syringe, needle, tattooing instrument and other materials which come in contact with blood. In questionnaire, the question to assess the knowledge on transmission of STIs was included. First of all respondents were asked whether they knew the mode of transmission of STIs or not.

Table 13
Distribution of Respondents by Knowledge on Mode of Transmission

Knowledge	Number	Per cent
Yes	149	98.0
No	3	2.0
Total	152	100.0

According to table 13, 149 respondents (98%) knew the mode of transmission of sexually transmitted infection. Only three respondents reported that they did not know the modes of transmission of STIs. The respondents who had knowledge on mode of transmission of STI were further asked to state the modes. Table 14 gives the result.

Table 14
Distribution of Respondents by Modes of Transmission

Ways of Transmission	N	Per cent
Sexual contact with infected person	148	97.4
Living together with infected person	9	5.9
Infected mothers to fetus	121	79.6
Dirtiness of sexual organ	35	23.0
None use of condom	2	1.3
Blood transfusion	4	2.6
Drug Abuse	2	1.3

Note: Percent may exceed hundred due to multiple responses

N= 152

According to table 14, almost all the respondents (97.4 %) stated the sexual contact with infected person was the most important modes of transmission. Likewise, 121 respondents (79.6%) reported infected mother to fetus or newborn baby as mode of transmission. The proportion that stated dirtiness of sexual organ could cause disease was 23 percent and the respondents who reported living together with infected person was way to transmit the disease was nearly 6 percent. Similarly, only few respondents mentioned some other ways.

4.3.4 Preventive Measures of STIs

It was essential to check whether the students had knowledge on preventive measures of sexually transmitted infection or not. The question was included and the result indicating acceptance of respondents for each measure was shown below.

Table 15
Distribution of Respondents by Preventive Measures of STIs

Preventive Measures	Number	Per cent
Use of condom during sexual intercourse	151	99.3
Sex with only one partner	127	83.6
Abstinence during infection period	112	73.7
Always clean owns sexual organs	74	48.7
Avoid sharing foods, clothes, toilet	12	7.9

Note: The percentage may exceed hundred due to multiple responses

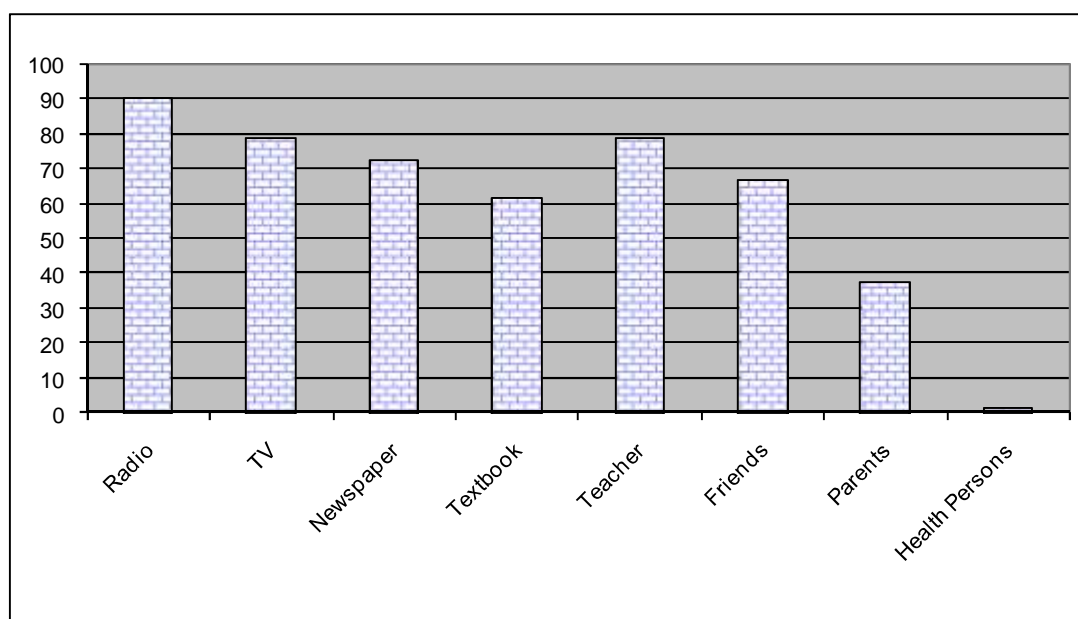
N=152

As shown in table 15, use of condom during sexual intercourse was the most preferred way of prevention from sexually transmitted infection, which had been reported by 151 respondents (99.3%). Likewise, sex with only one partner was reported by 127 respondents (83.6%), sexual abstinence during infection period by 112 respondents (73.7%), clean own sexual organs (48.7%), and avoids sharing foods, clothes, toilets etc. (7.9%).

4.3.5 Source of Information

Figure 3 provides the information on the distribution of the respondents who had knowledge on STIs by source of information. The electronic media was the main source of information.

Figure 3
Distribution of Respondents by Source of Information on STIs



According to the figure 3, the major source of information for STIs was Radio (90.1%), followed by teacher and TV (78.3%). Other sources of information were newspaper (72.4%), friends (66.4%), text book (61.2%), parent (37.5%). The role of health persons as source of information on STIs was negligible in the study area. It can also be generalized here that parents do not share much about sexual diseases with their children.

4.3.6 Suggestion for Avoiding STIs

Together with the knowledge, attitudes and perceptions of respondents were also measured. For this the respondents were asked to suggest for avoiding the sexually transmitted disease. The table 18 gives the detail information about it.

Table 16
Distribution of Respondents by Suggestions for Avoiding STIs

Suggestions	Number	Per cent
Use of condom during sexual intercourse	109	71.7
Always clean own sexual organs	18	11.8
Always keep sexual relation with only one partner	82	53.9
Beware of disease and infected person	7	4.6
Avoid intercourse with infected person	33	21.7
Acquire the sexual education	11	7.2
Keep the infected person separate in society	2	1.3
No birth from infected mothers	9	5.9
Do not had bad friends	2	1.3
Sex in matured age only	2	1.3
Not stated	8	5.3

Note: The percentage may exceed hundred due to multiple responses

N=152

Table 16 clearly shows that the main suggestion, which was given by majority of respondents, was to use condom during sexual intercourse, which was reported by 109 respondents (71.7%). In this matter ‘keep sexual relation with only one partner’ had been reported by about 54 percent. More than one-fifth (21.7%) respondents want to suggest avoiding intercourse with infected person. In 11 respondents’ view sexual education should be acquired to prevent from this disease. Eight respondents had not mentioned any preventive measures.

4.3.7 Suggestions for Infected Persons

In the process of assessing the practice towards infected people it was worth to ask them the suggestions they want to give to the infected person. The question was asked to collect this information and the result was listed in the table 19.

Table 17
Distribution of Respondents by Suggestions to Infected Person

Suggestions	N	Per cent
Go for treatment	51	33.6
Use condom or avoid sex	55	36.2
Do not afraid with the disease	26	17.1
Make aware to others	45	29.6
Do not give birth	15	9.9
Counseling with health personnel	11	7.2
Take medicine Regularly	7	4.6
Keep sexual organs clean	17	11.2
Not Stated	14	9.2

Note: The percentage may exceed hundred due to multiple responses

N=152

According to the table 17, the highest number of respondents (55) reported that they would suggest infected person to avoid sex or to use condom in case of sex. Likewise nearly equal (51) respondents said that they would suggest going for treatment timely without any hesitation. The other suggestion to the infected person was to make aware about the disease by the infected person, which had been suggested by 45 respondents (29.6%). There were other suggestions like to keep sexual organs clean by about 11 percent, regular counseling with health personnel by about 7 percent and to take medicine regularly by nearly 5 percent. Some respondents (14) did not state any suggestion to the infected person.

4.3.8 Had any Sexually Transmitted Infection (STIs)

At the field survey it was aimed to know if there were some students who had had any sexually transmitted infection in the past and the question was administered. To the response of this question only one male reported that he had sexually transmitted infection in the past. While responding the supplement question, which aimed to know the name of STIs he did not, mention the name of STI.

Table 18
Distribution of Respondents by Occurrence of STIs

Occurrence	Male		Female		Total	
	N	Per cent	N	Per cent	N	Per cent
Yes	1	1.3	-	-	1	0.7
No	76	98.7	5	100.0	150	99.3
Total	77	100.0	5	100.0	152	100.0

4.4 Knowledge and Practice Towards on HIV and AIDS

In this study, knowledge on HIV and AIDS had been assessed through various questions. First of all very common question “have you ever heard about HIV and AIDS?” was given in the questionnaire. Similarly other supporting questions such as full form of HIV and AIDS, difference between HIV and AIDS, preventive measures ways of transmitting, treatment were used further to analyze the knowledge on HIV and AIDS.

4.4.1 Heard of HIV and AIDS

To access the knowledge on HIV and AIDS, respondents were asked whether they had heard about HIV and AIDS or not. All of the respondents reported that they had heard about HIV and AIDS.

4.4.2 Knowledge on Full form of HIV

The respondents were asked if they knew the full form of HIV. The full form itself gives lots of knowledge about HIV. So this question was valuable to the researcher. As stated in the table 24, 121 respondents (79.6%) reported that they knew the full form of HIV.

Table 19
Distribution of Respondents by Knowledge on Full form of HIV

Knowledge	Number	Per cent
Yes	121	79.6
No	31	20.4
Total	152	100.0
Correct	Number	Per cent
Yes	113	93.4
No	8	6.6
Total	121	100.0

The respondents who reported that they knew the full form of HIV were further asked to write the full form. The result was shown in table 19, which states that 93 percent of the respondents had given correct full form of HIV whereas some of the others didn't write or they did not mention correctly.

4.4.3 Knowledge on Full form of AIDS

Knowledge on full form of AIDS also gives the important understanding about the AIDS. According to table 22, 113 respondents (74.3%) reported that they knew the full form of AIDS.

Table 20
Knowledge on Full form of AIDS and by Education

Education	Yes		No		Total	
	N	Per cent	N	Per cent	N	Per cent
Male	71	70.3	30	29.7	101	100.0
Female	42	82.4	9	17.6	51	100.0
Total	113	74.3	39	25.7	152	100.0
Education	Correct		Incorrect		Total	
	N	Per cent	N	Per cent	N	Per cent
Male	66	93.0	5	7.0	71	100.0
Female	42	100.0	-	-	42	100.0
Total	108	95.6	5	4.4	113	100.0

The respondents who stated to have known the full form of AIDS were requested to write the full form of it. The table 20 displays the result of it. Out of the respondent reported having known of full form of AIDS, almost 96 percent of them reported the correct full form.

4.4.4 Knowledge on Difference Between HIV and AIDS

It was important to ask if there was any difference between HIV and AIDS or they were same. The question was included in the questionnaire and the result was shown in table 21.

Table 21
Distribution of Respondent by Knowledge on Difference Between HIV and AIDS and by Sex

Sex	Yes		No		Total	
	N	Per cent	N	Per cent	N	Per cent
Male	45	58.4	32	41.6	77	100.0
Female	38	50.7	37	49.3	75	100.0
Total	83	54.6	69	45.4	152	100.0

Table 21 shows that more than half (54.6%) of the respondents reported there was difference between HIV and AIDS while others reported there was no difference. The proportion of male was higher (58.4%) than female (50.7%) who stated that there was difference. The distribution of respondents reporting various differences between HIV and AIDS is given in table 22.

Table 22
Distribution of Respondents by Differences Between HIV and AIDS

Differences	Male	Female	Total	Per cent
Different stage	7	3	10	6.6
HIV was a virus and AIDS was a disease	29	24	53	34.9
HIV was treatable but AIDS not	3	7	10	6.6
Don't know	8	4	12	7.9

Note: The total may exceed 85 due to multiple responses

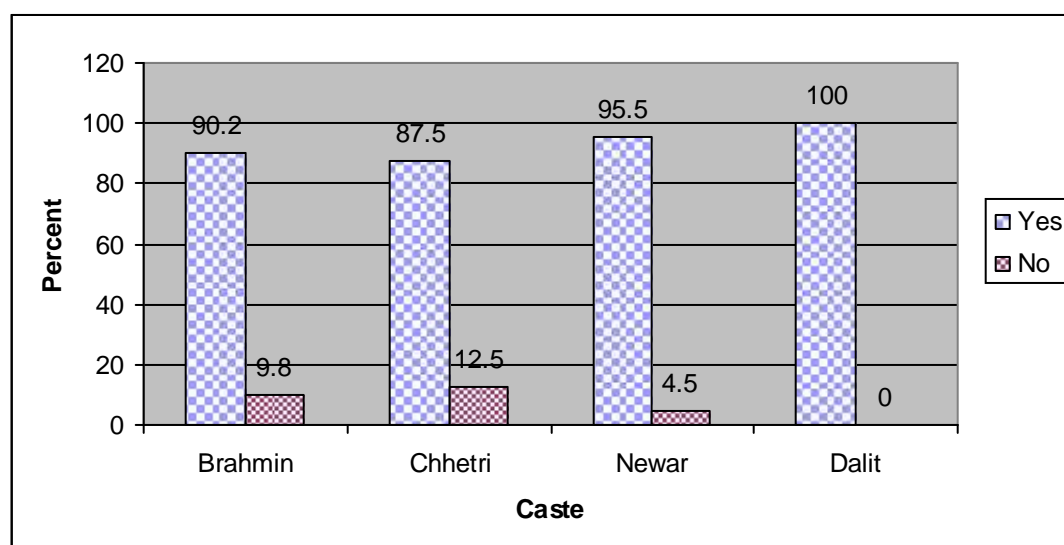
N=152

From table 22, 10 respondents (6.6%) stated that HIV and AIDS were the different stage of the disease. Likewise more than one third (34.9%) reported that HIV was a name of virus whereas AIDS was a disease. ‘HIV was treatable but AIDS was not’ was another difference reported by 6.6 percent respondents. Similarly there were 12 respondents who said there was difference but did not mention the difference. The table shows that 29 male and 24 female reported ‘HIV was a virus and AIDS was a disease’ as a major difference. Eight male and four female could not mention any difference between HIV and AIDS.

4.4.5 Knowledge on Transmission of HIV

The respondents were asked if they know how HIV could be transmitted. The figure 4 gives the result of it.

Figure 4
Knowledge on Transmission of HIV and by Caste



According to study, about 89 percent reported that they knew the ways of transmission of HIV and remaining 11 percent mentioned that they did not know about it.

The figure 4 also shows the data classified by caste/ethnicity. There were two respondents from gurung caste, both of them reported that they knew the way of transmitting HIV and AIDS. More than two-thirds (66.7%) respondent of Dalit knew

the way of transmission. Similarly about Newar (95.5%), Brahmin (90.2%), and Chhetri (87.5%) had the knowledge on transmitting HIV.

The question was included to assess the knowledge on ways of transmission of HIV. Table 23 gives the distribution of respondents by knowledge on ways of transmission of HIV.

Table 23
Distribution of Respondents by Ways of Transmission of HIV

Ways of Transmission	Number	Per cent
Sexual contact with infected person	127	83.6
Infected blood/organs transfusion	120	78.9
Sharing unsterilized needle	91	59.9
Infected mother to fetus	90	59.2
Breast feeding by infected mother	37	24.3
Sex without condom	3	2.0
Sex with multiple partners	1	0.7

As stated in table 23 highest number of respondent (127) reported that sexual contact with infected person was the way of transmission. Similarly there were 120 respondents (78.9%) reporting 'infected blood and other organs transfusion' was the way of transmission of this virus. Other ways of transmission reported by respondents were sharing unsterilized needle (59.9%), infected mother to fetus (59.2%), breast feeding by infected mother (24.3%), sex without use of condom (2%) and sex with multiple partner (0.7%). It is concluded that reporting of infected blood and other organs transfusion' were the major way of transmission of HIV virus.

The question for ways of transmission was multiple response questions. It was important to find out which was most prominent factor among above mentioned various ways of transmission. For this respondents were asked to circle only one option and the result was shown in the table 23.

Table 24
Distribution of Respondents by Knowledge on Most Prominent Factor

Prominent Factor	Number	Per cent
Sexual contact with infected person	84	55.3
Infected blood transfusion	26	17.1
Infected mother to fetus	11	7.2
Breast feeding from infected mother	4	2.6
Sharing needle	9	5.9
Don't know	1	.7
Total	135	88.8

Note: The percent was taken from the total sample 152

As shown in table 24 more than half of the respondents (55.3%) said that the sexual contact with infected person was the most risky factor for the transmission of HIV. Similarly about 17 percent reported transfusion of infected blood, about 7 percent reported infected mother to fetus, nearly 6 percent reported sharing needle, nearly 3 percent reported breast feeding from infected mother to baby as the prominent ways of HIV transmission. Only one respondent reported that he/she did not know the major risky factor for transmission.

The participant of focus group discussion (FGD) showed their activeness over the modes of transmission. The participants addressed some new ways of transmission of this virus as sex other than vaginal sex too. Some participant raised that having sex with animal also increases the risk of transmitting this virus.

Together with other information the study tried to categorize the level of knowledge on agents of HIV and AIDS. In this study four level of knowledge had been categorized on the basis of number of statement respondents' reports.

Table 25**Level of Knowledge on Agents of HIV and AIDS by Background Characteristics**

Background Characteristics	No Knowledge		Low		Intermediate		High		Total	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	9	11.7	2	2.6	26	83.8	40	51.9	77	100.0
Female	8	10.7	7	9.3	20	26.7	40	53.3	75	100.0

Higher percentages of female had knowledge about ways of transmission of HIV and AIDS than male respondents. According to table 25, more than half (52%) of the male respondents fall into high knowledge category which was slightly more for female (53.3%). The respondents in low category were about 3 and about 9 percent respectively for male and female and nearly 84 and 27 for intermediate knowledge for male and female respectively.

4.4.6 Knowledge on Preventive Measures of HIV and AIDS

The actual treatment is not possible because the medicine for this fatal diseases have not yet been invented. So prevention is the only one remedial aspect of the diseases. It is necessary to know the knowledge of respondents about the way of prevention of HIV and AIDS. A Questionnaire made and the response to the questionnaire is mentioned below in table 26.

As shown in table 26, 132 respondents (86.8%) reported that they knew the preventive methods of HIV and AIDS. Twenty of the respondents mentioned that they did not know the preventive methods of this disease.

Table 26
Knowledge on Preventive Measures of HIV and AIDS & by their Family Size

Respondent	Yes		No	Total		
	N	Per cent	N	Per cent	N	Per cent
Less than 5	55	88.7	12	11.3	67	100.0
5-10	67	84.8	7	15.2	74	100.0
More than 10	10	90.9	1	9.1	11	100.0
Total	132	86.8	20	13.2	152	100.0

The table 26 shows the distribution of respondents by knowledge on preventive methods of HIV and AIDS and by their family size.

The knowledge on preventive methods was high (90.9%) to the respondents with large family size i.e. more than 10 followed by respondent with less than five family members (88.7%). About eighty five percent respondent whose family size was 5 to 10 had knowledge on preventive methods of HIV.

The respondents were asked to state the preventive methods of HIV and AIDS. They could give multiple responses for this question. The information provided by the respondents was given in the table 27.

Table 27
Knowledge on Preventive Measures of HIV and AIDS

Preventive Measures	N	Per cent
Avoid sex with multiple partners	92	60.5
Use of condom during sexual intercourse	115	75.7
Sexual abstinence	39	25.7
Avoid sharing needle and intravenous drug use	77	50.7
Scan blood before transfusion	79	52.0

Note: Percentage may exceed hundred due to multiple responses

Majority of the respondents (75.7%) reported to use condom during sexual intercourse followed by avoiding sex with multiple partner (60.5%), scan blood before

transfusion (52%), avoid sharing needle and intravenous drug use (50.7%) and sexual abstinence (25.7%)

4.4.7 Knowledge on Type of Vulnerable People

The question was included to assess the knowledge on type of people who were more vulnerable for HIV transmission. The result was given in the table 28.

Table 28
Knowledge on Vulnerable People for HIV Infection

Vulnerable People	Number	Per cent
Those who keep unsafe relation with multiple partners	121	79.6
Who were drug abuse	88	57.9
Commercial Sex Workers	103	67.8
Homosexuals	30	19.7
More mobile persons	12	7.9
Adolescents and Youths	37	24.3
Having high desire for sex	2	1.3

Note: Percentage may exceed hundred due to multiple response N=152

From the table 28, we can see that 79.6 percent of the respondents reported that the persons who keep unsafe sexual relation with multiple partners are vulnerable for the transmission of this virus. Similarly 103 respondents (67.8%) reported commercial sex workers, drug abuser (57.9%), adolescent and youth (24.3%), homosexual (19.7%), more mobile people (7.9%) and the people having high desire for sex (1.3%).

4.4.8 Source of Knowledge

Adolescents often do not have access to sufficient and correct information. Cognitive distortion and a sense of non susceptibility lead to uninformed decisions which may result in unwanted pregnancy and transmission of STDs even HIV and AIDS. The notions is that they are "too young to be pregnant" and unprotected inter course just once could lead to conceptions or STDs transmission which are prevalent among

teenagers. There is a great need for reproductive and sexual health information and services targeted to adolescents. The summary regarding the sources of information is given in the following table. It was important to find out the source of information from which students hear about HIV and AIDS. The distribution of respondents by source of information was given in table 29.

Table 29
Sources of Information on HIV and AIDS

Sources of Information	N	Per cent
Radio	134	88.2
TV	132	86.8
Newspaper	115	75.7
Textbook	101	66.4
Teacher	119	78.3
Friends	103	67.8
Parents	57	37.5
Health Persons	5	3.3

Note: Total percentage may exceed hundred due to multiple responses N=152

As shown in table 29, it was clear that the main source of information was Radio (88.2%) followed by TV (86.8%), teacher (78.3%), newspaper (75.7%), friends (67.8%), textbook (66.4%), parents (37.5%) and health person (3.3%). From this data we can generalize that the parents were still not so open on the matter of HIV and AIDS with their children.

4.4.9 Knowledge on Cure of HIV and AIDS

It was aimed to collect the information with respondent whether HIV and AIDS can be cured or not. The following was given in table 30 by sex.

Table 30
Cure of HIV and AIDS and by Sex

Attitude	Male		Female		Total	
	N	%	N	%	N	%
Curable	10	13.0	5	6.7	15	9.9
Not curable	56	72.7	53	70.7	109	71.7
Don't know	11	14.3	17	22.7	28	18.4
Total	77	100.0	75	100.0	152	100.0

In total, 109 respondents (71.7%) reported it couldn't be cured whereas about one in ten (9.9%) stated this disease could be cured. The proportion of respondent who stated as don't know was 28 percent.

If we analyses the data from above table separately for sex, we can find that more boys (13%) reported it could be cured while only about 7 percent reported so. More number of female reported that they didn't know whether it could be cured or not. Nearly 71 percent female said that this cannot be cured and the male stating so was about 73 percent.

4.4.10 Knowledge towards Various Statements about HIV and AIDS

Some daily used statements about HIV and AIDS were given in questionnaire and respondents had to state whether those statement were true or false. The result stating true for the given statements was given in the table 31.

Table 31
Agreeing the Statements about HIV and AIDS according to Marital Status

Statements	Married		Unmarried		Total	
	N	%	N	%	N	%
HIV/AIDS was a disease for a specific group such as drug abuser, prostitution, person having multiple sex partner etc.	9	60.0	108	78.8	117	77.0
HIV/AIDS can be transmitted through mosquito bite	3	20.0	17	12.4	20	13.2
HIV/AIDS can be transmitted by sitting, necking, handshaking with infected person	3	20.0	9	6.6	12	7.9
HIV/AIDS can be transmitted by sharing toilet	2	1.3	14	9.2	16	10.5
HIV/AIDS can be transmitted if a person sit immediately at a place of infected person	2	1.3	18	11.8	20	13.2
HIV/AIDS infected person should be separated from society	1	0.7	24	15.8	25	16.4

From table 31, we can see that 117 respondents stated HIV and AIDS was a disease for a specific group such as drug abuser, person having multiple sex partners. Some respondent (16.4%) indicated true to the statement that states HIV and AIDS infected person should not be adjusted in a community and should be separated. Likewise about 13 percent respondent stated true to the statement stating HIV and AIDS can be transmitted if a person sits immediately at a place of infected person. About one in ten stated true to the statement that sharing toilet could transmit HIV and AIDS. And 7.9 percent of the respondents' believed that it can be transmitted by handshaking, sitting, necking with infected person.

4.4.11 Knowledge towards the Infected People

The educated adolescents were very elite group of society. Thus, it was worth to assess their behavior to the infected person. The question was asked to collect this information and the result was shown in the table 32.

Table 32
Attitudes towards Infected Person

Attitudes	N	Per cent
We should love and respect them	149	98.0
We should hate them	3	2.0
Total	152	100.0

As stated in table 32 almost all (98%) of the respondents reported that they should love and respect to the infected person. There were also some respondents who said that the infected person should be hated in the society. The number of students reporting so was 3 that were two percent.

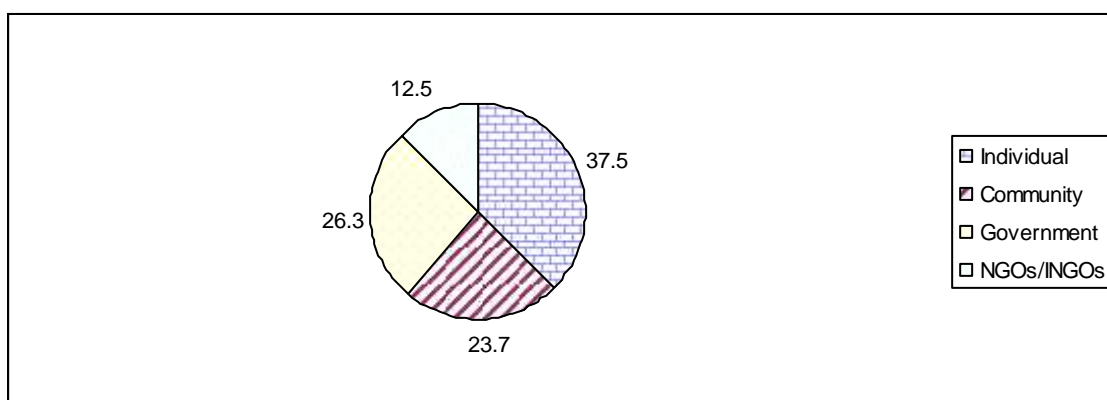
4.5 Role of Different Authorities to Decrease the Incidence

Some important question was included on Questionnaire to collect the information on the most responsible authorities for lowering the prevalence of HIV and AIDS and STIs and the result was shown as below.

4.5.1 Perception on Responsible Authorities for Lowering the Epidemic

The question was included to collect the information on the most responsible authorities for lowering the prevalence of HIV and AIDS and other STIs. The following table gives the information about it.

Figure 5
Stating the most Responsible Authorities for Decreasing the Epidemic



As shown in figure 5, more than one third of the respondents reported that an individual was one who must be responsible to lower the increasing trend of HIV and AIDS in our society. Likewise 40 respondents (26.3%) said that government was most responsible, nearly 24 percent reported community as the most responsible authority and the remaining 13 percent stated that the non governmental (national or international) should be responsible for lowering the incidence.

4.5.2 Other Possible Ways to avoid HIV Infection (Popular A,B and C ways of avoiding HIV infection)

Abstinence from sexual activity, when and where this is not possible young people should avoid any penetrative sex.

Be faithful: If abstinence is not possible for them the people should try to have steadily, a long term, monogamous sexual partnership in which both partners are completely healthy and are sure that neither of them is having penetrative sexual relations with someone else whose sexual history is uncertain.

Condom: Use it fail in situations of risk. Condoms must be used consistently and correctly throughout the sexual act. Knowledge about popular A, B and C method for avoiding HIV infection is given in the following table.

Table 33**Respondents according to popular A, B and C method to Avoid HIV Infection**

S.N.	Response	Respondents		
		Male	Female	Total
1	Yes	37 (48.5%)	55 (27.3)	92 (60.52%)
2	Not sure	25 (32.46%)	7 (73.3%)	32 (27.5%)
3	Don't know	15. (19.4%)	13 (17.3%)	28 (18.42%)
	Total	77 (50.65%)	75 (49.35%)	152 (100%)

Above table 33 shows that among 152 respondents 50.65 percent male and 49.34 percent female respondents had good knowledge about popular A, B and C ways of avoiding HIV infection.

However, among 152 respondents 32.46 percent male and 73.3 percent female respondents were not sure about above mentioned statements. Similarly, among 18.42 percent respondents 19.4 percent male and 50.65 percent female respondents were absolutely unknown about this fact.

Above mentioned message of avoiding HIV infection was broadcast both through Radio and T.V. which was named "Tick Ko Tin Mantra" it was heard or seen by only 54 percent of the respondents in the sample respondents.

4.5.3 Knowledge about Antiretroviral Treatment

The knowledge of the respondents (higher secondary school students) on Antiretroviral Treatment is an important aspect, which can guide toward STIs prevention and control.

Table 34**Respondents according to antiretroviral treatment**

S.N.	Response	Respondents		
		Male	Female	Total
1	Yes	24 (15.78%)	8 (5.26%)	32 (21.050%)
2	No	53 (34.86%)	67 (44.07%)	120 (78.95%)
	Total	77 (50.65%)	75 (49.35%)	152 (100%)

According to the table 34, 15.78 percent male and 5.26 percent female respondents had heard about the antiretroviral treatment. They mentioned that they do not have deep knowledge about it but they know that antiretroviral is a kind of treatment connected to HIV infected person, which only helps to prolong the life of HIV infected person because there is no accurate life saving treatment of HIV and AIDS. 34.86 percent male and 44.07 percent female respondents had not heard about it.

4.5.4 Knowledge of CD4 and PMTCT Programmed

All of the sample students were asked to state the knowledge of CD4 and PMTCT programmed. The answer was found that nobody knew about it.

4.5.5 Inclusion of HIV and AIDS in Higher Secondary School Curriculum

All the respondents i.e., 77 (50.65%) males and 75 (49.35%) females strongly agreed in support of the above mentioned statement, because HIV and AIDS is that subject matter which needs to create higher level of awareness to the adolescent students.

Children have the right to attend an educational center to learn mathematics, literature and other subject matter. They also have the right to know about their body in order to learn how to distinguish a man from a woman. So the sex education should be started from the infancy. The table 35 below shows the response to this view.

Table 35
Respondents according to the necessarily to give sex education to children

S.N.	Response	Respondents		
		Male	Female	Total
1	Yes	77 (50.65%)	75 (49.35%)	152 (100%)
2	No	-	-	-
Total		77 (50.65%)	75 (49.35%)	152 (100%)

According to the data of table 40 shows all the respondents covering 77 (50.65%) males and 75 (49.35%) females agreed to the view of giving “sex education to children” through curriculum

4.6 Summary of Findings

The present study entitled, “A Study on Knowledge and Practice towards HIV/AIDS among Higher Secondary School Students in Araniko Highway Area to Bhaktapur District” was based upon 152 respondents out of the 278 study population of higher secondary level students of different four higher secondary schools of Bhaktapur District. To carry out the study effectively the semi-structured questionnaire was designed for the quantitative data collection. It was a descriptive survey study being based on quantitative design. The summary of the findings were as follows:

- i. Highest proportion of respondents (33.6%) was of 18 years of age.
- ii. Most of the respondents (90.1%) were unmarried.
- iii. The highest number of respondents was Brahmin (40.1%) followed by Chhetri (21.1%) according to caste/ethnicity.
- iv. A large proportion of respondents (93.4%) had studied in government schools in their secondary level.
- v. Most of the respondent's fathers (29%) had primary level of education while 38 percent respondent's mothers had attained non-formal education.
- vi. Most of respondent's parents (father 54.6% and mother 52%) were engaged in agricultural occupation.
- vii. The average family size of the respondents was 6.7 members.
- viii. Respondents were found more knowledgeable about STIs. Almost all (99.3%) had heard about STIs. This can be the result of increasing access to information, education and communication materials.
- ix. There was inclusion of STI and HIV and AIDS Chapter in secondary level. Even though one respondent had not heard about STIs, HIV and AIDS was very common type of STI among adolescents.
- x. There was no effect of parent's education for the knowledge on symptoms of STIs of their children. Males were more knowledgeable than female respondents on symptoms of STIs.
- xi. The respondent studying in grade twelve had higher knowledge on symptoms of STIs than those studying in grade eleven.
- xii. Almost all respondents (98%) knew the mode of transmission of STI.

- xiii. Large proportion of the respondents (97.4 %) stated the sexual contact with infected person was the most important modes of transmission followed by infected mother to fetus or newborn baby (79.6%) as way of transmission.
- xiv. Males were more knowledgeable about ways of transmission of STIs than female respondents.
- xv. Students studying in grade twelve had high level of knowledge.
- xvi. 'Use of condom during sexual intercourse' was the most preferred way of prevention from STI followed by 'sex with only one partner' and 'sexual abstinence during infection period'.
- xvii. Almost 87 percent of the respondents knew the preventive methods of HIV and AIDS. Majority of the respondents (75.7%) reported to use condom during sexual intercourse followed by avoid sex with multiple partner (60.5%) to prevent from HIV and AIDS. Almost 80 percent of the respondents reported that the people who keep unsafe sexual relation with multiple partners were vulnerable for the transmission of this virus. Almost 72 percent reported HIV and AIDS couldn't be cured whereas one in ten (9.9%) stated this disease could be cured.
- xviii. The main source of information of HIV and AIDS was Radio (88.2%) followed by TV (86.8%).

CHAPTER –V

SUMMARY, CONCLUSION AND IMPLICATIONS

5.1 Summary

The present study entitled, “A Study on Knowledge and Practice towards HIV/AIDS among Higher Secondary School Students in Araniko Highway Area to Bhaktapur District” was based upon 152 respondents out of the 278 study population of higher secondary level students of different four higher secondary schools of Bhaktapur District.

The objectives of the study were stated as: to assess the knowledge, attitude and practice towards HIV/AIDS among the Higher secondary level school students in study area to Bhaktapur district, to identify the knowledge on causes, modes of transmission, sign and symptoms of HIV/AIDS and to identify the level of knowledge and main sources of preventive measures of HIV/AIDS.

To carry out the study effectively the semi-structured questionnaire was designed for the quantitative data collection. It was a descriptive survey study being based on quantitative design. Most of the questions were pre-coded and some open questions had also been included in the questionnaire. Similarly a FGD guidelines for a few qualitative information as crosscheck of information was also prepared and used.

The methods of study was qualitative and quantitative both and the findings of this study was analyzed descriptively. 152 were taken as sample among 278 population.

Following are the summary based on the small-scale study carried out in different four higher secondary schools of Bhaktapur District from the selected.

a) Individual Characteristics

- i. Highest proportion of respondents (33.6%) was of 18 years of age.
- ii. Most of the respondents (90.1%) were unmarried.
- iii. The highest number of respondents was Brahmin (40.1%) followed by Chhetri (21.1%) according to caste/ethnicity.

- iv. Majority of the respondents were Hindu (82.9%) and the remaining were Buddhist (17.1%).
- v. A large proportion of respondents (93.4%) had studied in government schools in their secondary level.
- vi. More than 60 percent of the respondents (60.5%) live in rural area.

b) Household Characteristics

- i. Most of the respondent's fathers (29%) had primary level of education while 38 percent respondent's mothers had attained non-formal education.
- ii. Most of respondent's parents (father 54.6% and mother 52%) were engaged in agricultural occupation.
- iii. The average family size of the respondents was 6.7 members.
- iv. A large proportion of respondents had radio (91.4%) and electricity (88.8%) at their home.

c) Knowledge and Practice about STIs

- i. Respondents were found more knowledgeable about STIs. Almost all (99.3%) had heard about STIs. This can be the result of increasing access to information, education and communication materials.
- ii. There was inclusion of STI and HIV/ AIDS Chapter in secondary level. Even though one respondent had not heard about STIs, HIV and AIDS was very common type of STI among adolescents.
- iii. There was no effect of parent's education for the knowledge on symptoms of STIs of their children. Males were more knowledgeable than female respondents on symptoms of STIs.
- iv. Higher percentage of respondents whose previous school was boarding had higher knowledge on symptoms of STIs compared to those of government school.
- v. The educational level of respondent's inferences the level of knowledge on symptoms of STIs.
- vi. The respondent studying in grade twelve had higher knowledge on symptoms of STIs.
- vii. Almost all respondents (98%) knew the mode of transmission of STIs.

- viii. The respondent whose father was in service (100%) were more knowledgeable compared to those whose father was in business (95.5%).
- ix. Large proportion of the respondents (97.4 %) stated the sexual contact with infected person was the most important modes of transmission followed by infected mother to fetus or newborn baby (79.6%) as way of transmission.
- x. Students living in urban area had comparatively higher level of knowledge (5%) than their counterparts in rural (4.3%) among those who reported having known of ways of transmitting STIs.
- xi. Males were more knowledgeable about ways of transmission of STIs than female respondents.
- xii. Students studying in grade twelve had high level of knowledge on STIs.
- xiii. 'Use of condom during sexual intercourse' was the most preferred way of prevention from STI followed by 'sex with only one partner' and 'sexual abstinence during infection period'.
- xiv. Males than female respondents were more likely to know about preventive methods of STIs. Respondents who had studied in government school were more knowledgeable compared to boarding school.
- xv. Major source for STI was Radio (90.1%), followed by teacher and TV (78.3%). The role of health persons as source of information on STIs was negligible in the study area. Parents do not share much about STIs with their children.
- xvi. The highest number of respondents (55) reported that they would suggest infected person to avoid sex or to use condom in case of sex followed by 51 respondents would suggest going for treatment timely without any hesitation.

d) Knowledge Practice about HIV and AIDS

- i. Almost 80 percent of the respondent knew the full form of HIV, however, 93.4 percent of them wrote the correct full form of HIV. Similarly 113 respondents (74.3%) reported that they knew the full of AIDS. Out of these respondents, about 96 percent reported the correct full form.
- ii. Most of the respondents (88.8%) knew the ways of transmission of HIV. Almost 84 percent reported that sexual contact with infected person was the

way of transmission followed by 79 percent 'infected blood and other organs transfusion'.

- iii. Females were more likely to know about ways of transmission of HIV and AIDS than male respondents.
- iv. Almost 87 percent of the respondents knew the preventive methods of HIV and AIDS. Majority of the respondents (75.7%) reported to use condom during sexual intercourse followed by avoid sex with multiple partner (60.5%) to prevent from HIV and AIDS. Almost 80 percent of the respondents reported that the people who keep unsafe sexual relation with multiple partners were vulnerable for the transmission of this virus. Almost 72 percent reported HIV and AIDS couldn't be cured whereas one in ten (9.9%) stated this disease could be cured.
- v. The main source of information of HIV and AIDS was Radio (88.2%) followed by TV (86.8%).
- vi. The parents were still not so open on the matter of HIV and AIDS with their children.
- vii. The important role that can be played by government, non-governmental organization as well as individual was to make aware to the citizens about STIs and HIV and AIDS.

5.2 Conclusion

Based of the findings of the study, it was concluded that the knowledge and practice towards STIs, HIV and AIDS of higher secondary level students were almost universal. Male students were more knowledgeable than female respondents on symptoms of STIs. The respondents studying in grade twelve had higher knowledgeable on symptoms of STIs. The respondents whose father was in service were more knowledgeable compared to those whose father was in business. Respondents who had studied in government school were more knowledgeable compared to boarding school. Parents did not share much about STIs and AIDS with their children.

The main source of information of HIV and AIDS was radio and television. That means mass media plays a vital role in creating awareness on HIV and AIDS.

Majority of the respondents had positive attitude towards. Love and affection was needed for infected persons.

5.3 Implications

The general implications based on the findings of the study are as follows:

5.3.1 Policy Level

- i. The study had found some common points for example generation of skillful training and employment opportunities, awareness about the infections, love and encourage to the infected people were to be performed by various sectors such as government, non governmental organizations, community and individual as well. Thus, the perceptions perceived by the respondents can be considered as the entry point for the planners and policy makers relating to these matters.

5.3.2 Practice Level

1. It is good to provide IEC materials published by the NGO and INGOs which are found popular among the target group such as students. They have learnt much more on HIV and AIDS, sexual behaviour, life skill which ultimately helped to empower them to promote healthier and safer sexual behaviour.
2. To improve knowledge and practice of young people on HIV and AIDS, the training of life skills to young people supported to develop creative thinking and self-awareness, which ultimately supported to take responsible decision. Therefore such trainings should be given continuity.
3. Interaction programme regarding HIV and AIDS in Higher Secondary school should be an effective activity to empower knowledge of students and young people both in school and community such activity helped to promote trained peer educators among their peers/friends.
4. Teacher and student training on HIV and AIDS, ARV treatment, reproductive health. issue should be carried out, so that teachers may feel empowered and lunch discussions among youth in school and community.
5. To create a supportive environment for preventive measure of HIV and AIDS, HIV and AIDS related activities should be included in school calendar so that

this kind of HIV and AIDS awareness programmes may be run for a long period in schools.

5.3.3 Further Research

- i. The participants in focus group discussion reported one very important issue. A participant stated that the best way to prevent from HIV would be to give birth by test tube system. This system was recently introduced in Nepal. This can be a matter of further research.
- ii. The students in higher secondary level had good knowledge about STIs and HIV and AIDS. The study however, could not cover the sexual and reproductive health situation and practices of the respondents. Hence, further study can be carried out to assess their knowledge and behavior on sexual and reproductive health.
- iii. It was also necessary to study the level of knowledge and practice towards STIs and HIV and AIDS among the adolescent who were out of schools.

REFERENCES

- Acharya, B. (2002). *A review of trafficking problems with reference to Nepal*. Population and Development, Kathmandu: CDPS, Vol. 10, PP. 143.
- Adimora, A. A., and Schoenbach, V.J. (2005). *Social context, sexual networks and racial disparities in rates of sexually transmitted infections*. Journal of Infectious Disease 191 (Suppl 1, 2005): S115-22.
- Aryal, R.H. (2003). *HIV and AIDS: an emerging issue in the health sector with special reference to Nepal*. Population and Development, Kathmandu: CDPS, Vol. 7, PP. 90.
- Bista, K.P. and Kaupan, A. (2007). *HIV/Syphilis prevalence in pregnant women in Four Urban areas of Nepal*. Kathmandu: NCASC, DOHS, University of Heidelberg, pp, 9-10.
- CBS (2012). *Population census of Nepal 2011*. Kathmandu: Central Bureau of Statistics.
- CBS and MOPE (2003). *Population projections for Nepal 2001-2021*. Kathmandu: MOPE.
- CDC (2005). *HIV Transmission among black women of North Carolina*. Morbidity and Mortality Weekly Report 54 (2005): 89-93.
- CREHPA (2005). *Knowledge and perceptions on mother to child transmission of HIV and AIDS among women and community health workers in Nuwakot, district*. Kathmandu: Sunil Acharya.
- Fleming, D.T. and Wasserheit, J.N. (2005). *From epidemiological synergy to private health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection*. Sexually transmitted infections 75 (1999): 3-17.
- Gubhaju, B. B. (2002). *Adolescent reproductive health in Asia*. UN, Asia Pacific Population Journal vol.17, p. 107.

- Hak-Su, K. (2004). *Why we must defeat HIV and AIDS in UN chronicle*. New York: UN Privateations, Department of Private Information, Vol. XLI, No. 1, pp. 51-52.
- Kabir, U. A. (2010). *Strengthening HIV and AIDS prevention in UNFPA programming in South and West Asia*. Kathmandu: United Nations Population Fund (UNFPA).
- Ministry of Health (MoH) (2012). *Annual health report 2011/2012*. Kathmandu: DOHS
- National Centre for AIDS and STD Control (NCASC) (2006). *Cumulative HIV and AIDS situation of Nepal*. Bhaktapur: Department of Health Service, National Centre to AIDS and STDs, February 28.
- DOHS. (2005). *National STI case management guidelines*. Kathmandu: Department of Health Service, National Centre for AIDS and STDs, p 1-2.
- New ERA (2005). *A baseline study on commercial sex workers and Sex clients on the land transportation routes from Naubise to Janakpur and Birgunj*. Kathmandu: Family Health International, National AIDS Prevention Control Project.
- Pant, P.D. (2006). *Levels, trends and patterns in reproductive health in Nepal*. Population and Development, Kathmandu: CDPS, Vol. 6, PP. 75-87.
- Pathak, R.S. and Subedi, G. (2005). *Meeting young people's sexual and reproductive health (SRH) needs in Nepal*. A Study of Finnish Project area of FPAN CDPS, 2002: 61-65.
- Population Reference Bureau (PRB) (2012). *World population data sheet*. Washington DC: Population Reference Bureau.
- Skhom, H., et al. (2002). *Survey on health seeking behavior of women working in the entertainment sector in Phnom Penh*. Cambodia: Center for Advanced Study, Pharmaciens Sans Frontiers and Family Health International.

United Nations (UN) (2005). *UN news service*. January 10.

UNAIDS (2005). *HIV and AIDS knowledge, sex and condoms in first grade high school adolescents in Gombe State, North East Nigeria*. The XV International AIDS Conference, 2004 (Poster Exhibition).

UNAIDS (2005). *HIV infection prevention among in-school youths in Lagos, Nigeria*: The XV International AIDS Conference, (Poster Exhibition).

UNAIDS and World Health Organization (2012). *Aids epidemic update: December 2001*. Geneva: UNAIDS/WHO.

WHO. (2012). *AIDS epidemic update: December 2011*. Geneva: UNAIDS/WHO.

United Nations Population Fund (UNFPA) (2012). *International conference on population and development: plan of action*. Cairo: UNFPA .

UNFPA (2012). *The state of the world population*. New York: UNFPA, PP.36-37.

UNFPA (2012). *Population and reproductive health country profiles*. New York: UNFPA.

UNFPA. (2010). *The state of the world population*. New York: UNFPA.

UNFPA. (2003). *The south Asia conference on adolescents*. Kathmandu: UNFPA CST for CASA.

Appendix

A study on Knowledge and Practice Towards HIV and AIDS among Higher
Secondary School Students in Highway area of Bhaktapur District.

A. Individual Characteristics:

Code :

Name of School : _____

1. Grade :

- a. _____ b. _____

2. Faculty:

- a. Management b. Humanities

3. Gender:

- a. Male b. Female

4. Marital Status:

- a. Married : b. Unmarried

5. Caste/ Ethnicity:

- a. Brahmin b. Cheetri c. Newar d. Dalit
e. Madhesi f. Others (specify)

6. Religion:

- a. Hindu b. Buddhist c. Others (specify)

7. Previous School:

- a. Government b. Boarding

8. Place of Residence:

- a. Urban b. Rural

B. Household Characteristics

9. How many members are there in your family?

10. What is your father's educational level?

- a. Illiterate b. Non formal c. Primary(1-5)
d. L. Secondary (6-8) e. Secondary (9-10) f. SLC and above

11. What is your mother's educational level?

- a. Illiterate b. Non formal c. Primary(1-5)
d. L. Secondary (6-8) e. Secondary (9-10) f. SLC and above

12. What is your father's occupation?

- a. Agriculture b. Service c. Business
d. Other (specify) e. Not stated

13. What is your mother's occupation?

- a. Agriculture b. Service c. Business
d. House wife e. Other (specify) f. Not stated

14. Have you ever heard about STIs?
a. Yes b. No

15. If yes, which of the following STIs have you heard?

	Y	N
a. Gonorrhea	1	2
b. Syphilis	1	2
c. HIV/AIDS	1	2
d. Other (specify)		

16. Do you know the symptoms of STIs?
a. Yes b. No

17. (If yes) What are the symptoms of STIs? (*Multiple response*)

- a. Foul white discharge from vagina
- b. Lower abdominal pain during intercourse
- c. Bleeding other than menstruation period
- d. Sores/ Abrasion around vagina, itching
- e. Drop a pus from penis
- f. Others (specify)

18. Do you know how can be STIs transmitted?
a. Yes b. No

19. (If yes) what are the factors for STIs transmission? (*Multiple response*)

- a. Sexual contact with infected person
- b. Living together with infected person
- c. Infected mothers to fetus
- d. Dirtiness of sexual organs
- e. Infected mothers to fetus
- f. None use of condom
- g. Others (specify)

20. What are the methods of preventing from STIs? (*Multiple response*)

- a. Use of condom during sexual intercourse
- b. Sex with only one partner
- c. Abstinence during infection period of partner
- d. Always clean owns sexual organs
- e. Avoid sharing food, clothes and toilet with infected person
- f. Others (specify)

21. Which source did you hear about STIs from?

a. Radio	b. TV	c. Newspaper
d. Textbook	e. Teacher	f. Parents
g. Friend	h. Health person	

D Knowledge and practice on HIV and AIDS

22. What do you suggest for STDs infected persons in your community?

23. Have you ever heard about HIV and AIDs?

- a. Yes b. No

24. (If yes) From which source did you hear? (Multiple response)

- a. Radio b. TV c. Newspaper
d. Text book e. Teacher f. Friends
g. Parents h. Others (specify)

25. Do you know the full form of HIV?

- a. Yes b. No

26. (If yes) What is the full form of HIV?

27. Do you know the full form of AIDS?

- a. Yes b. No

28. (If yes) What is the full form of AIDS?

29. Are there any differences between HIV and AIDS?

30. Do you know how HIV and AIDS can be transmitted?

- a. Yes b. No

31. (If yes) How can be HIV and AIDS be transmitted? (*Multiple response*)

- Sexual contact with infected person
- Infected Blood/ organs transfusion
- Sharing unsterilized needle/instruments
- Infected mother to fetus
- Breast feeding from infected mother
- Others (specify)

32. What is the most prominent factor for HIV and AIDS transmission?

- a. Sexual contact with infected person
- b. Infected Blood transfusion
- c. Infected mother to fetus
- d. Breast feeding from infected mother
- e. Sharing needle
- f. Others (specify)
- g. Don't know

33. Do you know the preventive methods of HIV and AIDS?

- a. Yes b. No

34. (If yes) What are the methods for preventing HIV and AIDS? (*Multiple response*)
- Avoid Sex with multiple partner
 - Use condom during sexual intercourse
 - Sexual abstinence
 - Avoid sharing needles and intravenous drug use
 - Scan blood before transfusion
 - Others (specify)
35. What type of people are more vulnerable for HIV and AIDS transmission?
- Persons who keep unsafe sexual relation with multiple partners
 - Persons who were drug abuse
 - Commercial sex workers
 - Homosexuals
 - More mobile persons
 - Adolescents and Youths
 - Others (specify)
36. Can HIV and AIDS be cured?
- Yes
 - No
 - Don't know
37. How should we behave to infected person?
- Love/Respect them
 - Hate them
 - Don't know

E. Knowledge and practice on Role of Different Authorities to Decrease the Incidence

38. Who will be the most responsible for decreasing the epidemic?
- Individual
 - Community
 - Government
 - N/INGOs
39. What should they do for decreasing the epidemic?
- Community :
 - Government :
 - NGOs/INGOs :
40. What should you do for decreasing the epidemic? (Your responsibility)
41. Do you know about A, B, C ways of avoiding HIV infection?
- Yes
 - Not sure
 - Don't know
42. Do you know about antiretroviral ARV/ ART Therapy?
- Yes
 - No
43. If yes in which stage ARV treatment started?
- Level of CD4 is less than 200/ml
 - Level of CD4 is less than 500/ml
 - Level of CD4 is less than 600/ml
 - Don't know
44. Are STIs and HIV/AIDS included in your curriculum?
- Yes
 - No
45. If no, is it necessary to included in your curriculum?
- Yes
 - No

Thanks for your kind cooperation.

Jayanti K.C. Ranabhat
Sanothimi Campus