

# HIV Surveillance Update for Ohio

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# Presentation

- Overview of HIV Surveillance
- New diagnoses of HIV in Ohio, 2019
- Persons living with diagnosed HIV in Ohio as of December 31, 2019
- Continuum of Care

# Overview of HIV Surveillance

- Diagnoses of HIV infection and AIDS are reportable conditions pursuant to Ohio Revised Code 3701.24(B) and Ohio Administrative Code 3701-3-12.
- The HIV Surveillance Program is responsible for the on-going and systematic collection, analysis, interpretation and dissemination of population-based information about persons diagnosed and living with HIV and/or AIDS in Ohio.
- Active and passive surveillance are performed with healthcare providers, hospitals and laboratories to monitor trends in the epidemic and evaluate disease burden among affected populations.
- Surveillance information is critical for targeting the delivery of HIV prevention, care and treatment services.

# Key Uses of HIV Surveillance Data

- Monitor HIV and AIDS related morbidity
- Identify changes in trends of HIV transmission and identify at-risk populations
- Inform health policy
- Inform decisions for the allocation of resources for prevention, care and treatment of HIV

# HIV Case Definition

## Laboratory Evidence:

- A multi-test algorithm consisting of
  - A positive (reactive) result from an initial HIV antibody or HIV combination antigen/antibody test, **AND**
  - An accompanying or subsequent positive result from a supplemental HIV test different from the initial test, **OR**
- A positive (reactive) result of a multi-test HIV antibody algorithm from which only the final result was reported, including a single positive (reactive) result on a test used only as a supplemental test (e.g., HIV Western blot, immunofluorescence assay [IFA]) or on a test that might be used as either an initial test or a supplemental test, **OR**
- A positive (reactive) result or report of a detectable quantity (i.e., within the established limits of the laboratory test) from any of the following HIV virologic (i.e., non-antibody) tests:
  - Qualitative HIV NAAT (DNA or RNA)
  - Quantitative HIV NAAT (viral load assay)
  - HIV-1 p24 antigen test
  - HIV isolation (viral culture),
  - HIV nucleotide sequence (genotype), **OR**

## Clinical Evidence (i.e., a "physician-documented" diagnosis):

- A note in a medical record by a physician or other qualified medical-care provider that states that the patient has HIV infection, **AND**
- One or both of the following:
  - The laboratory criteria for a case were met based on tests done after the physician's note was written (validating the note retrospectively), **OR**
  - Presumptive evidence of HIV infection (e.g. receipt of HIV antiretroviral therapy or prophylaxis for an opportunistic infection), an otherwise unexplained low CD4+ T-lymphocyte count, or an otherwise unexplained diagnosis of an opportunistic illness.

# AIDS Case Definition

- Criteria for HIV infection are met and CD4+ T-lymphocyte count of  $<200$  cells/ $\mu$ L.
  - CD4+ T-lymphocyte percentage must be  $<14\%$  and is used only when the corresponding CD4+ T-lymphocyte count is unknown, **OR**
- Criteria for HIV infection are met and at least one of the AIDS-defining conditions has been documented.

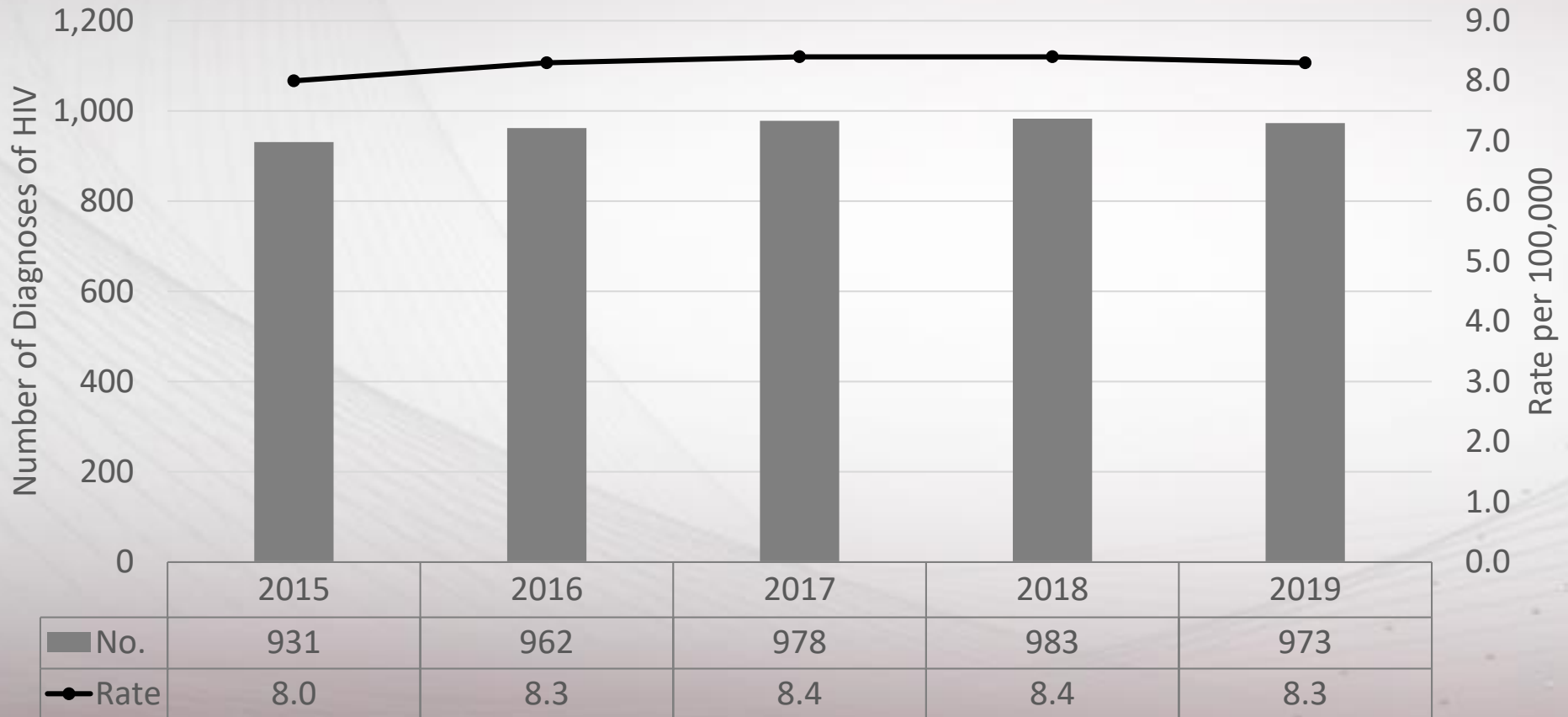
# New Diagnoses of HIV

- Represents all persons confidentially tested and reported with a diagnosis of HIV not previously reported to the Ohio Department of Health (ODH)
- New diagnoses of HIV include:
  - Persons diagnosed with HIV (not AIDS)
  - Persons diagnosed with HIV progressing to AIDS within 12 months
  - Persons concurrently diagnosed with HIV and AIDS



# New Diagnoses of HIV

Reported New Diagnoses of HIV, Ohio, 2015-2019



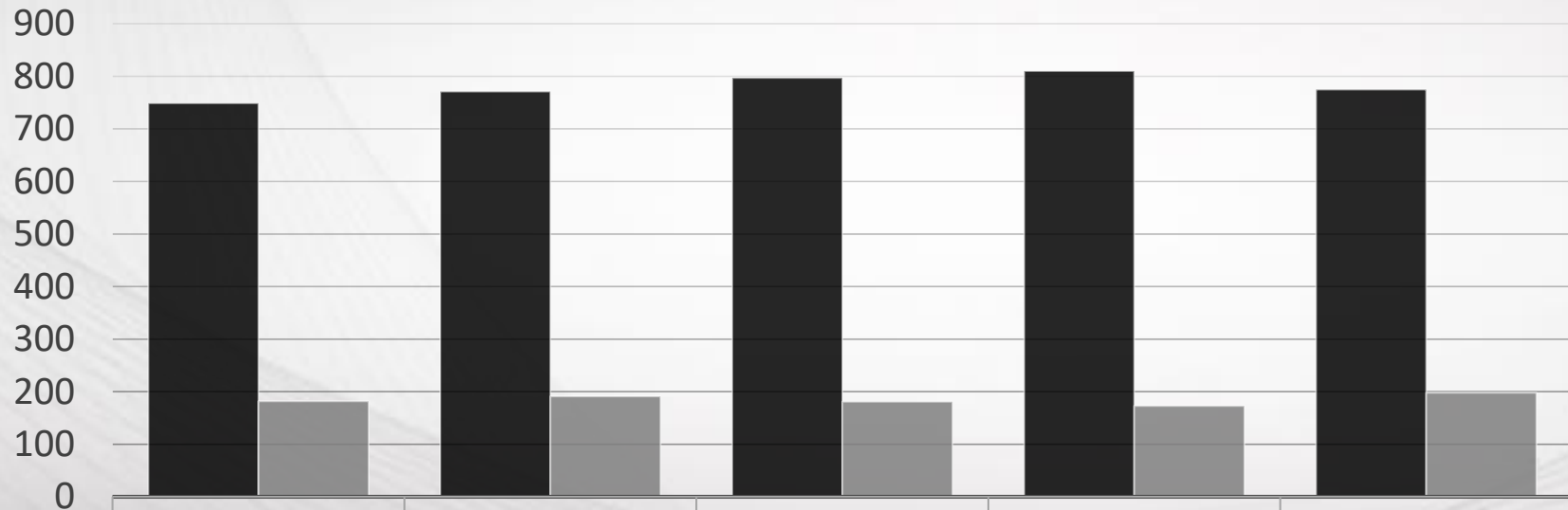
Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.



# New Diagnoses of HIV

Reported New Diagnoses of HIV by Sex at Birth, Ohio, 2015-2019

Number of Diagnoses of HIV Infection

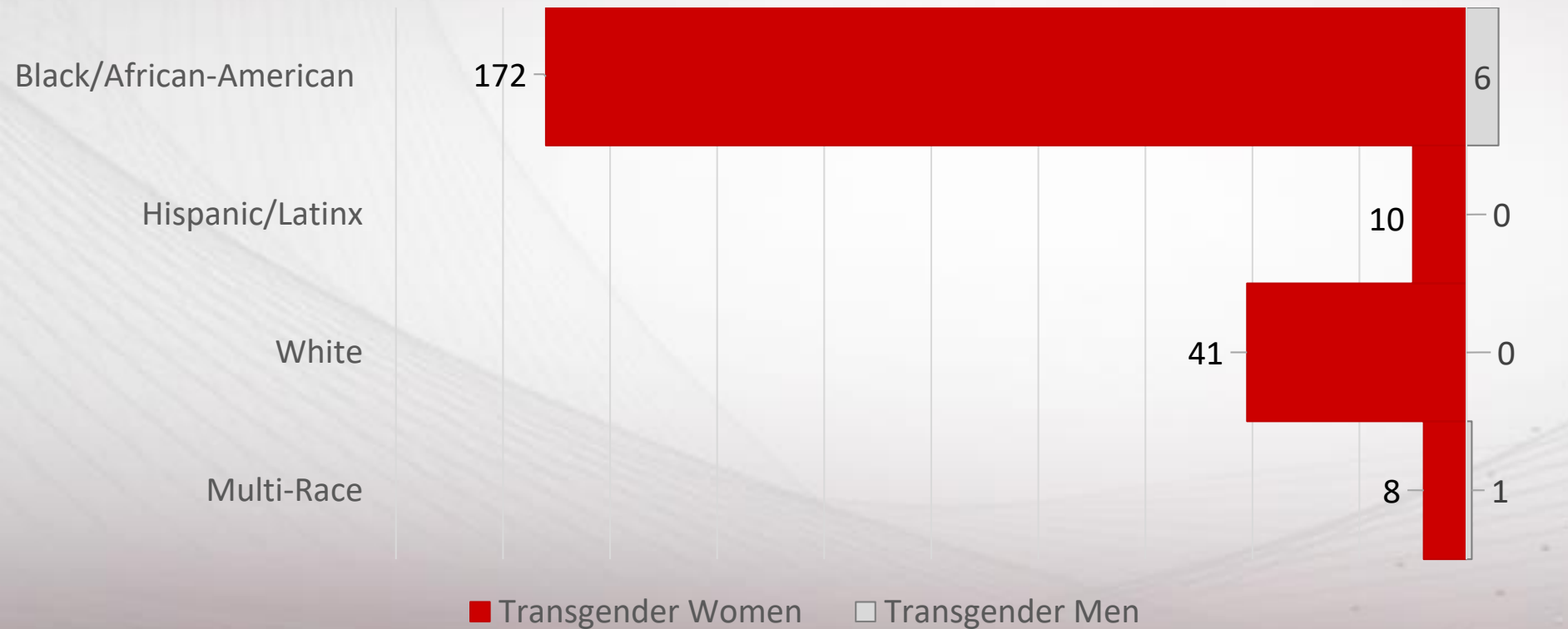


	2015	2016	2017	2018	2019
■ Males	749	771	797	810	775
■ Females	182	191	181	173	198

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

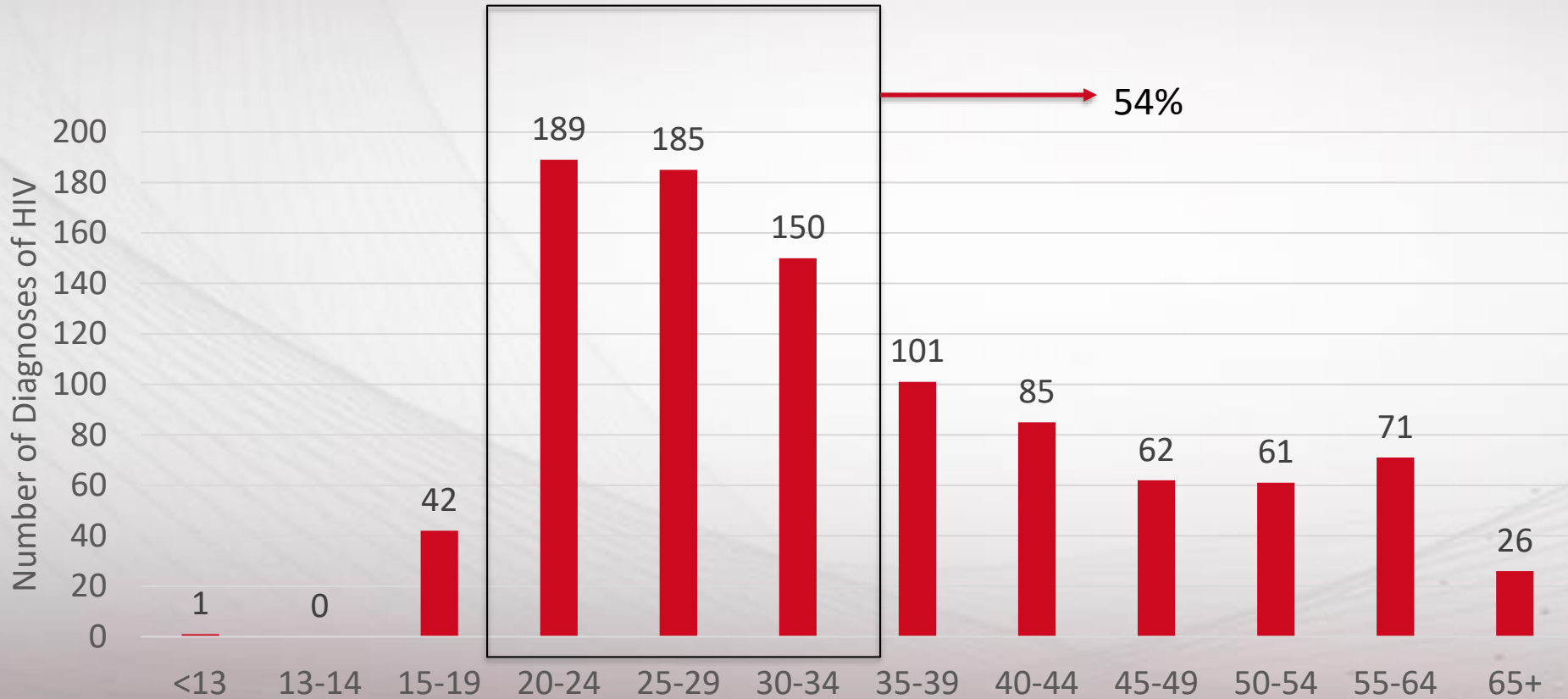
Cumulative New Reported Diagnoses of HIV Among Transgender Persons by Race/Ethnicity and Current Gender, Ohio (n=238)



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

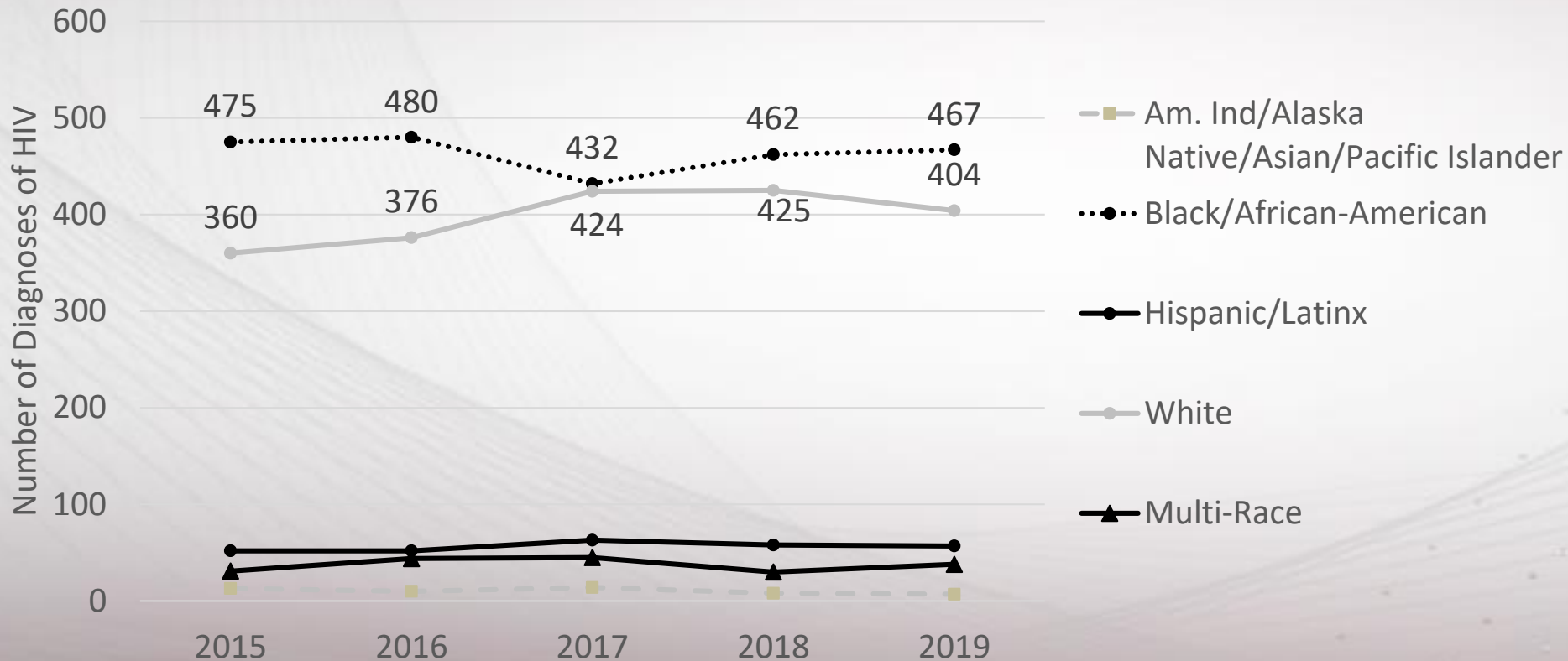
Reported New Diagnoses of HIV Infection by Age Group, Ohio, 2019



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

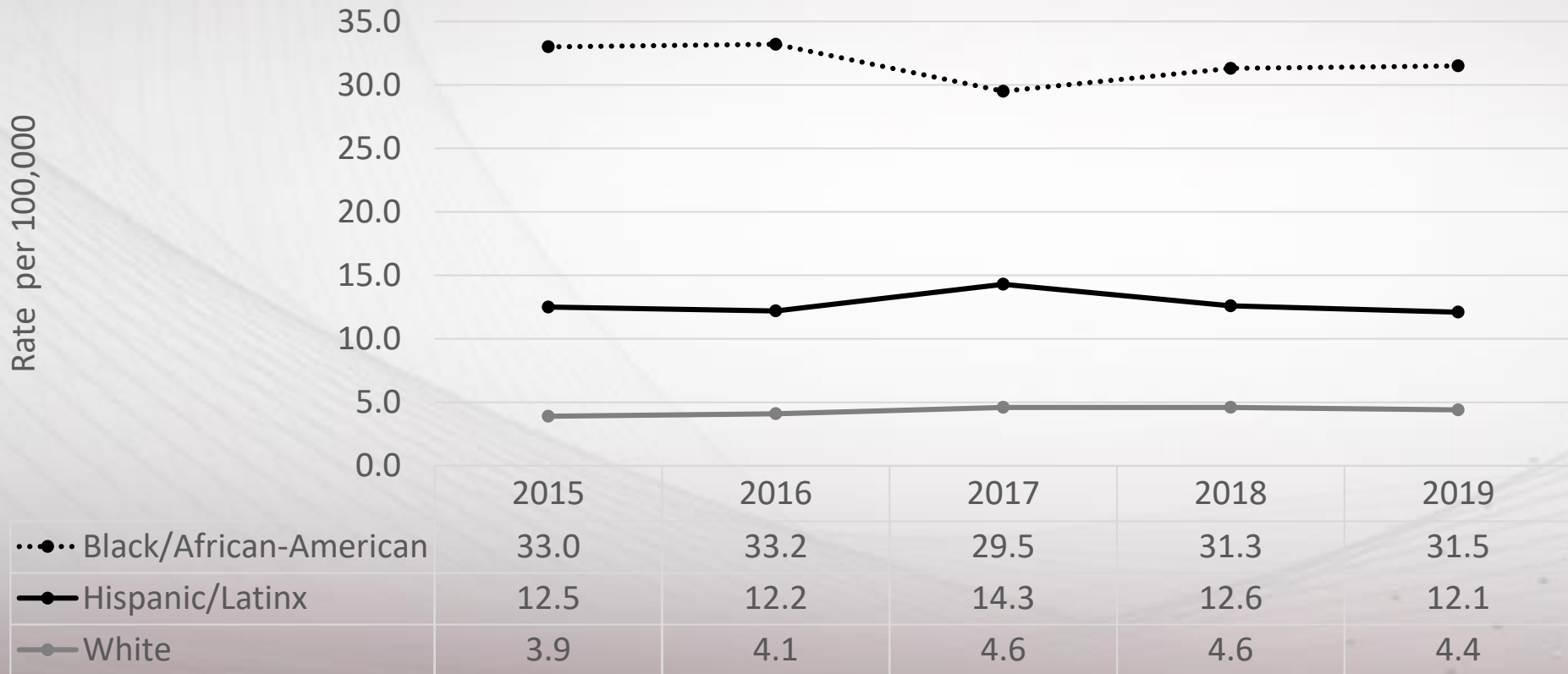
Reported New Diagnoses of HIV Infection by Race/Ethnicity, Ohio, 2015-2019



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

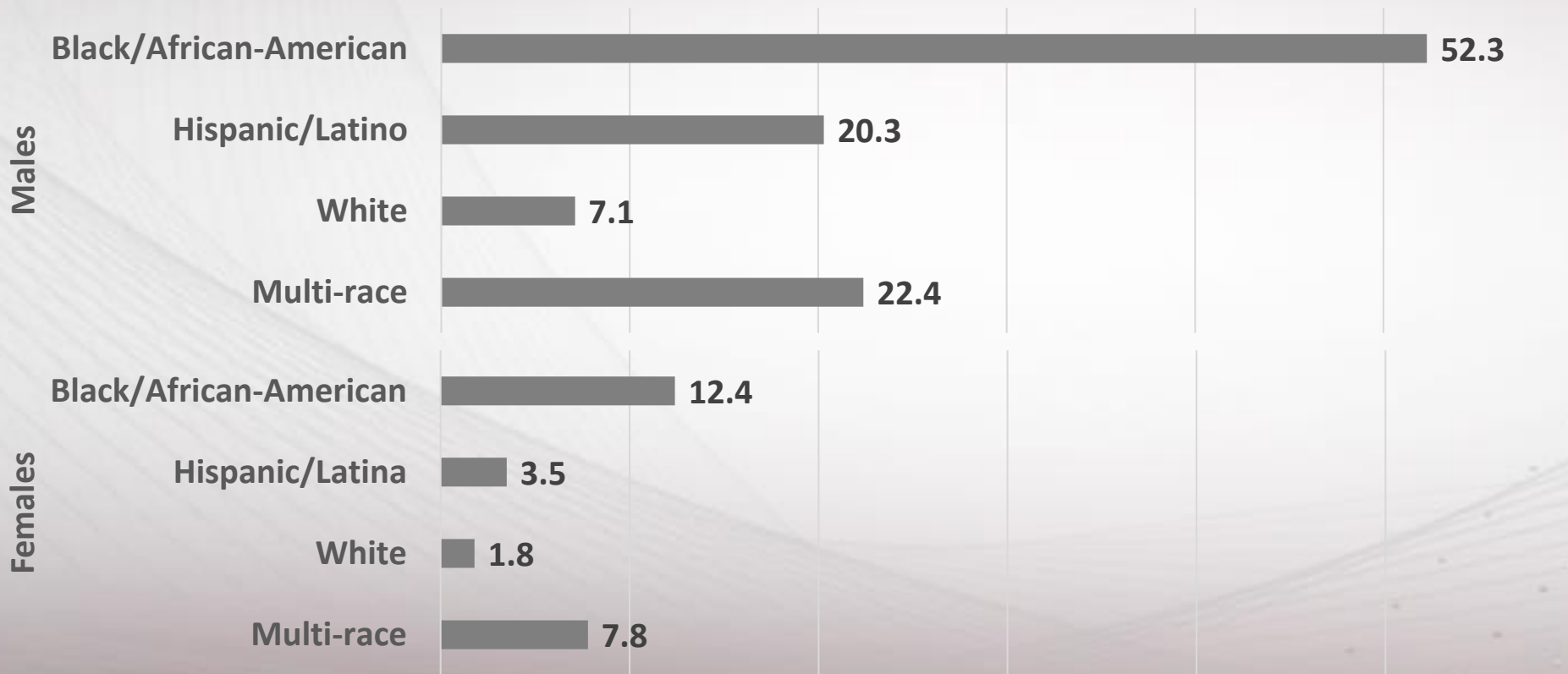
Rates of Reported New Diagnoses of HIV Infection by Selected Race/Ethnicity, Ohio, 2015-2019



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

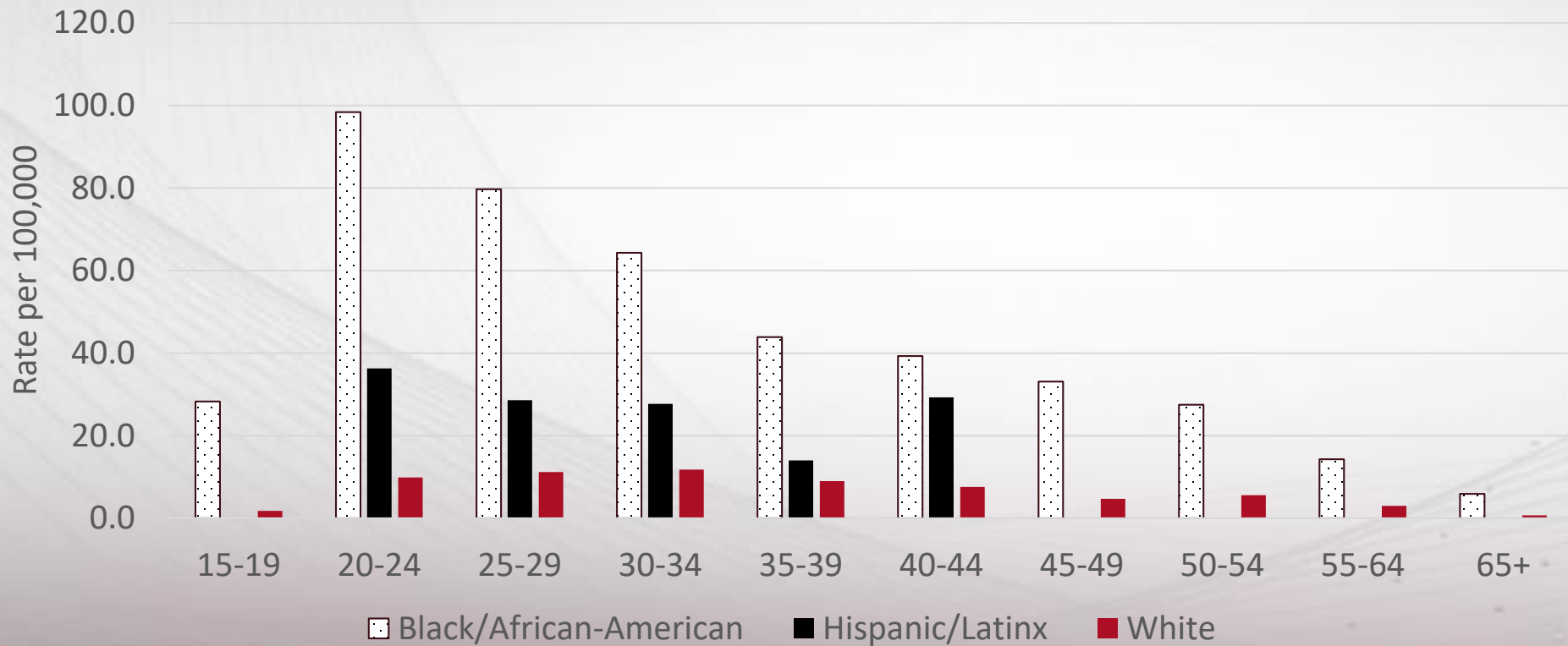
Rates of Reported New Diagnoses of HIV Infection by Selected Race/Ethnicity, Ohio, 2019



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

Rates of Reported New Diagnoses of HIV Infection by Selected Race/Ethnicity and Age Groups, Ohio, 2019



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.



# New Diagnoses of HIV

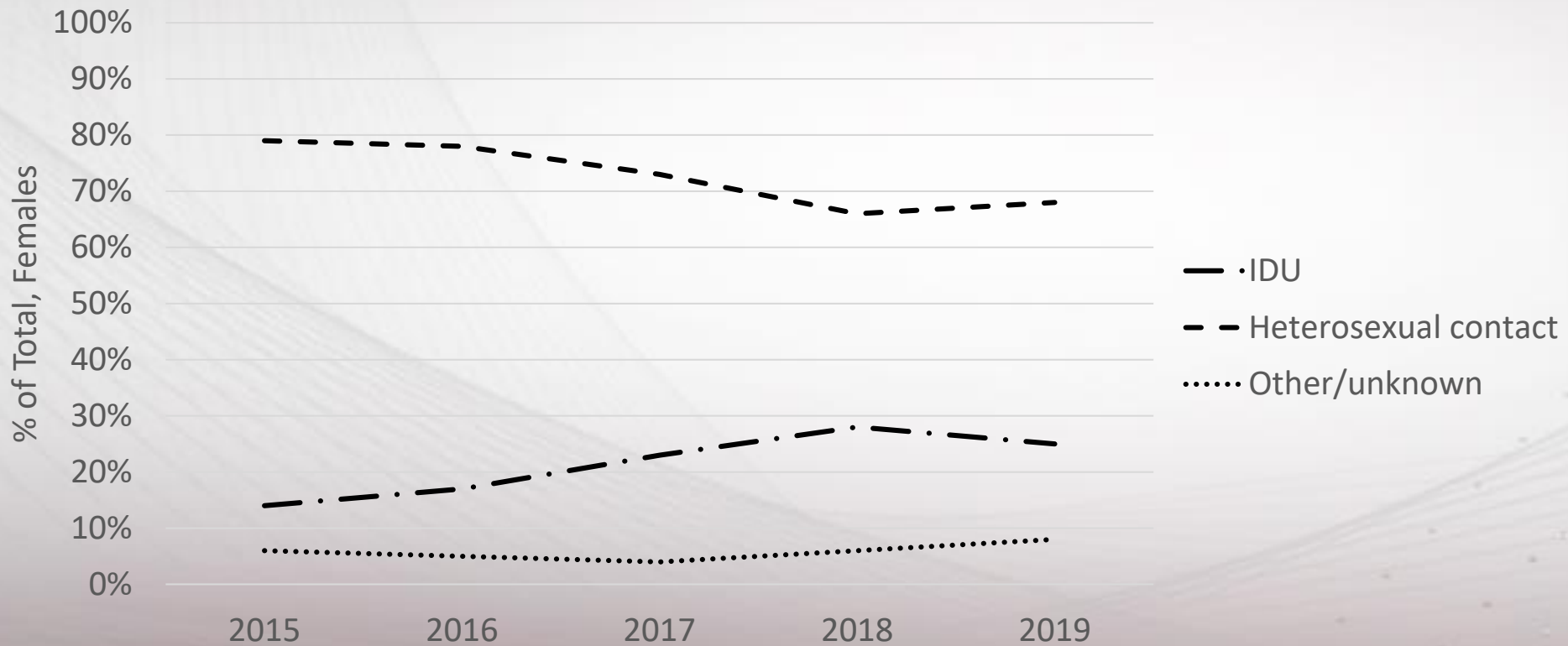
% Reported New Diagnoses of HIV Infection by Transmission Category, Adult/Adolescent MALES, Ohio, 2015-2019



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

% Reported New Diagnoses of HIV Infection by Transmission Category, Adult/Adolescent FEMALES, Ohio, 2015-2019

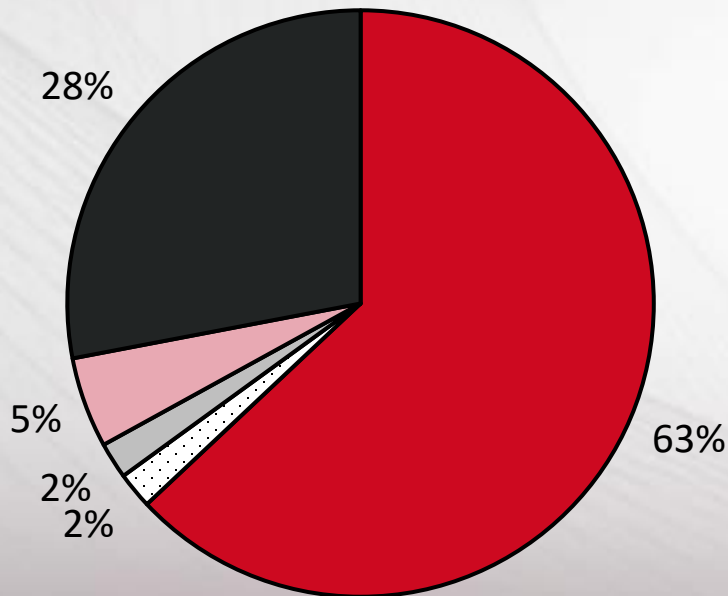


Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

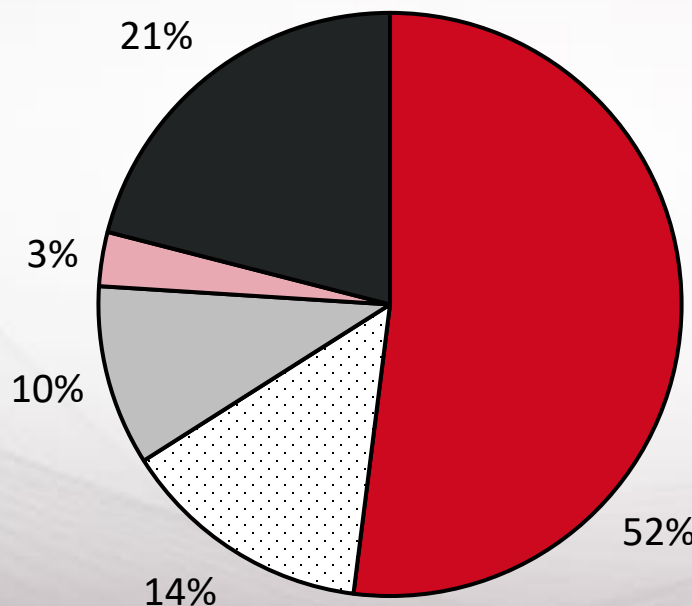
# New Diagnoses of HIV

Percent of Reported New Diagnoses of HIV Infection by Transmission Category, Selected Race/Ethnicity, and Sex at Birth, Ohio, 2019

Black/African-American  
Adult/Adolescent Males, N=371



White Adult/Adolescent  
Males, N=320



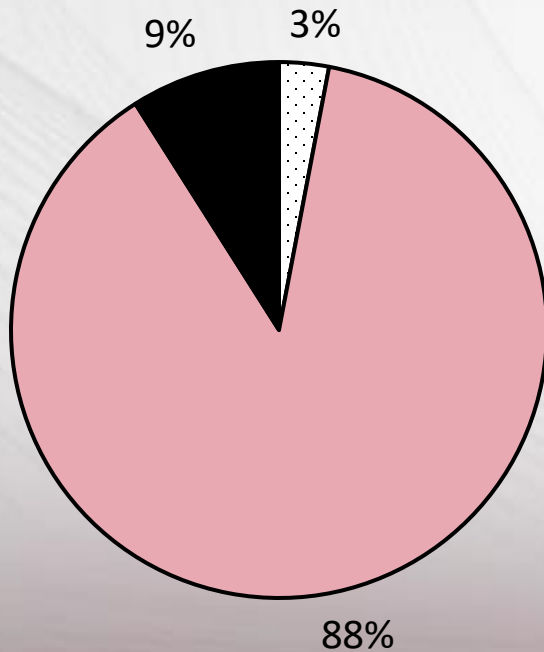
- Male-to-male sexual contact
- ▣ IDU
- Male-to-male sexual contact and IDU
- ▣ Heterosexual contact
- Other/unknown

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

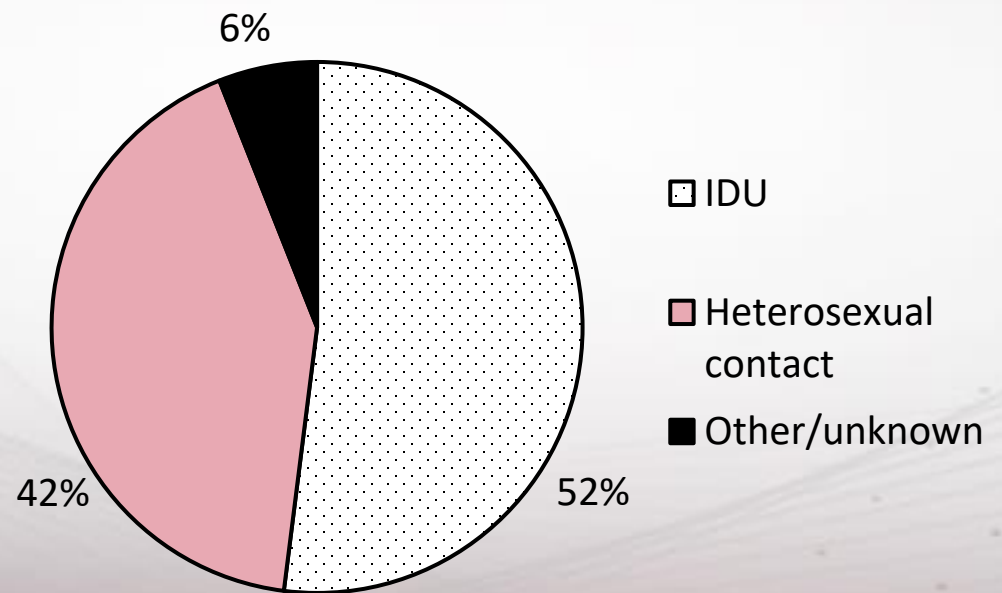
# New Diagnoses of HIV

Percent of Reported New Diagnoses of HIV Infection by Transmission Category, Selected Race/Ethnicity, and Sex at Birth, Ohio, 2019

Black/African-American  
Adult/Adolescent Females, N=96



White Adult/Adolescent Females,  
N=83



- IDU
- Heterosexual contact
- Other/unknown

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

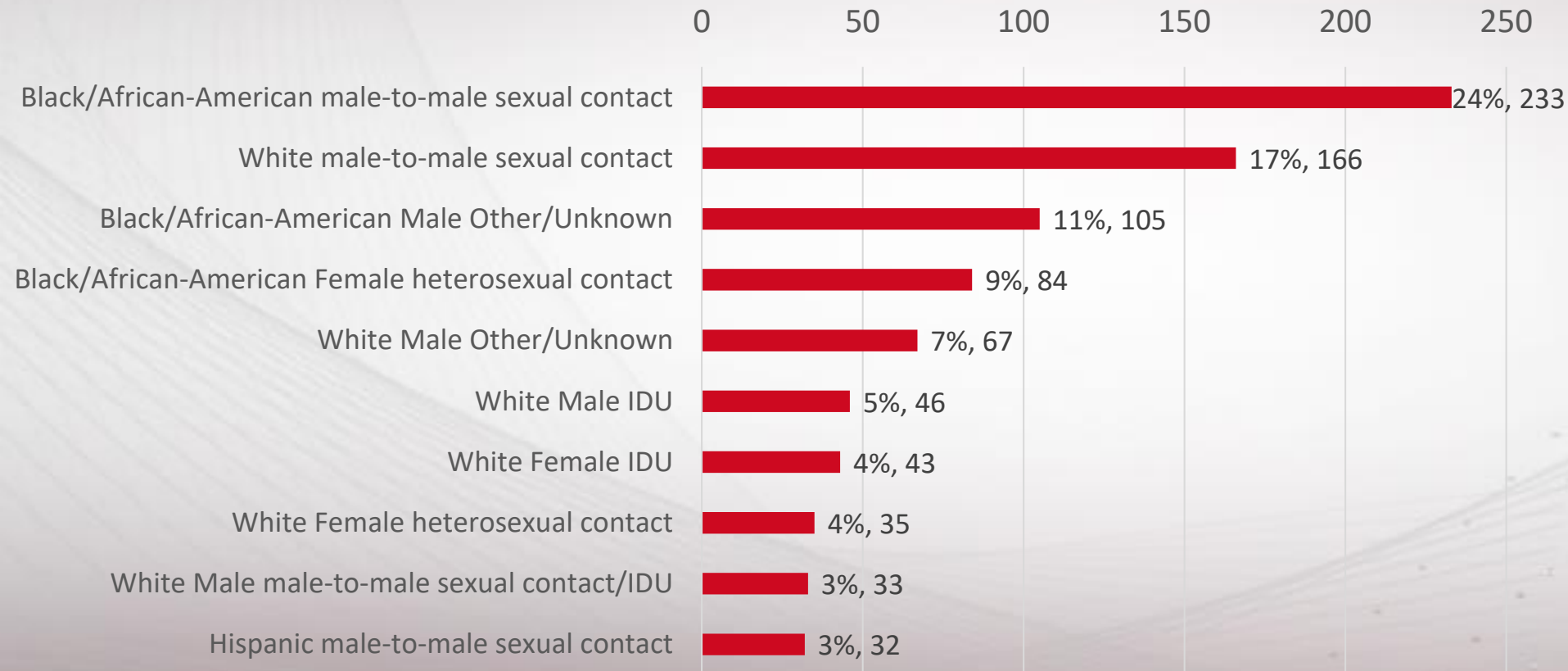
Reported New Diagnoses of HIV Infection with Injection Drug Use (IDU) as Transmission Category by Race/Ethnicity, Ohio, 2015-2019



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# New Diagnoses of HIV

Reported new diagnoses of HIV by select groups, Ohio, 2019



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.





# New Diagnoses of HIV in Ohio Summary

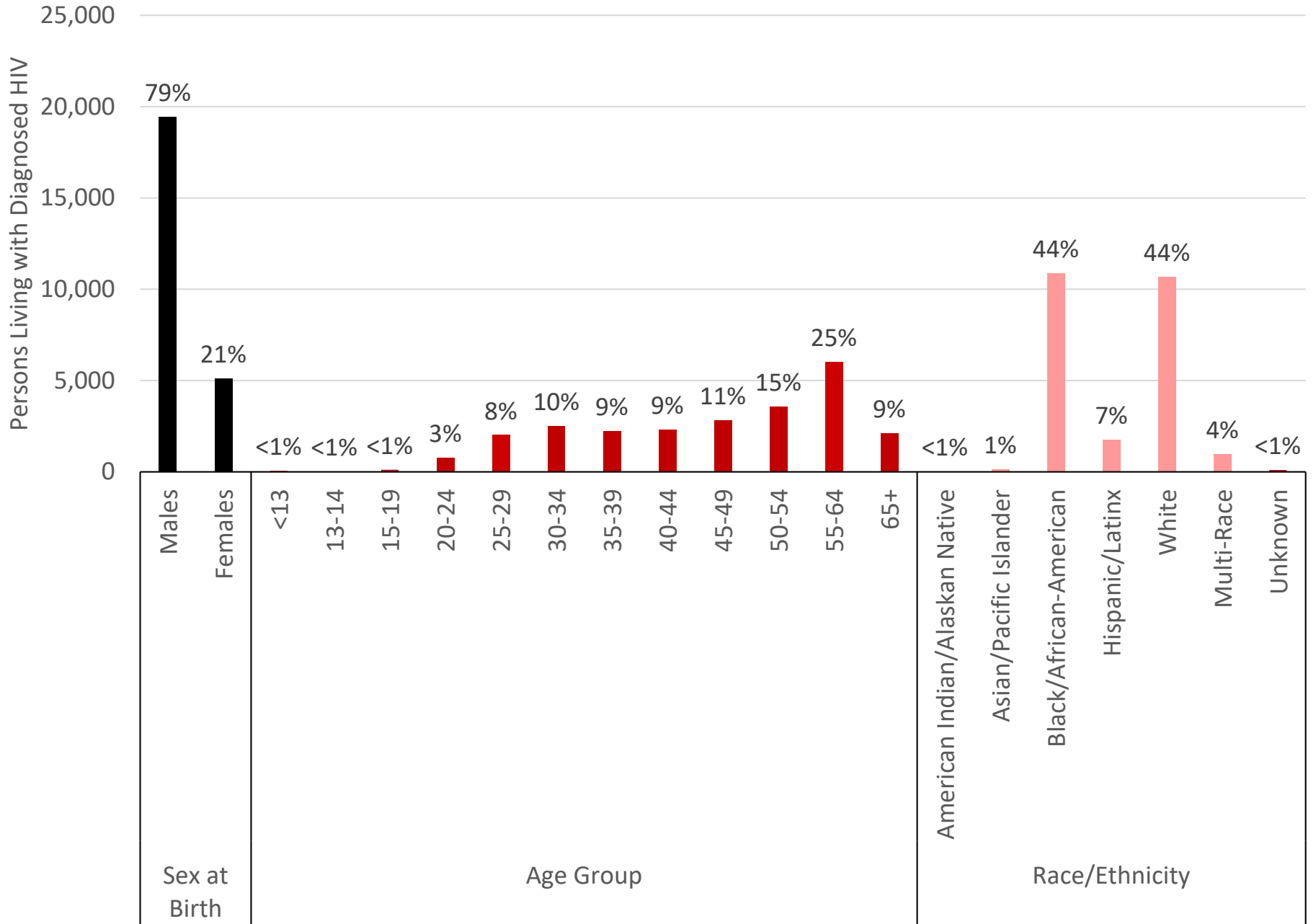
- In 2019, there were 973 newly reported diagnoses of HIV in Ohio (rate = 8.3/100,000).
- 80% of new diagnoses were among males.
- 48% of new diagnoses were among Black/African-Americans.
- The rate of new diagnoses in Black/African-Americans was 7.2 times higher than that in whites.

# Persons Living with Diagnosed HIV

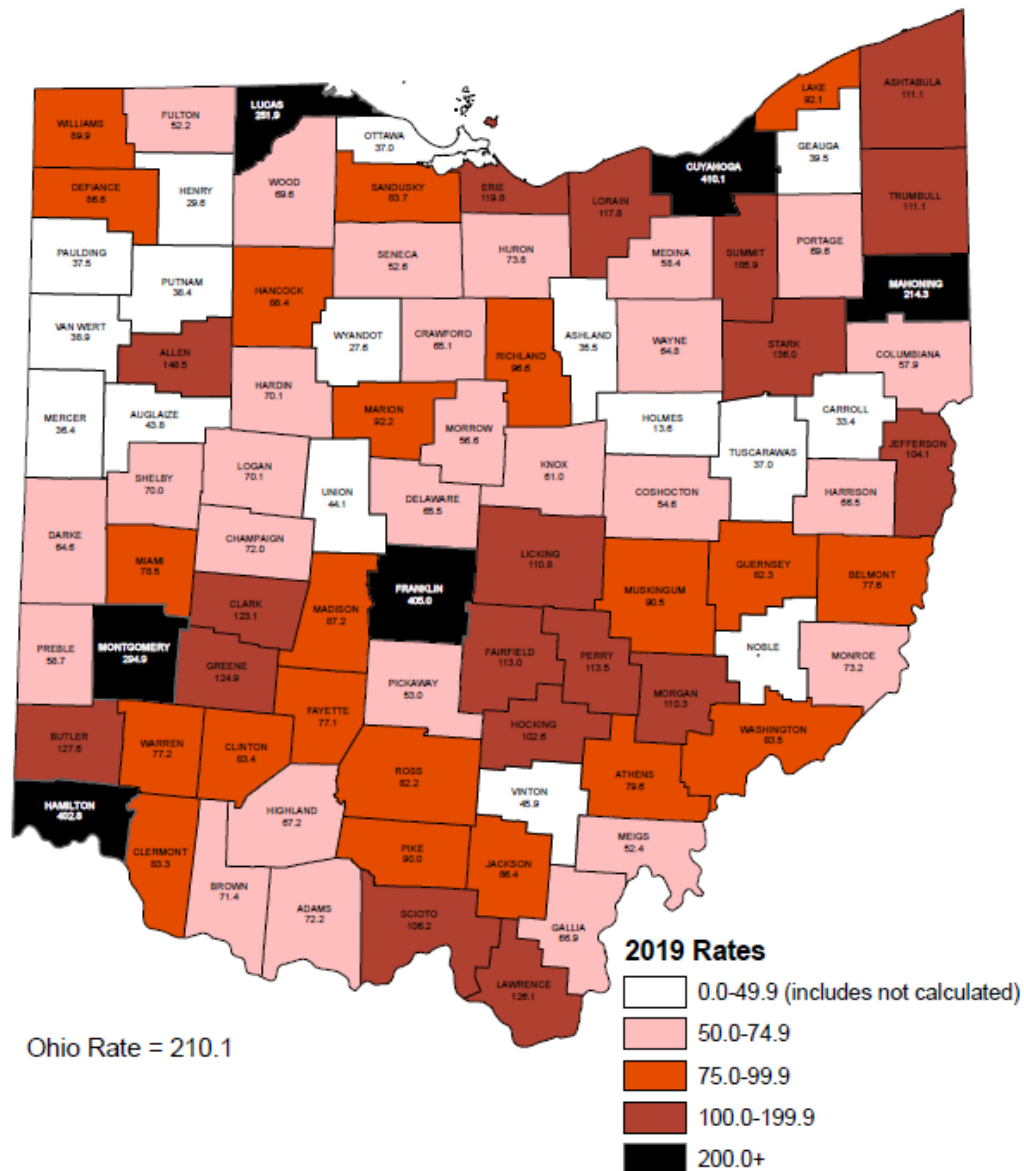
- Reflects all persons living in Ohio ever reported to ODH with a diagnosis of HIV or AIDS and who are not known to have died as of December 31, 2019.
- Includes persons who may have been initially diagnosed outside of Ohio, but who are currently living in Ohio.

# Persons Living with Diagnosed HIV Infection, Ohio, 2019

(n=24,558, rate=210.1/100,000)

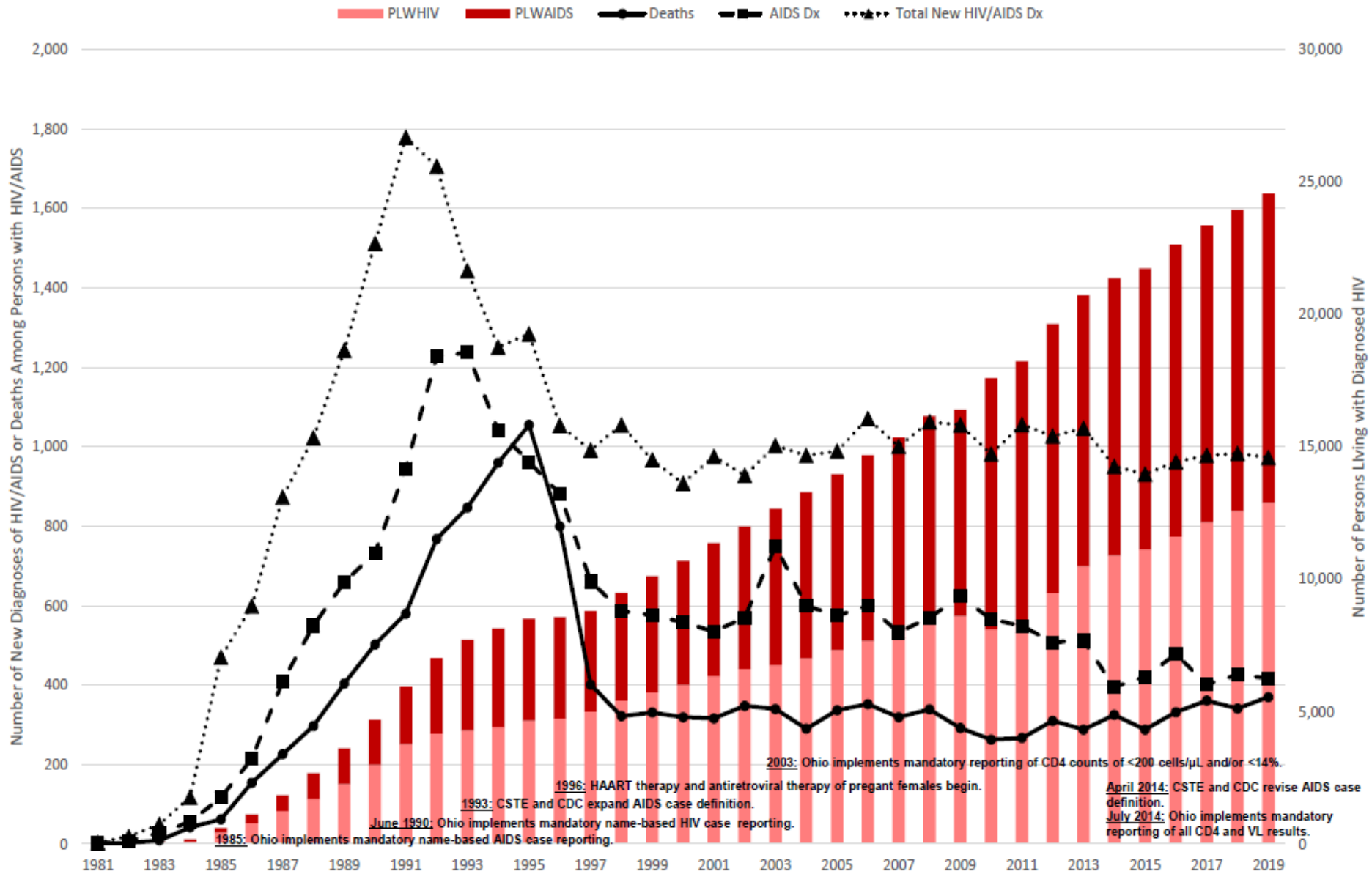


# Rates of Reported Persons Living with Diagnosed HIV Infection by County, Ohio, 2019



Notes:  
 Living with diagnosed HIV infection represents all persons ever diagnosed and reported with HIV or AIDS who have not been reported as having died as of December 31, 2019.  
 Persons living with diagnosed HIV infection represent persons living in Ohio as of December 31, 2019, regardless of whether or not the person was a resident of Ohio at time of initial HIV or AIDS diagnosis.  
 Asterisk (\*) Indicates rate not calculated for case counts <5 due to unstable rates.  
 County reflects current county of residence. Cases in a state or federal correctional facility or whose current county of residence is unknown are not included.  
 The rate is the number of persons living with diagnosed HIV infection per 100,000 population calculated using 2019 U.S. Census estimates.  
 Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# History of Ohio's HIV/AIDS Epidemic, 1981-2019



**Notes:**

Total new HIV/AIDS diagnoses include persons with a diagnosis of HIV, a diagnosis of HIV and an AIDS diagnosis within 12 months, and concurrent diagnoses of HIV and AIDS.

Persons may be counted as both an HIV diagnosis in one year and an AIDS diagnosis in a subsequent year.

PLWHIV = Persons Living With HIV; PLWAIDS = Persons Living With AIDS; Deaths = Deaths among reported HIV/AIDS cases; deaths are for all causes; AIDS Dx = Persons diagnosed with AIDS; Total New HIV/AIDS Dx = Persons diagnosed with HIV/AIDS.

CSTE = Council for State and Territorial Epidemiologists; CDC = Centers for Disease Control and Prevention; HAART = Highly Active AntiRetroviral Therapy; VL = Viral Load.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2020.

# Persons Living with Diagnosed HIV in Ohio Summary

- As of December 31, 2019, there were 24,558 persons living with diagnosed HIV in Ohio (rate = 210.1/100,000).
- 79% of persons living with diagnosed HIV were male.
- Whites and Black/African-Americans each make up about 44% of persons living with diagnosed HIV, but the rate for Blacks was more than 6 times as high as that for Whites.
- The rate for Black/African-American males living with diagnosed HIV was more than 5 times as high as that for white males.
- The rate for Black/African-American females living with diagnosed HIV was more than 11 times as high as that for white females.

# Linkage to Care/Continuum of Care

- HIV Surveillance data are used, including information on CD4 levels of T-lymphocytes and viral load (VL) results, to calculate estimates for a care continuum and other related measurements for persons in Ohio diagnosed with HIV infection.
- As of July 1, 2014, Ohio's HIV reporting rules require all levels of CD4s and VLs to be reported for persons diagnosed with HIV infection living in Ohio.
- The following slides are based on information reported to HIV/AIDS Surveillance, which includes data from the Ohio Disease Reporting System (ODRS) and the Ryan White Application Database (RWAD).



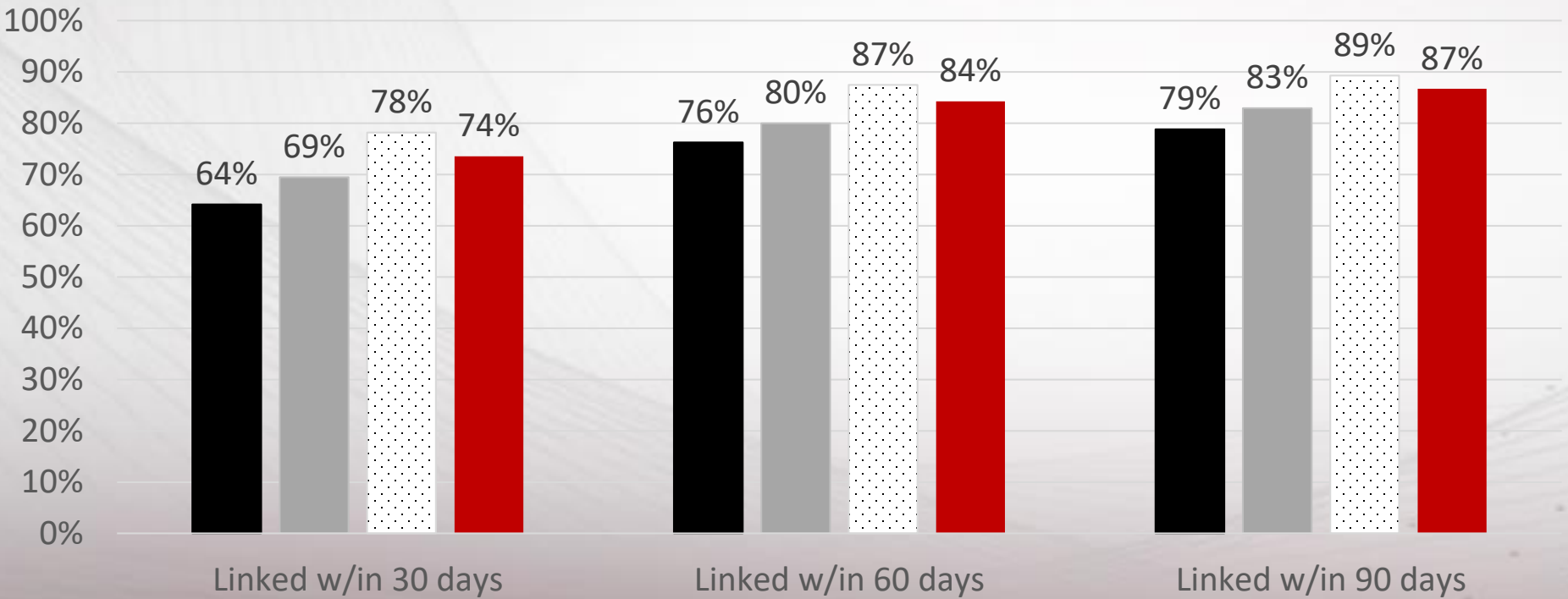
# Linkage to Care

- **Numerator:** From persons included in the denominator, the number having at least one CD4 and/or viral load (VL) within 30, 60, and 90 days of the date of HIV diagnosis.
- **Denominator:** The number of new diagnoses of HIV infection in Ohio among persons aged  $\geq 13$  years in each year.

# Linkage to Care

Linkage to Care, Ohio, 2015-2018

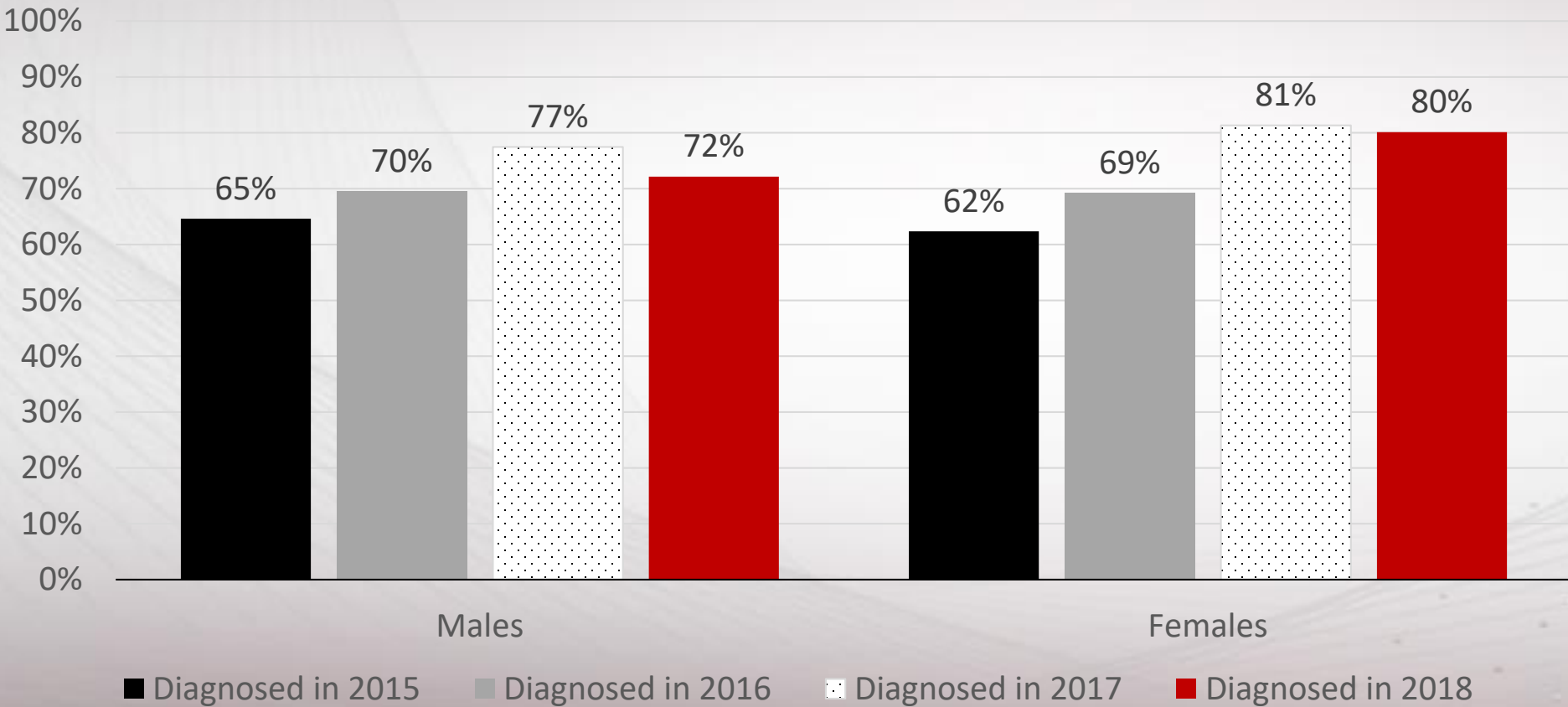
■ 2015 ■ 2016 ▨ 2017 ■ 2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Linkage to Care

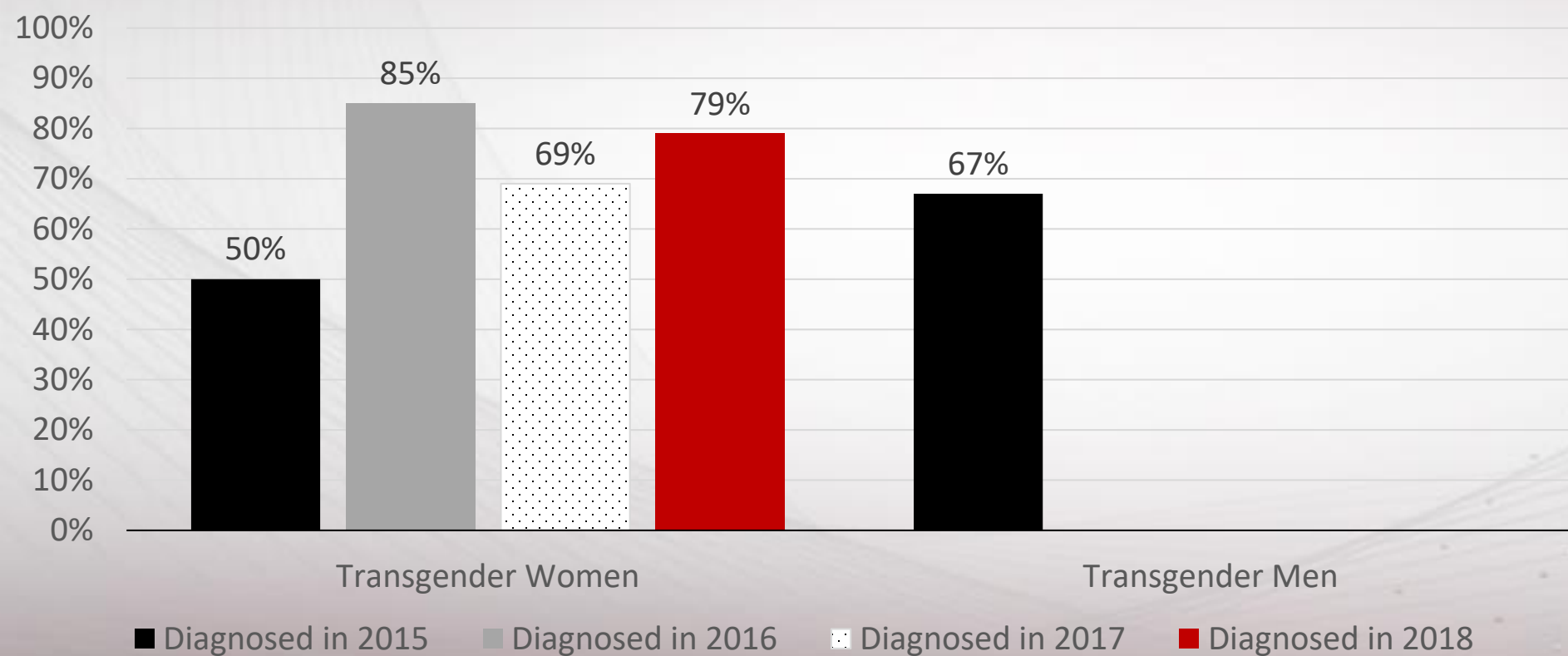
Linkage to Care within 30 days, by Sex at Birth, Ohio, 2015-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Linkage to Care

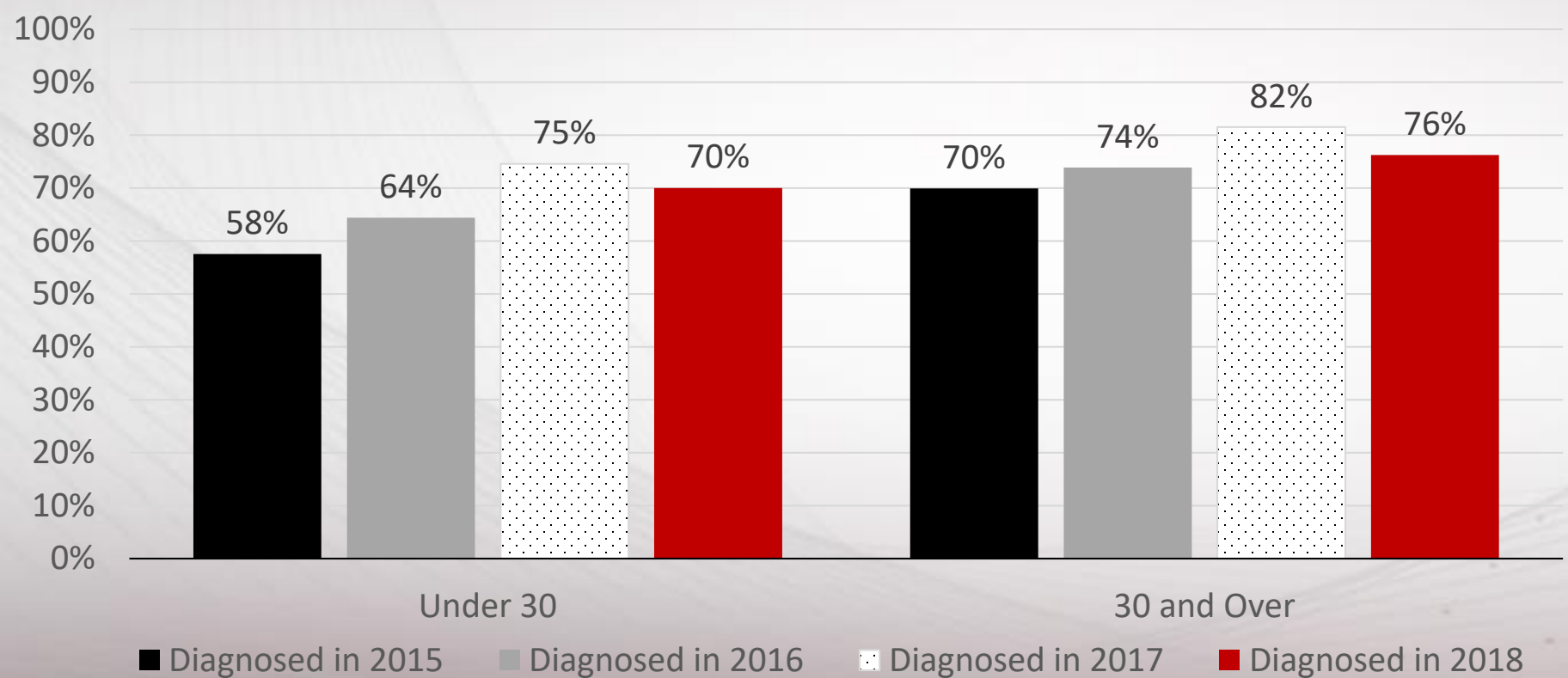
Linkage to Care within 30 days Among Transgender People by Current Gender, Ohio, 2015-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Linkage to Care

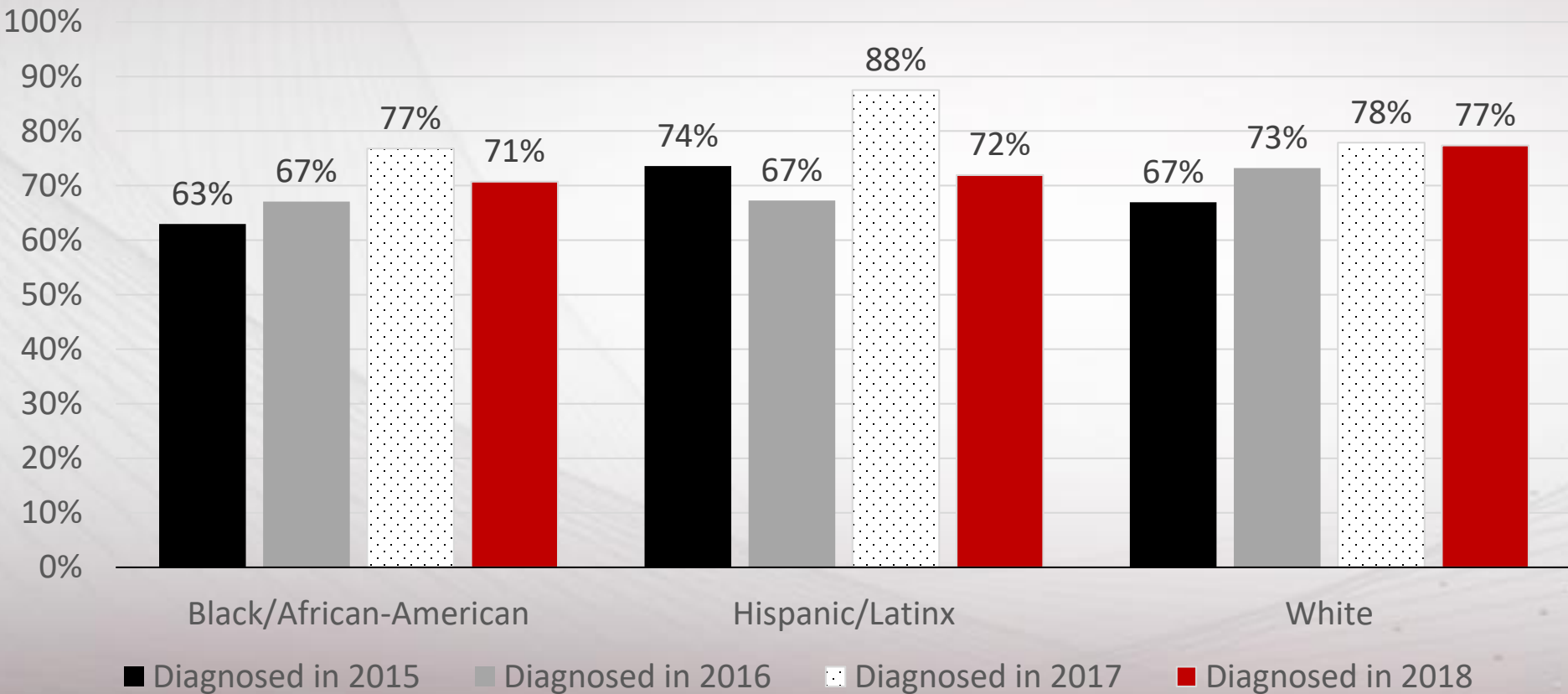
Linkage to Care within 30 days, by Age Group, Ohio, 2015-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Linkage to Care

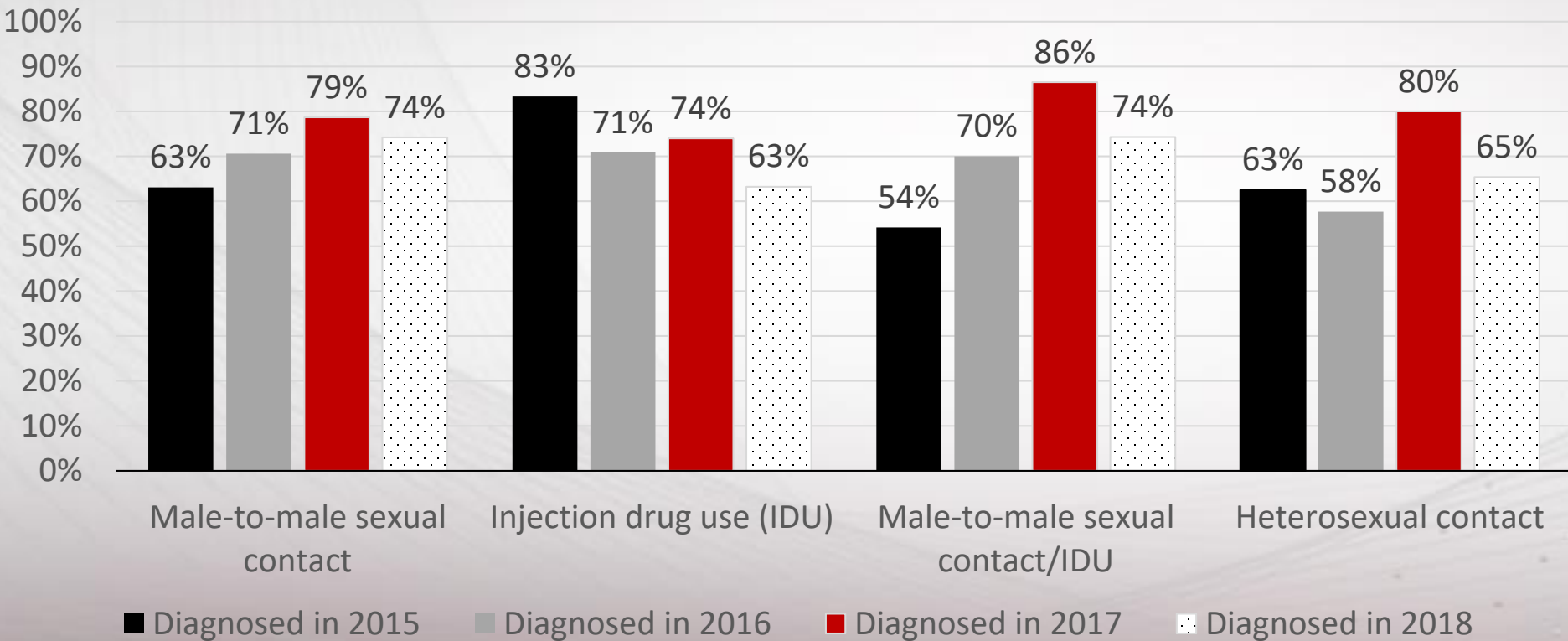
Linkage to Care within 30 days, by Race/Ethnicity, Ohio, 2015-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Linkage to Care

Linkage to Care within 30 days, by Transmission Category, MALES, Ohio, 2015-2018

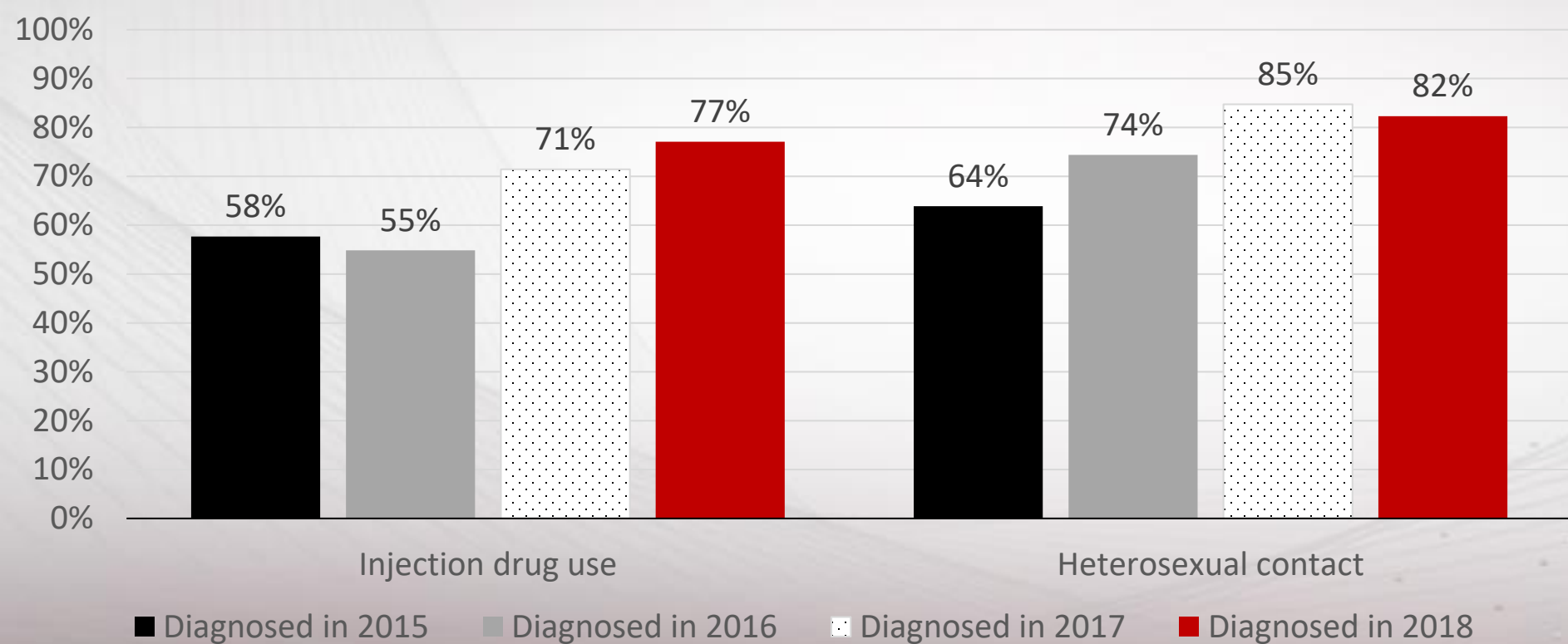


Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.



# Linkage to Care

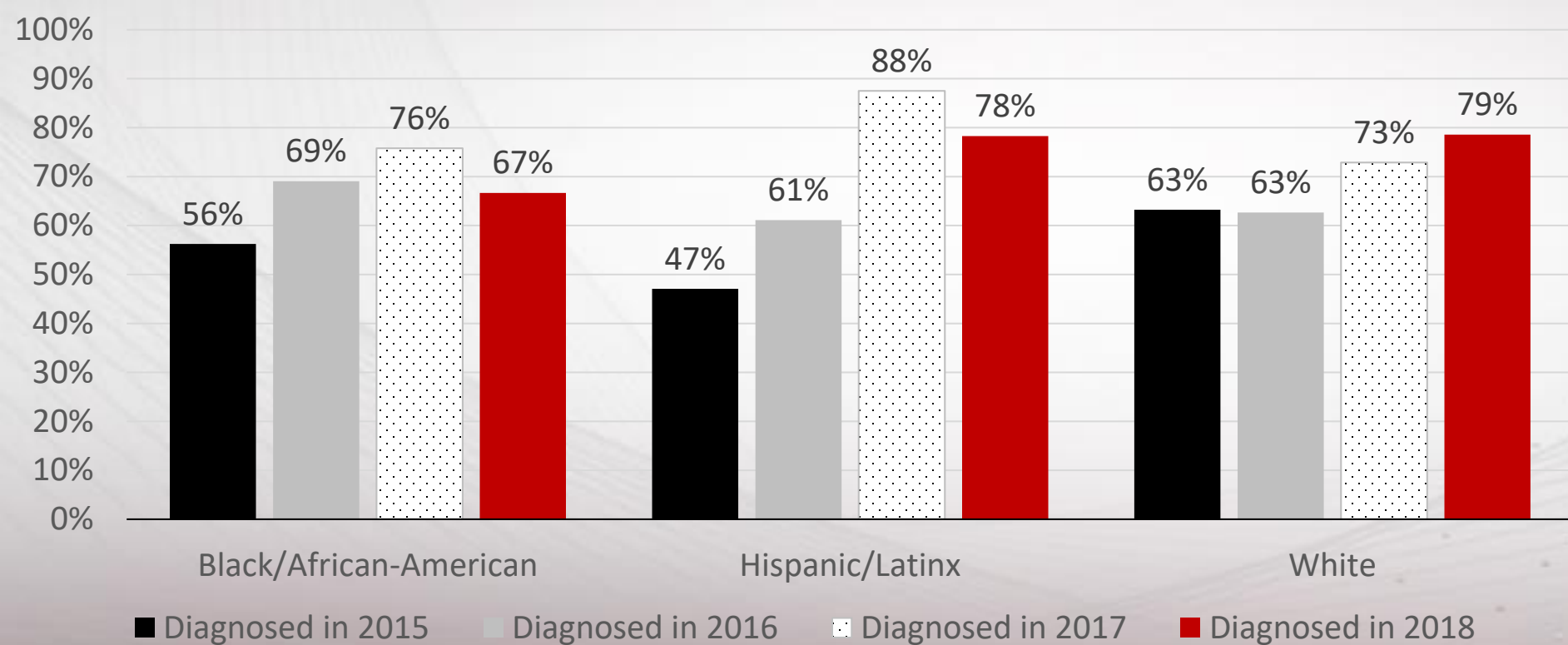
Linkage to Care within 30 days, by Transmission Category, FEMALES, Ohio, 2015-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Linkage to Care

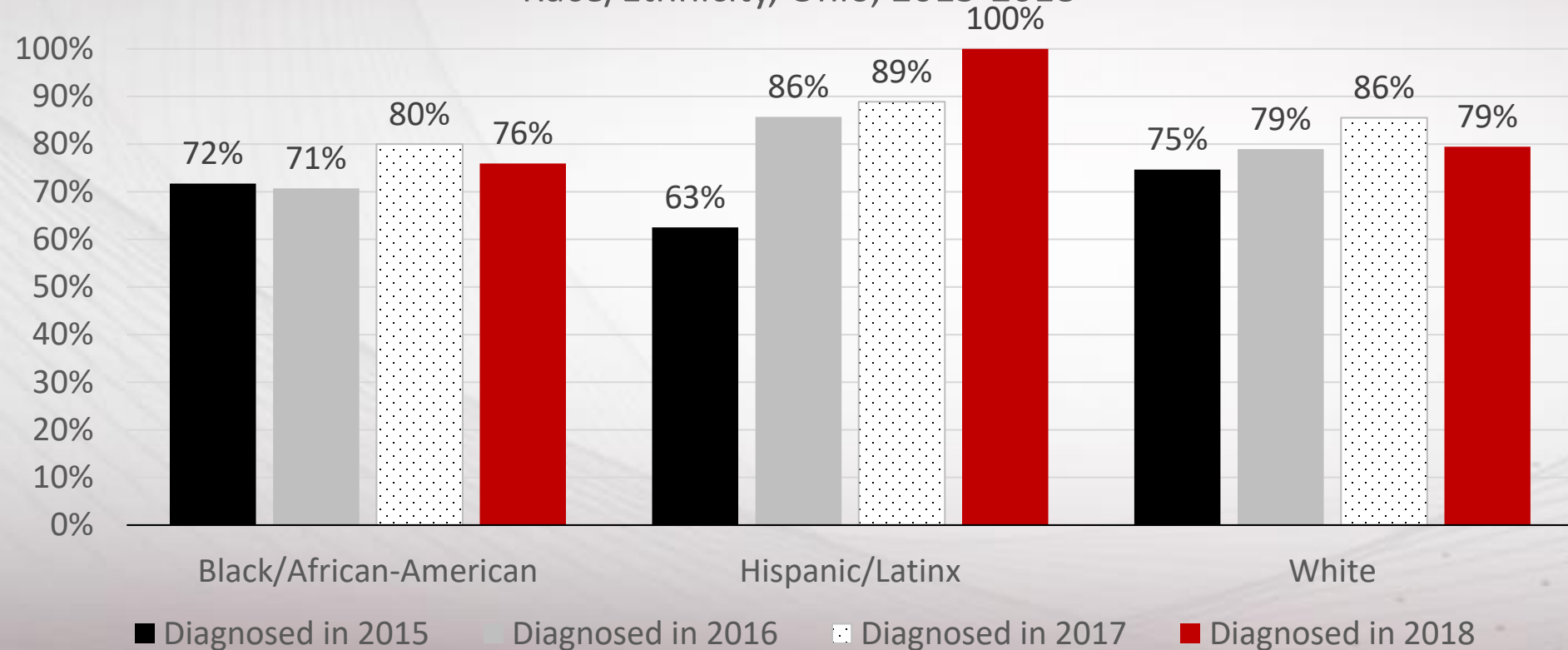
Linkage to Care Within 30 days Among Males Aged 13-29 Years with Male-to-Male Sexual Contact by Race/Ethnicity, Ohio, 2015-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Linkage to Care

Linkage to Care Within 30 days Among Persons Aged 50+ Years by Race/Ethnicity, Ohio, 2015-2018



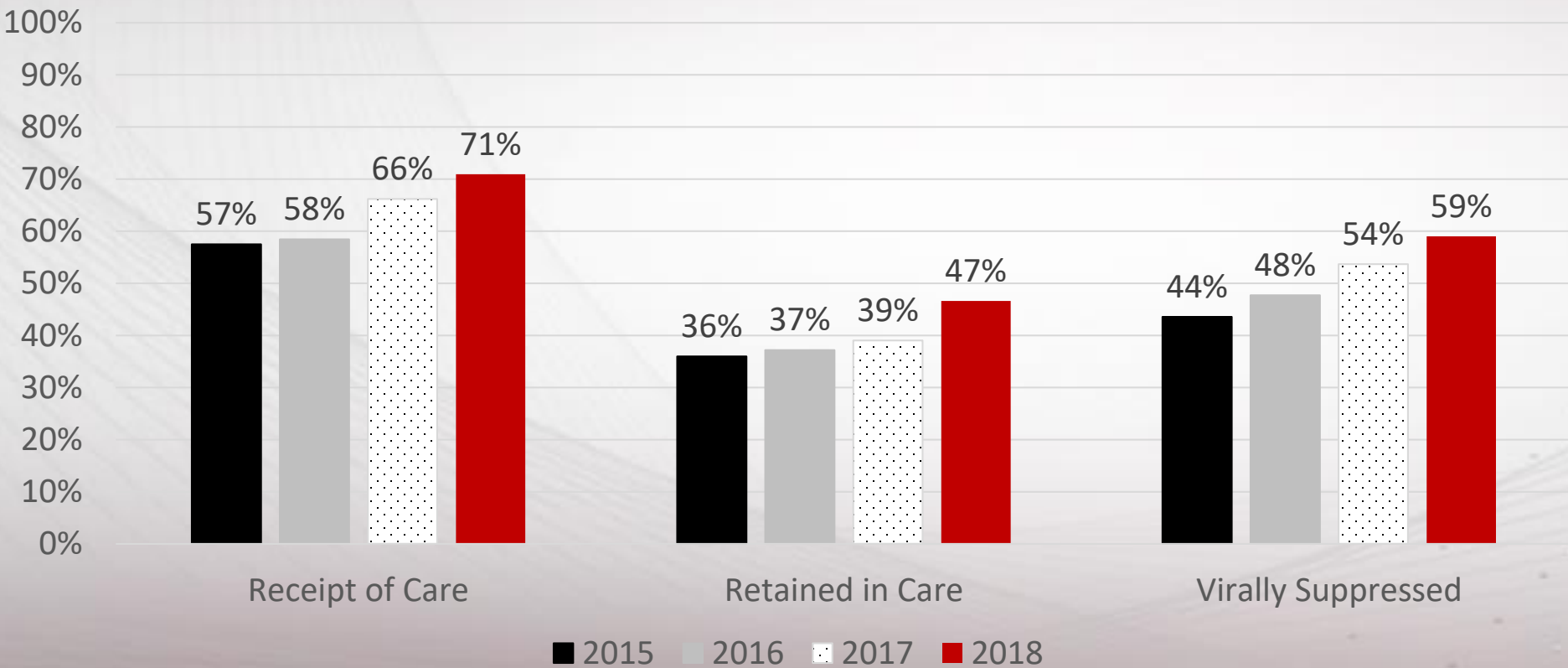
Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Continuum of Care

- **Receipt of Care:** Having at least one CD4 and/or VL test through the end of the following year.
- **Retained in Care:** having at least two CD4 and/or VL tests at least three months apart through the end of the following year.
- **Virally Suppressed:** The most recent VL test in the following year was  $\leq 200$  copies/mL.
- **Denominator:** The number of persons aged  $\geq 13$  years living with HIV infection through the end of each year, and still living in Ohio at the end of the next year.

# Continuum of Care

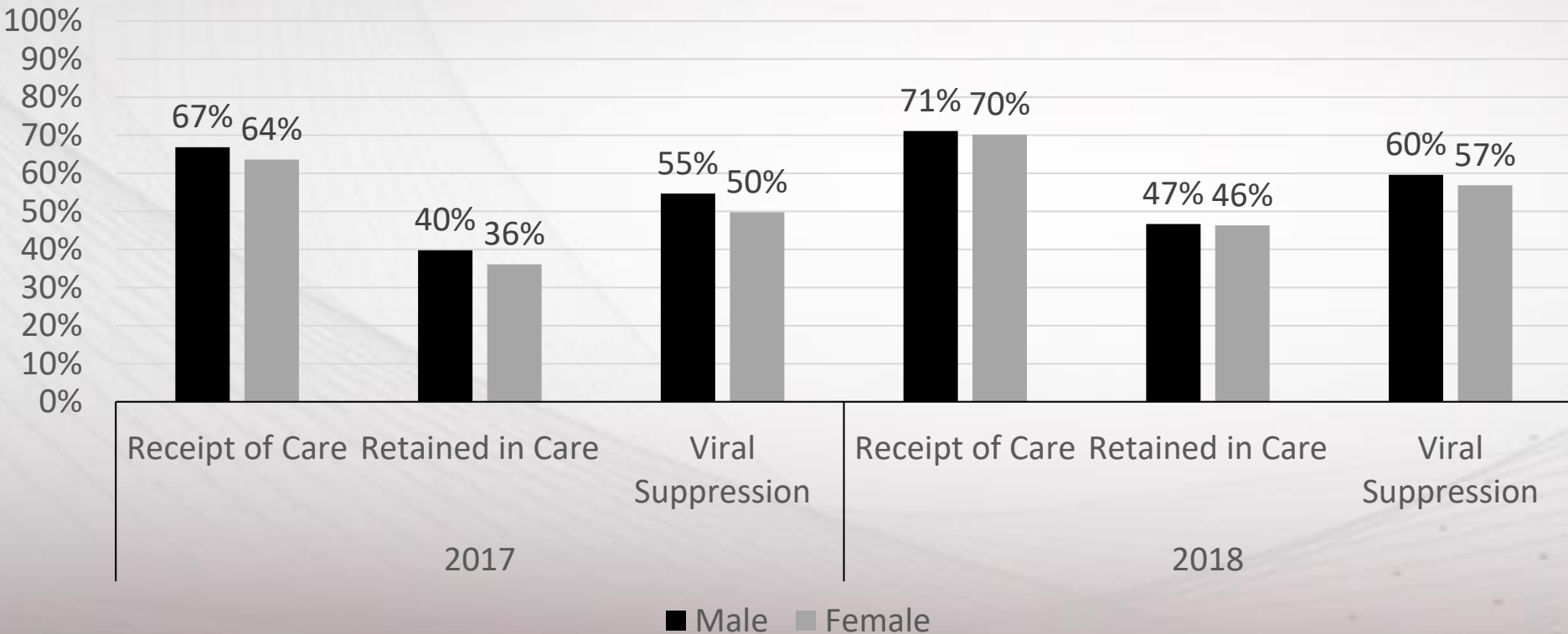
Persons Living with Diagnosed HIV Infection-Continuum of Care, Ohio, 2015-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Continuum of Care

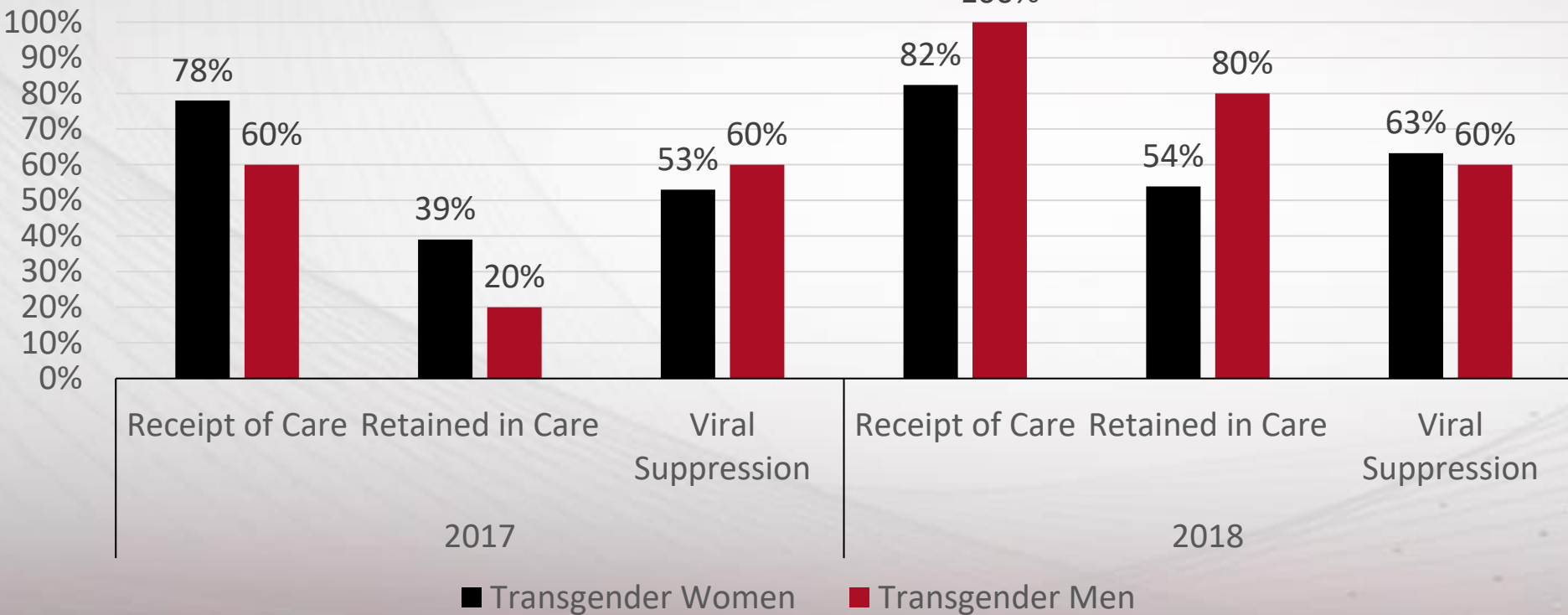
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Sex at Birth, Ohio, 2017-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Continuum of Care

Transgender Persons Living with Diagnosed HIV Infection-Continuum of Care, by Current Gender, Ohio, 2017-2018

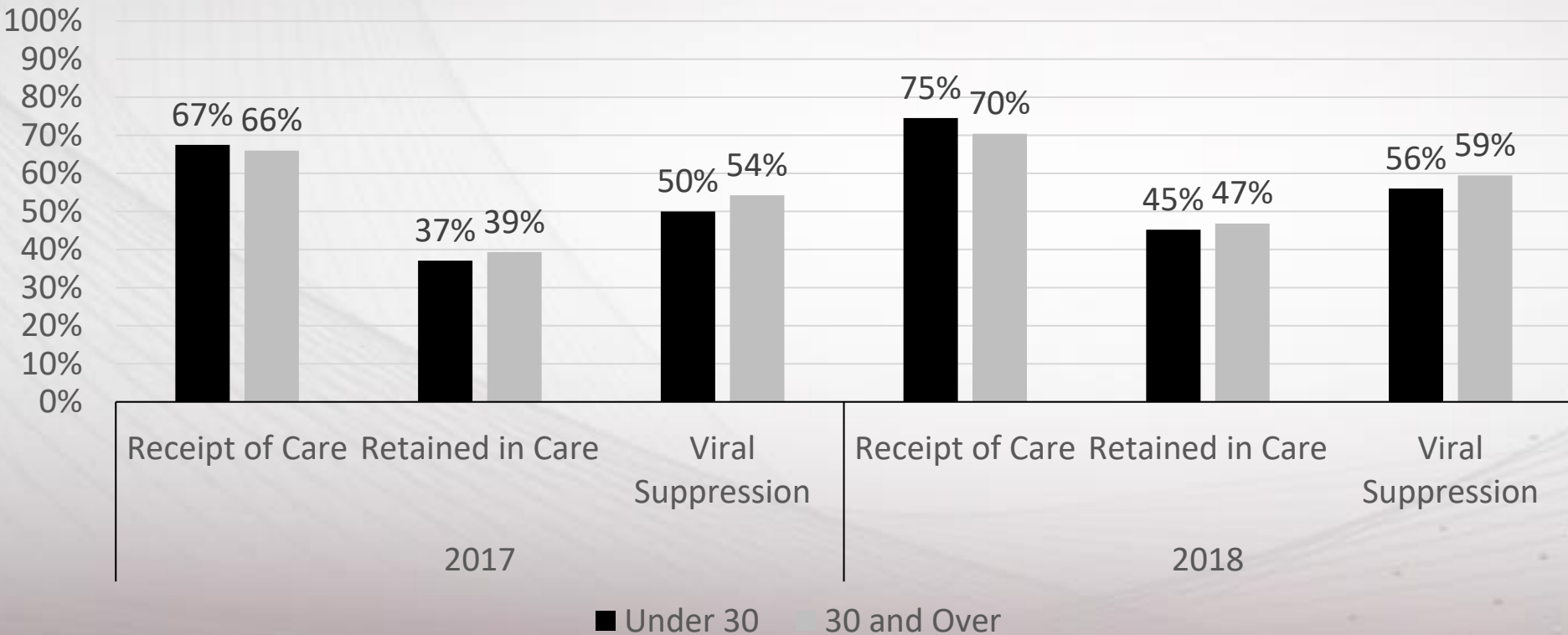


Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.



# Continuum of Care

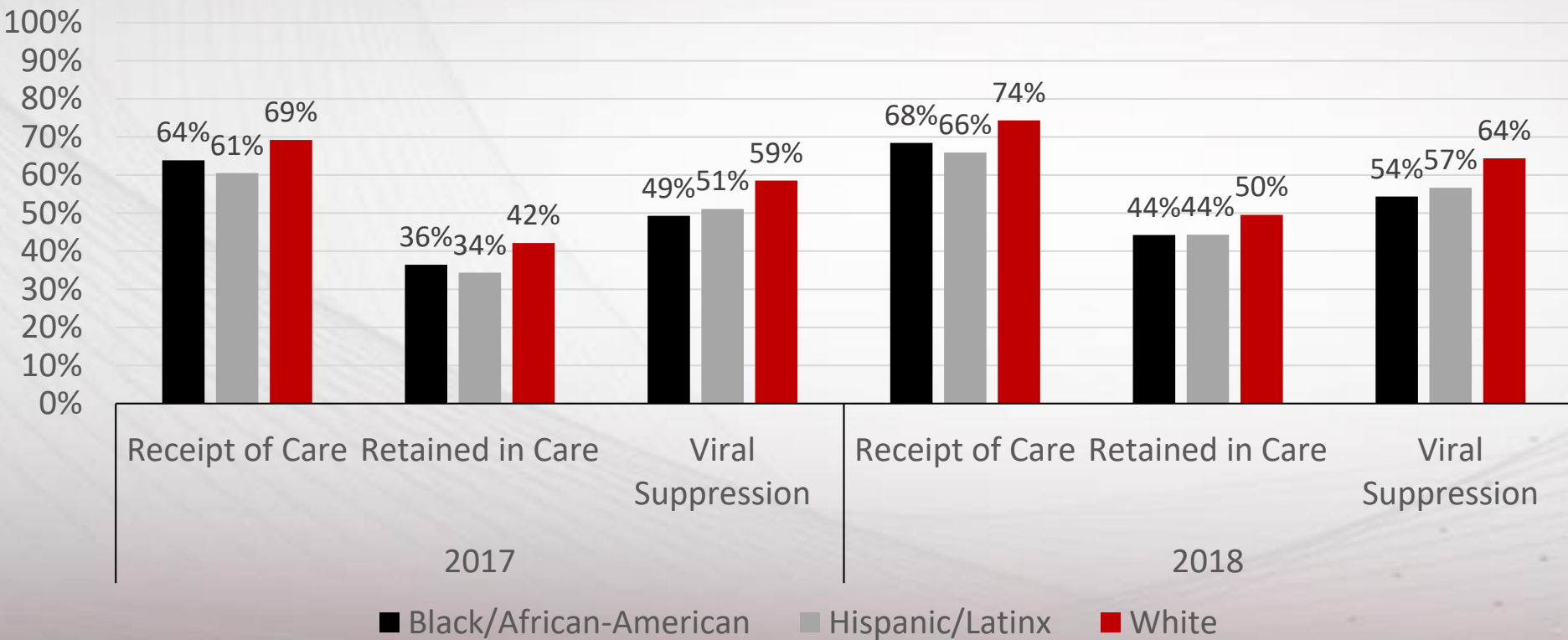
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Age Group, Ohio, 2017-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Continuum of Care

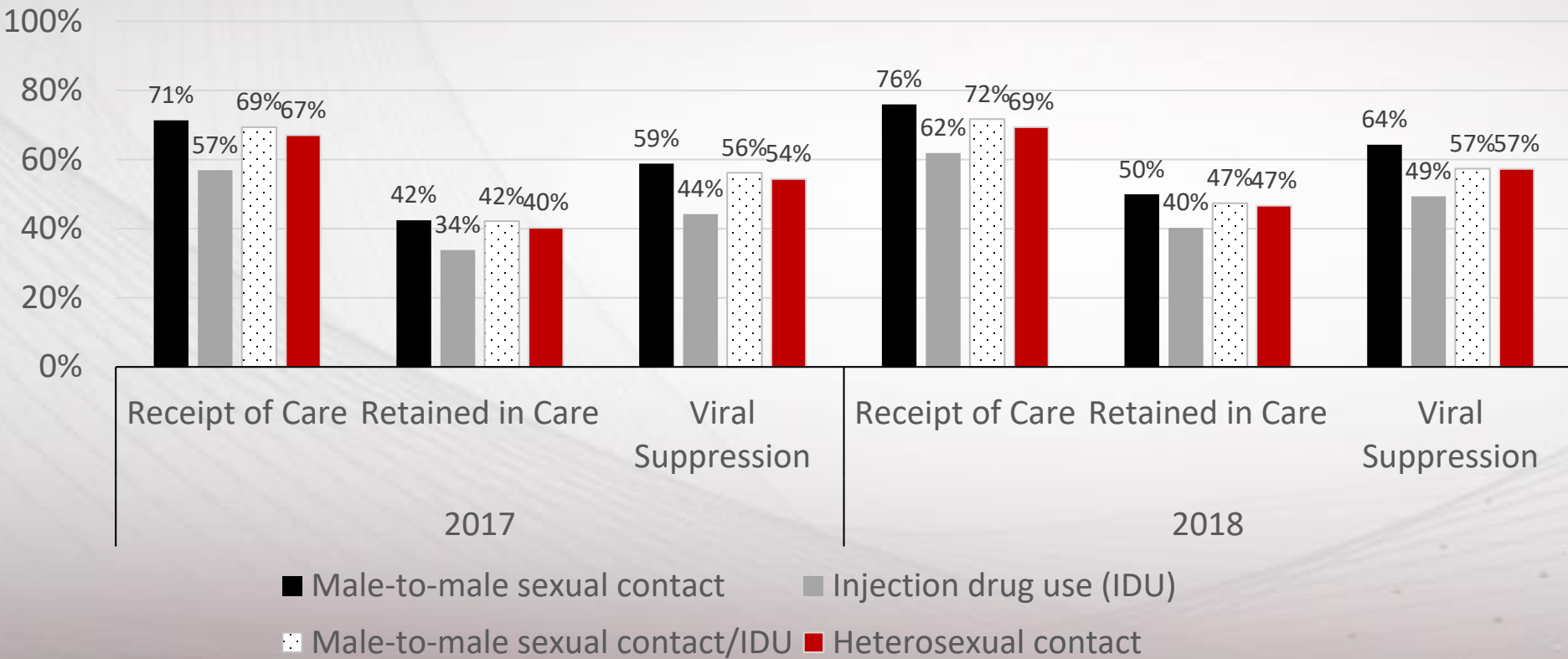
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Race/Ethnicity, Ohio, 2017-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Continuum of Care

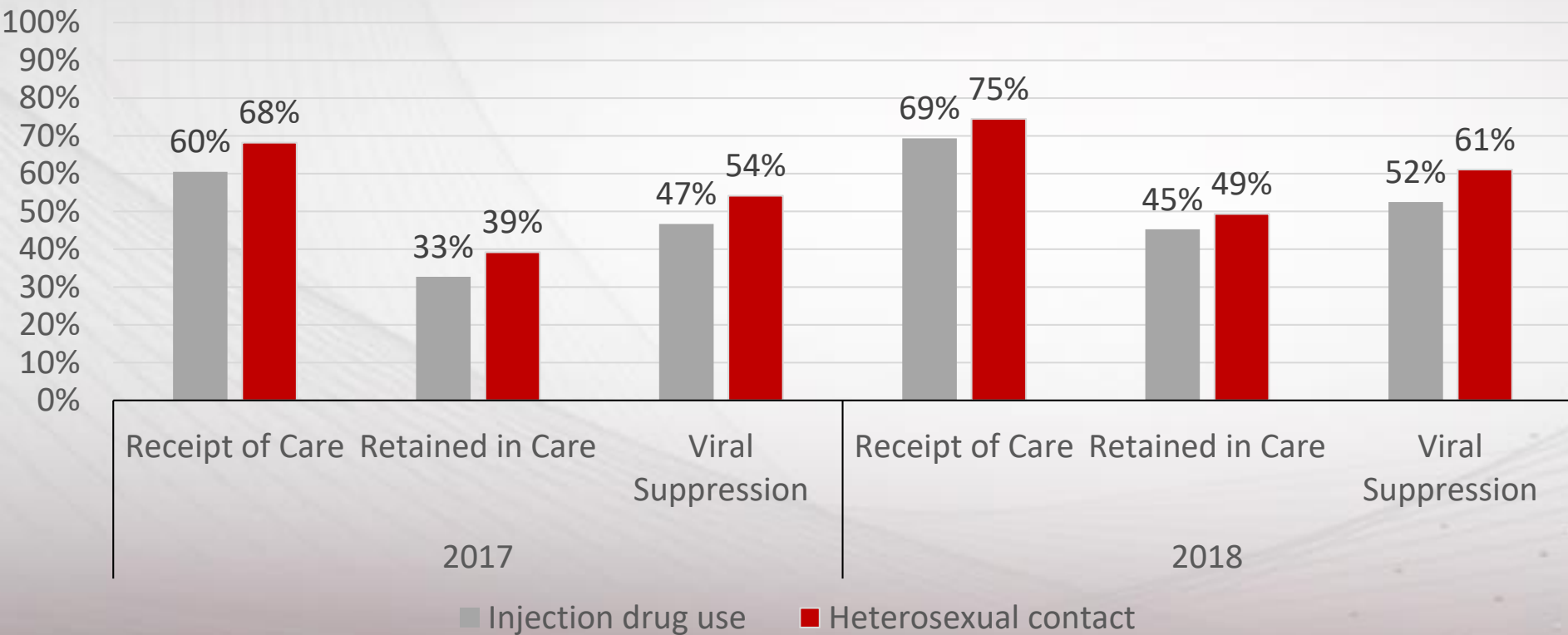
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Transmission Category, MALES, Ohio, 2017-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Continuum of Care

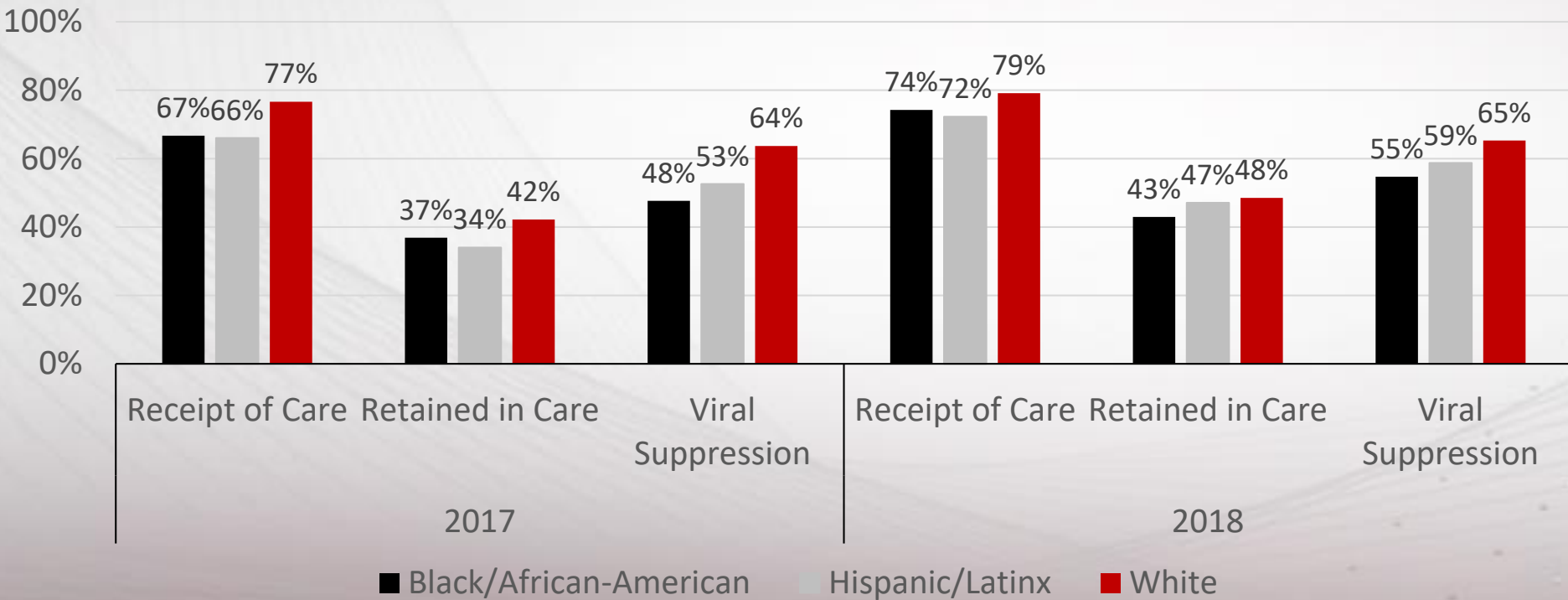
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Transmission Category, FEMALES, Ohio, 2017-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Continuum of Care

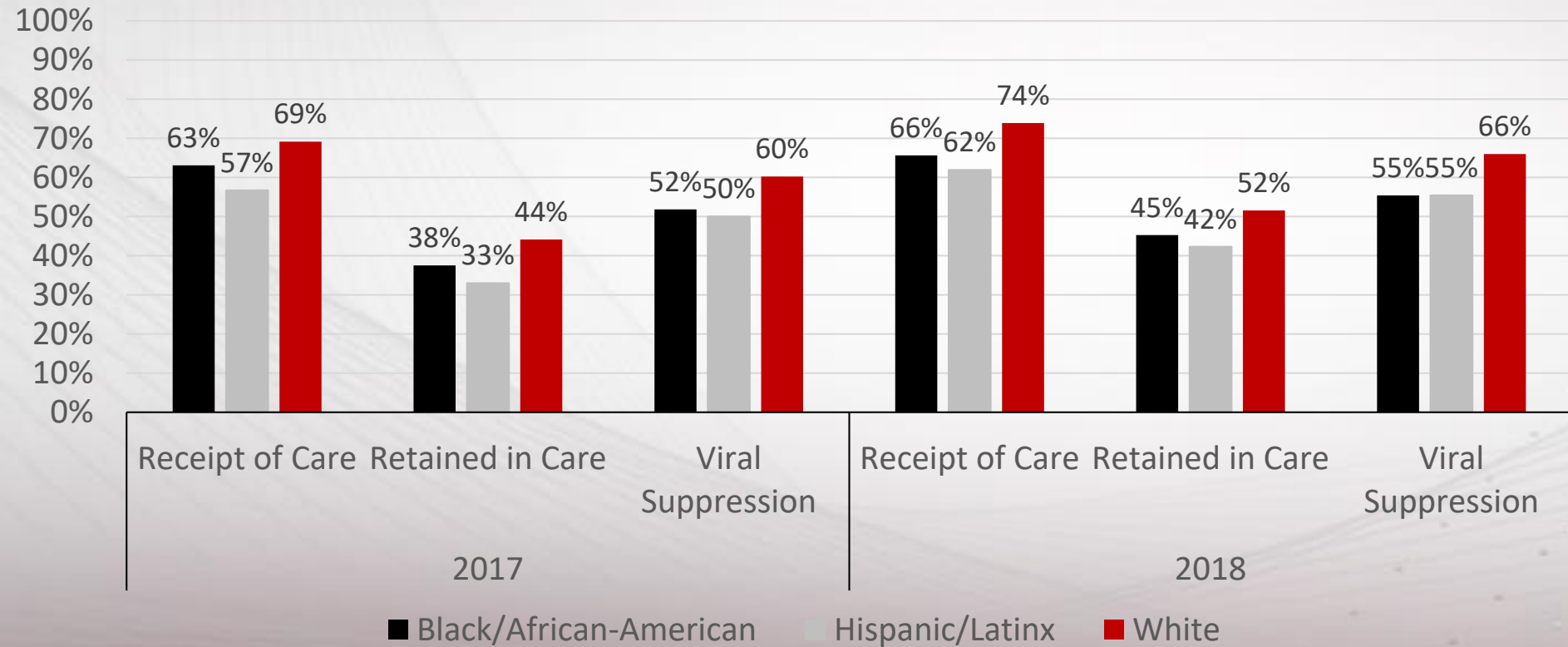
Males with Male-to-Male Sexual Contact Aged 13-29 Years Living with Diagnosed HIV Infection-Continuum of Care, by Race/Ethnicity, Ohio, 2017-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

# Continuum of Care

Persons Aged 50+ Years Living with Diagnosed HIV Infection-Continuum of Care, by Race/Ethnicity, Ohio, 2017-2018



Source: Ohio Department of Health, HIV/AIDS Surveillance Program. Data reported through April 30, 2020.

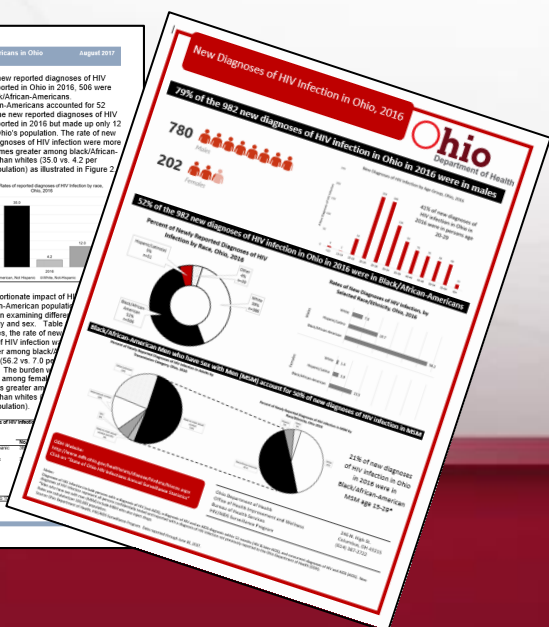
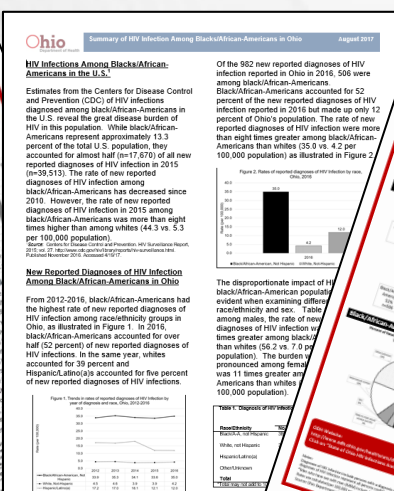
# Continuum of Care

Status of Care	2017	2018
In Care	66%	71%
Knew they had HIV but weren't in care (Unmet Need)	34%	29%
In care and virally suppressed	81%	83%
In care but not virally suppressed	19%	17%



# Resources

- ODH Website:
  - <https://odh.ohio.gov/wps/portal/gov/odh/knownour-programs/hiv-aids-surveillance-program>
  - Click on “Data and Statistics”
- Centers for Disease Control and Prevention (CDC) Website:
  - <https://www.cdc.gov/hiv>
  - Click on “Statistics Center”



# Questions

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