CHAPTER – I

INTRODUCTION

1.1 EDUCATION

A human being has many special features. He has the abilities of speaking and thinking. Generally man likes to be active. He has the aspiration to achieve progress. Education is mainly responsible for man’s thinking and achievement and all round development and progress. Education is the key for progress and development.

Education has occupied an important place in the life of man from times immemorial. In other words it can be said that education is as old human race itself. Education has always been accorded an honored place all over the world. It is a process which starts at the birth of a person and goes on till his death. Discussing the importance of Education it is rightly pointed out in Rig-Veda that “Education is the source of all illumination. It means that without education one cannot think of any progress. For every improvement education is a must. It is a powerful instrument in bringing about a change in man and society. Further, to adjust to the changes of society one needs education. Emphasizing the importance of education and linking it with the national productivity, national objectives, life needs and aspirations of the people, the Indian Education Commission of 1964 advocated that, education is the only instrument through which one can bring about a change in Indian society on a grand scale without violent revolution.

Etymologically Education is derived from three Latin words “educere”, “educare” and “educatum”. ‘Educere’ means to ‘lead out’ or ‘to draw out’. This term implies that every individual has some potential or the inner capabilities, and one may not be aware of his or her innate potentials. Education helps to bring out ‘draw-out’ or
`lead-out these potentials. That is one realizes about his capabilities and develop them through Education.

The Latin word ‘educare’ means ‘to bring up’ to train or mould. After drawing out the potentials in an individual, education has another task to perform, that is to mould, alter and apply the innate powers or capacities that are drawn out or brought out. The Latin term ‘education’ is comprised of two ‘e’ and ‘duco’ which means ‘out of’ and ‘to lead’ respectively. These term once again emphasis the meaning of the words – ‘educere’ and ‘educare’. In Indian context ‘vidya’ is derived from ‘vid’ which means to know. This clearly implies that education is gaining knowledge.

1.1.1 Education and Society

Learning is the nature of child. His life itself has given him a great ability to learn. So the famous educator Pestalozzi said ‘Education is our birth right’ Education is important for both individual and society. The working of society is impossible without education. In fact human life begins with education; the fulfillment of the needs of human life is possible only through education. We all know that man lives in society. Society wants each of its members to perform his duties towards it. By education man would forms proper attitude to life. Education shows us some ways by which we can solve the problems of life.

Education is one of the most important sub-systems of a society. This sub system is strategically very important because it generates both finite and infinite power. The quality of educational power helps in shaking the pattern of society. A healthy system of education would become ensures physical, mental, economic development of the people.

Education becomes dynamic process to create continuity faith and enthusiasm for progress to the people. Education is the study of the teaching and learning process
in its various branches directed towards helping the child in terms with society with a most of security and satisfaction.

The encyclopedia of education research is framed to modify behaviour of education in desirable and socially approved channels. In society one should develop the personality only through education. Any principle, rules, regulation or moral code which guides and governs individual behaviour in order to promote trust of good will among the member of society.

Through the education only good and interaction and personal relationships are possible. In India society liberty, fraternity and justice have been regarded base for Indian constitution. As well as unfortunately is a country like ours having multifarious societal problems also. There are untouchability, superstitious, child hood marriages, poverty, unemployment, illiteracy, increasing the ratio of disease like AIDS as well decreasing the level of health condition etc.

Illiteracy is major problem of India in the present context. As we all know still we are in the illiteracy range of 74% and in many states the literacy rate is below 40% many of the illiterates are women because of discrimination of sex This is a major problem especially in the rural India women population especially in India is high and the education of the group is still miserable thing in some rural places in India. Superstitions basically India is a culturally bound society where people believe in supernatural things. Their belief profoundly found especially in the rural and remote areas. This is one of the causes for social lag.

Unemployment is worst and dangerous problem especially in the developing countries. If we take the Indian context the major unemployment problem is affecting the total economy of the country and it affect drastically in the individuals life and social life also.
Untouchability is still in practice in some parts of the country the main reason for this evil is poverty, caste system and illiteracy etc. AIDS is one more societal problem facing by the all nations in the world. Over population is the root cause for all the above problems. As the population increases, all the social problems affects enormously the individuals life.

AIDS is a disease which is also a social problem. All nations in the world are facing this problem. Mostly youngsters facing this problem that to adolescence are majority of them. So adolescent reproductive heath education should be made compulsory part in schools and college syllabus. Due to lack of knowledge towards ‘majority of the current generation faces undesirable effects of physical mental and various sexually transmitted diseases including AIDS. Currently India stands 2\textsuperscript{nd} place for AIDS in the world and Karnataka occupies 3\textsuperscript{rd} place for AIDS in India.

The HIV-AIDS pandemic has become a human, social and economic disaster, with far-reaching implications for individuals, communities and countries. Each year there are more and more new HIV infections, which shows that people either aren’t learning the massage about the dangers of HIV, are unable to act on it. Education has a key role play both in preventing HIV-AIDS and mitigating its effects on individuals, families, communities and society.

All over the world HIV-AIDS is causing deviation destroying communities and families and taking away hope for the future. The impacts of HIV-AIDS are many, in the absence of a cure and most cases in the absence of adequate treatment HIV-AIDS diminishes or destroys quality of life before it take away life itself. Its emotional and economic impact on life quality affects family, friend and community. It affects production as well as household incomes and expenditures; it posses major problems for health system and health care practices; it diminishes the capacity of
societies to provide essential services and plan for the future; and it threatens good
governance and human security.

Expansion and improvement of HIV and AIDS Education around the world is
critical to preventing the spread of HIV. There are an estimated 34 million people
living with the virus, and each year millions more people become infected. Effective
HIV and AIDS Education can help prevent new infections by providing people with
information about HIV and how it is passed on, and in doing so equip individuals with
the knowledge to protect themselves from becoming infected with the virus.

HIV and AIDS Education also plays vital role in reducing stigma and
discrimination. Around the world, there continues to be a great deal of fear and
stigmatization of people living with HIV, which is fuelled by misunderstanding and
misinformation. This not only has a negative impact on people living with HIV, but
can also fuel the spread of HIV by discouraging people from seeking testing and
treatment.

Education is the best investment, any society can make for the health and well-
being of its children, as well as its economic and social progress. Education is
development. It creates choices and opportunities for people, reduces the twin burdens
of poverty and diseases, and gives a stronger voice in society.

1.2 HISTORY AND ORIGIN OF HIV-AIDS

History begins with the origin of HIV, monkeys and apes. West African non-
human primates have a disease of their own, labeled Simian Immunodeficiency Virus
(SIV). The majority of HIV researchers agree that HIV evolved at some point from
the closely related Simian Immunodeficiency virus (SIV) or HIV was transferred
from non-human primates to humans in the recent past (as a type of zoonosis).
Research in this area is conducted using molecular phylogenetics, comparing viral
genomic sequences to determine relatedness. Currently, scientists believe that in the
1800s humans hunted chimpanzees for food and came into contact with their infected
blood, allowing the virus to jump species and mutate into what is now HIV. This virus
spread throughout Africa and entered the United States in the mid to late 70s. The
world became aware of AIDS in the 1980s when a growing number of gay men in
New York and California were suffering from rare types of pneumonia and cancer.
This occurred as doctors in Uganda reported an unusual wasting disease. One of the
first terms describing the disease was Gay Related Immune Deficiency Syndrome
(GRIDS). Imagine if you can, or maybe you were there, panic of disease that caused a
wasting and horrible death. You don’t know how it spreads, you don’t know how
quickly it builds up in the body, and you don’t even really know why. This further
fueled stigma and prejudice against gay community. Evicted, barred from attending
schools, and without treatment, those diagnosed with it faced horrible conditions.

However, activists of the time fought for money to conduct research and
science was able to piece together what was happening. In 1985 the first blood test to
detect HIV was approved, the same year a fresh needle exchange programme was
started in Amsterdam. In 1986 the failed cancer drug AZT was tested on HIV and
found to be so successful it was provided to the placebo group. In the ‘90s doctors
began to prescribe combinations of medication to help control the virus, often referred
to as cocktails. Most often they are a combination of antiretroviral medications.

The Morbidity and Mortality Weekly Reported in 1981 on what was later to
be called ‘AIDS’. AIDS was first clinically observed in 1981 in the United States. The
initial cases were a cluster of injecting drug users and homosexual men with no
known cause of impaired immunity who showed symptoms of Pneumocystis carini
pneumonia a rare opportunistic infection that was known to occur in people with very
compromised immune systems. Soon thereafter an unexpected number of gay men
developed a previously rare skin cancer called Kaposi’s sarcoma many more cases of
Pneumocystis carini pneumonia and Kaposi’s sarcoma emerged alerting Untied state
centers for disease control and prevention task force was formed to monitor outbreak.

Robert Gallo co-discoverer of HIV in the early eighties among Sandra Eva,
Sandra Colombini and Ersell Richardson. In the early days the CDC did not have an
official name for the disease often referring to it by way of the diseases that were
associated with it for example lymphadenopathy the disease after which the
discoverers of HIV originally named the virus. They also used Kaposi’s Sarcoma and
opportunistic infections the name by which a task force had been set up in 1981. At
one point the CDC coined the phrase “the 4H disease” since the syndrome seemed to
affect Haitians, homosexuals, hemophiliacs and heroin users. In general press the term
‘GRID’ which stood for gay-related immune deficiency, had been coined however
after determining that AIDS was not isolated to the gay community it was realized
that the term GRID was misleading and the term AIDS was introduced at meeting in
July 1982. By September 1982 the CDC started referring to the disease as AIDS.

In 1983 two separate research groups led by Robert Gallo and Luc Montagnier
independently declared that a novel retrovirus may have been infecting AIDS patients
and published their findings in the same issue of the journal Science. Gallo claimed
that a virus his group had isolated from an AIDS patient was strikingly similar in
shape to other human T-lymphotropic viruses his group had been that first to isolate.
Gallo’s group called their newly isolated virus HTLV-III. At the same time
Montagnier’s group isolated a virus from a patient presenting with swelling of the
lymph nodes of the neck and physical weakness two characteristic symptoms of
AIDS. Contradicting the report from Gallo’s group Montagnier and his colleagues
showed that core proteins of this virus were immunologically different from those of HTLV-I. Montagnier's group named their isolated virus lymphadenopathy-associated virus. As these two viruses turned out to be the same in 1986 LAV and HTLV-III were renamed HIV.

In 2013 the news announced a baby born with HIV was cured. The antiretroviral treatment was behind the miraculous cure; the medication was administered shortly after birth.

1.3 SYMPTOMS OF HIV-AIDS INFECTION

The initial period following the contraction of HIV is called acute HIV, primary HIV or acute retroviral syndrome. Many individuals develop an influenza-like illness or a mononucleosis-like illness 2–4 weeks post exposure while others have no significant symptoms.

- Fever
- Large tender lymph nodes
- Throat inflammation
- Rash
- Headache

Symptoms occur in 40–90% of cases and most commonly include fever, large tender lymph nodes, throat inflammation, a rash, headache, and/or sores of the mouth and genitals. The rash, which occurs in 20–50% of cases, presents itself on the trunk and is maculopapular, classically. Some people also develop opportunistic infections at this stage. Gastrointestinal symptoms such as nausea, vomiting or diarrhea may occur, as may neurological symptoms of peripheral neuropathy or Guillain Barre syndrome. The duration of the symptoms varies, but is usually one or two weeks. Due to their nonspecific character, these symptoms are not often recognized as signs of
HIV infection. Even cases that do get seen by a family doctor or a hospital are often misdiagnosed as one of the many common infection diseases with overlapping symptoms. Thus, it is recommended that HIV be considered in patients presenting an unexplained fever who may have risk factors for the infection.

**Symptoms of AIDS**

Acquired immunodeficiency syndrome (AIDS) is defined in terms of either a CD4 T cell count below 200 cells per µL or the occurrence of specific diseases in association with an HIV infection. In the absence of specific treatment, around half of people infected with HIV develop AIDS within ten years. The most common initial conditions that alert to the presence of AIDS are pneumocystis pneumonia (40%), cachexia in the form of HIV wasting syndrome (20%) and esophageal candidacies. Other common signs include recurring respiratory tract infections. Opportunistic infections may be caused by bacteria, viruses, fungi, and parasites that are normally controlled by the immune system. Which infections occur partly depends on what organisms are common in the person’s environment. These infections may affect nearly every organ system. People with AIDS have an increased risk of developing various viral induced cancers including Kaposi’s sarcoma, Burkett’s, primary central nervous system lymphoma, and cervical cancer. Kaposi’s sarcoma is the most common cancer occurring in 10% to 20% of people with HIV. The second most common cancer is lymphoma which is the cause of death of nearly 16% of people with AIDS and is the initial sign of AIDS in 3% to 4%. Both these cancers are associated with human herpes virus Cervical cancer occurs more frequently in those with AIDS due to its association with human papillomavirus. people with AIDS frequently have systemic symptoms such as prolonged fevers, sweats swollen lymph nodes, chills, weakness, and weight loss. Diarrhea is another common symptom.
present in about 90% of people with AIDS. They can also be affected by diverse psychiatric and neurological symptoms independent of opportunistic infections and cancers.

The symptoms of HIV and AIDS vary, depending on the phase of infection. The majority of people infected by HIV develop a flu-like illness within a month or two after the virus enters the body. This illness, known as primary or acute HIV infection, may last for a few weeks. Possible symptoms include:

- Fever
- Muscle soreness
- Rash
- Headache
- Sore throat
- Mouth or genital ulcers
- Swollen lymph glands, mainly on the neck
- Joint pain
- Night sweats
- Diarrhea

Although the symptoms of primary HIV infection may be mild enough to go unnoticed, the amount of virus in the blood stream (viral load) is particularly high at this time. As a result, HIV infection spreads more efficiently during primary infection than during the next stage of infection.

**Progression to AIDS**

If you receive no treatment for your HIV infection, the disease typically progresses to AIDS in about 10 years. By the time AIDS develops, your immune

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1 [www.mayoclinic.org/diseases.../hiv-aids/basics/symptoms/con-20013732](www.mayoclinic.org/diseases.../hiv-aids/basics/symptoms/con-20013732)
system has been severely damaged, making you susceptible to opportunistic infections diseases that wouldn’t trouble a person with a healthy immune system. The signs and symptoms of some of these infections may include:

- Soaking night sweats
- Shaking chills or fever higher than 100°F (38°C) for several weeks
- Cough and shortness of breath
- Chronic diarrhea
- Persistent white spots or unusual lesions on your tongue or in your mouth
- Headaches
- Persistent, unexplained fatigue
- Blurred and distorted vision
- Weight loss
- Skin rashes or bumps

### 1.4 CAUSES OF HIV-AIDS

**Table 1.1: Average peractrisk of getting HIV by exposure rout to an infected source**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Exposure route</th>
<th>Chance of infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Blood transfusion</td>
<td>90%</td>
</tr>
<tr>
<td>2</td>
<td>Child birth</td>
<td>25%</td>
</tr>
<tr>
<td>3</td>
<td>Needle- Sharing injection drug use</td>
<td>0.67%</td>
</tr>
<tr>
<td>4</td>
<td>Percutaneous needle stick</td>
<td>0.30%</td>
</tr>
<tr>
<td>5</td>
<td>Receptive anal intercourse</td>
<td>0.04-3.0%</td>
</tr>
<tr>
<td>6</td>
<td>Insertive anal intercourse</td>
<td>0.03%</td>
</tr>
<tr>
<td>7</td>
<td>Receptive penile-vaginal intercourse</td>
<td>0.05-0.30%</td>
</tr>
<tr>
<td>8</td>
<td>Insertive penile-vaginal intercourse</td>
<td>0.01-0.38%</td>
</tr>
<tr>
<td>9</td>
<td>Receptive oral intercourse</td>
<td>0.0-0.04%</td>
</tr>
<tr>
<td>10</td>
<td>Insertive oral intercourse</td>
<td>0-0.005%</td>
</tr>
</tbody>
</table>
HIV is Transmitted by Three Main Routes

1. Sexual: The most frequent mode of transmission of HIV is through sexual contact with an infected person. The majority of all transmissions worldwide occur through heterosexual contacts however, the pattern of transmission varies significantly among countries. In the United States, as of 2009, most sexual transmission occurred in men who had sex with men, with this population accounting for 64% of all new cases.

As regards unprotected heterosexual contacts, estimates of the risk of HIV transmission per sexual act appear to be four to ten times higher in low-income countries than in high-income countries. In low-income countries, the risk of female-to-male transmission is estimated as 0.38% per act, and of male-to-female transmission as 0.30% per act; the equivalent estimates for high-income countries are 0.04% per act for female-to-male transmission, and 0.08% per act for male-to-female transmission. The risk of transmission from anal intercourse is especially high, estimated as 1.4 to 1.7% per act in both heterosexual and homosexual contacts. While the risk of transmission from oral sex is relatively low, it is still present. The risk from receiving oral sex has been described as “nearly nil” however a few cases have been reported. The per-act risk is estimated at 0–0.04% for receptive oral intercourse. In settings involving prostitution in low income countries, risk of female-to-male transmission has been estimated as 2.4% per act and male-to-female transmission as 0.05% per act.

Risk of transmission increases in the presence of many sexually transmitted infections and genital ulcers Genital ulcers appear to increase the risk approximately fivefold. Other sexually transmitted infections, such as gonorrhea, Chlamydia,
trichomoniasis, and bacterial vaginosis, are associated with somewhat smaller increases in risk of transmission.

The viral load of an infected person is an important risk factor in both sexual and mother-to-child transmission. During the first 2.5 months of an HIV infection a person’s infectiousness is twelve times higher due to this high viral load. If the person is in the late stages of infection, rates of transmission are approximately eightfold greater.

Commercial sex workers have an increased rate of HIV. Rough sex can be a factor associated with an increased risk of transmission. Sexual assault is also believed to carry an increased risk of HIV transmission as condoms are rarely worn, physical trauma to the vagina or rectum is likely, and there may be a greater risk of concurrent sexually transmitted infections.

2. **Body fluids:** CDC poster from 1989 highlighting the threat of AIDS associated with drug use. The second most frequent mode of HIV transmission is via blood and blood products. Blood-borne transmission can be through needle-sharing during intravenous drug use, needle stick injury, transfusion of contaminated blood or blood product, or medical injections with unsterilized equipment. The risk from sharing a needle during drug injection is between 0.63 and 2.4% per act, with an average of 0.8%. The risk of acquiring HIV from a needle stick from an HIV-infected person is estimated as 0.3% per act and the risk following mucus membrane exposure to infected blood as 0.09% per act. In the United States intravenous drug users made up 12% of all new cases of HIV in 2009 and in some areas more than 80% of people who inject drugs are HIV positive.

HIV is transmitted in about 93% of blood transfusions involving infected blood. In developed countries the risk of acquiring HIV from a blood transfusion is
extremely low where improved donor selection and HIV screening is performed; for example, in the UK the risk is reported at one in five million. In low income countries, only half of transfusions may be appropriately screened, and it is estimated that up to 15% of HIV infections in these areas come from transfusion of infected blood and blood products, representing between 5% and 10% of global infections.

Unsafe medical injections play a significant role in HIV spread in sub-Saharan Africa. In 2007, between 12 and 17% of infections in this region were attributed to medical syringe use. The World Health Organization estimates the risk of transmission as a result of a medical injection in Africa at 1.2%. Significant risks are also associated with invasive procedures, assisted delivery, and dental care in this area of the world. People giving or receiving tattoos, piercings, and scarification are theoretically at risk of infection but no confirmed cases have been documented. It is not possible for mosquitoes or other insects to transmit HIV.

3. **Mother-to-child**: HIV can be transmitted from mother to child during pregnancy, during delivery, or through breast milk. This is the third most common way in which HIV is transmitted globally. In the absence of treatment, the risk of transmission before or during birth is around 20% and in those who also breastfeed 35%. As of 2008, vertical transmission accounted for about 90% of cases of HIV in children. With appropriate treatment the risk of mother-to-child infection can be reduced to about 1%. Preventive treatment involves the mother taking antiretroviral during pregnancy and delivery, an elective caesarean section, avoiding breastfeeding, and administering antiretroviral drugs to the newborn. Many of these measures are however not available in the developing world. If blood contaminates food during pre-chewing it may pose a risk of transmission.
1.5 STAGES OF HIV-AIDS

HIV infection can generally be broken down into four distinct stages.

Stage 1: Primary HIV infection: This stage of infection lasts for a few weeks and is often accompanied by a short flu-like illness. In up to about 20 percent of people HIV symptoms are serious enough to consult a doctor, but the diagnosis of HIV infection is frequently missed. During this stage there is a large amount of HIV in the peripheral blood and immune system begins to respond to the virus by producing HIV antibodies and cytotoxic lymphocytes. This process is known as seroconversion. If an HIV antibody test is done before seroconversion is complete then it may not be positive.

Stage 2: Clinically asymptomatic stage: This stage lasts for an average of ten years and, its name suggests, is free from major symptoms, although there may be swollen glands. Level of HIV in peripheral blood drops to very low levels but people remain infectious and HIV antibodies are detectable in the blood, so antibody tests will show a positive result. Research has shown that HIV is not dormant during this stage, but is very active in the lymph nodes. A test which available to measure the small amount of HIV that escapes the lymph nodes. This test which measures HIV RNA is referred to as the viral load test, and it has an important role in the treatment of HIV infection.

Stage 3: Symptomatic HIV infection: Over time the immune system becomes severely damaged by HIV. This is thought to happen for three main reasons:

- The lymph nodes and tissues become damaged or burnt out because of the years of activity.
- HIV mutates and becomes more pathogenic, in other words stronger and more varied, leading to more T helper cell destruction;
- The body fails to keep up with replacing the T helper cells that are lost.

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3 avert.org/stages-hiv-infection.html
Antiretroviral treatment is usually started once an individual’s CD4 count (the number or T helper cells) drops to a low level an indication that the immune system therefore HIV infected individuals on treatment usually clinically asymptomatic. However in HIV infected individuals not receiving treatment or on treatment that is not working the immune system fails and symptoms develop. Initially many of the symptoms are mild but as the immune system deteriorates the symptoms worsen. Symptomatic HIV infection is mainly caused by the emergence of certain opportunistic infections that the immune system would normally prevent. This stage of HIV infection is often characterized by multi-system disease and infections can occur in almost all body systems. Treatment for the specific infection is often carried out but underlying cause is the action of HIV as it erodes the immune system. Unless HIV itself can be slowed down the symptoms of immune suppression will continue to worsen.

**Stage 4: Progression from HIV to AIDS:** As the immune system becomes more and more damaged the individual may develop increasingly severe opportunistic infections and leading eventually to an AIDS diagnosis. A clinical criteria is used by WHO to diagnose the progression to AIDS this differs slightly between adults and children under five. In adults and children the progression to AIDS is diagnosed when any condition listed in clinical stage 4 is diagnosed and/or a CD4 count is less than 200 cells or a CD4 percentage less than 15. In children younger than five an AIDS diagnosis is based on having any stage 4 condition and CD4 percentage less than 20 and a CD4 percentage less than 25. The criteria for diagnosing AIDS may differ depending on individual country guidelines.
1.6 DIAGNOSIS OF HIV-AIDS

Most people infected with HIV develop specific antibodies within three to twelve weeks of the initial infection. Diagnosis of primary HIV before seroconversion is done by measuring HIV-RNA. Positive results obtained by antibody or PCR testing are confirmed either by a different antibody or by PCR.

Antibody tests in children younger than 18 months are typically inaccurate due to the continued presence of maternal antibodies. Thus HIV infection can only be diagnosed by PCR testing for HIV RNA or DNA, or via testing for the p24 antigen. Much of the world lacks access to reliable PCR testing and many places simply wait until either symptoms develop or the child is old enough for accurate antibody testing. In sub-Saharan Africa as of 2007–2009 between 30 and 70% of the population was aware of their HIV status. In 2009, between 3.6 and 42% of men and women in Sub-Saharan countries were tested which represented a significant increase compared to previous years.

ELISA Test

It is a easiest cheapest and most widely used test. It is an enzyme linked immunosorbent assay which was originally developed to screen donated blood. Some time the test is so sensitive that it will react to other antibodies besides HIV in this case the lab would perform western blot confirmation test. It will take usually 5-10 days. In ELISA special electronic instrument measures color changes in serum when antibodies exposed to HIV.

Window Period

Most people who are infected with HIV will test positive within three weeks to six month of being infected. The period of time is Window Period. The after infection before the HIV test turns positive is called time between the window period.
Tests to Tailor Treatment of HIV-AIDS

If you receive a diagnosis of HIV/AIDS, several types of tests can help your doctor determine what stage of the disease you have. These tests include:

- **CD4 count**: CD4 cells are a type of white blood cell that’s specifically targeted and destroyed by HIV. A healthy person’s CD4 count can vary from 500 to more than 1,000. Even if a person has no symptoms, HIV infection progresses to AIDS when his or her CD4 count becomes less than 200.

- **Viral load**: This test measures the amount of virus in your blood. Studies have shown that people with higher viral loads generally fare more poorly than do those with a lower viral load.

- **Drug resistance**: This blood test determines whether the strain of HIV you have will be resistant to certain anti-HIV medications and ones that may work better.

Infections Common to HIV-AIDS

- **Tuberculosis (TB)**: In resource-poor nations, TB is the most common opportunistic infection associated with HIV and a leading cause of death among people living with AIDS. Millions of people are currently infected with both HIV and tuberculosis, and many experts consider the two diseases twin epidemics.

- **Salmonellosis**: You contract this bacterial infection from contaminated food or water. Symptoms include severe diarrhea, fever, chills, abdominal pain and, occasionally, vomiting. Although anyone exposed to salmonella bacteria can become sick, salmonellosis is far more common in people who are HIV-positive.

- **Cyto Megalo Virus (CMV)**: This common herpes virus is transmitted in body fluids such as saliva, blood, urine, semen and breast milk. A healthy immune system inactivates the virus, and it remains dormant in your body. If your immune

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<sup>4</sup> www.mayoclinic.org/diseases-conditions/hiv-aids/basics
system weakens, the virus resurfaces — causing damage to your eyes, digestive tract, lungs or other organs.

- **Candidacies:** Candidacies is a common HIV-related infection. It causes inflammation and a thick white coating on the mucous membranes of your mouth, tongue, esophagus or vagina. Children may have especially severe symptoms in the mouth or esophagus, which can make eating painful and difficult.

- **Cryptococcus meningitis:** Meningitis is an inflammation of the membranes and fluid surrounding your brain and spinal cord. Cryptococcus meningitis is a common central nervous system infection associated with HIV, caused by a fungus that is present in soil. It may also be associated with bird or bat droppings.

- **Toxoplasmosis:** This potentially deadly infection is caused by Toxoplasma Gondi, a parasite spread primarily by cats. Infected cats pass the parasites in their stools, and the parasites may then spread to other animals.

- **Cryptosporidiosis:** This infection is caused by an intestinal parasite that’s commonly found in animals. You contract cryptosporidiosis when you ingest contaminated food or water. The parasite grows in your intestines and bile ducts, leading to severe, chronic diarrhea in people with AIDS.

1.7 TREATMENT AND DRUGS OF HIV-AIDS

There’s no cure for HIV/AIDS, but a variety of drugs can be used in combination to control the virus. Each of the classes of anti-HIV drugs blocks the virus in different ways. It’s best to combine at least three drugs from two different classes to avoid creating strains of HIV that are immune to single drugs. The classes of anti-HIV drugs include:

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5 www.mayoclinic.org/diseases-conditions/hivtreatment/con
• **Non-nucleoside reverse transcriptase inhibitors (NNRTI):** NNRTIs disable a protein needed by HIV to make copies of itself. Examples include efavirenz (Sustiva), etravirine (Intelenene) and nevirapine (Viramune).

• **Nucleoside reverse transcriptase inhibitors (NRTI):** NRTIs are faulty versions of building blocks that HIV needs to make copies of itself. Examples include Abacavir (Ziagen), and the combination drugs emtricitabine and tenofovir (Truvada), and lamivudine and zidovudine (Combivir).

• **Protease inhibitors (PIs):** PIs disable protease, another protein that HIV needs to make copies of itself. Examples include atazanavir (Reyataz), darunavir (Prezista), fosamprenavir (Lexiva) and ritonavir (Norvir).

• **Entry or fusion inhibitors:** These drugs block HIV’s entry into CD4 cells. Examples include enfuvirtide (Fuzeon) and maraviroc (Selzentry).

• **Integrase inhibitors:** Raltegravir (Isentress) works by disabling integrase, a protein that HIV uses to insert its genetic material into CD4 cells.

**When to Start Treatment**

Current guidelines indicate that treatment should begin if:

• You have severe symptoms

• Your CD4 count is under 500

• You’re pregnant

• You have HIV-related kidney disease

• You’re being treated for hepatitis B

**Treatment can be Difficult**

HIV treatment regimens may involve taking multiple pills at specific times every day for the rest of your life. Side effects can include:

• Nausea, vomiting or diarrhea

• Abnormal heartbeats
• Shortness of breath
• Skin rash
• Weakened bones
• Bone death, particularly in the hip joints

Lifestyle and Home Remedies

Although it’s important to receive medical treatment for HIV/AIDS, it’s also essential to take an active role in your own care. The following suggestions may help you stay healthy longer:

➢ **Eat healthy foods:** Emphasize fresh fruits and vegetables, whole grains and lean protein. Healthy foods help keep you strong, give you more energy and support your immune system.

➢ **Avoid certain foods:** Food borne illnesses can be especially severe in people who are infected with HIV. Avoid unpasteurized dairy products, raw eggs and raw seafood.

1.8 AWARENESS ABOUT HIV-AIDS

It is important to create HIV awareness among the general population. Every year the numbers of newly infected people are growing. According to the survey thirty-three million people are living with the HIV infection. Moreover, the process is still going on. People should know about HIV. There are many misunderstandings about HIV and AIDS in the minds of people. As a result of this they are discouraged and transmitting the infection to others unknowingly. HIV education will be the best option for creating the awareness among people. It should be provided at every place. Every doubt regarding HIV should be cleared. The basic information about HIV should be provided. The following information should be given to them. What is HIV? How does HIV transmit to others? How does AIDS develop? Stages of HIV
infection? Various tests for HIV. Living with HIV. Various sexually transmitted diseases. HIV infection. The education should not be only for the children or for adults, but for everyone in the society. It should be for the every strata of the society.

- **World Health Organization** is creating the awareness among people by organizing the campaigns in the remote areas as well as in city area. The aim of the organization is to provide the information about HIV and AIDS and preventing people from the HIV infection. Africa is mostly affected country by AIDS. There are lots of reasons behind it. Ignorance about HIV, lack of medical facilities, cultural obstacles etc.

- **Red Ribbon Club**: RRC is the international symbol of HIV-AIDS awareness. It is being worn by increasing number of people around the world to demonstrate their care and concern about HIV-AIDS for those who are living with HIV, for those who are living with HIV, for those who are ill, for those who have died and for those who care for and support those directly affected.

- **NGOs** are working there for controlling the infection. They are creating the awareness in that area. However, it is important to provide the information on various places like schools, colleges, various educational and other organizations as well as work places.

- **NACO**: National AIDS Control Organization carries out the country’s National AIDS Programme which includes formulation of policy and implementation of prevention and control Programmes.

- **IEC**: Information Education and Communication Programme is launched as one of the most important preventive strategies in the fight against HIV-AIDA. IEC is a process that informs motivates and helps people to adopt and maintain healthy practices and life skills.
• **Prasar Bharati:** The broadcasting corporation of India under the Ministry of Information and Broadcasting that runs All India Radio and Doordarshan incorporates HIV-AIDS awareness and information in a variety of innovative ways. All India Radio Broadcast NACO sponsored Programmes every week. ‘Jeevan Hai Anmol’ is aired on the primary channel and Vividh Bharati stations of AIR.

• **Karnataka State AIDS Prevention Society (KSAPS)** was registered as society on 9th December 1997, it is an autonomous institution and a highest policy-making structure regarding HIV-AIDS in Karnataka, headed by Chief Minister.

• **Ashakiran** as a benchmark institution for knowledge, understanding and action on HIV-AIDS diseases. Build awareness to destigmatize the AIDA epidemic. Develop state of the art infrastructure and an institutional network for preventing testing and treating PLWA. Ashakiran is a pioneer in providing counseling services, care and support for people living with HIV-AIDS in this region since 1997.

• **Swami Vivekananda Youth Moment (SVYM):** Swami Vivekananda Youth Moment runs India’s first rural-based comprehensive HIV-AIDS Programme, which has been hailed as a ‘Best Practice Model’ by UNAIDS. According to NACO Karnataka is a high- risk state having one of the highest antenatal clinic HIV and general population HIV prevalence rates in the country. In order to target this population SVYM has initiated a multifaceted strategy, comprising project in five integrated steps. SVMY works not only to treat the medical and psychosocial needs of people living with HIV-AIDS, but also targets populations at risk for contracting the disease.
1.9 IMPACT OF AIDS ON ECONOMY\textsuperscript{6}

HIV and AIDS affect economic growth by reducing the availability of human capital. Without proper nutrition, health care and medicine that is available in developed countries, large numbers of people suffer and die from AIDS-related complications. They will not only be unable to work, but will also require significant medical care. The forecast is that this will probably cause a collapse of economies and societies in countries with a significant AIDS population. In some heavily infected areas, the epidemic has left behind many orphans cared for by elderly grandparents. The increased mortality in this region will result in a smaller skilled population and labour force. This smaller labour force will be predominantly young people, with reduced knowledge and work experience leading to reduced productivity. An increase in workers’ time off to look after sick family members or for sick leave will also lower productivity. Increased mortality will also weaken the mechanisms that generate human capital and investment in people, through loss of income and the death of parents. By killing off mainly young adults, AIDS seriously weakens the taxable population, reducing the resources available for public expenditures such as education and health services not related to AIDS resulting in increasing pressure for the state’s finances and slower growth of the economy. This results in a slower growth of the tax base, an effect that will be reinforced if there are growing expenditures on treating the sick, training sick pay and caring for AIDS orphans. This is especially true if the sharp increase in adult mortality shifts the responsibility and blame from the family to the government in caring for these orphans. On the level of the household, AIDS results in both the loss of income and increased spending on healthcare by the household. The income effects of this lead to spending reduction as

\textsuperscript{6} en.wikipedia.org/wiki/economic-impact of HIV/AIDS
well as a substitution effect away from education and towards healthcare and funeral spending. In the present technological era though advancement of medicine and different scientific therapies has reached to its peak but still complete eradication of HIV-AIDS is still become impossible. Education plays a vital role in eradication of epidemic diseases like AIDS, H1N1, dengue, malaria, . . . , etc. The role teacher in this regard is very essential; teachers can bring about good awareness about awareness and implementation of AIDS Education their by giving proper direction to the future citizens of the country to know the causes and consequences of this epidemic disease AIDS. Teachers should go beyond class room to have street plays to bring about awareness among the community around. Unfortunately present teachers are more interested in completing the syllabus allotted to them in the prescribed time. There is great need to include provide Health education along with the regular imparting of Knowledge. Secondary school students who are in the stage of adolescence they need to have awareness and AIDS education in order to have better life in the future. Hence the present study deals with the critical study of awareness and AIDS education among secondary school teachers is very important. The government of India in association with many Non-governmental bodies has tried its best to eradicate this epidemic disease by celebrating World AIDS day on December 1st every year throughout the country by having number of Programmes brings about awareness about AIDS.

1.10 IMPACT OF HIV-AIDS ON CHILDREN AND FAMILIES

In severely affected communities, HIV/AIDS has an impact on children, families and communities which is incremental. The continuous attrition rate of deaths in young adults leads to social and economic impacts which increase with the severity and duration of the epidemic. The impact of HIV/AIDS on children and
families is compounded by the fact that many families live in communities which are already disadvantaged by poverty, poor infrastructure and limited access to basic services. Strategies for coping of extended families have negative impacts on children in households indirectly affected by HIV/AIDS, thus enlarging the overall impact and number of children affected. For example, children may experience reduction in their quality of life when their mother goes to provide home care for an HIV/AIDS-affected relative or because of transfers of money to a sick relative’s household. Children may see their standard of living deteriorate when cousins come to live with them following the death of an aunt or uncle. Figure 2 suggests the progression and relationship of problems among children and families directly affected by HIV/AIDS.

1.11 HIV-AIDS EDUCATION

HIV-AIDS Education will provide the guideline to people as to how to avoid the infection of HIV as well as sexually transmitted diseases. It will provide the basic information regarding HIV-AIDS as to what is HIV, symptoms of HIV, how does the HIV spread out so and so forth. HIV education not only furnishes the information regarding HIV-AIDS but makes people aware about the issues. For example it reduces the stigma and discrimination about those who are infected with the HIV. There is still great deal of fear and misunderstandings regarding the HIV around the world. It has created the negative impact on the people who are living with HIV and is discouraging these people from having treatment and testing. To create a foundation of knowledge about HIV-AIDS so that students can build skills to protect themselves and communicate information to other people. Identify basic information about HIV-AIDS, including transmission and prevention Develop skills in communicating HIV-AIDS prevention information to others.
HIV Education has become essential as every year the number of newly infected people has been increasing and still the process is going. It is estimated that 33 million of people are living with AIDS and the numbers are increasing per year. HIV-AIDS education will provide the guideline to people as to how to avoid the infection of HIV as well as sexually transmitted diseases. It will provide the basic information regarding HIV-AIDS as to what is HIV, symptoms of HIV, how does the HIV spread out so and so forth. HIV education not only furnishes the information regarding HIV-AIDS but makes people aware about the issues. For example it reduces the stigma and discrimination about those who are infected with the HIV. There is still great deal of fear and misunderstandings regarding the HIV around the world. It has created the negative impact on the people who are living with HIV and is discouraging these people from having treatment and testing.

HIV Education can be effective and useful if it is given to the targeted groups, groups especially those who are at the risk of the infection. However, it depends on the nature of the epidemic in that particular area. The other problem regarding these groups that they always change. For example, In America, in early years Men who have Sex with Men (MSM) were at risk after that in later years drugs users were at the risk. If we talk about today’s condition then heterosexual African Americans and the Hispanic/Latino population are also recognized as groups that are especially susceptible to HIV infection in America. AIDS has affected many parts of the society so it is essential to provide the information regarding AIDS to the every element of the society. Because if the HIV education confines to only the targeted groups then some other groups can get neglected and they will lead to develop the HIV infection for example old people. It does not mean that people, who are already infected with HIV, do not need the HIV education. They should also be provided the education
regarding HIV and AIDS. It will create awareness among these people and transmission of HIV can be prevented. Moreover, it will provide them information regarding medications and support that is available for them. It leads them to live a safe life. HIV education should contain the accurate and enough information that will clear the doubts of the people regarding the HIV and AIDS.

HIV education can take place in various places like classrooms to schools, friends to families etc. It would help to share the information among the people. The accurate and sufficient information should be delivered at such places. The information pertaining to AIDS should be collected from the various sources such as reports by different institutions or organizations. There are many organizations that are working for this motive at international level such as The World Health Organization. Although jeopardized by HIV-AIDS Education itself offers one of the main hopes against the epidemic and its negative consequences. Given the absence of a cure and a vaccine education is the most effective tool to fight the HIV-AIDS pandemic. Therefore the education sector can play an important role in fighting the epidemic. The ministry of Education school heads and teachers play a crucial role within the school system to reduce the spread of the disease by promoting and providing health education and education for the prevention of HIV-AIDS Education have a unique opportunity to influence children’s and young people’s ideas about sex and relationships and provide them with skills before students take risks.

The Education sector can do it lot to prevent HIV-AIDS by assisting young people in acquiring the knowledge, attitudes and skills they need to delay the sexual intercourse, to reduce the number of sex partners and to avoid infection by using the condoms. The education sector needs to teach behaviours that will empower children and adolescents to make healthy choices related to sex and other health issues,
teaching boys and girls to respect themselves and one another, and impress on all children the idea that sexual intercourse may only proceed when there is mutual consent. The curriculum needs to provide children with opportunities to learn and practice life skills, such as decision making and communication skills, which can strengthen other important areas of child and adolescent development. Different aspects of comprehensive HIV-AIDS Education must be integrated into all appropriate subject areas such as reproductive health, home economics, family life, social studies and science.

Furthermore the Education sector needs to reduce the fear of HIV-AIDS and fear of people who have HIV-AIDS so that stigma and discrimination of this group is lessened by promoting care, compassion and non-judgmental attitudes among students. Schools should be enabled to learn how to play an active role in looking for HIV affected and infected children in their communities, and persuading them to come back or remain in school.

**HIV-AIDS Education in Schools**

Schools are key settings for educating young people about HIV and AIDS, for halting the further spread of the HIV infection and reducing stigma. Success in carrying out this function depends upon teaching children and young adults in time to reinforce positive health behaviours and attitudes and alter the behaviours that place young people at risk. Secondary schools reach adolescents between the ages of 13 and 18, and have excellent resources for delivering effective education: skilled teachers; an interactive educational process that occurs over time; a variety of learning opportunities, materials and methods; and the ability to involve parents in their children’s learning. In combating HIV infection, stigma and discrimination, the

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crucial responsibility of schools is to teach young people how to avoid either contracting the infection or transmitting it to others and to serve as a catalyst for the development of HIV-related policies that are based on the most current scientific knowledge about HIV and AIDS. In doing so, schools have the opportunity to make important improvements in the quality of health education provided to young people worldwide as a step towards improving global health. The most common place for people to learn about HIV-AIDS is at school. Due to their capacity and universality, schools are a crucial setting for educating young people about AIDS. As young people are at a high risk of becoming infected with HIV, it is vital that they are educated about HIV transmission before they are exposed to situations that put them at risk of HIV infection. Schools play a major role in shaping the attitudes, opinions and behaviour of young people and so are ideal environments for teaching the social as well as the biological aspects of HIV-AIDS.

Members of the wider community can also increase their knowledge about HIV-AIDS through the school environment. Teachers who expand their understanding of the subject while planning lessons and receiving teacher training can pass this information on to adults as well as pupils, and the same can be said for children themselves; once informed about AIDS, they can tell their parents or their friends what they have learned.

School is the place that is the most common place where the education of HIV/AIDS can be delivered. It is because of their universality and capacity. It is an important setting where young people can be educated for HIV education. Young people are at the high risk of getting infected with HIV so they should be provided the information regarding AIDS. The social and biological aspects should be explained to the young people at school. Before they are going to be sexually active, the AIDS
education should be given to them. The teachers should get the training for handling such issues or for providing the information regarding the HIV and AIDS. So the pupils can pass that information to their families as well as to the School is the place where HIV education can be delivered in effective way. It is beneficial for the children. The reason behind it is that they are at high risk of HIV infection because they are sexually activated. So it is essential to create the awareness about HIV to them. It can be created by using audio-visual aids. As well as we can use pamphlets, booklets, filmstrips, fly charts etc. it would be effective ways for creating awareness about HIV. Nevertheless, teachers should be given the training for that as the information they are going to deliver to the children, should be correct and enough to clear their doubts. The information given to the children automatically passes on to their families, friends and society.

**Teaching About HIV-AIDS in Schools**

Some teachers may find it difficult to Educate about HIV and AIDS because of its connection to potentially challenging topics such as sexuality, substance use, poverty, and gender-based violence, as well as the potential difficulties relating to family, religious, or cultural values. This section of the HIV and AIDS Online School Support Kit is intended to help teachers build the comfort, knowledge, and skills they need to provide their students with age-appropriate HIV education. This includes help to:

- Easily identify the learning expectations in the Ontario Curriculum that support HIV and AIDS education, and understand their connection to age-appropriate HIV education and prevention.

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8 Hae.ophea.net/node/4
• Develop strategies to teach effectively about HIV, AIDS, and related topics at both the primary and junior grades and the intermediate and secondary grades.

• Respond to student questions.

• Locate existing activities and teaching materials for planning your lessons and units.

The instructional belief underpinning the information in this section is that equipping young people to make informed decisions about sexual health requires an integrated approach that includes knowledge and living skills and is built over time. HIV education begins in the primary and junior years with learning that is not specific to HIV but rather acts as “building blocks” for the introduction of content and living skills in the intermediate and secondary years that are more explicitly related to sexuality and sexual health.

**HIV–AIDS Education for Children**

HIV education is essential for young children. It does not mean that it is only necessary for children. However, it is important for every person. The new HIV infection numbers are increasing every year. It is studied that almost thirty three million people are living with the infection and the process is still going on. To prevent the infection, HIV education should be given to all as it will help to create awareness among the people. There are many misconceptions in the minds of people regarding the AIDS. It can misguide them. So it is necessary to provide the basic information regarding AIDS. For example what is HIV, how does it transmit to others, symptoms of the HIV, HIV and AIDS; stages of HIV infection, how to prevent HIV and tests for HIV etc. the wrong information or insufficient information about the disease is discouraging people from having treatment for the infection. HIV education will help people to think broadly about those who are infected. HIV
education for children is a necessary part as it provides the basic information to as well as creates awareness among them.

**Teaching and Learning of HIV-AIDS Education**

Education for HIV prevention should begin at an early age, before children and young people are exposed to risks, and should be sustained over time. It needs to encompass measures to reduce individual risk as well as to reduce contextual, environmental and societal vulnerability to HIV/AIDS. Political commitment and leadership, participatory planning and inter sectoral partnership are essential to a successful response, all of which need to be founded in a rights-based approach. In partnership with other bodies, schools have an important role to play in reducing the risks and vulnerability associated with the epidemic. Among the actions that should be prioritized are: Efforts to ensure that teachers are well prepared and supported in their work on HIV/AIDS through pre-service and in-service education and training; Preparation and distribution of scientifically-accurate, good-quality teaching and learning materials on HIV/AIDS, communication and life skills; Promotion of life skills and peer education with children and young people, and among teachers themselves; Elimination of stigma and discrimination, with a view to respecting human rights and encouraging greater openness concerning the epidemic; Support for school health Programmers that combine school health policies, a safe and secure school environment for both teachers and learners, skills based health education and school health services, and that explicitly address HIV/AIDS; Promotion of policies and practices that favor gender equity, school attendance and effective learning.

**Teachers Critical Role of HIV-AIDS Education**

Teachers are often the main adults other than family members with whom young people interact on daily basis. In an era of HIV-AIDS, teachers play an even
more critical role of being a source of accurate information and a person with whom young people can raise sensitive and complicated issues about sexuality. As the AIDS epidemic spreads, the need becomes more urgent for teachers to discuss AIDS in the context of human development, sexuality, and pregnancy prevention. Teachers also need to know how to protect their own health and the importance of not putting any of their students at risk through their own behaviours. Ideally, as trusted gatekeepers of information, teachers can be instrumental in imparting knowledge and skills to young people. Teachers can function as role models, advocates for healthy school environments, guides for students in need of services, resources for accurate information, mentors, and effective instructors. But to meet these expectations in the AIDS era, teachers need skills and knowledge as well as support from the educational system and broader community.

1.12 HIV-AIDS EDUCATION PROGRAMMES

HIV Education programmes should be created according to the age of children. It means the information should be provided to them in simple language or by exploiting the simple method. The teacher should deliver the information in simple and precise manner. The most important thing is that whatever information is given to the children should be correct. Wrong information can create the misconception and fear among the children about the disease. A teacher can use charts, audio-visual aids, pie charts and pamphlets for delivering the information to them. HIV Education for Children will help to create awareness among the children. It will help them to learn about the basic information about HIV and AIDS. They will know about the consequences of HIV. As a result of this further new infection of HIV can be controlled. Karnataka state Government introduces High school Teachers giving School AIDS Education Programme and HIV-AIDS work chart books.
(a) **Adolescence Education Programme:** Karnataka state has about 13.447 high schools where lacks of boy and girls are studying. These adolescent are more vulnerable to HIV due to various factors. One of the major factors is peer pressure and social-cultural factors. Female adolescent especially rural adolescent are the easy to social evils like poverty, trafficking, migration, etc. KSAPS has thoroughly trained 360 persons across Karnataka who would facilitate life skill training and HIV sensitization programmes in each schools to cover under this programme. It is planned to reach about 6.0 lakh adolescent school children studying in 6510 High school. This programme will be implemented in collaboration with the Department of Public Instruction and National Rural Health Mission, Government of Karnataka. Besides training adolescent, the training programme will also involved at least one teacher in each school who would take part in conducting training programme for adolescent.

(b) **Life skill Education:** Positive attitude health and keeping it in day to day life becomes an important and essential factor to maintain a healthy, creative and productive life. Health involves taking responsibility for adopting and maintaining habits that we know make a difference in life expectancy and quality. Life in modern time has been offered different and varied chance and options. one’s fate depends on the choices one makes. Healthy and fruitful life is the result of the wise decision taken, apt choice made right course pursued or good habit formed at any and every moment in life. ‘An education which does not teach us to discriminate between good and bad, to assimilate the one and eschew the other is a misnomer’ (Gandhi, 1939).

(c) **School AIDS Education Programme (SAEP):** School AIDS Education Programme is an important component under National AIDS Control Programme Phase 2 since 1999 with an aim to provide preventive education on HIV-AIDS to school going children. National AIDS Control Organization (NACO) is implementing
this programme all over the country through state AIDS Control Societies and in close coordination with the Department of Education in states. The Programme includes training of teachers and Educators for imparting HIV-AIDS education to students. Over 1 million children studying in classes 8th, 9th, 10th, Karnataka have been targeted under school aids education Programme.

(d) Accredited Social Health Activist Programme (ASHA): The Accredited Social Health Activist Programme is a health activism initiative within communities. It also creates awareness on health and its social determinants and mobilizes the community towards local health planning and increased utilization and accountability of existing health services provided by the Government. ASHA also provides a minimum package of curative care as appropriated and feasible for that level and makes timely referrals. Under the national rural health mission the Government envisaged appointment of a female Accredited Social Health Activist in every village.

(e) Continuing Education and Training Center (CETC): The Organization is recognized as the Continuing Education and Training Center for two states Karnataka and Maharashtra by the Engender Health Society. The project is being implemented from 2006 to train service providers in various aspects of HIV-AIDS management.

(f) Programme for Out of School Youth: HIV prevention and control programme for the out of school youth was not there in Adolescence Education Programme 2013-14. This project was initiated a year before where few event based activities conducted at few selection districts. Activities undertaken two years ago comprised of one-day youth bicycle jaath, one-hour sensitization programme, poster exhibition and so on in 10 districts in the state. The learning’s of the programme is most rural youth are vulnerable to HIV, female rural adolescent are mostly school drop-out are one of the highly vulnerable population in rural areas as this segment migrate with the their
parents during off season, early marriages, lack of correct and complete information about life kills, health related issues and many more that are directly and indirectly related to living conditions.

1.13 HIV-AIDS IS A GLOBAL ISSUE

HIV-AIDS has affected every continent, and looms over countries that once imagined that they might be immune to its devastation. All people are equally vulnerable, and equally in need of knowledge about how to avoid infection and how to care for those who are already infected. Everywhere, the behaviours that put people at risk are the same: injection or transfusion of infected blood, sexual intercourse with an infected partner, and being born to or receiving breast milk from an infected mother. The populations with burden of HIV infection are in Sub-Saharan Africa; the fastest growing HIV epidemic is in India, and South and Central Asia. Eastern Europe and the former Soviet Union also are reporting rising rates of HIV diagnoses. The spread of the epidemic has created major global challenges of loss of human life, disruption of families, loss of the workforce, poor access to HIV treatment, and lack of prevention resources.

Table 1.2: Estimated Worldwide HIV Statistics

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>HIV Statistics</th>
<th>Children</th>
<th>Adults</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>People with HIV-AIDS in 2004</td>
<td>2.2 Millions</td>
<td>37.2 Millions</td>
<td>39.4 Millions</td>
</tr>
<tr>
<td>2</td>
<td>Newly infected people with HIV-AIDS in 2004</td>
<td>0.64 Millions</td>
<td>4.3 Millions</td>
<td>4.9 Millions</td>
</tr>
<tr>
<td>3</td>
<td>AIDS deaths in 2004</td>
<td>0.51 Millions</td>
<td>2.6 Millions</td>
<td>3.1 Millions</td>
</tr>
</tbody>
</table>

1.14 HIV-AIDS IN INDIA

India is a culturally and spiritually bound society where people want to live in a restricted environment. Here in India people develop misconceptions and pre conceptions about particular concepts or thing very early because of lack of real knowledge or truth. Same is happening with the syndrome AIDS. Of course AIDS is such a disease which cannot be cured by medicines. But it doesn’t mean that we can should neglect the AIDS patients. India is one of the largest and most populated countries in the world, with over one billion inhabitants. Of this number, it’s estimated that around 5.7 million people are currently living with HIV. HIV emerged later in India than it did in many other countries, but this has not limited its impact. Infection rates soared throughout the 1990s, and have increased further in recent years. The crisis continues to deepen, as it becomes clearer that the epidemic is affecting all sectors of Indian society, not just the groups such as sex workers and truck drivers that it was originally associated with. In a country where poverty, illiteracy and poor health are rife, the spread of HIV presents a daunting challenge.

1.15 HIV-AIDS IN KARNATAKA

Karnataka a diverse state in the southwest of India, has a population of around 61 million. HIV prevalence among general clients exceeded 3 percent in 2012, and was 0.16 percent among pregnant women. Karnataka is India’s ninth most populous state. It is also one of the country’s six high HIV-AIDS prevalence states.

Table 1.3: Six high HIV-AIDS prevalence states

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>State Name</th>
<th>HIV-AIDS Prevalence states</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Andhra Pradesh</td>
<td>1st place</td>
</tr>
<tr>
<td>2</td>
<td>Maharashtra</td>
<td>2nd place</td>
</tr>
<tr>
<td>3</td>
<td>Manipur</td>
<td>3rd place</td>
</tr>
<tr>
<td>4</td>
<td>Nagaland</td>
<td>4th place</td>
</tr>
<tr>
<td>5</td>
<td>Tamil Nadu</td>
<td>5th place</td>
</tr>
<tr>
<td>6</td>
<td>Karnataka</td>
<td>6th place</td>
</tr>
</tbody>
</table>

Source: HIV-AIDS in Karnataka situation and Response Magazine.
Karnataka is India’s ninth most populous state. It is also one of the country’s six high HIV-AIDS prevalence states. The others are Andhra Pradesh, Maharastra Manipur, Nagaland and Tamilnadu.

Belgaum 27.751. Bagalkote 25.081. Bengalore 18.871. Dharavad 15,998. Mysore 14.074. District HIV diseases peoples are available. Districts with the highest prevalence tend to be located in and around Bangalore in the south and northern Karnataka’s “devadasi belt”. Devadasi women have historically been dedicated to the service of gods. Despite being made illegal in 1988, the system has evolved into sanctioned prostitution, and as a result many women from this part of the country are supplied to the sex trade in big cities such as Mumbai. Targeted interventions for sex workers are succeeding: the average HIV prevalence among female sex workers in Karnataka was just over 5 percent in 2011, a huge decrease on the 21.6 percent in 2004.

1.16 BACKGROUND OF MYSORE DISTRICT

Mysore is an administrative district located in the southern part of Karnataka state. It is located between 11° 45’ to 12° 40’ North latitude and 75° 57’ to 77° 15’ East longitude. The district has a total to the north east Chamarajanagara district to the south east, Tamilnadu state to the southeast, Kodagu district to the West and Hassan district to the North. Mysore is the 4th largest district in the state in terms of population and the 14th largest in terms of the area.

The district is divided into seven taluks – Heggadevanakote, Hunsur, K.R. Nagar, Mysore, Nanjanagud, Piriyapatna, T. Narasipura. As per the census of India, 2001 the district has 11 towns, 1216 village. Mysore city is the administrative headquarters of the district.
According to the census of India 2001 the total population of Mysore is 26.4 lakhs. Mysore is the largest taluk comprising 39% of the district population and Piriyapatna is the smallest taluk comprising 8% of the district population. The district has a sex ratio of 964 females per 1000 males. The sex ratio was lowest in Hunsur taluk at 962 in 2001. 37% of the population lived in cities/towns. The proportion of the urban population ranges from less than 10% in H.D. Kote and Piriyapatna to 77% in Mysore taluks.

The literacy rate is 63% which is statically higher among the males (71%) than females (56%). The proportion literate is also higher in the urban, than the rural areas (81% compared with 52%). The overall literacy rate ranges from 50% in Nanjanagud taluk to 76% Mysore taluks.

In 2009 there were 48 integrated counseling and testing centers, 50 prevention centers, 12 Government recognized blood banks and 1 sexually transmitted diseases clinic in the district. There were 2 community care centers, 1 antiretroviral therapy center, 2 link ART centers, 1 integrated positive prevention counseling center, and 1 drop-in center for people living with HIV network.

The HIV prevalence among the low risk general population in Mysore district is moderate at 0.81%, while the trend has been constant for a 6-year period. The prevalence is also moderate among clients of FSWs at 5.41% and high among female sex workers at 24.28%. The district has a high current transmission among the HRGs and an appreciable spread to the general population with a potential for further spread among the general population. The district has a large network of clients of female sex workers (57,437). 69% of the FSWs are in the rural areas of the district. Most FSWs are home-based (65%) or street-based (33%), and the proportion of home-based FSWs is relatively higher in the areas of H.D. Kote (86%) and Mysore (78%) taluks.
1.17 HIV-AIDS CURRENT SITUATION IN MYSORE DISTRICT

In Mysore distract in the year 2012 nearly 4% of people have affected HIV and nearly 2278 sexual workers and 1785 male sexual workers and 4712 are high risk behaviour people. In Mysore distract 90% HIV has spread due to sexual contacts 5% from mother to child and 1% due to Home sexual contacts. During 2002-2012 October ICCTC Mysore center has identified 16,868 patients among the common people and 912 HIV patients in pregnant women. During 2014 survey approximately the population of Mysore district is 30,15711 and out of data rural population is 16,5899 literacy rate is 63.48% out of which rural literacy is just 51.84% and women literacy 51.81%.

Table 1.4: The detail information of HIV/AIDS infected patients in Talukwise, Mysore district

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Taluk Name</th>
<th>Male</th>
<th>Female</th>
<th>Children</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mysore</td>
<td>368</td>
<td>267</td>
<td>14</td>
<td>635</td>
</tr>
<tr>
<td>2</td>
<td>Nanjanagud</td>
<td>72</td>
<td>59</td>
<td>2</td>
<td>131</td>
</tr>
<tr>
<td>3</td>
<td>T. Narasipura</td>
<td>61</td>
<td>32</td>
<td>0</td>
<td>93</td>
</tr>
<tr>
<td>4</td>
<td>H.D. Kote</td>
<td>54</td>
<td>40</td>
<td>0</td>
<td>94</td>
</tr>
<tr>
<td>5</td>
<td>Hunsur</td>
<td>52</td>
<td>45</td>
<td>4</td>
<td>97</td>
</tr>
<tr>
<td>6</td>
<td>K.R Nagar</td>
<td>33</td>
<td>33</td>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>7</td>
<td>Piriyapatna</td>
<td>40</td>
<td>24</td>
<td>1</td>
<td>65</td>
</tr>
</tbody>
</table>

Source: Karnataka Aids Prevention Society Survey-reported 2013-14

Survey of 2013-14 in Mysore district shows HIV patients and is as follows:
Mysore taluk 368 Male, 267 Female, 14 children, total 635; Nanjanagud taluk 72 Male, 59 Female, 2 children, total 131; T Narasipura taluk 61 Male, 32 Female, total 93; H.D. Kote taluk 54 Male, 40 Female, total 94; K.R. Nagar taluk 33 Male, 33 Female, 4 children, total 70; Hunsur taluk 52 Male, 45 Female, 4 children, total 97; Piriyapatna taluk 40 Male, 24 Female, 1 child, total 65. Totally in Mysore district
1465 people are HIV infected out of which 850 Male, Female 611 and 35 are children. Therefore it is very essential to educate people and give awareness about the negative effects of HIV-AIDS in Mysore district.

1.18 NEED AND IMPORTANCE OF THE STUDY

India is a culturally and spiritually bound society where people want to live in a social restricted environment. Here in India people develop misconceptions and preconceptions about particular concepts or thing very early because of lack of real knowledge or truth. Same is happening with the syndrome HIV-AIDS, of course AIDS is such a disease which cannot be cured by medicines, but it doesn’t mean that we should neglect the HIV-AIDS patients.

The Karnataka Government has introduced sex education for school children in the year 2006. The main aim of the programme was to eradicate the misunderstanding towards sex and HIV-AIDS. The programme has failed become it emphasized more on sex.

As we know ‘a teacher can mislead the society as well as build and develop a society’ the awareness of teachers must be changed and then according the students awareness and implementation towards HIV-AIDS could be improved.

In India especially rural section of the country where people considered AIDS as sin and AIDS patients are made completely isolated from the society. This is where the study is needed before education the society and we need to understand the level of knowledge and awareness about HIV-AIDS should be measured. Then only the strategies for education can be streamlined and policies would be systematically framed. Thus is where the present study is valid and play a vital role.

As a whole we can say the present need of the education is to eradicate the misunderstanding and superstitious belief not only towards HIV-AIDS but also
towards sex career education life etc. The present study made an attempt to understand the level of awareness and implementation towards HIV-AIDS among secondary school teachers and students in Mysore district, so in future it may help in understanding the minds of teachers and students make suitable arrangements to eradicate the misunderstanding and superstitious towards HIV-AIDS, because teachers is a good society creator, students is a future citizens of India. So care must be taken to eradicate the problems at the gross root level to give a clear outlook for future citizens through school education system.

Along with the above aspects it is found that there are many studies conducted on AIDS as disease, adolescent behaviour, health education and sex education etc. in state and also in India but rarely any study has been conducted with secondary school teachers and students as sample. Thus a study like is very much needed in the present context along with the above aspects.

Research on social determines of HIV-AIDS has shown education level to be strongly predictive of better knowledge safer behaviour and reduced infection rates so much so that education has been described as social vaccine and single most effective preventive weapon against HIV-AIDS Education reduce HIV-AIDS risk is that it increases knowledge of the diseases and is correlated with change in sexual behaviour.

The present study has a great scope as teacher is a nation builder can shape up the future citizens by educating them about awareness and HIV-AIDS education can eradicate this disease to a great extent. This can help people to live positively without passing on the virus to anyone else; to prevent themselves becoming infected with a different strain of the virus and to ensure a good quality of life by informing them about medication and the support that is available to them. HIV-AIDS Education also
plays a vital role in reducing stigma and discrimination. In this regard teacher knowledge about awareness and HIV-AIDS education is very important hence the present study “Awareness of HIV-AIDS Education and its Implementation at Secondary School Level – An Analytical Study” is very important in the present context the researcher has taken the present study in order to ensure this study will bring about better impact in eradicating this epidemic disease by having awareness about causes and consequences among secondary school teachers and 9th standard students in Mysore district, which includes both rural and urban government, aided and unaided secondary school teachers and 9th standard students respectively in the district. The present study deals with the current awareness of HIV-AIDS education among secondary school teachers and 9th standard students in the Mysore district and provides a status about the need to intensify the HIV-AIDS Education.