WHAT IS HIV?

- **Human** - can only infect humans
- **Immunodeficiency** - weakens your immune system (what keeps you from getting sick)
- **Virus** - needs another cell to reproduce
HIV IS MAINLY PRESENT IN:

- Blood
- Semen
- Pre-ejaculate
- Breast milk
- Vaginal fluid
- Rectal fluid
HOW IS HIV TRANSMITTED?

- Sexual Contact
- Injection Drug Use
- Pregnancy, Childbirth & Breast Feeding
- Occupational Exposure
- and rarely, Blood Transfusion/Organ Transplant
HOW IS HIV NOT TRANSMITTED?

- Casual contact
- Kissing
- Saliva, tears, sweat
- Using the same toilet seat
- Sharing food utensils
- Animal bites
QUESTION!

How long can HIV live outside the body?
ANSWER!

• Not very long at all!
  • Once exposed to air (and lower temperature), the virus begins dying immediately
  • Some estimates- a few minutes
  • Only place has been demonstrated to live longer outside the body- in needles in syringes and labs
BEFORE WE TALK MORE ABOUT HIV…

Your Immune System
YOUR IMMUNE SYSTEM

• Made up of a bunch of different types of cells
  • Important ones for this presentation
    • CD4- send signal
    • CD8- killer

• All work together to keep you healthy and fight infections
CD4 COUNTS

• A tablespoon of blood should have between 500 and 1,000 CD4 cells
  • The more the better!
  • CD4 counts can vary depending on time of day, stress, if you’re sick, etc.

• \( \leq 350 \), danger zone

• \( \leq 200 \), AIDS diagnosis
  • Can also receive an AIDS diagnosis with certain opportunistic infections
BACK TO HIV
Once HIV is inside your body

- HIV attacks and infiltrates CD4 cells
- HIV uses the CD4 cell to replicate, destroying it
- What do you think happens when CD4 cell counts are low?
SYMPTOMS

• Many HIV+ people only feel sick when they progress to AIDS
  • Untreated, 50% of people develop AIDS about 10 years after infection
• 2-3 weeks (up to 3 months), “worst flu ever”
• There are many opportunistic infections all with different symptoms
AIDS

- **Acquired**- have to catch it, not genetic
- **Immune**- relating to the immune system
- **Deficiency**- lack of
- **Syndrome**- collection of signs and symptoms for a single condition
OPPORTUNISTIC INFECTIONS

• Infection that normally wouldn’t normally make you sick
  • Can cause devastating illness
• Many occur when CD4 count is below 200
• There are over 20 different AIDS defining OIs.
QUESTION!

How many people die directly from HIV every year in the US?
ANSWER!

• 0!

• HIV doesn’t cause death, it weakens the immune system

• Opportunistic infections are what’s deadly
  • Most common cause of death for people living with HIV/AIDS

• Death from complications related to AIDS
TREATMENT

• Still no cure almost 34 years later
  • Antiretroviral therapy (ART)/highly active antiretroviral therapy (HAART) can help increase CD4 counts and decrease the amount of virus

• Goal- viral suppression (being undetectable)

• Persons diagnosed today who are adherent to their meds can have a near normal life expectancy
PREVENTION!

It’s more than just condoms!
ABSTINENCE

• The most effective way to prevent HIV and STIs is to abstain from sexual activity

• Not for everyone. Other options?
BARRIERS

- Condoms are a great way to protect against many (but not all) STIs and HIV
- Many many different kinds
- Must be used consistently and properly
- There is a failure rate…
- Don’t forget about the lube!
TREATMENT AS PREVENTION

• A HIV+ person on who adheres to his or her treatment can also prevent passing on the virus to other people

• A study- HPTN 052- 96% reduction in transmission when partner is undetectable

• Current study- PARTNER Study- 0 seroconversions in over 44,500 sex acts
PrEP

• Pre-exposure prophylaxis (PrEP) is a HIV prevention tool where *HIV-negative* individuals at high risk of coming into contact with the virus use a once-daily pill (Truvada) to reduce their risk of becoming infected.
  • PrEP should be used along with other prevention methods such as condoms
  • When taken daily as prescribed, PrEP has been shown to be up to 99% effective in preventing HIV infection

• Adherence is key!!!
HIV ISN’T JUST ABOUT HIV

There’s a lot more to it!
INTERSECTIONS

- Housing
- Poverty
- Mental health
- Substance use/abuse
- Access to healthcare
- Stigma
- Violence
- Isolation
- Etc.

[Diagram showing Maslow's hierarchy of needs with intersections highlighted]
THE STATE OF HIV IN OHIO AND THE US

Some epidemiology
HIV/AIDS IN OHIO-2014 (Most Recent Data)

- **950** new infections
  - 42% between 20 and 29 years old
  - 52% African American
  - Transmission Category- 68% MSM

- **21,612** living with diagnosis of HIV infection
  - 44% African American
  - Transmission Category- 67% MSM
  - 10,930 HIV; 10,682 AIDS

- **12,001** cumulative deaths
In the US, 1.2 million people are living with HIV. Of those:

- **Diagnosed**: 86%
- **Engaged in Care**: 40%
- **Prescribed ART**: 37%
- **Virally Suppressed**: 30%

**SOURCES**: CDC National HIV Surveillance System and Medical Monitoring Project, 2011.

*Antiretroviral therapy*
HIV/AIDS DISPARITIES

Subpopulations representing 2% or less of the overall US epidemic are not reflected in this chart.
A SIMPLE WAY TO EXPLAIN HIV TO YOUR CLIENTS
SUMMARY

• HIV is the virus that causes AIDS
• HIV is transmitted in very specific ways and is present in a limited amount of body fluids
• There is no cure but treatment can help people live almost average lifespans and avoid transmitting the virus to others
• HIV isn’t just about HIV—Intersectionality
• HIV disproportionately effects the African American community
QUESTIONS?

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