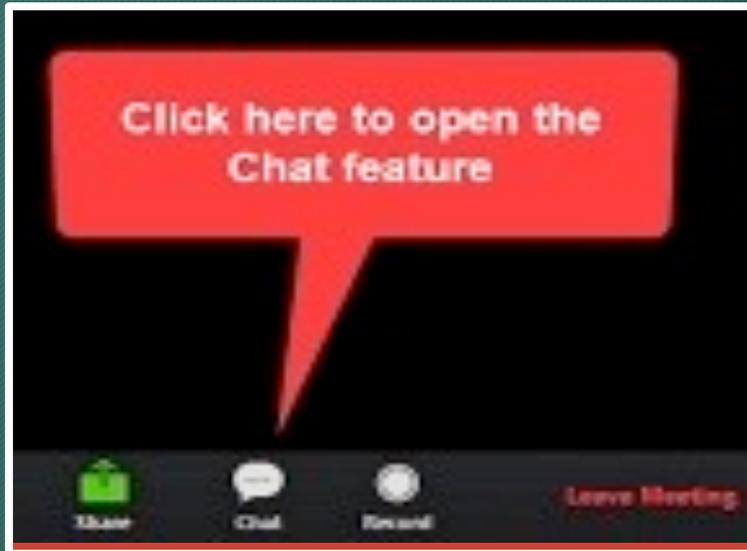
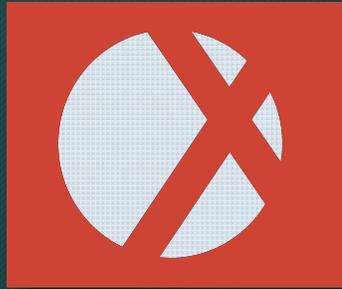


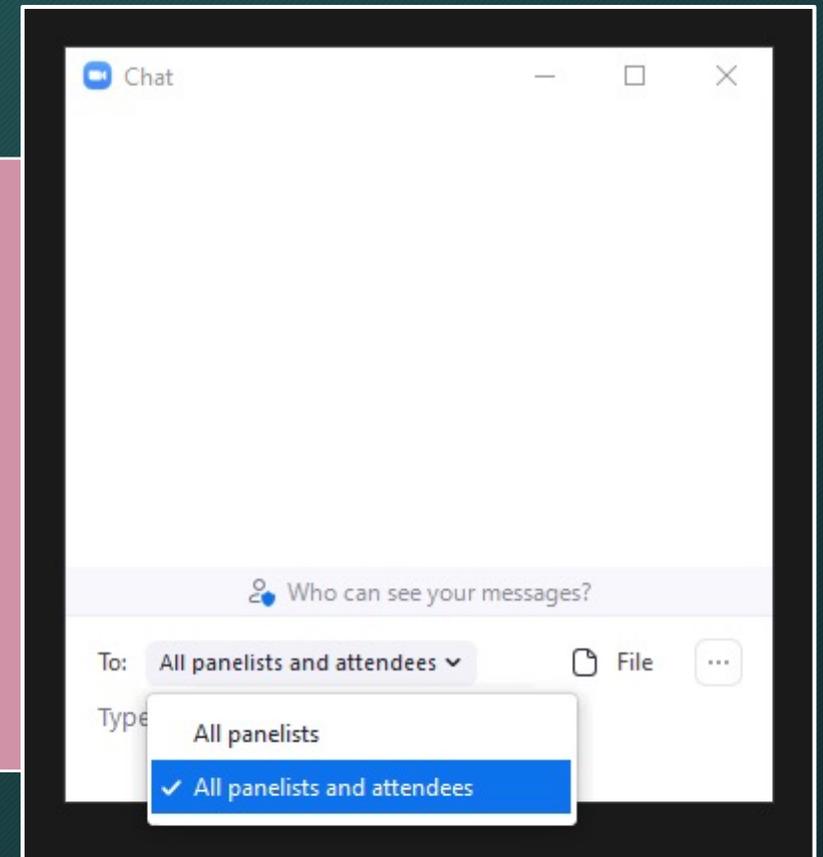
Welcome to Today's Praxis Training!



In order to receive credit for attendance, **you will need to participate by answering questions & using the chat box.**

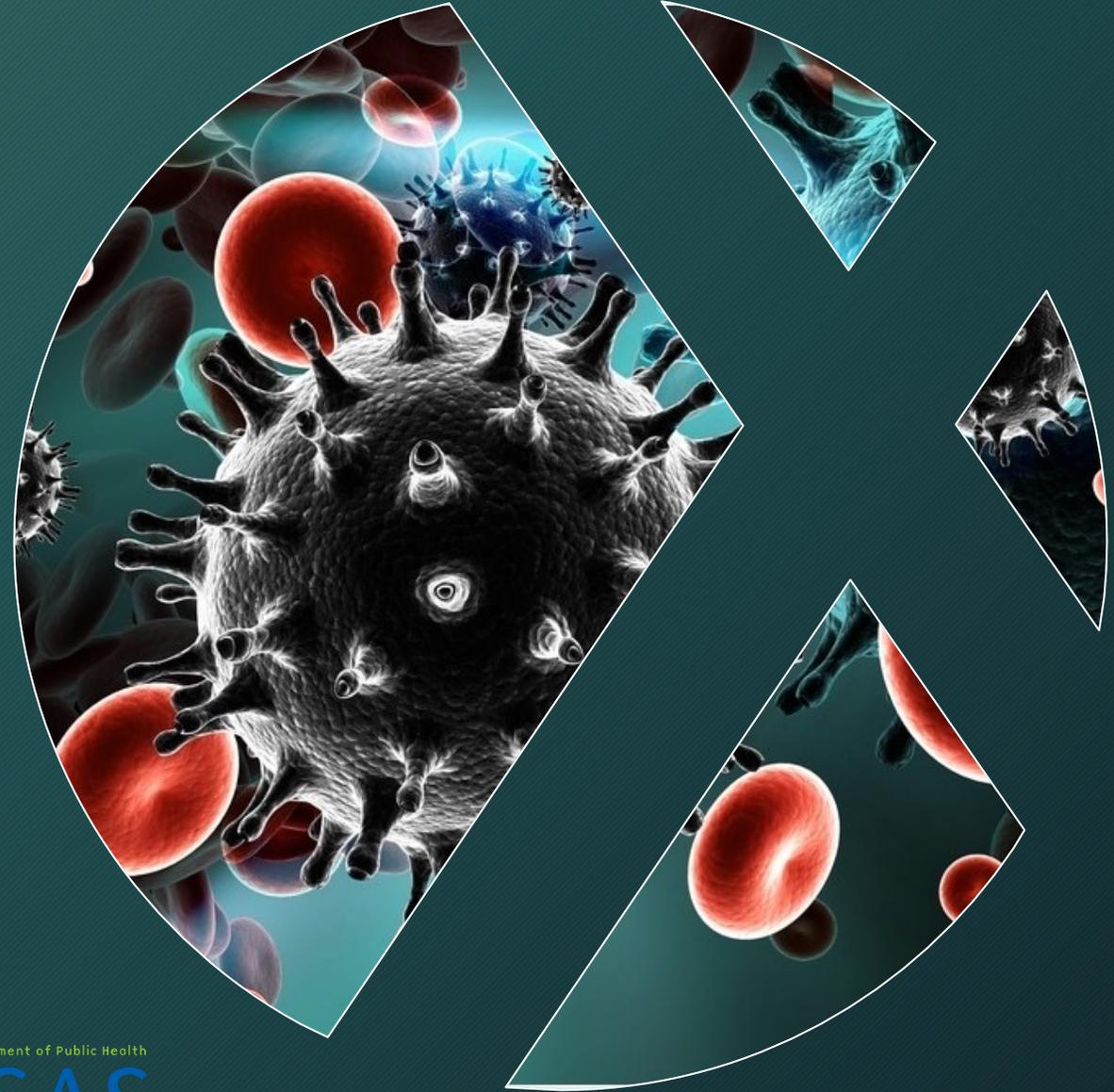
Please review:

Please make sure your chat box is set to **“All panelists and attendees”** so, everyone can see your questions and comments

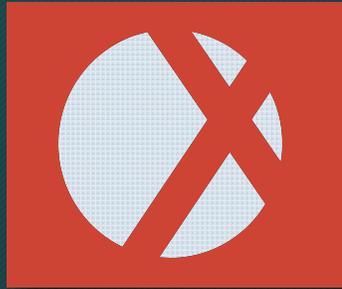


HIV & AIDS

Prevention, Testing, & Treatment



Today's workshop is Sponsored by BSAS



The Bureau of Substance Addiction Services:

- Provides access to addictions services for the uninsured
- Funds and monitors prevention, intervention, treatment and recovery support services
- Licenses addictions treatment programs and counselors
- Tracks statewide substance use trends
- Develops and implements policies and programs
- Supports the addictions workforce

Helpful Websites

BSAS:

www.mass.gov/dph/bsas

Helpline:

www.helpline-online.com

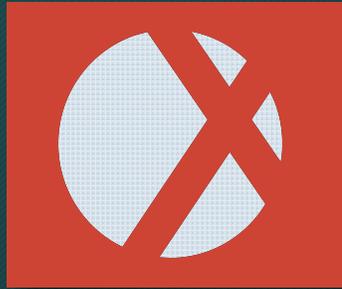
Careers of Substance:

www.careersofsubstance.org

BSAS oversees the statewide system of prevention, intervention, treatment, and recovery support services for individuals, families, and communities affected by gambling and substance addiction



Required Disclosures for CEUs



- **ANCC Accreditation Statement**

This continuing nursing education activity was approved by the Maryland Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation

- **Activity Purpose and/or Learning Outcomes**

- Explain how HIV disrupts a healthy immune system
- Identify how HIV is transmitted and corresponding harm reduction strategies
- Describe the disease progression of HIV & AIDS
- Identify the demographics of new HIV cases and factors that affect it
- Review the process and benefits of HIV testing
- Explain how HIV treatment works and the role they play in protecting the immune system and reducing transmission
- Employ key discussion points for educating clients on HIV & AIDS treatment and prevention

- **Successful Completion of this Continuing Nursing Education Activity**

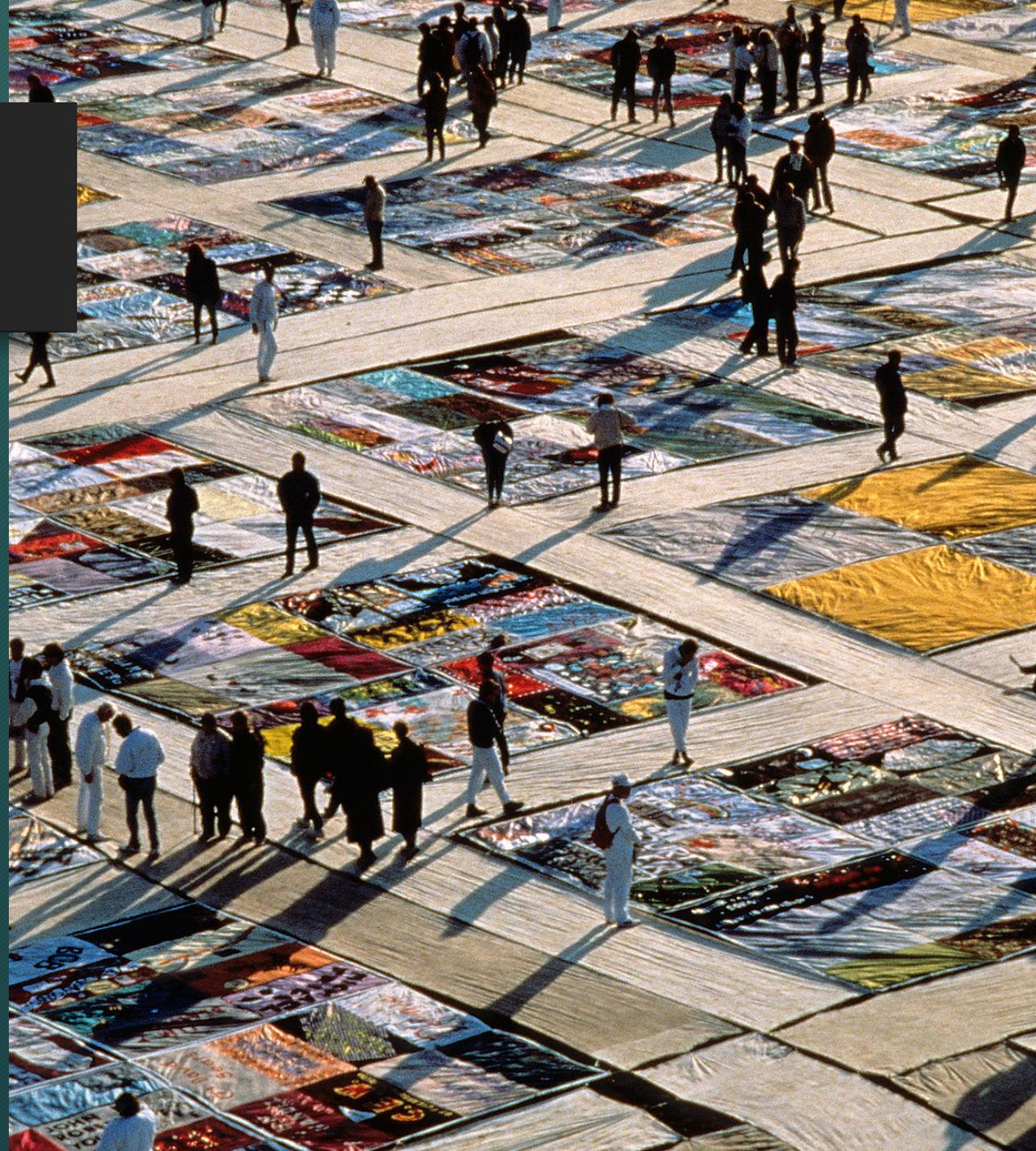
In order to successfully complete this activity and receive full credit for this activity, you must attend all 1.5 hours of the course and participate in course discussions

- **Conflicts of interest**

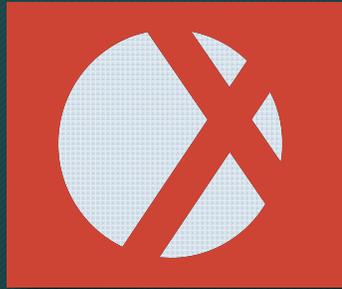
There is no conflict of interest for any planner or presenter of this activity

Agenda

- HIV Demographics
- HIV Overview
 - Transmission
 - Disease progression
 - Testing
 - Treatment
- Supporting clients at risk for or living with HIV



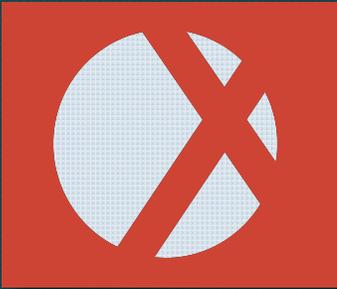
True or False?



If someone tests positive for HIV, as a provider you have a professional obligation to notify his/her/their partner

False: Under Massachusetts law, a provider is forbidden from disclosing a client's status to anyone unless the client gives written consent

True or False?



If someone lies about their HIV status to a new partner, and the new partner becomes infected, they can face criminal charges

False: There are no specific criminal laws in Massachusetts concerning the transmission of HIV

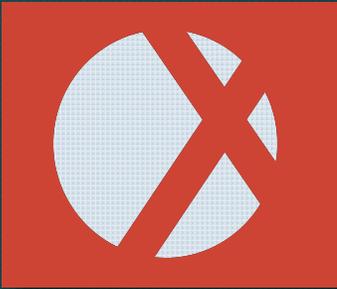
True or False?



People under 18 may give consent to be tested for HIV without parental permission

True: Anyone may consent to an HIV Test

True or False?



In the state of Massachusetts, individuals are required to take an HIV test when they are incarcerated

False. No one can ever be required to take an HIV test under any circumstances

True or False?



It is my job to talk to clients about their sexual health

True: You are a healthcare provider and sexual health is a vital component of healthcare

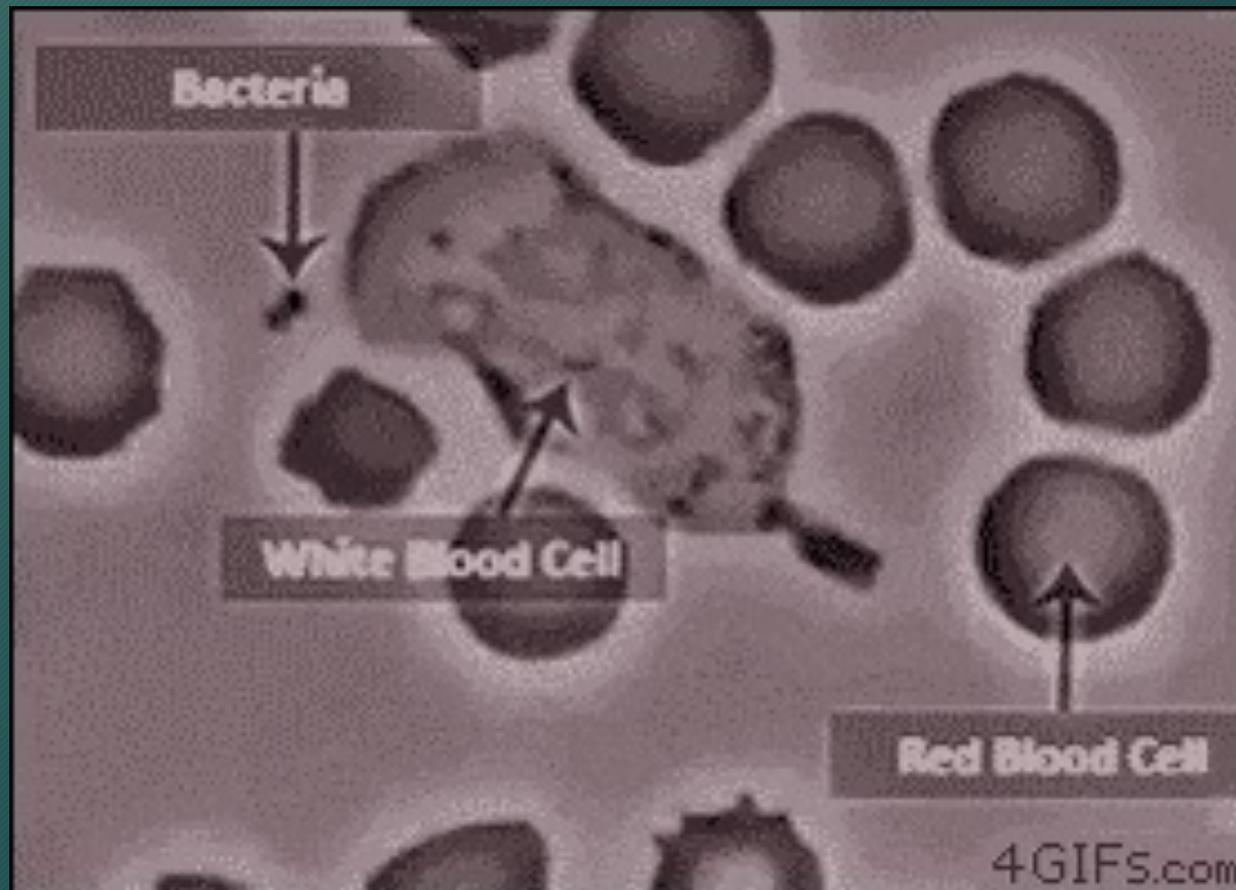
What is HIV?



- HIV (Human Immunodeficiency Virus) is a virus that attacks the body's immune system
- Our immune system is made up of a type white blood cells (WBC), known as T cells, which are on constant patrol looking for pathogens
- When they find a target, they lock on to it, absorb it, and destroy the foreign invader



White Blood Cells at Work



What is HIV?



- HIV tricks white blood cells to not recognize it as a pathogen which allows it to attach itself to the white blood cell.
- It inserts its RNA into the WBC, causing the WBC to recognize it as its own and, thus, begins to make more copies of it.
- Eventually the HIV kills off the WBC's that it has infected
- HIV's destruction of these cells makes a person vulnerable to infections and other diseases

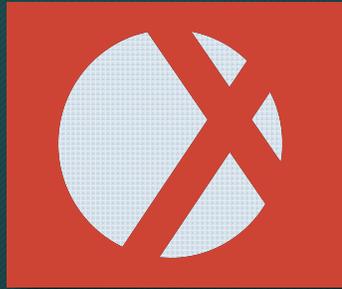


What is AIDS?

- AIDS (Acquired Immune Deficiency Syndrome) is the end stage of HIV
- The immune system is so badly damaged, the body can no longer fight off infections and disease
- Untreated HIV typically turns into AIDS in about 10 years



Where did HIV come from?



- Scientists identified a type of chimpanzee in Central Africa as the source of HIV infection in humans
- The chimpanzee version of the virus (called simian immunodeficiency virus, or SIV) most likely was transmitted to humans after being hunted for food
- Over decades, the virus slowly spread across Africa and later into other parts of the world

HIV Timeline



1981

CDC reports 1st cases of young, gay men dying from a usually survivable Pneumonia. Known as GRID

1982

Routes of transmission are recognized: through blood and sexual body fluids

1984

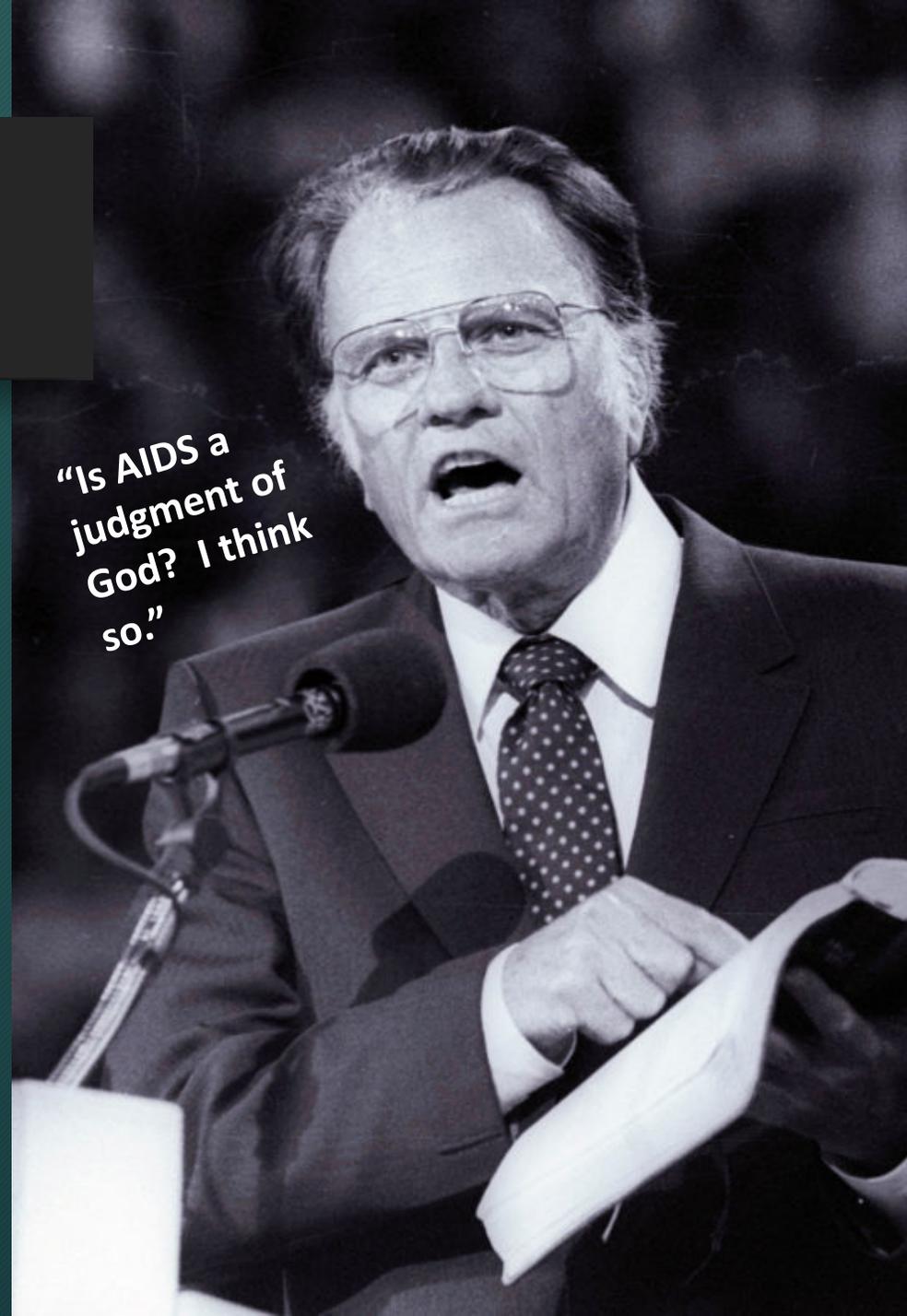
U.S. announces that the virus which causes AIDS has been identified (now known as HIV)

1987

First treatment for HIV is introduced: Antiretroviral Treatment (ART)

The Four H Club

- In the beginning, there was tons of misinformation about the virus
- It was believed that only certain people were vulnerable to contracting the virus, known as the “Four H Club:”
 - Homosexuals
 - Heroin Users
 - Haitians
 - Hemophiliacs
- Morality tightly woven into HIV prevention
 - Abstinence only approach; resistance to any interventions which appeared to condone drug use or sex

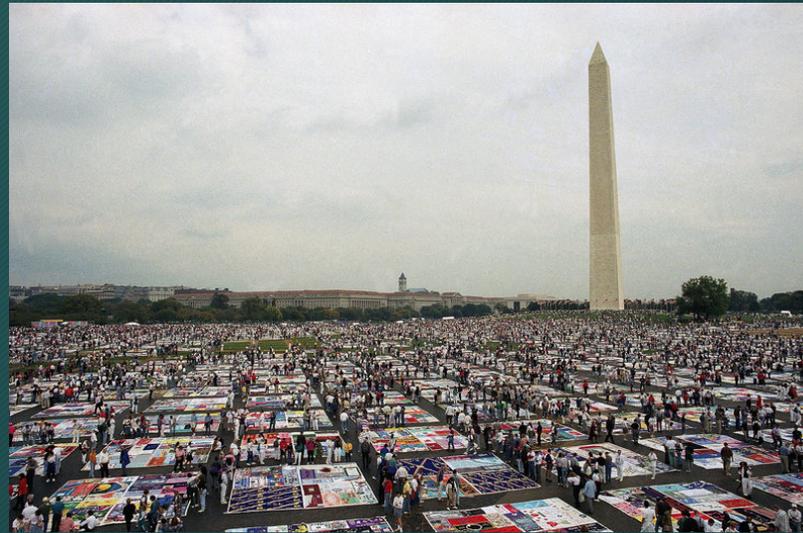


“Is AIDS a judgment of God? I think so.”

AIDS Memorial Quilt



Began by a small group in San Francisco to create a memorial for those who had died of AIDS and to help people understand the devastating impact of the disease.





HIV Demographics

The Many Faces of HIV



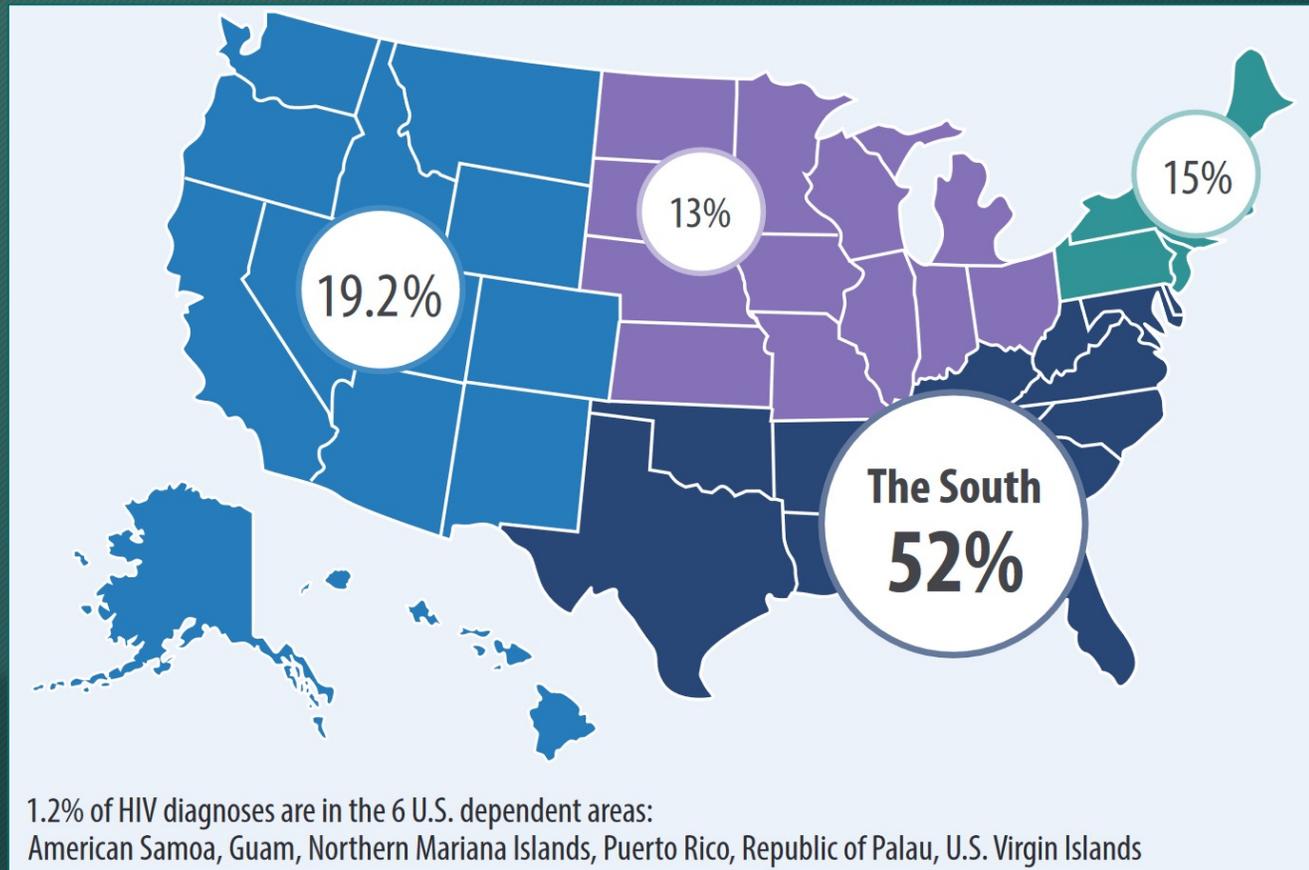
HIV Demographics in the U.S.



- In the U.S., there are currently **1.1 million** people living with HIV (HIV.gov, 2019)
- The U.S. continues to see about **39,000** new infections every year
- CDC estimates this is a result of effective prevention and treatment interventions not adequately reaching those who could most benefit from them
- These gaps remain particularly troublesome among people of color, in rural areas, and in the South



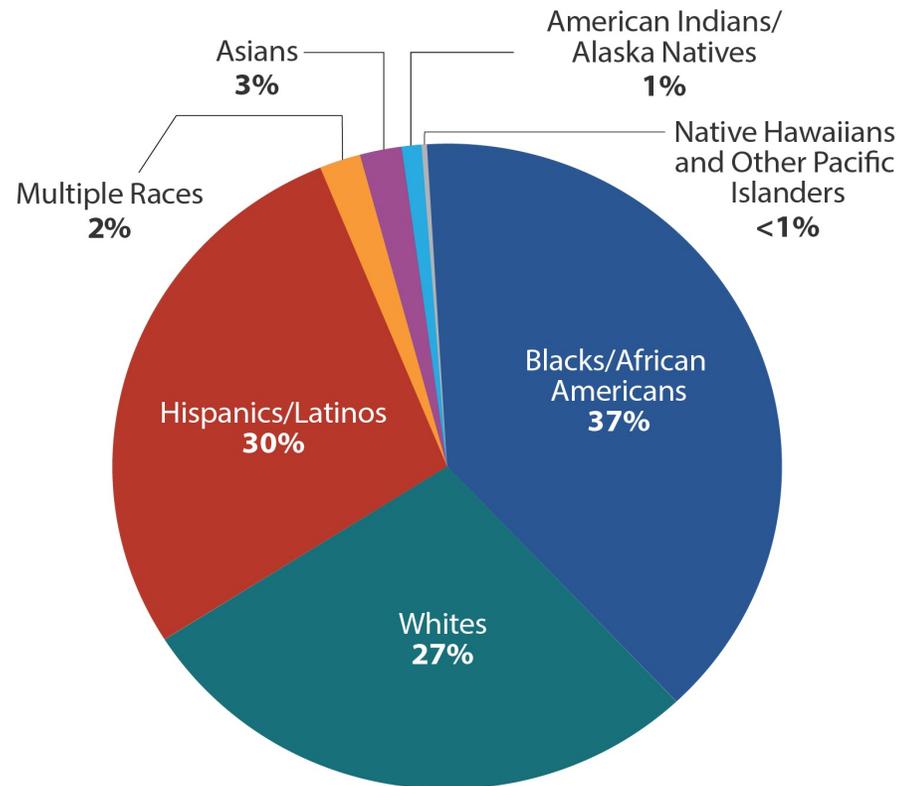
HIV Demographics in the U.S.



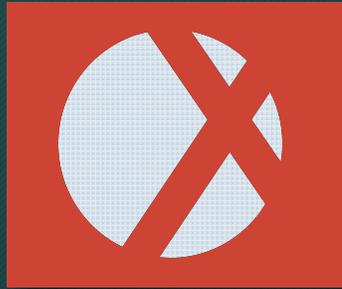
HIV Demographics in the U.S.



New HIV Diagnoses in the US by Race/Ethnicity, 2018



Factors of Increased HIV in POC



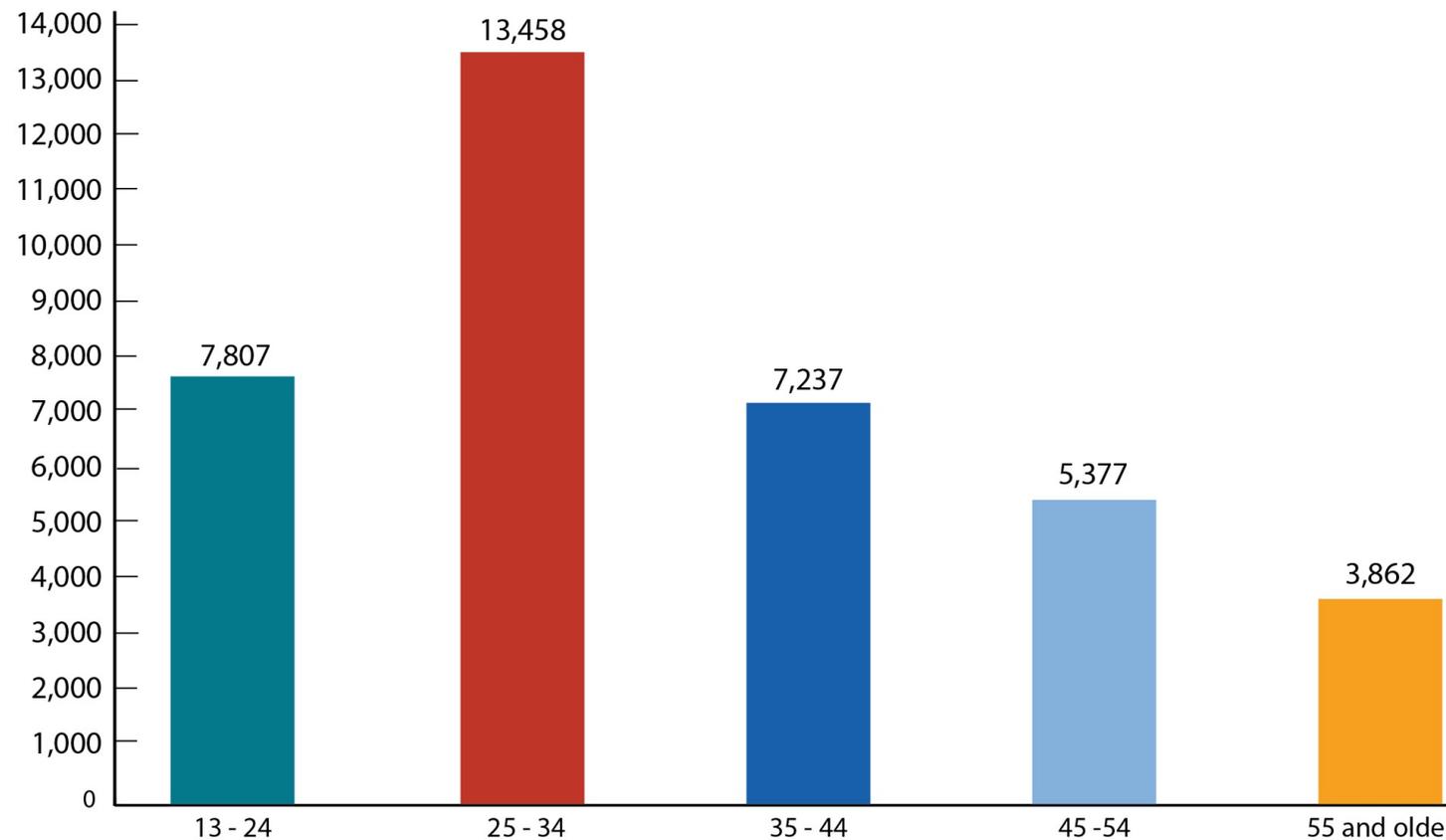
- Higher poverty rates
 - Limited access to health care and HIV prevention and education resources
- Racial discrimination
 - Historical and ongoing bias limits resources and creates distrust in the treatment system
- Smaller sexual networks
 - Leads to increase in STDs
- Stigma
 - Cultural biases like stigma, discrimination, and homophobia prevent many from HIV testing, preventative care, and treatments



HIV Demographics in the U.S.



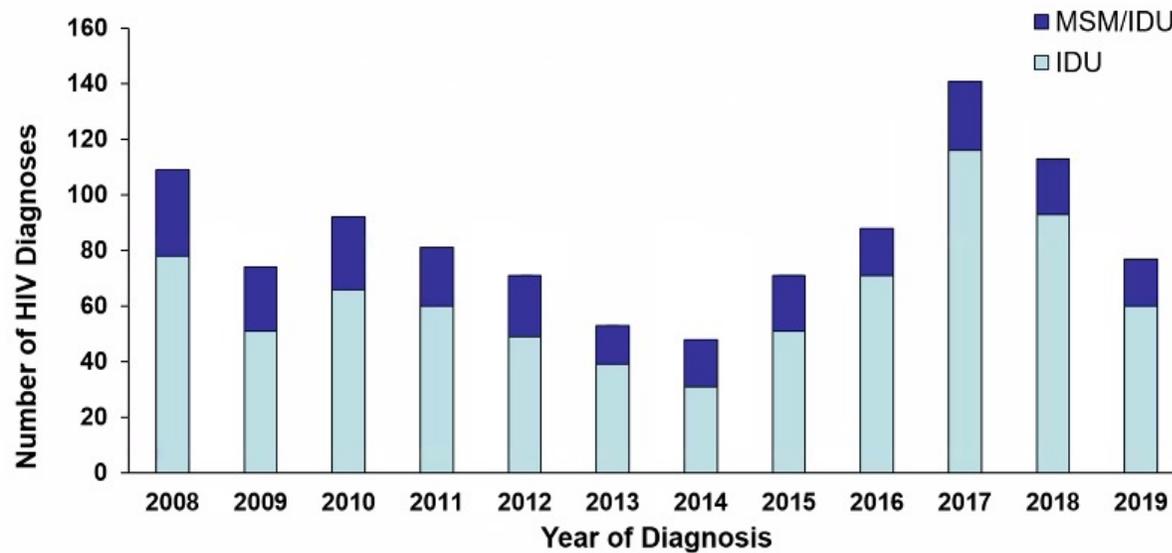
New HIV Diagnoses in the US by Age, 2018



HIV Demographics- Mass



Trends in Diagnosis of HIV Infection Among PWID by Year : Massachusetts, 2008–2019



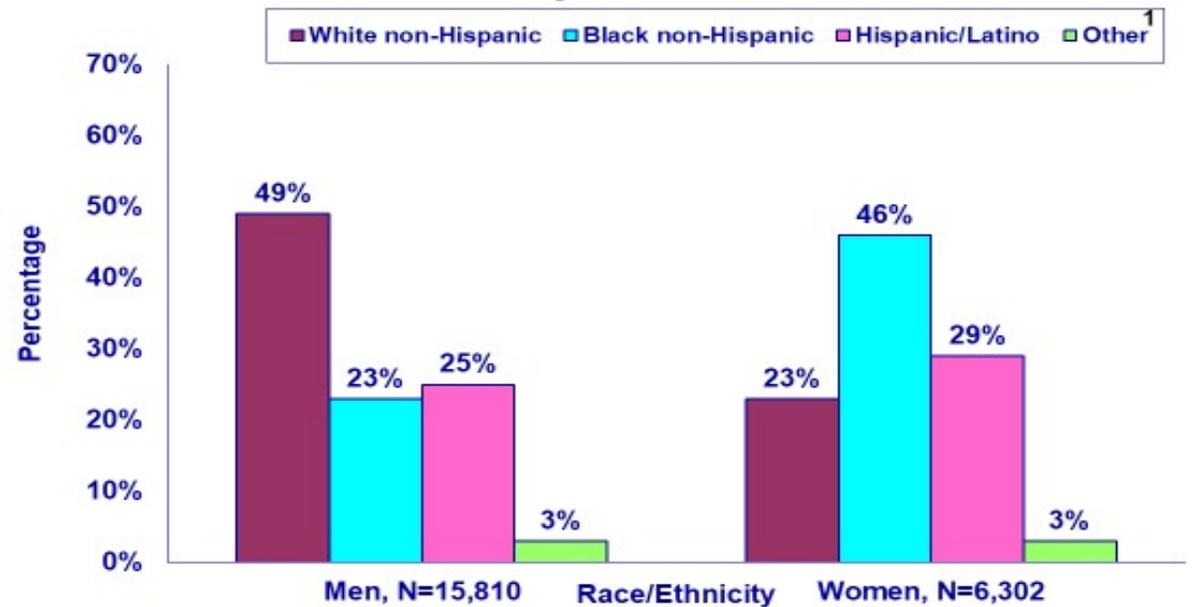
Data Source: MDPH, Bureau of Infectious Disease and Laboratory Sciences
Data as of 02/01/21

HIV Demographics- Mass



As of 2018, there are more than **21,000** individuals living with HIV infection in the Commonwealth

Figure 3. Percentage Distribution of Individuals Living with HIV Infection on January 1, 2018 by Sex at Birth and Race/Ethnicity: Massachusetts



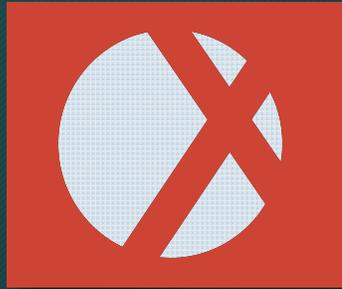
¹ Other include Asian/Pacific Islander and American Indian/Alaska Native
Data Source: MDPH Bureau of Infectious Disease and Laboratory Sciences, Data as of 1/1/18

A microscopic view of a virus particle, likely HIV, showing a spherical structure with a textured surface and a central core. The image is overlaid with a semi-transparent teal filter.

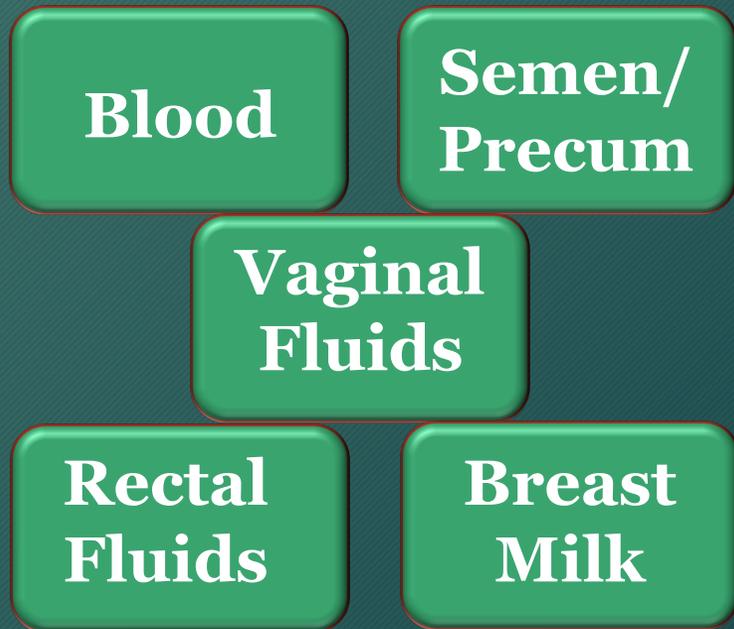
HIV Transmission



HIV Transmission



- Transmission occurs with contact of infected body fluid



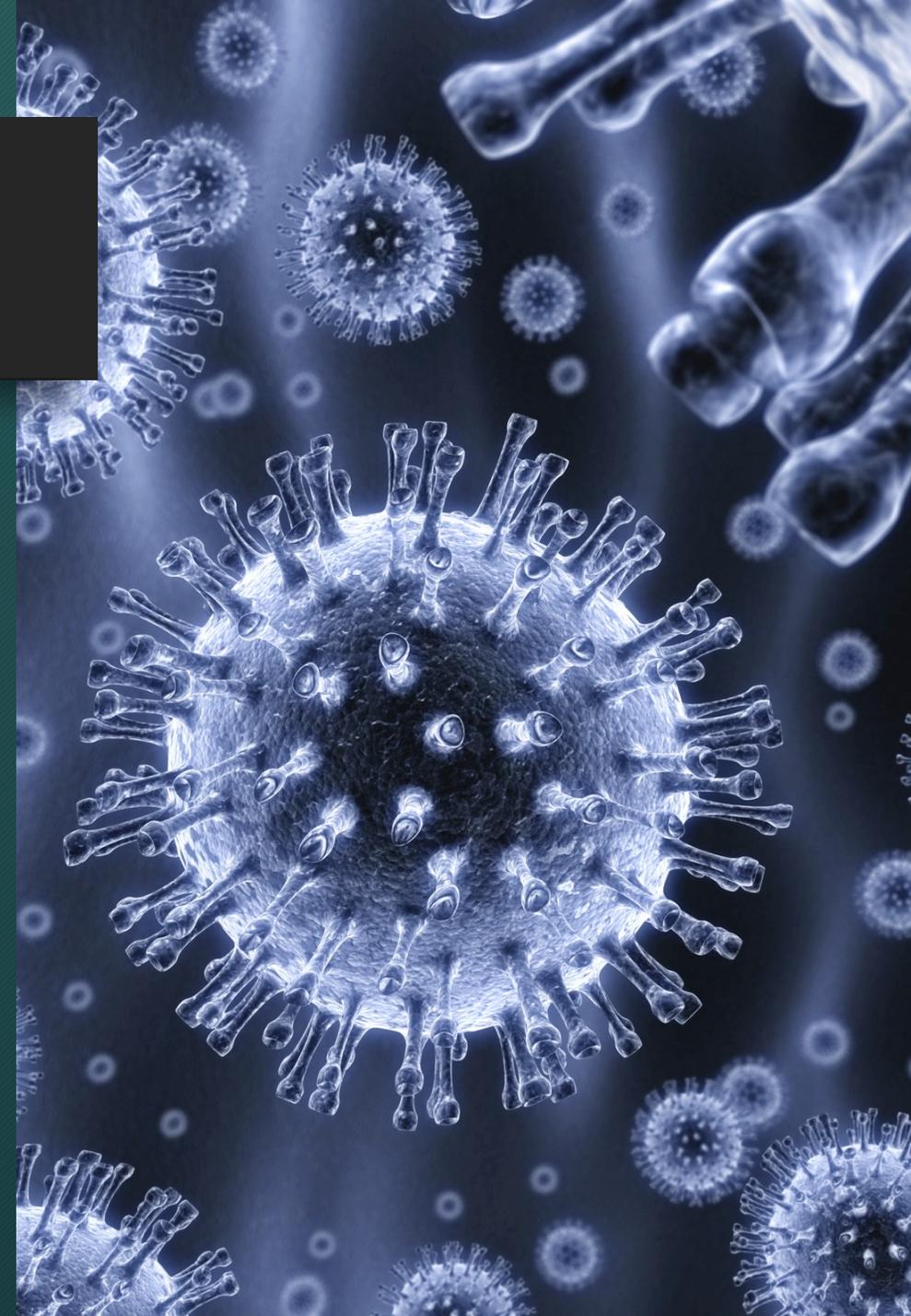
- For transmission to occur, these fluids must either:
 - Come in contact with mucous membranes in the body (rectum, vagina, penis)
 - Come in contact with damaged tissue
 - Be directly injected into the bloodstream (as in a needle or syringe)

- You cannot get HIV through tears, sweat, saliva, urine, or boogers

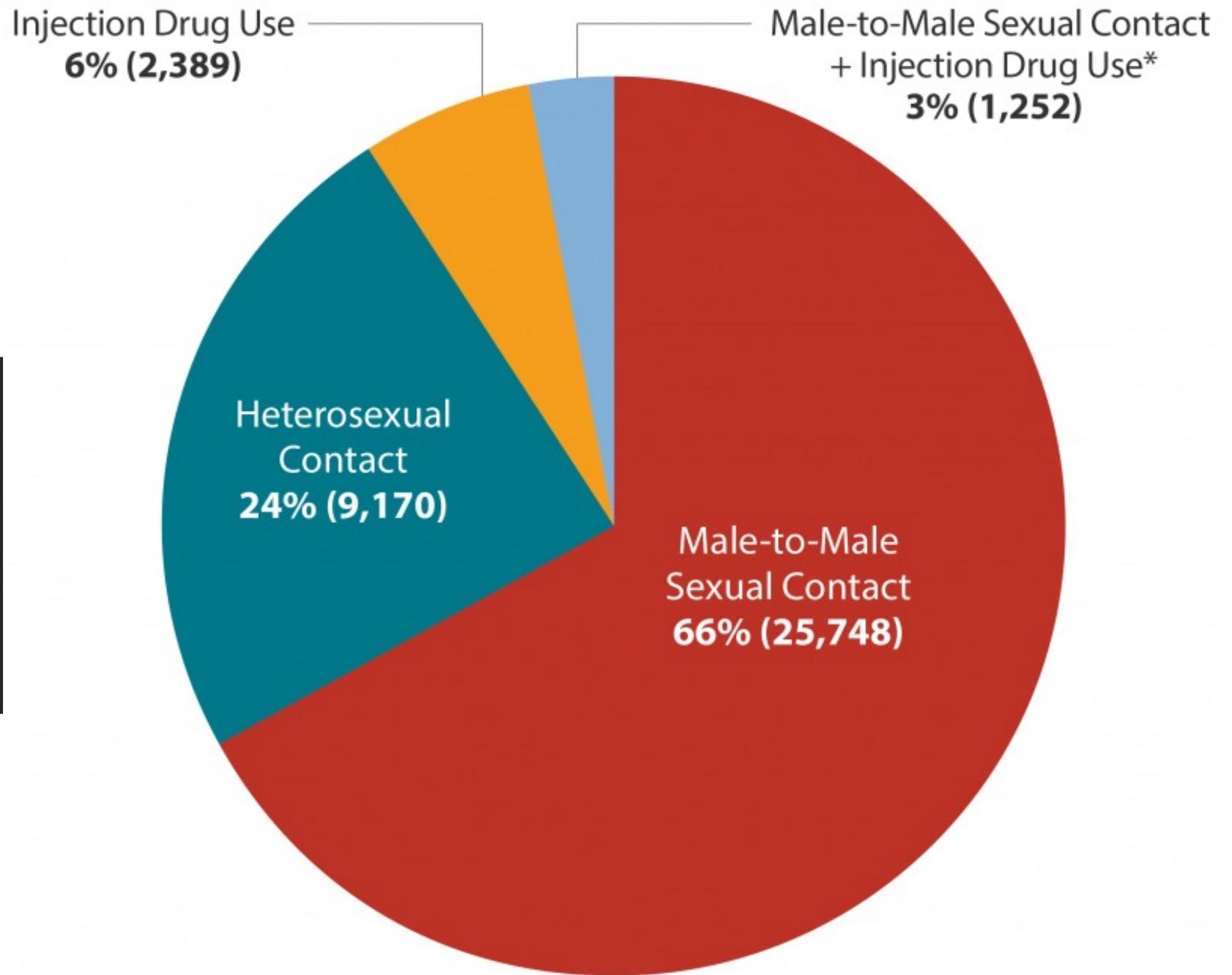
HIV Transmission

In the U.S., HIV is transmitted mainly through:

- Having anal or vaginal sex with someone who has HIV without taking precautions
 - Anal sex is the highest-risk sexual behavior
 - Vaginal sex is the second-highest risk sexual behavior
- Sharing needles or syringes or other equipment (works) used for drug injection with someone who has HIV
 - HIV can live in a used needle up to 42 days depending on temperature and other factors



New HIV Diagnoses in the U.S. by Transmission Category (CDC, 2018)



HIV Transmission



HIV is less commonly passed:



- From parent to child during pregnancy, birth, or breastfeeding
 - Although the risk can be high if the parent is living with HIV and not taking medicine
- By being stuck with an HIV-contaminated needle or other sharp object
 - This is a risk mainly for health care workers and law enforcement
- By having oral sex
- Through contact between broken skin and HIV-infected body fluids

HIGH RISK

NO RISK

Receiving Oral Sex

Unprotected Insertive
Anal Sex

Blood Transfusion

Performing Oral Sex

Unprotected Receptive
Anal Sex

Sharing Sex Toys

Protected Receptive
Vaginal Sex

Masturbation

Analingus/Rimming

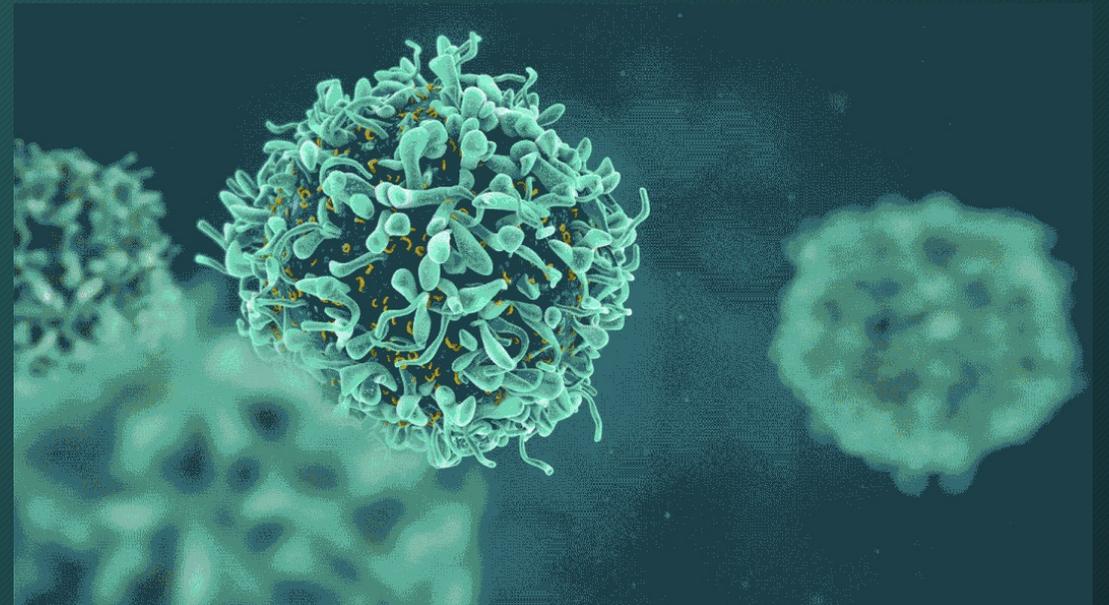
HIV Disease Progression



HIV Disease Progression



- The course of an untreated HIV infection can go on for 10 years or more
- Four stages of infection
 - Acute Infection
 - Clinically Asymptomatic Infection
 - Symptomatic Infection
 - AIDS

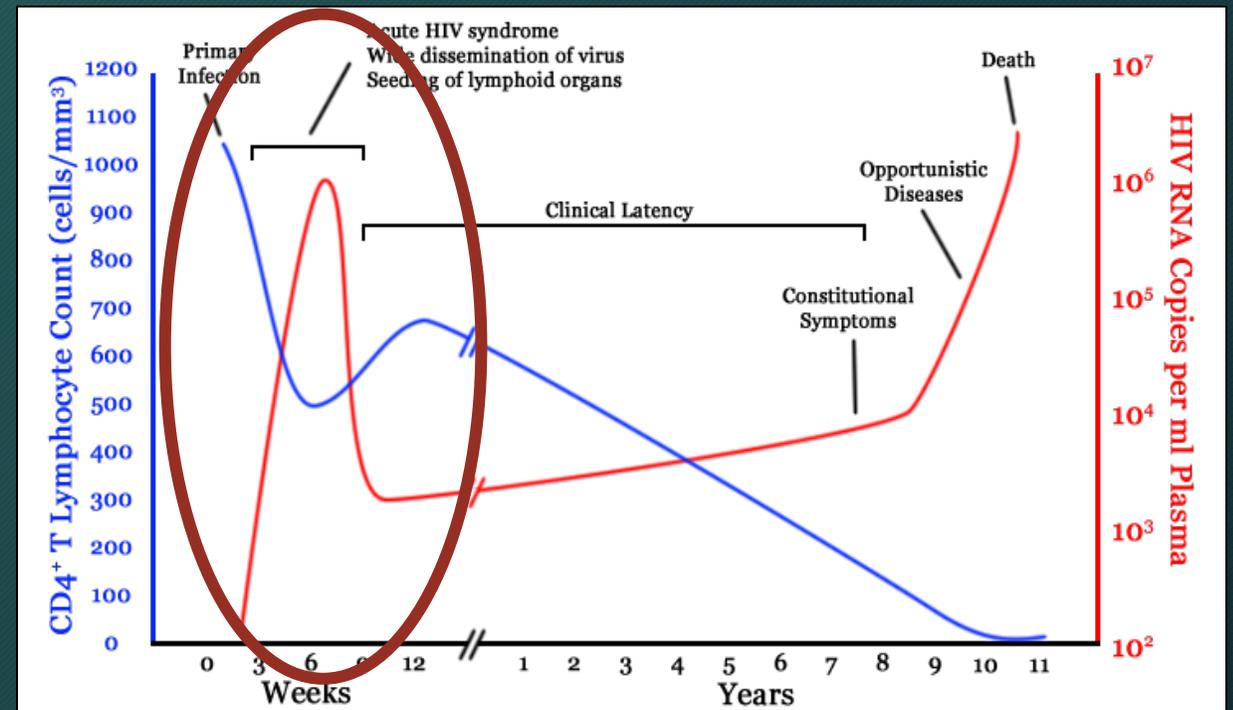


HIV Disease Progression



Acute HIV Infection

- CD4+ T cell (white blood cells) count can drop very low in early weeks though it usually recovers to a functioning level
- Viral load (amount of HIV in the blood) is very high at this time
- Causes an acute retroviral syndrome that is often mistaken for the flu or a bad cold
- During this time, a person is most likely to transmit the virus and least likely to know their status

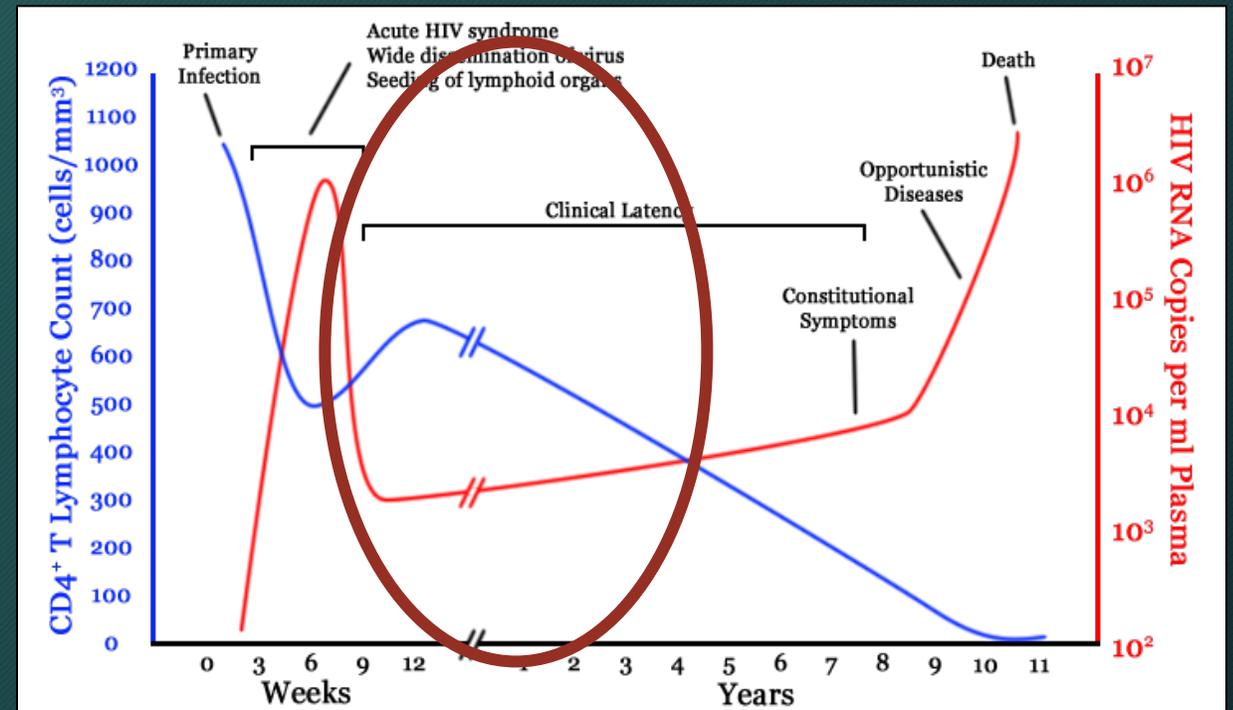


HIV Disease Progression



Clinical Asymptomatic Infection

- After initial infection, CD4+ T cell counts drop at a rate of 30-90 cells per year
 - T cell count in a healthy person is about 1,200
- In this phase the virus is very active, but is rarely symptomatic
 - Most common is swollen lymph nodes

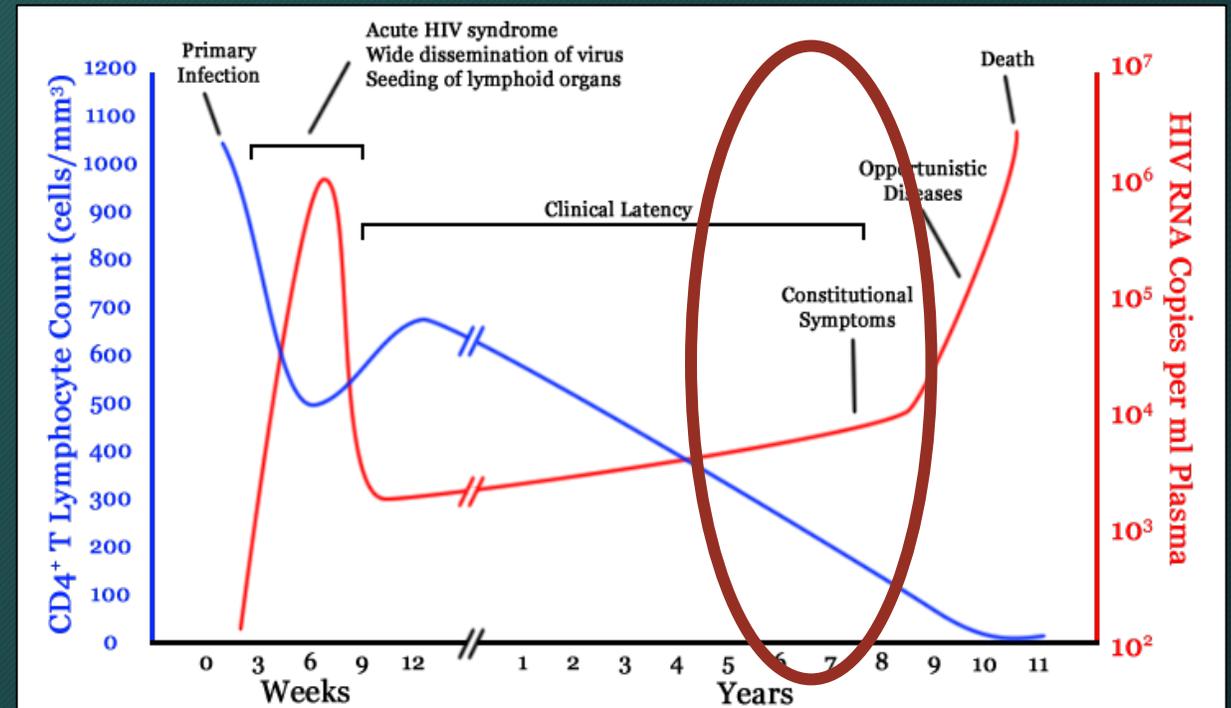


HIV Disease Progression



Symptomatic Infection

- Immune system has become compromised, leaving the person vulnerable to infections
- Common infections include thrush, recurrent respiratory infections, and shingles.
- These infections are often what leads people to seek a diagnosis

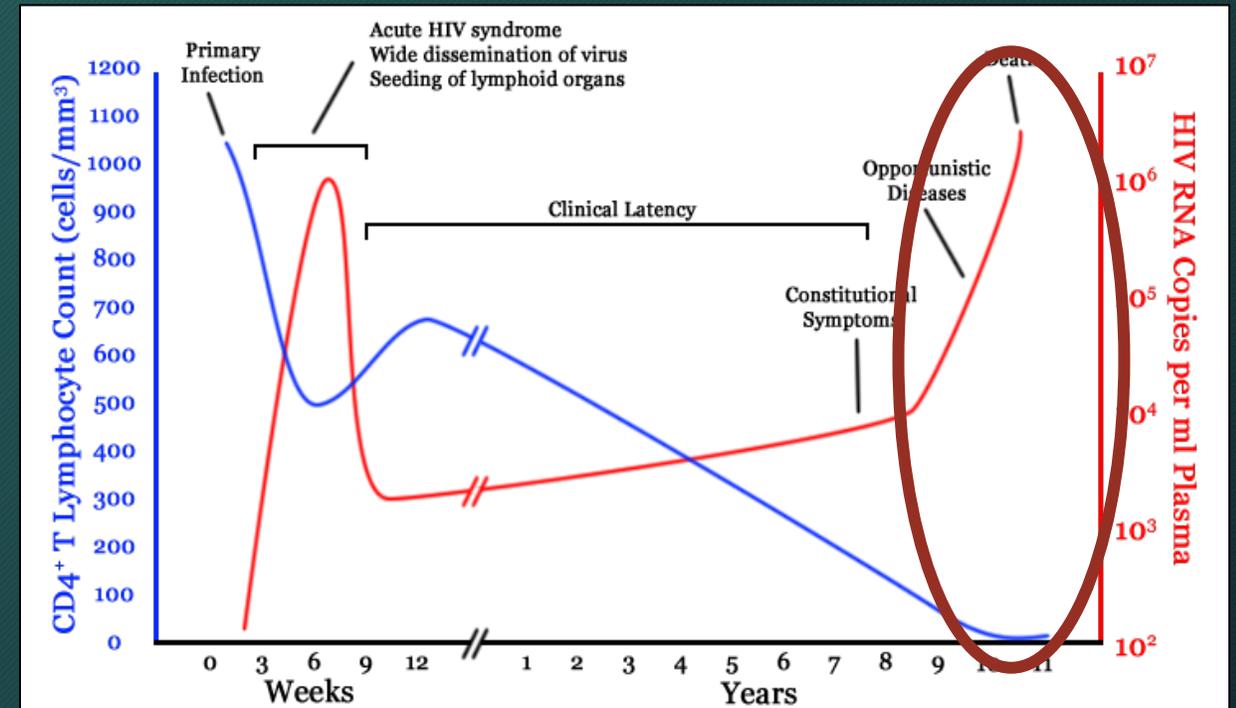


HIV Disease Progression



A.I.D.S.

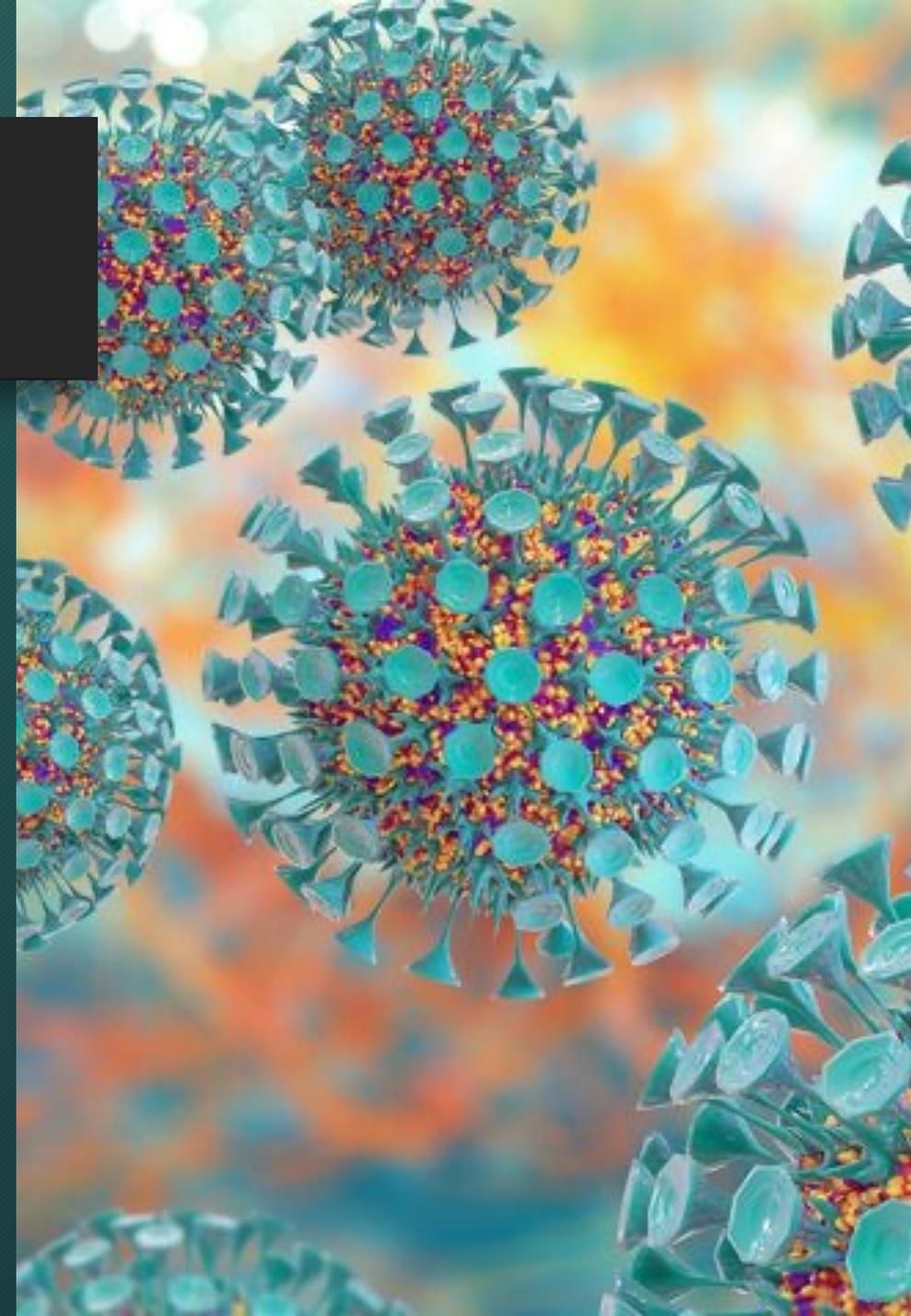
- People living with HIV who have a T cell count of 200 or less (cells/mL blood)
- And have one or more opportunistic infections
 - Tuberculosis, recurrent bacterial pneumonia, and chronic herpes infections
- Symptoms include wasting syndrome, chronic diarrhea, neuropathy, and dementia



HIV Disease Progression

A.I.D.S. (HIV End Stage)

- HIV overwhelms the immune system and the body succumbs to infection or disease
- Without treatment, people with AIDS typically survive about 3 years
- Death is far less frequent today with treatment
 - In 2019, there were 15,815 deaths among adults and adolescents with diagnosed HIV in the United States. (These deaths may be due to any cause)

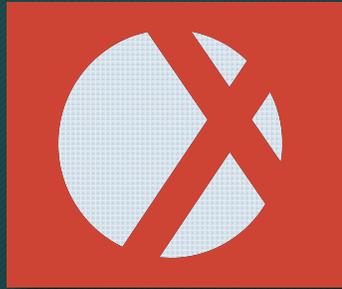




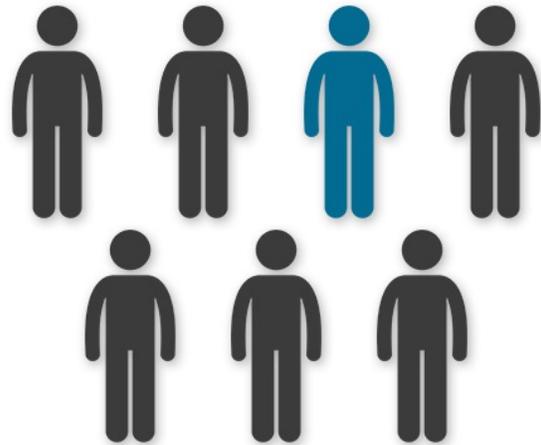
HIV Testing & Treatment



HIV Testing



1 in 7 living with HIV



are **unaware** of their infection.

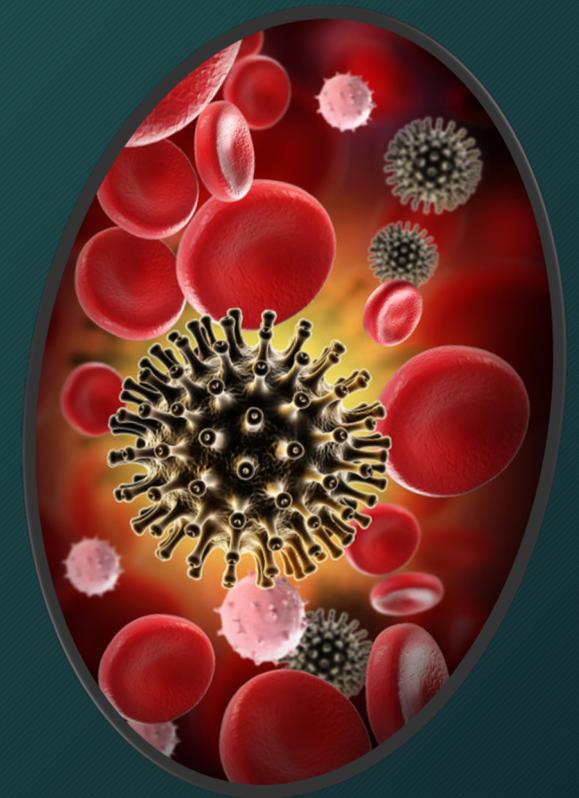
The Importance of Screening

- Out of the more than 1.1 million people in the U.S. with HIV today, one in seven don't know they are infected
- The majority of new HIV infections are transmitted by people who are unaware of their infection

HIV Testing



- CDC recommends that everyone between the ages of 13 and 64 get tested for HIV at least once as part of routine health care
- People at higher risk should get tested more often, at least once per year
- Sexually active men who have sex with men may benefit from more frequent testing (every 3 to 6 months)
- Pregnant persons are encouraged to get tested to prevent passing the virus to their infant
- [Testing services in Massachusetts](#)



HIV Testing



- There are two main types of HIV diagnostic tests:

Antibody Tests	Antigen/Antibody Tests
<ul style="list-style-type: none">• Antibody tests detect the presence of antibodies• Antibodies are proteins that a person's body makes to fight HIV• Done using an oral swab• Most rapid tests and home tests are antibody tests; produce results in 20 minutes• Can begin to detect HIV 3 months after exposure	<ul style="list-style-type: none">• Antigen/antibody tests look for both HIV antibodies and antigens• HIV antigens are proteins that the virus emits as it travels through the bloodstream• Done with a small sample of blood• Most common in the U.S. for testing done in labs• Detects HIV within one month of exposure

Treating HIV



HOW DOES HIV TREATMENT WORK?

Treating HIV

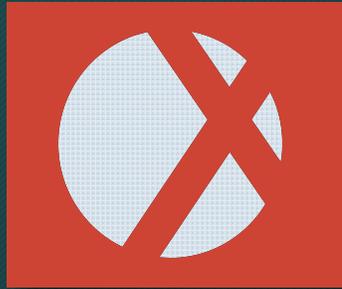


Antiretroviral Treatment (ART)

- ART can't cure HIV, but allows people with HIV to live longer, healthier lives
- Medications are used to prevent HIV from copying itself and attaching to healthy cells. This maintains immunity levels while slowing the progression of HIV
- Today's ART much more manageable & tolerable
 - 30+ pills per day vs. 1 pill per day



HIV & AIDS Timeline



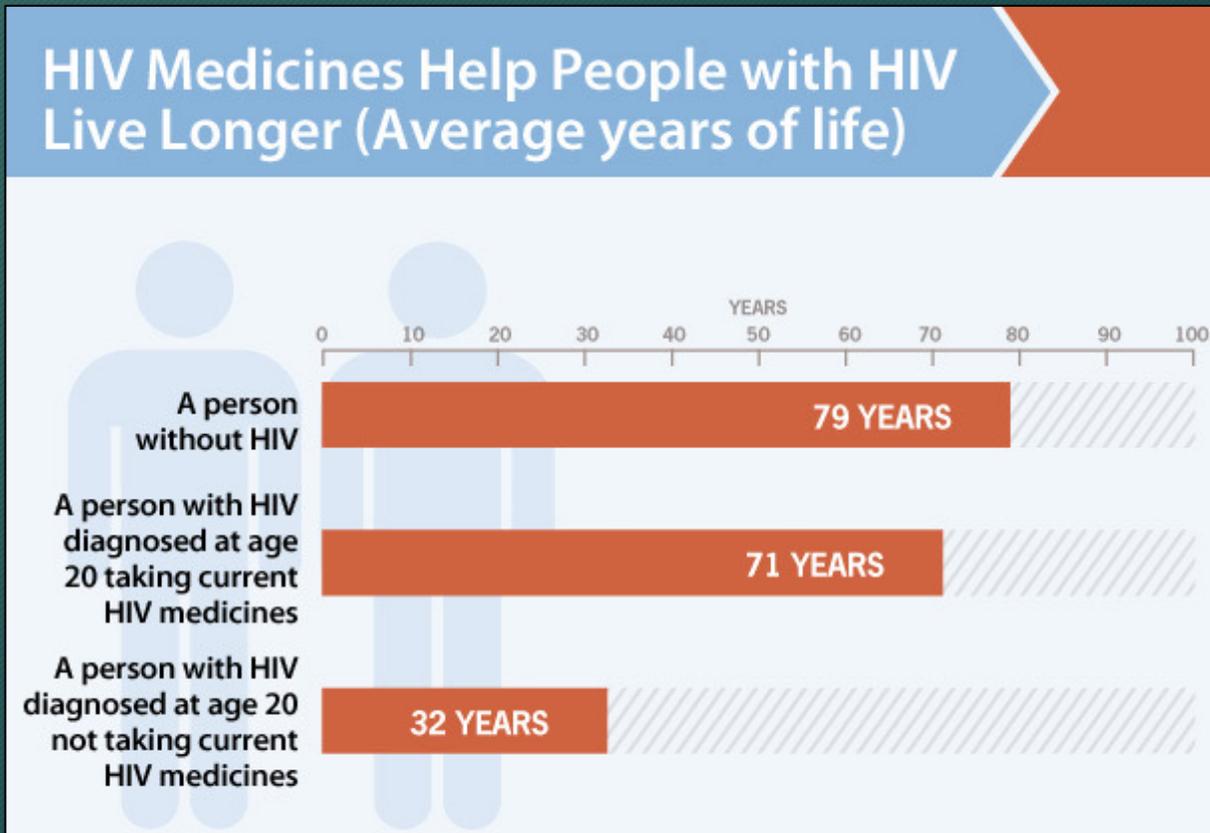
- A main goal of ART is to reduce a person's viral load to an undetectable level



People with HIV who maintain an undetectable viral load:

- protect their immune system from damage
- have effectively NO risk of transmitting HIV!

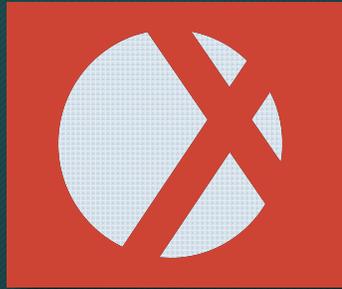
HIV Life Expectancy



HIV Prevention & Harm Reduction



Prevention & Harm Reduction



- **Pre-Exposure Prophylaxis (PrEP)**

- When taken properly, can offer up to 98% protection from infection from high risk exposures
- HIV negative people take a pill (Truvada) once per day and started two weeks prior to engaging in risky behaviors which could lead to HIV exposure
- Accessed through PCP and through [Massachusetts HIV Drug Assistance Program](#)
- PrEP is covered by MassHealth Plans for a small monthly copay

Insurer ⁶	Cost of Services		Truvada (emtricitabine / tenofovir) ⁵		
	PCP	Labs	Covered (Yes/No)	Cost	Util. Mgmt.
MassHealth*	\$0	\$0	Yes	\$3.65	--
AllWays Health Partners – My Care Family	\$0	\$0	Yes	\$3.65	--
BMC HealthNet**	\$0	\$0	Yes	\$3.65	--
Fallon Health***	\$0	\$0	Yes	\$3.65	--
Health New England – BeHealthy Partnership	\$0	\$0	Yes	\$3.65	--
Tufts Health Plan****	\$0	\$0	Yes	\$3.65	--

Prevention & Harm Reduction

- **Post Exposure Prophylaxis (PEP)**
 - Anti-HIV medications taken after possible exposure to reduce the risk of infection
 - Accessed through emergency rooms and enrolled healthcare sites
 - Covered by MassHealth; most plans have a \$7.20 copay
 - List of providers in Mass
 - Risk must be deemed as high by provider
 - Available to all sexual assault survivors
 - Must be started within 72 hours after exposure
 - Is taken for 28 days



Prevention & Harm Reduction



- Using new/clean needles, syringes, and supplies
 - If using/sharing with others, use first or early in line
- Using latex or polyurethane condoms
 - Use only once, check expiration date, use water or silicone-based lubricants
- Participating in lower-risk sexual behaviors including oral and manual sex
- Limiting number of sexual partners
- Talking with your partner about HIV
- Getting tested/knowing status
- Remaining adherent to medication



Meet Your Praxis Client

Andrew is a 29-year-old male who reports increased sexual activity with multiple partners since his split with his long-term boyfriend last year. He reports that he's never had an HIV test; he states he's scared he'll find out he's "positive" and he just doesn't want to know. He figures if he is positive, there's nothing he can do about it anyway, so he might as well just continue to live life to it's fullest.

How would you talk to Andrew about sexual health?

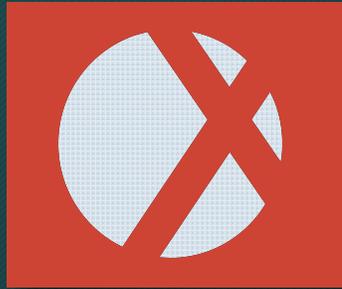


For Providers



- Stigma around sexuality often results in the avoidance of critical conversations
- Providers must offer a safe, nonjudgmental, supportive environment which promotes openness and honesty
 - Sexual health/behaviors are based almost solely on self-report
 - We can't help clients with risks we don't know about
 - In order to make informed decisions people need access to accurate information
 - There's no such thing as a stupid question!
- Have the convo
 - Ask for permission
 - Set the tone (discuss importance, confidentiality, comfort with answering questions, etc.)
 - Use open ended questions
 - Match language (age, educational level, etc.)

For Providers



- Meet them where they are (harm reduction)
 - Demonstrate that you are willing to follow their lead, helping them to protect their health in whatever ways they decide are useful and feasible
- Address fear- treatment is available; diagnosis is no longer a death sentence
- Link with HIV care and ancillary support services to promote a wholistic treatment plan
- For more information:
[SAMHSA's Supporting Clients in Sexual Health](#)



Pop Quiz!



- When HIV & AIDS were first noticed in the U.S.?
 - 1981
- Five body fluids that transmit HIV?
 - Blood, semen, vaginal fluid, anal fluid, and breast milk
- Number of people who currently have HIV in the U.S.?
 - 1.1 million
- Number of people in Mass who currently have HIV?
 - 21,000
- Highest risk sexual behaviors for transmitting HIV?
 - Vaginal sex & anal sex

Pop Quiz!



- Number of T cells a healthy person has?
 - 1,200
- Number of T cells HIV destroys each year?
 - 30-90
- Criteria for diagnosing AIDS?
 - T cell count less than 200 and one or more opportunistic infections
- Two types of HIV tests?
 - Antibody & antibody/antigen
- Type of medication used to treat HIV?
 - Antiretroviral Treatment (ART)

Thank You!

To access these slides, please visit us at:
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Email us at:
Praxis@C4Innovates.com



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Prevent • Treat • Recover • For Life