HIV stands for Human Immunodeficiency Virus. It is the virus that leads to acquired immunodeficiency syndrome, or AIDS, if not treated. Unlike some other viruses, the human body can’t get rid of HIV completely, even with treatment.

**Human Immunodeficiency Virus (HIV) is a lentivirus, which is a sub-classification of the retrovirus. It causes the HIV infection which over time leads to AIDS (Acquired Immunodeficiency Syndrome).**

- AIDS is a deadly condition in which the affected person’s immune system fails, leading to the spread of life-threatening infections and cancers in his body.
- HIV demolishes a particular type of WBC (White Blood Cells) and the T-helper cells. This virus also makes copies of itself inside these cells. T-helper cells are also known as CD4 cells.
- The average survival period for a person affected with HIV without treatment is nine to eleven years, subject to the subtype of HIV.
- HIV infection can occur by the transference of blood, breast milk, vaginal fluid, semen, or pre-ejaculate.
- HIV occurs as both free virus particles and as a virus inside the infected immune cells within the above-mentioned bodily fluids.
- A weak immune system makes a person prone to opportunistic infections and
cancer.

- It becomes difficult for a person infected with this virus to recover from even a minor injury or sickness. **By receiving treatment, a severe form of HIV can be prevented.**

### Types of HIV

<table>
<thead>
<tr>
<th>Type One</th>
<th>Type Two</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most Common</strong></td>
<td>This is found primarily in Western Africa, with some cases in India and Europe.</td>
</tr>
<tr>
<td>Further categorized in 4 groups</td>
<td><strong>Group M</strong> [Major]</td>
</tr>
<tr>
<td>- Group <strong>M</strong> [Major]</td>
<td><strong>Group N</strong> [Non-M &amp; Non-O]</td>
</tr>
<tr>
<td>- Group <strong>N</strong> [Non-M &amp; Non-O]</td>
<td><strong>Group O</strong> [Outlier]</td>
</tr>
<tr>
<td>- Group <strong>O</strong> [Outlier]</td>
<td><strong>Group P</strong></td>
</tr>
<tr>
<td>90% of the cases are caused by <strong>Group M</strong> HIV.</td>
<td>HIV-2 is closely related to the simian immunodeficiency virus endemic in a monkey species (sooty mangabeyes).</td>
</tr>
</tbody>
</table>

### AIDS vs HIV

<table>
<thead>
<tr>
<th>AIDS</th>
<th>HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acquired Immunodeficiency Syndrome (AIDS)</strong> is a disease.</td>
<td><strong>Human Immunodeficiency Virus (HIV)</strong> is the causal factor (reason) for AIDS</td>
</tr>
<tr>
<td>Complications and secondary infections from this disease kill the host.</td>
<td>The virus is incapable of killing a host by itself.</td>
</tr>
<tr>
<td>AIDS is a condition acquired only after the contraction of HIV.</td>
<td>HIV is a virus and like other viruses, can spread from person to person.</td>
</tr>
</tbody>
</table>

### Some FACTS

**Transmission:** HIV is transmitted from person to person **through bodily fluids including blood, semen, vaginal secretions, anal fluids and breast milk.**

**To transmit HIV, bodily fluids must contain enough of the virus. A person with ‘Undetectable HIV’ cannot transfer HIV to another person even after transfer of fluids. ‘Undetectable HIV’ is when the amount of HIV in the body is so low that a blood test cannot detect it. Treatment can make this possible. But regular monitoring of the same through blood tests is also required.**

### Symptoms


Around 80% of people infected with HIV develop a set of symptoms known as Acute Retroviral Syndrome, around 2-6 weeks after the virus enters into body. The early symptoms include fever, chills, joint pains, muscle aches, sore throat, sweats particularly at night, enlarged glands, a red rash, tiredness, weakness, unintentional weight loss and thrush. A person can carry HIV even without experiencing any symptoms for a long time. During this time, the virus continues to develop and causes immune system and organ damage.

Global Stats

- Since the beginning of epidemic, more than 70 million people have got infected with HIV virus and about 35 million have died.
- Globally, 36.9 million People were living with HIV at the end of 2017. Of these, 1.8 million were children under 15 years of age.
- According to Global HIV & AIDS statistics, only 59% of those infected with HIV are receiving the antiretroviral drugs.
- The African Region is the most affected region with 1 in 25 adults living with HIV.

Indian Stats

The total number of people living with HIV was estimated at 21.40 lakh in 2017. India witnessed over 87,000 new cases in 2017 and saw a decline of 85% compared to 1995.

Treatment-Strategies

Anti-Retroviral Therapy:

- It is a combination of daily medications that stop the virus from reproducing.
- The therapy helps in protecting CD4 cells thus keeping the immune system strong enough to fight off the disease.
- It, besides reducing the risk of transmission of HIV, also helps in stopping its progression to AIDS (a spectrum of conditions caused by infection due to HIV).

Stem Cell Transplant:

- Under this, an infected person is treated with stem cell transplant from donors carrying a genetic mutation that prevents expression of an HIV receptor CCR5.
CCR5 is the most commonly used receptor by HIV-1. People who have mutated copies of CCR5 are resistant to HIV-1 virus strain. It has been reported that till now, only two people have been cured of HIV by experts using this method of treatment. The first person is Timothy Ray Brown (Berlin Patient) who was cured in 2007 and the second is known as London Patient, who just got cured of HIV. The difference in the treatment of both patients is that the Berlin Patient was given two transplants and he underwent total body irradiation while the London Patient received just one transplant and also less intensive chemotherapy. Researchers find this method very complicated, expensive and risky.

UNAIDS

- Established in 1996, UNAIDS has been leading and inspiring global, regional, national and local leadership, innovation and partnership to consign HIV to history.
- It is headquartered in Geneva, Switzerland.
- It places people living with HIV and people affected by the virus at the decision-making table and at the centre of designing, delivering and monitoring the AIDS response.
- It charts paths for countries and communities to get on the fast-track to end AIDS and is a bold advocate for addressing the legal and policy barriers to the AIDS response.
- Also, it is leading the global effort to end AIDS as a public health threat by 2030 as part of the Sustainable Development Goal-3 (SDG-3).
- SDG-3 deals with ensuring healthy lives and promoting wellbeing for all at all ages (including universal access to HIV prevention services, sexual and reproductive health services and drug dependence treatment and harm reduction services).

National AIDS Control Programme (NACP)

The National AIDS Control Programme (NACP), launched in 1992, is being implemented as a comprehensive programme for prevention and control of HIV/AIDS in India. Over time, the focus has shifted from raising awareness to behaviour change, from a national response to a more decentralized response and to increasing involvement of NGOs and networks of People living with HIV (PLHIV).
The NACP I started in 1992 was implemented with an objective of slowing down the spread of HIV infections so as to reduce morbidity, mortality and impact of AIDS in the country.

In November 1999, the second National AIDS Control Project (NACP II) was launched to reduce the spread of HIV infection in India, and (ii) to increase India’s capacity to respond to HIV/AIDS on a long-term basis.

NACP III was launched in July 2007 with the goal of Halting and Reversing the Epidemic over its five-year period.

NACP IV, launched in 2012, aims to accelerate the process of reversal and further strengthen the epidemic response in India through a cautious and well defined integration process over the next five years.

NACP - IV - Objectives

- Reduce new infections by 50% (2007 Baseline of NACP III)
- Provide comprehensive care and support to all persons living with HIV/AIDS and treatment services for all those who require it.

Key strategies

- Intensifying and consolidating prevention services, with a focus on High Risk Groups (HRGs) and vulnerable population.
- Increasing access and promoting comprehensive care, support and treatment
- Expanding IEC services for (a) general population and (b) high risk groups with a focus on behaviour change and demand generation.
- Building capacities at national, state, district and facility levels
- Strengthening Strategic Information Management System

**Key priorities under NACP IV

- Preventing new infections by sustaining the reach of current interventions and effectively addressing emerging epidemics
- Prevention of Parent to Child transmission
- Focusing on IEC strategies for behaviour change in HRG, awareness among general population and demand generation for HIV services
- Providing comprehensive care, support and treatment to eligible PLHIV
- Reducing stigma and discrimination through Greater involvement of PLHA (GIPA)
- De-centralizing rollout of services including technical support
- Ensuring effective use of strategic information at all levels of programme
- Building capacities of NGO and civil society partners especially in states with
emerging epidemics

- Integrating HIV services with health systems in a phased manner
- Mainstreaming of HIV/ AIDS activities with all key central/state level Ministries/ departments will be given a high priority and resources of the respective departments will be leveraged. Social protection and insurance mechanisms for PLHIV will be strengthened.

Package of services provided under NACP IV

Prevention Services

- Targeted Interventions for High Risk Groups and Bridge Population (Female Sex Workers (FSW), Men who have Sex with Men (MSM), Transgenders/Hijras, Injecting Drug Users (IDU), Truckers & Migrants)
- Needle-Syringe Exchange Programme (NSEP) and Opioid Substitution Therapy (OST) for IDUs
- Prevention Interventions for Migrant population at source, transit and destination
- Link Worker Scheme (LWS) for HRGs and vulnerable population in rural areas
- Prevention & Control of Sexually Transmitted Infections/Reproductive Tract Infections (STI/RTI)
- Blood Safety
- HIV Counseling & Testing Services 8. Prevention of Parent to Child Transmission
- Condom promotion
- Information, Education & Communication (IEC) & Behaviour Change Communication (BCC).
- Social Mobilization, Youth Interventions and Adolescent Education Programme
- Mainstreaming HIV/AIDS response
- Work Place Interventions

Care, Support & Treatment Services

- Laboratory services for CD4 Testing and other investigations
- Free First line & second line Anti-Retroviral Treatment (ART) through ART centres and Link ART Centres (LACs), Centres of Excellence (COE) & ART plus Centres.
- Pediatric ART for children
- Early Infant Diagnosis for HIV exposed infants and children below 18 months
- HIV-TB Coordination (Cross- referral, detection and treatment of co-infections)
- Treatment of Opportunistic Infections
New Initiatives under NACP IV

- Differential strategies for districts based on data triangulation with due weightage to vulnerabilities
- Scale up of programmes to target key vulnerabilities
  - Scale up of Opioid Substitution Therapy (OST) for IDUs
  - Scale up and strengthening of Migrant Interventions at Source, Transit & Destinations including roll out of Migrant Tracking System for effective outreach
  - Establishment and scale up of interventions for Transgenders (TGs) by bringing in community participation and focused strategies to address their vulnerabilities
  - Employer-Led Model for addressing vulnerabilities among migrant labour e.g., Female Condom Programme
- Scale up of Multi-Drug Regimen for Prevention of Parent to Child Transmission (PPTCT) in keeping with international protocols
- Social protection for marginalised populations through mainstreaming and earmarking budgets for HIV among concerned government departments
- Establishment of Metro Blood Banks and Plasma Fractionation Centre
- Launch of Third Line ART and scale up of first and second Line ART
- Demand promotion strategies specially using mid-media, e.g., National Folk Media Campaign & Red Ribbon Express and buses (in convergence with the National Health Mission)

HIV and AIDS (Prevention and Control) Act

The Government of India enacted the HIV and AIDS (Prevention and Control) Act under the Ministry of Health and Family Welfare in the year 2017 and was in force in 2018. The State and Central Government are responsible for the following measures:

- Preventing the spread of HIV/AIDS
- Providing ART (Anti-Retroviral Therapy) for infected patients
- Providing awareness about HIV & AIDS
- Conducting educational programmes about AIDS & HIV
- Prohibiting discrimination of infected patients
- Providing HIV treatment and counselling services under the state care facilities

The Act lists various grounds on which discrimination against HIV positive persons...
and those living with them is prohibited.

HIV and AIDS (Prevention and Control) Act maintain that without the consent of the person, no one can conduct any HIV tests or treatment related to HIV. Also, the person won’t be under any compulsion to disclose his/her HIV status except when required by the Court. Informed consent for an HIV test will not be required in case of screening by any licensed blood bank, a court order, medical research, and epidemiological purposes where the HIV test is anonymous and not meant to determine the HIV status of a person. Establishments keeping records of information of HIV positive persons shall adopt data protection measures. The requirement for HIV testing as a prerequisite for obtaining employment or accessing health care or education is also prohibited.

In the case of violation of the act, the party disclosing information on a person with HIV or advocating hatred against them will be punished with a fine of one lakh rupees or imprisonment ranging from 3 months to 2 years.

Ombudsman Appointment under HIV and AIDS Bill

- An ombudsman will be appointed by each state government to inquire into complaints related to the violation of the Act and the provision of health care services.
- The Ombudsman shall submit a report to the state government every six months stating the number and nature of complaints received, the actions taken and orders passed.

Recent News

The World AIDS Day is observed on 1st December every year all over the world. It was founded in 1988 by the World Health Organization (WHO) and was the first ever global health day with a motto of raising public awareness about Acquired Immuno Deficiency Syndrome.

AIDS is a pandemic disease caused by the infection of Human Immunodeficiency Virus (HIV), which damages the human immune system. In 2019, 6,90,000 people died from HIV-related causes and 1.7 million people were newly infected, with nearly 62% of these new infections occurring among key populations and their partners.

**Theme for 2020:** “Global solidarity, resilient HIV services.”
On World AIDS Day 2020, WHO is calling on global leaders and citizens to rally for “global solidarity” to overcome the challenges posed by Covid-19 on the HIV response. HIV prevention, testing, treatment and care services are all being disrupted particularly in countries with fragile health systems. Slowing progress means the world will be missing the “90-90-90” targets for 2020, which were to ensure that 90% of people living with HIV are aware of their status, 90% of people diagnosed with HIV are receiving treatment, and 90% of all people receiving treatment have achieved viral suppression. Any slowing down in provision of these services will leave many vulnerable populations at greater risk of HIV infection and AIDS-related deaths and missing these intermediate targets will make it difficult to achieve the target of elimination of AIDS by 2030.

In 2020, the International Year of the Nurse and the Midwife, it is a call for more protection and support to these health workers who have long been on the frontline of HIV service delivery.

Significance: It reminds the public and government that HIV has not gone away and there is still a vital need to raise money, increase awareness, fight prejudice and improve education. It is an opportunity to show solidarity with the millions of people living with HIV worldwide.