



HIV Surveillance Update

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Presentation

- Overview of HIV Surveillance.
- New diagnoses of HIV in Ohio, 2023.
 - Five-year trends: A decrease in new reported diagnoses of HIV in 2020 may not represent a true decline and may be a reporting artifact as a result of COVID-19.
- Persons living with diagnosed HIV in Ohio as of Dec. 31, 2023.
- Continuum of Care.
- Comments/Questions.

Overview of HIV Surveillance

- Diagnoses of HIV infection and acquired immunodeficiency Syndrome (AIDS) are reportable conditions pursuant to Ohio Revised Code 3701.24 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 data 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:
 - HIV Western blot.
 - Immunofluorescence assay [IFA]).
 - HIV-1/2 type-differentiating immunoassay.
 - OR
 - A positive 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 NAT (DNA or RNA).
 - Quantitative HIV NAT (viral load assay).
 - HIV-1 p24 antigen test.
 - HIV isolation (viral culture).
 - HIV nucleotide sequence (genotype).

HIV Case Definition

- Clinical Evidence:

- A note in a medical record by a physician or other qualified medical-care provider that states that the patient has HIV infection.

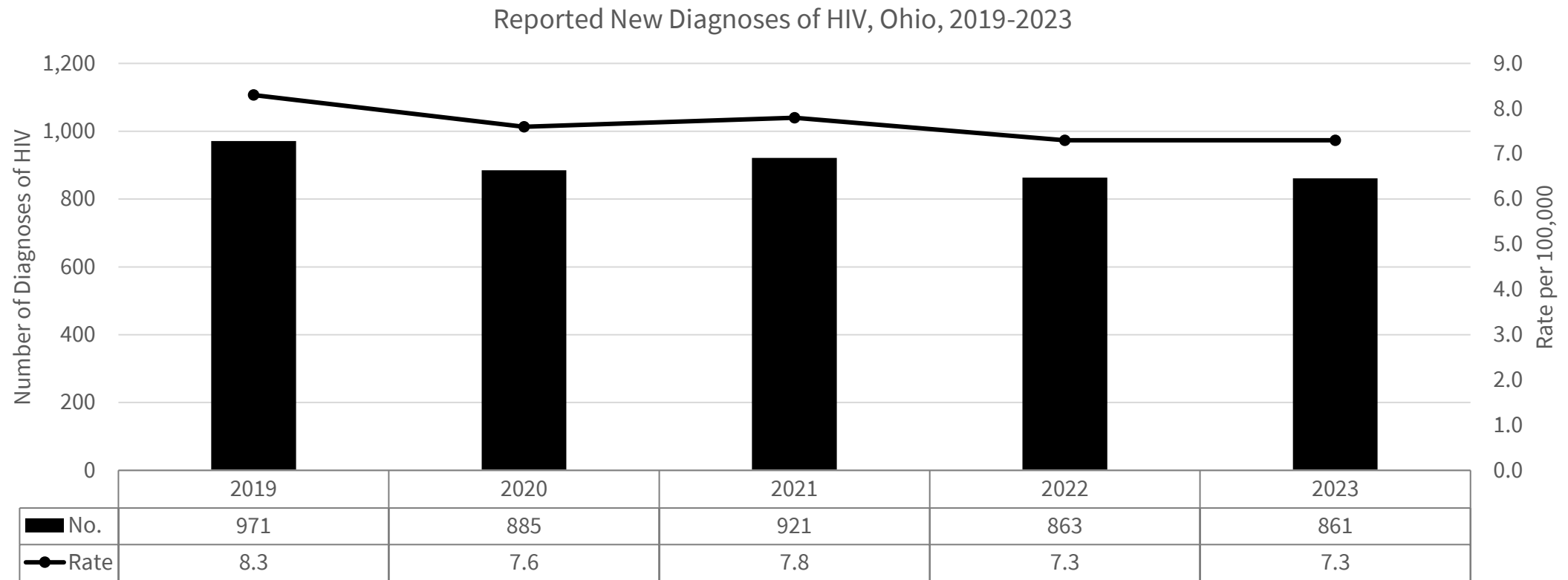
AND

- One of 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).
 - 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/ μ 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.

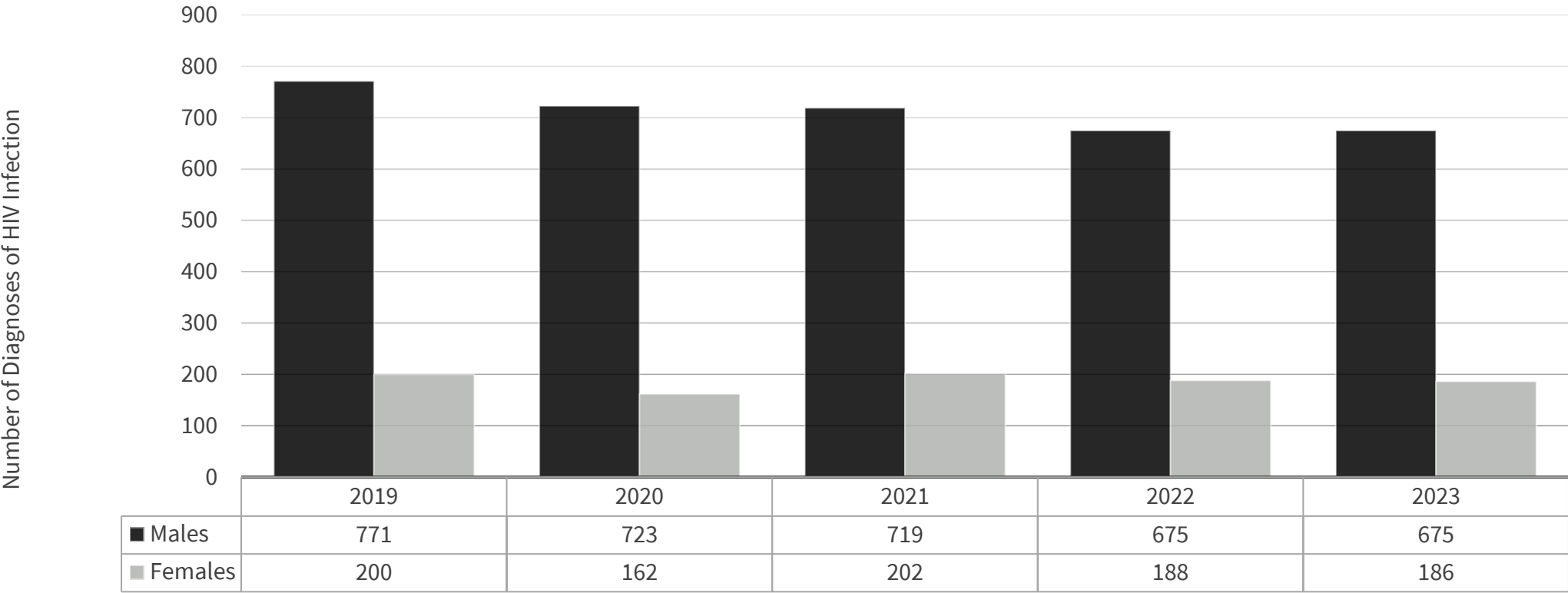
New Diagnoses of HIV



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2024.

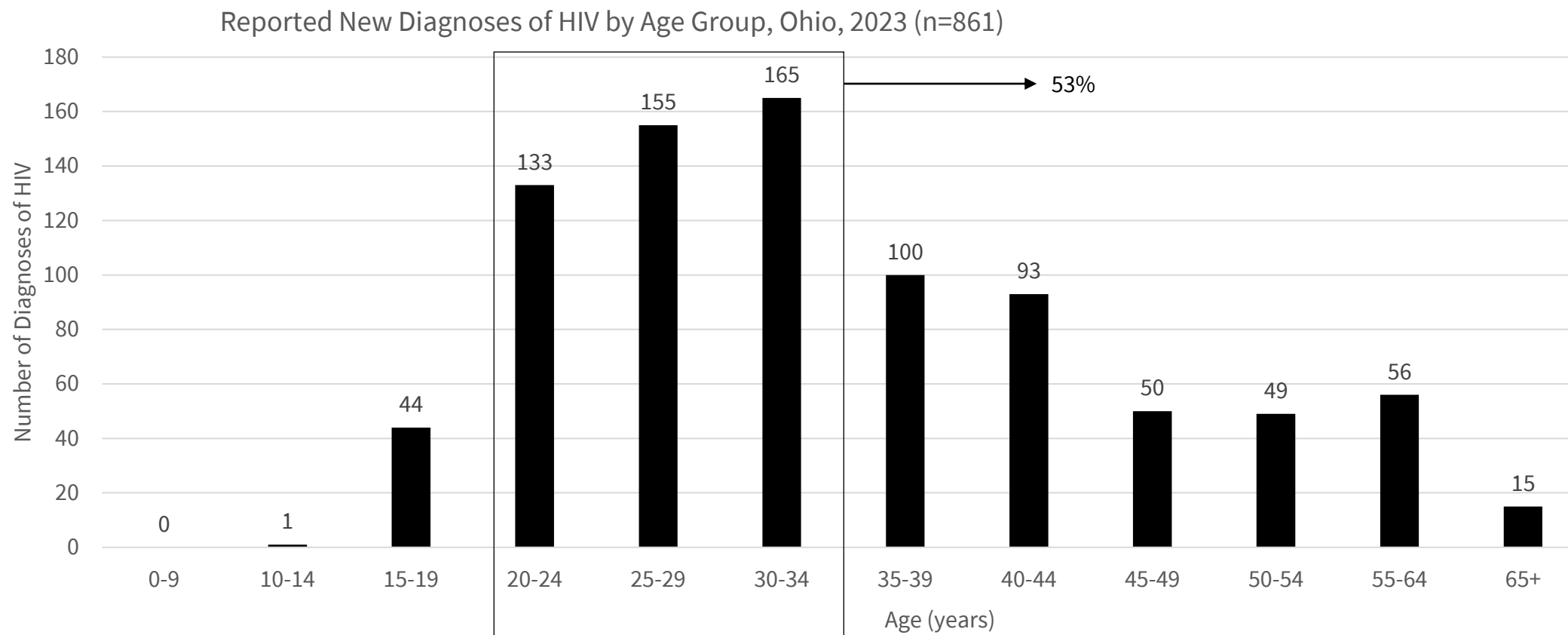
New Diagnoses of HIV

Reported New Diagnoses of HIV Infection by Sex at Birth, Ohio, 2019-2023



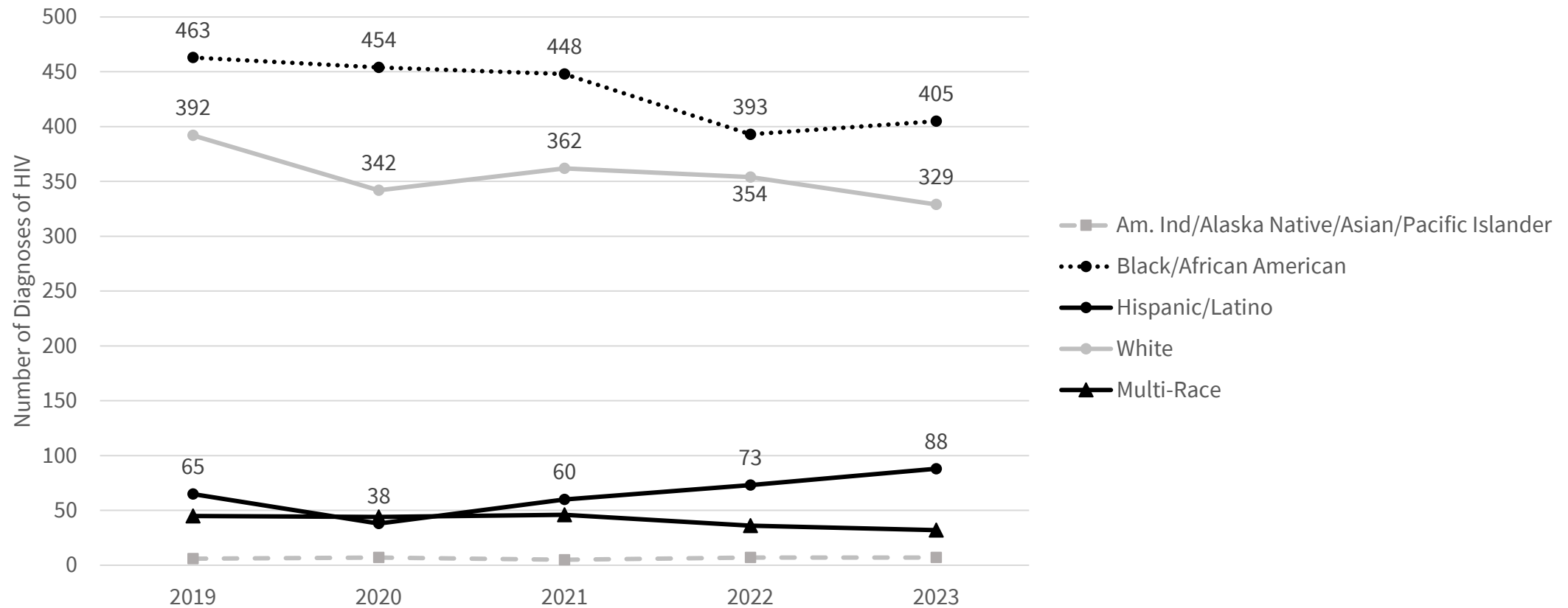
Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2024.

New Diagnoses of HIV



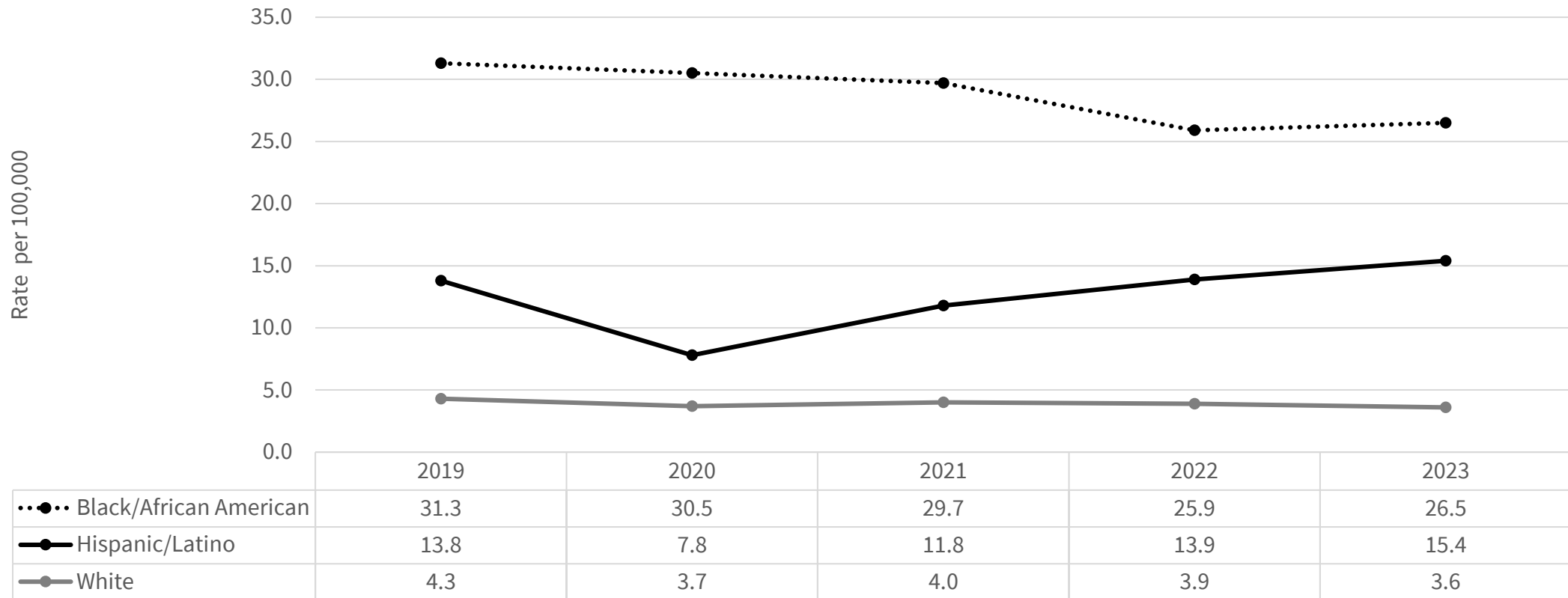
New Diagnoses of HIV

Reported New Diagnoses of HIV Infection by Race/Ethnicity, Ohio, 2019-2023



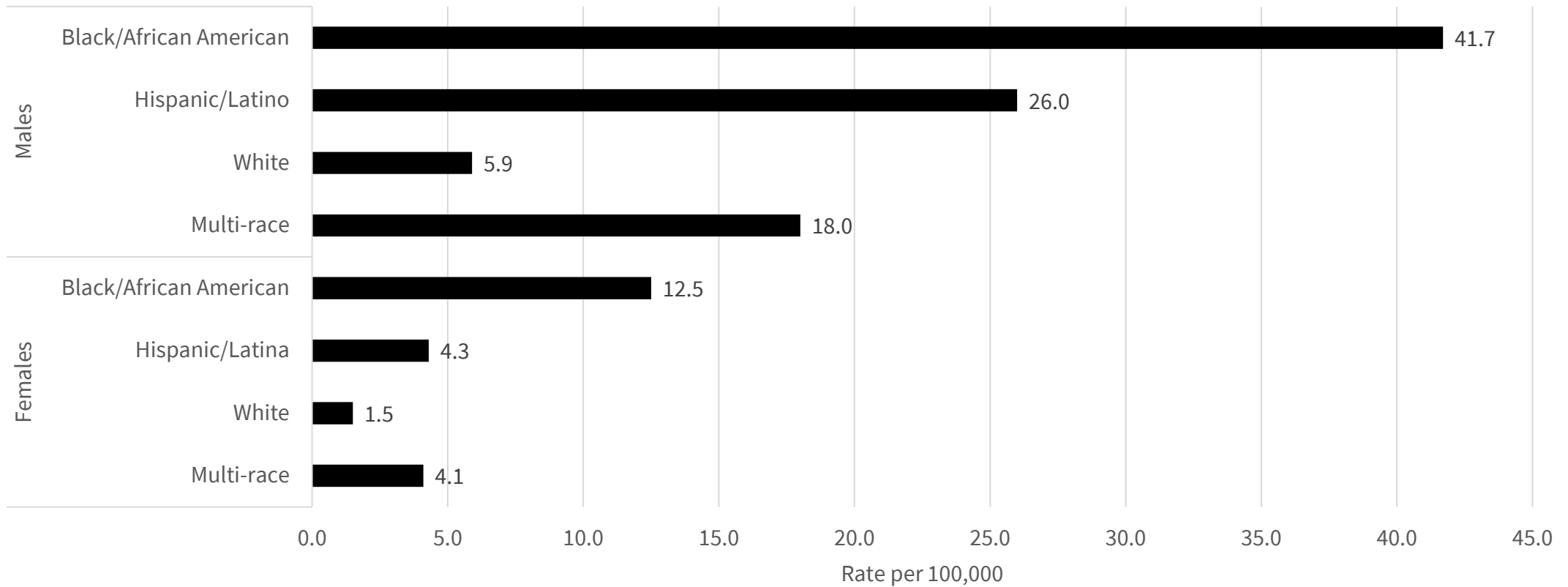
New Diagnoses of HIV

Rates of Reported New Diagnoses of HIV Infection by Selected Race/Ethnicity, Ohio, 2019-2023



New Diagnoses of HIV

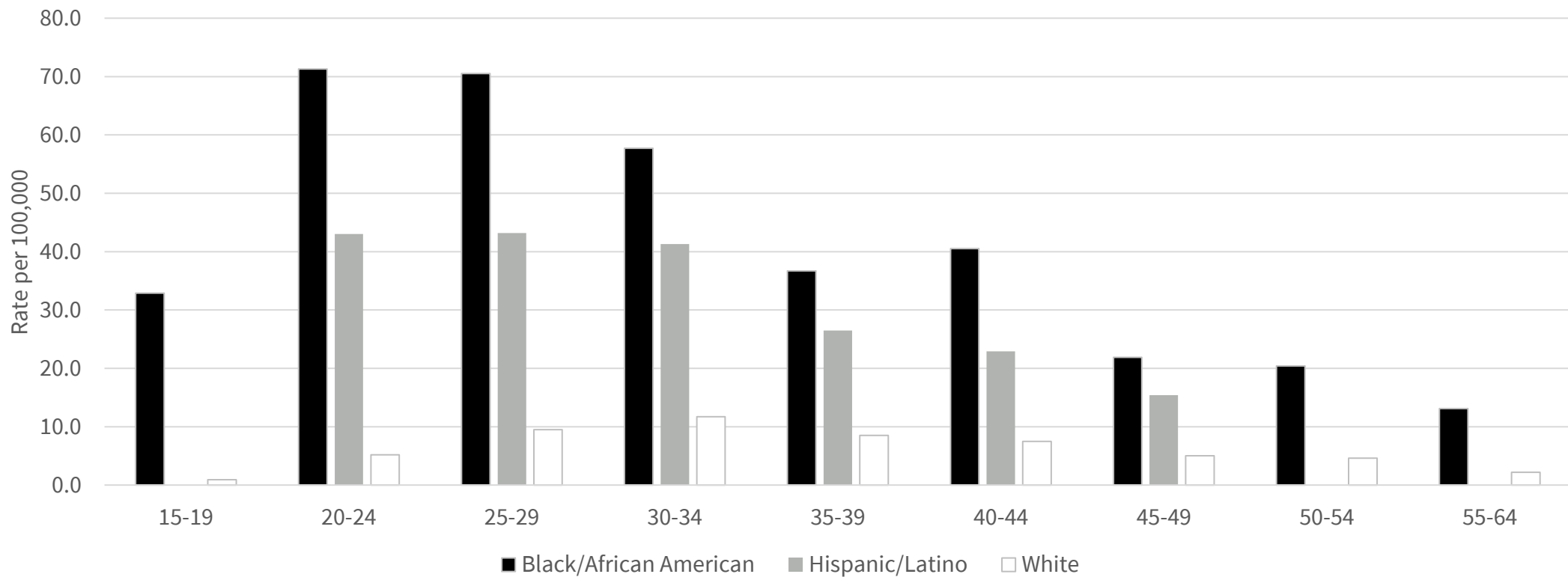
Rates of Reported New Diagnoses of HIV Infection by Selected Race/Ethnicity, Ohio, 2023



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2024.

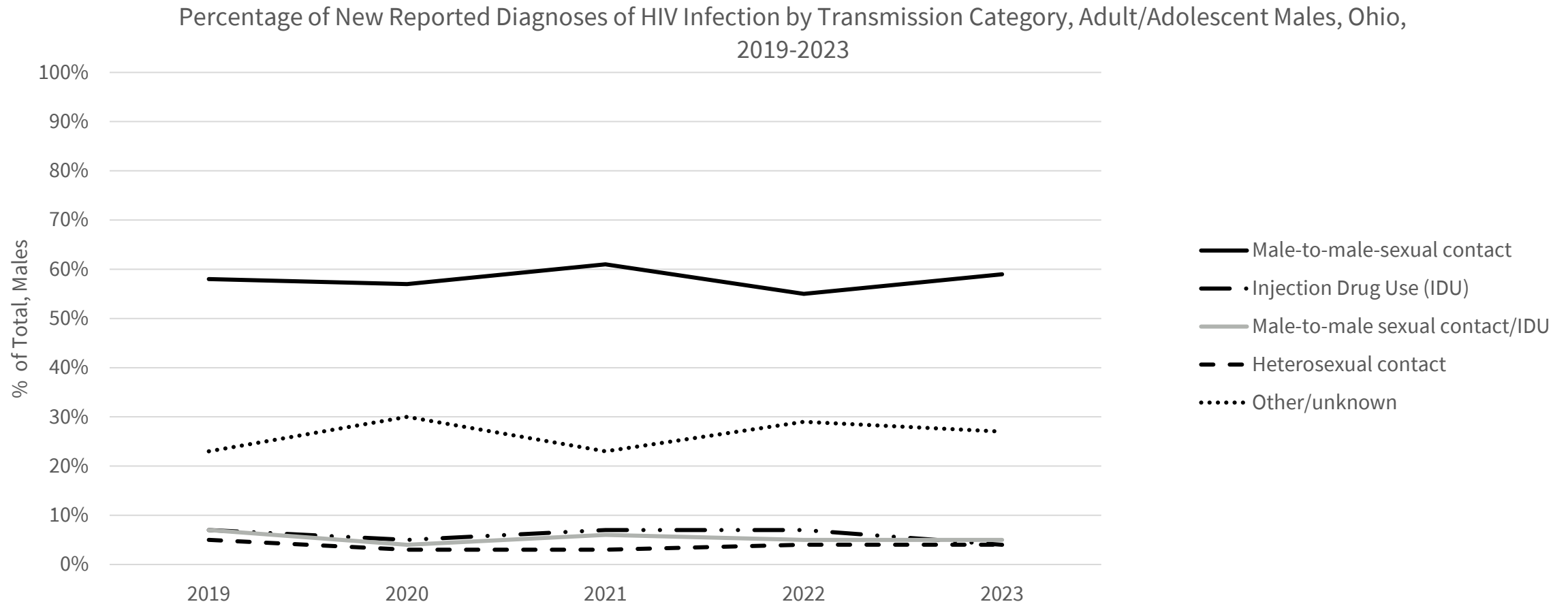
New Diagnoses of HIV

Rates of Reported New Diagnoses of HIV Infection by Selected Race/Ethnicity and Age Groups (years), Ohio, 2023



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2024.

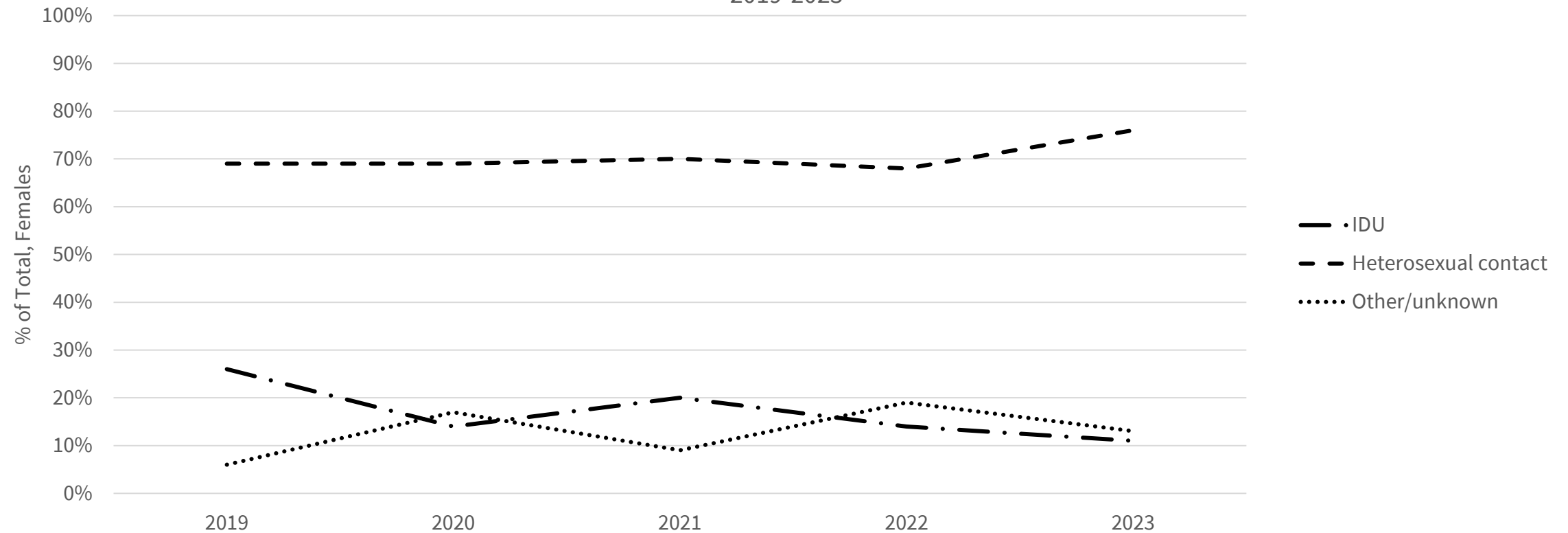
New Diagnoses of HIV



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2024.

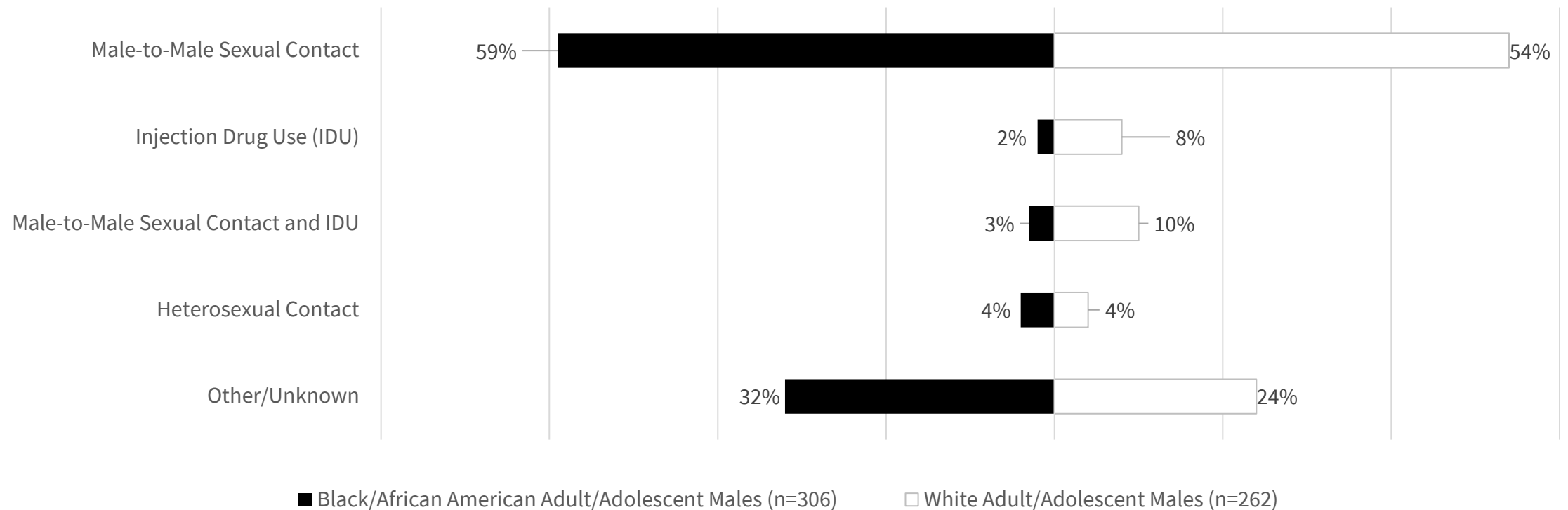
New Diagnoses of HIV

Percentage of New Reported Diagnoses of HIV Infection by Transmission Category, Adult/Adolescent Females, Ohio, 2019-2023



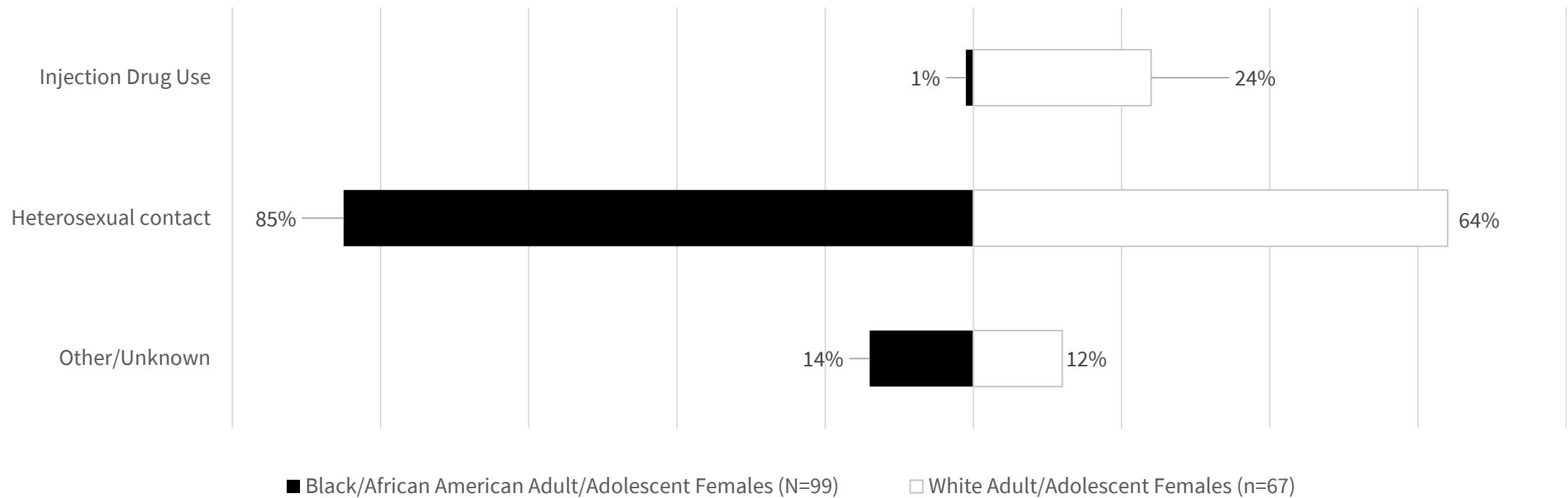
New Diagnoses of HIV

Percentage of New Reported Diagnoses of HIV Infection by Transmission Category and Selected Race/Ethnicity, Males, Ohio, 2023



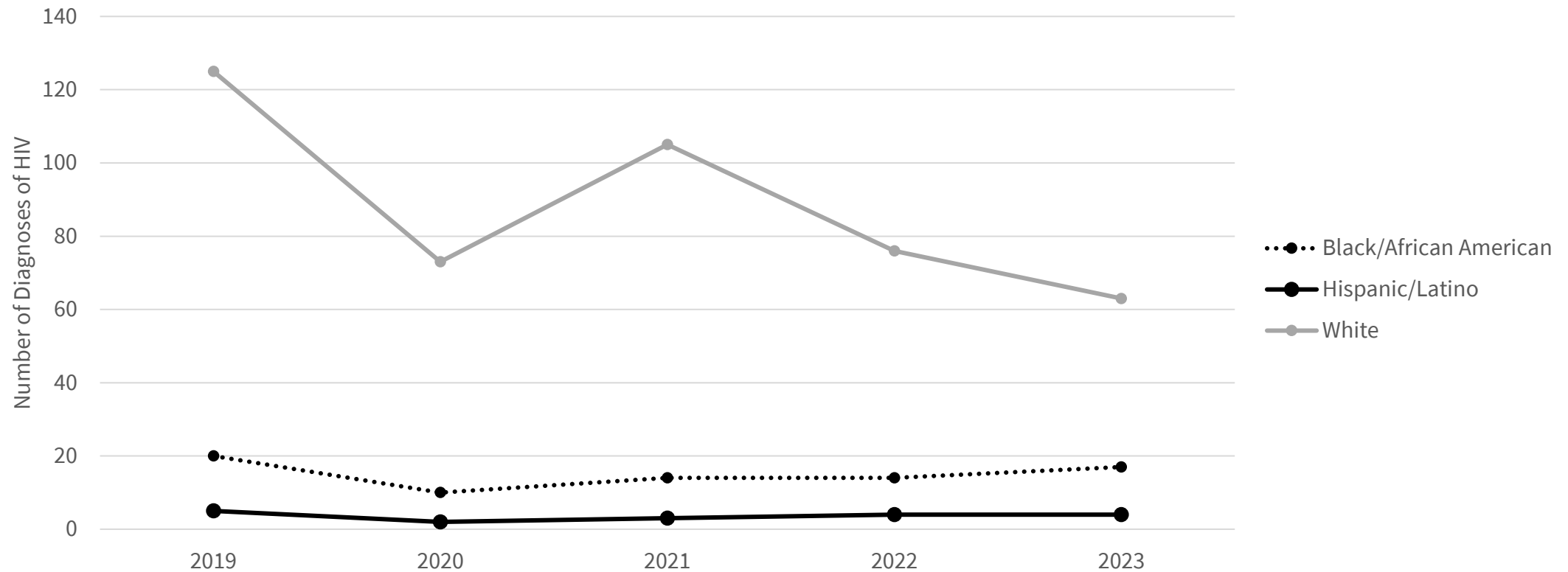
New Diagnoses of HIV

Percentage of New Reported Diagnoses of HIV Infection by Transmission Category and Selected Race/Ethnicity, Females, Ohio, 2023



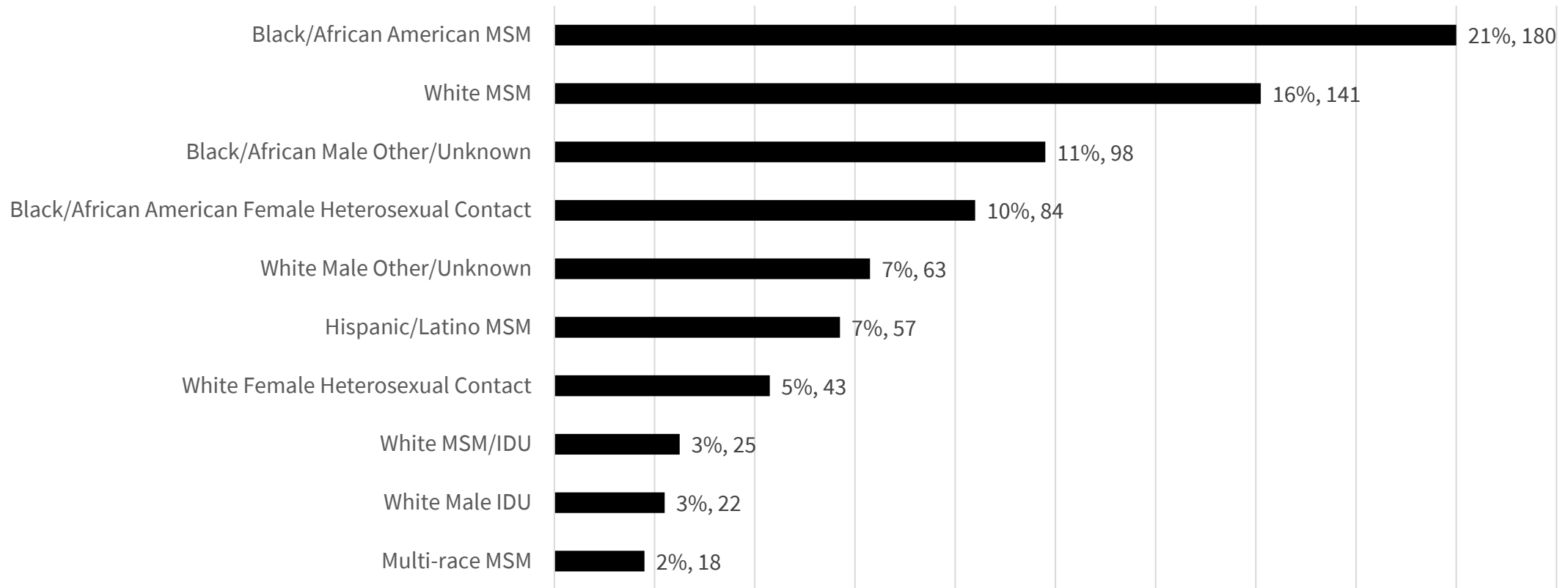
New Diagnoses of HIV

Reported New Diagnoses of HIV Infection with Injection Drug Use (IDU) as Transmission Category by Race/Ethnicity, Ohio, 2019-2023



New Diagnoses of HIV

Reported New Diagnoses of HIV by Select Groups, Ohio, 2023





Diagnoses of HIV infection include persons with a diagnosis of HIV (not AIDS), a diagnosis of HIV and an AIDS diagnosis within 12 months (HIV & later AIDS), and concurrent diagnoses of HIV and AIDS (AIDS). Asterisk (*) indicates rate not calculated for case counts <5 due to unstable rates.

County reflects county of residence at time of initial diagnosis. Cases diagnosed while in a state or federal correctional facility or whose county of residence at time of diagnosis is unknown are not included. The rate is the number of persons with a reported new diagnosis of HIV infection per 100,000 population, calculated using 2023 U.S. Census estimates.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2024.

New Diagnoses of HIV in Ohio Summary

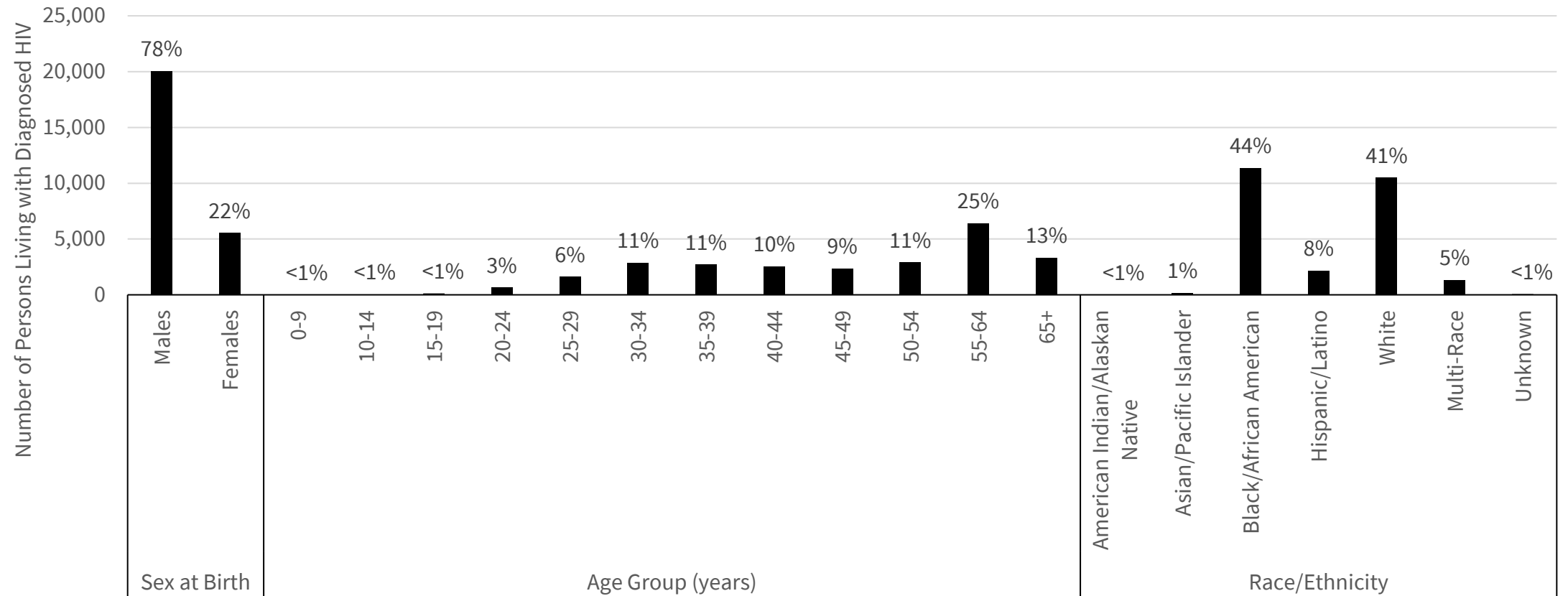
- In 2023, there were 861 newly reported diagnoses of HIV in Ohio (rate = 7.3 per 100,000).
- Seventy-eight percent of new diagnoses were among males.
- Forty-seven percent of new diagnoses were among Black/African American people.
- The rate of new diagnoses in Black/African American people was more than seven times higher than that in White people.

Persons Living With Diagnosed HIV

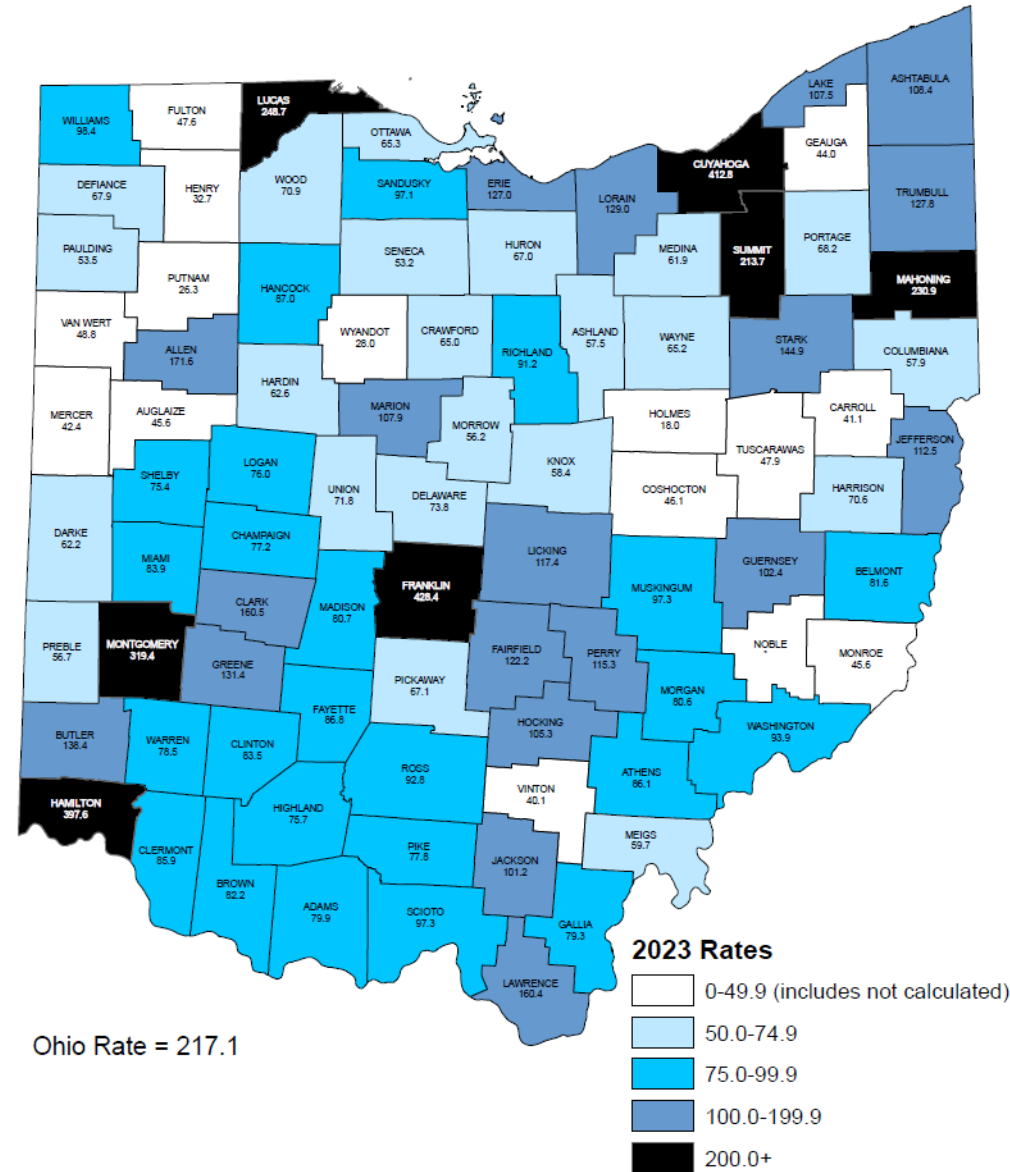
- Reflects all persons living in Ohio ever reported to ODH with a diagnosis of HIV or AIDS and who are not known to have died as of December 31, 2023.
- Includes persons who may have been initially diagnosed outside of Ohio, but who are currently living in Ohio.

Persons Living With Diagnosed HIV

Persons Living with Diagnosed HIV, Ohio, 2023 (n=25,590, rate=217.1 per 100,000)



Rates of Reported Persons Living with Diagnosed HIV by County, Ohio, 2023



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 Dec. 31, 2023.

Persons living with diagnosed HIV infection represent persons living in Ohio as of Dec. 31, 2023, regardless of whether or not the person was a resident of Ohio at time of initial HIV or AIDS diagnosis.

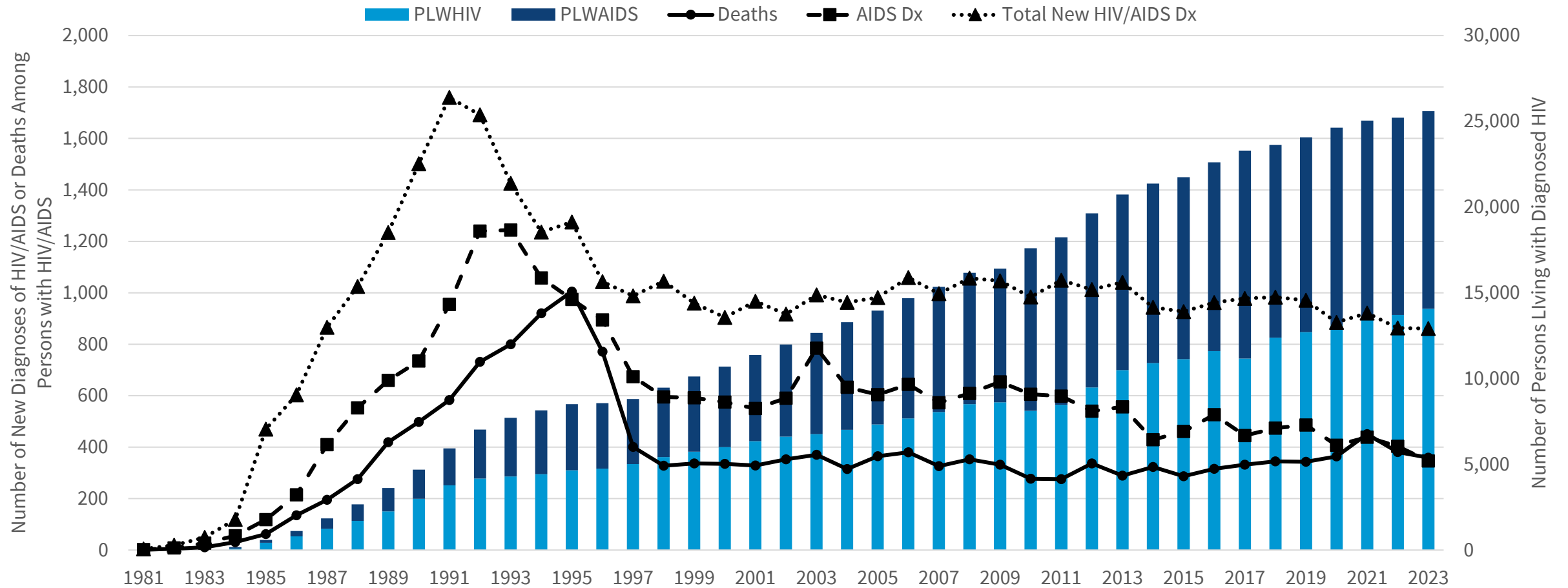
Asterisk (*) indicates rate not calculated for case counts <5 due to unstable rates.

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 2023 U.S. Census estimates.

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through June 30, 2024.

History of Ohio's HIV/AIDS Epidemic, 1981-2023



2003: Ohio implements mandatory reporting of CD4 counts of <200 cells/ μ L and/or <14%.

1996: HAART therapy and antiretroviral therapy of pregnant females begin.

1993: CSTE and CDC expand AIDS case definition.

June 1990: Ohio implements mandatory name-based HIV case reporting.

1985: Ohio implements mandatory name-based AIDS case reporting.

April 2014: CSTE and CDC revise AIDS case definition.

July 2014: Ohio implements mandatory reporting of all CD4 and VL results.

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, 2024.

Persons Living With Diagnosed HIV in Ohio Summary

- As of December 31, 2023, there were 25,590 persons living with diagnosed HIV in Ohio (rate = 217.1 per 100,000).
- Seventy-eight percent of persons living with diagnosed HIV were male.
- White people and Black/African American people each make up about 41-44% of persons living with diagnosed HIV, but the rate for Black/African American people was more than six times as high as that for White people.
- The rate for Black/African American males living with diagnosed HIV was nearly six times as high as that for White males.
- The rate for Black/African American females living with diagnosed HIV was nearly 11 times as high as that for White females.

Linkage to Care/Continuum of Care

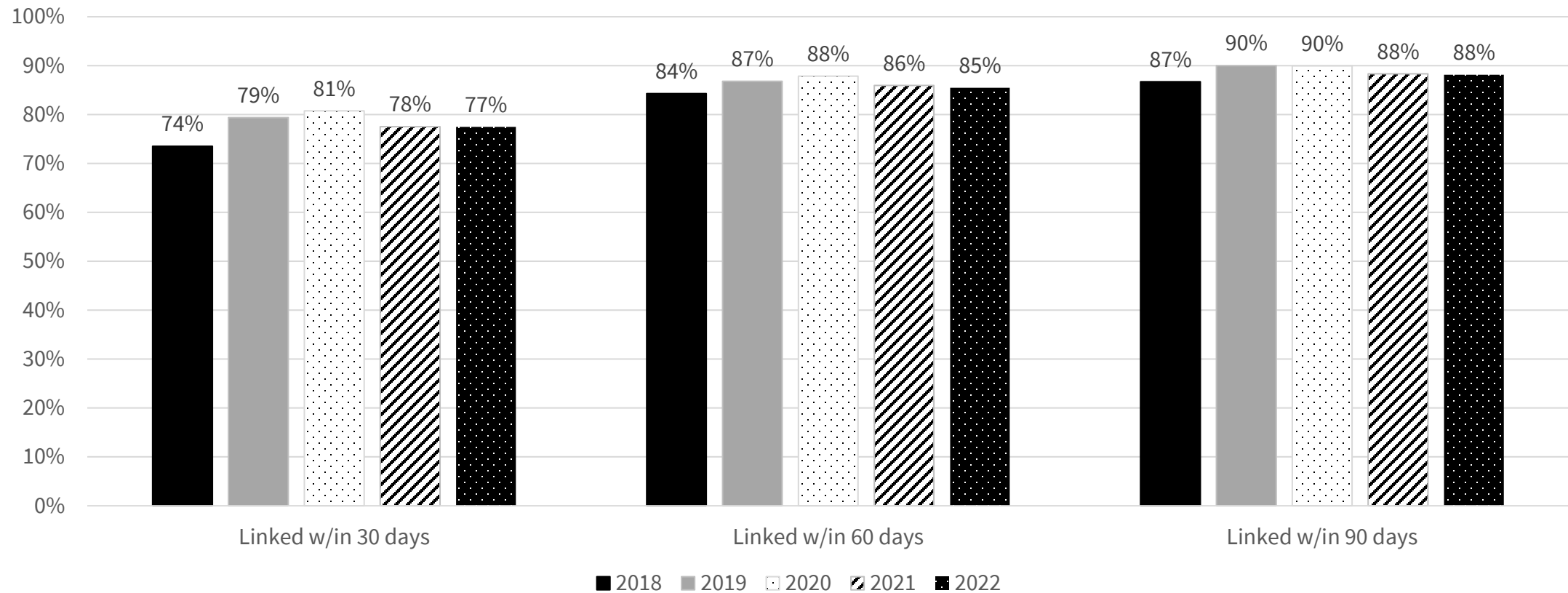
- HIV Surveillance data are used, including information on CD4 levels of T-lymphocytes and viral load (VL) results, to calculate proxy estimates for a care continuum and other related measurements for persons in Ohio diagnosed with HIV infection.
- As of July 1, 2014, Ohio's HIV reporting rules require 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 ≥ 13 years in each year.

Linkage to Care

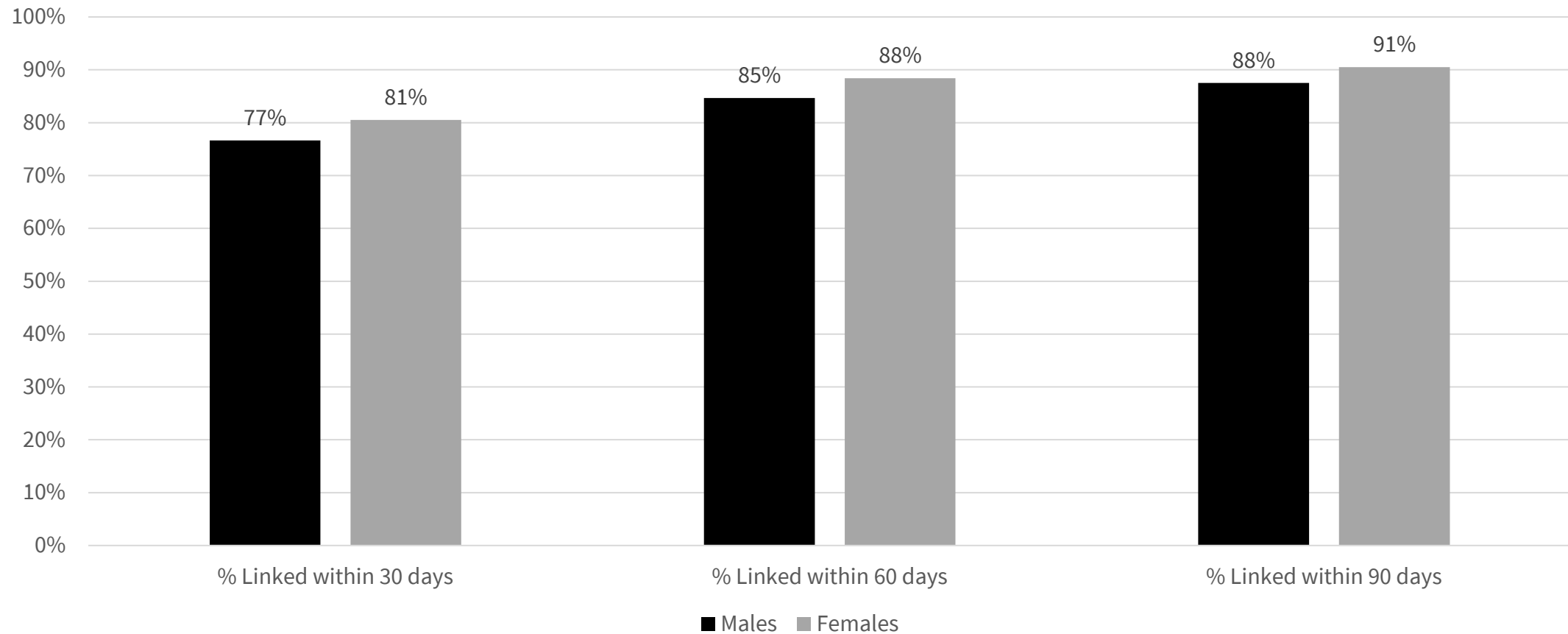
Linkage to Care, Ohio, 2018-2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Linkage to Care

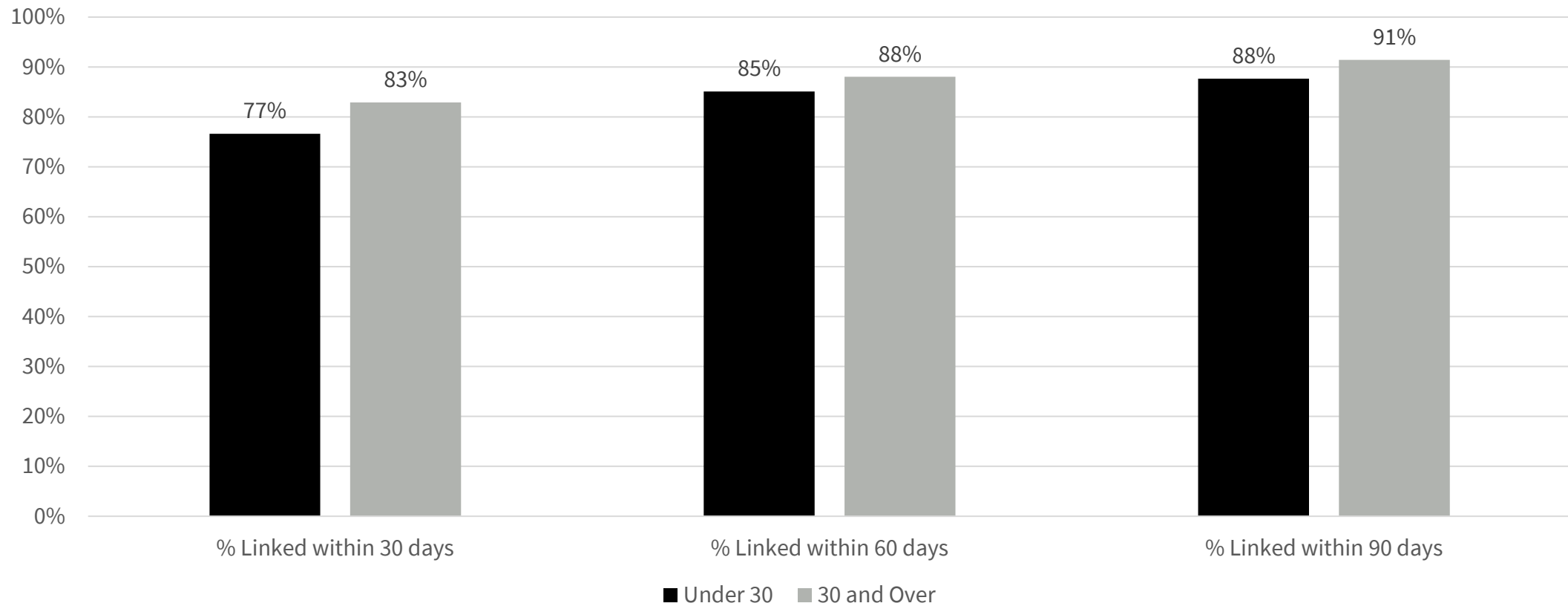
Linkage to Care by Sex at Birth, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Linkage to Care

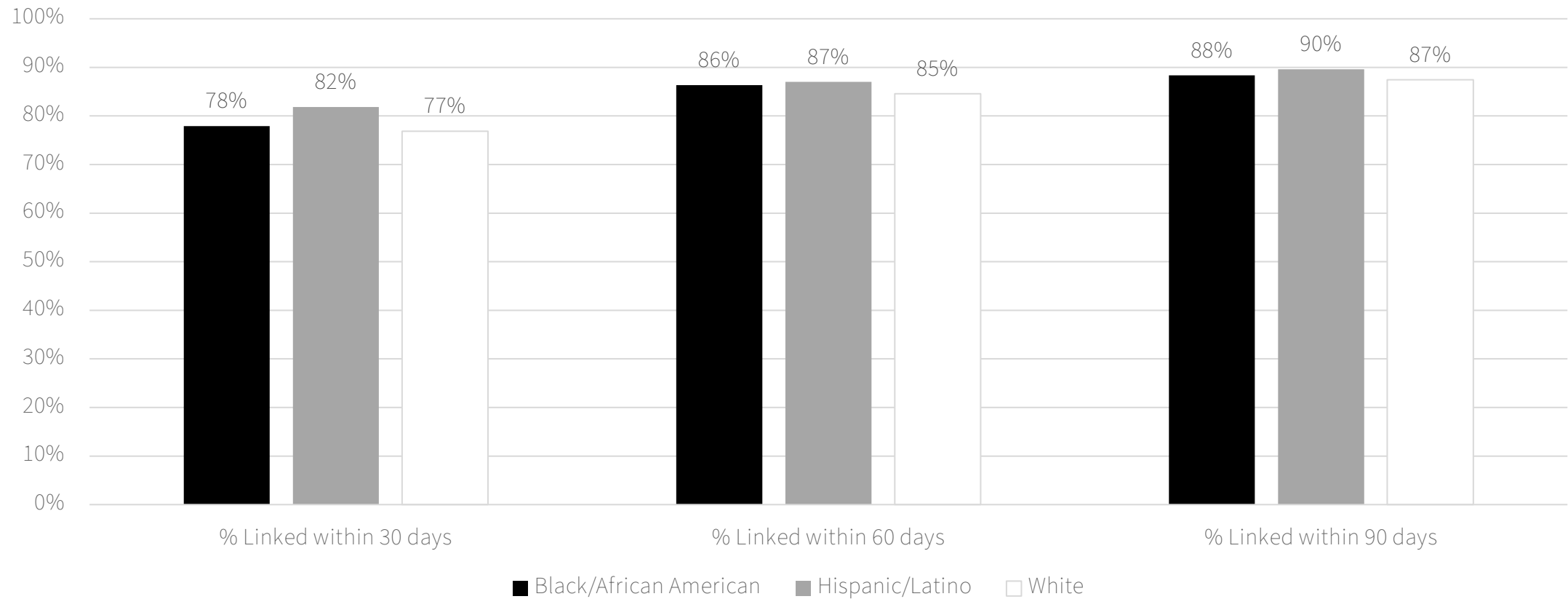
Linkage to Care by Age Group (years), Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Linkage to Care

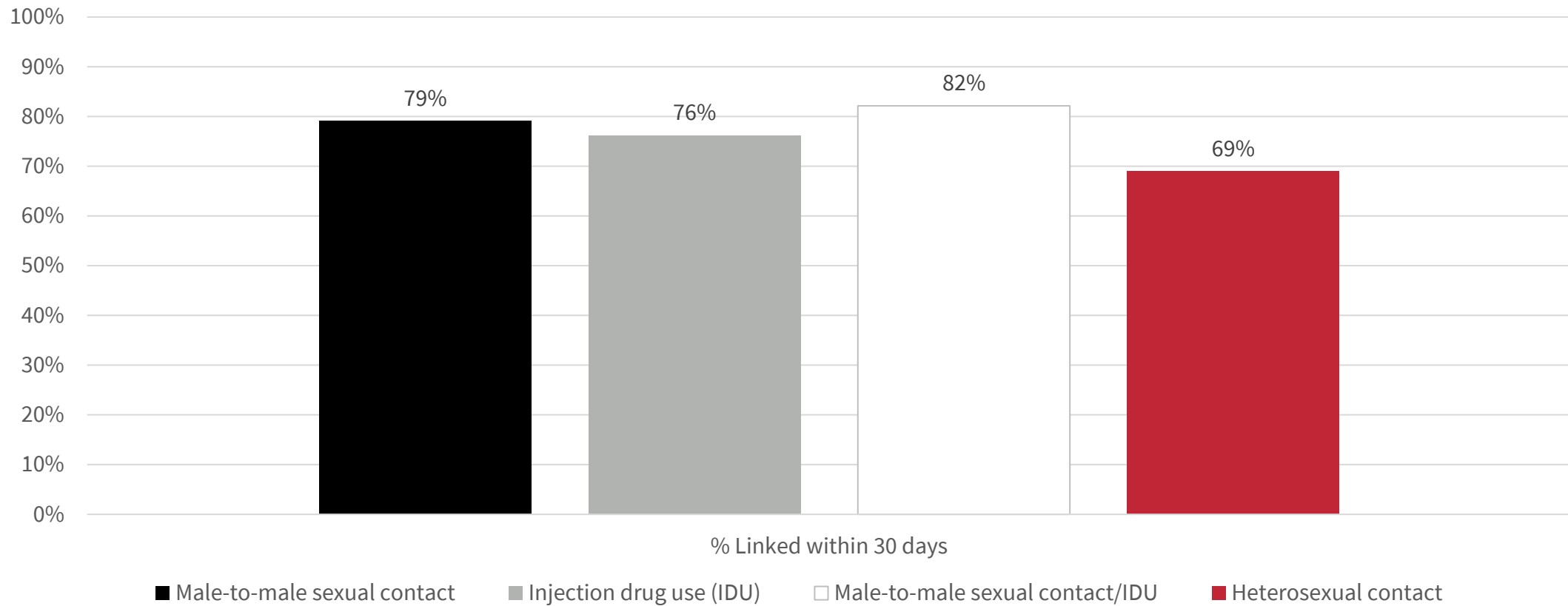
Linkage to Care by Race/Ethnicity, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

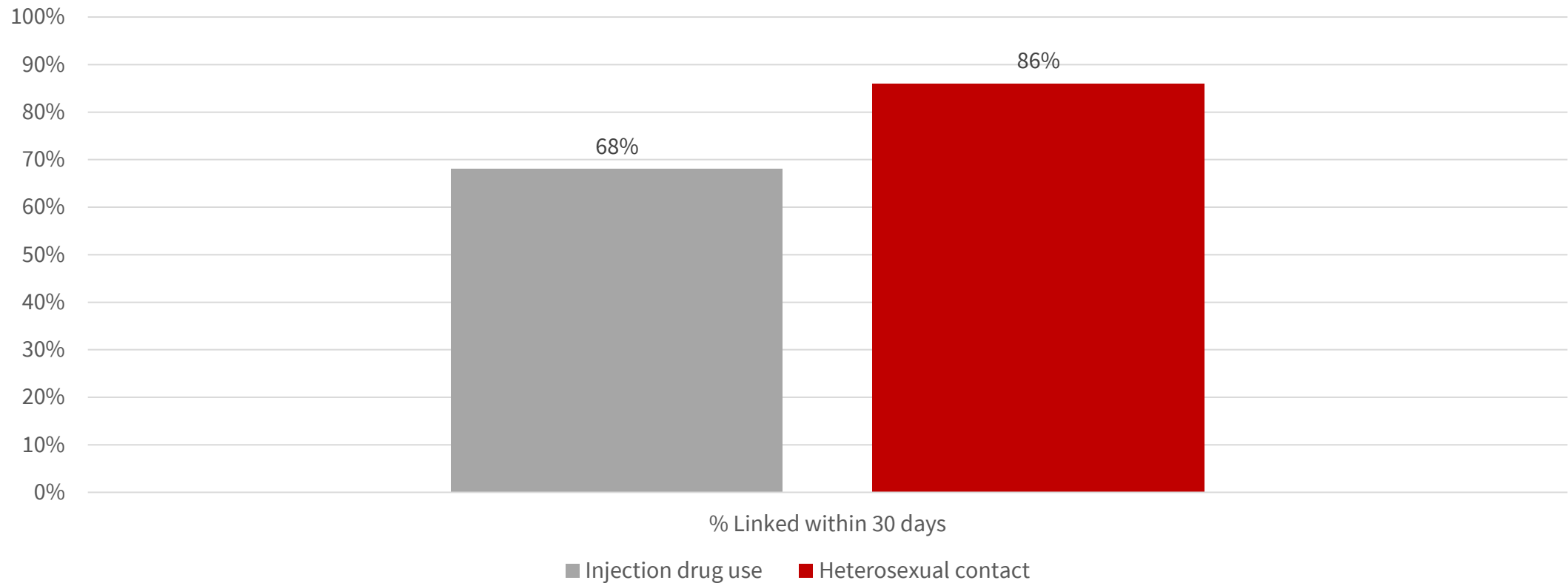
Linkage to Care

Linkage to Care within 30 days by Transmission Category, Males, Ohio, 2022



Linkage to Care

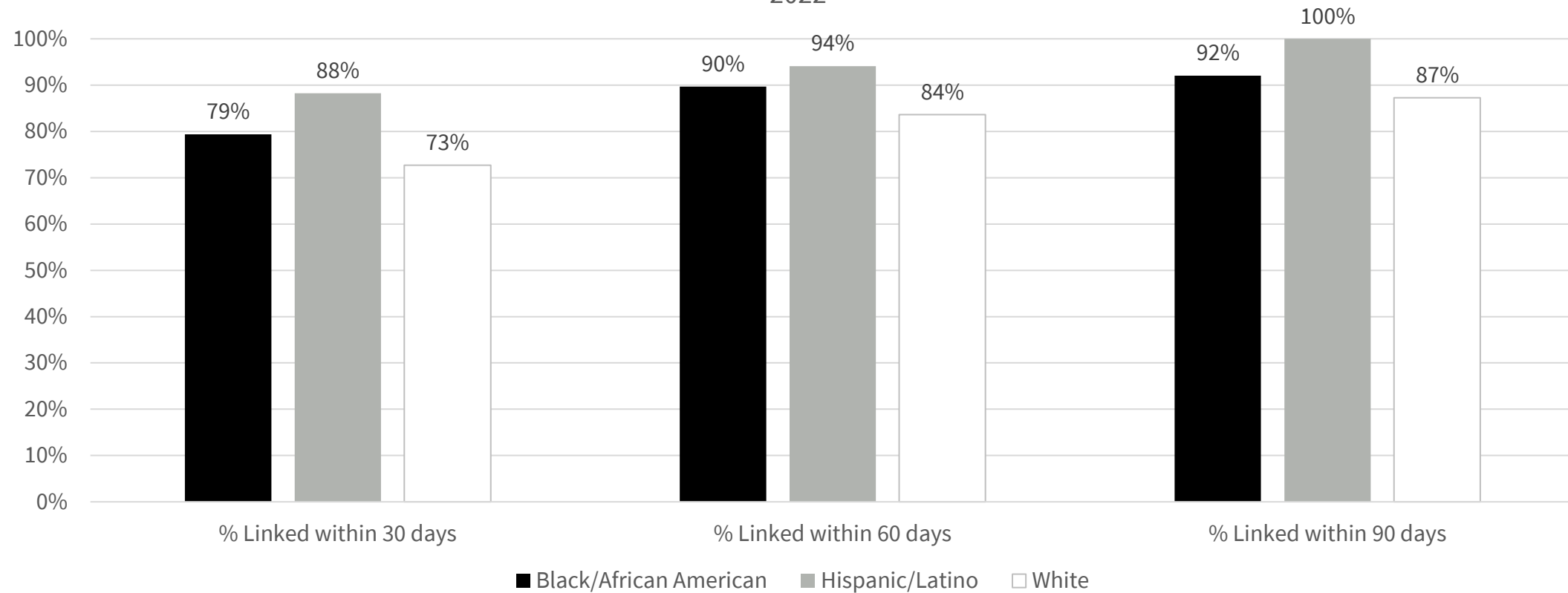
Linkage to Care within 30 days by Transmission Category, Females, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Linkage to Care

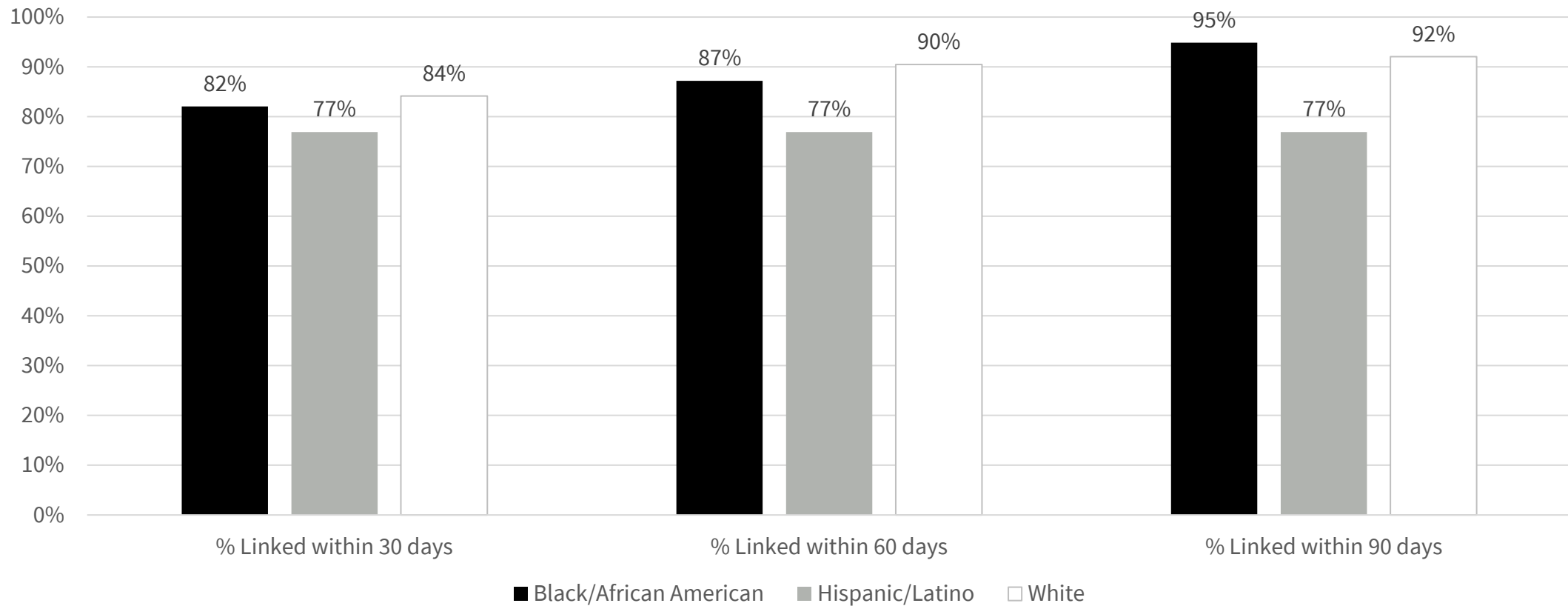
Linkage to Care Among Males Aged 13-29 Years with Male-to-Male Sexual Contact by Race/Ethnicity, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Linkage to Care

Linkage to Care Among Persons Aged 50 Years or Older by Race/Ethnicity, Ohio, 2022



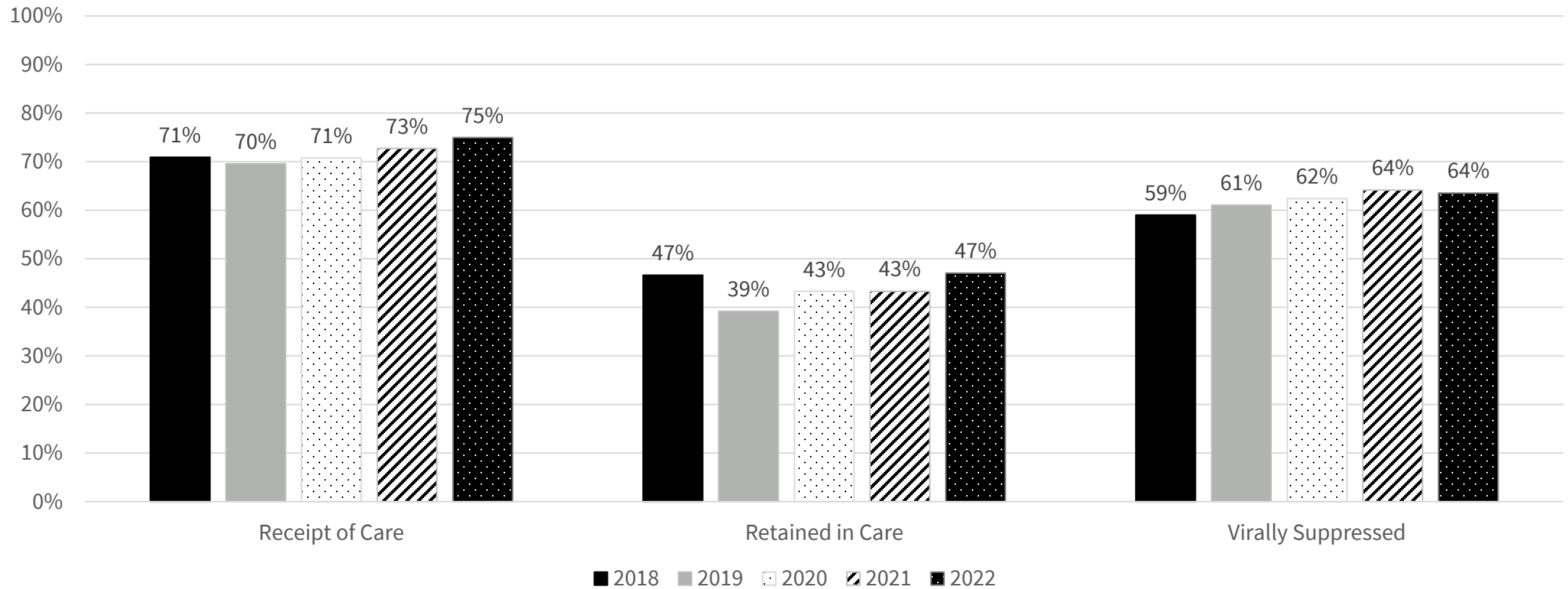
Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

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 <200 copies/mL.
- **Denominator:** The number of persons aged ≥ 13 years living with HIV infection through the end of each year, and still living in Ohio at the end of the next year.

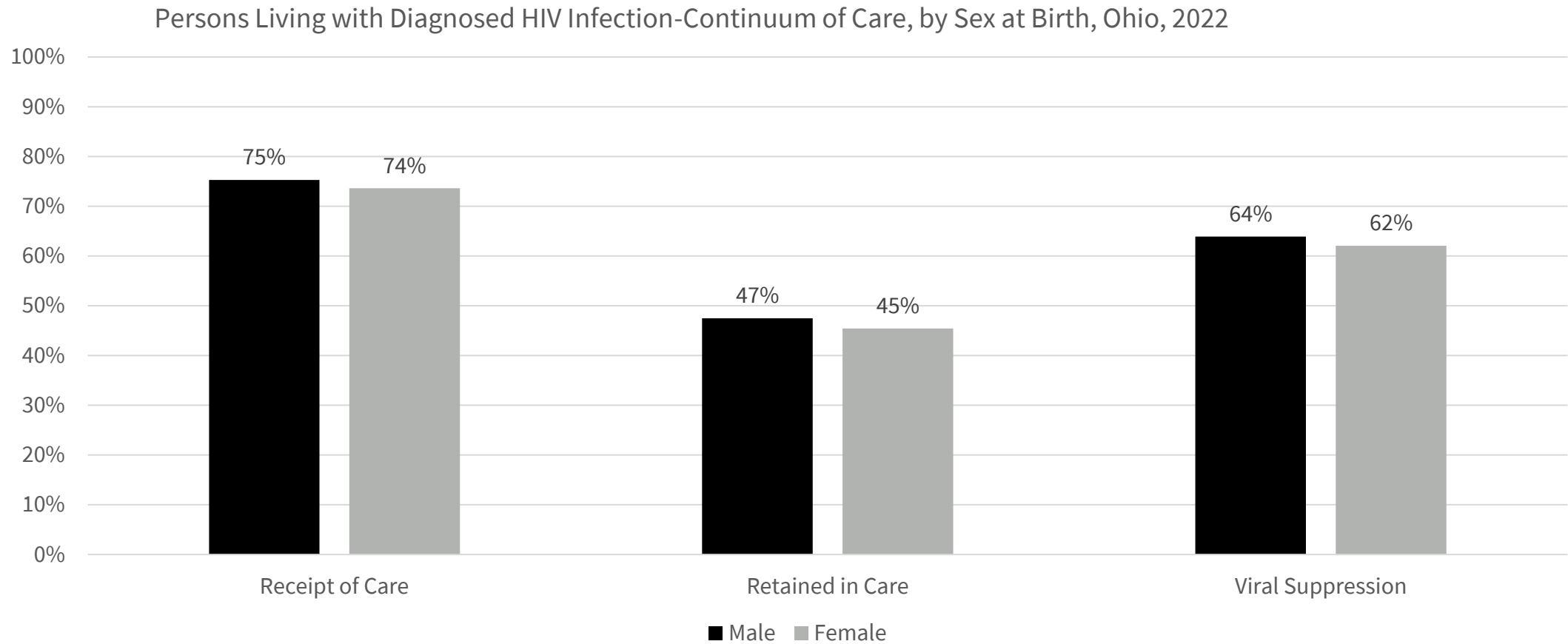
Continuum of Care

Persons Living with Diagnosed HIV-Continuum of Care, Ohio, 2018-2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

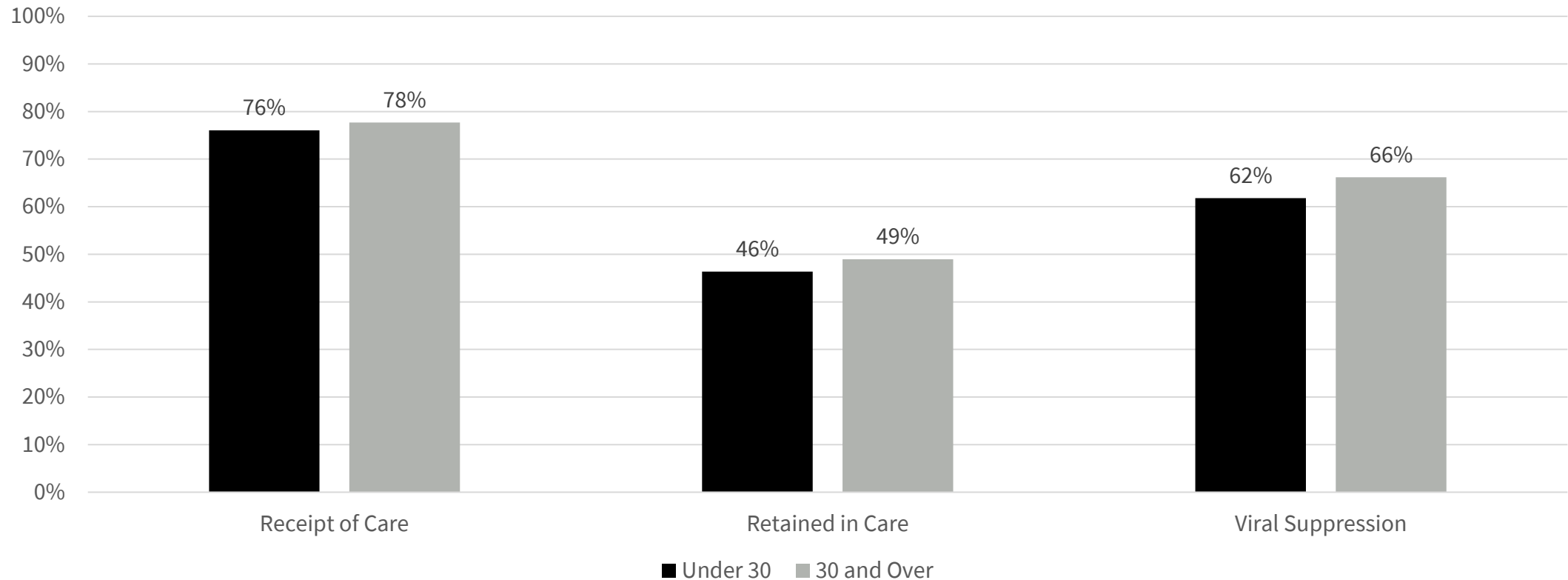
Continuum of Care



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Continuum of Care

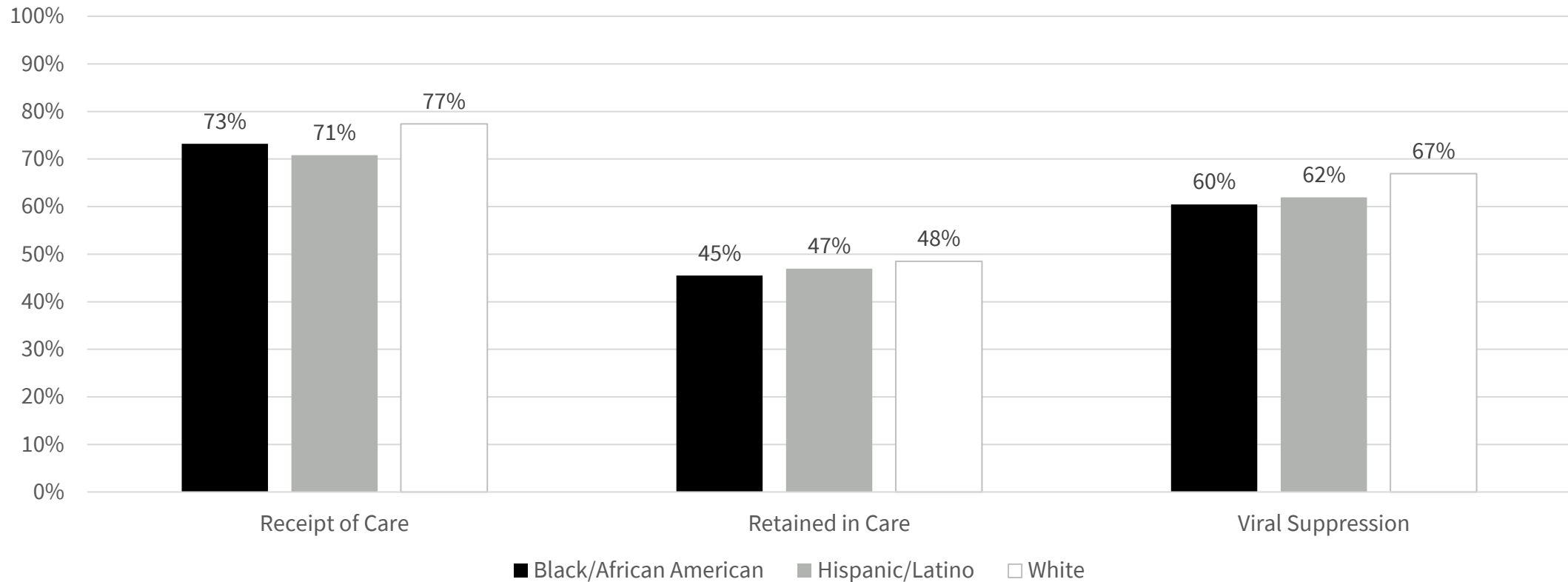
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Age Group, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Continuum of Care

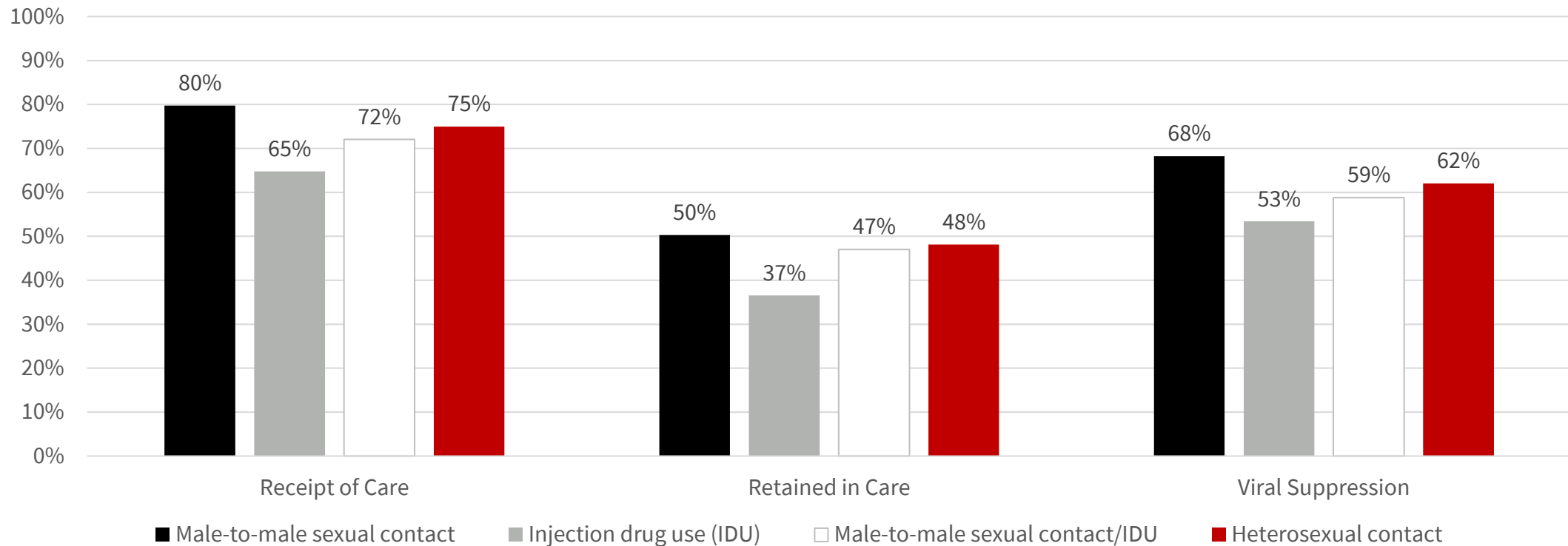
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Race/Ethnicity, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Continuum of Care

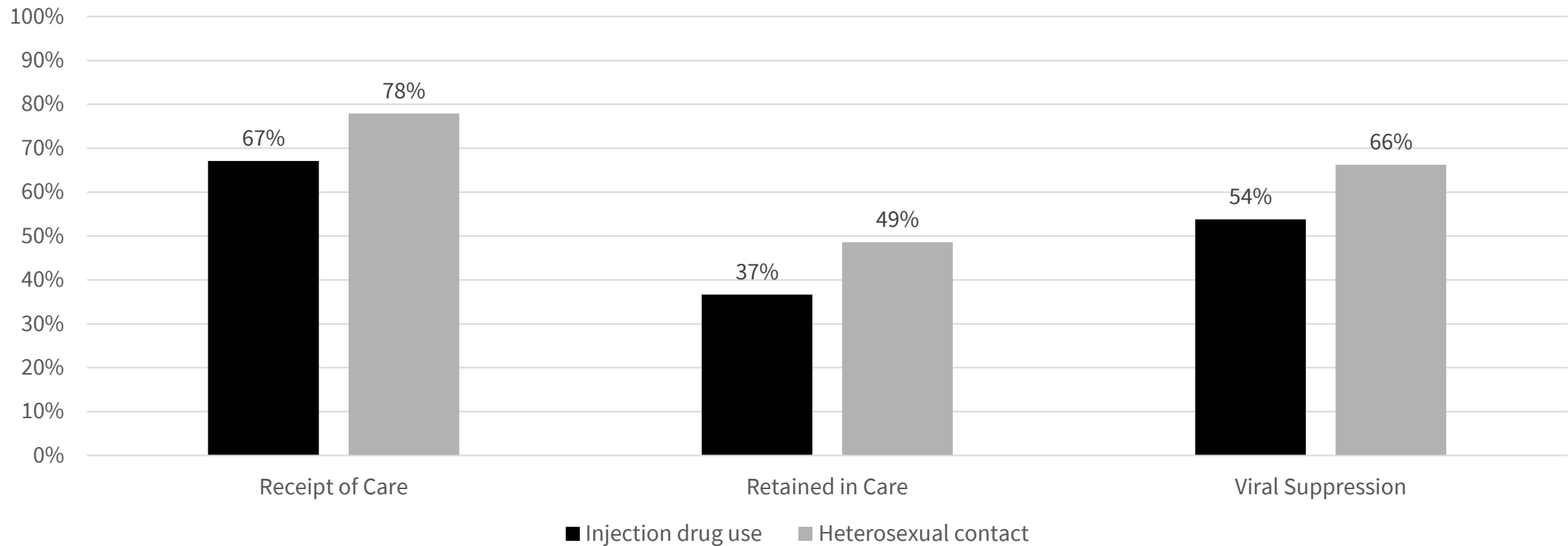
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Transmission Category, Males, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Continuum of Care

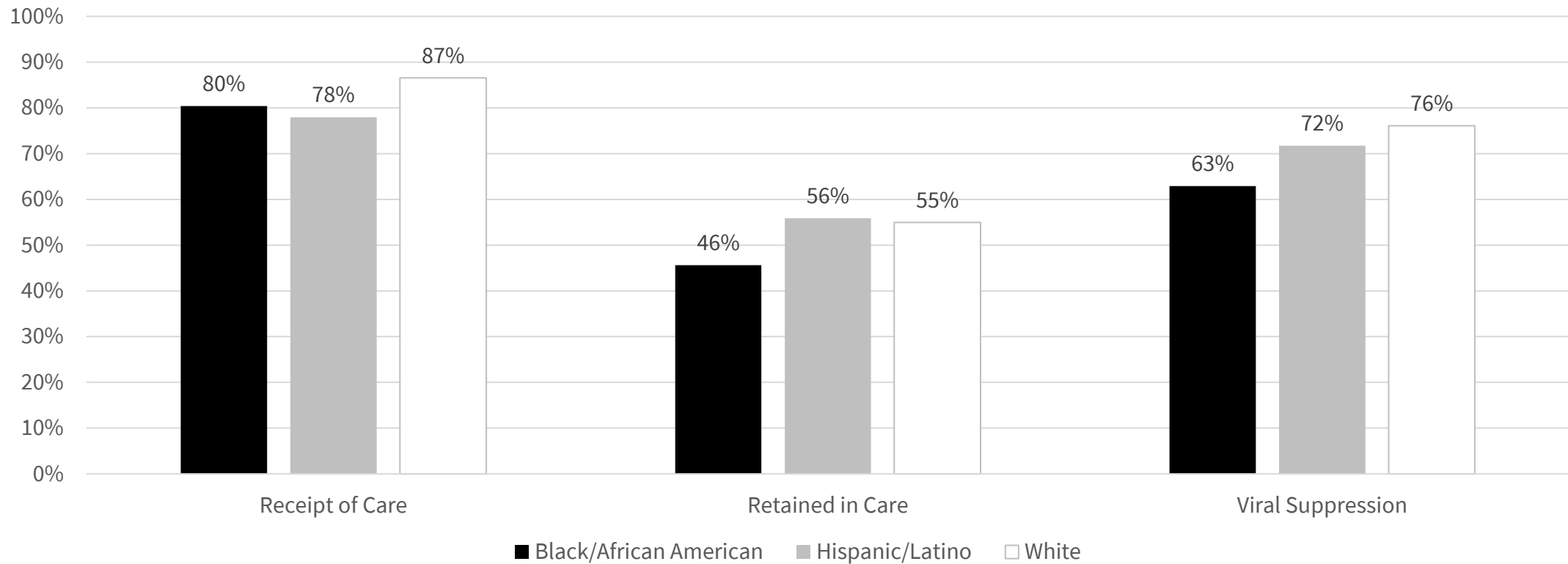
Persons Living with Diagnosed HIV Infection-Continuum of Care, by Transmission Category, Females, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Continuum of Care

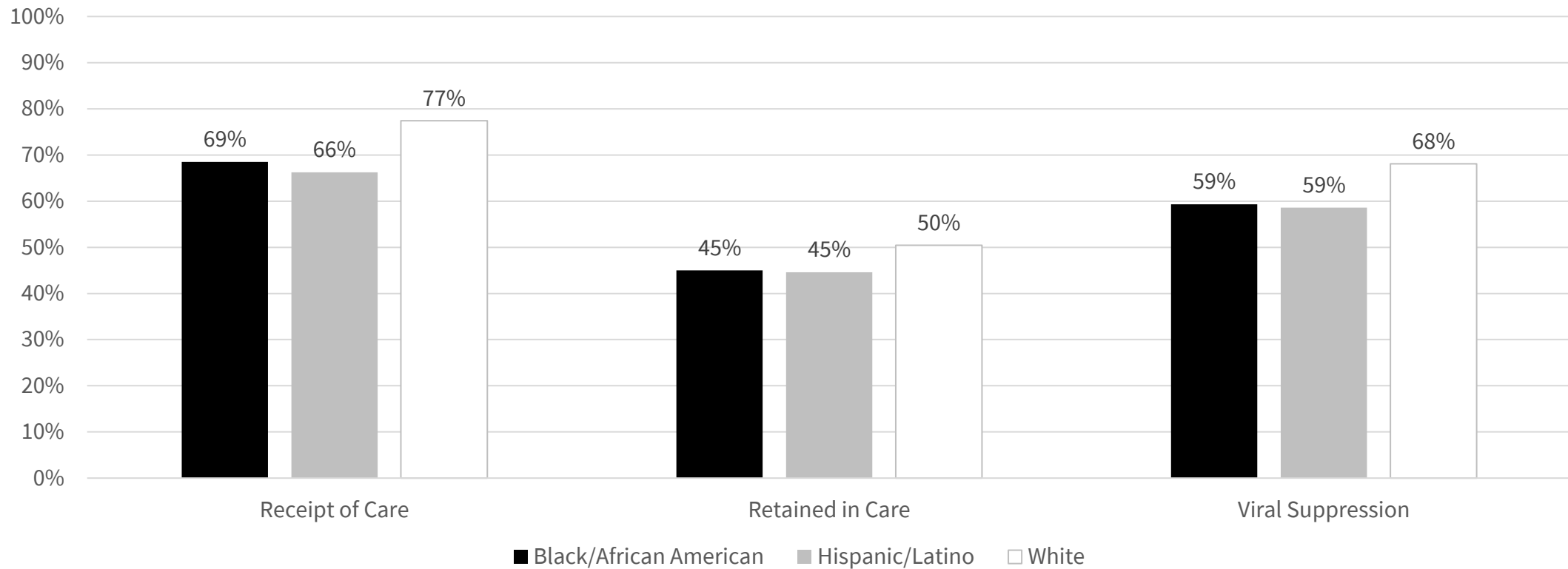
Males Aged 13-29 Years with Male-to-Male Sexual Contact Living with Diagnosed HIV Infection-Continuum of Care, by Race/Ethnicity, Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Continuum of Care

Persons Aged 50 Years or Older Living with Diagnosed HIV Infection-Continuum of Care, by Race/Ethnicity,
Ohio, 2022



Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Continuum of Care

Status of Care	2016	2017	2018	2019	2020	2021	2022
In care	58%	66%	71%	70%	71%	73%	75%
Knew they had HIV but weren't in care (Unmet Need)	42%	34%	29%	30%	29%	27%	25%
In care and virally suppressed	82%	81%	83%	88%	88%	88%	85%
In care but not virally suppressed	18%	19%	17%	12%	12%	12%	15%

Source: Ohio Department of Health, HIV Surveillance Program. Data reported through April 30, 2024.

Resources

- [Ohio HIV Surveillance Program Data.](#)
- [Centers for Disease Control and Prevention \(CDC\) HIV Data.](#)
- [National HIV Care Continuum Data.](#)



QUESTIONS?

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