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# HIV and the Buckeye State

A Primer

Karen Rubin, MPH  
Senior Community Engagement Coordinator  
[rubin@ohioaidscoalition.org](mailto:rubin@ohioaidscoalition.org)  
614-340-6707

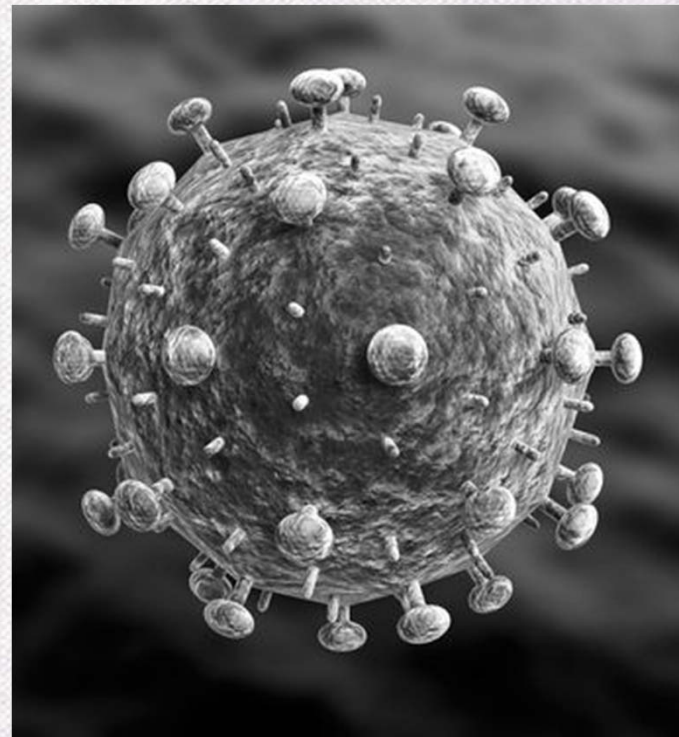


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# HIV 101

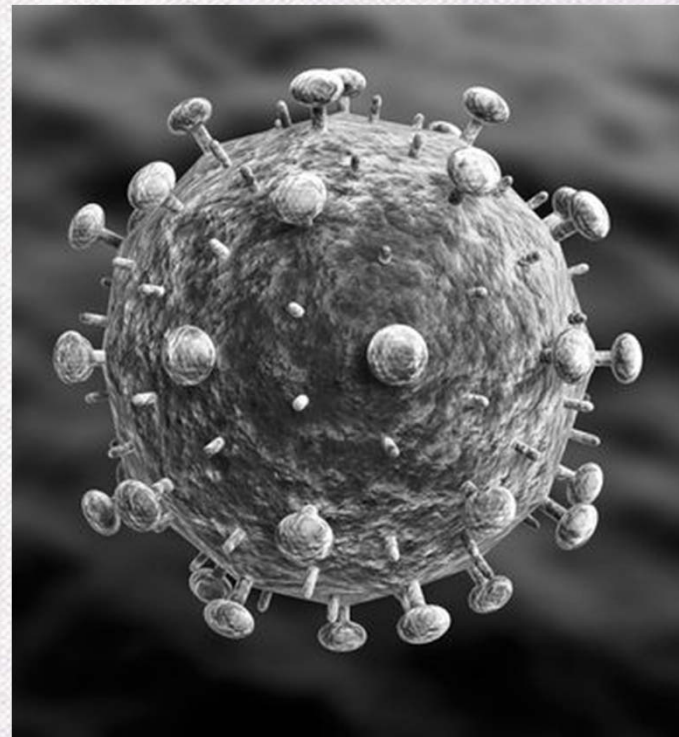
## WHAT IS HIV?

- **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?



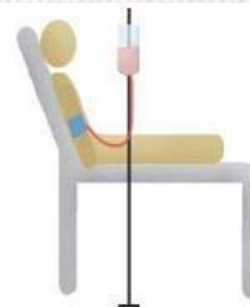
**Sexual Contact**



**Pregnancy, Childbirth  
& Breast Feeding**



**Injection  
Drug Use**



and rarely,  
**Blood Transfusion/Organ Transplant**



**Occupational  
Exposure**

## 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?

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## 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

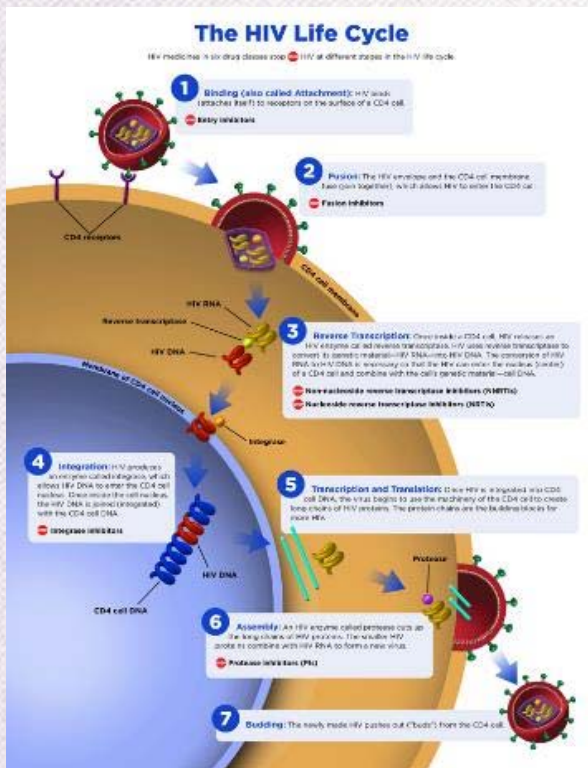
- A tablespoon of blood should have between 500 and 1,000 CD4 cells
  - The more the better!
  - CD4 counts can vary depending on time of day, stress, if you're sick, etc.
- $\leq 350$ , danger zone
- $\leq 200$ , AIDS diagnosis
  - Can also receive an AIDS diagnosis with certain opportunistic infections

# BACK TO HIV

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# 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

- **A**quired- have to catch it, not genetic
- **I**mmune- relating to the immune system
- **D**eficiency- lack of
- **S**yndrome- 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!!!



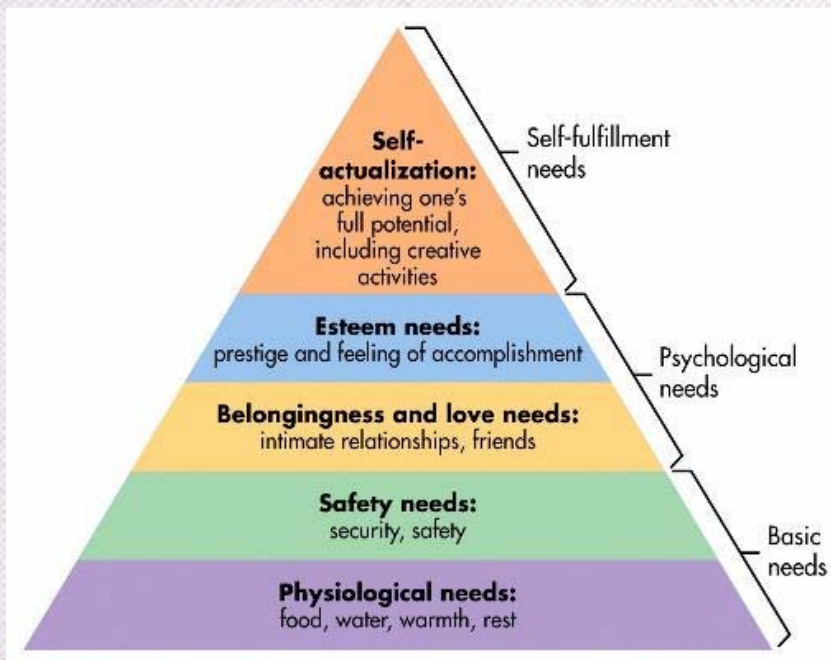
# HIV ISN'T JUST ABOUT HIV

There's a lot more to it!

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# INTERSECTIONS



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

# THE STATE OF HIV IN OHIO AND THE US

Some epidemiology

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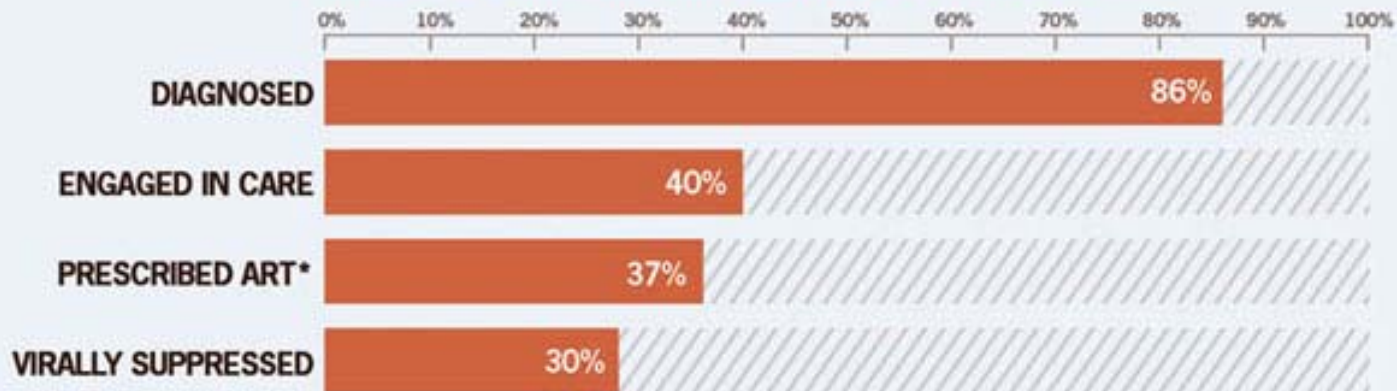
## HIV/AIDS IN OHIO-2014 (Most Recent Data)

- **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

# U.S. TREATMENT CASCADE

## HIV Care Continuum Shows Where Improvements are Needed

In the US, 1.2 million people are living with HIV. Of those:



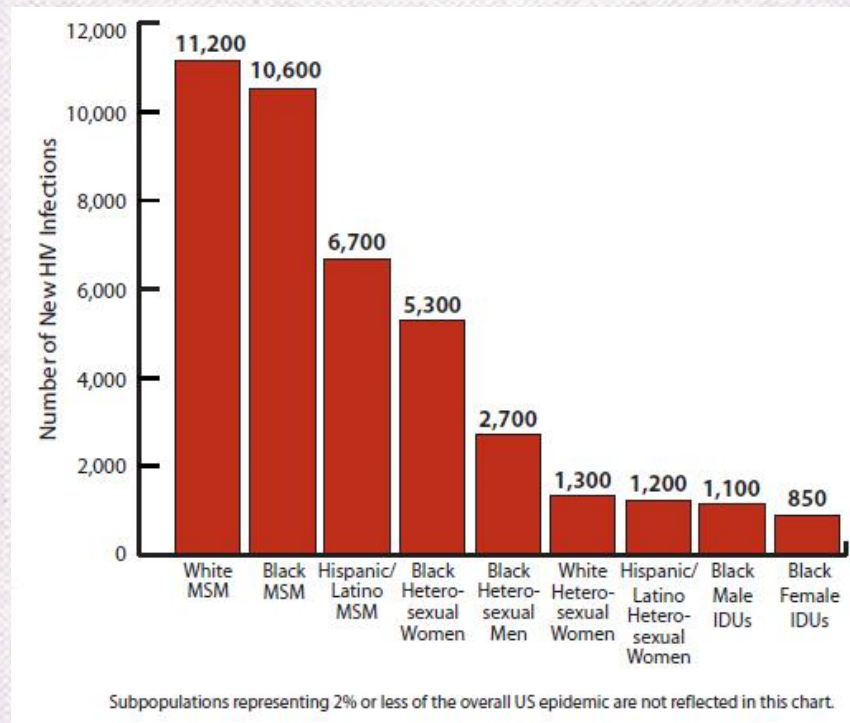
SOURCES: CDC National HIV Surveillance System and Medical Monitoring Project, 2011.

\*Antiretroviral therapy

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# HIV/AIDS DISPARITIES



# A SIMPLE WAY TO EXPLAIN HIV TO YOUR CLIENTS

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## 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?



Karen Rubin  
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