



**Women's Advocacy and  
Treatment Coalition on HIV**

A PROGRAM OF  
 thewellproject

*Session 2: Knowledge Is Action: Learning the Basics of HIV*

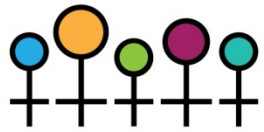
*December 5, 2024, 1:30pm ET / 10:30am PT*

*Together, we can change the course of the HIV epidemic...one woman at a time.*

#onewomanatatime

#thewellproject

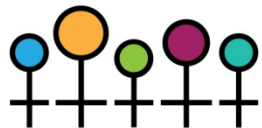
[www.thewellproject.org](http://www.thewellproject.org)



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# About The Well Project

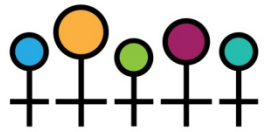
- Non-profit organization with a mission to change the course of the HIV/AIDS pandemic through a unique and comprehensive focus on women and girls across the gender spectrum
- Leverages technology to improve health outcomes and increase quality of life for women and girls living with HIV
- Our focus: education and information, community support, advocacy and leadership, collaborative engagement, and women-focused HIV research
- Access our resources and join our community at [www.thewellproject.org](http://www.thewellproject.org)



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# About WATCH! 2.0

- Treatment advocacy webinar series, based on our successful 2015 series *A Place at the Table: WATCH!*
- 7 monthly sessions; 1 hour each
- Capacity building and training for women living with HIV and with reasons for HIV prevention across the gender spectrum
- Series topics will include advocacy basics, treatment and prevention, sexual and reproductive health, aging, research
- Participation in live sessions encouraged; recordings of sessions will be available to those unable to attend
- Certificates of completion will be issued to participants upon finishing the series and required evaluations/post-tests based on content of each episode
- This episode of *WATCH! 2.0* is supported by a grant from Merck



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# Agenda

- Welcome
- What Are HIV and AIDS
- Immune System, HIV Drugs, and HIV Lifecycle
- CD4 Count and Viral Load
- Q&A

# Today's Presenters



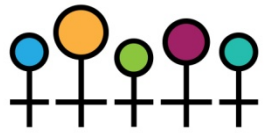
**Olivia G. Ford**  
***Moderator***  
The Well Project



**Bridgette Picou, LVN, ACLPN**  
The Well Project

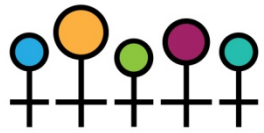


**Louise Wallace**  
Aunty Lou's House



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# Poll Question



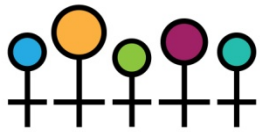
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# What Is HIV?



HIV stands for: **H**uman  
**I**mmunodeficiency **V**irus

HIV is the virus that causes  
AIDS, but not everyone  
who is living with HIV has  
AIDS, or will ever have an  
AIDS diagnosis

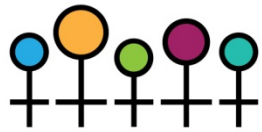


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# How Does HIV Affect a Person's Body?

- **Your immune system is your body's defense system**
- HIV infects the same immune system cells that protect us
  - White blood cells called **CD4 cells**, a type of T cells
- **Without medication**, HIV turns CD4 cells into factories that produce millions of copies of the virus
  - Those copies are referred to as the body's **viral load**
- During copying, HIV damages or kills the CD4 cells
  - This weakens the immune system
- **This is how HIV causes AIDS**





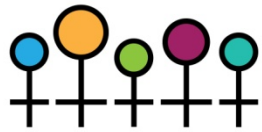
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# What Is AIDS?

AIDS stands for  
**A**cquired  
**I**mmune  
**D**eficiency  
**S**yndrome

AIDS is the most  
advanced stage of HIV  
in the official  
definition

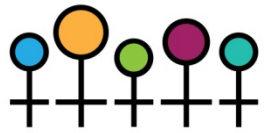
- Too many lost CD4 cells: body is less able to fight off infections
- Can develop serious infections (opportunistic infections or OIs)
- “AIDS” refers to the weakened state of the body’s immune system
- Today people can have been given an AIDS diagnosis, but **be very healthy and at low risk of OIs**



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# HIV and AIDS

- You can live with HIV for many years with no signs of disease
  - You do not have AIDS as soon as you acquire HIV
- **Without treatment**, HIV will eventually wear down the immune system, leading to an AIDS diagnosis
- Treatment can still improve their health and lower their risk for illness



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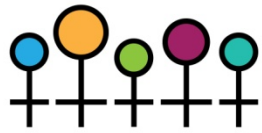
# Poll Question



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# HIV Drugs and the HIV Lifecycle

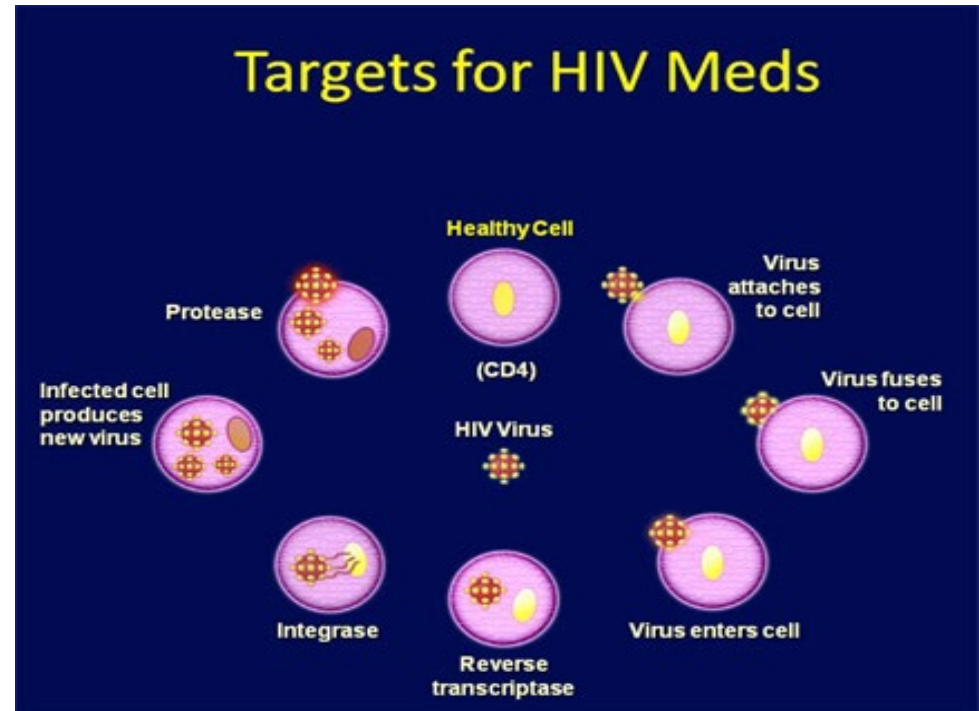
- Newer HIV drugs are effective at stopping HIV from infecting more CD4 cells and making copies of itself
- HIV must go through several steps to make copies of itself; steps are called the *HIV lifecycle*
- **All HIV drugs work by interrupting different steps in HIV's lifecycle**
- HIV drugs can't cure HIV, but can help you stay healthy and prevent HIV transmission

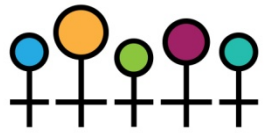


# The HIV Lifecycle

*The steps HIV goes through to complete the process of reproducing itself are:*

- Binding and fusion
- Reverse transcription
- Integration
- Transcription
- Assembly
- Budding

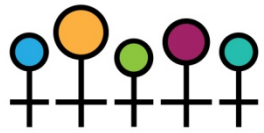




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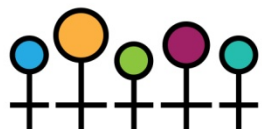
# Classes of HIV Drugs

- Different **classes or groups** of HIV drugs block different steps in HIV's lifecycle
- FDA has approved **several classes of HIV drugs**:
  - Entry Inhibitors
  - Post-attachment Inhibitor
  - Integrase Inhibitors
  - Nucleoside and Nucleotide Reverse Transcriptase Inhibitors
  - Non-Nucleoside Reverse Transcriptase Inhibitors
  - Protease Inhibitors
  - Capsid Inhibitor



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# Poll Question



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# Combining HIV Drugs

- Healthcare providers combine drugs from different classes to attack HIV at more than one step in its lifecycle
  - HIV can **mutate** when it reproduces, which could stop HIV drugs from working
  - When this happens, we say that HIV has become **resistant** to that drug
  - If you take only one drug (monotherapy), or a few drugs from the same class, HIV can become resistant to that drug or drug class
- When you take a **combination of drugs from different classes** HIV has a much harder time developing mutations and resistance
- Combination therapy with drugs that block HIV at different steps of its lifecycle can prevent the production of new virus
- Most importantly, it means slower disease progression and longer life for people living with HIV



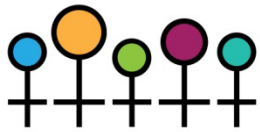


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# What Is Viral Load?

**Viral load is the amount of HIV (number of viruses or copies) in your bloodstream**

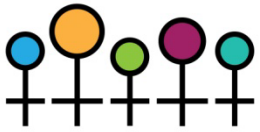
- When HIV attacks **CD4 cells**, they factories producing many copies of HIV
- Increase in HIV copies damages or kills CD4 cells, weakening the immune system
- The higher the amount of HIV, the more the immune system becomes damaged



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# What Does “Undetectable” Mean?

- Having 1,000 copies or fewer of HIV per ml in your blood is referred to as a *suppressed* viral load (WHO)
- If you have fewer than 200 copies of HIV per ml, your viral load is considered *undetectable* (CDC)
  - Great result; means your virus is under control
  - Undetectable means that there is not enough HIV in your bloodstream to be measured by the test
  - Labs that test viral load may have different cut-offs below which they cannot detect HIV
  - **Not** the same as a cure for HIV; HIV is still in the body



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# Undetectable Equals Untransmittable (U=U)

- **Having an undetectable viral load reduces your chance of passing HIV to sexual partners to zero**
- Large studies in couples in which one partner is HIV-negative and the other is living with HIV and has an undetectable viral load while on HIV treatment over time, **no HIV-negative partner acquired HIV through sex with their partner**
  - Did not look at undetectable viral load and risk of passing HIV through use of shared injection drug equipment
  - More research needed on HIV transmission through breast milk – though risk is very low when parent taking HIV drugs



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# Learn More!

*Scan the QR code for **more resources** on this topic from The Well Project, and to access the **video and survey** following this session!*



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