



# Let's Talk About HIV

Michelle Dawson | Precious Illonah





# Zoom Keeping



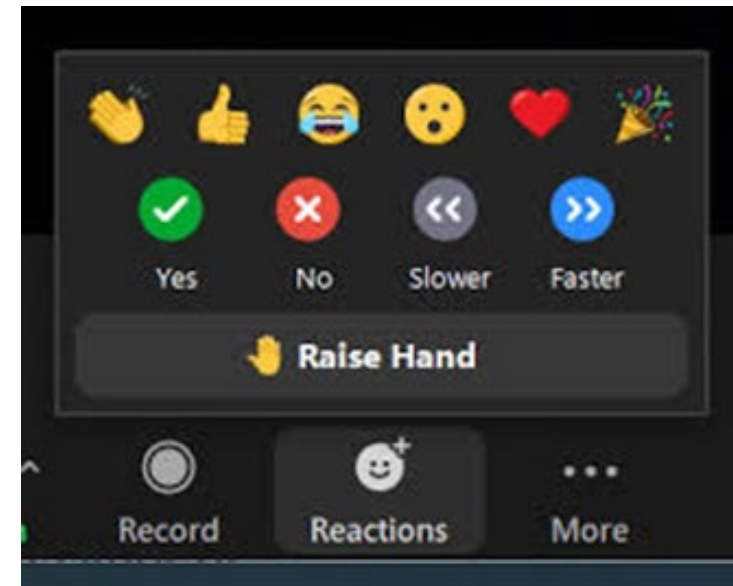
Recording will be available on [targethiv.com/elevate](https://targethiv.com/elevate)



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# Disclaimer

The ELVATE project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$XX with 100% funded by HRSA/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA/HHS, or the U.S. Government.

The people in the images in this presentation are models and may or may not have HIV.



# Partners





# Facilitators



**Lauren Miller**  
(She/her/Ella)



**Michelle Dawson**  
(She/Her)



**Precious Illonah**  
(She/Her)



# Intended Audience

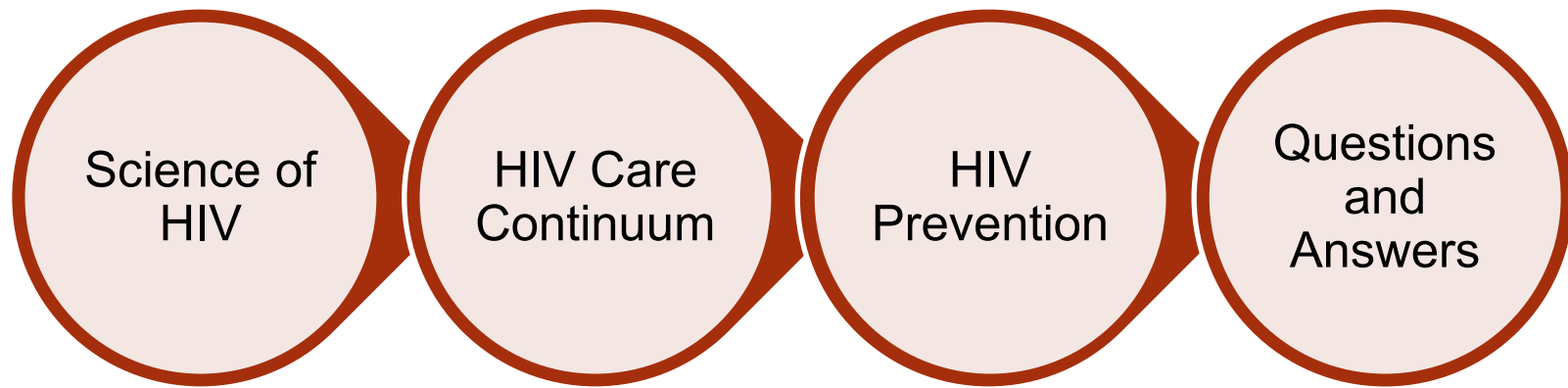
General public and people with HIV aligned with a RWHAP Recipient or Subrecipient such as people:

- ❑ Employed by RWHAP
- ❑ Members of Planning Councils or Planning Bodies
- ❑ Members of Consumer, Community, & Patient Advisory Boards
- ❑ Directors from the Boards of RWHAP
- ❑ Members of Clinical Quality Management Teams or Committees
- ❑ Other people with HIV aligned with a RWHAP seeking greater involvement





# Agenda





# Objectives

By the end of this webinar, you will be able to:

Define key HIV-related terminology

Understand the basic biology of HIV, including the stages of HIV infection

Describe the different HIV tests and how they work

Describe the HIV Care Continuum

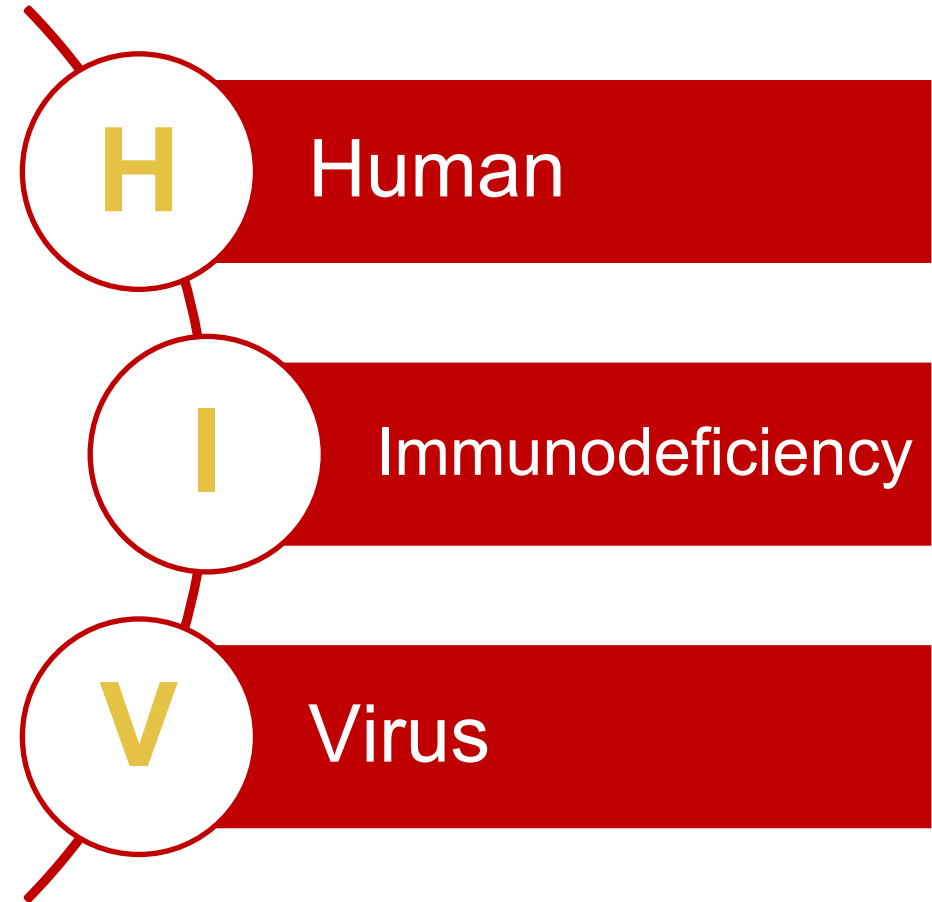
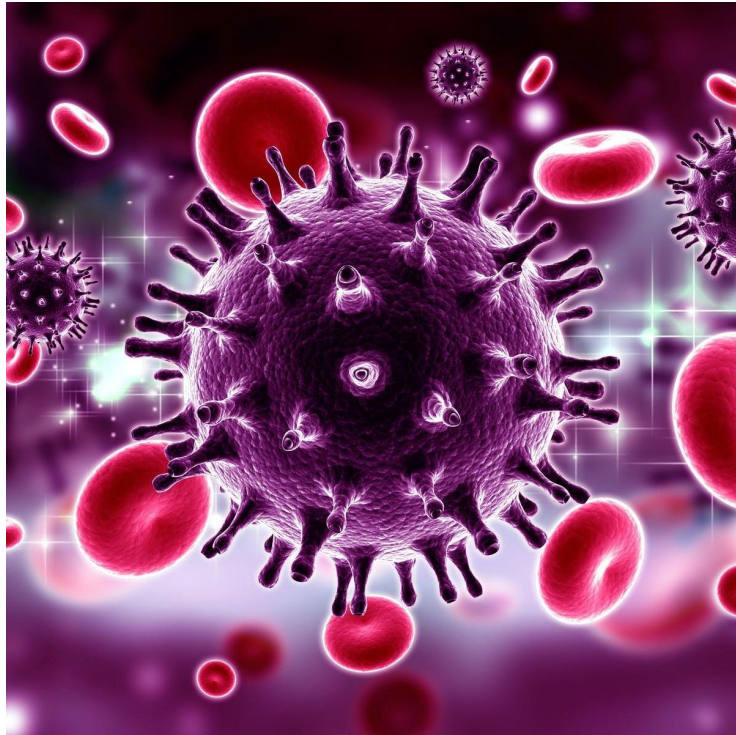
Describe HIV prevention options, including PrEP and PEP





# The Science of HIV/AIDS

# HIV/AIDS



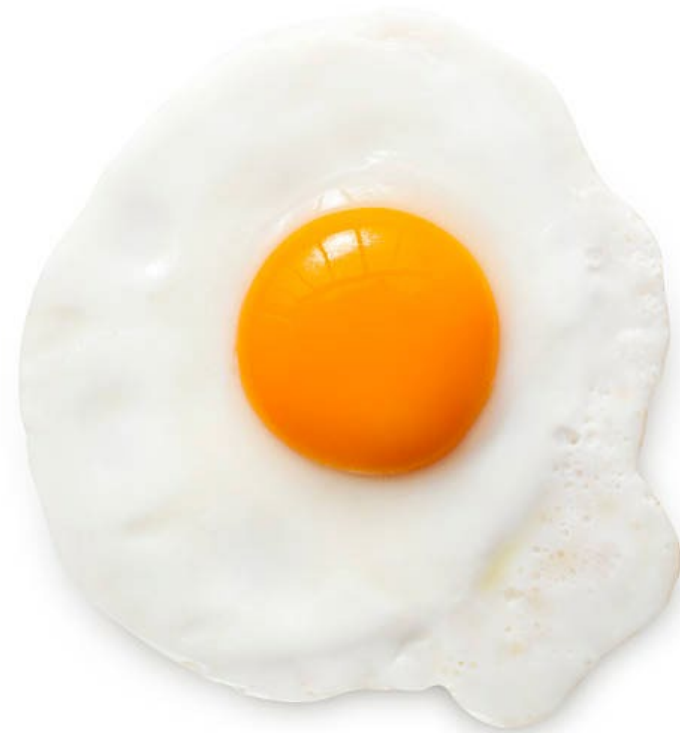
# Think of a **Fried Egg**

- **Host Cell:** CD4 T-cell

The CD4 cell is the host cell for HIV.

- **Nucleus:** The core of the CD4 cell

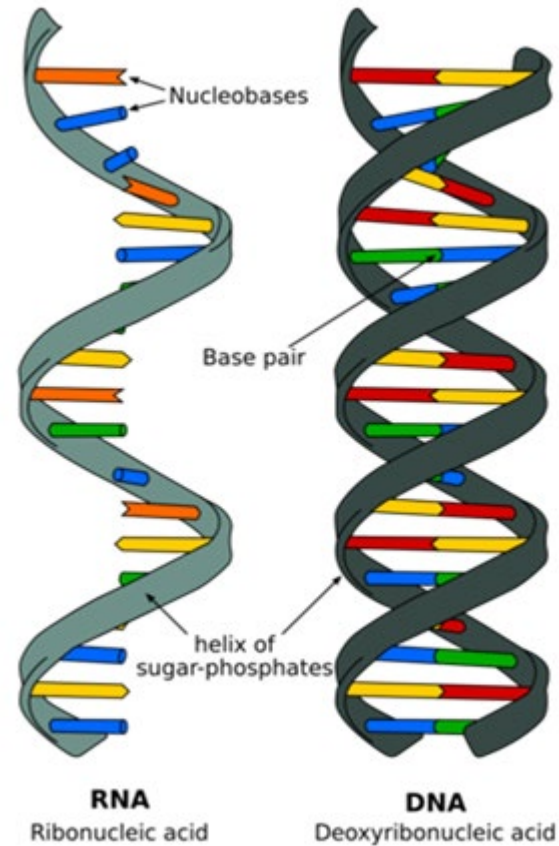
The cell nucleus contains DNA.



# RNA vs. DNA

## RNA

- HIV carries RNA
- Contains 1 strand of genetic information



## DNA

- Humans carry DNA
- Contains 2 strands of genetic information



# Transmitting HIV: How HIV Is Spread

- ❑ A person can only get HIV by coming into direct contact with certain body fluids from a person with HIV who has a detectable viral load.
- ❑ HIV is most commonly spread through:
  - ❑ Vaginal or anal sex with someone who has HIV without using a condom or taking medicines to prevent or treat HIV.
  - ❑ Sharing injection drug equipment with someone who has HIV.
  - ❑ From mother to child during pregnancy, birth, or breast/chestfeeding.



# People **Cannot Acquire HIV** Through:

- x Everyday social activity or casual contact
- x Handshakes
- x Coughs or sneezes
- x Sweat or tears
- x Food
- x Drinking fountains
- x Straws, spoons, or cups
- x Mosquito bites & other bug bites (ticks, lice, etc.)
- x Sharing: toilets, telephones, office equipment, clothing, cooking or eating utensils
- x Hugging, touching
- x Attending church, school, or going to any public place with a person with HIV
- x Working with someone with HIV

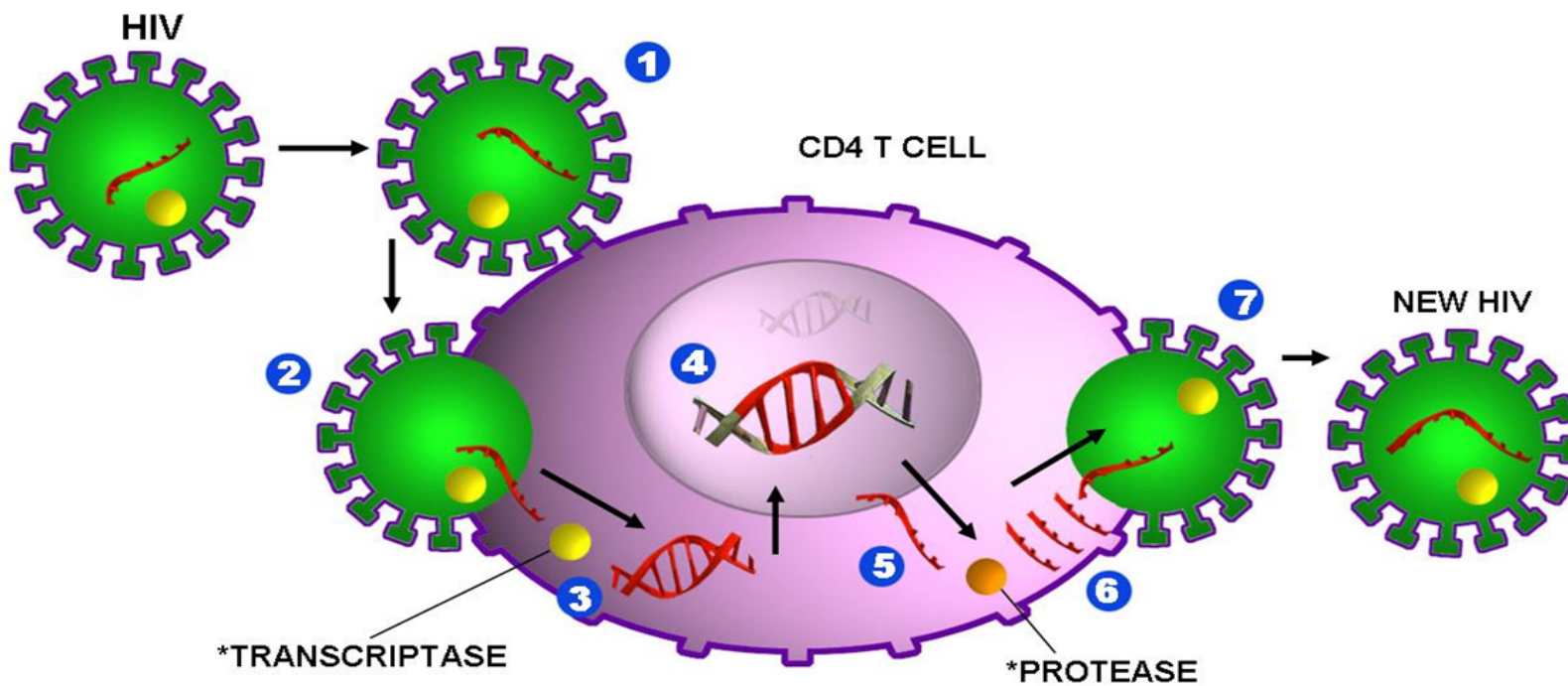




# Poll 1

**Can a person who does not have HIV acquire HIV by hugging a person with HIV while they are crying?**

- a. Yes
- b. No



## Attachment

1. HIV binds to receptors on the CD4 T-cell.
- A message is sent to the CD4 T-cell to let the virus in.

## Fusion

2. Once bound, the virus is allowed to dump its contents into the CD4 T-cell.
- Included in its contents are HIV RNA and reverse transcriptase.

## Reverse Transcription

3. The HIV RNA is turned into double-stranded DNA within the CD4 T-cell.
- The enzyme *\*reverse transcriptase* aids in this process.

## Integration

4. Once the DNA is formed, it hides itself in the human DNA housed in the CD4T-cell nucleus.

## Transcription

5. Copies of HIV DNA are made and released from the nucleus in small packages'.
- Each of the small packages' contains information for creating a new HIV.

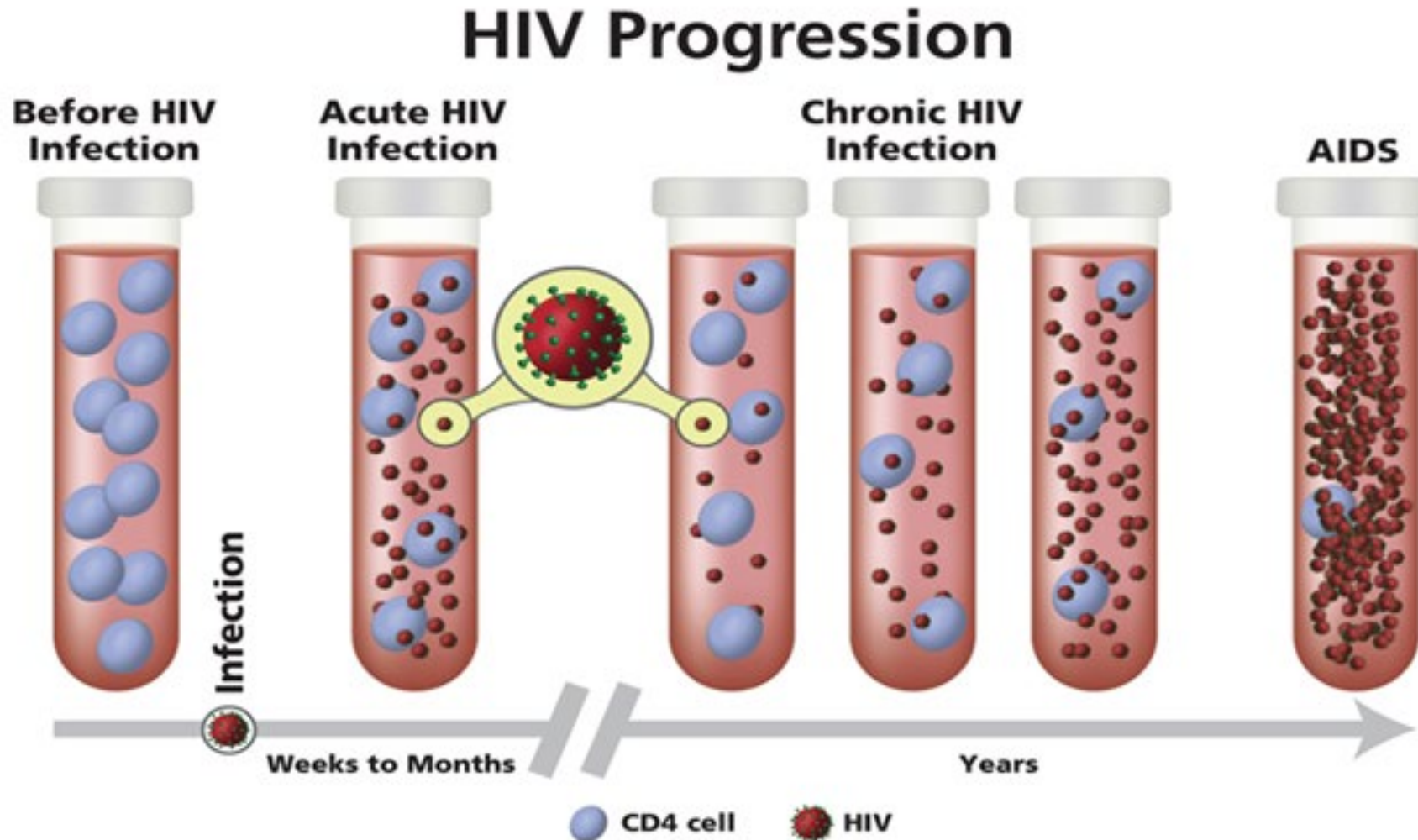
## Assembly

6. The *\*protease* enzyme in the cell combines the DNA 'packages' to create active virus.

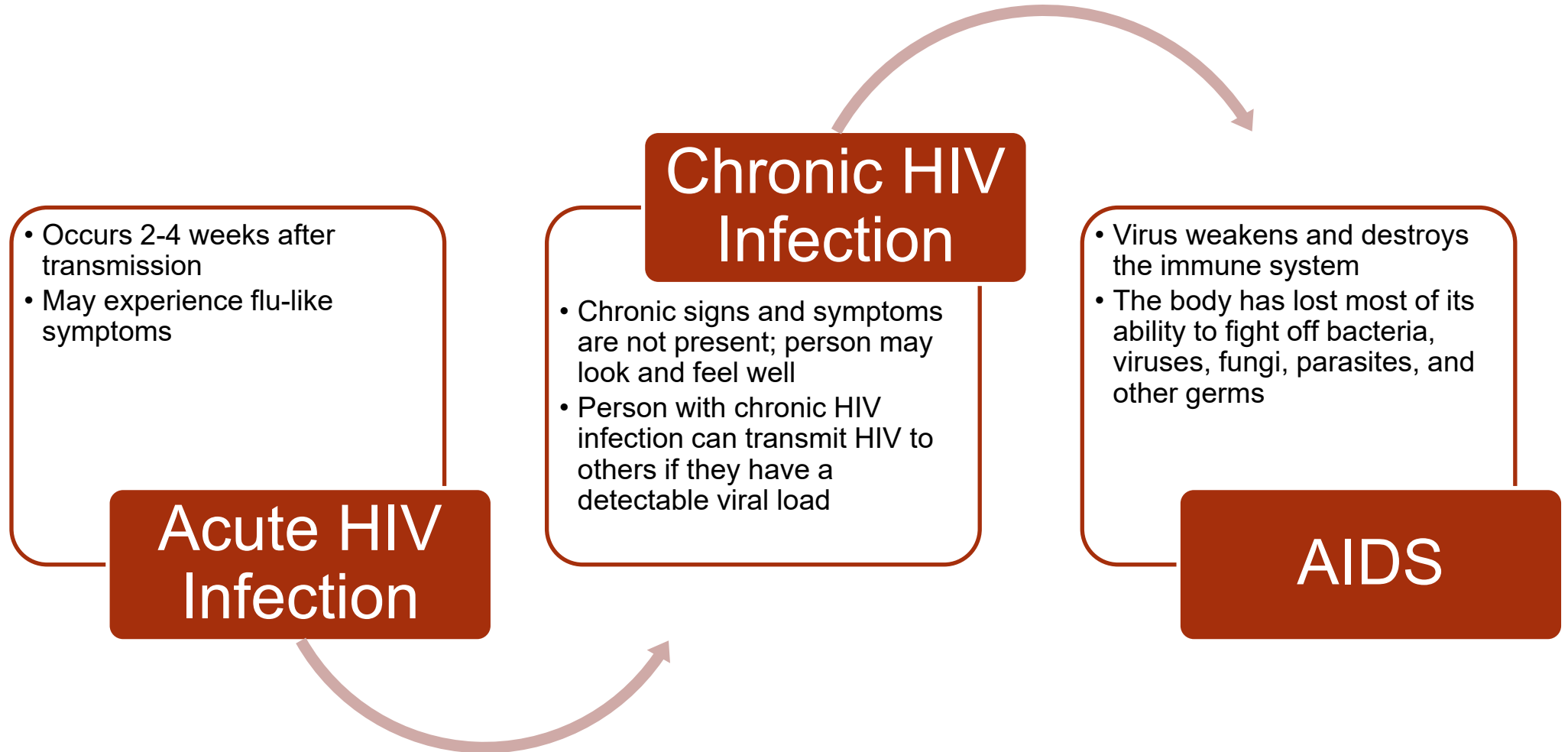
## Budding

7. Once the new HIV is formed, it pushes itself out of the CD4 T-cell
- The virus steals part of the CD4 T-cell protective coating.

# Stages of HIV Infection



# Stages of HIV





# Poll 2

**People in the Acute stage may not feel sick, but the level of HIV in the blood is very high; this increases risk of HIV transmission.**

- a. True
- b. False



# Poll 3

**True or False? The Chronic stage (sometimes called asymptomatic HIV infection) can last decades; most people do not advance to AIDS even if the person is not taking HIV medication.**

- a. True
- b. False





# Poll 4

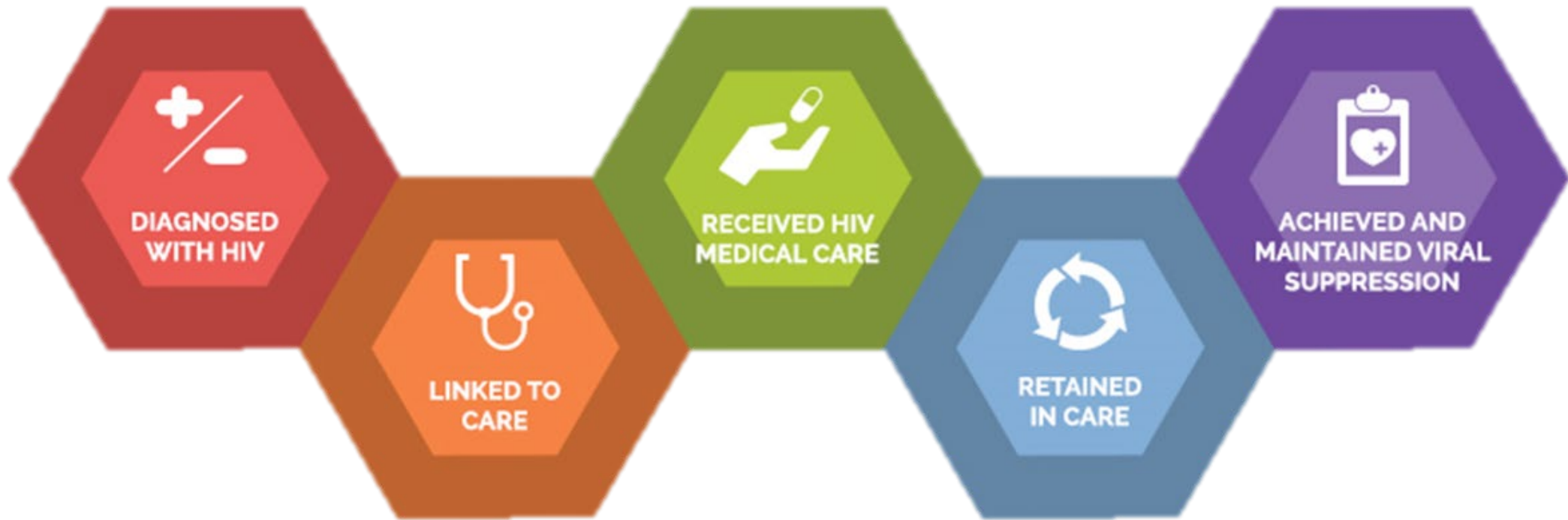
**AIDS is the most severe phase of HIV infection. Without treatment, the CDC estimates the average survival rate to be three years once AIDS is diagnosed.**

- a. True
- b. False



# The HIV Care Continuum

# HIV Care Continuum



# Diagnosis

## HOW CAN YOU TELL IF YOU HAVE HIV?

You **can't** rely on symptoms to tell if you have HIV.

The **only** way to know for sure is to **GET TESTED!**



- ❑ **Diagnosis:** A medical determination that a patient has a specific illness
- ❑ HIV testing can occur in:
  - Clinic or lab
  - Community setting
  - At home (self-testing)

# Types of HIV Tests

## Nucleic Acid Test

- Looks for HIV (virus) in the blood
- Can detect HIV infection 10-33 days after exposure

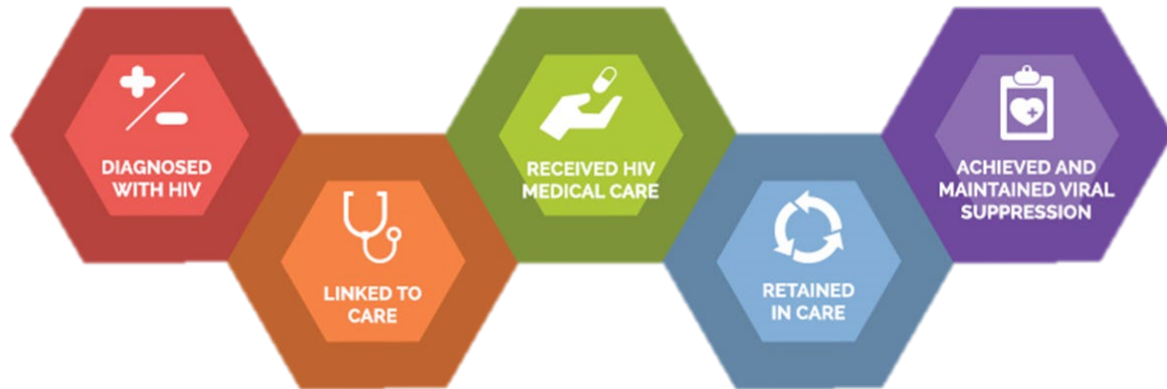
## Antigen/Antibody Test

- Look for HIV antibodies and antigens
- Blood drawn from a vein can detect HIV 18-45 days after exposure
- Blood drawn from a finger prick can detect HIV 18-90 days after exposure

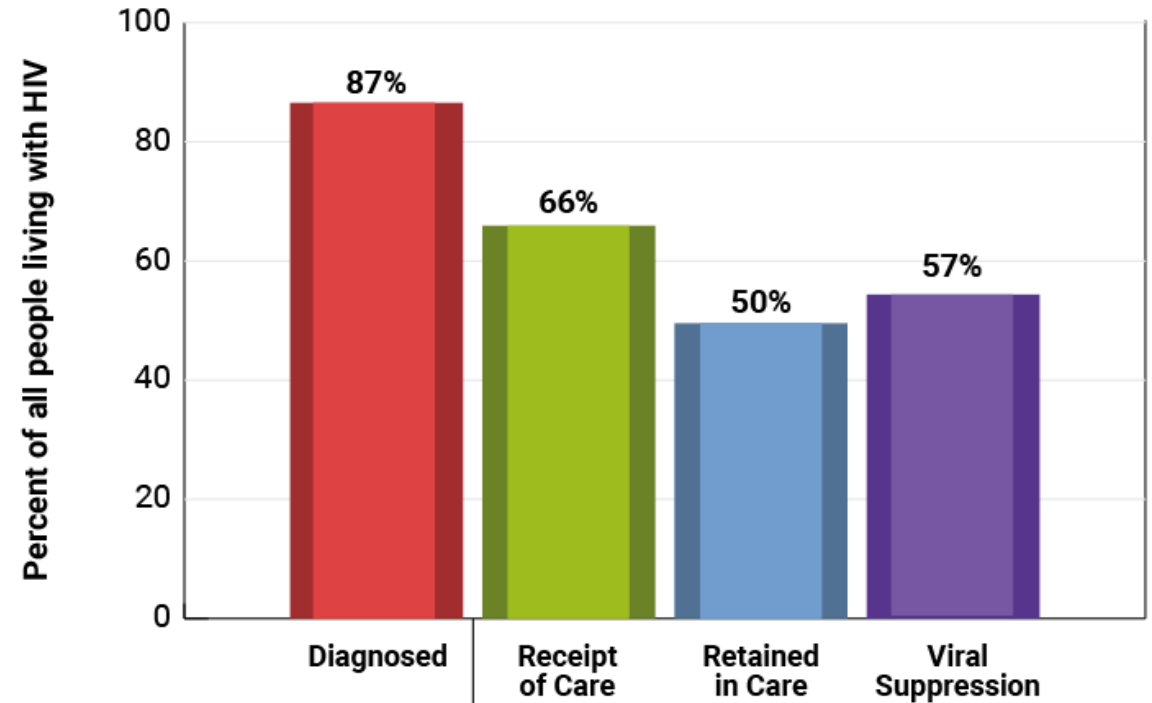
## Antibody Test

- Look for HIV antibodies in blood or oral fluid
- Can detect HIV 23-90 days after exposure

# Diagnosis and Linkage to Care



**Prevalence-based HIV Care Continuum, U.S. and 6 Dependent Areas, 2019**



**Linked to Care: 81%** of persons with diagnosed HIV infection were linked to care within 1 month of diagnosis

**Note:** Receipt of medical care was defined as  $\geq 1$  test (CD4 or VL) in 2019. Retained in medical care was defined as  $\geq 2$  tests (CD4 or VL)  $\geq 3$  months apart in 2019. Viral suppression was defined as  $< 200$  copies/mL on the most recent test in 2019. Linkage to care is defined as having  $\geq$  one CD4 or VL test within 30 days (1 month) of diagnosis. (Linkage is calculated differently from the other steps in the continuum, and cannot be directly compared to other steps.)



# Ryan White HIV/AIDS Program (RWHAP)

RWHAP provides a comprehensive system of HIV primary medical care, essential support services, and medications for low-income people with HIV



[About the RWHAP](#)



# Examples of Services Funded under the RWHAP

## Core Medical Services

- Outpatient/Ambulatory Health Services
- Medical case management
- Oral healthcare
- Hospice services
- Mental health services
- Medical nutrition therapy
- Substance use services

## Support Services

- Non-medical case management
- Child care services
- Emergency financial assistance
- Food bank/home-delivered meals
- Housing services
- Linguistics services
- Medical transportation services

**Plus:** AIDS Drug Assistance Program (ADAP), AIDS Pharmaceutical Assistance (APA), and Health Insurance Premium and Cost-sharing

## Find a Ryan White HIV/AIDS Program Medical Provider



Enter a location



10 miles



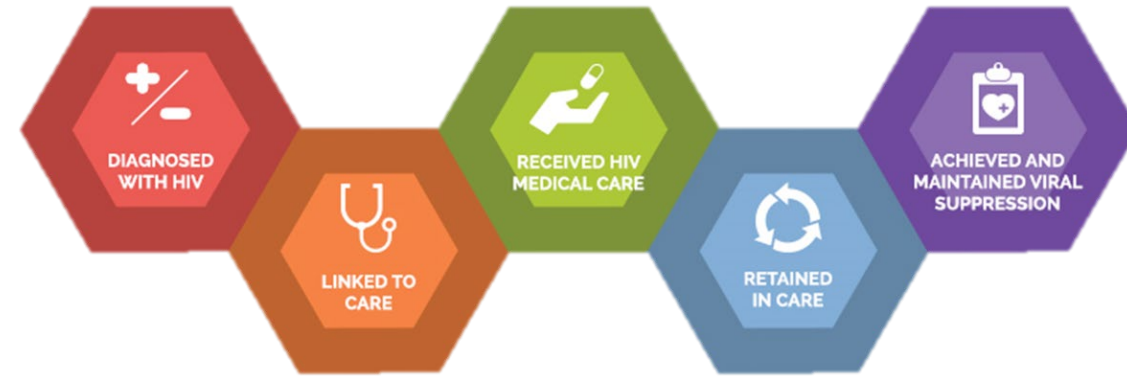
Export Results as: PDF XLSX

### Search Results:



# Goals of Treatment

- ❑ Decrease viral replication (viral load)
- ❑ Restore and preserve immune function (increase CD4 count)
- ❑ Reduce HIV complications
- ❑ Delay onset of AIDS
- ❑ Prevent development of opportunistic infections
- ❑ Prevent transmission of HIV

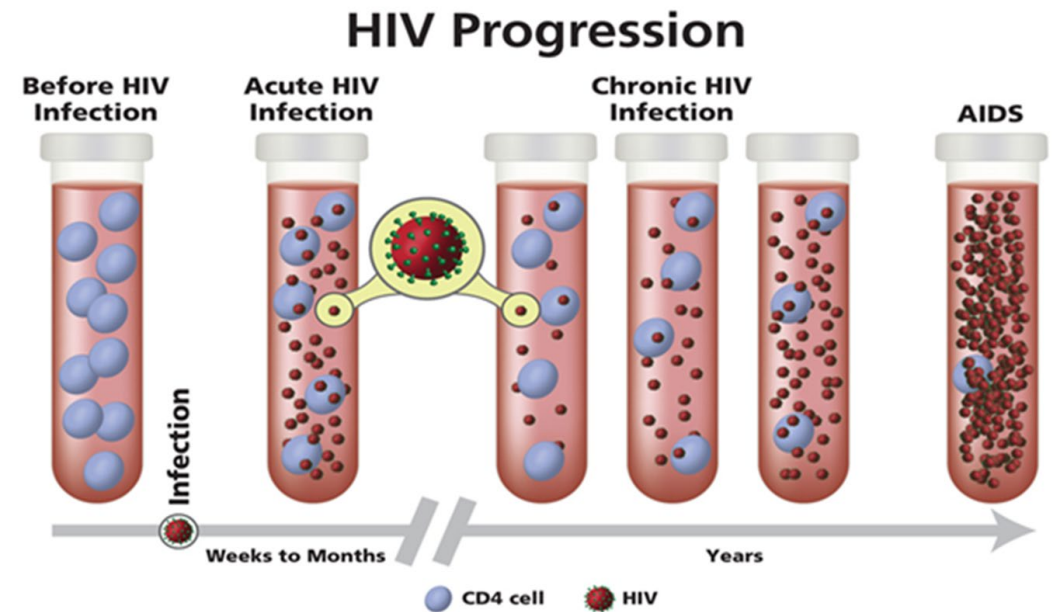


Help people get  
and stay healthy  
with HIV

# Viral Load

**Viral load** is the amount of HIV in the blood of someone who has HIV.

- ❑ **Viral suppression** is when the function and replication of a virus are reduced.
- ❑ An **undetectable viral load** is when a person's viral load is so low that a test cannot detect it.



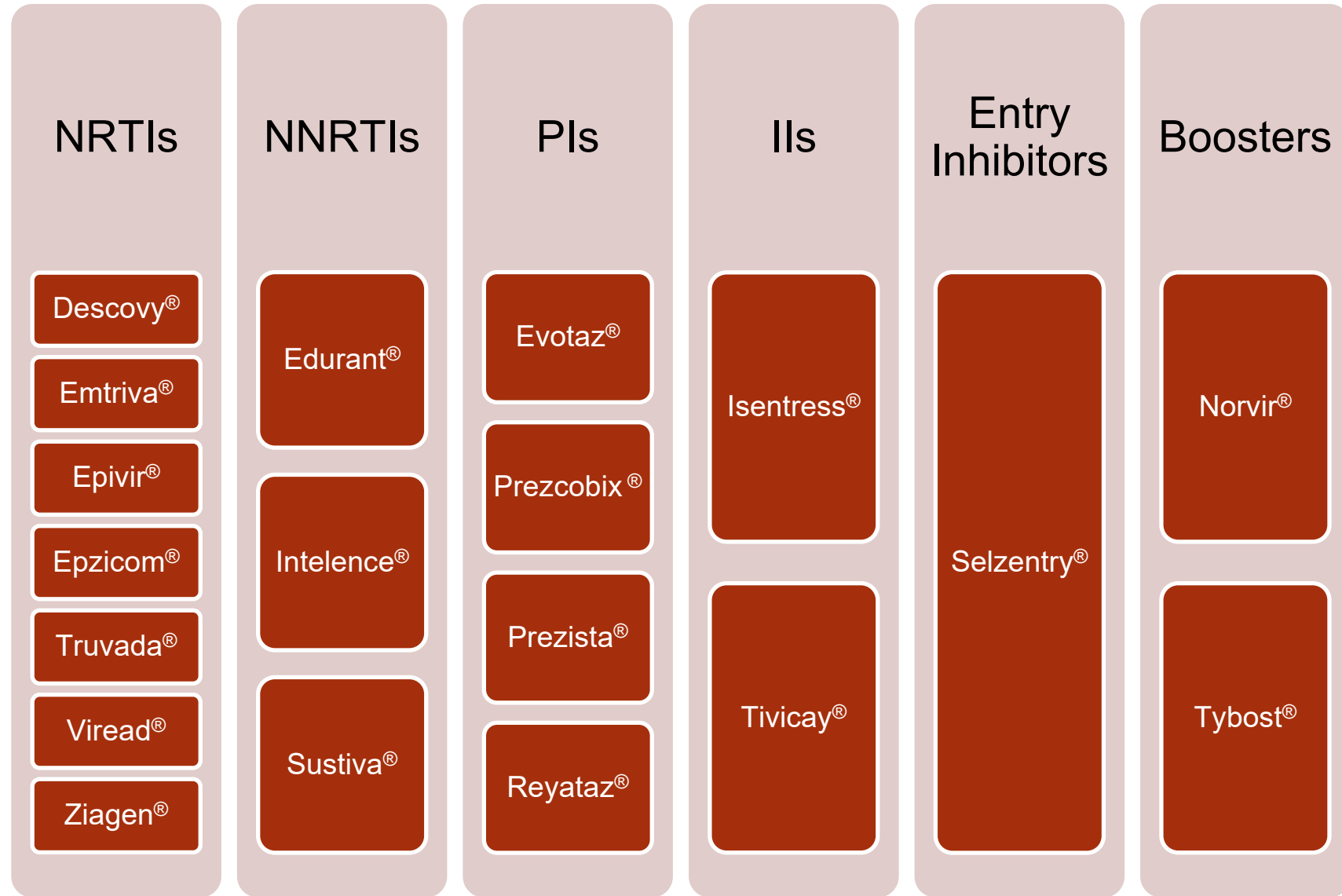




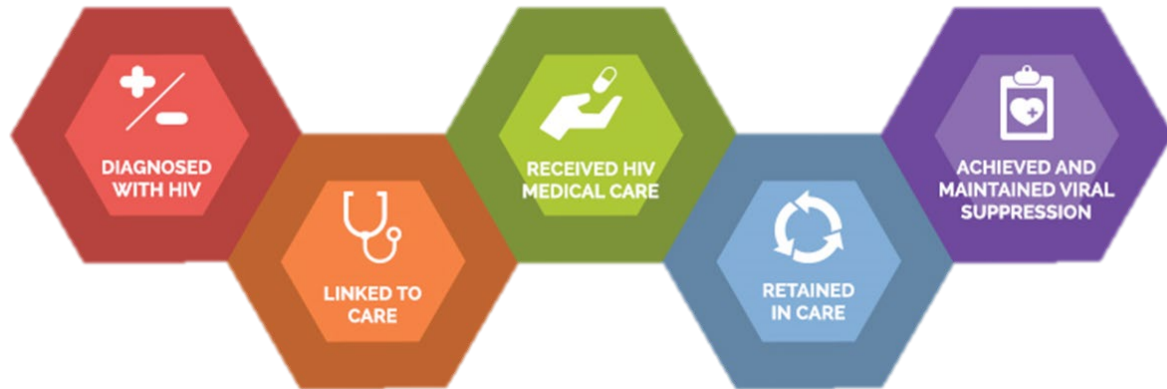
# Antiretrovirals

- ❑ **Antiretrovirals (ARV)** are a class of HIV medications that has had a profound positive impact on the illness by making it more manageable.
  - ❑ **Antiretroviral therapy (ART)** is a treatment regimen that can lower a person's viral load.

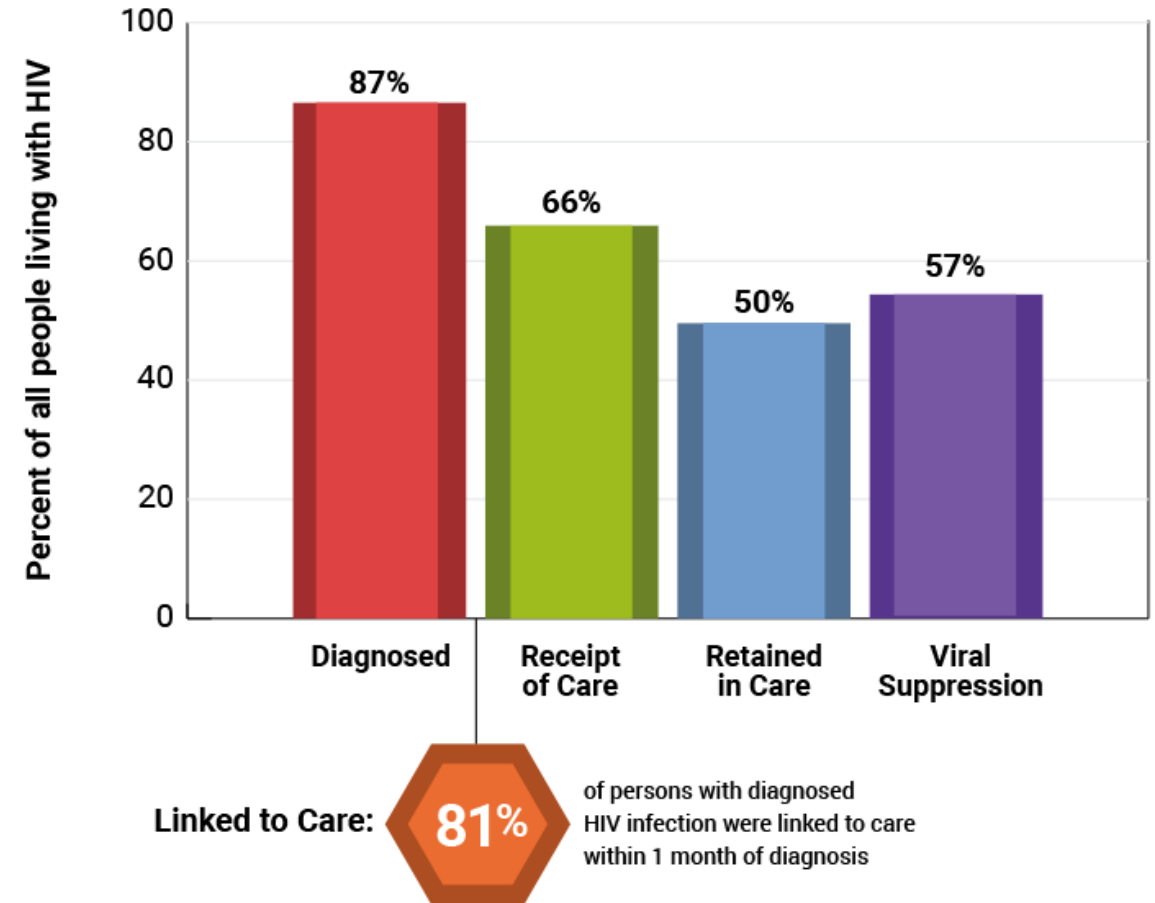




# Retention in Care



## Prevalence-based HIV Care Continuum, U.S. and 6 Dependent Areas, 2019



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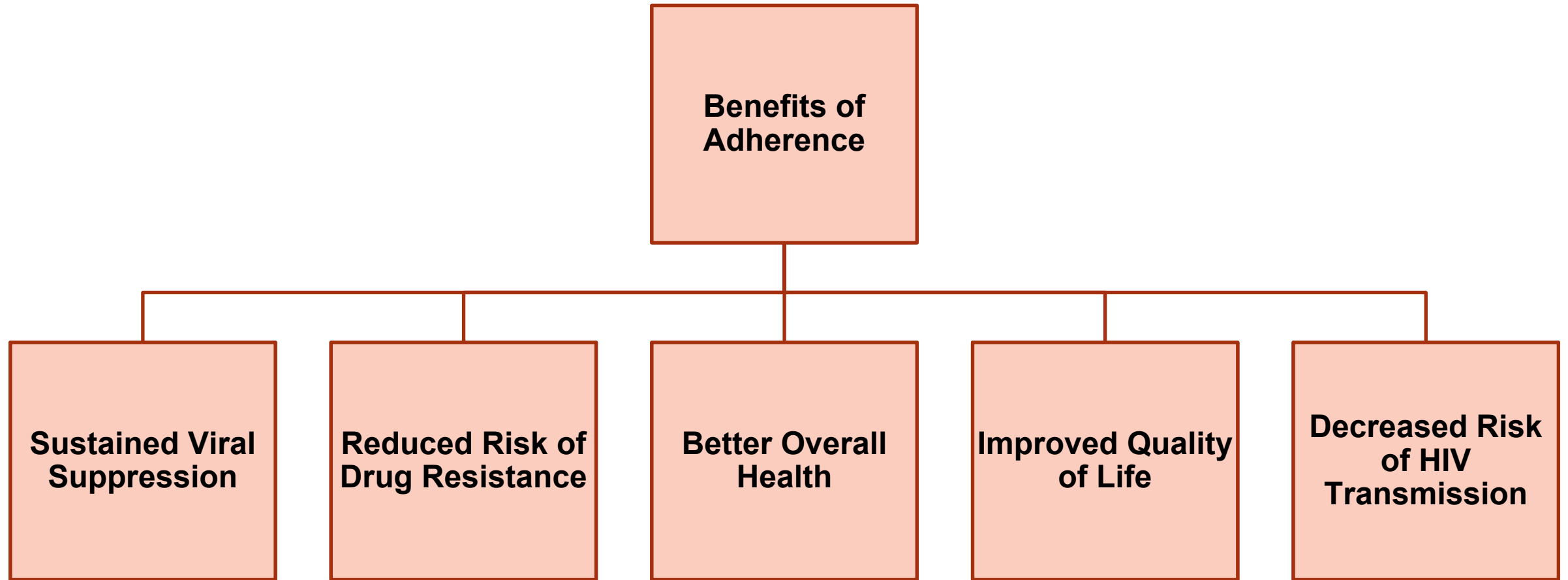


# What is Medication Adherence?

- ❑ Medication adherence is the ability to stick to treatment recommendations.
- ❑ This includes:
  - Taking medications exactly as prescribed
  - Keeping medical appointments
  - Avoiding drug interactions

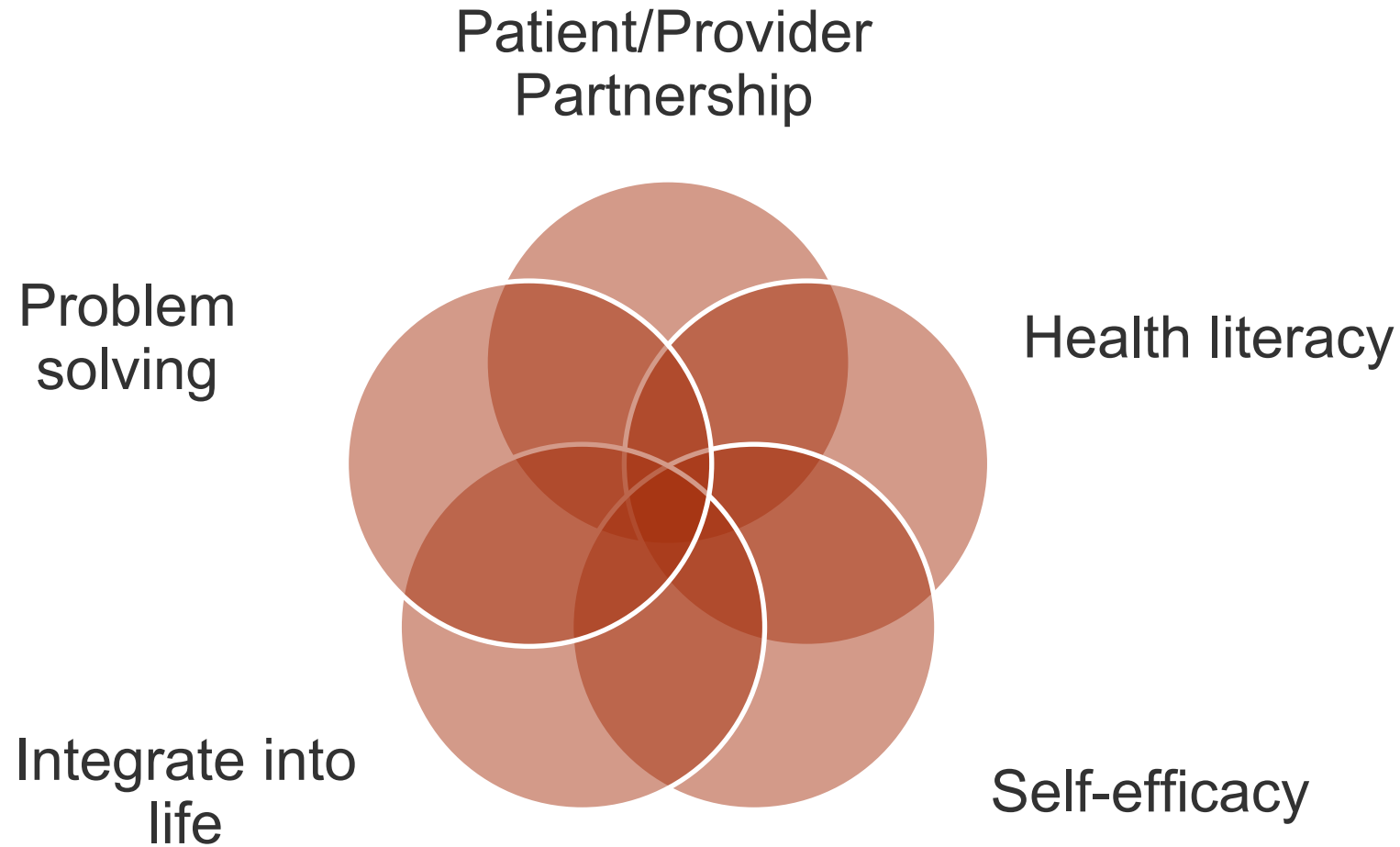


# Medication Adherence is Important

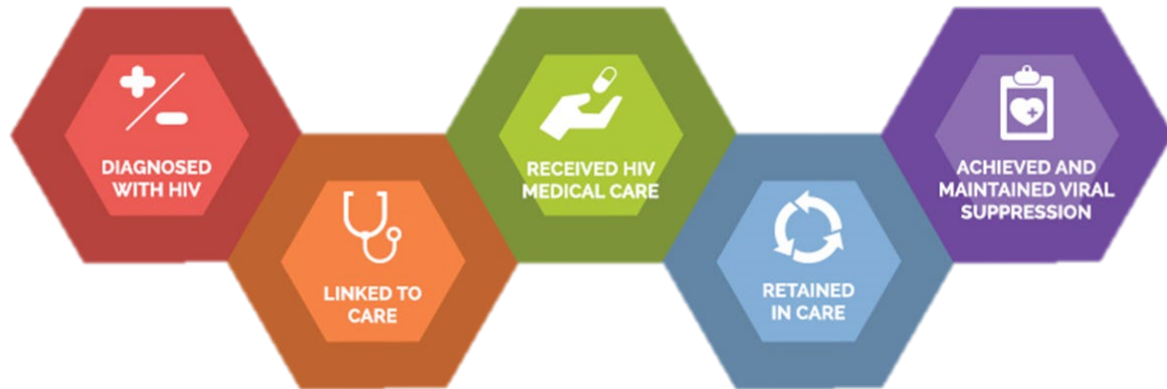




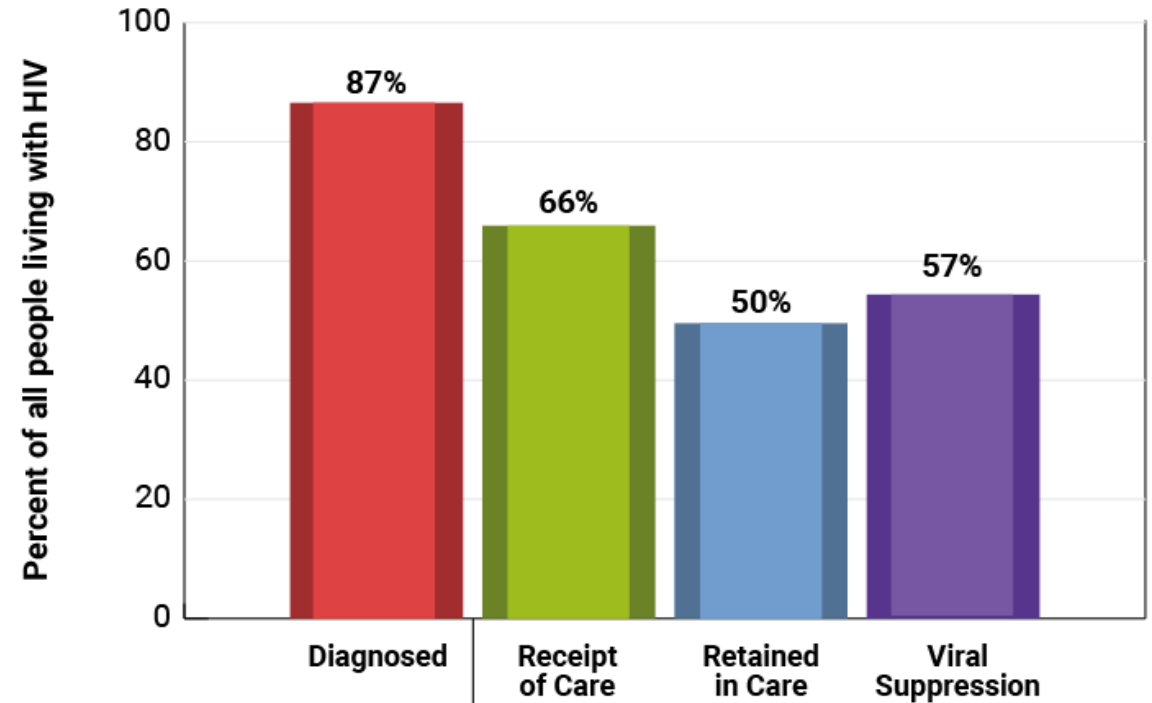
# Medication Adherence Requires...



# Viral Suppression



**Prevalence-based HIV Care Continuum, U.S. and 6 Dependent Areas, 2019**



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# HIV Prevention



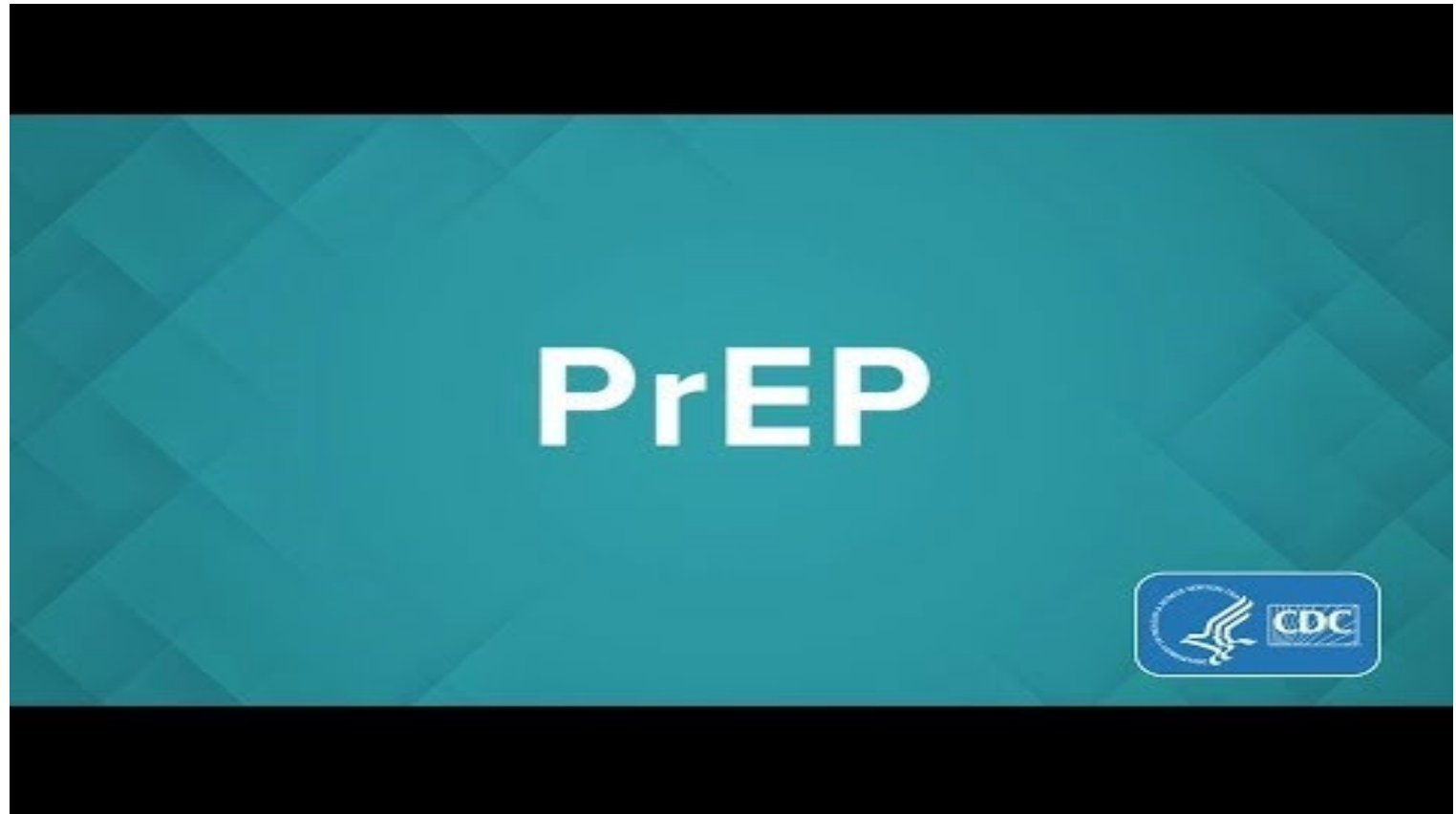


# Prevent against HIV

- ❑ Use condoms when having sex
- ❑ Use clean needles or drug injection equipment
- ❑ Choose not to have sex or inject drugs
- ❑ Take PrEP (pre-exposure prophylaxis)
- ❑ Take PEP (post-exposure prophylaxis)
- ❑ Encourage partners with HIV to take their HIV medications

# PrEP: Pre-Exposure Prophylaxis

- Truvada<sup>®</sup>
- Descovy<sup>®</sup>
- Apretude<sup>®</sup>



PrEP (Pre-Exposure Prophylaxis)

# PEP: Post-Exposure Prophylaxis

- ❑ PEP consists of an HIV regimen (raltegravir) (Isentress) and Truvada)
- ❑ PEP is taken within 24 to 72 hours of being possibly exposed to HIV
- ❑ Once prescribed, PEP must be taken for 28 days





# Treatment as Prevention (TasP)

- ❑ People with HIV who have an undetectable viral load have a 96% chance of not transmitting the virus to their partner and/or partners
- ❑ When clients understand how HIV treatment works in their bodies, it positions them to be accountable to themselves, their partners and the community as a whole



# Undetectable = Transmissible (U=U)

People with HIV who take HIV medicine daily as prescribed and get and keep an undetectable viral load have **effectively no risk of sexually transmitting HIV** to their partners.





# Poll 5

**A person with HIV who has an undetectable viral load has effectively no risk of passing HIV to another person.**

- a. True
- b. False



Find HIV Prevention Services Near You 

Select the services you would like to filter by:

-  HIV Testing
-  PrEP
-  PEP
-  Condoms

Search within

25 

miles of

Zip Code... 

Due to COVID-19, this widget may not have the most up-to-date changes to an organization's services or hours. Please contact the organization for updates.

# Find HIV Prevention Services

[Find HIV Prevention Services Near You](#)





# Thank You!



# The Next Webinar

## Harm Reduction Principles in HIV Services Overview

March 8, 2022

[Register today!](#)

See you there!





# Get in Touch



Charles Shazor Jr.  
(Pronouns: he, him, his)  
Manager  
The Center to End the Epidemics  
[cshazor@nmac.org](mailto:cshazor@nmac.org)

Lauren Miller  
(Pronouns: she, her, hers)  
Health Equity Program Coordinator  
The Center to End the Epidemics  
[lmiller@nmac.org](mailto:lmiller@nmac.org)



# Q&A