



State of the State of HIV

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Outline

- **Ending the HIV Epidemic**
- **Current epidemiology of HIV in Tennessee**
- **Continuum of Care**
- **Molecular Surveillance**



Ending the HIV Epidemic- Tennessee

Ending the HIV Epidemic

GOAL:

75%
reduction
in new HIV
infections
in 5 years
and at least
90%
reduction
in 10 years.



Our goal is ambitious and the pathway is clear – employ strategic practices in the *places* focused on the right *people* to:



Diagnose all people with HIV as early as possible after infection.

Treat the infection rapidly and effectively to achieve sustained viral suppression.



Protect people at risk for HIV using potent and proven prevention interventions, including PrEP, a medication that can prevent HIV infections.

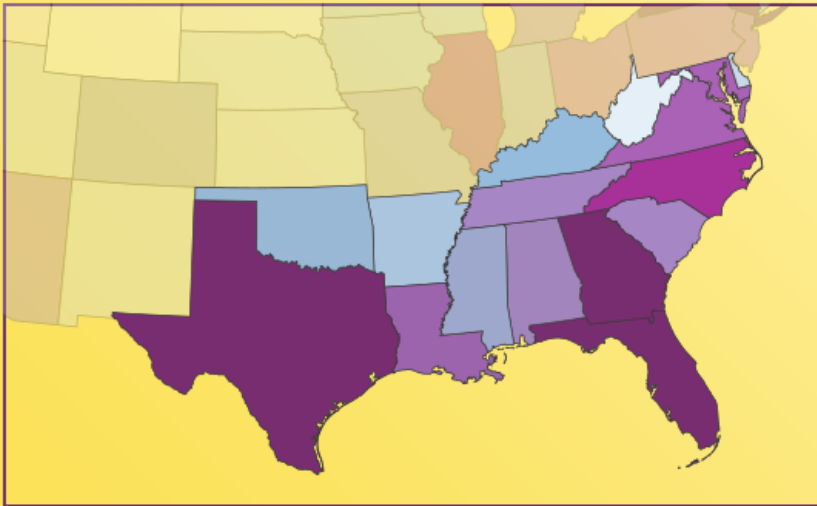
Respond rapidly to detect and respond to growing HIV clusters and prevent new HIV infections.



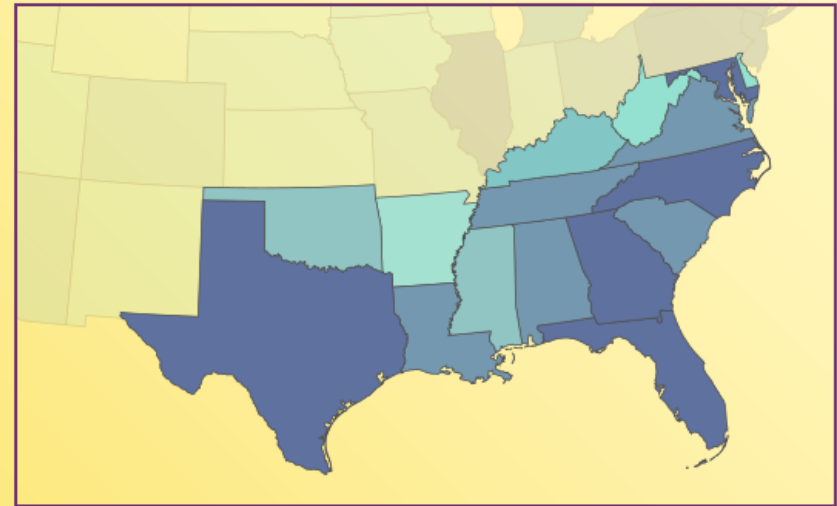
HIV HealthForce will establish local teams committed to the success of the Initiative in each jurisdiction.

HIV in the South

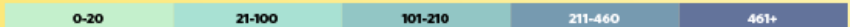
The South represents 38% of the US population, but accounts for **52%** of all new HIV diagnoses and **48%** of all deaths of people with diagnosed HIV.



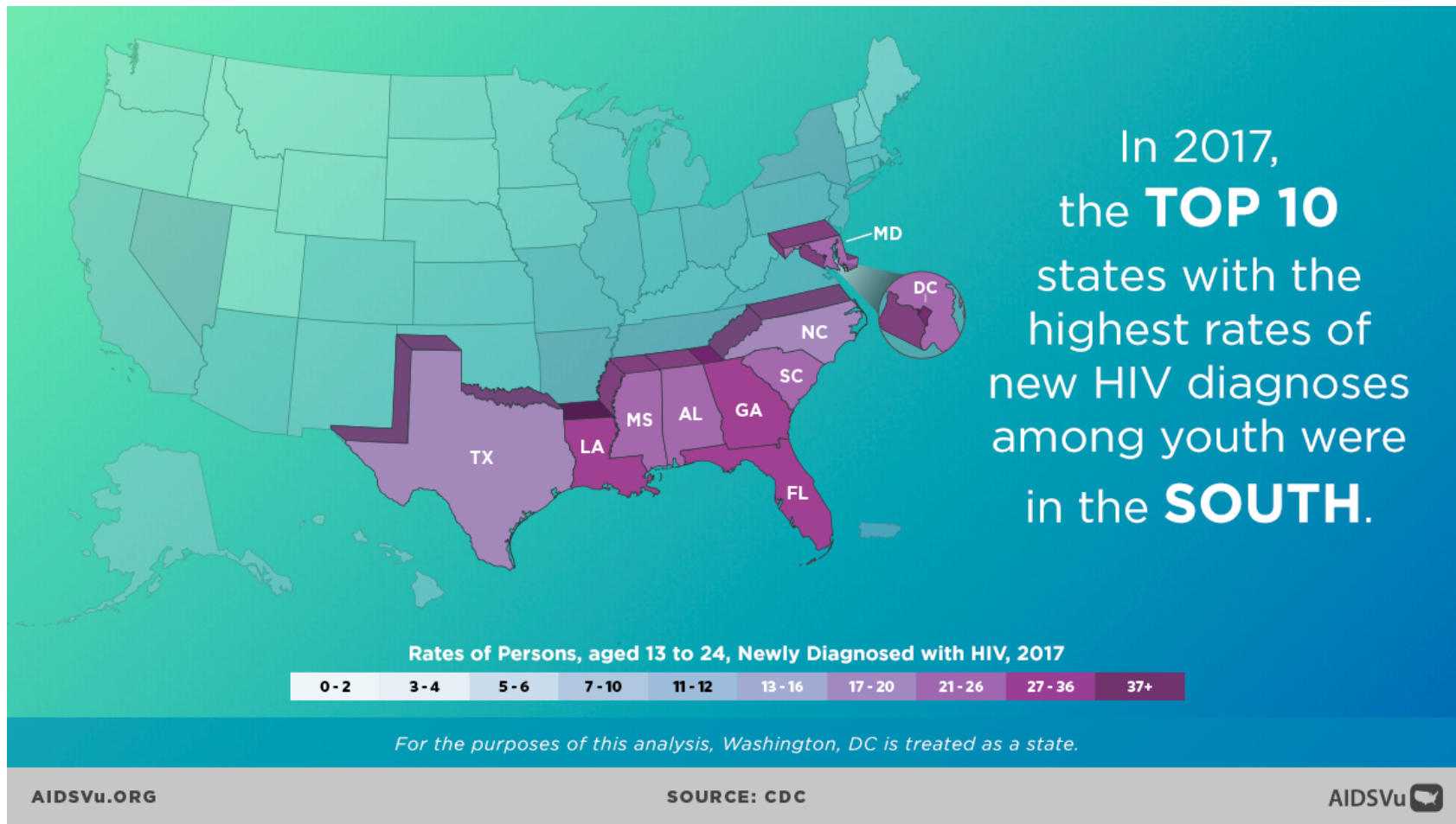
Number of Persons Newly Diagnosed with HIV, 2017



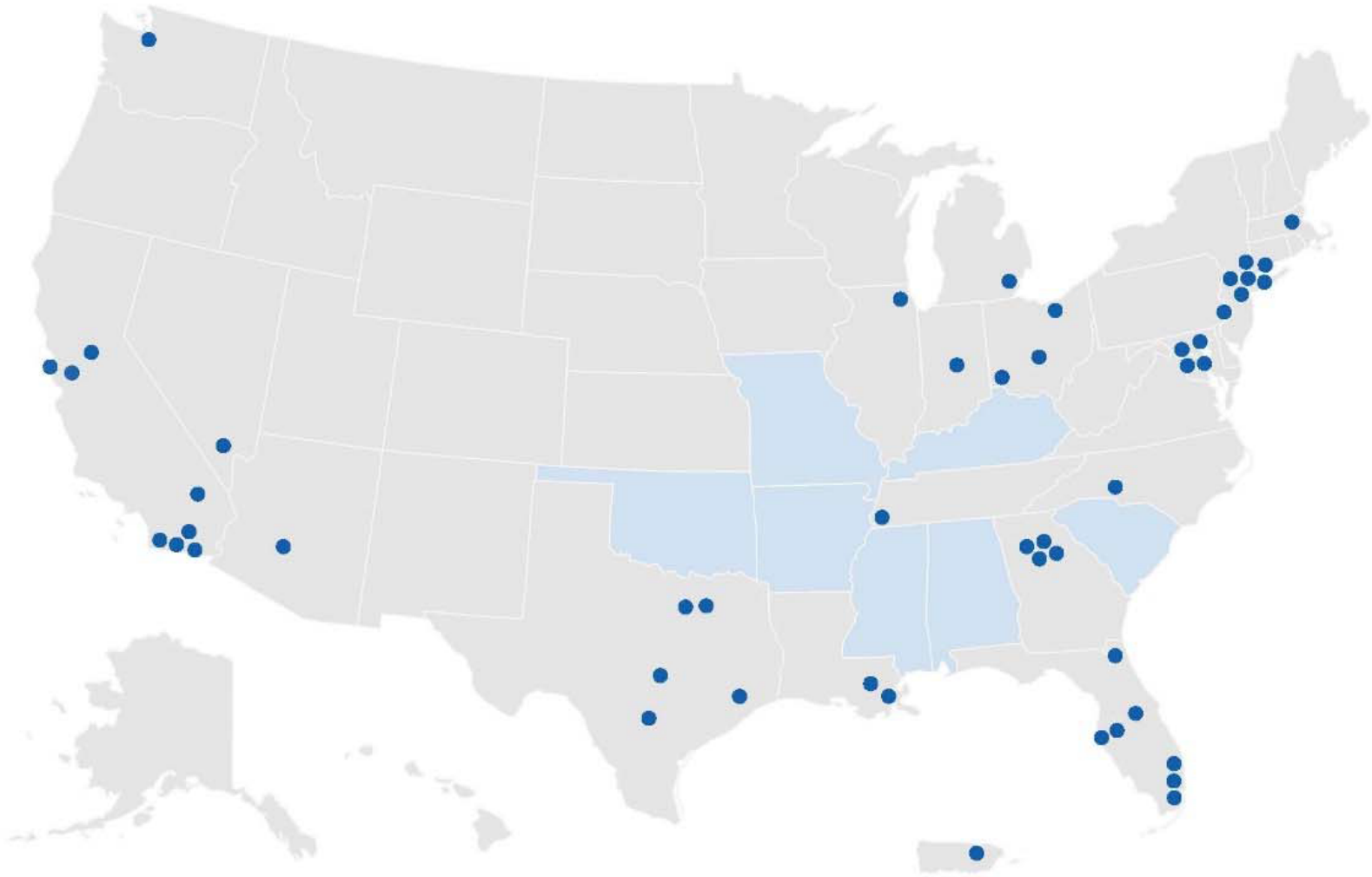
Number of Deaths of Persons with Diagnosed HIV, 2016



HIV in the South among Youth



Burden of HIV infection in the U.S.



Memphis-Shelby County EHE

- **Process began in November 2017, and has been ongoing with Connect to Protect coalition**
 - Diverse group of community members, community based organizations, providers, faith leaders
- **CDC 1 year funding received for creation of an implementation plan for EHE**
 - Profile of Shelby county
 - Focus groups among high-risk individuals, consumers, faith-based organizations, youth
 - Engage with other planning groups
 - Staff

Memphis-Shelby County EHE

- **HRSA 5 year grant**
- **\$750k-\$2million in Year 1**
- **Focus on Pillar 2 (Treat) and 4 (Respond)**
- **Shelby County Health Department will partner with community based organizations and health providers**

The logo consists of a red square with the letters 'TN' in white, serif font. Below the red square is a thin white horizontal line, and below that is a dark blue horizontal bar. A small 'TM' trademark symbol is located at the bottom right corner of the dark blue bar.

TN

Current Epidemiology of HIV in Tennessee

Current Status of HIV in TN

~18,069 Persons living with HIV
(PLWH)

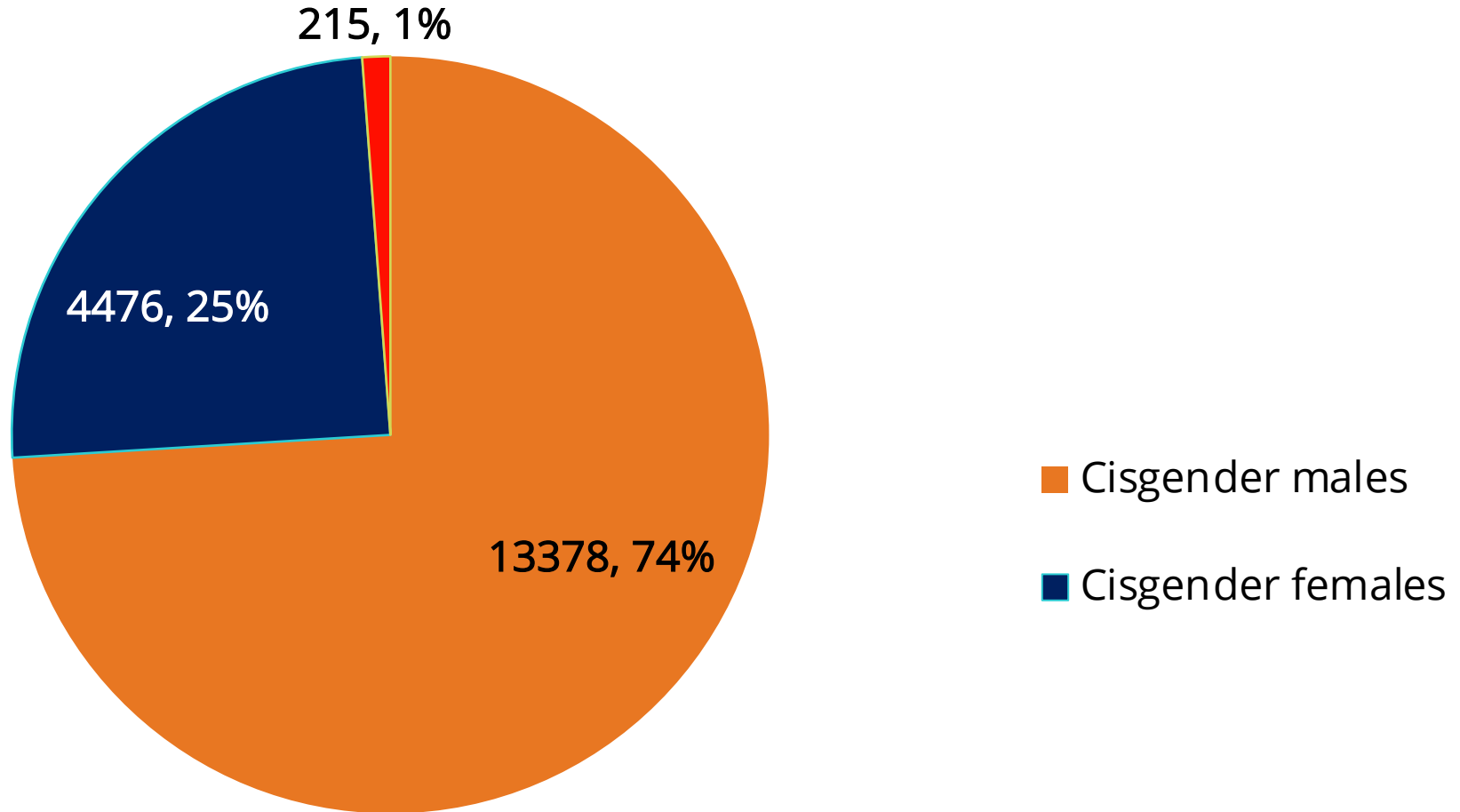
760 Persons newly diagnosed with HIV

303 Deaths among persons
living with HIV

Data source: Tennessee eHARS, accessed October 2019

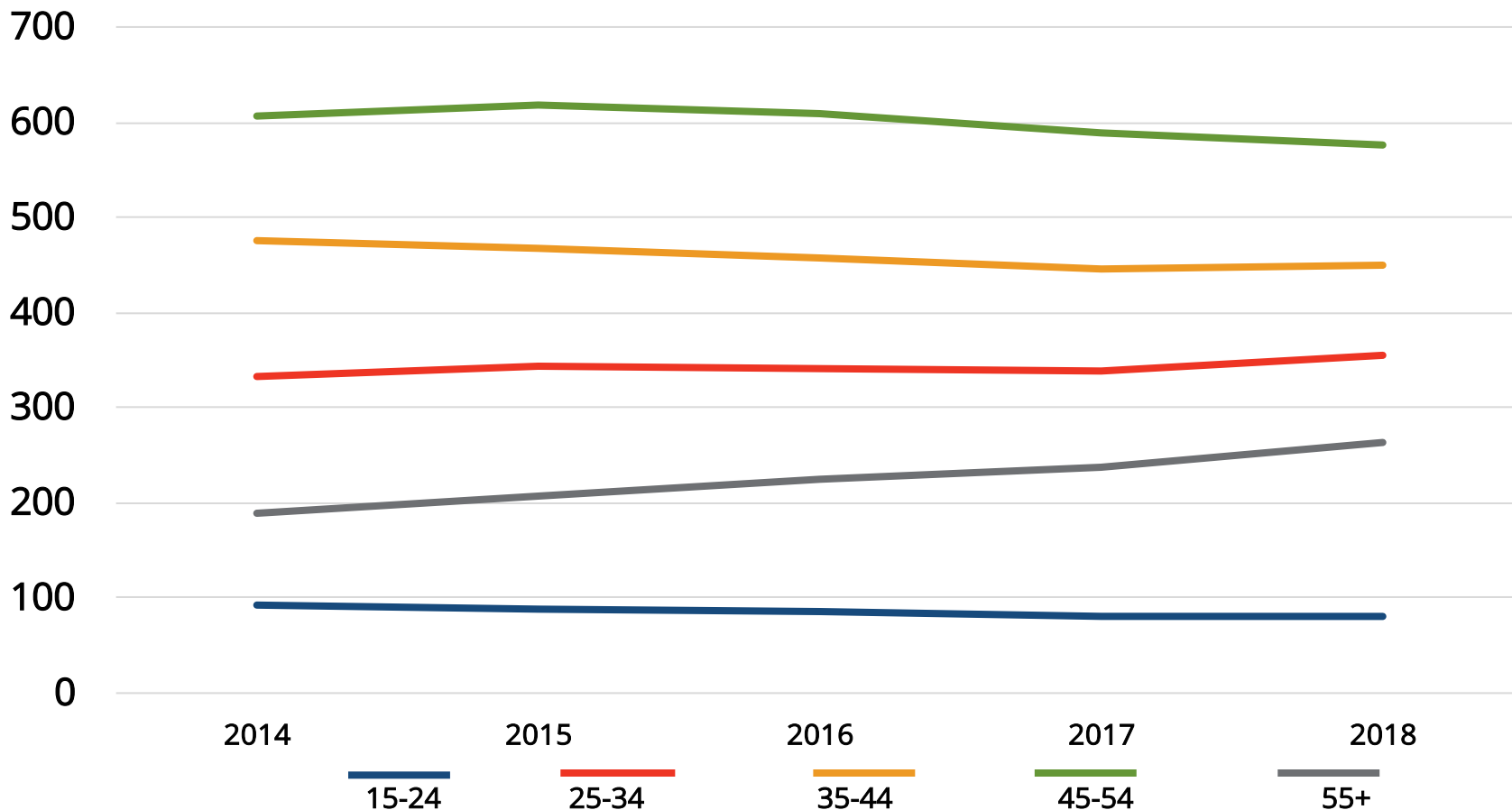
PLWH identified by gender, Tennessee 2018

Source: Tennessee Epi Profile 2018

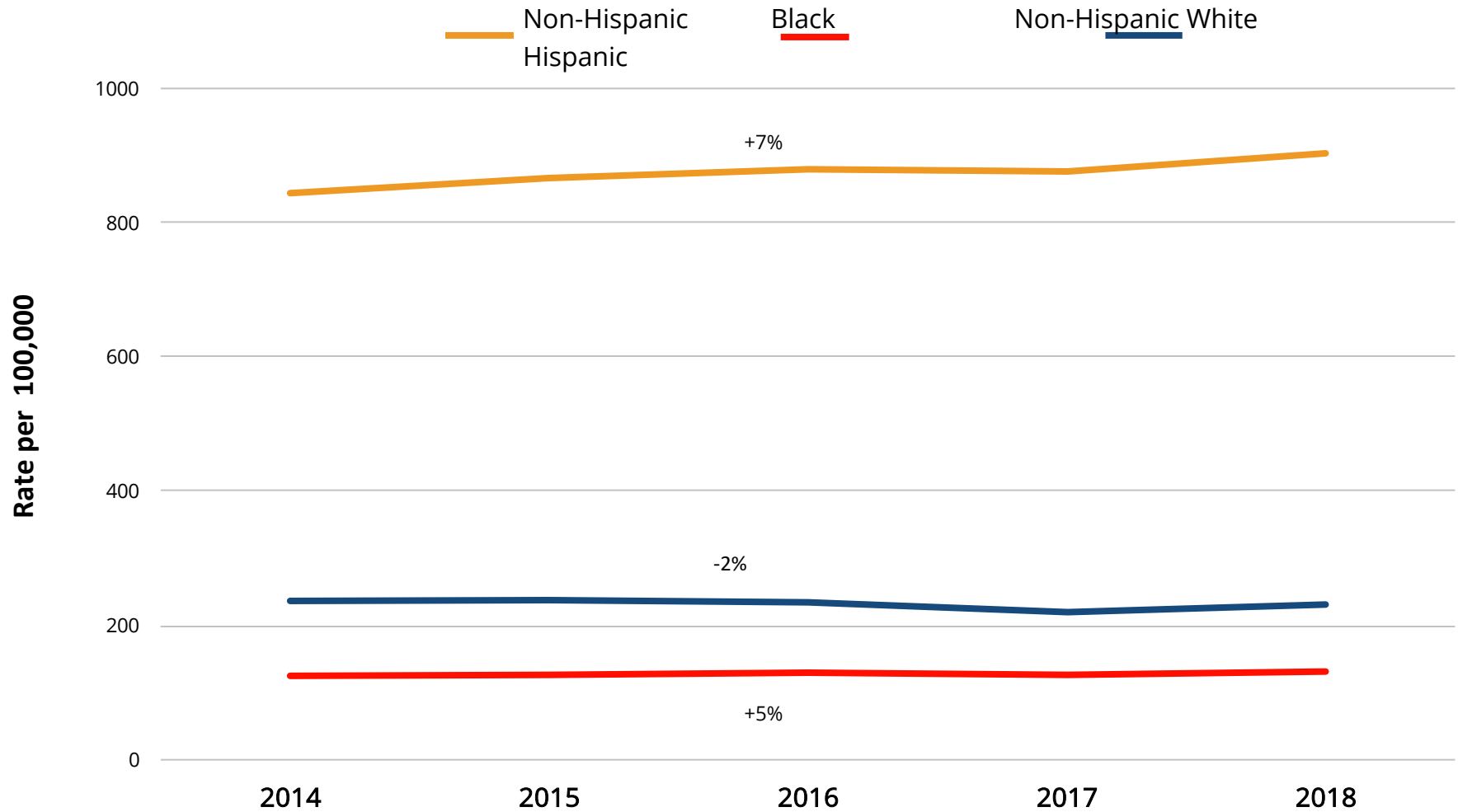


Persons living with HIV by age group, Tennessee, 2014-2018

Rate per 100,000 persons

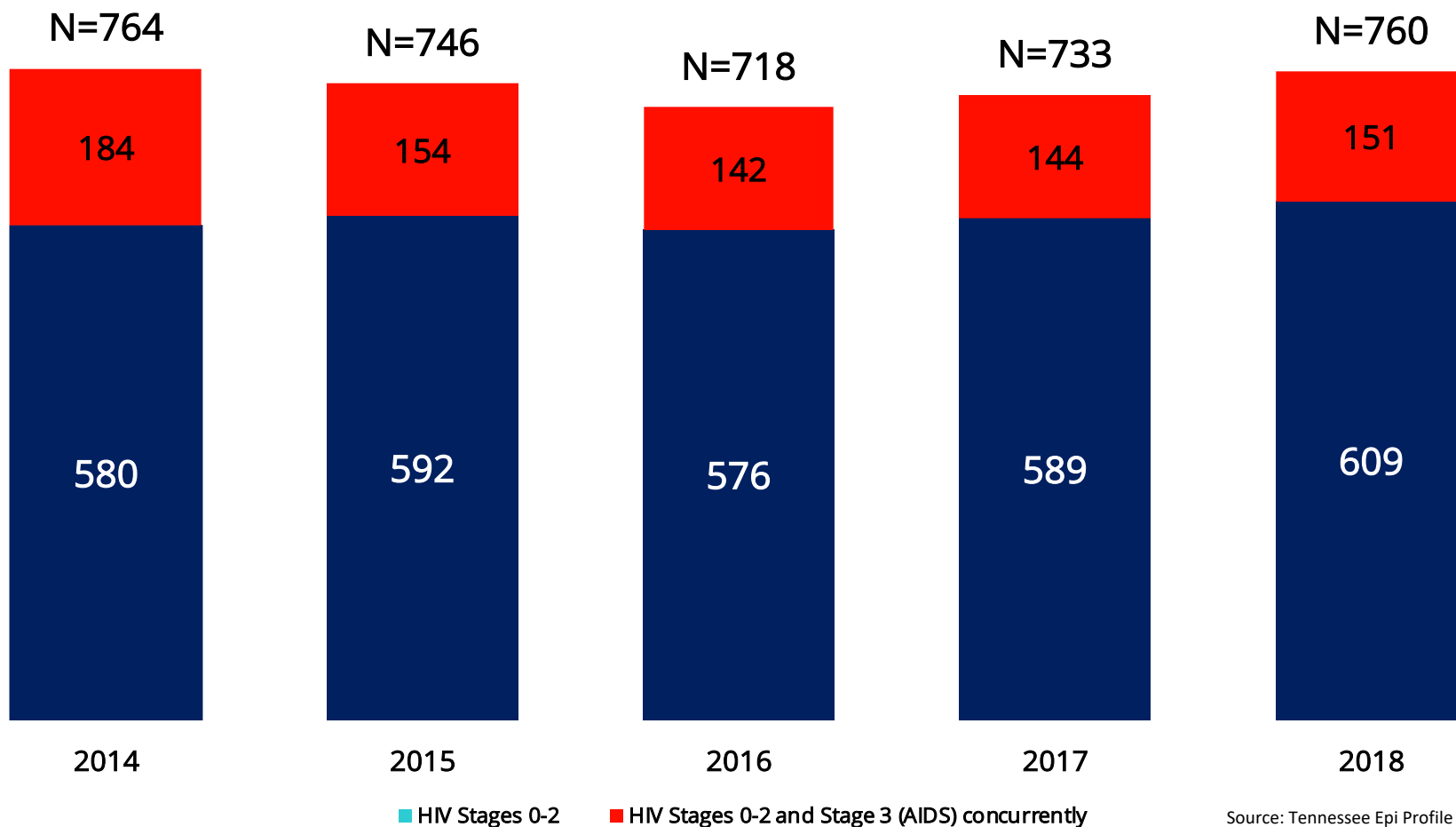


PLWH by race/ethnicity, Tennessee 2018



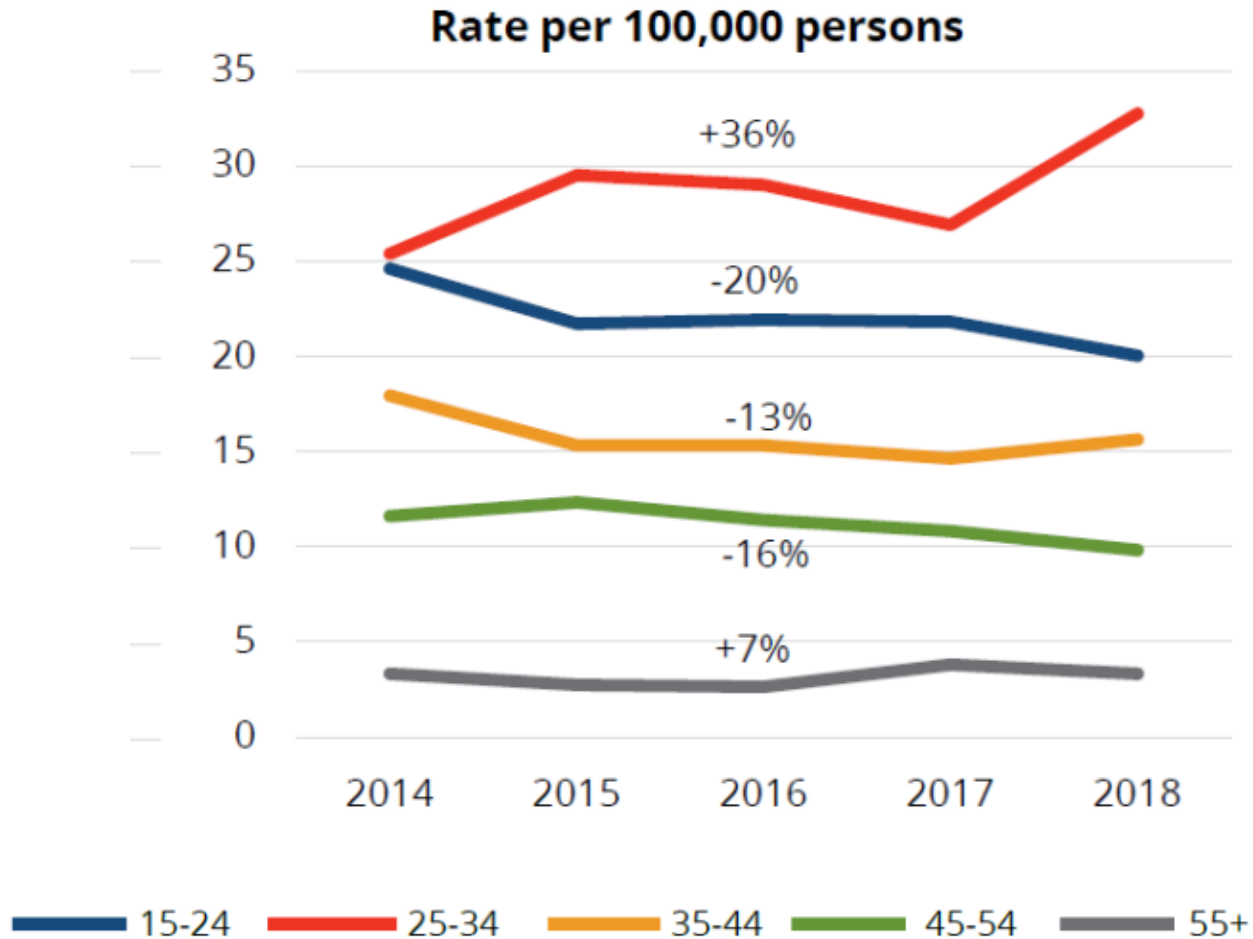
Source: Tennessee Epi Profile 2018

Persons newly diagnosed with HIV, by stage within 12 months of diagnosis, Tennessee, 2014-2018



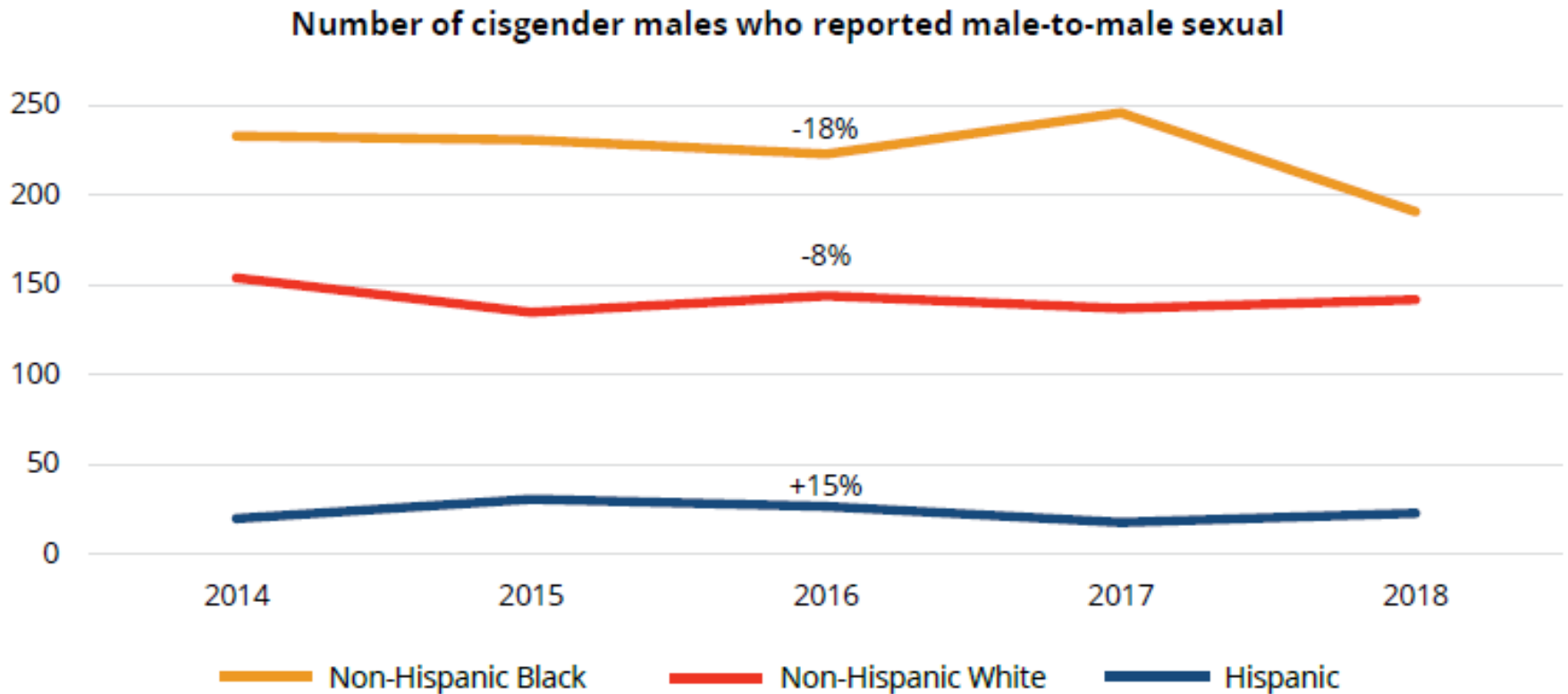
Source: Tennessee Epi Profile 2018

Persons newly diagnosed with HIV by age group, Tennessee 2014-2018



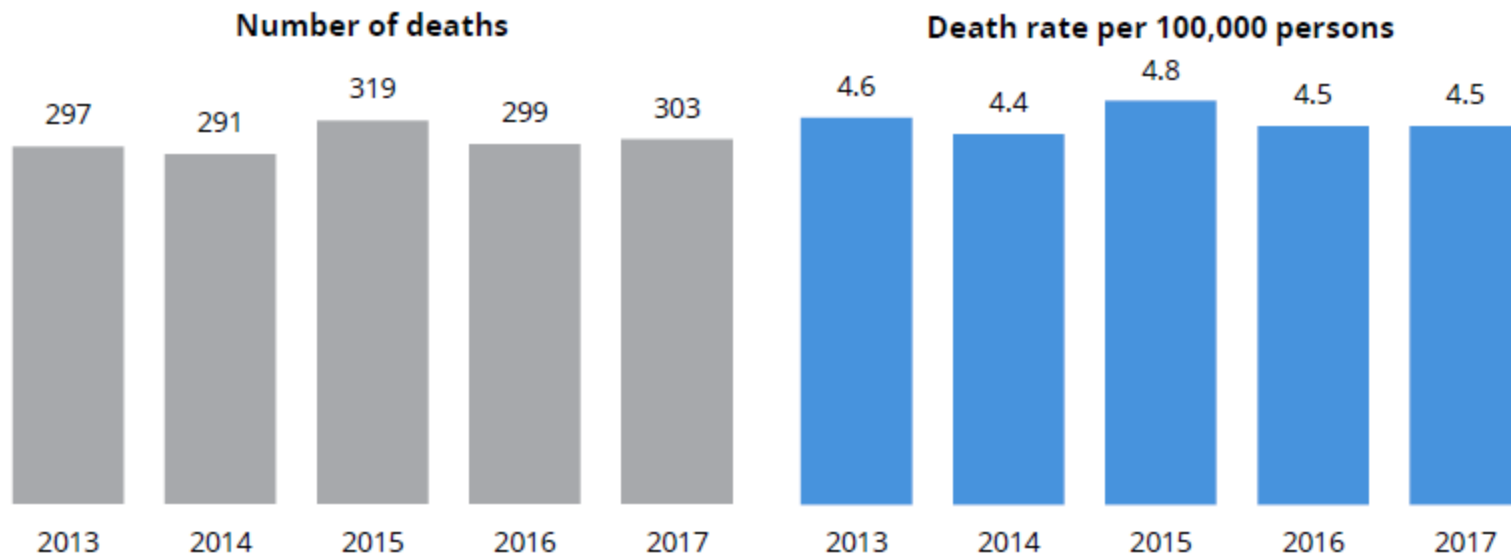
Source: Tennessee Epi Home 2018

Males newly diagnosed with HIV reporting male-to-male sexual contact by race/ethnicity— Tennessee 2014-2018



Source: Tennessee Epi Profile 2018

Deaths Among Persons Diagnosed with HIV, Tennessee 2013-2017



Source: Tennessee Epi Profile 2018

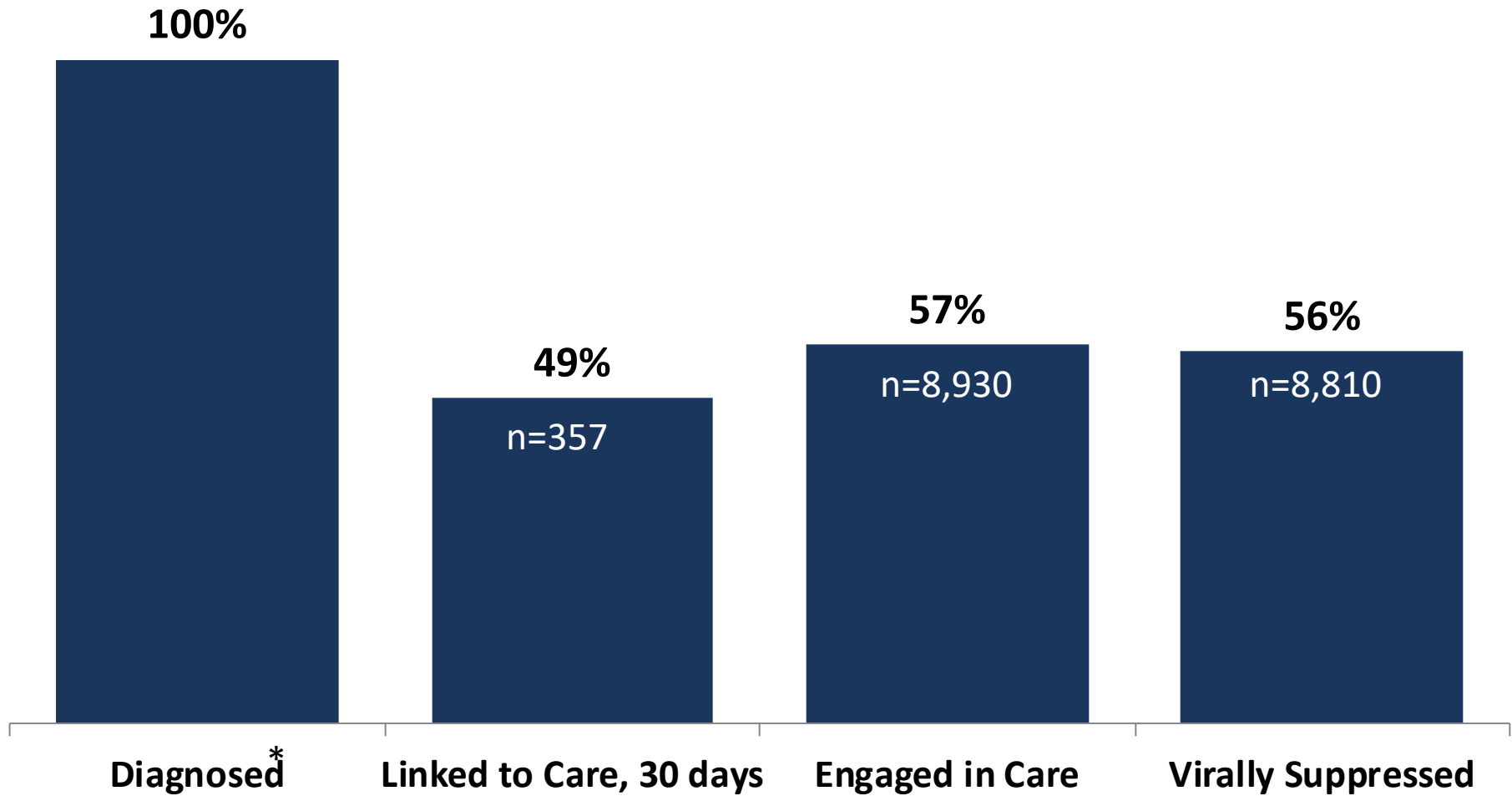


Continuum of Care

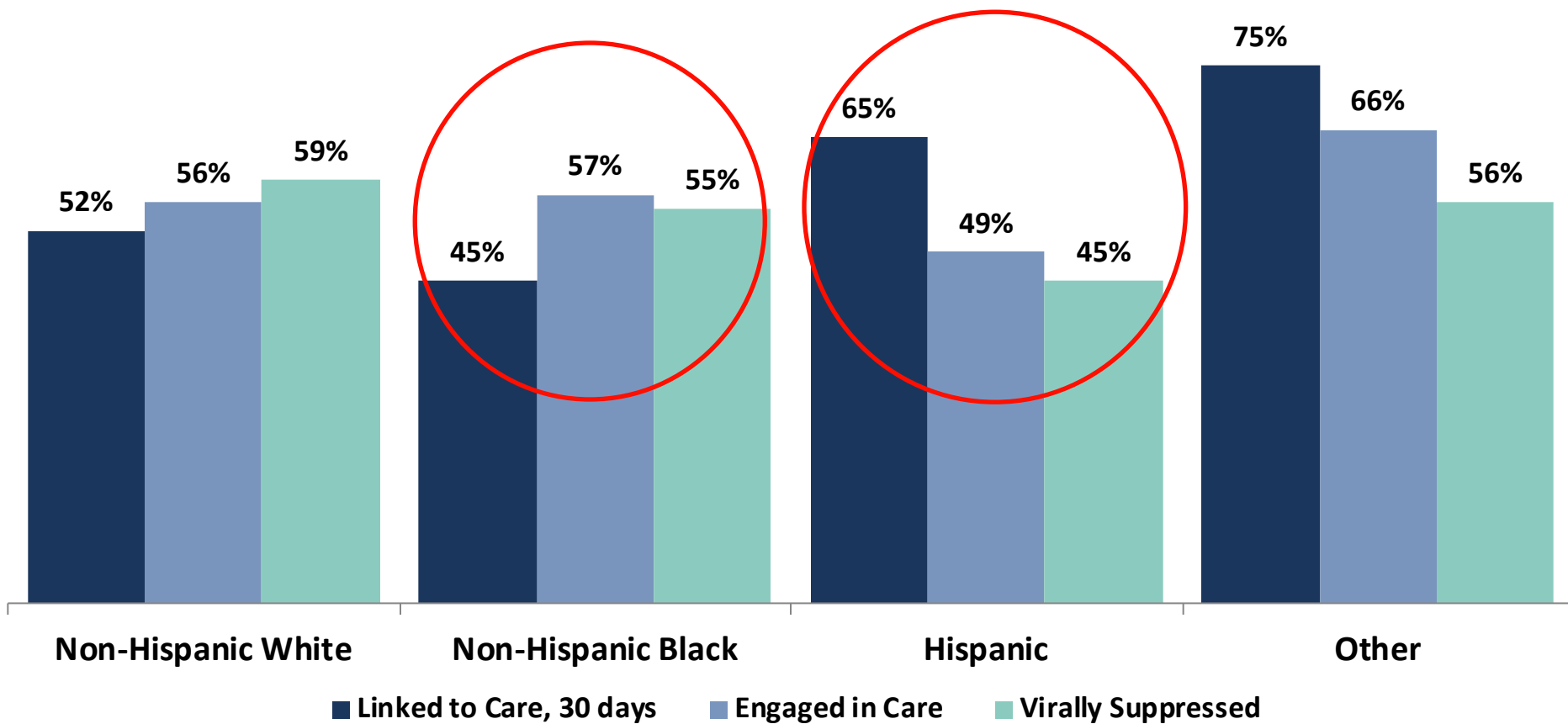
HIV Continuum of Care Metrics Tennessee, 2017

- **Diagnosed:** Living with diagnosed HIV in TN at end of 2017
- **Linked to Care:** Among newly diagnosed in 2017, ≥ 1 CD4 or viral load result within 30 days after HIV diagnosis
- **Engaged in Care:** Among those diagnosed with HIV before 2017 and living with diagnosed HIV in TN at end of 2017, ≥ 2 CD4 and/or viral load results ≥ 3 months apart
- **Virally Suppressed:** Among those living with diagnosed HIV in TN at end of 2017, ≥ 1 viral load result in 2016, and ≥ 1 viral load result in 2017 with the last ≤ 200 copies/mL

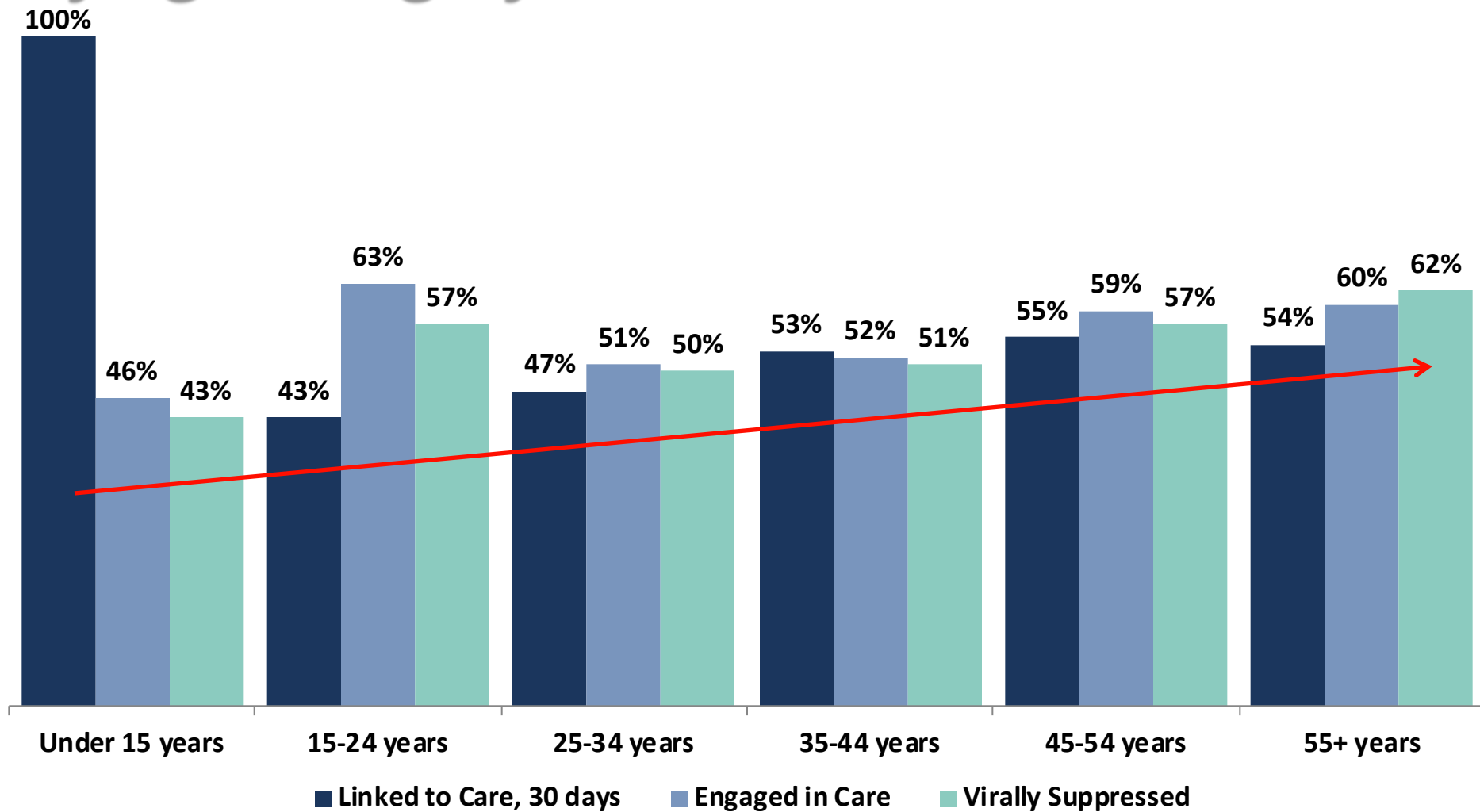
Continuum of Care, Tennessee, 2017



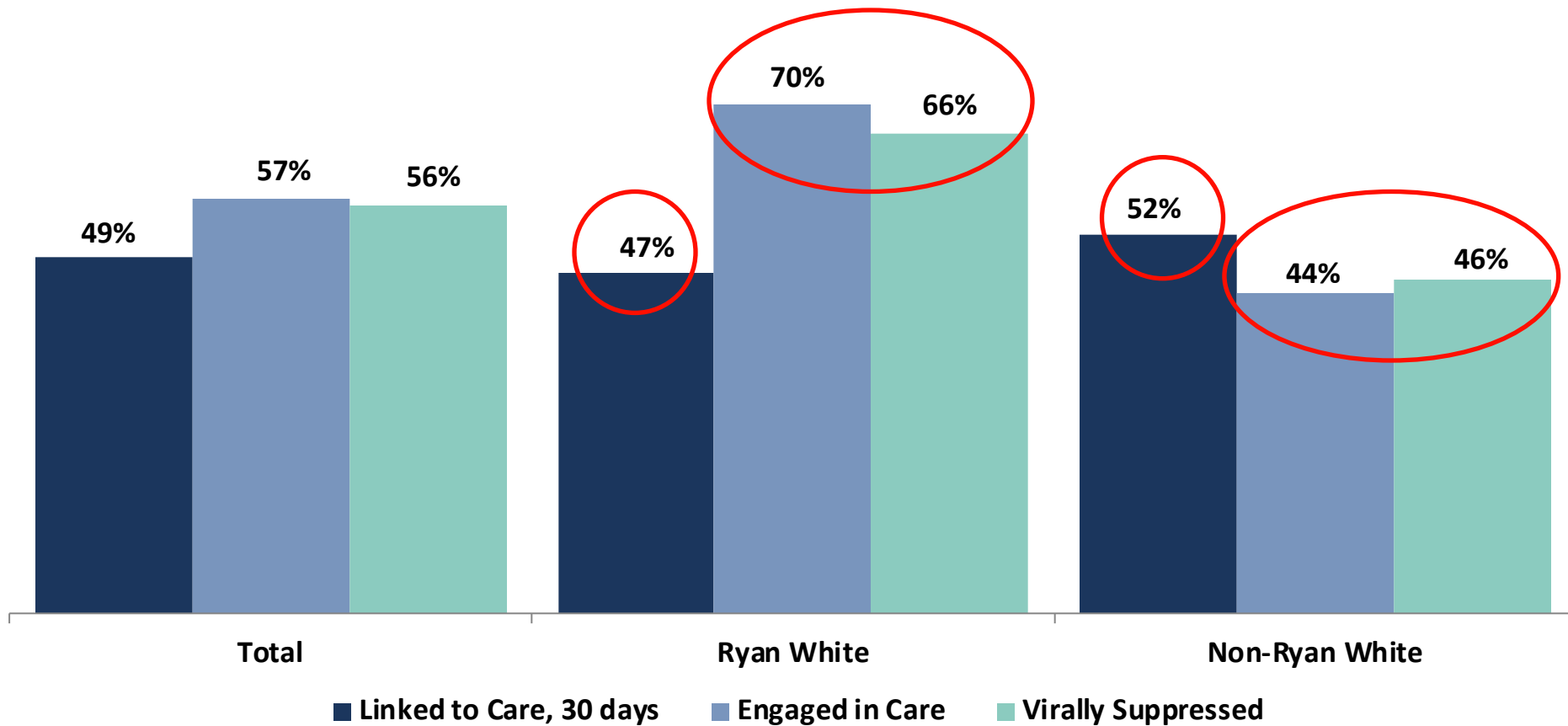
Continuum of Care, Tennessee, 2017: by Race/Ethnicity



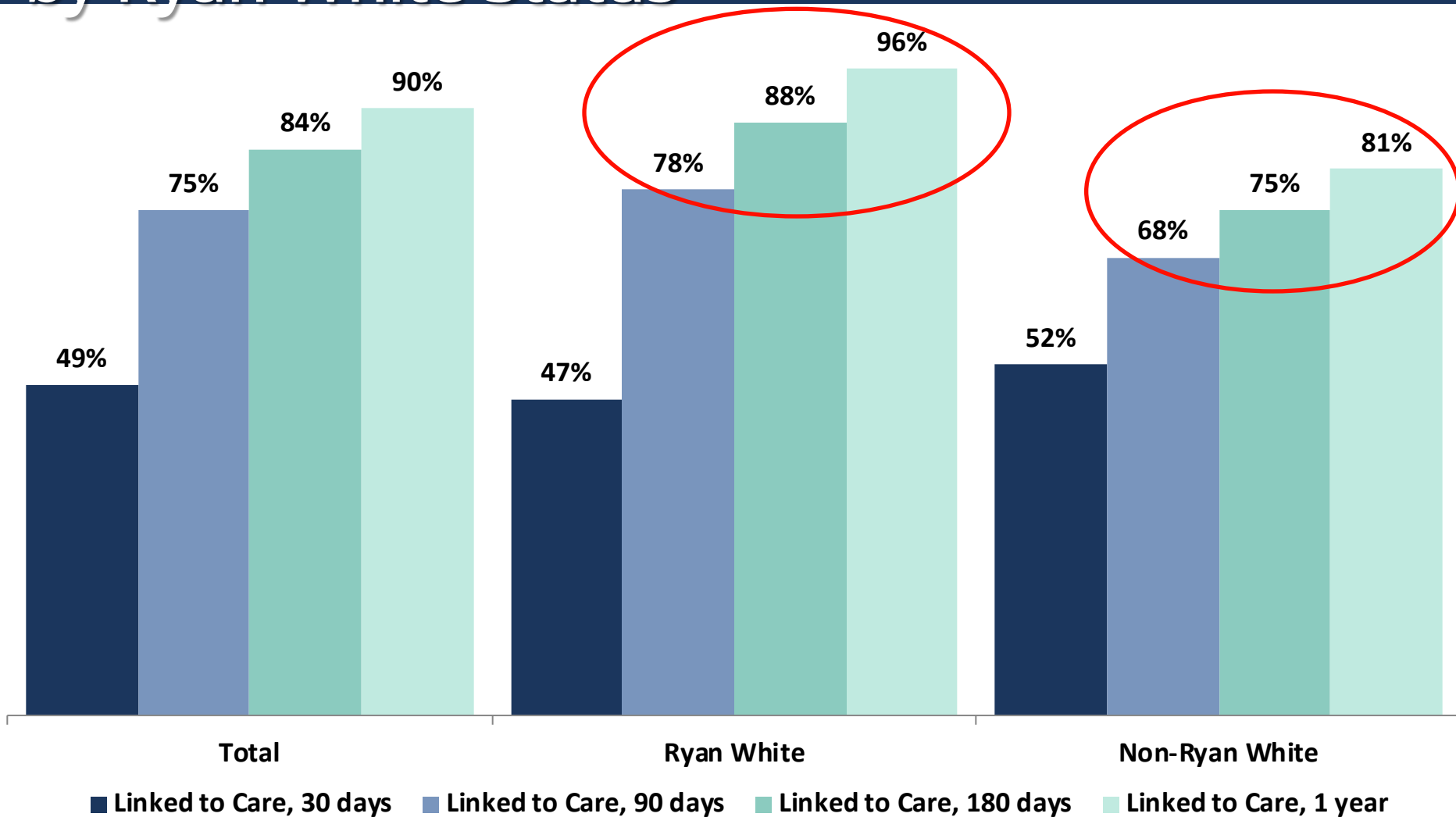
Continuum of Care, Tennessee, 2017: by Age Category



Continuum of Care, Tennessee, 2017: by Ryan White Status



Linkage to Care, Tennessee, 2017: by Ryan White Status

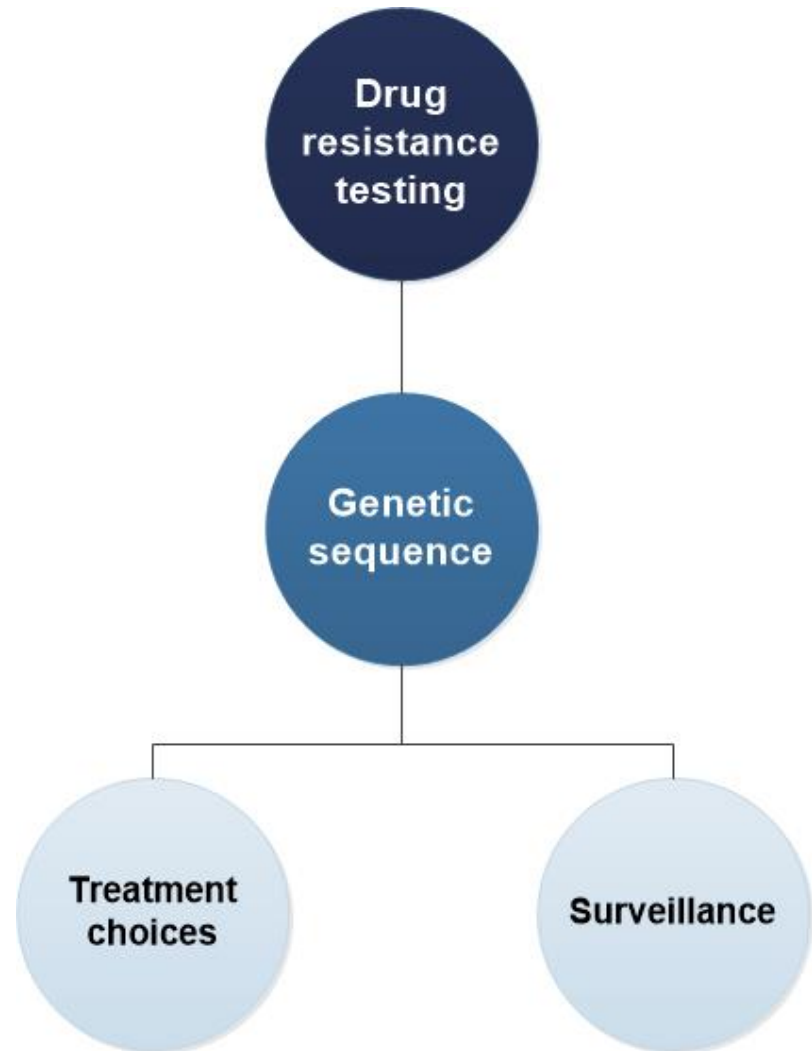




Molecular HIV Surveillance

Cluster Detection

- **As part of HIV care**
 - Drug resistance testing
 - This testing involves determining the genetic sequence of the virus (NOT the person)
- **Analyze sequences**
 - Identify shared HIV networks
 - Complement partner services
 - May indicate HIV is spreading quickly
- **Drug resistance in the population**
- ***Does not determine directionality***



HIV Sequence Labs


4 laboratories report genotypes

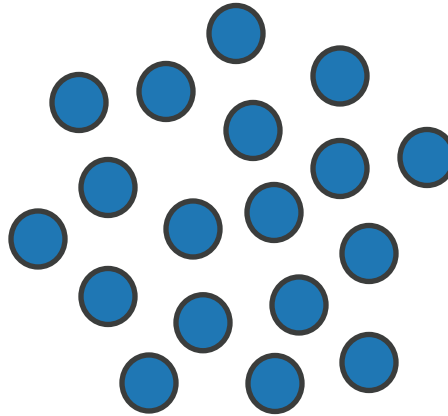


2 times a month import labs

≈200 genotypes received a month

Identifying HIV Clusters

 = person newly diagnosed with HIV



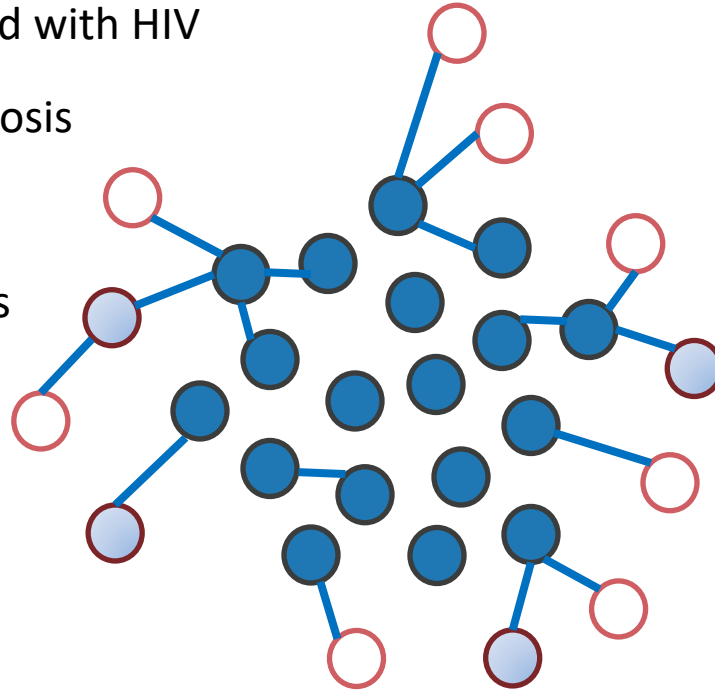
Identifying HIV clusters

● = person newly diagnosed with HIV

● = contact, new HIV diagnosis

○ = contact, HIV-negative

— = link via partner services



Identifying HIV Clusters

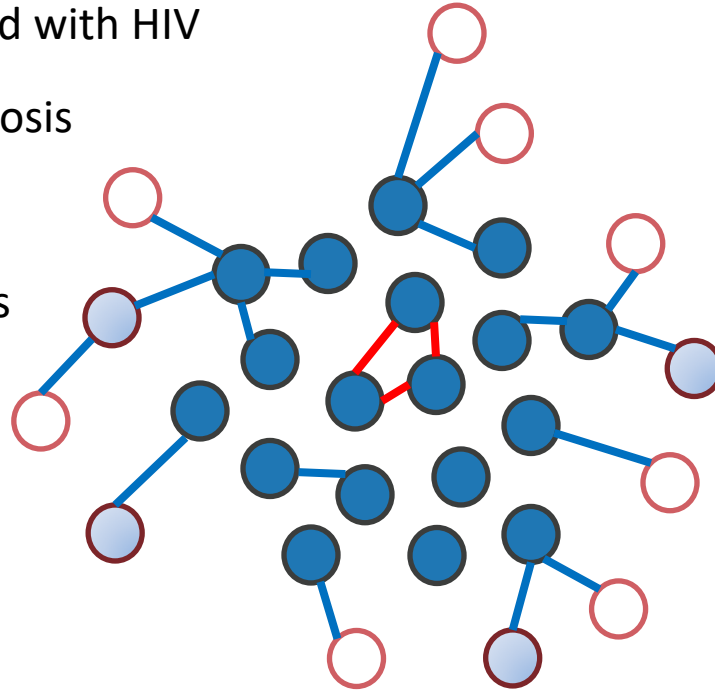
● = person newly diagnosed with HIV

● = contact, new HIV diagnosis

○ = contact, HIV-negative

— = link via partner services

— = link via genotype lab



HIV Cluster Response Activities

- **Prioritize networks for interventions**
- **Interview/re-interview persons diagnosed with HIV**
- **Provide necessary services**
- **Understand barriers to care and prevention**
- **Develop approaches to overcome barriers**

Takeaways

- **EHE funding will improve HIV diagnosis and treatment in Shelby County**
- **PLWH are living longer**
- **Risk factors for HIV transmission are largely unchanged**
- **Continued work to improve linking patients to care**
- **Molecular surveillance used to respond quickly to clusters**

Thank You!

TDH - HIV

Meredith Brantley

Laurie Mauer

Samantha Mathieson

TDH – Viral Hepatitis

Lindsey Sizemore

Jennifer Black

Heather Wingate

Cathy Goff

TDH – Harm Reduction

Allison Sanders

VUMC