

## 52 = 0<sup>v</sup> HIV - AIDS 0<sup>v</sup> =

### Introduction: -

HIV was first identified in 1981 in USA among homosexuals.

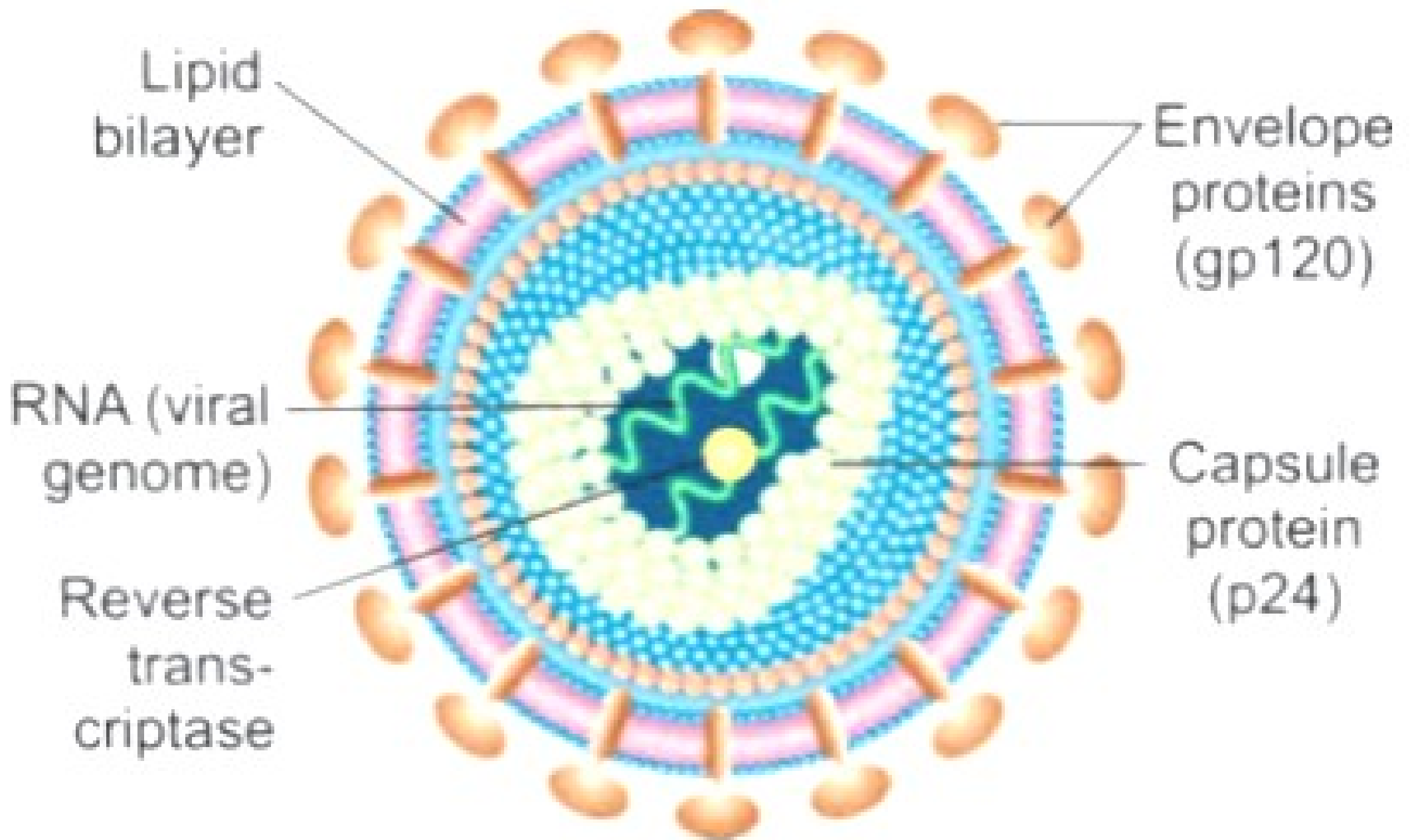
In 1983 French investigator named Lymphadenopathy associated virus (LAV)

In 1984 virus was isolated by Gallo and coworkers from national Institute of health in United states.

They named Human T-cell lymphotropic virus III (HTLV-III)

Thailand was the first country in the SEAR to report a case of AIDS, in 1984. In 1986 a new strain of HIV was isolated in West Africa patient with AIDS which is called HIV-2.

In May 1986, International committee on taxonomy gave a new name called Human Immune Deficiency virus. Since its identification, HIV/AIDS is devastating disease of mankind.



## Etiology:

Human Immuno Deficiency virus.

Size:  $1/10,000$ th of a millimeter in diameter.

It is a protein capsule containing two short strands of genetic material (RNA) and enzymes.

Two types: HIV-1 and HIV-2.

## Reservoir of Infection:

Once a person is infected, virus remains life long.

Cases are carriers

It can be transmitted even if the person is symptoms less.

## Source of Infection:

Virus has been found in greatest concentration in blood, semen and CSF.

Lower concentrations have been detected in tears, saliva, breast milk, urine, and cervical and vaginal secretion.

To date, only blood and semen have been conclusively shown to transmit the virus.

Most cases have occurred among sexually active persons aged 20-49.

Sex workers

IDUs

Clients of sex workers

MSM

Labor migrant / Transport workers  
 Partners of migrants / house wives  
 Street children  
 Military, police  
 Health care workers

### Phases of HIV Infection:-

#### 1. phase 1 (3-12 weeks)

Acute HIV syndrome

Sore throat

Fever

Skin rash

Meningitis

High viremia.

#### 2. Middle chronic phase (10-12 years)

Competition between HIV and host immune system

patient asymptomatic or has mild symptoms

Moderate viremia

#### 3. phase-3

Full blown AIDS

Severe Immuno suppression.

Drop in CD4 count below 200/uL

(normal count: > 950 CD4 cells / uL)

High viremia.

## AIDS signs :- signs

### Major .

Weight loss  $> 10\%$  body weight  
 Chronic diarrhea  $> 1$  months duration  
 Prolonged fever  $> 1$  month.

### Minor

Recurrent oral-pharyngeal candidiasis  
 Persistent generalized lymphadenopathy  
 Persistent cough  $> 1$  month  
 Recurrent herpes zoster.

## Mode of transmissions.

During sexual contact

Unprotected sex

Anal (10 times higher risk)

Vaginal

Oral

Transmission from male to female is more (twice) as compared to female to male.

STDs facilitate for transmission of HIV.

Through infected blood

Sharing needles

Use of contaminated needles and syringes.

Transfusion of HIV infected blood or blood products.

From mother to child

During pregnancy

During child birth

Through breast feeding.

# HIV/AIDS is transmitted



UNPROTECTED  
SEX



DRUG ADDICTS



BLOOD  
TRANSFUSION

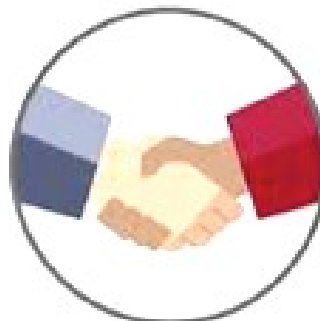


PREGNANCY



NON-STERILE  
INSTRUMENTS

# HIV/AIDS is not transmitted



TOUCHING



THROUGH FOOD



WITH A KISS

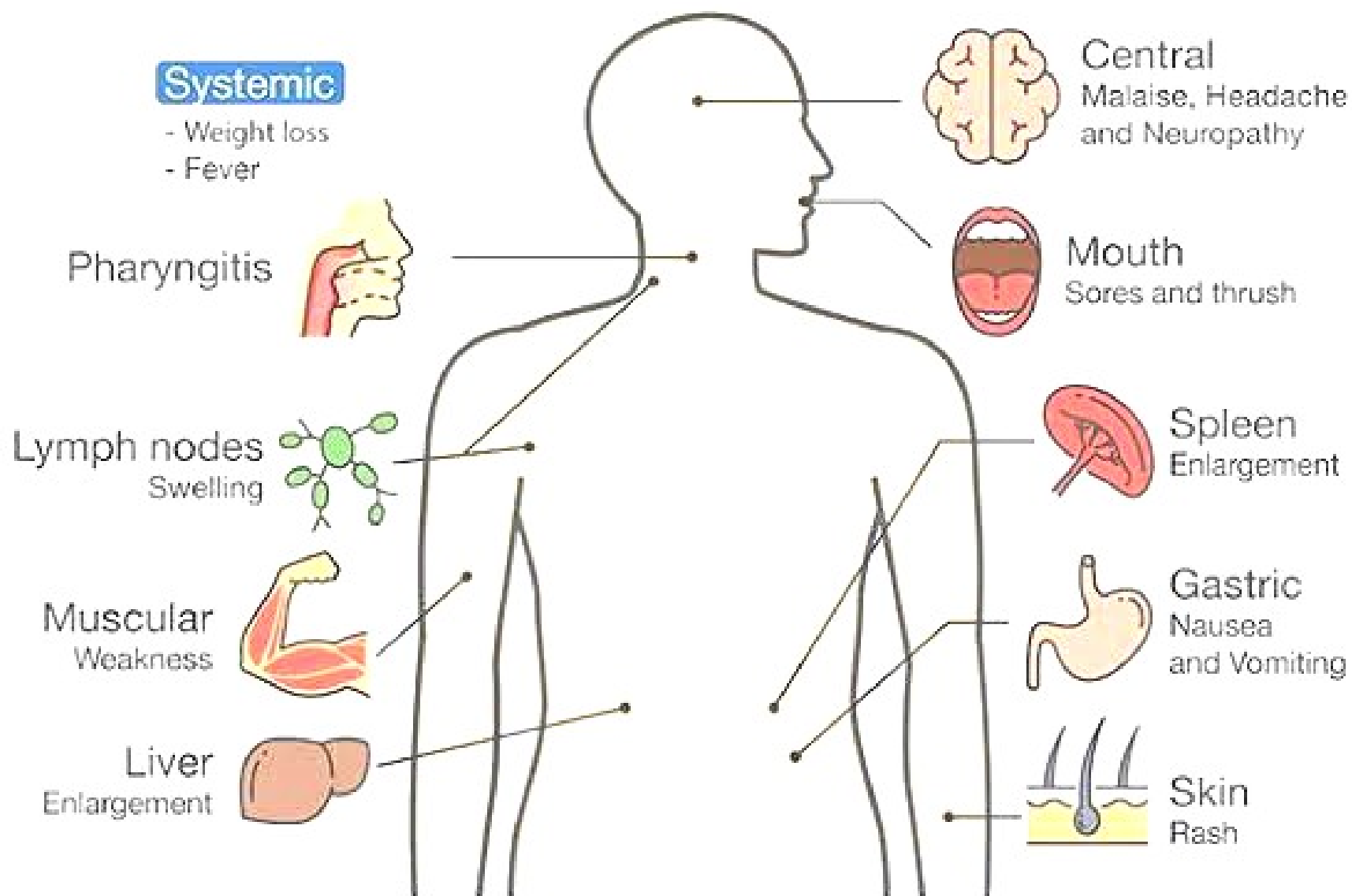


INSECT BITES



IN THE POOL

# Main symptoms of HIV infection



## Diagnosis:

### Direct tests

ELISA

Recombinant DNA techniques

Viral isolation in culture

PCR

### Indirect tests

CD4 counts

Lymphopenia

Lymph node biopsy

Incubation period: Current data suggests that the incubation period is uncertain, (from a few months



## prevention:

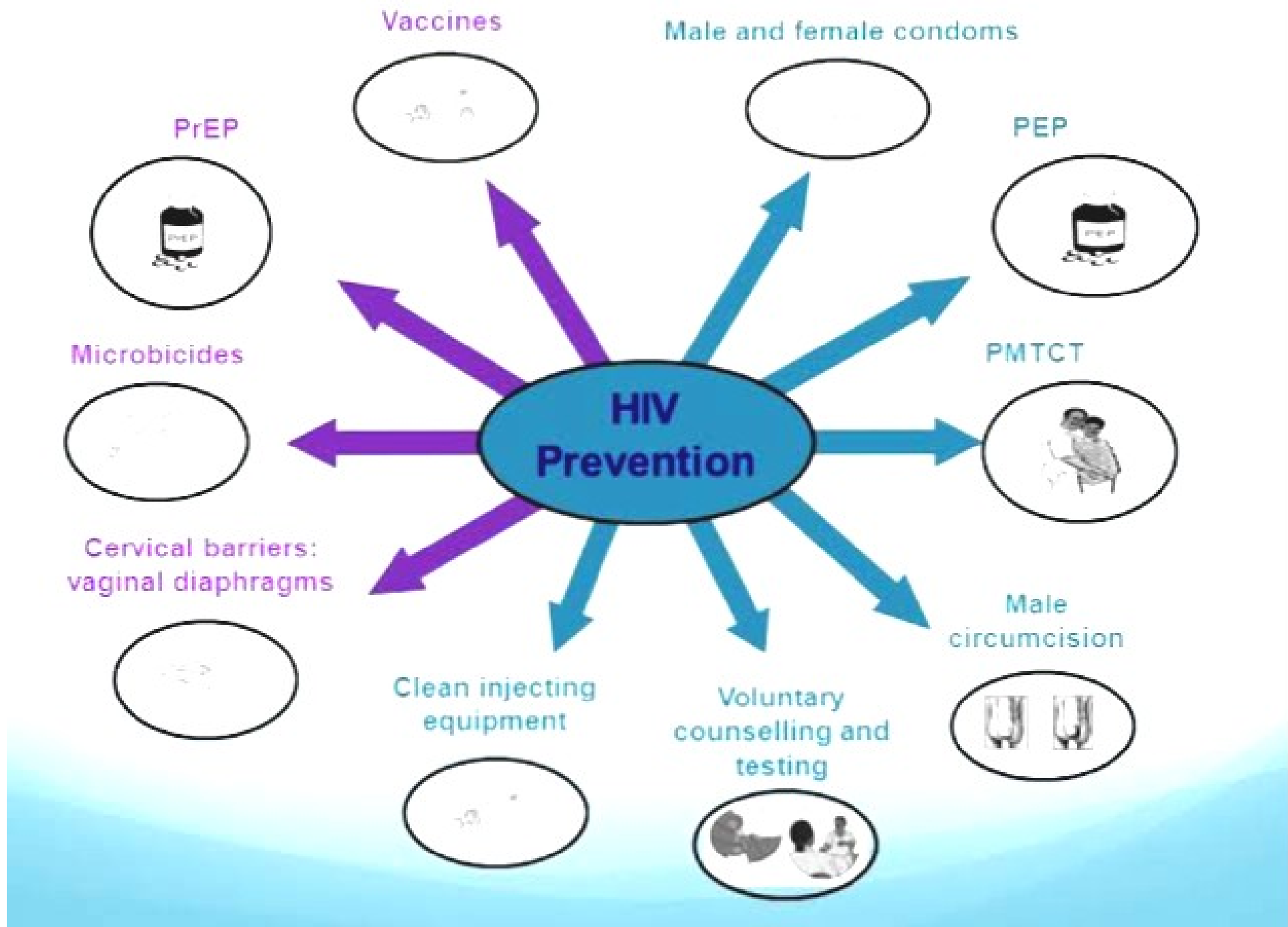
Raising awareness

prevention of blood borne HIV Transmission.

Strict sterilization techniques should be applied to the hospitals and clinics.

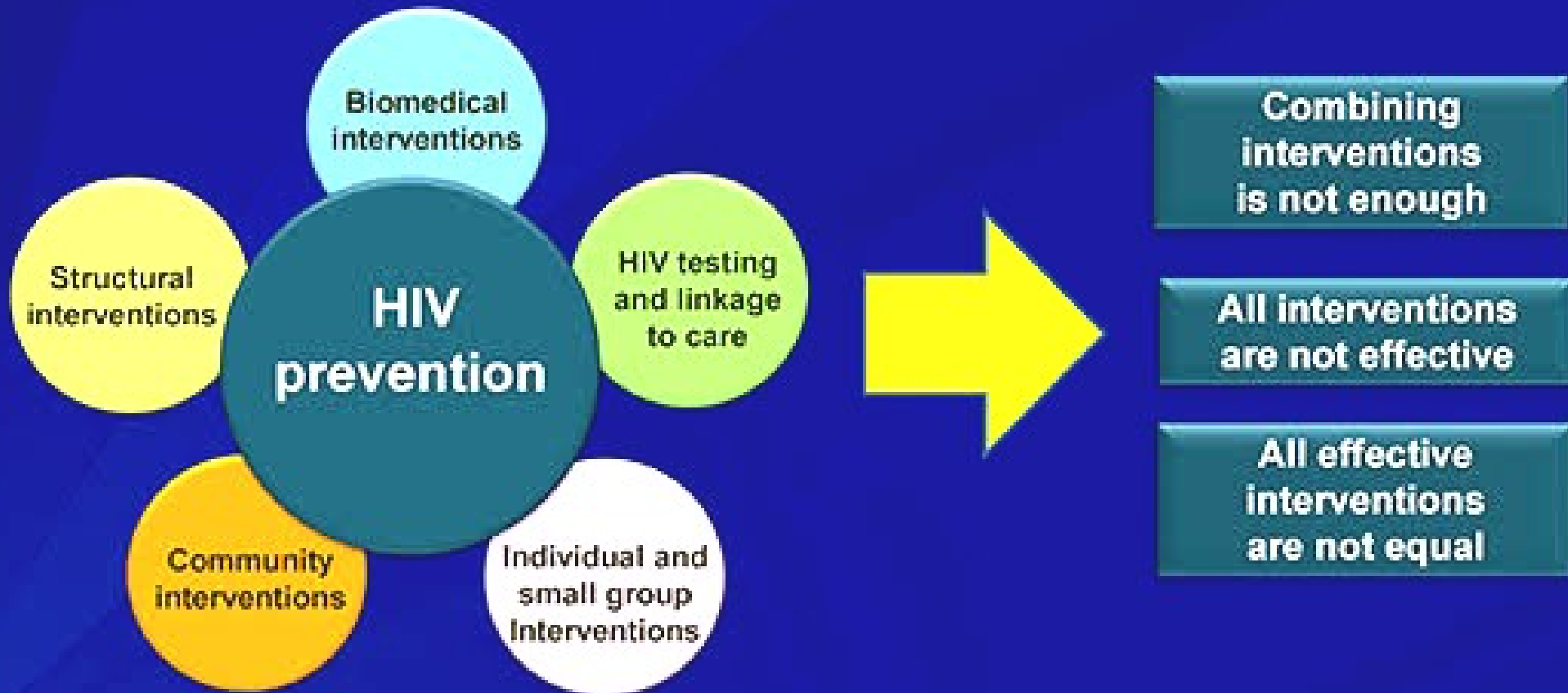
Avoid injections unless they are absolutely necessary.

Rehabilitation of HIV/AIDS cases.



# Combination prevention

## Multiple disciplines and approaches



## Treatments

Antiretroviral treatment

protease inhibitors

post exposure prophylaxis treatment

Every year, on 1 December, the World commemorates World AIDS Day. People around the world unite to show support for people living with and affected by HIV and to remember those who lost their lives to AIDS.

It is designated on 1 December every year since 1988. Government and health officials, non-government organizations, and individuals around the world observe the day, often with education on AIDS prevention and control.

PICS