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DIGITAL RESOURCES

YEAR
II

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ENVIRONMENTAL SCIENCE AND ENGINEERING

UNIT NO 5

HUMAN POPULATION AND THE ENVIRONMENT

5.4 HIV/AIDS Women Welfare Child Welfare

SCIENCE & HUMANITIES

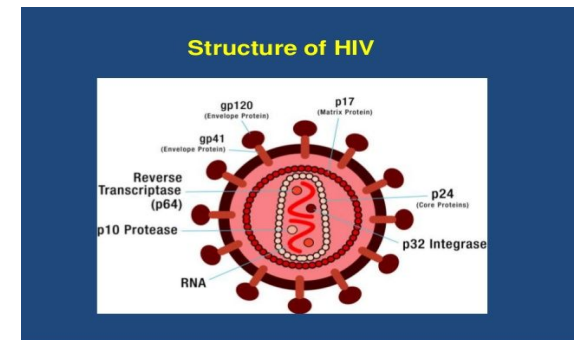


HIV/AIDS

Dr. Robert Gallo at National Institute of Health, USA and Luc Montagnier at Pasteur Institute, Paris isolated the virus, HIV which causes AIDS.

HIV stands for
Human Immunodeficiency Virus
AIDS stands for
Acquired Immunodeficiency Syndrome

The terms “HIV” refers to the virus itself and “AIDS” refers to the late stage of HIV infection.



Origin

AIDS was discovered in 1983. Though sufficient knowledge about the disease has been gained, yet a definite source of this virus could not be identified. But it is believed that it is transferred to humans from African monkeys, through contaminated polio vaccine prepared from monkey's kidney, through Hepatitis-B viral vaccine, through smallpox vaccine programme of Africa.

1. Through African Monkey

Most of the evidences have suggested that the AIDS has spread from Africa. It has transferred to human from African monkey or Chimpanzee.

2. Through Vaccine Programmes

- a) HIV has spread in Africa through the HIV contaminated polio vaccine, prepared from monkey's kidneys.
- b) It had spread through hepatitis -B viral vaccine in Los Angeles and New York.
- c) It had also spread through the smallpox vaccine programme of Africa.

Factors influencing modes of Transmission of HIV

HIV is spreading due to the following activities

- It is transmitted through certain body fluids from an HIV-infected person-Blood, Semen, Rectal fluids, vaginal fluids, Breast milk. These body fluids when come into contact with a mucous membrane or damaged tissue or when directly injected into bloodstream (by a needle or syringe) the transmission is possible.
- Having unprotected sex with someone who has HIV.
- Sharing needles, syringes, rinse water, or other equipment used to prepare injection drugs with someone who is infected with HIV.
- Being born to an infected mother. (HIV can be passed from mother to child during pregnancy, birth, or breastfeeding).
- Receiving blood transfusions, blood products, or organ/tissue transplants that are contaminated with HIV.
- Contact between broken skin, wounds, or mucous membranes and HIV-infected blood or blood-contaminated body fluids.

Factors not influencing transmission of HIV

- Air or water
- Insects, including mosquitoes or ticks
- Saliva, tears, or sweat
- Casual contact, like shaking hands, normal kissing, hugging or sharing dishes/drinking glasses

HIV can not spread through:

Shaking hands



Sharing equipment



Sharing utensils



Sharing toilets



HIV(Human Immuno Deficiency Virus) causes Acquired Immune Deficiency Syndrome(AIDS)
Therefore, working with an HIV positive person involves no risk.

Function of HIV inside human body:

HIV is like other viruses that cause the flu or the common cold. But an important difference over time is that our immune system can clear most viruses out of our body. That is not the same in case of HIV, the human immune system can't seem to get rid of it.

HIV can hide for long periods of time in the cells of your body and that it attacks a key part of the immune system. White Blood Cells responsible in the formation of antibodies are called T-helper cells.

Our body has to have these cells to fight infections and disease, but HIV invades them, uses them to make more copies of it, and then destroys them. Over time, HIV can destroy so many of your CD4 cells that your body can't fight infections and diseases anymore.

When that happens, HIV infection can lead to AIDS, the final infection. No safe and effective cure currently exists, but scientists are working hard to find one. But with proper medical care, HIV can be controlled.

Treatment for HIV is often called antiretroviral therapy or ART. This can dramatically prolong the lives of many people infected with HIV and lower their chance of infecting others.

Symptoms:

- **Early Stage of HIV**

Within 2-4 weeks after HIV infection, many people experience flu-like symptoms often described as the 'worst flu ever'. This is called "acute retroviral syndrome" (ARS) or "primary HIV infection," and it is the body's natural response to the HIV infection.

Symptoms include Fever, Swollen glands, Sore throat, Rash, Fatigue, Headache, Muscle and joint aches.

- **The Clinical Latency Stage**

Latency means a period where a virus is living or developing in a person without producing symptoms. During the clinical latency stage, people who are infected with HIV experience no HIV-related symptoms, or only mild ones.

This stage is sometimes called "asymptomatic HIV infection" or "chronic HIV infection."

During the clinical latency stage, the HIV virus reproduces at very low levels, although it is still active. If one takes

antiretroviral therapy (ART), they may live with clinical latency for several decades because treatment helps keep the virus in check.

It is important to remember that people in this symptom-free period are still able to transmit HIV to others even if they are on ART, although ART greatly reduces the risk of transmission.

Progression to AIDS

If one has HIV and you are not taking HIV medication (antiretroviral therapy), eventually the HIV virus will weaken your body's immune system. The onset of symptoms signals the transition from the clinical latency stage to AIDS.

During this late stage of HIV infection, people infected with HIV may have the following symptoms:

- Rapid weight loss
- Recurring fever or profuse night sweats
- Extreme and unexplained tiredness
- Prolonged swelling of the lymph glands in the armpits, groin, or neck
- Diarrhea that lasts for more than a week
- Sores of the mouth, anus, or genitals
- Pneumonia
- Red, brown, pink, or purplish blotches on or under the skin or inside the mouth, nose, or eyelids
- Memory loss, depression, and other neurologic disorders.

Minor symptoms

1. Persistent cough for more than one month.
2. General skin disease.
3. Viral disease
4. Fungus infection in mouth and throat
5. Frequent fever headache, fatigue

Major Symptoms

1. Fever for more than one month
2. Diarrhea for more than one month
3. Cough and TB for more than 6 months
4. Fall of hairs from the head
5. 10% of body weight get reduced within a short period

Many of the severe symptoms and illnesses of HIV disease comes from the opportunistic infections that occur because your body's immune system has been damaged.

Diagnosis:

- ELISA test (Enzyme Linked Immunosorbent Assay) is a sensitive preliminary blood test used to detect HIV antibodies.
- Western Blot is the confirmatory test, which is highly specific and based on specific antibodies to viral core proteins

Control and Preventive Measures of AIDS:

Once a person is infected with HIV the person remains infected for life. There is neither a cure nor a vaccine but can be prevented. "Prevention is better than cure" is a slogan for all of us. The basic approaches to control AIDS are:

1.Education: Health education enables people to avoid indiscriminate sex and encourages the use of condoms. One should avoid the use of sharing razors, needles and syringes.

2. Prevention of blood borne HIV transmission: People in high risk groups should not donate blood. Blood should be screened for HIV before transmission and strict sterilisation practices should be followed in hospitals.

3. Primary Health Care: AIDS awareness programmes should be encouraged. Voluntary health agencies should participate in large. Training programmes to doctors and paramedical workers should be conducted.

4. Counselling Services: Counselling services should be provided in person or through telephone.

5. Drug Treatment: Testing HIV positive does not mean the end. They can still stay healthy leading productive lives for many years. Seeking early medical care and staying active are very vital in managing HIV. the immune system has to be kept boosted by taking nutritious diet and maintaining a stress-free mind.

Women Welfare and child welfare

Women and children are usually soft, who suffer in a number of ways mainly because they are weak, helpless and economically dependent.

Women Welfare

The main aim of women welfare is to improve the status of the women by providing opportunities in education, employment and economic independence.

Need of Women Welfare

Generally women face the following problems in society. So there is an urgent need for policy reforms and more stringent legislation, education and legal awareness among women for checking in justice towards her.

1. Generally women suffer gender discrimination and devaluation at home at workplace in matrimony in public life and power.
2. High number of cases of dowry deaths, rape, domestic violence, criminal offences and mental torture to women.
3. The human rights of women are violated in the male dominated society.
4. Generally in policy making and decision making processes women are neglected.

Objectives of women welfare

1. to provide education
2. To impart vocational training
3. To generate awareness
4. To improve employment opportunities
5. To restore dignity, equality and respect.

The main aim of women is to improve the status of women by providing opportunities in education employment and economic independence.

Objectives of a National Commission for women

A National Commission for Women has been created by Government of India, its main objectives are

- (i) To examine constitutional and legal rights for women.
- (ii) To review existing legislation.
- (iii) To sensitize the enforcement and administrative machinery to women's causes.

Measures or Various Schemes of various organisations towards women welfare

- **NNWM: National Network for Women and Mining-** It is fighting for a gender audit of India's mining companies.
- **UNDW: United Nations Decade for Women-** It witnessed inclusion of several women welfare related issues on international agenda.
- **CEDAW:International Convention on the Elimination of all forms of Discrimination against women-** It has created an International standard for the protection and promotion of women's human and socio-economic upliftment.
- **NGO'S: Non- government Organization-** It creates awareness among women of remote villages to empower them,educate them,help them to become economically self-dependent.
- **MWCD: Ministry of women and Child Development-**It aims to work for the upliftment of women by family planning healthcare,education and awareness.

Child welfare

A child occupies nearly 40% of total population. They are considered to be the assets of a society. Of 21 million children born every year in India. 20 million Children in our country are estimated to be working as child labourers in various hazardous industries like match industry, fire work industry, pottery industry.

Reason for Child Labours

1. Poverty: Poverty is the main reason to force these children to work in unhealthy conditions.
2. Want of Money: Parents require money for their family, so they are in a position to send their children for work.

Need for child welfare:

1. Female child infanticide
2. Child labour
3. Child beggars
4. Child prostitution
5. Child marriage
6. Malnutrition
7. Poverty
8. Denying education
9. Child sacrifice in pujas

Objectives of child welfare:

1. Nutritious and balanced diet should be given
2. Mid-day meal programs
3. Vitamins must be given
4. Compulsory education
5. Free education
6. Free medical facility
7. Orphanage

Organization of Child welfare:

- **UNICEF:** United Nations International Children Emergency Fund-1946.
- **IAPCW:** International Association for the promotion of Child Welfare
- **SCF:** Save The Child Fund
- **WHO:** World Health Organization
- **IUCW:** International Union For Child welfare.

Measures or Various schemes of various organisations towards child welfare

1. **UN convention on Rights of Child:** It formulated a set of International standards and measures to promote the well being of children in our society.

Rights of the child: The International law defines the right of the child to survival, participation, development and protection.

- a) The Right to survival: It emphasizes on good standards of living good nutrition and health.
- b) The right to participation: It means freedom of thoughts and appropriate information to the child.
- c) The right to development: It ensures access to education, childhood care and support, social security and recreation.
- d) The Right to protection: It means freedom from exploitation, inhuman treatment and neglect.

2. World summit on Children: It had focussed agenda for the well being of the children targeted to be achieved in the beginning of the new millennium.

3. Ministry of Human Resource Development (MHRD):

It concentrates on child's health, education, nutrition, clean and safe drinking water, sanitation and environment.

EDUCATION AND SOCIO-ECONOMIC STATUS:

In some countries education is given to the male child as compared to the female child. The drop out rate of girls (from schools) is much higher than boys. This indirectly affects the socio-economic status of women.

This problem can be controlled by making female education free. Certain income generating activities are also created to improve the socio economic status of women

DEVELOPMENT OF WOMEN:**1.BAALIKA SAMRIDHI YOJANA:**

This scheme was launched in 1997 by which the mother of a girl child born in a family below poverty line is given a grant of Rs 500 and a scholarship for education of the child is given when she attends the school.

2.INDIRA MAHILA YOJANA:

Its aim is to improve the socio-economic status of the poor women in the rural areas through income generating activities

3. RASHTRIYA MAHILA KOSH :

This scheme has sanctioned loan to meet the needs of the poor women.

4.DAHEJ MUKTI ABHIYAN:

The National commission for women launched a campaign of DAHEJ MUKTI ABIYAN against the practice of dowry in 1999.

5.SHORT STAY HOME FOR WOMAN AND GIRLS:

Under this scheme working women hostels have been sanctioned for single, divorced, widowed women to migrate to cities in need of employment..

DEVELOPMENT OF CHILDREN:

Following are some of the program for the welfare of children

1.BALWADI NUTRITION PROGRAMME

This program was started in 1970 to provide full nutrition, informal pre-education to the children of 3-5 years age.

2.THE INTEGRATED CHILD DEVELOPMENT SERVICES(ICDS)-1975:

It aims to provide services of regular health checkup, immunization, supplementary nutrition, pre-school education

3.LEGISLATIVE MEASURES:

THE CHILD LABOUR (PROHIBITION AND REGULATION) ACT-1986

prohibits the employment of children under the age of 14.

4.MID –DAY MEAL SCHEME-1995:

Under this scheme the children studying in schools are provided a free mid-day meal.

5. DAY CARE CENTRE FOR CHILDREN.

It was launched to take care of the children during day time.

HIV/AIDS videos

[\(195\) HIV AIDS Animation Video - YouTube](#)

https://youtu.be/5_78Fyk7mIE

Child welfare schemes

<https://youtu.be/lhwUSfgueYo>

THANK YOU