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HIV/AIDS – A Situational Analysis

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Abstract

HIV/AIDS remains one of the major global public health challenges, affecting millions of people across the world. Although significant progress has been achieved in prevention, diagnosis, treatment, and awareness, the epidemic continues to disproportionately impact on vulnerable populations, particularly women. The situational analysis of HIV/AIDS examines the current trends, prevalence, causes, risk factors, and socio-economic impact of the disease at national, and regional levels. In India, HIV/AIDS remains a significant public health concern despite a decline in prevalence over the past decade. Certain states continue to report higher numbers of people living with HIV due to migration, low awareness, discrimination, and limited access to healthcare facilities. Government initiatives, awareness campaigns, counseling services, and targeted interventions have contributed to controlling the spread of infection, yet challenges such as stigma, gender discrimination, and poor treatment adherence persist. This situational analysis highlights the need for integrated approaches involving prevention, education, early diagnosis, counseling, treatment, and community participation. Strengthening healthcare systems, promoting gender equality, and increasing awareness among high-risk and vulnerable populations are essential for reducing the spread and impact of HIV/AIDS and improving the quality of life of affected individuals. The problem has been assessed in the gender dimension perspective associated with socio -cultural context.

Key Words: ART, FSW, ICTC, NACO, APSACS

Introduction

HIV/AIDS refers to the infection caused by the **Human Immunodeficiency Virus (HIV)** and the advanced stage of the disease known as **Acquired Immunodeficiency Syndrome (AIDS)**. HIV attacks and weakens the body's immune system, especially CD4 cells, reducing the body's ability to fight infections. If HIV is not treated, it may progress to AIDS, the most severe stage of infection, where the immune system becomes severely damaged and the person becomes vulnerable to opportunistic infections and diseases.

In simple words, **HIV is the virus, while AIDS is the advanced stage of the disease caused by HIV**. A person infected with HIV may not necessarily have AIDS.

The two main types of HIV are:

1. **HIV-1**
    - This is the most common type of HIV found worldwide.
    - It is more easily transmitted and is responsible for the majority of HIV infections across the globe.
    - HIV-1 progresses faster and is considered more virulent than HIV-2.

2. **HIV-2**

   - This type is less common and is found mainly in West Africa.
   - HIV-2 spreads less easily from person to person and usually progresses more slowly.
   - People infected with HIV-2 may remain healthy for a longer time without developing AIDS.

Both HIV-1 and HIV-2 weaken the immune system by attacking CD4 (T-helper) cells. If untreated, HIV can eventually lead to **AIDS (Acquired Immunodeficiency Syndrome)**, the final and most severe stage of HIV infection, where the body becomes highly vulnerable to opportunistic infections and certain cancers.

Transmission of HIV and Development of AIDS

National AIDS Control Organisation states that HIV can be transmitted only through direct contact with certain infected body fluids. These fluids include blood (including menstrual blood), semen, pre-ejaculatory fluid, vaginal secretions, and breast milk. Among these, blood contains the highest concentration of the virus, followed by semen, vaginal fluids, and breast milk.

HIV transmission commonly occurs through:

- Unprotected sexual contact involving semen, vaginal fluids, or blood
- Direct blood-to-blood contact, especially through sharing contaminated injection needles or drug-use equipment
- Transmission from an infected mother to her child during pregnancy, childbirth, or breastfeeding.

If left untreated, HIV can lead to AIDS (Acquired Immunodeficiency Syndrome). Unlike some other viruses, the human body cannot completely eliminate HIV. Therefore, once a person becomes infected, the virus remains in the body for life.

HIV attacks the immune system, particularly the CD4 cells (also called T cells), which play an important role in protecting the body against infections. As the virus multiplies, it gradually reduces the number of CD4 cells, weakening the immune system.

When HIV is not treated:

- The body becomes more vulnerable to infections and certain cancers
- Opportunistic infections begin to occur because the immune system is severely weakened
- The final and most advanced stage of HIV infection is called AIDS.

Symptoms of HIV Infection

The symptoms of HIV can differ from person to person, and some people may not experience any symptoms at all. Without treatment, the virus gradually weakens the immune system over time. HIV infection generally progresses through three stages, each with different symptoms and effects.

1. Acute Primary Infection

Around one to four weeks after becoming infected with HIV, some individuals may develop symptoms similar to flu. These symptoms usually last for a short period, about one or two weeks, and some people may experience only a few symptoms or none at all. Therefore, symptoms alone are not a reliable way to diagnose HIV.

Common symptoms include:

a. Fever:
One of the earliest signs of HIV infection is fever, commonly associated with Acute Retroviral Syndrome (ARS). Fever is often accompanied by body pains and tiredness.
b. Fatigue:
When HIV enters the bloodstream, it weakens the immune system. Inflammation caused by poor immunity often leads to extreme tiredness and weakness.
c. Joint and Muscle Pain:
HIV can cause inflammation of the lymph nodes, which are an important part of the immune system. This may result in joint pain, muscle pain, sore throat, and headaches.
d. Skin Rash:
Skin rashes may appear during the early or later stages of HIV infection. If a rash does not respond to normal treatment, it may be linked to HIV.
e. Nausea and Vomiting:
Persistent nausea or vomiting that does not improve easily can also indicate HIV infection.
f. Weight Loss:
People living with HIV may lose weight rapidly due to fever, poor appetite, vomiting, and weakness.
g. Dry Cough and Pneumonia:
A continuous dry cough that does not improve with regular treatment may develop into pneumonia, which can be a sign of HIV infection.
h. Night Sweats:
Many HIV-infected individuals experience heavy night sweats along with sore throat, swollen glands, headaches, and stomach upset.

These symptoms occur because the body reacts to the HIV virus. Infected cells circulate throughout the bloodstream, and the immune system attempts to fight the virus by producing HIV antibodies. This process is called seroconversion and usually occurs within 45 days of infection, although it may take a few months to complete.

ART Treatment

A person diagnosed with AIDS may develop serious illnesses because the immune system can no longer effectively fight disease. Early diagnosis, proper medical care, and antiretroviral therapy (ART) can help people with HIV live long and healthy lives.

Currently, there is no complete cure for HIV/AIDS. However, with proper treatment and medical care, HIV can be effectively controlled. The treatment used for HIV is called Antiretroviral Therapy (ART). ART consists of medicines that help reduce the amount of virus in the body.

When taken correctly every day, ART can:

- Help people with HIV live longer and healthier lives
- Strengthen the immune system
- Prevent the disease from progressing to AIDS
- Greatly reduce the risk of transmitting HIV to others

Today, a person diagnosed with HIV who starts treatment early and follows medical advice can live nearly as long as a person who does not have HIV.

HIV/AIDS and Women

For many years, HIV/AIDS was widely perceived as a disease primarily affecting men, particularly homosexual men. Due to this misconception, the impact of HIV/AIDS on women was often neglected and insufficiently addressed. However, in recent decades, women have become increasingly affected by the epidemic. Today, nearly half of all adults living with HIV worldwide are women, with a significant proportion residing in sub-Saharan Africa. Among young people living with HIV in this region, nearly three out of every four are female. In India, AIDS continues to be one of the leading causes of death among adults aged 25 to 44 years. Most HIV-positive women acquire the infection through heterosexual transmission.

Biologically, women are more vulnerable than men to HIV infection during heterosexual intercourse. The larger mucosal surface area of the female reproductive tract increases exposure to HIV-infected seminal fluid, making transmission more likely. This biological susceptibility highlights the need for special attention toward the protection and empowerment of women in HIV prevention programs.

Research studies indicate that women are almost twice as likely to contract HIV from men during heterosexual intercourse compared to men contracting HIV from women. This explains the rapid increase in HIV infection rates among women across the globe. Data obtained from Counseling and Care Support Centres (CC&SCs) in Nellore, Andhra Pradesh, revealed that teenage girls and women accounted for more than half of the newly reported HIV infections between 2005 and 2010. Furthermore, the number of women living with HIV increased by nearly ten percent between 2000 and 2004, compared to a seven percent increase among men during the same period.

Several social and economic factors further increase women's vulnerability to HIV infection. In many societies, gender inequality limits women's ability to negotiate safe sexual practices or refuse unwanted sexual relationships. Lack of education, unemployment, poverty, and economic dependence force many women into exploitative situations, including commercial sex work, in order to support themselves and their families. These conditions significantly increase their risk of HIV infection.

Current Estimates

Since the beginning of the global HIV epidemic, women in many regions have remained at a greater risk of HIV infection than men. Young women and adolescent girls, in particular, continue to account for a disproportionate number of new HIV infections. In 2013, an estimated 380,000 new HIV infections occurred among young women aged 15 to 24 years, representing approximately 60% of all new HIV infections among young people worldwide. Nearly 80% of young women living with HIV reside in sub-Saharan Africa. Moreover, HIV remains one of the leading causes of death among women of reproductive age, despite limited access to HIV testing, counseling, and treatment services in many developing countries.

Statement of the Problem

The Human Immunodeficiency Virus (HIV) does not discriminate between men and women; both are vulnerable to infection and capable of transmitting the virus to others. However, there are significant differences in the experiences, needs, and challenges faced by women living with HIV. Biological, socio-cultural, and

economic factors make women more vulnerable to HIV infection and its consequences. The socio-cultural stigma, gender inequality, poverty, lack of education, and limited access to healthcare services have intensified the impact of HIV/AIDS on women when compared to men.

The HIV/AIDS epidemic has created a severe burden on the economic and social development of many developing countries, as it primarily affects people in their most productive years of life. The impact of the epidemic varies according to the severity of the disease and the structure of national economies. According to the United Nations (2002), HIV/AIDS has become one of the most significant global health concerns, surpassing issues such as infant mortality, child mortality, maternal mortality, and population ageing.

More than three decades after the emergence of the epidemic, HIV/AIDS continues to remain a major public health challenge across the world. According to global statistics published by UNAIDS in 2016, approximately 36.7 million people worldwide were living with HIV in 2015, and women constituted nearly half of the infected population. Low literacy levels among women, lack of awareness regarding HIV transmission and prevention, and inadequate access to health education further increase their vulnerability to the disease.

Urbanization has also contributed significantly to the spread of HIV/AIDS. Rapid urban growth often leads to overcrowding, migration, unemployment, poverty, and poor living conditions, which increase the risk of HIV transmission. Studies have shown that HIV prevalence tends to be higher in urban areas. In India, the first case of HIV/AIDS was identified in the industrial city of Chennai, highlighting the relationship between industrialization, migration, and the spread of the epidemic.

The HIV epidemic not only affects health but also widens and deepens poverty through its economic impact on individuals, families, and communities. India has one of the largest populations living with HIV/AIDS in the world. Although reports from the World Health Organization and UNAIDS indicate that HIV infection rates in India have declined considerably in recent years, the disease still remains a major concern. During the 1990s, infection rates increased rapidly, and today HIV/AIDS affects all sections of society rather than being confined to high-risk groups alone. In a country where poverty, illiteracy, unemployment, and inadequate healthcare facilities continue to persist, the spread of HIV/AIDS presents a serious social and public health challenge.

Therefore, there is a need to study the socio-economic conditions, awareness levels, and problems faced by women living with HIV/AIDS, particularly in urban areas, in order to understand their challenges and to formulate effective interventions for prevention, treatment, care, and support.

Situational Analysis

In India, experts point out that there is no one single epidemic. Instead there are numerous sub epidemics which are localized in nature reflecting the diverse socio-cultural reality of the country. Some significant structural and socio-economic factors serve to exacerbate the existing vulnerabilities to HIV infection:

- High poverty levels, with more than 35 percent of the population living below the poverty line;
- Slanted gender relations
- Large scale migration
- Low levels of literacy;
- Unsafe mobility;
- Lack of awareness
- Cultural myths, misconceptions, silence and resulting stigma regarding sex, sexuality and HIV;
- Commercial sex and unprotected sex with multiple concurrent partners;

- Male resistance to condom use;
- High prevalence of sexually transmitted infections; and
- Low status of women, resulting in inability to negotiate safer sex;
- Women's limited control over and access to economic resources;

It is observed declines to increased condom use by me who visit commercial sex workers and cite several pieces of corroborating evidence. Some efforts have been made to tailor educational literature to those with low literacy levels, mainly through local libraries as this is the most readily accessible locus of information for interested parties.

HIV/AIDS in Andhra Pradesh – Current Estimates

National AIDS Control Organisation and Andhra Pradesh State AIDS Control Society identify Andhra Pradesh as one of the states significantly affected by HIV/AIDS in India, although the overall burden and prevalence have declined over the past decade due to improved awareness, prevention programmes, testing facilities, and access to antiretroviral therapy (ART). The state has implemented a broad range of interventions including HIV awareness campaigns, targeted interventions among high-risk groups, HIV counselling and testing services, prevention of parent-to-child transmission, and free ART services.

According to recent estimates released by National AIDS Control Organisation (NACO), India continues to witness a gradual decline in new HIV infections and AIDS-related deaths. Andhra Pradesh remains among the states with a considerable number of people living with HIV because of its large population and historically high prevalence. However, compared to the early 2010s, the state has shown substantial improvement in HIV control and management.

Current estimates indicate that adult HIV prevalence in Andhra Pradesh is higher than the national average, though significantly lower than earlier reported levels. The epidemic in the state is concentrated mainly among high-risk and vulnerable populations such as female sex workers, men who have sex with men (MSM), migrant labourers, truck drivers, and injecting drug users. Urban centres and economically active districts continue to report comparatively higher numbers of HIV cases.

Several socio-economic factors contribute to the spread of HIV in Andhra Pradesh, including illiteracy, poverty, migration for employment, unemployment, gender inequality, unsafe sexual practices, and lack of awareness in rural and marginalized communities. Stigma and discrimination associated with HIV/AIDS also continue to affect testing, treatment seeking, and social support for people living with HIV.

To monitor the epidemic, surveillance activities are carried out regularly through sentinel surveillance systems established by APSACS under the guidelines of NACO. HIV testing and surveillance are conducted among antenatal women, sexually transmitted infection (STI) clinic attendees, high-risk groups, and other vulnerable populations. These surveillance mechanisms help the government assess trends in HIV prevalence and strengthen prevention and treatment programmes across the state.

At present, Andhra Pradesh has an extensive network of Integrated Counselling and Testing Centres (ICTCs), ART centres, blood safety units, and community-based organizations working toward HIV prevention, care, and support. Continuous public health interventions and increased access to treatment have contributed to improved quality of life and reduced mortality among people living with HIV/AIDS in the state.

The Gender Dimension

HIV/AIDS and other sexually transmitted infections (STIs), many of which are linked to sexual violence and gender inequality, continue to have a serious impact on women's health, particularly among adolescent girls and young women. In many societies, women are often denied the power to negotiate safe and responsible sexual practices and may have limited access to information, prevention services, testing, and treatment. Women now

account for a significant proportion of people living with HIV worldwide, and social vulnerability together with unequal gender relations remain major barriers to effective prevention and care.

The impact of HIV/AIDS extends far beyond women's physical health. It affects their responsibilities as mothers, caregivers, and contributors to household income and family welfare. Therefore, the social, developmental, and health consequences of HIV/AIDS must be understood from a gender perspective. Gender discrimination, poverty, limited educational opportunities, and lack of decision-making power increase women's vulnerability to HIV infection and reduce their access to healthcare services and support systems.

Unequal power relations between men and women continue to threaten women's health and well-being. Many women are unable to insist on safe sexual practices due to fear of violence, abandonment, or social stigma. Lack of communication and understanding regarding women's reproductive and sexual health needs further contributes to the spread of sexually transmitted infections, including HIV/AIDS. These inequalities also restrict women's access to education, healthcare, employment, and social participation.

Several socio-economic indicators highlight the disadvantaged status of women in India:

- According to the Population Census of 2011, India had a sex ratio of 943 females per 1000 males. Although there was some improvement from the 2001 Census, the child sex ratio (0–6 years) showed a decline.
- Nutritional inequality remains a major issue, with a large proportion of Indian women suffering from iron deficiency anaemia due to inadequate nutrition and unequal food distribution within households.
- Early marriage continues to affect many girls in rural India, where a considerable percentage are married before the age of 18 and become mothers during adolescence.
- Maternal mortality remains a significant public health concern in several parts of the country.
- Female literacy rates continue to lag behind male literacy rates, limiting women's access to knowledge, employment, and healthcare information.
- School enrolment among girls declines at higher levels of education due to poverty, social norms, and early marriage.
- In many states, women still require permission from family members to travel or visit relatives, reflecting restricted mobility and limited autonomy.
- Women's participation in wage employment in the non-agricultural sector remains comparatively low, indicating economic dependence and gender inequality in the workforce.

The HIV response in India is strongly linked to a human rights and gender equality framework. Research and evidence show that sustained adoption of safer sexual practices is possible only when relationships between partners are based on equality, respect, and shared decision-making. Gender inequality not only contributes to the spread of HIV but also intensifies its social and economic consequences. Men, women, and transgender persons experience vulnerability differently, resulting in unequal access to information, healthcare, prevention services, and treatment.

An effective HIV/AIDS programme must therefore address gender-based inequalities rooted in socio-economic structures, cultural practices, and social norms. Gender and sexuality are shaped by social and cultural expectations, and these expectations often determine how individuals experience risk, discrimination, and access to services. A gender-sensitive HIV response requires policymakers, healthcare workers, educators, and service providers to adopt inclusive and non-discriminatory approaches that promote dignity, equality, and respect for all individuals.

Gender equality and responsible behaviour are essential for preventing HIV/AIDS. Women should be empowered to make informed decisions regarding their sexual and reproductive health and to protect themselves

from high-risk situations. At the same time, men must be encouraged to adopt responsible, respectful, and safe behaviours that support gender equality and mutual responsibility.

The burden of caring for people living with HIV/AIDS and children orphaned by the disease often falls heavily on women, particularly in settings where healthcare and social support systems are inadequate. Women living with HIV frequently experience stigma, discrimination, social isolation, and violence. Important issues such as prevention of mother-to-child transmission, counselling and testing services, awareness among youth, support groups, access to affordable medicines, and reduction of risky behaviours require greater attention and policy support.

Despite these challenges, positive developments have been observed in several countries where educational and awareness programmes have contributed to behavioural changes among young people. Such programmes have promoted healthier gender relations, increased awareness about safe sexual practices, delayed early sexual activity, and reduced the risk of sexually transmitted infections, including HIV/AIDS. Continuous education, gender empowerment, and community participation remain crucial for controlling the spread of HIV/AIDS and improving the quality of life of affected individuals.

Law and Women

Women are guaranteed equality under the Constitution, and several laws have been enacted to protect them from violence, dowry harassment, rape, and discrimination. Despite these protections, women still face inequality in areas such as inheritance rights, maintenance after separation or divorce, and decision-making related to their health and lives. Social restrictions and gender discrimination often limit women's access to education, healthcare, and economic opportunities.

Factors such as illiteracy, poverty, patriarchy, cultural practices, and economic dependence continue to reduce women's choices and quality of life. Government programmes like the Indira Awaas Yojana, Swashakti Scheme, and reservations in Panchayats through the 73rd and 74th Constitutional Amendments have increased women's participation in governance and development. However, gender inequality still affects women's health, dignity, and social status.

Women are also highly vulnerable to HIV/AIDS because of biological, social, and economic factors. Globally, women constitute nearly half of all people living with HIV. Limited power to negotiate safe sex, lack of awareness, and exposure to violence increase their risk of infection. Women living with HIV often face discrimination in healthcare, employment, education, and society.

Laws such as the Americans with Disabilities Act (ADA) and the Rehabilitation Act protect the rights of people living with HIV/AIDS, including women. These laws prohibit discrimination in employment, healthcare, housing, and public services, while also protecting privacy and confidentiality regarding HIV status.

The HIV/AIDS epidemic has affected millions of women directly and indirectly, especially through mother-to-child transmission and caregiving responsibilities. Protecting women's rights, improving education and awareness, ensuring equal healthcare access, and promoting gender equality are essential steps in reducing the impact of HIV/AIDS on women worldwide.

Prevention of HIV

HIV transmission occurs when infected body fluids such as blood, semen, vaginal secretions, or breast milk come into contact with mucous membranes, damaged tissues, or are directly injected into the bloodstream through needles or syringes. Mucous membranes are present in the rectum, vagina, penis, and mouth. Anyone can become infected with HIV, but the risk can be reduced through proper preventive measures.

Important ways to prevent HIV include getting tested regularly and knowing the HIV status of sexual partners before engaging in sexual activity. Safer sexual practices, especially reducing unprotected anal and vaginal sex, can lower the chances of infection. Correct and consistent use of condoms during vaginal, anal, or

oral sex is highly effective in preventing HIV transmission. Limiting the number of sexual partners and seeking timely testing and treatment for sexually transmitted diseases (STDs) are also important, as STDs can increase the risk of HIV infection.

Although there is no vaccine or cure for HIV/AIDS, individuals can protect themselves by avoiding risky behaviours and staying informed about HIV prevention. In addition to abstinence, condom use, and avoiding needle sharing, modern prevention methods such as Pre-Exposure Prophylaxis (PrEP) and Post-Exposure Prophylaxis (PEP) are now widely used.

HIV prevention programmes are designed to stop the spread of HIV at both individual and community levels. Earlier programmes mainly focused on behaviour change through the ABC approach — "Abstinence, Be faithful, Use a Condom." Over time, experts recognized that effective prevention must also address social, cultural, economic, and legal factors. As a result, comprehensive "combination prevention" strategies are now widely adopted to control the HIV epidemic more effectively.

Combination Prevention

Combination prevention promotes a holistic approach to HIV prevention by using a mix of behavioural, biomedical, and structural strategies rather than relying on a single method such as condom distribution. These programmes are designed according to local culture, infrastructure, and the needs of populations most affected by HIV. They can be implemented at individual, community, and population levels. According to the Joint United Nations Programme on HIV/AIDS (UNAIDS), combination prevention includes "rights-based, evidence-informed, and community-owned programmes" aimed at reducing new HIV infections effectively.

Fast-Tracking Combination Prevention

To end the HIV epidemic as a public health threat by 2030, UNAIDS launched the Fast-Track strategy in 2014. This strategy focuses on strengthening HIV prevention in low- and middle-income countries by targeting key populations and high-risk locations.

Increasing Political and Financial Commitment

UNAIDS recommends that a significant portion of HIV investments should support effective prevention programmes. Support from political leaders, religious leaders, and other influential people can help spread awareness and encourage positive attitudes towards HIV prevention.

Using New Tools and Technology

New technologies have improved HIV prevention efforts. Increased use of mobile phones and internet services has helped provide HIV-related information to young people. For example, Young Africa Live offers guidance on HIV, sexual health, gender issues, and HIV testing services to millions of users in African countries.

Achieving Full Coverage

Effective HIV prevention requires programmes with wide coverage and long-term implementation. Condom distribution programmes in countries like South Africa have shown positive results in reducing new HIV infections. Social marketing, free distribution in poor areas, and affordable pricing have increased condom use. However, many countries still face challenges such as limited supply, social stigma, and restricted access for young people.

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