1.1 Introduction

‘Pehla Sukh Nirogi kaya’, ‘Health is a wealth’, ‘A sound mind lies in a sound body’ and ‘Jaan Hai to Jahan Hai’, are some of the important phrases frequently used in India that denote the importance of health for a human being. So, health is considered as an important factor not only in India but throughout the world also. Healthy citizens lead to a better human resource which plays an important role in the development of a country. That is why the basic health facilities are of utmost concern for each and every country.

Today, the world community is facing many big challenges in imparting better health facilities to its members and HIV/AIDS is one of them. In the present time there are so many life killing diseases out of which some of them are in domain of science e.g. Cancer, T.B and HIV/AIDS and some are still unknown. There are two major aspects of every disease, one medication and another is social. Earlier only medication was considered the prime factor in the prevention and treatment of a disease. So it was thought that providing medication, health facilities and starting prevention and control programs were enough. But when these programs were analyzed, it was found that even after spending a huge amount of money and efforts to run different prevention and control programs, the output was not too much satisfactory. As a result the social aspect drew the attention of the investigators, medical scientists and researchers to have a better achievement in this field.

These social aspects generally include the social conditions of a person which includes his attitude, beliefs, assumptions, and knowledge about the symptoms, mode of transmission, prevention and treatment of a disease. This is true in the case of HIV/AIDS also. The first case of HIV/AIDS in India was detected in 1986. The source of infection was traced to blood transfusion during a coronary bypass surgery in the USA. The second case was associated with a blood product given to hemophilic patient, again in USA. At the same time some cases of
HIV/AIDS were recognized in foreigners residing in India which led to some complacency arising out of a misconception. AIDS was considered as a ‘foreign’ or ‘their’ disease, not likely to affect ‘us’ Indian. However, this misleading belief was short-lived because soon afterwards AIDS and HIV were confirmed in Indian without a history of foreign-travel or contact with foreigners. However the first recognized cases of AIDS detected in the USA in the early 1980 but till date it became biggest life threat to human being. Due to some occupational environment, some groups are more vulnerable to HIV/AIDS. These are prostitutes, men having sex with men, injecting drug users and truck drivers. First of all we should know the meaning of HIV and AIDS.

AIDS is an acronym for Acquired Immune Deficiency Syndrome. The word “acquired” was chosen because the illness was neither genetically determined nor the result of other conditions. In other words it was acquired during a period of normal life. It was in 1981 that unusual opportunistic infection in a number of homosexual men in the United States of America. These men ultimately died as the infections responded poorly to any therapy. Several years lapsed between the identification of the virus that caused AIDS. The virus that caused AIDS is known to be Human Immunodeficiency Virus (HIV).

HIV is a very small, fragile virus and soon dies outside the body. Consequently, it is not contagious and cannot be passed from person to person easily like a cold or the flu virus, or by ordinary social contacts. It is a member of a group of viruses called retroviruses. Retroviruses are simple microscopic organisms dependent on a host for reproduction. These microscopic organisms lack an independent metabolism and cannot grow without energy and nutrients supplied by a host cell.

The action of HIV in the body is still being researched by scientists and physicians all over the world. What is now known is that it attacks the very cells in the body whose job is to fight off infection- the cells of the immune system. In particular, HIV attacks a type of white blood cell known as the T-helper (or CD4) cell. These have a key role in the body’s defence mechanisms by mobilizing the elements of the immune system which attacks and destroys germs, i.e., foreign
bodies such as bacteria, viruses, fungi, and protozoa. HIV is also known to infect other types of cells including other blood cells and cells of the central nervous system.

As a result of the world-wide researches and finding, we now have a substantial body of widely accepted evidences that support HIV as a causative agent of AIDS. Ever since 1981 HIV virus has been routinely isolated from individuals who suffer from AIDS-related illness. Medical scientists now say that a retrovirus related to HIV called simian immunodeficiency virus (SIV) gives rise to HIV. In fact, SIV causes an AIDS-like illness in certain type of monkeys. There is a belief that a retrovirus such as SIV was transmitted to humans where it did not produce disease but later evolved into the pathogen HIV. This belief is supported by the existences of HIV-2, a virus similar to HIV-1 that causes AIDS in Western Africa. (Thomas Gracious, 1994:13-15)

HIV is an infections germ that has been described as a brain without a body. It has to hijack a cell in order to replicate and survive. It does this by entering and infecting a human host. In a crucial twist, HIV cripples the body’s immune system, the very system we need to protect ourselves against virus and other disease agents such as bacteria and parasites. The body’s immune system’s comprised of amongst other things CD4 cell (also known as T-cell). The virus invades these cells and tricks them into making copies of it. It does this by disguising itself in such a way as to fool the CD4 cell to let it in. It then enters the cell’s brain (nucleus) by pretending to be part of the cell itself. Once in the nucleus, it integrates its own DNA into the DNA of the hijacked cell and then, when the cell makes new proteins (the bread and butter task of all cells), it inadvertently make new virus as well. In effect, the cell becomes an HIV factory. Literally billions of copies of the virus are created daily in the body of an infected person. The newly formed virus leaves the infected cell to invade others, staging in effect a hostile takeover of the body’s entire immune system.

CD4 cells refer to as the body’s army. Initially HIV knocks off individual soldiers but the army remains strong enough to withstand the slings and arrows of life’s daily contact with disease. At this stage an infected person is said to be HIV
positive. A person who is HIV positive looks and is healthy but can at this point infect others if his or her bodily fluids, (most commonly sperm, vaginal fluid, breast milk or blood) are transferred to another person.

1.2 Historical Traces of the HIV

Chronologically speaking, the origin of HIV may be traced from the 1950s. At the end of World War II, only a handful of viruses were known. Hundreds more have been discovered since, partly as a result of advanced techniques for culturing them in the laboratory. Viruses are parasites which infect almost every forms of life from single-called bacteria up to humans. The roughly simultaneous appearance of AIDS in the United States, Europe, Africa and Haiti prompted the question: Had AIDS been around for some time, unnoticed because the characteristic collection of opportunistic infections so indicative of underlying infections so indicative of underlying immune impairment had not been recognized.

After combing through medical histories of past patients, investigators found a small number of probable causes of AIDS going back over thirty years over three continents. Working back in time, they found AIDS-like symptoms in patients as early as 1959:–

- 1959- A forty-five years old US man born in Haiti died.
- 1959- A British Sailor with Kaposi’s sarcoma and pneumocystis died in Manchester.
- 1969- A fifteen years old black US boy died with Kaposi’s sarcoma and opportunistic infections in St. Louis.
- 1975- A previously healthy seven month old black infant had pneumocystis in New York City.
- 1977- A forty-seven years old Danish Surgeon, who had worked in rural Zaire, died in Denmark.
- 1977- A twenty-seven years old Rwandan mother developed the novel immunodeficiency symptoms; a thirty-four years old Zairean woman, who sought treatment in Belgium, later died in Kinshasa in 1978.
- 1979- A forty four years old homosexual man died with Kaposi’s sarcoma in New York City.
The presence of antibodies to HIV was detected in the stored blood and tissues of the teen-ager black boy mentioned above who died in 1969 with Kaposi’s sarcoma and opportunistic infections at St. Louis. Theses samples had been kept because the physicians, who treated him say they were so puzzled by his symptoms that they stored specimens for future research which might help explain his illness. (Thomas Gracious, 1994:73-74)

The present type of HIV/AIDS was recognized for the first time in the USA in 1981. At that time, it was mainly associated with either of the two major indicator diseases: (1) an unusual type of pneumonia caused by a protozoan parasite, Pneumocystis carinii, and (11) a cancer mainly of the skin called Kaposi’s sarcoma, which was rarely seen in people under 60 before the advent of AIDS. These diseases, with various combinations of other common infections, were first noted in young and active man who had been otherwise quite healthy. All of them shared a sexual life-style that was different; they were man who had exclusively with men. In other words, these men were homosexuals, colloquially called ‘gays’. Since the syndrome was first recognized in them not only in the USA but subsequently in Europe and Australia, it was called gay related immunodeficiency or GRID. A little later, cases of AIDS were identified among drug addicts, especially intravenous drug users (IVDU). Most of those found to be affected with AIDS started dying and thus the peculiar combination of sex and death attracted great attention and gave rise to many myths and misconceptions.

Soon enough, however, there came to light another group of AIDS patients who had no peculiar life-style or risk behavior. This group consisted of persons (children and adults) who had received transmission of blood or blood products. When more and more women got AIDS, it was found that children born of these women developed AIDS. All these persons were also identified as victims, but now, they were qualified as ‘innocent’ victims so as to discriminate between the ‘guilty’ ones. It is best to avoid such a negative moralistic approach which imparts a sense of helplessness to patient with AIDS.

After many attempts to incriminate several known agents, scientists realized that the infections agent mainly responsible for AIDS must be a virus that might be
‘new’ to science. The syndrome was recognized in 1981, and by 1983, scientists in France discovered the AIDS virus and showed that it was indeed ‘new’. In 1984 the virologist from the US also published their report revealing a virus to be a causative agent. At first, the French and American scientists gave different name to the AIDS virus and there were great differences of opinions and debates regarding the question of priority between two nations. Ultimately, the International Committee on the Nomenclature of virus intervened and the name human immunodeficiency virus or HIV/AIDS accepted. (Parvi, 1992; 4)

1.3 Immune System

Every healthy living being has an efficient mechanism to protect against a disease which facilitates to develop ‘immunity’ against that disease. This is achieved with the help of an efficient ‘immune response’ which depend on a coordinated attack of variety of cell types. In general it is called defence mechanism. The immune system has following components:-

1. Macrophages:-Macrophages are highly mobile cells. Which are also called ‘scavengers’ because they clean up the system by engulfing the invaders. The process of engulfing the particulate invaders is called phagocytosis.

2. Lymphocytes:-These are the white blood cells which play a very important part in the immune system. These are two major groups.

- B. Cell originated from the bone marrow:-These are lymphocytes also known as “arm of immunity” on encountering antigen some of B. Cell begin to replicate their own kind and secrete antibodies which circulate in the bloodstream.

- T. Cell originated from the thymus gland:-During foetal life, stem cells the original cell type migrate to the thymus gland. There are they pass through certain phases and ultimately emerge as mature T. cells. They enter the circulation (blood) and concentrate in the spleen, mucosa and lymph nodes, where they are most likely to encounter foreign invaders. There are two types of T. Cells

Those which carry CD4 cell surface protein are called CD4 cells. CD4 T.
cells is the single most important components of the immune system. In fact it influences functional capabilities of all other cells of the immune system and HIV/AIDS the virus disturb the amount of CD4 T. cells. When CD4 T. cells count falls below a certain amount (less than 200 cells per misroute of blood). This situation is called a situation of HIV/AIDS.

The second type is those bearing CD8 marker and are termed cytotoxic T. (Parvi, 1992; 51-53)

1.1 Developmental stages of HIV/AIDS

In theory, there are five stages in the developments of HIV infection. Both WHO and CDC have produced a “case definition” of AIDS. These are sets of guidelines, outlining symptoms and signs, which physicians can use when attempting to diagnose AIDS. The five stages are: (i) initial HIV infection, (ii) PGL (persistently enlarged lymph glands) (iii) ARC (AIDS-related complex), (iv) full-blown AIDS and (v) AIDS dementia. The typical symptoms of the five stages are summarized below. These are based largely on the North American and European experience; the syndrome varies considerably from one part of the world to another, and less clinical research is available on AIDS patients in developing countries.

(i) Initial HIV infection: Within a few weeks of HIV entering the body, some people experience a temporary “sero-conversion illness” which may resemble influenza or glandular fever. During this time, the immune system produces antibodies to HIV which do not succeed in overcoming the virus. This is usually followed by a period of months or years in which no further symptoms appear, but during which the person is capable of transmitting the virus to others.

(ii) PGL (persistently enlarged glands): Enlarged lymph glands, in the neck, armpit or groin can follow this initial bout of illness and may be accompanied by fevers, night sweats, loss of weight and oral thrush (a fungus infection inside the mouth). For many people in developed countries, these symptoms are often the first which prompt a visit to the doctor. But, for many people living in the Third World conditions, such
symptoms may be all but indistinguishable from common infections for which treatment is either unavailable or rarely sought

(iii) AIDS-related complex (ARC): The AIDS virus has by now damaged the immune system considerably. Many opportunistic infections occur. Symptoms include fatigue, unexplained diarrhoea lasting longer than one month, loss of more than ten percent body weight, fevers and night sweats. Oral thrush, PGL or enlarged spleen may be present.

(iv) Full-blown AIDS: The immune system collapses at this stage and major life-threatening infections invade the body. These vary among patients and among countries. Pneumonia caused by the parasitic pneumocystis carinii is common in the United States, as is a cancer affecting the skin, called Kaposi’s Sarcoma. In parts of Africa, a wasting condition called “slim disease”, linked to persistent diarrhoea, is common. The AIDS patient is usually extremely thin and grossly fatigued, and has multiple infections such as shingles, thrush, herpes and tuberculosis. Full-blown AIDS seems to be always fatal; few people diagnosed with it have lived longer then three to four years.

(v) AIDS dementia: The AIDS virus can pass through the blood brain barrier, which normally “filters out” substances in the blood, which might damage the brain. Once past this barrier, HIV can destroy certain brain cells, causing symptoms ranging from mild confusion, memory loss, deteriorating thought processes and inappropriate behaviour to personality change, premature senility and incontinence. The majority of AIDS patient, develop some signs of brain or nervous system involvement, and there have been reports of patient who developed neurological symptoms in advance of developing full blown AIDS. (Thomas Gracious, 1994:21-23)

1.5 Signs and Symptoms of HIV Infection

Several of the signs and symptoms of HIV infection are common to other diseases, and they do not necessarily indicate HIV infection in a patient. If someone is found to be ill, and if the symptoms continue for a longer period, he or she should
seek medical attention. Normally, after infection most people have a prolonged period without illness caused by the virus before they develop AIDS. Studies show that within ten years of infection at least 50 percent of HIV infected persons will develop AIDS. There are several types of illnesses that the HIV virus can cause and it may eventually result in the development of full blown AIDS. Persons with HIV infection may lose more than ten percent of their weight; they may have chronic diarrhoea and prolonged fever for more than a month. Meanwhile they suffer from lesser problems with their skin, glands, or throat, and they are very vulnerable to deadly diseases like pneumonia and certain types of cancer. (Thomas Gracicous, 1994:20)

1.6 Incubation Period:

The virus of AIDS, called human immunodeficiency virus (HIV), infects persons but does not produce illness for a very long time. This time interval between the exposure to virus (HIV infection) and the manifestation of the disease syndrome, i.e. AIDS, is called the incubation period. HIV infected persons generally remain overtly healthy during this period although they may harbour the virus in the blood. They, infect, act as carriers of HIV and can infect others.

The average incubation period is estimated to be around eight to ten years for adult and 18-24 months for the children. It is estimated that about fifty percent of infected adult will develop AIDS within ten years of exposures to HIV. (Parvi, 1992, 8-10)

1.7 Detection of HIV/AIDS

Two of the most currently and most widely used tests are known as “ELISA” (Enzyme-linked immune sorbent assay) and “Western Blot”. To ensure the highest degree of accuracy, blood samples which test positive for antibodies to HIV, using the ELISA test, are usually subjected to the confirmatory test, namely, the Western Blot test.

(i) **ELISA test:** in this test blood and other body fluid are tested with indicator solutions that detect the presence of antibodies directed HIV. Tiny volumes of solutions are required for the ELISA test. It is usually automated to yield
accurate results and therefore the chances of any type of error are minimized.

(ii) **Western Blot test:** the ELISA test can indicate whether antibodies against HIV are present or not. If antibodies are found to be present, then it is all the more necessary to find whether the antibodies are caused by infection with HIV or the test has found antibodies that are cross reactive with HIV antibodies without the presence of HIV. This is possible only by using a more sophisticated test, namely the Western Blot test. It may be noted that Western Blot test should be made mandatory in all cases of ELISA positive results to confirm about one is HIV positive or not. This is all the more necessary in India and other developing countries since large number of HIV kits imported from abroad are found to be defective. (Thomas Gracicous, 1994:25-26)

(iii) **CD4 count test:** This is an extremely expensive test which is used to count the CD4 cell in the blood. When count of 200 cubic mm is called the HIV positive. Mostly this test is done at ART centers.

**1.8 Mode of HIV transmission:**

HIV is an infectious diseases but is not easily transmitted through the environment, e.g. from air, water, food, etc. thus it is not a communicable disease like common cold, influenza, measles or polio viruses and other infectious agents. HIV is present in many bodily fluids like blood, vaginal/cervical secretions, urine, human tissues, tears, semen, saliva, cerebrospinal fluid and breast milk. The virus can only be transmitted through sexual contact, blood transfusion, sharing needle/syringe and through mother to child.

1. **Through unsafe sex**

This is a pre-dominated mode of HIV transmission in the world. Most of the people become infected during unsafe sex with the HIV positive person. When the sperm or vaginal secretions containing the virus enters the blood stream of an uninfected partner it can cause HIV. The virus can cross through the membrane lining of the vagina, anus or inside of the penis, especially if there are tears or cuts present as this put it in direct contact with
the body’s blood stream. The presence of sexually transmitted disease increase the risk of infection a lot of study proves this way of HIV transmission. According the report of Haryana State AIDS Control Society it is found that 88.5 percent of AIDS patients were infected through sexual activities. (Source: Haryana at a Glance up to Feb.2013.)

2. **Sharing needles or syringes**

Intravenous drug use is one of the routes of HIV transmission because the drug users frequently share the needles to inject drugs. Contaminated blood particles remain inside the previously used needles and syringes, providing the opportunities for the HIV virus to transmit to the subsequent user of the same needle and syringe. In India, the transmission of HIV through intravenous drug use has been reported particularly from the north-east. It is estimated that there are 25,000 intravenous drug users in the Manipur state only. It is a fact that due to lack of proper information drug users very seldom take adequate measures to use sterilized needles and syringes for injecting. And sometime doctors/nurses reused the needles for injections without proper cleaning and sterilization. According the report of Haryana State AIDS Control Society it is found that 3.36 percent of AIDS patients were infected through infected needles & syringes (Source: Haryana at a Glance up to Feb.2013.)

3. **Through blood transfusion:**

It is one of the important modes of HIV transmission from one infected person to other. In India the first cases found in 1986 that was get infection through blood transfusion during surgery in America. In developing countries like India it is one of the important things that about two-third of the pregnant women are anemic requiring blood transfusion. In New Delhi 21 thalesemic patient who were taking their treatment at NDMC run Charak Palika Hospital in Moti Bagh have been detected HIV positive. They got this disease during blood transfusion. According the report of Haryana State AIDS Control Society it is found that 3.86 percent of AIDS patients were infected through Blood Transfusion (Source: Haryana at a Glance up to Feb.2013.)
4. **Through mother to child**:–

HIV may pass from infected women to her fetus or to her infant during delivery or breast feeding. This is known as mother-to-child transmission and around one-third of children of HIV infected mothers worldwide infected through this route. It is also observed that parent to child (5.4 percent) route of HIV transmission is the second largest route of HIV transmission found in Haryana. (Source: Haryana at a Glance up to Feb.2013.)

1.9 **Factors are responsible for spreading of HIV/AIDS**:–

The researcher discussed the different mode of HIV transmission from one infected person to other. But these factors are not only responsible for spreading of HIV/AIDS; there are so many socio-economic factors, which create such kind of environment that encourage the spread of the virus. Some of factors are as following:-

0. **Poverty**: - Although Poverty is not the prime factor responsible for causing AIDS, yet indirectly it adds to its origin in more than one ways. Poverty creates such a social and economic environment that encourages the spread of HIV/AIDS. Poverty affects the epidemic and itself gets influenced in return. Due to poverty the poor people are not able to meet their basic necessities of life like food, water, insanitation housing, health care and education. Sometime poor women are forced into sex work to keep their family alive. There were 868,000 female sex workers with a 2.7 percent HIV prevalence found in India. (India HIV statistic 2013)

1. **Migration**: Workers are highly mobile and often live in unhygienic conditions in urban. It is a very common phenomenon all over the world. Most of the migrants dwell in slums. Due to long working hours, isolation from family and no proper recreational facilities, many such migrant seek comfort in casual partner. This situation makes them vulnerable to HIV/AIDS. In India 7.2 million migrants with 1 percent HIV prevalence were found. (HIV statistic 2013)
2. **Illiteracy or ignorance**: Having no information about HIV/AIDS makes people vulnerable to HIV/AIDS. Due to illiteracy or ignorance people have many myth and misconception for example after the 30 years into the epidemic, 41 percent still believe that they could get AIDS from using public toilet and this illiteracy also works as a barrier in getting the knowledge about HIV/AIDS.

3. **Genders inequality**: Gender is a society’s way of defining the roles and responsibilities of men and women. These are perceived as providing responsibility for reproductive and productive tasks within the home to women and men are seen as being responsible primarily for productive tasks outside the home. Because of these women have less education, employment, land, income and mobility and sometime they cannot say their partner to adopt the safety measure, like using condom, for the protection of HIV/AIDS. The available report on the occupational background of the HIV positive people reveals that the housewives with 37.7 percent of HIV positive constitute the second largest group in the Haryana state.

4. **Prostitution**: Prostitution or indulging in sexual relationship money is an old occupation in India and world. The initial detection of HIV inflation among a few female sex workers was found in Madras and Bombay in 1986-87. Many of research studies conducted on female sex workers & HIV/AIDS proves that prevalence of HIV infection among CSW is rapidly increasing in the different Indian cities. Female sex workers and their clients pose a serious threat of the spread of HIV infection in India. There were 868,000 female sex workers with a 2.7 percent HIV prevalence found in India (HIV statistic 2013)

5. **Destruction of social structure and cultural system**: - The destruction of social structures and cultural system in India, Africa and other parts of the world, through wars, migration, psudo-modernalization and urbanization has also resulted in a breakdown of mores regulating sexual practices. Due to this destruction in social and cultural system, the pre and post marital sexual activities are increasing day by day. This situation makes people more
vulnerable to HIV infection.

6. **AIDS stigma**: It is expressed around the world in different ways including ostracism, discrimination; rejection and avoidance of people living with HIV/AIDS fear and discrimination. These are the factors of stigma and have their base in ignorance and lack of base in ignorance and lack of information. Stigma is one of the major obstacles to globe efforts to defeat the epidemic. Stigma manifests itself in the structure of people to test for virus and receive early treatment and care. People due to stigma avoid attaining the awareness programmes run by government and non-government organization.

1.10 **Myth and misconception:-**

There are many false or unproved beliefs that are commonly accepted by majority of people. These beliefs are so rooted in the mind of people that it becomes a challenge to change these beliefs. These unproved beliefs are called myths and misconceptions. There are many myths and misconceptions prevalent among the people regarding the transmission of HIV. Some of most commonly accepted myths and misconceptions are as follows.

- Mosquito bite can transmit HIV/AIDS.
- Sharing toilet sheet can transmit HIV/AIDS.
- Sharing towel/cloth can transmit HIV/AIDS.
- Kissing of infected person can transmit HIV/AIDS.
- Sleeping and working together AIDS patient can transmit HIV/AIDS.
- Shaking hand with AIDS patient can transmit HIV/AIDS.
- Sharing food utensils with AIDS patient transmit HIV/AIDS.
- AIDS spread through air and water

In spite of the above mentioned myths and misconceptions in general, truck drivers particularly have so many myths and misconceptions about the spreads and prevention of HIV infection. Some of them as follow:

- It is a safe to have sex with clean, neat and good looking women.
➢ You will not get any infection if you wash your penis with urine/wine/soap/detol after having sex.
➢ Applying oil on penis before sex protects one from infection.
➢ Washing genitals with onion water after sexual intercourse protects one from STDs/HIV.
➢ One cannot get HIV by having sex with casual partners, neighbours etc.
➢ Garmi are a result of eating hot food and seating on rexine seats for long periods.
➢ Sex with a virgin protects one from STD/HIV infection.
➢ Women are highly sexed if they are not satisfied they will go crazy or find some other man.
➢ Condoms kill pleasure.
➢ Only sex workers are responsible for spread of STDs/HIV.
➢ Sex in group kill the HIV virus or sex in groups is not harmful.

1.11 National AIDS Control programmes-

In response to the first HIV case identified in 1986, the government created the National AIDS Committee, which launched India's first AIDS programme in 1987. This initial AIDS programmes focused on monitoring HIV infection rates among high-risk populations (in a few select major cities), health education, and blood screening. Between 1987 and 1991, about 85 percent of the national AIDS budget was spent on the screening of individuals, blood, and blood products. In 1992, the National AIDS Control Organisation (NACO) was created, and a comprehensive National AIDS Control Programme (NACP-I) was launched the following year. As understanding of the complex HIV epidemic in India has grown since then, substantial changes have been made in the policy frameworks and approaches of the National AIDS Control Programmes (NACP-I, -II, -III) that have provided guidelines for India's response. Since NACP-I, focus has shifted from raising awareness to behaviour change, from a national response to a more
decentralized response and to increasing the involvement of NGOs and networks of PLHAs.


NACO launched the first National AIDS Control Programme (NACP-I) in 1992 with support from the World Bank. The overall objective was to slow and prevent the spread of HIV through a major effort to prevent HIV transmission. During NACP-I, NACO provided nearly US$113 million, with 40 percent for blood safety, and 21 percent for raising awareness.

**Key achievements under NACP-I** included:

- Created national AIDS response structures at both the national and state levels and provided critical financing.
- Established a strong partnership with the World Health Organisation (WHO) and later helped mobilize additional donor resources.
- Established NACO and the State AIDS Control Cells, which considerably strengthened India's management capacity to respond to the epidemic.
- Improved blood safety.
- Improved public awareness of HIV, especially in urban areas.
- Expanded sentinel surveillance and improved coverage and reliability of data.
- Expanded STI control and services.
- Improved condom promotion activities.
- Created and disseminated a national HIV testing policy.

**National AIDS Control Programme Phase 2nd (1999-2006)**

The second National AIDS Control Programme began in 1999 with an aim to reduce the spread of HIV by focusing on prevention through behaviour change and increasing India's capacity to respond to HIV on a long-term basis. The stated objectives were to reduce HIV prevalence, below 5 percent of the adult population in high prevalence states; below 3 percent in states with moderate prevalence; and below 1 percent and 2 percent in remaining states in a nascent epidemic stage.
NACP-II expanded the scope of HIV prevention activities with an increased budget of US$460 million. Under NACP-II, the Government of India began focusing on high-risk groups with a package of targeted interventions (TIs) that globally have been shown to be effective: behaviour change communication/peer education; STI treatment, condom promotion/provision; needle and syringe provision; enabling environment and community mobilization. Strong political commitment led to the creation of the National Council on AIDS (NCA), under the guidance of the Honourable Prime Minister, which facilitates a multi sectoral response to the HIV epidemic. The major programmes as under:-

1. **Programme Management**- In order to accomplish the objective of NACP, efficient programmes management constitute one of the most significant components of the overall programmes. At the national level, National AIDS control organizations at the state level state AIDS control society and UCTC at district and block level have been created and are in operation.

2. **Blood safety**- To prevent the spreading of HIV/AIDS through blood & blood product a blood safety programmes have objective:-
   
i. Mandatory Licensing of all blood banks.
   
ii. Establishment of 154 Zonal blood testing centre with HIV testing facilities.
   
iii. Established of 40 blood component separation facilities.

   iv. Training of the blood banks staff.

   v. Promotion of voluntary blood donation.

3. **Surveillance and clinical management**- A sentinel surveillance system has been set up and is functioning in almost all of the state and UTS. 180 sentinel sites have been established to monitor the trends of HIV infection in various groups of population.

4. **Sexually transmitted disease**- The control and prevention of sexually transmitted diseases is now recognized as one the major strategies to control the spread of HIV infection. There is growing evidence that the presence of a STD greatly facilities both acquisition and transmission of HIV infection. At the operational level 679 STI clinics at the district level was established.
4. **Public awareness and community support** - NACO has initiated a nationwide campaign using various media to spread awareness about the HIV/AIDS. This includes the use of television radio, print media and folk theatre.

5. **A school AIDS education programme** - Awareness programme through school and college education has been taken up on a large scale in 18 states.

6. **Prevention of mother to child transmission** - Government of India is considering starting feasibility study projects in some selected hospital of the country where HIV infection in pregnant mother is reported to be high viz, Tamil Nadu, Maharashtra, Hyderabad, Bangalore and Manipur.

7. **Condom programming** – In recognition of the fact that one people have multiple sex partners and engage in sexual behavior which put them at risk of acquiring STDs and HIV/AIDS. Government of India strongly supports the promotion of good quality, low cost condoms for the prevention of STD and HIV/AIDS infection. 1.6 billion condoms free distributed in 2006

8. **Regional language Radio programmes** - AIR is broadcasting a 10 minutes programme in Hindi and eleven regional languages on the Vivid Bharati Channel for information and counseling on HIV/AIDS specially targeted towards rural audiences and migrant labour.

9. **Counseling programme** - National AIDS helpline set up in 1997 and has been successfully implemented in Delhi, Chandigarh, Guwahati, Patna and Hyderabad. MTNL has provided a toll free number 1097 for this purpose. Caller can access information on HIV/AIDS through a computerized voice response system linked with the telephonic.

10. **Universities talk ‘AIDS’** - The department of Youth affairs and sports and ministry of human resources development is implementing the programme through NSS.

11. **Inter-Sectoral collaboration** - A number of activities have been undertaken to ensure inter-sectoral collaboration for AIDS control and prevention programme in association with departments and ministries, NGO and international organization like WHO, UNAIDS etc.
12. Information education and communication- The IEC strategy is being operationalized both at the central as well as the state level. The trends indicate that the infection is spreading from the urban areas to rural areas. Therefore the present thrust under the programme is decentralization and strengthening the state level capacity in programme and management of HIV/AIDS prevention and care. This will also help in ensuring the reach of the programme at the grassroots level.

**Key achievements under NACP-II** included:

- At the operational level, NGOs implemented 1,033 targeted interventions and set up 875 voluntary counselling and testing (VCT) centers and 679 STI clinics at the district level.
- Nation-wide and state level Behaviour Sentinel Surveillance (BSS) surveys were conducted.
- Prevention of parent-to-child transmission (PPTCT) programme was expanded.
- A computerized management information system (CMIS) and a computerized project financial management system (CPFMS) were created.
- HIV prevention and care and support organizations and networks were strengthened.
- Support from bilateral, multilateral, and other partner agencies also increased substantially.


NACP 3 is based on the experiences and lessons drawn from NACP-I and II, and is built upon their strengths. Its priorities and thrust areas are drawn up accordingly and include the following:

- Considering that more than 99 percent of the population in the country is free from infection, NACP-III places the highest priority on preventive efforts while, at the same time, seeks to integrate prevention with care, support and treatment.
• Sub-populations that have the highest risk of exposure to HIV will receive the highest priority in the intervention programmes. These would include sex workers, men-who-have-sex-with-men and injecting drug users. Second high priority in the intervention programmes is accorded to long-distance truckers, prisoners, migrants (including refugees) and street children.

• In the general population those who have the greater need for accessing prevention services, such as treatment of STIs, voluntary counselling & testing and condoms, will be next in the line of priority.

• NACP-III ensures that all persons who need treatment would have access to prophylaxis and management of opportunistic infections. People who need access to ART will also be assured first line ARV drugs.

• Prevention needs of children are addressed through universal provision of PPTCT services. Children who are infected are assured access to paediatric ART.

• NACP-III is committed to address the needs of persons infected and affected by HIV, especially children. This will be done through the sectors and agencies involved in child protection and welfare. In mitigating the impact of HIV, support is also drawn from welfare agencies providing nutritional support, opportunities for income generation and other welfare services.

• NACP-III also plans to invest in community care centres to provide psychosocial support, outreach services, referrals and paediatric care.

• Socio-economic determinants that make a person vulnerable also increase the risk of exposure to HIV. NACP-III will work with other agencies involved in vulnerability reduction such as women's groups, youth groups, trade unions etc. to integrate HIV prevention into their activities.

The strategic objectives of NACP-III are:

• Prevent infections through saturation of coverage of high-risk groups with targeted interventions (TIs) and scaled up interventions in the general population.
• Provide greater care, support and treatment to more people living with HIV/AIDS.

• Strengthen the infrastructure, systems and human resources in prevention, care, support and treatment programmes at District, State and National levels.

• Strengthen the nationwide Strategic Information Management System.

**Strategic1: Prevention**

The mainstay of the NACP Strategy will continue to be prevention since more than 99 percent of the people are HIV negative. The programme will focus on saturating the estimated 4 million high risk groups (commercial sex workers, IDUs and MSM), an estimated 12 million highly vulnerable populations, namely migrants and truckers and the large number of young women and men in the general community who constitute almost 40 percent of the country’s population, with prevention messages. Accordingly, it is planned to set up 2100 TI sites to cover 80 percent of HRGs with primary prevention services: treatment for STI, condoms, BCC and enabling environment. 95 percent of the young people will be accessed by collaborating with the ministries of Youth Affairs, Human Resource Development (HRD), Women and Child Development (W&CD) and Ministry of Social Justice and Empowerment (MSJE), among others, volunteer networks and youth friendly information centres. To create a non stigmatizing environment and enhance access to services, a well coordinated communication strategy will be put in place which will focus on value based lifestyle at one level and at another, reduce vulnerabilities and break the silence surrounding issues related to sexuality. It will also generate the need to reduce risky behaviour and routinize the use of condoms as the only prophylaxis against sexually transmitted infections and unwanted pregnancies. Campaigns aimed at very quickly up scaling voluntary testing to reach at least 21 million tests per year at the end of the project period by establishing an estimated 5000 testing centres in the public sector and another 21 million tests by encouraging the private sector to routinely provide HIV testing. With the constitution of the NCA, there is now an opportunity to upscale the dissemination of HIV prevention
messages by mainstreaming them into all government offices, organized private sector and civil society organisations. Socio-economic determinants that increase vulnerabilities to HIV will receive special attention and the related ministries will be assisted to establish a HIV unit within their departments to integrate HIV prevention into their ongoing activities. Innovation in forging public private partnerships and effective convergence with the Reproductive and Child Health (RCH) Programme particularly in the three key programme areas of access to safe blood, treatment for sexually transmitted diseases, ANC for screening the estimated 150,000 HIV pregnant women for providing the prophylaxis under the PPTCT programme, Revised National Tuberculosis Control Programme (RNTCP) and the National Rural Health Mission (NRHM). Given the importance of prevention to our strategy, an amount of Rs. 7,786 crore (67.2 percent of total project outlay) is proposed to be allocated for these wide ranging set of activities.

**Strategic 2: Care, Support and Treatment**

NACP–III seeks to implement the principle of a continuum of care. Accordingly, prevention will go hand in hand with access to prophylaxis, management of opportunistic infections and ART. Given the low levels of coverage, focus will also be on assuring universal access to first line ARV drugs in the first instance. To ensure drug adherence, the Community Care Centres will be reconfigured to be a bridge between the patient and the ART centres and provide psycho-social support, counselling through strong outreach services, referrals and palliative care. Home based care will be an integral part of this strategy. Care, support and treatment services will include management of opportunistic infections including control of TB in PLHA, anti-retroviral treatment (ART), safety measures, positive prevention and impact mitigation. By 2011, the programme will be able to treat 3.2 lakh OI episodes in a year, provide TB referrals to 28 lakh PLHA and ART treatment to 3 lakh PLHA, including 0.39 lakh children. The component related to Care, Support and Treatment is proposed to be allocated an amount of Rs. 1953 crore accounting for 16.9 percent of the total project outlay.

**Program on Targeted / Preventive Interventions among Bridge Populations**

Bridge populations comprise such people, who, through close proximity to high risk groups, are at higher risk of contracting HIV. Quite often they are
clients/partners of male and female sex workers. They will be addressed through different strategies such as mainstreaming (e.g. prisoners, uniformed services) and as part of targeted interventions (e.g. spouses of injecting drug users). States may also decide to address bridge populations specific to their state, e.g. riverine transport workers in Brahmaputra, through appropriate strategies. Two major bridge populations who need specific and nationwide interventions are transport and migrant workers.

**Truckers and Transport Sector Groups**

Of an estimated 3.3 million km. of road network, about 61,359 km., constituting 2 per cent of the total road network accounts for 40 per cent of the total road traffic. The Asian Institute of Transport Development (AITD) and IHMR has estimated that there are around 5 million truck drivers in the country. Of them, about 50 percent (about 2.5-3 million) plays on long-distance routes. They are more vulnerable compared to short-distance truckers to sexually transmitted diseases. Given 11-16 percent expected HIV prevalence level amongst long-distance truckers in India, there could be an estimated 0.6-0.7 million truckers who might be HIV positive out of a total of 2.5 - 3 million long-distance truckers (2005).

**Truckers and Vulnerability to HIV**

Truckers have been a critical group because of the link of their ‘mobility with HIV’ having multiple interactions with local populations as they travel. The living and working conditions, sexually active age group and separation from regular partners for extended periods of time; availability of cash being carried to meet their travel needs make them attractive customers to the sex industry; and inadequate access to treatment for sexually transmitted infections are the major factors that put truckers at risk of contracting and transmitting the virus.

**Sex Workers and Highways**

It has been observed that there are diverse settings where sex takes place between the mobile population and the sex workers e.g. on the highways – ‘dhabas’ or unorganised house-based brothels located nearby halt points (HPs) and, therefore, more accessible and approachable to truckers’ community; and ii. in small towns and cities – lodges, rented houses etc. It has also been recognised that sex workers
operating in one location easily move to other locations and have greater degree of mobility. Sex workers catering to the mobile population are normally either from the neighbouring villages coming to halt points during the day time or local tribeswomen, slum dwellers from the industrial towns located near the halt points, migrants or daily wage labourers from the construction sites, vegetable or fruit vendors at the halt points etc.

**Current Truckers Interventions in the Country**

Trucker's interventions are being carried out by NGOs at locations where truck drivers halt for sufficient duration for carrying out BCC activities. The interventions are mainly along highway stretches, business activity areas, check posts or port areas. These are major transshipment centres, where trucks halt for loading or unloading. These interventions are supported with funds from several partners: 122 by NACO; 17 by TCIF-BMGF and now NHAI, covering 3100 km. stretch of national highway, with support from 27 NGOs at the truckers halt points on the highway.

**Programme Strategies in Trucker Interventions**

The intervention package through the NGO led intervention comprises basically of the following three core components:-

(i) BCC-activities through individual or group interaction with the target community for creating awareness by organizing camps among target groups, usage of IEC materials to convey messages on HIV/AIDS, condoms and STI, and through peer educational activities;

(ii) Condom promotional activity through both social marketing and free distribution of condoms; and

(iii) STI treatment through referrals for STI, VCTC services to nearby government/private hospitals or clinics or through project owned clinics for STI treatment.

**Migrants & Populations in Cross-border Areas**

There are over 200 million migrants in India (NSS). A recent analysis of the Census 2001 data indicates that during 1991-2001, about 61 per cent migrants moved within the districts, 24 per cent within the states and 13 per cent inter-state.
Additionally, 3 million Indian migrants live in Gulf countries, most of them from Tamil Nadu, Kerala, Andhra Pradesh and Punjab. However, not all migrants are at equal risk. The 8.64 million temporary, short duration migrants (NSS survey 1999-00) are of special significance to the epidemic because of their frequent movement between source and destination areas. In the existing pattern of concentrated epidemics with pockets of high prevalence, movement of people in the absence of migrant friendly services can result in the rapid spread of the infection.

Migrants can be classified into 3 broad categories:

- In-country rural to urban migrants (e.g. Ganjam to Surat) or rural to rural (Bihar to Punjab);
- Trans-border migrants (those who move between India and the neighboring countries); and
- Overseas migrants (mostly those who move to Middle East and East Asia).

**Strategic 3:** Strengthen the infrastructure, systems and human resources in prevention, care, support and treatment programmes at District, State and National levels.

**At the district level,** services will be available in medical colleges or district hospitals, to provide prevention services including treatment and cure for STIs, psychosocial counselling, and support for PLHAs.

- Manage opportunistic infections and provide anti-retroviral therapy for PLHAs.
- Ensure counselling and testing for prevention of parent-to-child transmission of HIV.
- Provide specialised pediatric HIV care and treatment.
- Provide referrals for special needs such as surgery and ophthalmology.

**At the sub-district and community level,** community health centres and primary health centres provide prevention services including promotion of condoms, counselling and testing for HIV (ICTCs), PPTCT, treatment and cure for STIs, and management of opportunistic infections. NGOs and CBOs will provide outreach,
peer support services, and home-based care for PLHAs in the community.

**Strategic 4: Strengthening Strategic Information Management**

Apart from the sentinel surveillance, a nationwide computerized management information system provides strategic information for programme monitoring and evaluation. To strengthen the existing system, NACP-III contains several significant changes in data collection and analysis, which includes:

- Establishing one national Monitoring and Evaluation Framework.
- Enhancing the Computerized Management Information System (CMIS).
- Creating new Strategic Information Management Units (SIMU).
- Key activities for strengthening strategic information management include:
  - Reviewing and validating information for planning and programme implementation.
  - Strengthening programme monitoring to provide more accessible information.
  - Enhancing surveillance systems to provide data at the state and district level.
  - Reviewing models used to generate various state and national estimates on the basis of surveillance data.
  - Supporting independent evaluation and research.

**NACP-III ACHIEVEMENTS**

A number of significant achievements have been gained under NACP-III. These include:

- As of June 2010, 1,311 targeted implementation projects were operational under States AIDS Control Societies and 220 more were managed by partners. These TI cover 78 percent of FSW, 73 percent of IDU and 77 percent of MSM and transgender populations.

- The number of integrated counseling and testing centres increased to 5,210 in June 2010. The number of persons tested increased to 14.2 million in 2009-10. In 2009-10, 38,097 HIV-TB coinfected patients were diagnosed. The ICTC provided counseling and testing to 6 million pregnant women, of whom
19,968 were found HIV positive. A total of 12,173 mother-baby pairs received prophylactic dose of nevirapine.

- During 2009-10, 8.24 million STI episodes were managed through 938 designated STI/RTI clinics, STI clinics at the Targeted Interventions and over 26,000 sub-district level health facilities under NRHM. To further promote the utilisation of services, branding of STI/RTI clinics has been undertaken as Suraksha clinics.

- 322,561 patients were receiving free ART as of April, 2010. Ten Regional Centers of Excellence provide state-of-the-art services for PLHA. Since the roll-out of second-line ART in January 2009, 1215 patients receive second-line drugs. 287 Community Care Centers are operational. Under the National Pediatric HIV/AIDS Initiative, 66,871 children living with HIV have been registered for HIV care at ART centers, and 19,613 children received free ART as of January, 2010.

- During 2008-09, the condom use per annum increased to 2.2 billion pieces. 19,700 Condom Vending Machines have been installed across the country. NACO scaled-up the Female Condom Programme in Andhra Pradesh, Tamil Nadu, Maharashtra and West Bengal to saturate all the female sex worker targeted interventions.

- After the success of the Red Ribbon Express in Phase-I, the train rolled out for another challenging phase on 1st December 2009 (World AIDS Day) from Delhi. During its one year journey it is expected to reach out to millions in cities, towns and villages with messages on HIV prevention, stigma and discrimination and promotion of services. The train will cover 152 halt stations in 22 states. During the first seven months, the project has already reached 3.8 million people. More than 47,500 have been trained, 32,000 counseled and 21,000 tested for HIV.

- Access to safe blood was ensured through a network of 1,103 blood banks, including 132 blood component separation units and 10 model blood banks.
National AIDS Control Programme Phase-IV | 2012-2017

NACP-IV (2012-2017) has been developed through an elaborate and extensive process. The process has adopted an inclusive, participatory and widely consultative approach with 15 Working Groups and 30 sub-groups covering all thematic areas involving 624 representatives from central and state governments, representatives of high risk group communities, people living with HIV/AIDS, civil society, subject experts, experts from NRHM and other government departments, development partners and other stakeholders. Regional and state level consultations, e-consultations and special studies/ assessments were also undertaken to develop the strategic plan. Planning commission steering committee has also been closely overseeing this entire process. NACP has following strategy

**Strategy 1: Intensifying and Consolidating Prevention Services**

Prevention will continue to be the core strategy of NACP-IV as more than 99 percent of the people are HIV negative. It will reach out to the widely dispersed population of young women and men with well-designed prevention messages. Accordingly, it is planned to cover 90 percent of HRGs through Targeted Interventions (TI) implemented by NGO and CBOs. High risk migrants, their spouses, truckers and other vulnerable population will be accessed by collaborating with other departments, voluntary groups, civil society networks, women groups and youth clubs. NACP- IV will add on the existing network of ICTCs in high prevalence states and enhance the coverage in the vulnerable states by establishing new HIV testing facilities up to the CHC and PHC level. This is to ensure that ICTC, PPTCT and HIV-TB services are accessible to the community. More efficacious multi-drug regimen for PPTCT will be scaled up as an effort towards elimination of new infections among children. Condom promotion strategies will be strengthened through free distribution and social marketing channels, non-traditional outlets, female condoms, etc. aided by an effective communication strategy. The programme will continue to link prevention with care, support and treatment. This will promote positive prevention. NACP-IV will focus on strengthening of standardized STI/RTI management to HRG and vulnerable population through designated STI clinics under the programme, NRHM service delivery units and
public and private sectors clinics. NACP-IV will also explore the possibilities of streamlining the coordination and management of blood banks and blood transfusion services.

**Strategy 2:**

**Comprehensive Care, Support and Treatment**

NACP-IV will implement comprehensive HIV care for all those who are in need of such services and facilitate additional support systems for women and children. With a wide network of treatment facilities and collaborative support from PLHIV and civil society groups, it is envisaged that greater adherence and compliance would be possible. Additional Centres of Excellence (CoEs) and upgraded ART Plus Centres will be established to provide high quality treatment and follow-up services, positive prevention and better linkages with health care providers in the periphery. With increasing maturity of the epidemic, it is very likely that there will be greater demand for 2nd line ART, Opportunistic Infections management, etc., and NACP-IV will address these needs. It is proposed that the comprehensive care, support and treatment of HIV/AIDS will inter alia include: (i) anti-retroviral treatment (ART), including second line (ii) management of opportunistic infections including TB in PLHIV, (iii) positive preventions and (iv) facilitating social protection and insurance for PLHIV through linkages with concerned Departments/ Ministries. The programme will explore avenues of public-private partnerships. The programme will enhance activities to reduce stigma and discrimination at all levels particularly at health care settings.

**Strategy 3: Expanding IEC services for (a) general population and (b) high risk groups with a focus on behaviour change and demand generation**

IEC has been an important component of the NACP. With the expansion of services for counseling and testing, ART, STI treatment and condom promotion, the demand generation campaigns will be the focus of the NACP IV communication strategy. The IEC will remain an important component of all prevention efforts and will have continued focus on:

1. Increasing awareness among general population in particular women and youth
2. Behaviour change communication strategies for HRG and vulnerable groups

3. Continued focus on demand generation of services

4. Reach out to vulnerable populations in rural settings

5. Extending services to tribal groups and hard-to-reach populations

**Strategy 4:**

**Strengthening institutional capacities**

The programme management structures established under NACP will be strengthened further to achieve the NACP-IV objectives. Programme planning and management responsibilities will be enhanced at national, state, district and facility levels to ensure high quality, timely and effective implementation and supervision of field level activities to achieve desired programmatic outcomes. The planning processes and systems will be further strengthened to ensure that the annual action plans are based on evidence, local priorities and in alignment with NACPIV objectives. Sustaining the epidemic response through increased collaboration and convergence, where feasible, with other departments will be given a high priority during NACP-IV. This will involve phased integration of the HIV services with the routine public sector health delivery systems, streamlining the supply chain mechanisms and quality control mechanisms and building capacities of governmental and non-governmental institutions and networks.13

**Strategy 5: Strategic Information Management System (SIMS)**

Under NACP-IV, it is envisaged to have an overarching Knowledge Management strategy that encompasses the entire gamut of strategic information activities starting with data generation to dissemination and effective use. The strategy will ensure

- high quality of data generation systems such as Surveillance, Programme Monitoring and Research;
- strengthening systematic analysis, synthesis, development and dissemination of Knowledge products in various forms;
- emphasis on Knowledge Translation as an important element of policy making
and programme management at all levels; and

- Establishment of robust evaluation systems for outcome as well as impact evaluation of various interventions under the programme. The element of Knowledge Translation will be given the highest priority to ensure making the link between Knowledge and action at all levels of the programme. The programme will focus strongly on building capacities of epidemiologists, monitoring & evaluation officers, statisticians as well as programme managers in appropriate and simple methods and tools of analysis and modeling. Institutional linkages will be fostered and strengthened to support programme for its analytical needs, at national and state levels.

**Programme Targets**

By 2017, NACP- IV will cover 9 lakh FSWs, 4.40 lakh MSMs including TG/Hijras and 1.62 lakh IDUs through Targeted Interventions. Over 16 lakh long distance truckers and 56 lakh high-risk migrants will be separately targeted as part of bridge population. Vulnerable sections of the population will be reached through ICTCs (280 lakh tests) and through expanded STI/RTI programme covering nearly 90 lakh people. 140 lakh pregnant women will be targeted, in close collaboration with NRHM, to prevent mother to- child transmission in the community. Supply of 90 lakh units of safe-blood and enhanced use of blood products will be ensured. The programme will provide 1st and 2nd line ART to all who require it. It is estimated that there will be 10,05,000 people on ART (including 50,000 children who require 1st line ART and nearly 50,000 PLHIV who require 2nd line drugs) by 2017.

**1.12 Haryana AIDS Control Society**

The AIDS Control Programme is being implemented in Haryana by Haryana AIDS Control Society established as per guidelines of National AIDS Control Organization (NACO). Haryana AIDS Control Society was registered on 27.02.1998 under Societies Registration Act 1860. Prior to it first phase of AIDS Control Programme 1992 to 1998 was implemented by AIDS Cell established in Health Department.
Program run by Haryana Aids Control Society

1. **Blood Safety**: Transmission of HIV infected blood is most efficient way of transmission of HIV. Considering this HIV testing of all Blood Units was made mandatory in 1993. At present there are 64 licensed blood banks in the state of Haryana. 2320060 samples were tested for HIV screening from 1993 to till Feb. 2013. 5582 samples were found HIV positive. (Source: Haryana State AIDS Control Society report Haryana at a Glance up to Feb.2013).

2. **STD Clinics**: AIDS is an incurable disease whereas other STDs (Syphilis, Gonorrhea etc.) are easily treated with a simple course of antibiotics. Also, it is seen that STD are more common in people with risky sexual behaviour and presence of STDs pre-disposes to infection with HIV. Therefore, STD treatment becomes an important part of HIV prevention and therefore 24 STD clinics have been set up in Haryana i.e. 3 in Medical Colleges, 20 in District Hospitals and one in CHC Bahadurgarh (Jhajjar). STD drugs are given free of cost at all STD Clinics.

3. **Target Intervention Programmes**: Under this programme various NGOs are working in High Risk Behaviour Populations i.e. Men having sex with Men, Female Sex workers, Intravenous Drug Users, Truckers and Migrant. These NGOs try to bring behaviour change in these High Risk Populations like Use of Condom, Disposable Syringes etc. so that they become less vulnerable to HIV/AIDS. Total 32 Targeted Interventions are being implemented by NGOs supported by HACS: - 8 TIs with FSW population, 3 TIs with IDUs, and 2 TIs with MSM. 10 TIs: composite with FSW & MSMs, 9 TIS with Migrants. This programmee planning to upscale 13 more TIs to saturate the 100 percent High Risk Groups in the State.

4. **Integrated Counselling and Testing Centers (ICTCs)**: 84 ICTCs have been established in the State of Haryana (4 in Medical Colleges, 20 in District Hospitals and 60 in CHCs and Sub-district hospitals). Well trained counselors and Lab. Techs are posted in these centers and they provide free counseling
and testing services to voluntary clients and also referred patients. The number of ICTCs and the number of patients attending these centers has gradually increased in Haryana.

5. **Anti-Retroviral Centre (ART):** An ART center was set up in PGIMS, Rohtak in July 2006. A CD4 Count machine has been installed at this center. 7010 HIV patients were taking ART treatment till Oct. 2013 (Source: RTI information)

6. **Community Care Center (CCC):** A Community Care Center was established at District Yamunanager in 2005 and was later shifted to District Rohtak in February 2007. This CCC is a 10 bedded indoor facility for HIV positive patients where they can stay while on ART treatment. They are also given Psycho-social support, Nursing Care and Nutritional Support during their stay in this Center. Total HIV positive Patients registered at CCC up to December are 936.

7. **Drop-in-Center:** Two Drop-in Centers have been established, one at Gurgaon and one at Hisar. These centers are places where the Network of HIV positive people gather and discuss their problems so that they can access the facilities available for them. The total number of patients registered in Drop in center Hisar was 218 and 450 in Gurgaon up to December 2008.

8. **Sentinel Surveillance:** Since 1998 Surveillance is carried out every year to determine the estimates of HIV positive people in the State of Haryana. The Sentinel Surveillance report of 2008 estimated the HIV positive at 42,000 in Haryana. In the year 2007-08, 30 sentinel surveillance sites were established and samples collected both from general population and high risk groups.

9. **Training:** In order to respond to HIV/AIDS epidemic continuous training of all Medial and Para-medical staff is carried out about the various modalities of HIV/AIDS.

10. **Monitoring & Evaluation:** For detailed reporting and monitoring of the project implementation, a computerized management Information System (CMIS) has been installed since year 2000 and reports about all components are generated monthly according to this system.
1.13 Global scenario of HIV/AIDS till 2013

There were 35.0 million people living with HIV in 2013, up from 29.8 million in 2001, the result of continuing new infections, people living longer with HIV, and general population growth.

The global prevalence rate (the percent of people ages 15-49, who are infected) has leveled since 2001 and was 0.8 percent in 2013.

1.5 million People died of AIDS in 2013, a 35 percent decrease since 2005. Deaths have declined due in part to antiretroviral treatment (ART) scale-up. HIV is a leading cause of death worldwide and the number one cause of death in Africa.

New HIV infections globally have declined by 38 percent since 2001. In 27 countries with sufficient quality data, new HIV infections have decreased by more than 50 percent and by more than 75 percent in 10 countries. Still, there were about 2.1 million new infections in 2013 or about 6,000 new infections per day.

Most new infections are transmitted heterosexually, although risk factors vary. In some countries, men who have sex with men, injecting drug users, and sex workers are at significant risk. When compared to the general population, HIV prevalence rates are estimated to be 19 times higher among men who have sex with men, 28 times higher among injecting drug users, and 12 times higher among sex workers.

Although HIV testing capacity has increased over time, enabling more people to learn their HIV status, approximately half of all people with HIV are still unaware they are infected.

HIV has led to a resurgence of tuberculosis (TB), particularly in Africa, and TB is a leading cause of death for people with HIV worldwide. In 2013, approximately 13 percent of new TB cases occurred in people living with HIV. However, between 2004 and 2013 TB deaths in people living with HIV declined by 33 percent, largely due to the scale up of joint HIV/TB services.

Women represent half (50 percent) of all adults living with HIV worldwide. HIV is the leading cause of death among women of reproductive age. Gender inequalities, differential access to service, and sexual violence increase...
women’s vulnerability to HIV, and women, especially younger women, are biologically more susceptible to HIV.

Young people, ages 15-24, account for approximately 33 percent of new HIV infections. In sub-Saharan Africa, young women are twice more likely to become infected with HIV than their male counterparts. In some areas, young women are more heavily impacted than young men.

Globally, there were 3.2 million children living with HIV in 2013, 240,000 new infections among children, and 190,000 AIDS deaths.

<table>
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<tr>
<th>Region</th>
<th>Total No. (living with HIV)</th>
<th>Percentage (%)</th>
<th>Newly Infected</th>
<th>Adult Prevalence Rate (%)</th>
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</table>

Source: UNAIDS report on HIV Prevalence & Incidence by Region, 2013

**Sub-Saharan Africa**: Sub-Saharan Africa, the hardest hit region, is home to 71 percent of people living with HIV but only about 13 percent of the world’s population. Most children with HIV live in this region (91 percent). Almost all of the region’s nations have generalized HIV epidemics—that is, their national HIV
prevalence rate is greater than 1 percent. In 9 countries, 10 percent or more of adults are estimated to be HIV-positive. South Africa has the highest number of people living with HIV in the world (6.2 million). Swaziland has the highest prevalence rate in the world (27.4 percent). Recent data offer promising signs, with national HIV prevalence and/or incidence stabilizing or even declining in many countries in the region.1

**Asia and the Pacific:** An estimated 4.8 million people are living with HIV in Asia and the Pacific. The region is also home to the two most populous nations in the world – China and India – and even relatively low prevalence rates translate into large numbers of people.

**Western & Central Europe and North America:** An estimated 2.3 million people i.e. 7 percent of global HIV positive people including 88,000 newly infected people are living in this region.

**Latin America & The Caribbean:** About 1.9 million people are estimated to be living with HIV in Latin America and the Caribbean combined, including 106,000 newly infected in 2013. The Caribbean itself, with an adult HIV prevalence rate of 1.1 percent is the second hardest hit region in the world after sub-Saharan Africa. Six countries in Latin America and the Caribbean have generalized epidemics, with the Bahamas having the region’s highest prevalence rate (3.2 percent), and Brazil the greatest number of people living with the disease (730,000).1

**Eastern Europe & Central Asia:** An estimated 1.1 million people are living with HIV in this region, including 110,000 newly infected in 2013. The epidemic is driven primarily by injecting drug use, although heterosexual transmission also plays an important role. The Russian Federation and Ukraine account for 85 percent of people living with HIV in the region.1

**Indian scenario of HIV/AIDS**

India has the third largest HIV epidemic in the world. HIV prevalence in India was an estimated 0.3 percent HIV prevalence in adult population. This figure is small compared to most other middle-income countries but because of India's
huge population (1.2 billion) this equates to 2.1 million people living with HIV. In the same year, an estimated 130,000 people died from AIDS-related illnesses. 2

Overall, India’s HIV epidemic is slowing down, with a 57 percent decline in new HIV infections between 2000 and 2011, and a 29 percent decline in AIDS-related deaths between 2007 and 2011. 3

HIV prevalence in India varies geographically. The four states with the highest numbers of people living with HIV (Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu) are in the south of the country and account for 53 percent of all HIV infections. However, HIV prevalence is falling in these states. By comparison, in some states in the north and northeast of the country, the number of new HIV infections is rising.

**Key affected groups**

Among key affected groups, sex workers and men who have sex with men have experienced a recent decline in HIV prevalence while the number of people who inject drugs living with HIV has remained stable.

However, transgender people are emerging as a group at high risk of HIV transmission. Moreover, in certain parts of the country, migrants and long distance truckers continue to act as bridge populations between certain groups and the general population, fuelling the HIV epidemic.

**Sex workers and HIV in India**

There were 868,000 female sex workers with a 2.7 percent HIV prevalence found in India. HIV prevalence among female sex workers varies both between and within states. For example, one study found HIV prevalence among sex workers ranged between 2 percent and 38 percent (averaging at 14.5 percent) among districts in the four high prevalence south Indian states of Andhra Pradesh, Maharashtra, Tamil Nadu and Karnataka.

Although sex work is not strictly illegal in India, associated activities - such as running a brothel – are. This means that the authorities can justify police hostility and brothel raids. Stigma and discrimination against sex workers restrict their access to healthcare.
Male sex workers are a group particularly vulnerable to HIV who engages in high-risk behaviours. One study in suburban Mumbai reported an HIV prevalence of 33 percent among this group with all of the individuals in the study engaging in anal sex while 13 percent had never used a condom.

**Men who have sex with men (MSM) and HIV in India**

427,000 men who have sex with men with 4.4 percent HIV prevalence found in India. However, in December 2013, India's Supreme Court re-criminalized adult consensual same sex sexual conduct raising fears about access to HIV prevention and treatment for MSM.

Indeed, stigma and discrimination act as significant barriers that make this group hard to reach with HIV information. Moreover, outreach workers and peer educators working with MSM have frequently been harassed or arrested by the authorities. In 2001, four members of the Naz Foundation Trust (an Indian NGO that works with MSM and other groups affected by HIV) were jailed for 47 days after police raided their offices:

In India, many MSM have female partners. A large study in Andhra Pradesh found that 42 percent of MSM were married, while 50 percent had sexual relations with a woman in the previous three months. Just under half reportedly had not used a condom during their last sexual encounter.

**Hijras / transgender people and HIV in India**

Hijras, (also know as Aravani, Aruvani or Jagappa in other areas) are names given to individuals in South Asia who are transgender. In India, past surveillance and monitoring of groups at a high risk of HIV transmission have not considered transgender people as a distinct group, often including them in MSM data. However, since 2012, the National AIDS Control Programme has collected data and surveillance about hijras separately and found 8.8 percent HIV prevalence among them.

The traditional background of hijras is linked to high-risk behaviours such as alcohol and substance use. Lower literacy levels act as a barrier to accessing HIV information. Many hijras also report unfair treatment in healthcare settings with staff
lacking education on their specific needs. Indeed, there is a need for HIV interventions targeting this group.

In April 2014, the Indian Supreme Court recognised transgender people as a distinct gender. Many hope this ruling will lead to a decline in the stigma and discrimination faced by hijras and increase their access to HIV services.

**People who inject drugs (PWID) and HIV in India**

HIV prevalence among PWID in India has remained largely unchanged since 2007. 21-30 percent of PWID reside in north-eastern states where injecting drug use is the major route of HIV transmission. However, HIV prevention efforts in this region have reduced the number of new infections. HIV prevalence among PWID in north-western states is increasing. 177,000 People who inject drugs (PWID) with a 7.1 percent HIV prevalence were found in India.

Research has emphasized the need for early interventions for PWID in India. Indeed, many embark on a 'drug career' in their early teens using widely available substances such as tobacco and alcohol before progressing on to illegal drugs through a non-injecting route (e.g. orally or smoking) and eventually using shared needles and syringes putting them at risk of HIV transmission. It is only at this point that PWID are typically reached by harm reduction services.

**Migrant workers and HIV in India**

In India 7.2 million migrants with 1 percent HIV prevalence were found. Research worldwide has linked migration to increases in HIV transmission. In India, migrants act as a bridge population spreading HIV between urban and rural areas, and between high-risk and low-risk groups.

“Being mobile in and of itself is not a risk factor for HIV infection. It is the situations encountered and the behaviours possibly engaged in during mobility or migration that increases vulnerability and risk regarding HIV/AIDS.” 28

Despite being an important driver of the HIV epidemic in India, data on migrant sexual behaviour is limited. Moreover, migrants have been found to have low risk perception of HIV transmission compared with other high-risk groups. For example, one study in Andhra Pradesh found that 60 percent of female sex workers
acknowledged their risk to HIV infection compared with just 5 percent of male migrants. One study from south-west India has suggested targeting migrants locally as well as at their destination could have 1.6 times the impact of only targeting migrants at their destinations.

**Truck drivers and HIV in India**

A number of studies from India have reported the high vulnerability of truckers to HIV transmission with many engaging in high-risk behaviours - an estimated 36 percent of sex worker clients are truckers. Time away from home on the road, marital status, alcohol use, and income level has all been associated with visiting sex workers. There is no entertainment. In the absence of any source of entertainment they seek pleasure in visiting commercial sex worker. It is also well documented that the roadside dhabhas and hotel also supplied the commercial sex worker to them. When they came back to their family they involved themselves with unsafe sex with their wives. The data of HIV positive people in Haryana State tells that 44.4 percent of the HIV positive people were coming from transport & 37.7 were house wife also indicate house wives can hardly speaks to use condom and thus the HIV infection transfer from urban to rural areas. These factors, in combination with inconsistent condom use, mean truckers act as a bridge population transmitting HIV to their regular sexual partners and into the general population.

**HIV/AIDS Scenario in Haryana**

Haryana AIDS Control Society was established on 27 Feb, 1998 as per guidelines of National AIDS Control Organisation. All the programmes made by NACO are being implemented by this society in Haryana. All the data of HIV positive patients and AIDS patients were kept by this society. According to latest report on HIV/AIDS among Haryana found that there were more than 42000 HIV positive patients living in the state. Some of important data is as follows.

The data in table 1.2 indicate that majority i.e. 63.7 percent of HIV cases were male followed by 35.9 percent female and 0.4 percent were transgender among the HIV positive cases reported by ICTC between 2008 to Feb. 2013. The data also indicate that HIV positive cases are increasing with the years. Thus it
confirms the general belief that HIV positive cases are on increasing day by day in Haryana.

**Table 1.2: Distribution of HIV positive Cases in ICTC by Year wise in Haryana (2008 to Feb.2013)**

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of HIV cases (male)</th>
<th>No. of HIV cases (female)</th>
<th>No. of HIV cases (TG/ TS)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1700</td>
<td>1029</td>
<td>3</td>
<td>2732</td>
</tr>
<tr>
<td>2009</td>
<td>2028</td>
<td>1251</td>
<td>45</td>
<td>3324</td>
</tr>
<tr>
<td>2010</td>
<td>2314</td>
<td>1218</td>
<td>12</td>
<td>3544</td>
</tr>
<tr>
<td>2011</td>
<td>2440</td>
<td>1271</td>
<td>5</td>
<td>3716</td>
</tr>
<tr>
<td>2012</td>
<td>2532</td>
<td>1439</td>
<td>2</td>
<td>3973</td>
</tr>
<tr>
<td>2013</td>
<td>265</td>
<td>151</td>
<td>0</td>
<td>416</td>
</tr>
<tr>
<td>Total</td>
<td>11279</td>
<td>6359</td>
<td>67</td>
<td>17705</td>
</tr>
</tbody>
</table>

Percentage: 63.7 35.9 0.4

**Source:** Haryana State AIDS Control Society, Panchkula.

**Table 1.3: Distribution of HIV cases by Route of Transmission of HIV (2008 to Feb.2013)**

<table>
<thead>
<tr>
<th>Route of Transmission of HIV positive cases</th>
<th>Total number of HIV Positive Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual</td>
<td>14280</td>
<td>80.7</td>
</tr>
<tr>
<td>Homosexual/Bisexual</td>
<td>346</td>
<td>1.9</td>
</tr>
<tr>
<td>Through Blood &amp; Blood product</td>
<td>598</td>
<td>3.4</td>
</tr>
<tr>
<td>Through Infected Needles</td>
<td>600</td>
<td>3.4</td>
</tr>
<tr>
<td>Parent to Child</td>
<td>964</td>
<td>5.4</td>
</tr>
<tr>
<td>Not specified</td>
<td>917</td>
<td>5.2</td>
</tr>
<tr>
<td>Total</td>
<td>17705</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Source:** Haryana State AIDS Control Society, Panchkula.
The data in table 1.3 indicates the dominated route of HIV transmission found in the reported HIV positive cases in Haryana. It is found that an overwhelming majority i.e. 80.7 percent of the reported HIV cases got infection through heterosexual contact followed by 5.4 percent parent to child, 5.2 percent by unknown route, 3.4 percent got infection through blood & blood product and through infected needles and 1.9 percent by homosexual/bisexual contact. It is also observed that parent to child route of HIV transmission is the second largest route of HIV transmission found in Haryana.

**Table 1.4:- Occupational background of the HIV/AIDS patients in Haryana**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>PHLIV Regd. at HIV/Care</th>
<th>Percentage</th>
<th>PHLIV initiated ART</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student/unemployed</td>
<td>46</td>
<td>0.4</td>
<td>18</td>
<td>0.4</td>
</tr>
<tr>
<td>Laboures</td>
<td>1858</td>
<td>14.2</td>
<td>1002</td>
<td>14.3</td>
</tr>
<tr>
<td>Service</td>
<td>145</td>
<td>1.1</td>
<td>75</td>
<td>1.1</td>
</tr>
<tr>
<td>Self. Employed</td>
<td>241</td>
<td>1.8</td>
<td>139</td>
<td>1.9</td>
</tr>
<tr>
<td>House Wives</td>
<td>4942</td>
<td>37.7</td>
<td>2534</td>
<td>36.1</td>
</tr>
<tr>
<td>Retired</td>
<td>52</td>
<td>0.4</td>
<td>36</td>
<td>0.5</td>
</tr>
<tr>
<td>Transport Workers</td>
<td>5818</td>
<td>44.4</td>
<td>3206</td>
<td>45.7</td>
</tr>
<tr>
<td>Total</td>
<td>13102</td>
<td>100</td>
<td>7010</td>
<td></td>
</tr>
</tbody>
</table>

Source: RTI information supplied by Haryana AIDS Control Society, Panchkula

The table revealed that occupational background of the HIV positive people in the state. The study indicated that 44.4 percent cases of HIV positive patient belong to the transport work. The study also revealed that house wives with a 37.7 percent are the second largest HIV positive group in the state. 14.2 percent of the HIV positive belong to laboure class. 1.8 percent of the HIV cases are self employed. 1.1 percent of the HIV cases are service man and 0.4 percent of HIV positive is student and retired person. The study concluded 96.3 percent HIV positive are transport workers, house wives and labourer.
<table>
<thead>
<tr>
<th>Year</th>
<th>No. of AIDS Cases during the year</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1999</td>
<td>NA</td>
<td>70</td>
</tr>
<tr>
<td>2000</td>
<td>72</td>
<td>142</td>
</tr>
<tr>
<td>2001</td>
<td>76</td>
<td>218</td>
</tr>
<tr>
<td>2002</td>
<td>53</td>
<td>271</td>
</tr>
<tr>
<td>2003</td>
<td>68</td>
<td>339</td>
</tr>
<tr>
<td>2004</td>
<td>71</td>
<td>410</td>
</tr>
<tr>
<td>2005</td>
<td>198</td>
<td>608</td>
</tr>
<tr>
<td>2006</td>
<td>202</td>
<td>810</td>
</tr>
<tr>
<td>2007</td>
<td>207</td>
<td>1017</td>
</tr>
<tr>
<td>2008</td>
<td>275</td>
<td>1292</td>
</tr>
<tr>
<td>2009</td>
<td>229</td>
<td>1521</td>
</tr>
<tr>
<td>2010</td>
<td>181</td>
<td>1702</td>
</tr>
<tr>
<td>2011</td>
<td>389</td>
<td>2091</td>
</tr>
<tr>
<td>2012</td>
<td>494</td>
<td>2585</td>
</tr>
<tr>
<td>2013(Feb.)</td>
<td>73</td>
<td>2658</td>
</tr>
</tbody>
</table>

**Source:** Haryana State AIDS Control Society, Panchkula.

Data in table indicate that AIDS cases are increasing day by day in the Haryana state. In the 2000 year 72 AIDS cases were found whereas 73 AIDS cases were found in two months in 2013 which indicates that AIDS is becoming a serious problem before the citizens of Haryana. There were 2658 cases of full blown AIDS till Feb. 2013.
Table 1.6: Distribution of AIDS cases by Age group and sex in Haryana

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>50</td>
<td>15</td>
<td>65</td>
<td>2.45</td>
</tr>
<tr>
<td>15-29</td>
<td>498</td>
<td>174</td>
<td>672</td>
<td>25.28</td>
</tr>
<tr>
<td>30-44</td>
<td>1074</td>
<td>311</td>
<td>1385</td>
<td>52.11</td>
</tr>
<tr>
<td>45 &amp; &gt;</td>
<td>395</td>
<td>133</td>
<td>528</td>
<td>19.86</td>
</tr>
<tr>
<td>Not Specified</td>
<td>05</td>
<td>3</td>
<td>8</td>
<td>0.30</td>
</tr>
<tr>
<td>Total</td>
<td>2022</td>
<td>636</td>
<td>2658</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Haryana State AIDS Control Society, Panchkula

The table 1.6 also analyzed the age and sex distribution of AIDS cases in Haryana. It is found that 76 percent of the AIDS patients were male and remaining 24 percent were female. More than half i.e. 52.1 percent were coming from age bracket of 30-44 years. One-fourth i.e. 25.3 percent were coming from the age bracket of 15-29 years. Thus it become clear that more than three-fourth i.e. 77.4 percent were between 15-44 years of age which is most productive and sexually active age. The data also confirms the general beliefs and fact that majority of the HIV positive people were coming from young age group.

Table 1.7: Distribution of AIDS cases by Route of transmission of in Haryana

<table>
<thead>
<tr>
<th>Mode of HIV transmission</th>
<th>Numbers of AIDS Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Route</td>
<td>2290</td>
<td>88.49</td>
</tr>
<tr>
<td>Through Blood Transfusion</td>
<td>100</td>
<td>3.86</td>
</tr>
<tr>
<td>Through infected needles &amp; syringes</td>
<td>87</td>
<td>3.36</td>
</tr>
<tr>
<td>Others</td>
<td>111</td>
<td>4.29</td>
</tr>
<tr>
<td>Total</td>
<td>2588</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Haryana State AIDS Control Society, Panchkula.
The data in table indicates the route of HIV transmission in the state of Haryana. It is found that sexual route (88.49 percent) of HIV transmission was predominant mode of HIV transmission among the AIDS cases in Haryana followed by through blood transfusion (3.86 percent), through infected needles & syringes and other (4.29 percent). Thus it become clear that sexual route of HIV transmission is pre dominated route in Haryana. (Route of transmission of 70 AIDS cases detected up to Dec. 1999 is not available with office i.e. Haryana State AIDS Control Society)

About a one-fifth i.e. 19.9 percent of AIDS patients were coming from the age bracket of more than 45 years of age. The data also indicated that there were 2.5 percent of AIDS patients in the state who were between the age 0-14 year. So it can be concluded that two-third (77.4 percent) of AIDS patients were below 45 year age and two-third (76 percent) were males.

**HIV/AIDS Scenario in Kaithal District, of Haryana**

Kaithal district is situated in the northwest of the state of Haryana; it is surrounded by Kurukshetra in the north, Jind in the south, Karnal in the east and shares its northwest boundaries with Patiala, Punjab. Kaithal has a population of 10.72 lakhs with a sex ratio of 880 females per 1,000 males, and a female literacy rate of 60.70 percent with an overall literacy rate of 70.60 percent (as per Census 2011). Agriculture is the major occupation in Kaithal, the main crops grown in the district are rice and wheat. The district possesses a rich cultural and historical heritage in the form of historical monuments. It is well connected to Delhi, Chandigarh and many districts in Punjab by road and railways. National Highway 65 connects Kaithal to other districts of Haryana and other states.
Table 1.8: Distribution of HIV positive cases by Year wise in Kaithal District

<table>
<thead>
<tr>
<th>Year</th>
<th>HIV Positive cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>07</td>
</tr>
<tr>
<td>2003</td>
<td>11</td>
</tr>
<tr>
<td>2004</td>
<td>34</td>
</tr>
<tr>
<td>2005</td>
<td>27</td>
</tr>
<tr>
<td>2006</td>
<td>45</td>
</tr>
<tr>
<td>2007</td>
<td>75</td>
</tr>
<tr>
<td>2008</td>
<td>83</td>
</tr>
<tr>
<td>2009</td>
<td>130</td>
</tr>
<tr>
<td>2010</td>
<td>122</td>
</tr>
<tr>
<td>2011</td>
<td>107</td>
</tr>
<tr>
<td>2012</td>
<td>115</td>
</tr>
<tr>
<td>2013</td>
<td>127</td>
</tr>
<tr>
<td>2014</td>
<td>158</td>
</tr>
<tr>
<td>Total</td>
<td>1041</td>
</tr>
</tbody>
</table>

Source: Amar Ujala Dated 1 December 2014 page 1 Kaithal My City

In the year 2002 there were only 7 HIV positive cases in the district which is continue on increasing. Now according to latest data released by district health administration it goes beyond one thousand HIV positive cases in the district. Inspite of HIV/AIDS awareness program run by district health administration the positive cases are on increasing day by day. However there were 5 ICTC centres working in the district at Kaithal, Kalayat, Rajound, Gulha-Cheeka and Pundri and one link ART centre working at district level.

1.13: Problem of the Present Study

It is well documented by lot of research that truck drivers are coming in high risk group of HIV infection due to the nature of their occupation and it is confirmed by the reports of different organisation on the data of HIV positive people. The
researcher sought the information about the occupational background of the HIV positive people in the state through Right to Information Act 2005. The information provided by Haryana AIDS Control Society indicated that 44.4 percent cases of HIV positive patient belong to the transport work. The study also revealed that house wives with a 37.7 percent are the second largest HIV positive group in the state. 14.2 percent of the HIV positive belong to labourer class. 1.8 percent of the HIV cases are self employed. 1.1 percent of the HIV cases are service man and 0.4 percent of HIV positive is student and retired person. The study concluded 96.3 percent HIV positive are transport workers, house wives and labourer.

Keeping in view the above fact, the present study will concentrate on the “Knowledge, Attitude and Practices about HIV/AIDS among the Truck Drivers – A study of Haryana”. As till today no research has been conducted about Knowledge, Attitude and Practices about HIV/AIDS among the Truck drivers in Haryana and especially in Kaithal District, so the present study is an effort to understand the knowledge level of the truck drivers, their attitude towards Sex and HIV/AIDS and behavioural practices about HIV/AIDS. Presence of 1041 HIV/AIDS positive people in the District (Source: Amar Ujala Dated 1 December 2014 page 1 Kaithal My City) make this study very important.