

# HIV Prevention

## From the CDC Perspective

**John T. Brooks, MD**

Chief Medical Officer, Division of HIV Prevention  
Center for Disease Control and Prevention  
Atlanta, Georgia



## Financial Relationships With Ineligible Companies (Formerly Described as Commercial Interests by the ACCME) Within the Last 2 Years:

Dr. Brooks has no financial relationships with ineligible companies to disclose. (Updated 10/13/22)

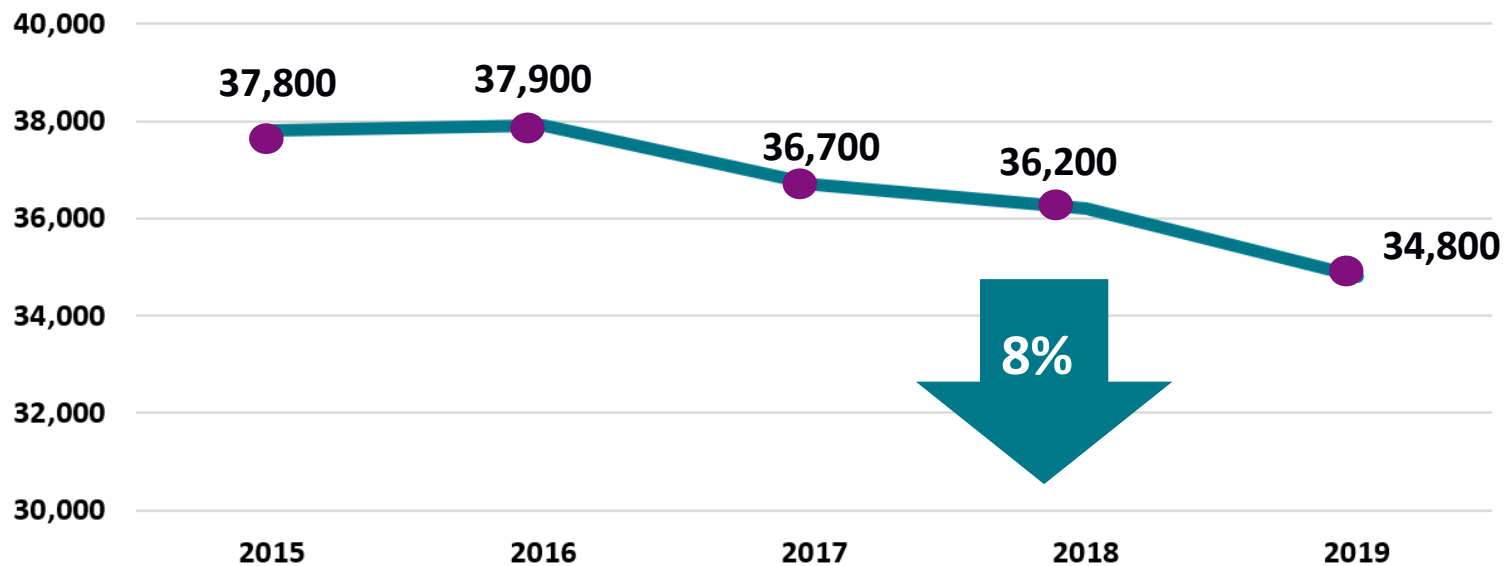
# Learning Objectives

After attending this presentation, learners will be able to:

- Characterize key disparities among persons affected by HIV in the U.S.
- Describe focused activities CDC is undertaking within each of the four key pillars of the national Ending the HIV Epidemic in America Initiative.
- Understand the importance status neutral syndemic approach for preventing and treating HIV.

However, after 2015 decline began again reaching approximately 34,800 in 2019.

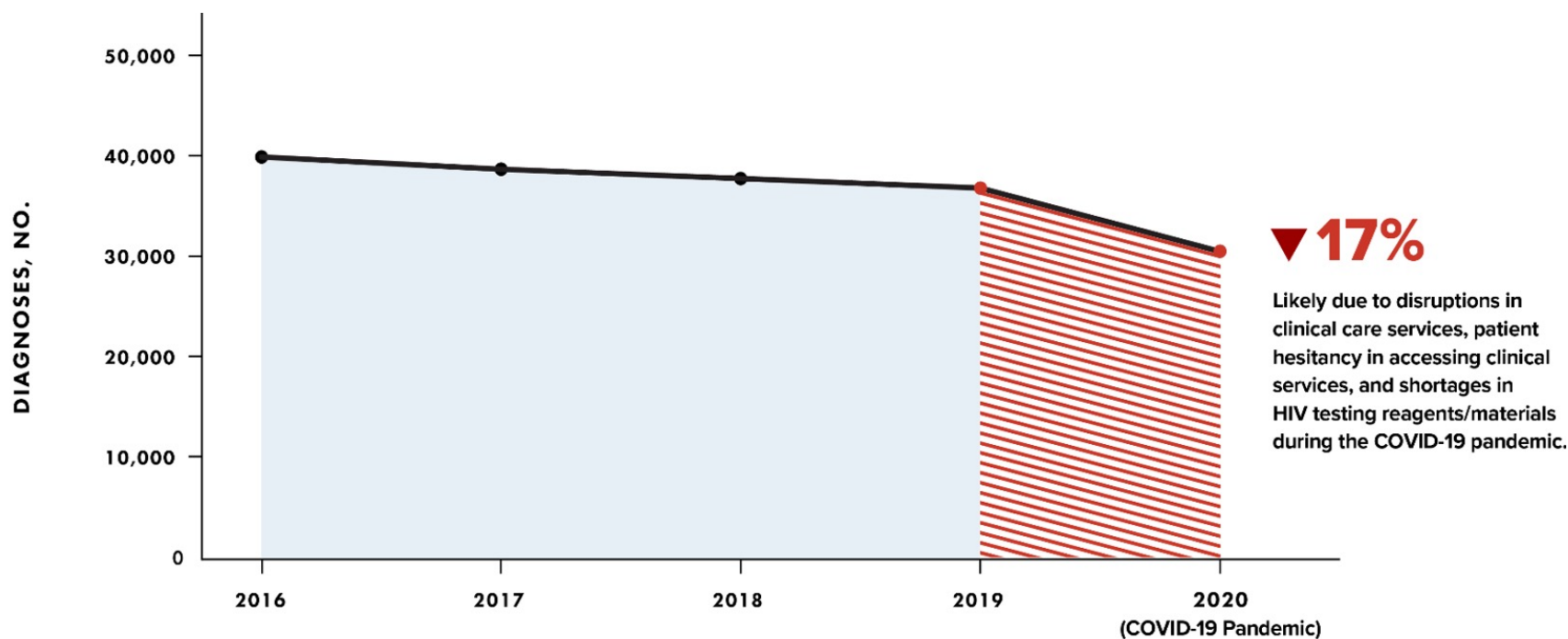
Estimated Annual HIV Infections in the U.S., 2015-2019



Estimated HIV incidence and prevalence in the United States, 2015–2019 (cdc.gov)

# Current state of HIV:

Diagnoses of HIV infection have declined due to impact from COVID-19 pandemic



Note. Diagnoses of HIV infection reported to CDC through December 2021. The annual number of HIV diagnoses in 2020 was 17% lower than 2019. The decline in 2020 was larger than the average yearly decline (2-3%) observed during 2016–2019.

slido

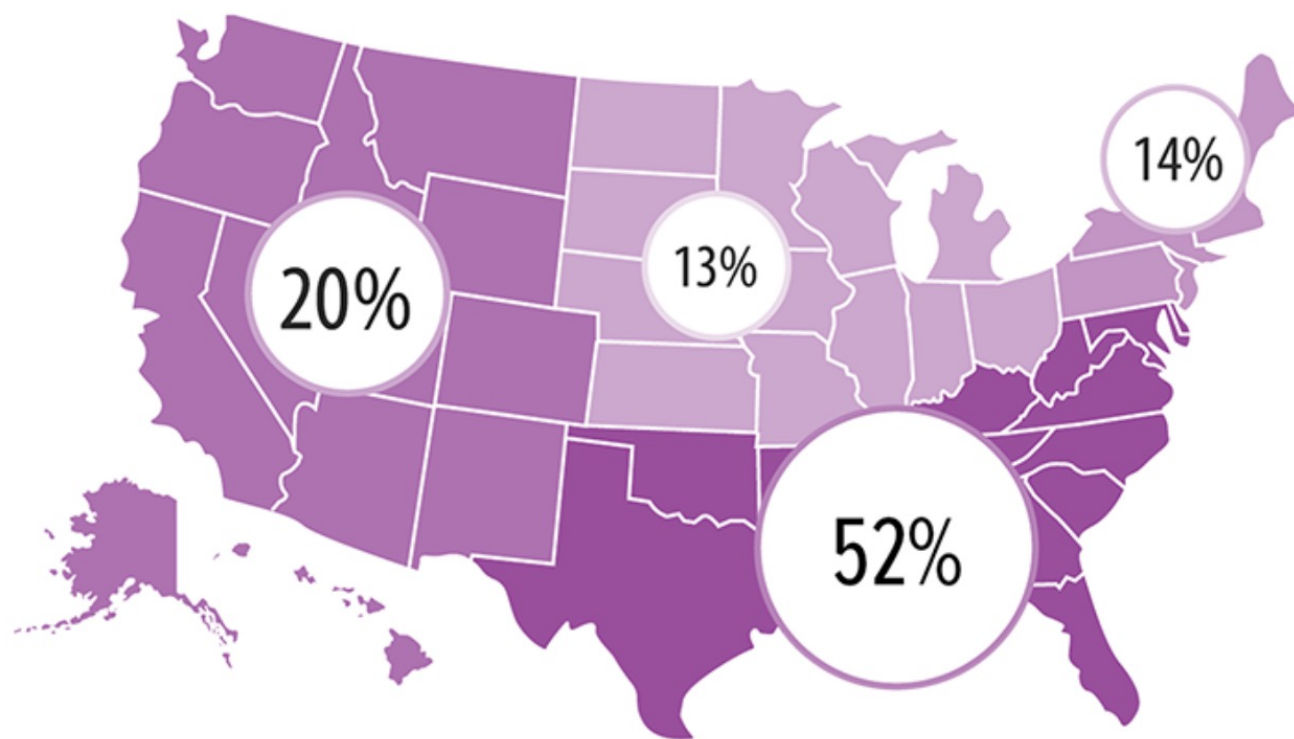


**What region of the United States  
accounted for more the 50% of new  
HIV diagnoses in 2019?**

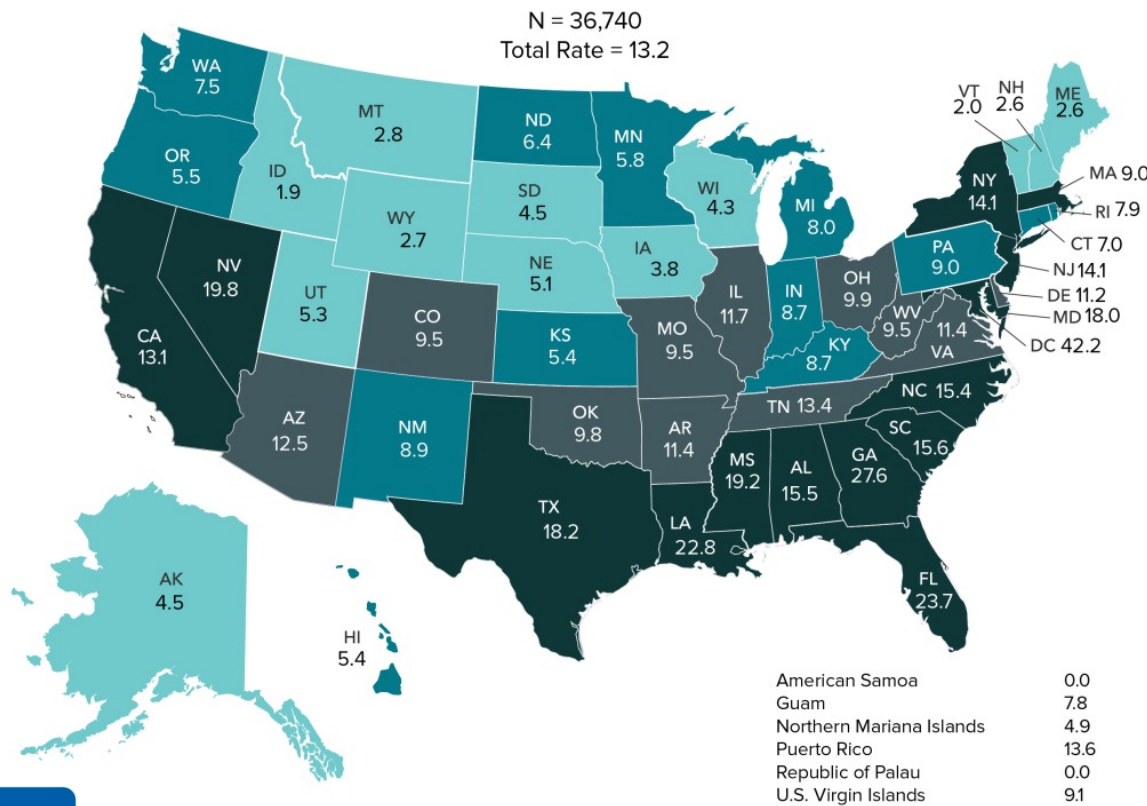
ⓘ Start presenting to display the poll results on this slide.

# Rates of HIV-diagnoses remains highest in the South

Percentage of HIV Diagnoses by Region, 2019

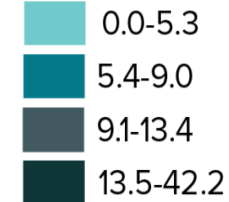


# Rates of HIV-diagnoses remains highest in the South



## Rates of Diagnoses of HIV Infection among Adults and Adolescents, 2019

Rates per 100,000 population



Data classified using quartiles

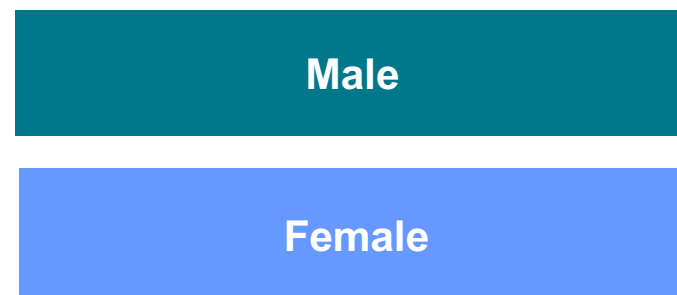
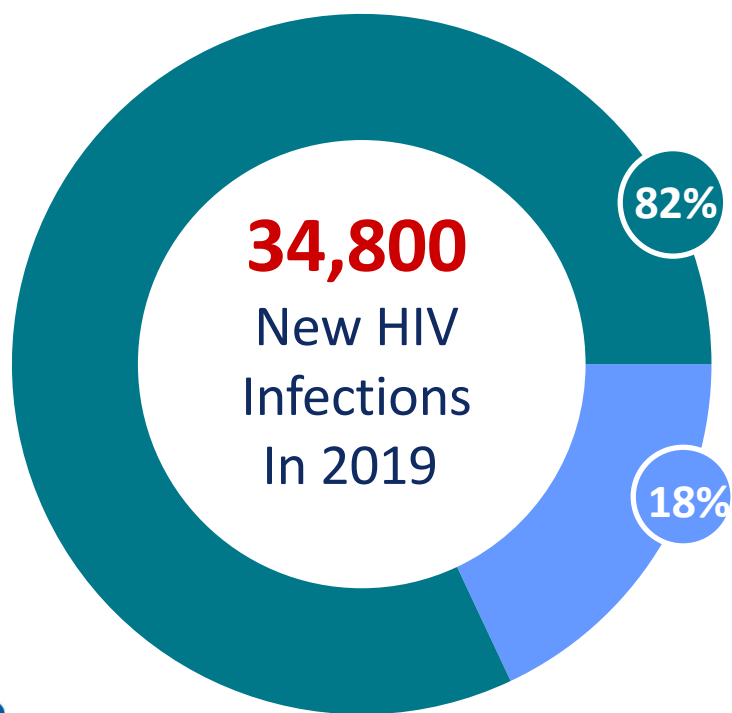


<https://www.cdc.gov/hiv/library/reports/hiv-surveillance/vol-32/content/figures.html>

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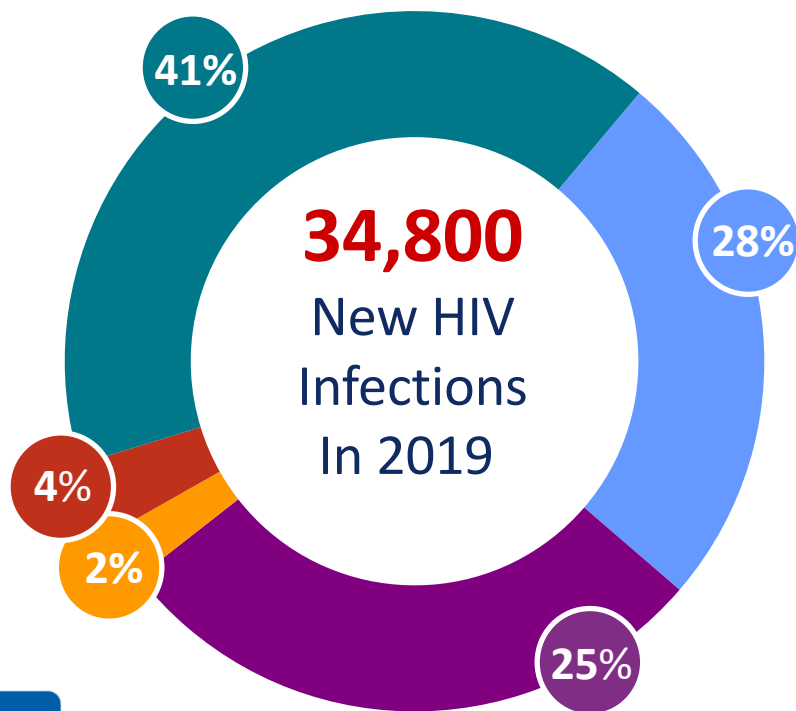
# Males Account for Majority of New Infections



HIV Surveillance Supplemental Report 2021;26(No. 1), <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>

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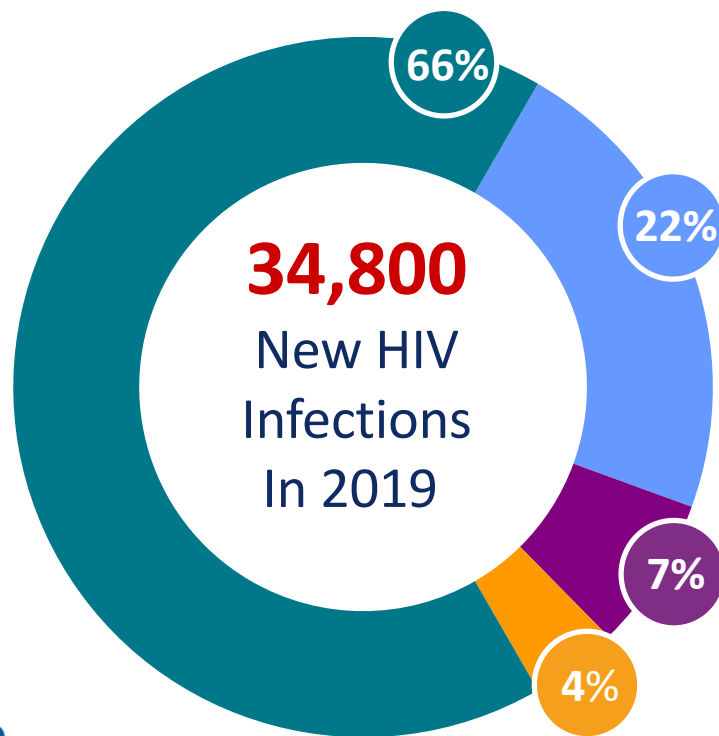
# Black/African American and Hispanic/Latino Account for Majority of New Infections



HIV Surveillance Supplemental Report 2021;26(No. 1), <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>

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# Male-to-Male Sexual Contact (MMSC) Accounts for Majority of New Infections



Male-to-male sexual contact

Heterosexuals

People who inject drugs

Male-to-male sexual contact  
and injects drugs



HIV Surveillance Supplemental Report 2021;26(No. 1), <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>

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**Despite reductions in new HIV diagnoses among women, disparities persist for transgender and Black and women.**

### **Transgender Women**

**HIV prevalence for transgender women is**

**14%**

**compared with <0.5% overall estimates for U.S. adults**

### **Black Women**

**The rate of new HIV infections among black women is**

**13x**

**that of white women**



<https://www.cdc.gov/hiv/pdf/policies/cdc-hiv-prevention-bluebook.pdf>

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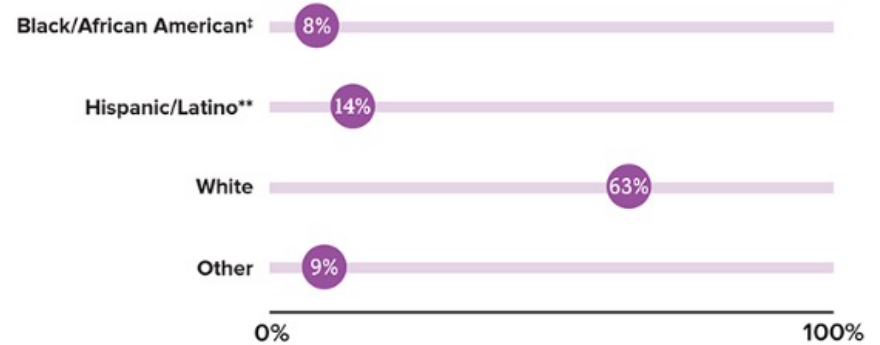
# Gaps in PrEP Coverage Remain Greatest Among Women and Racial/Ethnic Minority People

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**Overall Goal:** Increase the estimated percentage of people with indications for PrEP classified as having been prescribed PrEP to at least 50% by 2025 and remain at 50% by 2030.



Overall, 23% of people who could benefit from PrEP were prescribed PrEP in 2019.



<https://www.cdc.gov/hiv/library/reports/hiv-surveillance/vol-26-no-2/content/figures.html>

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ONLY



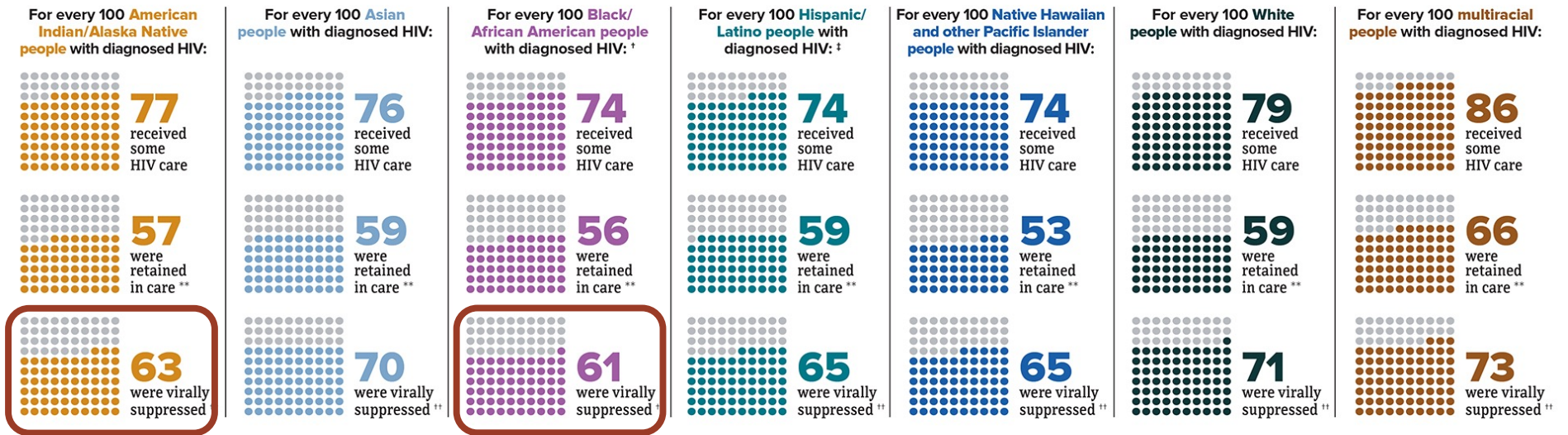
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<https://www.cdc.gov/hiv/library/reports/hiv-surveillance/vol-26-no-2/content/figures.html>

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# People with Diagnosed HIV in 44 States and the District of Columbia by Race/Ethnicity, 2019\*



For comparison, for every **100 people overall** with diagnosed HIV, **76 received some care, 58 were retained in care, and 66 were virally suppressed.**

\* Among people aged 13 and older.

<sup>†</sup> Black refers to people having origins in any of the Black racial groups of Africa. African American is a term often used for people of African descent with ancestry in North America.

<sup>‡</sup> Hispanic/Latino people can be of any race.

\*\* Had 2 viral load or CD4 tests at least 3 months apart in a year.

\*\* Based on most recent viral load test.

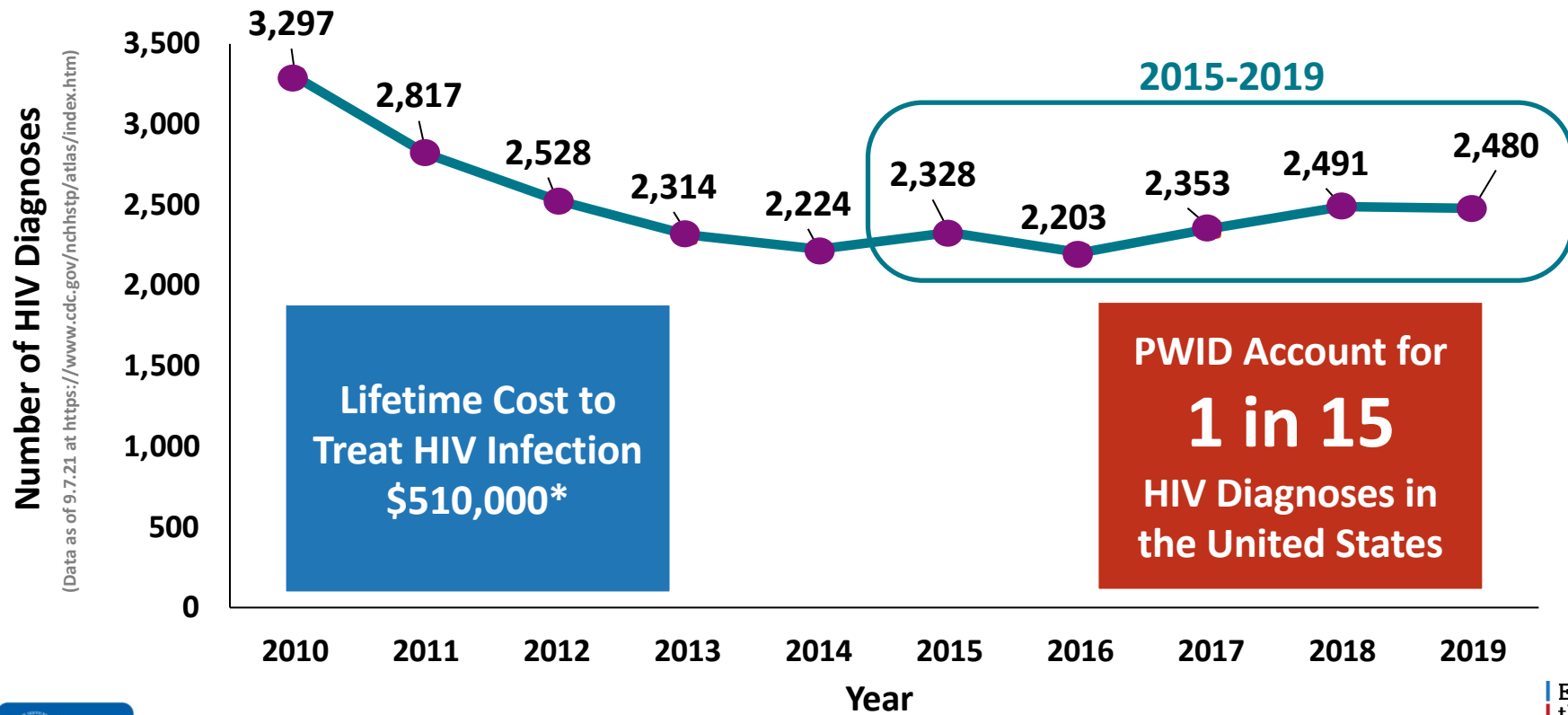
Source: CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2019. *HIV Surveillance Supplemental Report 2021;26(2)*.



<https://www.cdc.gov/hiv/group/raciaethnic/other-races/viral-suppression.html>

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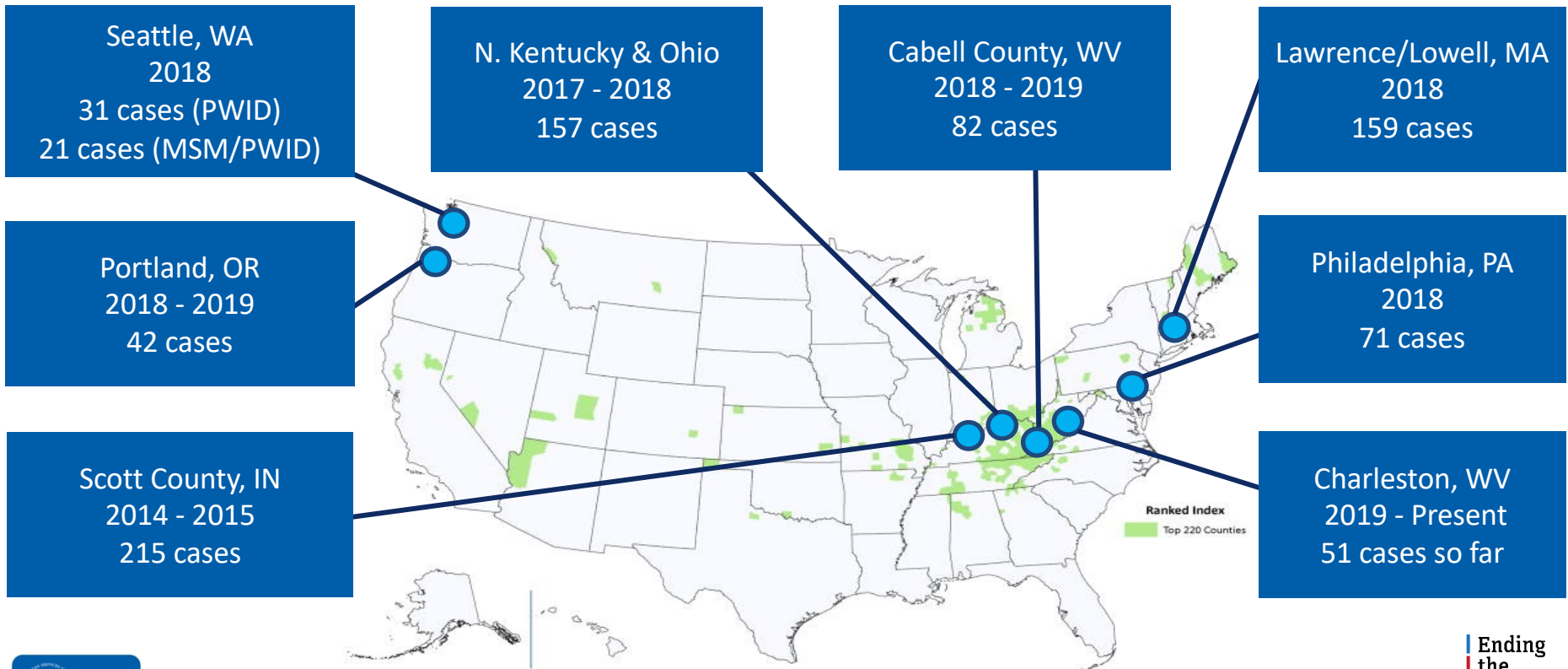
# Historic Decline in U.S. of HIV Diagnoses in PWID has Stalled



\* Bingham A, Shrestha RK, Khurana N, Jacobson E, Farnham PG. Estimated Lifetime HIV-related Medical Costs in the United States. Sex Transm Dis. 2021 Jan 23. doi: 10.1097/OLQ.0000000000001366. Online ahead of print. adjusted to 2020 dollars.



# Increasing HIV Outbreaks among People Who Inject Drugs



van Handel et al., *J Acquir Immun Defic Syndr*, 2016; Lyss et al., *J Infect Dis*, 2020

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# 1.2 Million People in the U.S. have HIV and Health Disparities Persist

## Snapshot of Disparities



### Higher HIV Incidence:

- Gay and Bisexual Men
- Black/African American and Hispanic/Latino Persons



### Higher HIV Prevalence:

- MSM
- Transgender Women



### Larger Gaps in PrEP Coverage:

- Black/African American and Hispanic/Latino Persons
- Women



### Lower Rates of Viral Suppression:

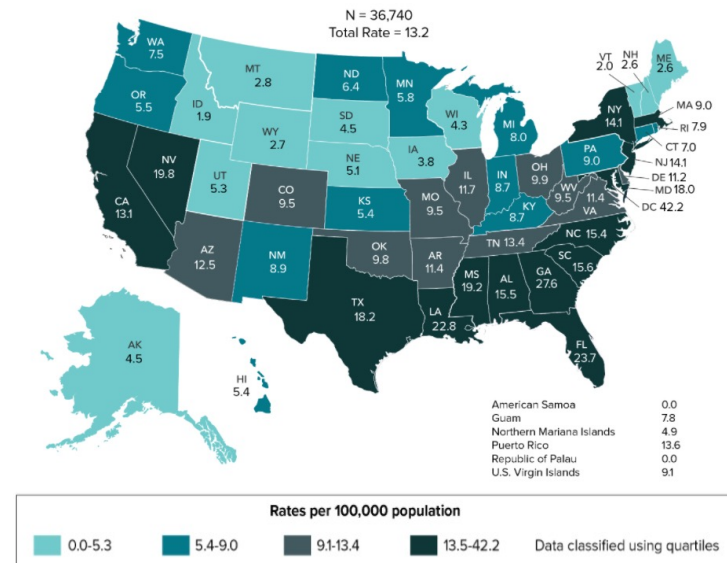
- American Indian/Alaskan Native Persons
- Black/African American Persons



### More HIV Outbreaks

- People Who Inject Drugs

**Rates of Diagnoses of HIV Infection are Highest in the South**  
(More than 50% of all new HIV diagnoses in 2019)





### DIAGNOSE PILLAR

HIV Diagnoses in the United States



**Making HIV testing simple, accessible, and routine.**



### TREAT PILLAR

HIV Treatment in the United States



**Quickly linking people with HIV to care and treatment, and re-engaging those who have stopped receiving care.**

**CDC's EHE Approach**



### PREVENT PILLAR

HIV Prevention in the United States



**Increasing availability and use of PrEP among populations who could benefit most.**



**Partnering with other agencies and working with local communities to implement SSPs where they are needed and permitted by law.**



### RESPOND PILLAR

HIV Cluster Detection and Response



**Ensuring all jurisdictions have the capacity to identify, investigate, and respond to potential HIV outbreaks quickly.**





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JAMA Internal Medicine | [Original Investigation](#)

# Effect of Internet-Distributed HIV Self-tests on HIV Diagnosis and Behavioral Outcomes in Men Who Have Sex With Men A Randomized Clinical Trial

Robin J. MacGowan, MPH; Pollyanna R. Chavez, PhD; Craig B. Borkowf, PhD; S. Michele Owen, PhD;  
David W. Purcell, PhD; Jonathan H. Mermin, MD; Patrick S. Sullivan, PhD, DVM; for the eSTAMP Study Group

- 12-month longitudinal study, 2-group 1:1 randomized clinical trial
- Recruited 2,665 MSM through online banner advertisements
- Given 4 HIV self-tests after completing the baseline survey with the option to replenish self-tests after completing quarterly surveys and share within their social network



MacGowan et al., [JAMA Intern Med](#), Published online November 18, 2019.

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[www.hiv.gov](http://www.hiv.gov)

# Self-Testing Among Sexually Active MSM - eSTAMP\*

All participants (N=2,665)	Self-testing (N=1,325)	Control (N=1,340)	Social Network (N=2,152)
New diagnoses	25 (1.88%)	11 (0.82%)	34 (1.58%)
Tested $\geq 3$ times	76.6%	22.0%	
Never tested for HIV (N=443, 17%)	Self-testing (N=166)	Control (N=137)	
Tested at least once	95.8%	46.0%	
Tested $\geq 3$ times	68.1%	7.3%	

- More overall diagnoses
- Reached at-risk network
- Doubled first-timer tests
- More repeat testing

\* Evaluation of Rapid HIV Self-testing Among MSM Project (eSTAMP)



MacGowan et al., *JAMA Intern Med*, Published online November 18, 2019.

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# Self-Testing

**CDC research shows that HIV self-testing is an effective, convenient, and accurate way to diagnose HIV infection.**

In 2021, CDC distributed **100,000** free HIV self-test kits to the populations most disproportionately impacted by the HIV epidemic including transgender women and racial/ethnic minority communities

**26%** of participants reported having never tested for HIV and **33%** reported it being more than a year since their last HIV test.

In **FY23**, CDC plans to:



- Increase HIV self-testing efforts
  - Distribute approx. 1M HIV self-tests over a 5-year period through Together TakeMeHome Program

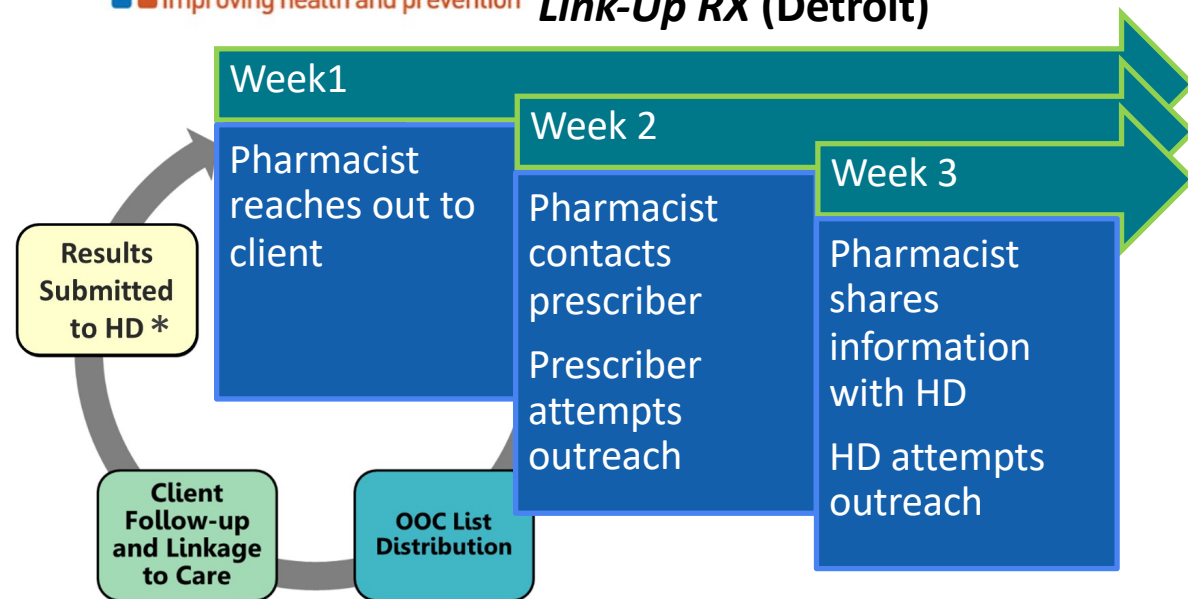


- Continue to build the capacity of community-based organizations to implement HIV self-testing programs

# Increase Retention/Re-Engagement in Care

 **Data to Care**  
Improving health and prevention

Pharmacy-based interventions:  
**Link-Up RX (Detroit)**



\* OOC = out of care, HD = health department



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# LINK-UP RX

## D2C (n=92) – 2 staff

- 50 (54%) people contacted
- 15 (16%) accepted linkage to care
- 1,171 phone call attempts
- 300 voicemails left
- 69 text messages sent
- 339 letters mailed
- 41 minutes per person to investigate

vs.

## Link-Up RX (n=195) – 1 staff

- 128 (65%) people contacted
- 75 (38%) accepted linkage to care
- 817 phone call attempts
- 379 voicemails left
- 133 text messages sent
- 13 letters mailed
- 15 minutes per person to investigate

Higher Yield

Lower Intensity



[linkupdetroit.com/providers](http://linkupdetroit.com/providers)



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## Pharmacy Data to Care

**Pharmacy Data to Care is a near real-time method to identify persons with HIV who are at risk of falling out of care.**

CDC is leveraging pharmacy data to improve retention in care, treatment adherence, viral suppression, and HIV prevention. Innovative ongoing pharmacy projects will continue in **FY22**.

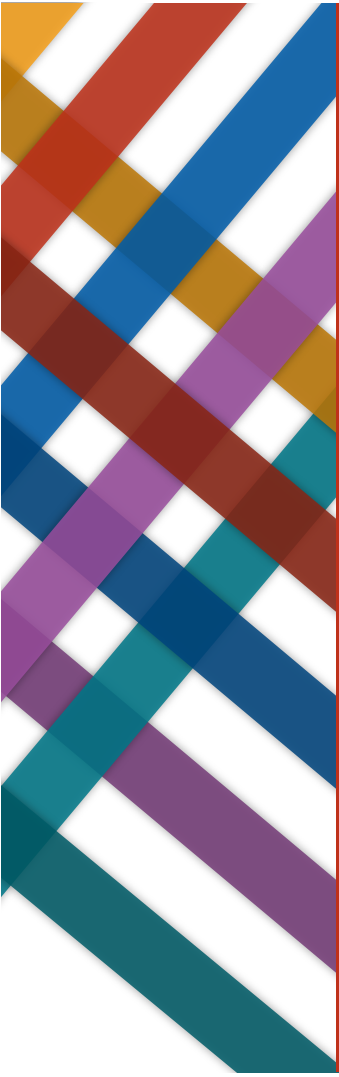
### Ensuring Continuity of Prevention & Treatment:

Using real-time pharmacy claims data from insurance or Medicaid to identify persons who fail to pick up antiretroviral or PrEP medications.



### Reengaging Patients in Care:

Tailoring interventions to address adherence barriers and reengage patients in care.



Syndemics are epidemics that interact with each other *and by that interaction* increase their adverse effects on the health of communities that face systematic, structural, and other inequities.

Viral Hepatitis



Sexually Transmitted Infections



HIV

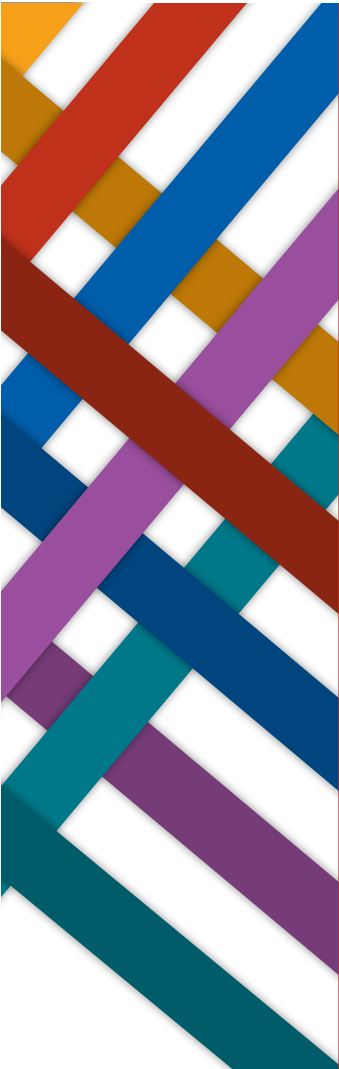


Drug Use



Mental Health





CDC HIV Prevention  
funding, guidelines,  
and technical  
assistance **support**  
**syndemic approaches**  
where diseases  
interact or connect



#### Setting

- STI Clinics
- Community-Based Organizations
- Health Departments
- Community Health Centers
- Syringe Services Programs



#### Services

Testing, Prevention, and Linkage to  
treatment for STIs, VH, and HIV



#### Flexible Funding

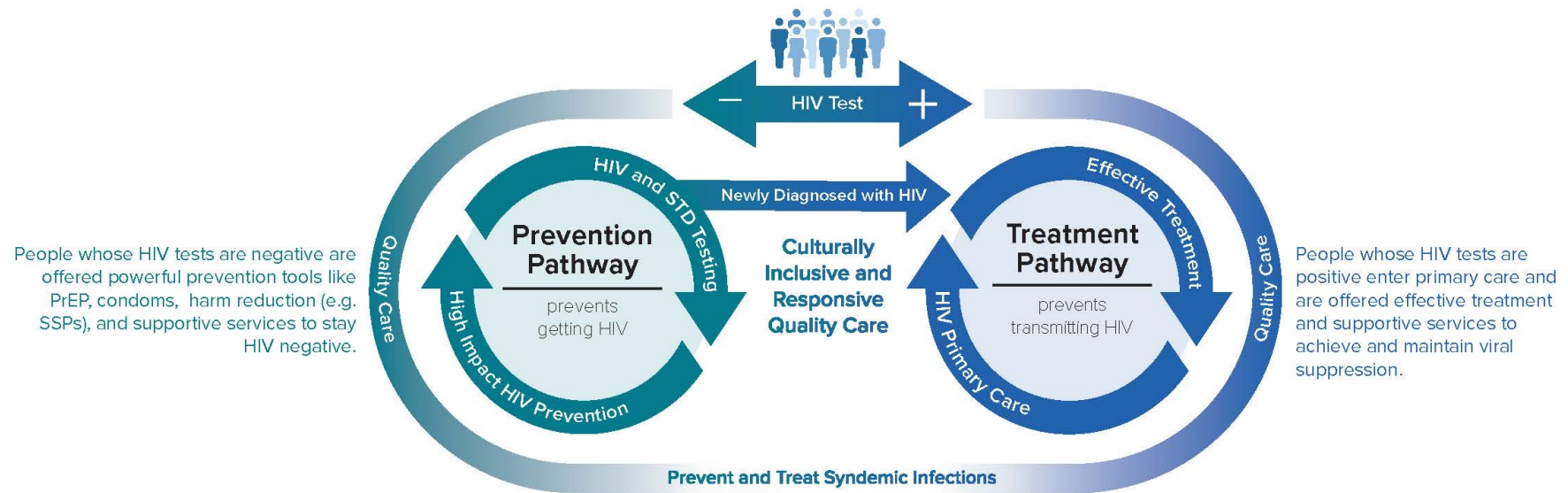
- Core HIV infrastructure
- Support for SDOH activities
- Supporting linkage to other needed  
services (housing, transportation,  
substance use disorder treatment, etc.)

## Potential Benefits of a Syndemic Approach

- Holistic service delivery
- Increased efficiency and cost-effectiveness
- Reduced stigma
- Supports a focus on policy and SDOH drivers
- Increases responsiveness to evolving epidemics or changing contexts integrating services
- Increases providers' control and ability to provide comprehensive services using a *status neutral approach*



# Status Neutral HIV Prevention and Care



Follow CDC guidelines to test people for HIV. Regardless of HIV status, quality care is the foundation of HIV prevention and effective treatment. Both pathways provide people with the tools they need to stay healthy and stop HIV.





# New York City



# Promoting Health Through A Status-Neutral Lens

**WE STAY SURE**  
HIV TREATMENT = PREVENTION

#PLAYSURE

**BE SURE, PLAY SURE, STAY SURE.**  
If you're HIV positive, starting and staying on treatment can keep your viral load undetectable. Treatment keeps you healthy and makes it nearly impossible to pass HIV to your partner. Condoms offer additional protection against HIV and other STIs.

**STAY SURE:** Call 311 or visit [nyc.gov/health](http://nyc.gov/health) to learn more about services that can help you get and stay on treatment.

**NYC Health**

**WE PLAY SURE**  
PrEP + HIV TREATMENT + CONDOMS

#PLAYSURE

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**NYC Health**

# Status Neutral Services in City Sexual Health Clinics

## HIV Testing Services

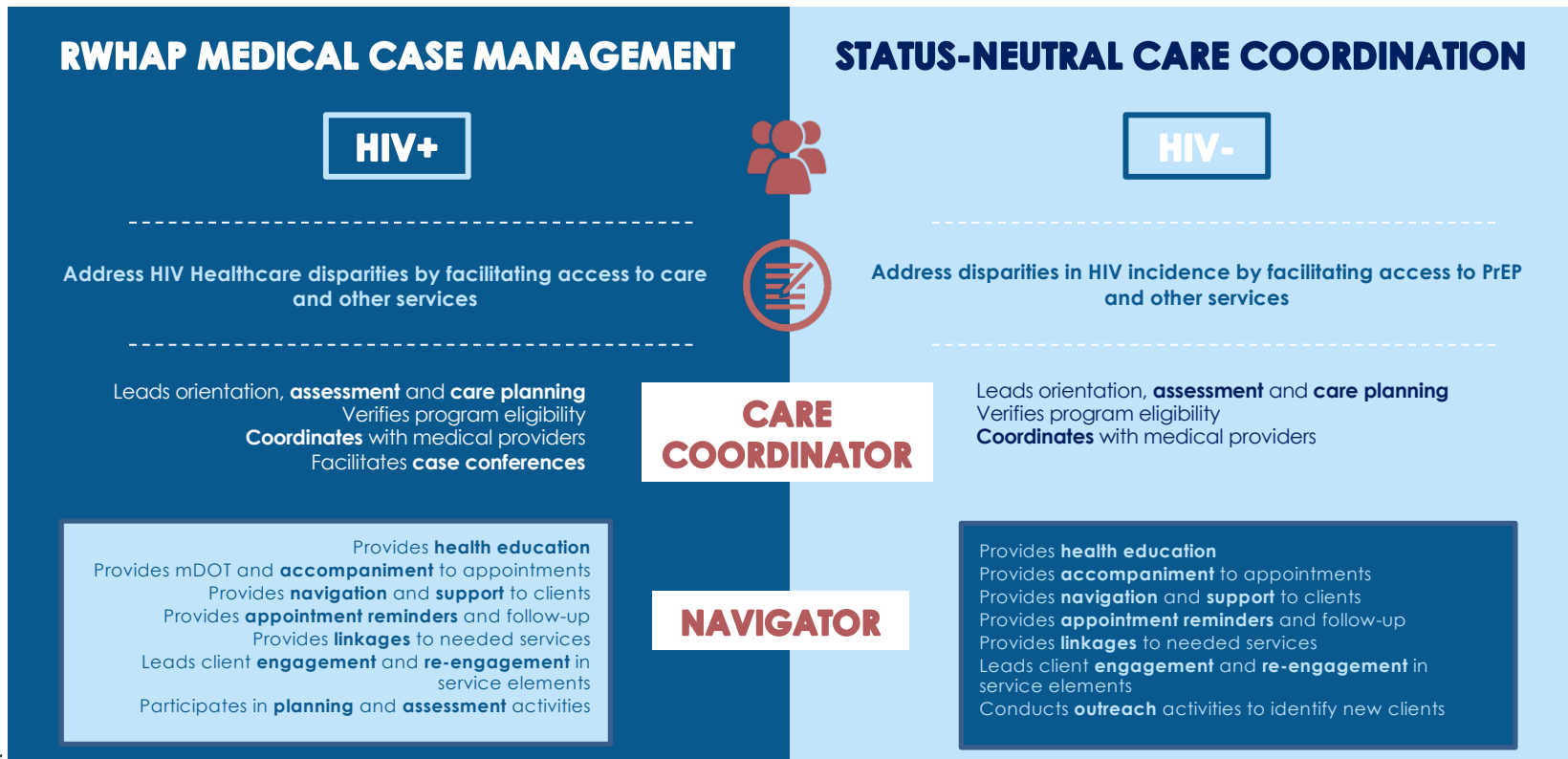
PEP

Immediate  
PrEP  
Initiation

JumpstART  
Immediate HIV treatment

STI Screening and Treatment, Condoms, Partner Services, Emergency Contraception,  
Crisis Counseling, and Substance Use Services

# Enhancing Ryan White-funded Medical Case Management



# Q and A Session