



# HIV Transmission Routes

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*A state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity.*

WHO, 2006



# Session Content

## A. HIV Basics

### B. What is a **transmission route**?

#### A. **Factors** for transmission

#### B. Common and less common **transmission routes for HIV**

## **DYNAMIC 2: HIGH / LOW RISK**



# A. HIV BASICS

# HIV

- **HIV stands for Human Immunodeficiency Virus**
- HIV was first isolated in Paris in 1983
- HIV belongs to a group of viruses called “retroviruses”
- Viruses work by copying their genetic material into the genetic material of human cells
- HIV infects important cells in our immune system and stops them from working properly



## A. HIV BASICS

# AIDS

- **AIDS stands for Acquired Immune Deficiency Syndrome**
- A syndrome is a collection of different symptoms and illnesses that come from the same underlying medical condition – therefore AIDS is not one illness
- AIDS develops as the result of damage done to the immune system by HIV
- Because of this damage, micro organisms that the immune system could normally deal with take the opportunity to cause infections/tumours.
- Certain types of these illnesses are called “AIDS defining” and the HIV positive person would be given an AIDS diagnosis.
- With improved medications for HIV, in recent years there has been a change in terminology and it is rarer to hear of people having AIDS



**Training  
Academy**

STEP-UP: Skills Training to Empower Patients



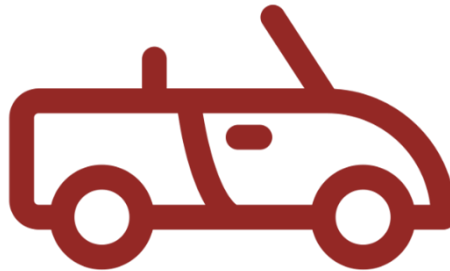
## B. TRANSMISSION

In medicine, public health, and biology, **transmission** is the passing of a pathogen causing communicable disease from an infected host individual or group to a particular individual or group, regardless of whether the other individual was previously infected.



Virus /  
pathogen

Vehicle



Access

# Factors for transmission

- **HIV present** in blood, semen and vaginal fluids, breast milk of an *HIV positive person*
- Enters body through sexual organs, bloodstream, mouth
- **Presence** of virus in body fluid
- **Quantity** of virus in body fluid
- **Quality** of virus in body fluid
- **Route** into the body/bloodstream



# Other factors to consider

- Contact: type of mucous membrane, fluid,...
- Fluid amount
- Gel / lubricant
- “Genital / anal shower”
- Use of drugs
- Other STIs (x5)
- Infectivity: primary infection VS undetectable

# Common routes for transmission

- **\*Unprotected** anal or vaginal sex
- **Blood to blood contact** – e.g. sharing needles
- **Mother to baby** – during pregnancy, birth or through breastfeeding

## Less common routes!

- \*Oral sex without a condom
- Sharing sex toys
- Needle stick injuries
- Eye splashes
- Skin piercing/tattooing (unsterilised equipment)
- Donated blood and tissue in countries with inadequate screening

# HIV

## FLUID (vehicle)

- Sexual fluids:  
semen, vaginal
- Blood
- Breast milk

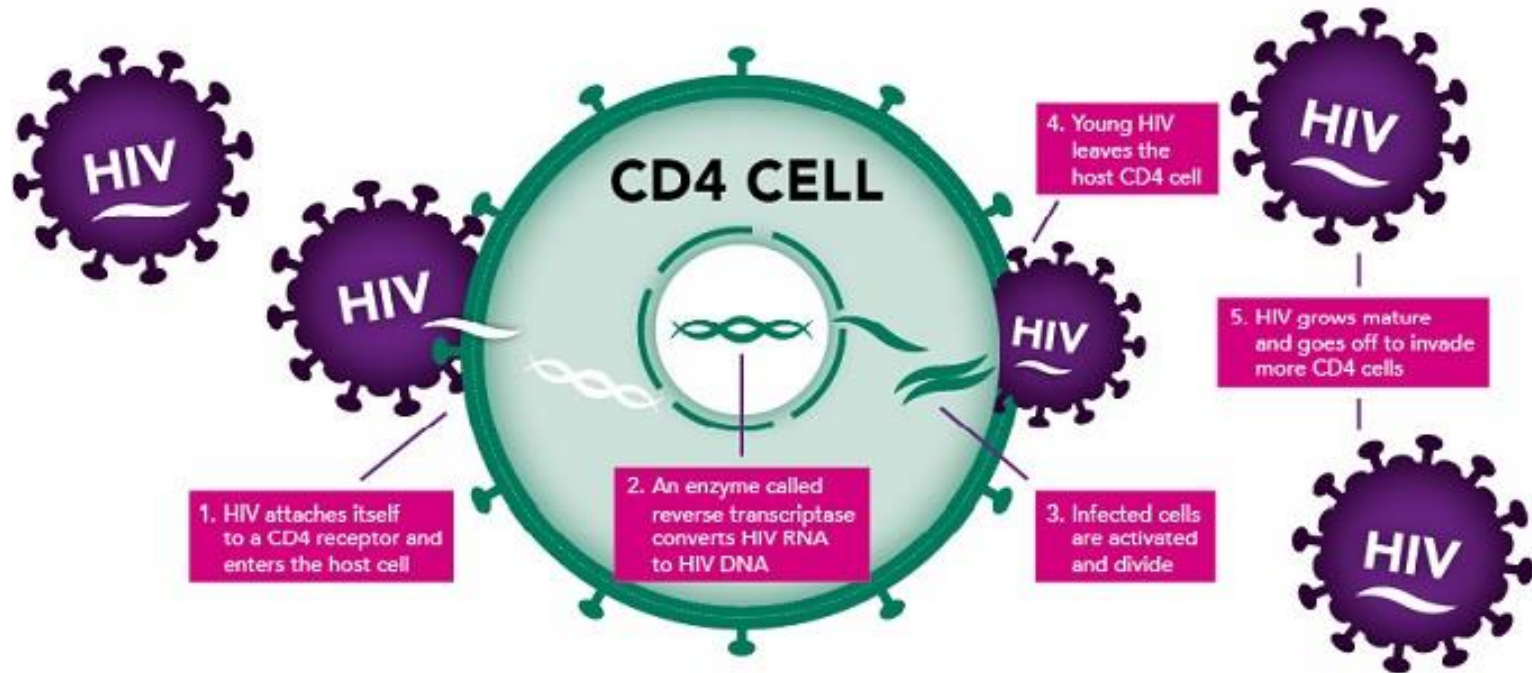
## OPEN DOOR (bloodstream)

- Mucous
- Injuries

- HIV is also present in **menstrual blood**
  - HIV positive people can be **re-infected with different strains of HIV or drug resistant HIV** although this is relatively rare.
  - **HIV positive people can have an “undetectable”** level of HIV in their blood.
- 
- **Sharing needles** – e.g. to inject drugs
  - **Tattooing** – using same equipment. Slightly less risk as injection is into the mucous membrane rather than directly into the bloodstream.
  - **Needle stick injuries**. Slightly less risk as injection is into the mucous membrane rather than directly into the bloodstream.
  - **Blood, organ, tissue donations** (REGULATIONS)

- Also referred to as “**vertical transmission**”
- Can take place through:
  - **The placenta during pregnancy** – although the transmission rate is affected by anti-HIV drugs
  - **During birth** – HIV is in cervical secretions and blood
  - **Breastfeeding** – HIV is present in infectious quantities in breast milk or blood (e.g. from cracked nipples). Baby has delicate oral/gastrointestinal membranes which can act as route of into the body for HIV virus.
  - With **Combination therapy, good healthcare, birth by caesarean and not breastfeeding the risk of transmission can be reduced to as little as 1% transmission from mother-baby.**

# Soon... THE HIV LIFE



## E. DYNAMIC: HIGH / LOW / NO

- **3 groups**
- **SPREAD scenarios cards** around participants:
  - **Bare-baking**
  - **Fisting**
  - **Oral sex without a condom**
  - **Anilingus (butt licking)**
  - **Rimming**
  - **BSM (Bondage & Sado-Masochism)**
  - **Tit Wank**
  - **Skin contact with semen or vaginal fluid**
  - **Scat**
  - **Vaginal sex without or with condom**



# DYNAMIC: HIGH / LOW / NO

- **3 groups**
- **SPREAD scenarios cards** around participants:
  - **Sharing sex toys**
  - **Mutual masturbation**
  - **Snogging**
  - **Cunnilingus**
  - **Watersports**
  - **Anal sex without or with condom**
  
- **Link with communities**



# DYNAMIC: HIGH / LOW / NO

- **3 groups**
- **Work some questions** in the group :
  - **Which are the most affected communities for the HIV epidemic in your countries?**
  - **How are they connected with the transmission routes? Which practices? Link communities, practices identified and transmission routes.**
  - **Which other factors make an impact in the HIV transmission in your countries?**
- **Prepare a presentation** about which practices and factors are relevant for prevention and harm reduction in your country
- **Brainstorming & discussion**



# SUMMARY

- HIV can enter in our body through some body fluids with HIV present in infectious quantities and conditions
- Triangle: fluid – vehicle – open access & factors
- Common routes: sex – blood to blood – mother to child
  
- And think about other factors which have some influence in the HIV transmission.





GRACIAS 😊

Jorge Garrido