

HIV SURVEILLANCE IN NEW JERSEY – Brief introduction to new HIV reporting rules for providers and laboratories

Epidemiologic Services Unit
Division of HIV, STD & TB Services
July 21, 2022

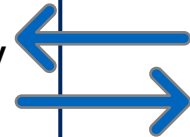
What is the same as the previous regulation, N.J.A.C. 8:57-2?

- **Providers** should report results on any patient (pediatric, adolescent, or adult) being tested, diagnosed, or treated by them **within 24 hours** to HIV Surveillance
 - Initial/New HIV diagnosis
 - Previously diagnosed HIV infection (non-AIDS) – new patient
 - Initial/New Diagnosis of AIDS
 - Previously diagnosed AIDS – New patient
- **Laboratories** should report HIV test results performed on a specimen **within 5 days of testing**
- All **Counseling and Testing Sites** should report within **24 hours** of a positive R2R
- The **facility administrator** or deemed person has reporting responsibility



What has changed from the previous regulation in N.J.A.C. 8:65?

- The following diagnostic HIV tests are reportable:
 - All reactive results of **initial HIV immunoassay** and all results from **supplemental HIV immunoassays**
 - All **HIV nucleic acid (RNA or DNA)** detection tests (**qualitative and quantitative**)
 - All **counts/percentages of CD 4** associated with diagnosis of HIV
 - All **Viral Loads**, detectable and undetectable for a HIV diagnosed person
 - HIV **genotypic resistance** testing results submitted electronically
 - Result of an HIV-related laboratory test conducted as part of **the testing algorithm**, including negative and indeterminate results, when any HIV-related test conducted as part of the testing algorithm contains a positive or reactive result



What has changed from the previous regulation in N.J.A.C. 8:65? (Contd.)

- **Mandated content:**
 - For Patient: Full name, full address, sex at birth, DOB, vital status, gender identity, race/ethnicity, risk, previous negative test date, pregnancy status, lab results and interpretation, full provider name and address
 - For Provider: Full name, full address
 - For Laboratory: Full name, address, specimen collection date, valid results, prescribing provider, CLIA and Accession numbers
- Required reporting by **lab that collects** and the **lab that analyzes specimen**
- Required **reporting on all residents of NJ** and **for cases being tested, diagnosed or treated in NJ**



What has changed from the previous regulation in N.J.A.C. 8:65? (Contd.)

- Required reporting by **Federal Bureau of Prisons** and **Veterans Administration** facilities on NJ residents

- **Reporting mechanisms:**

- Electronic laboratory Reporting
- Secure eFax No.: 609-984-2455
- Secure Transfer File Transfer Protocol
- Encrypted email: EPIServices@doh.nj.gov
- Postal mail:

The New Jersey Department of Health
 Division of HIV, STD and TB Services, HIV/AIDS Surveillance
 PO Box 363, Trenton, NJ, ZIP -08625-0360

- **Penalties for non-compliance**



HIV SURVEILLANCE IN NEW JERSEY – An Epidemiologic Profile

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This presentation will answer the questions:

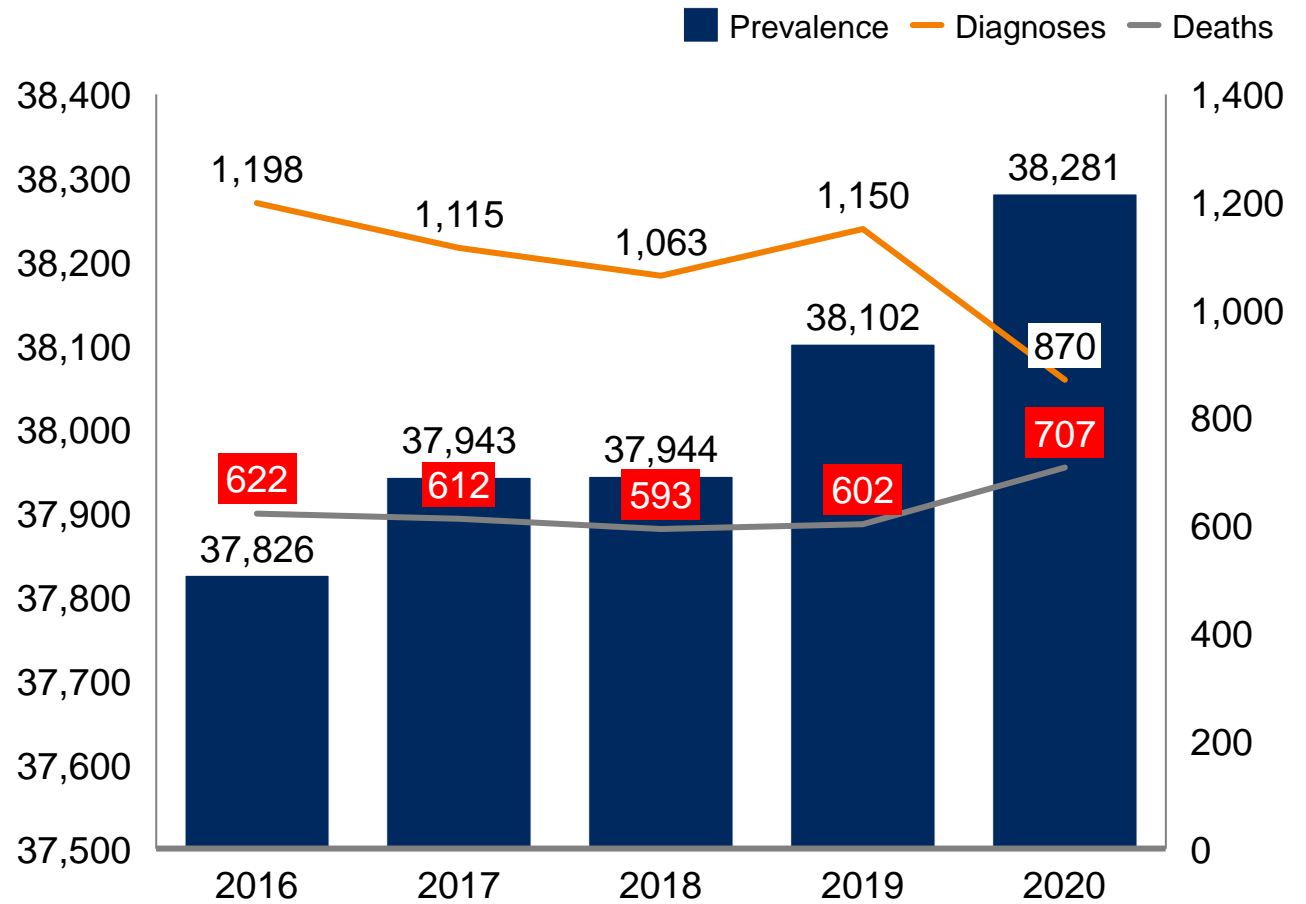
- What are the HIV trends of the past 5 years?
- Who's living with HIV in New Jersey and what are their characteristics?
- What are the trends among newly diagnosed HIV disease cases?
- Are there trends in death among Persons Living with HIV (PWLH) disease in New Jersey?
- Are there trends among newly diagnosed stage 3 (AIDS) cases?
- What are the health outcomes of the PLWH in New Jersey?
- Are PLWH in the state experiencing unmet need?



- The slides discuss adults/adolescents >13 years unless mentioned otherwise
- 2020 data estimates of new diagnoses (new HIV infections or transmissions) might be lower due to decreases and/or delays in testing or changes in testing modality (e.g., self-testing). These data should not be used to interpret a decrease in infection
- 2021 data are still considered preliminary due to reporting lags, are not final and will not be available for this presentation
- Suppressed data (n<5) are not shown in the presentation

HIV Trends in NJ

HIV Trends between 2016-2020



2020 HIV diagnoses were **24.35% lower** than in 2019

> Disruptions in 2020 likely led to underdiagnosis

2020 deaths were **17.44% higher** than in 2019

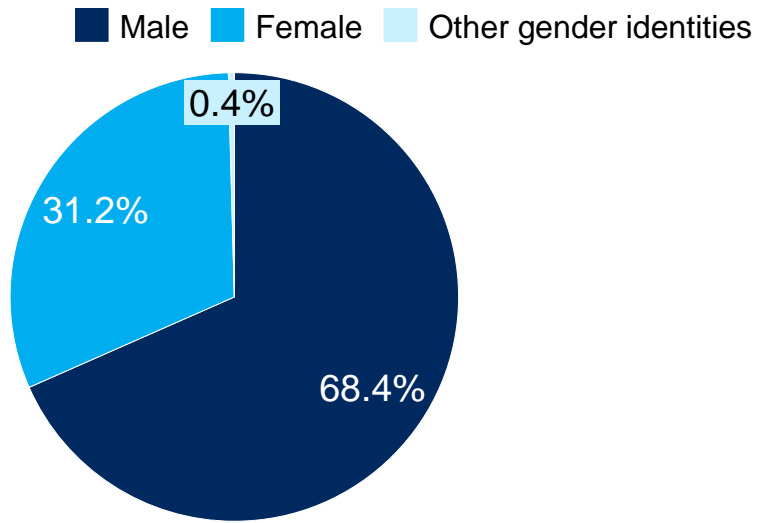
> COVID19 likely contributed to the increased number of deaths in 2020

Prevalence (Persons living with diagnosed HIV) in NJ

Characteristics Of Persons Living with Diagnosed HIV In New Jersey by Gender Identity and Age

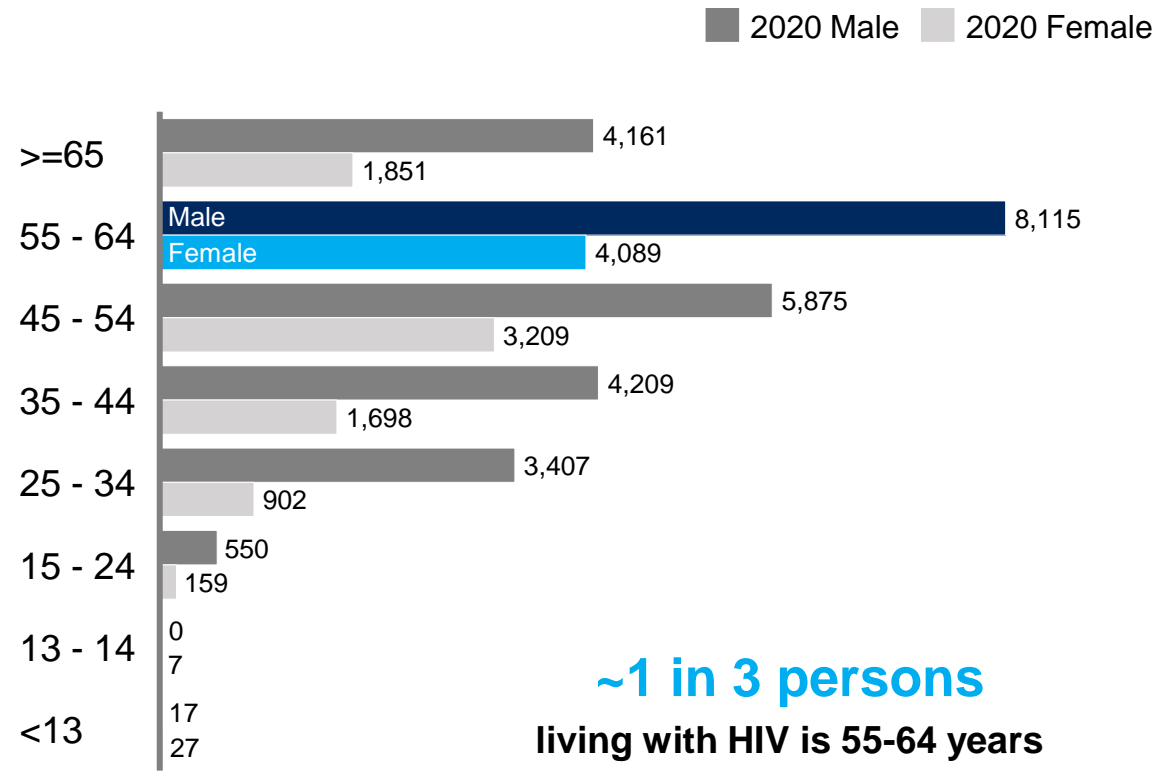
In 2020 **38,281** people in NJ are living with a diagnosed HIV infection in 2020

Percent living with diagnosed HIV infection in NJ by gender identity in 2020



Percent of males living with diagnosed HIV is
~2.2 times
that of females

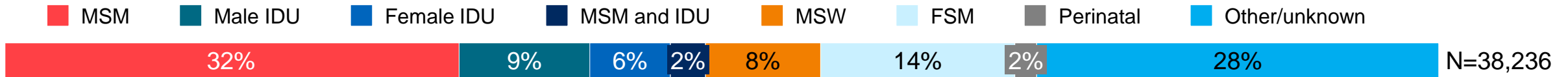
Number of persons living with diagnosed HIV infection in NJ in 2020 by Age at end of year



~1 in 3 persons
living with HIV is 55-64 years

Characteristics Of Persons Living with diagnosed HIV In New Jersey by Transmission Category

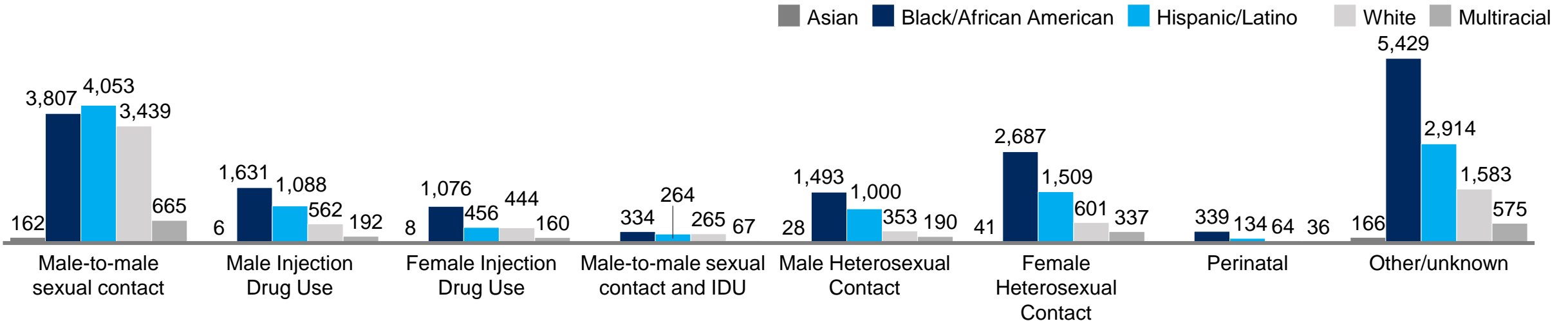
Number of persons >=13 living with diagnosed HIV infection in NJ in 2020 – by Transmission category



~1 in 3
persons living with HIV in NJ is MSM

MSM, the fastest growing group of PLWH, saw an **increase of 9%** in number of people living with HIV from 2016 to 2020

Number of persons >=13 years with diagnosed HIV infection in NJ in 2020 - by Transmission category & Race/ethnicity



African Americans and Hispanics/Latinos have the largest number of persons living with HIV

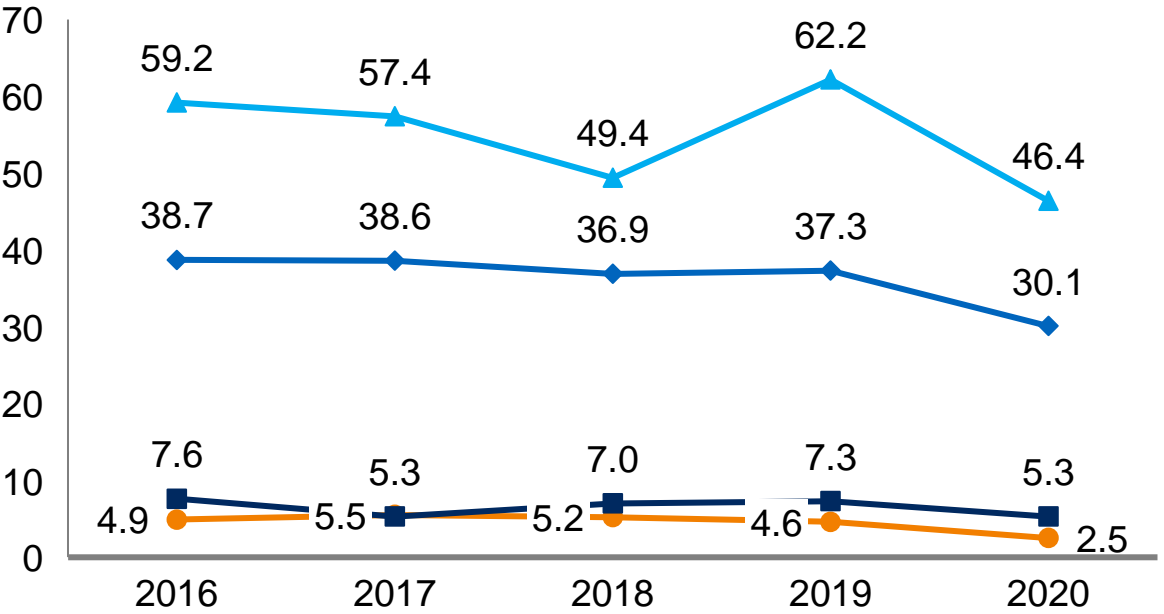
Apart from MSM contact where Hispanics lead **African Americans have the most people** living with HIV in every other transmission category.

New Diagnoses in NJ

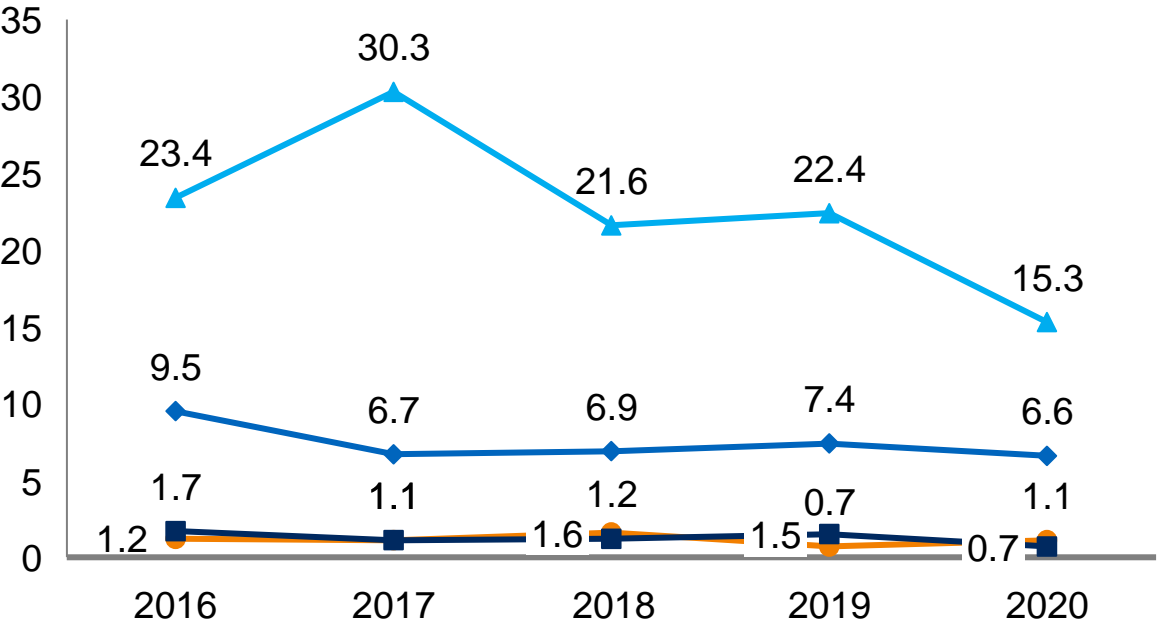
Rates of HIV diagnoses in NJ by sex at birth, Race/ethnicity, and year

● Asian
 ▲ Black/African American
 ◆ Hispanic/Latino
 ■ White

Rate of HIV diagnoses in NJ by year and race/ethnicity (per 100,000) among males



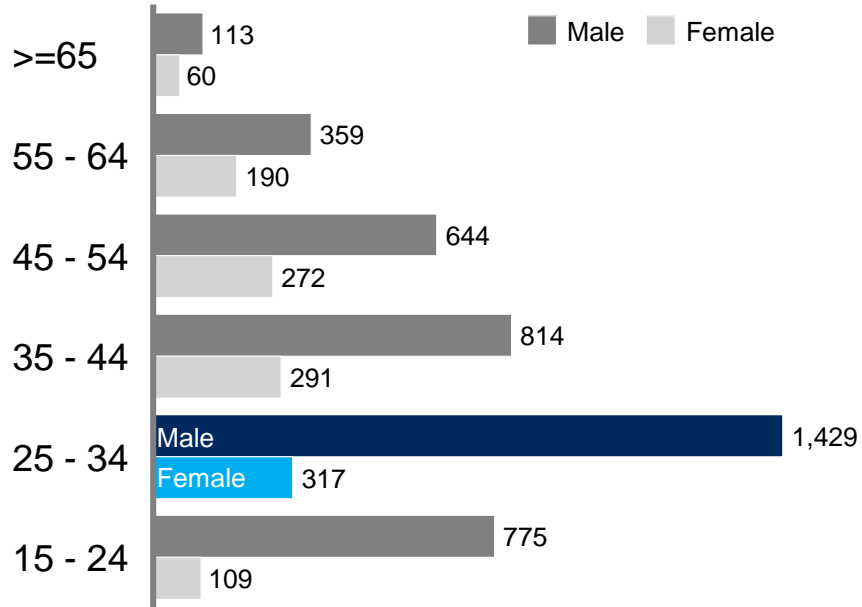
Rate of HIV diagnoses in NJ by year and race/ethnicity (per 100,000) among females



Rate of new diagnosis is highest among
African American
 males and females

Number of HIV diagnoses in NJ

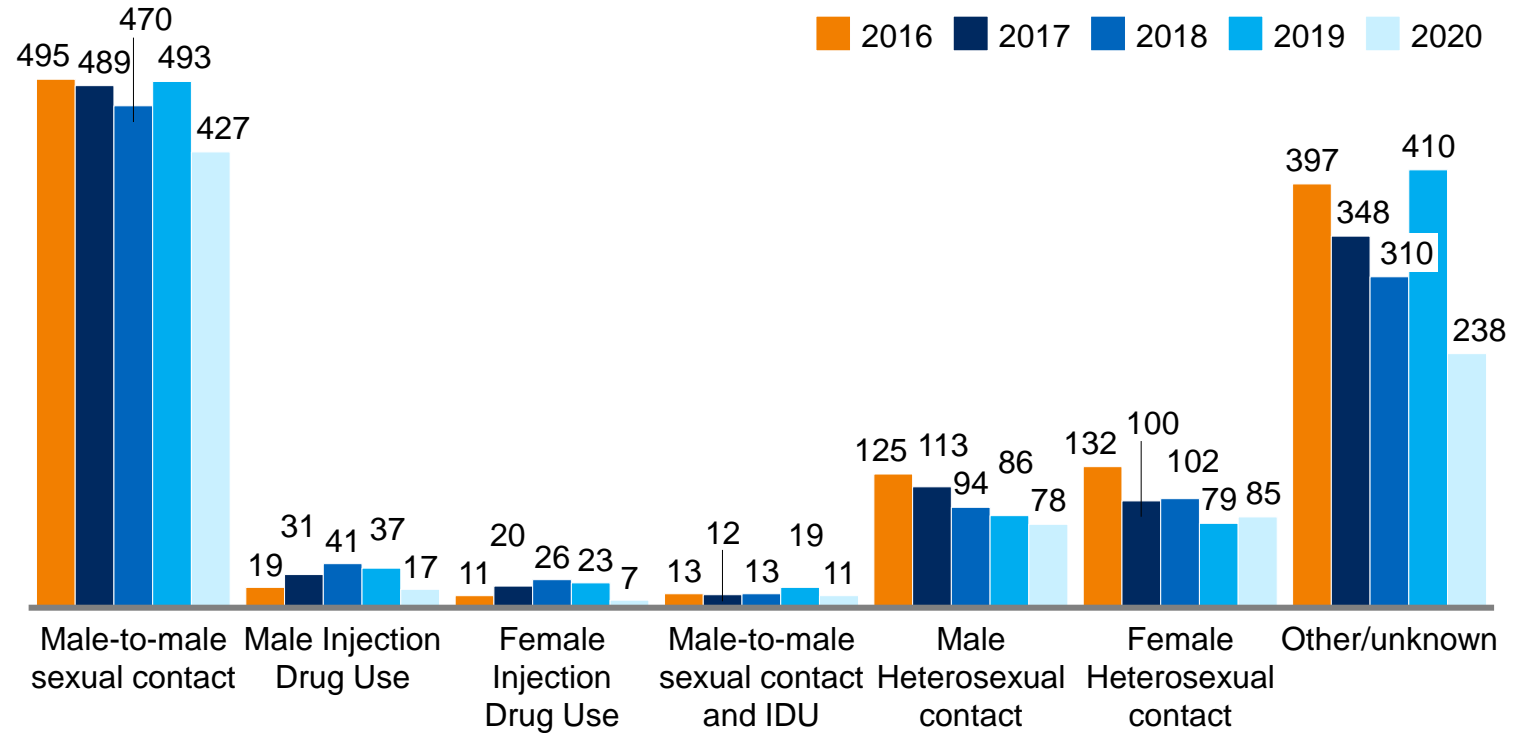
Cumulative number of HIV diagnoses in NJ 2016-2020 - by Age at HIV diagnosis, and Sex at birth



75.5% of new diagnoses
Is among males

1 in 3
new diagnoses in 2016 to 2020 were in
the 25-34 age range

Number of HIV diagnoses among persons >=13 years in NJ – by Year of HIV diagnosis and Transmission category



44% of new diagnoses come from
male to male sexual contact

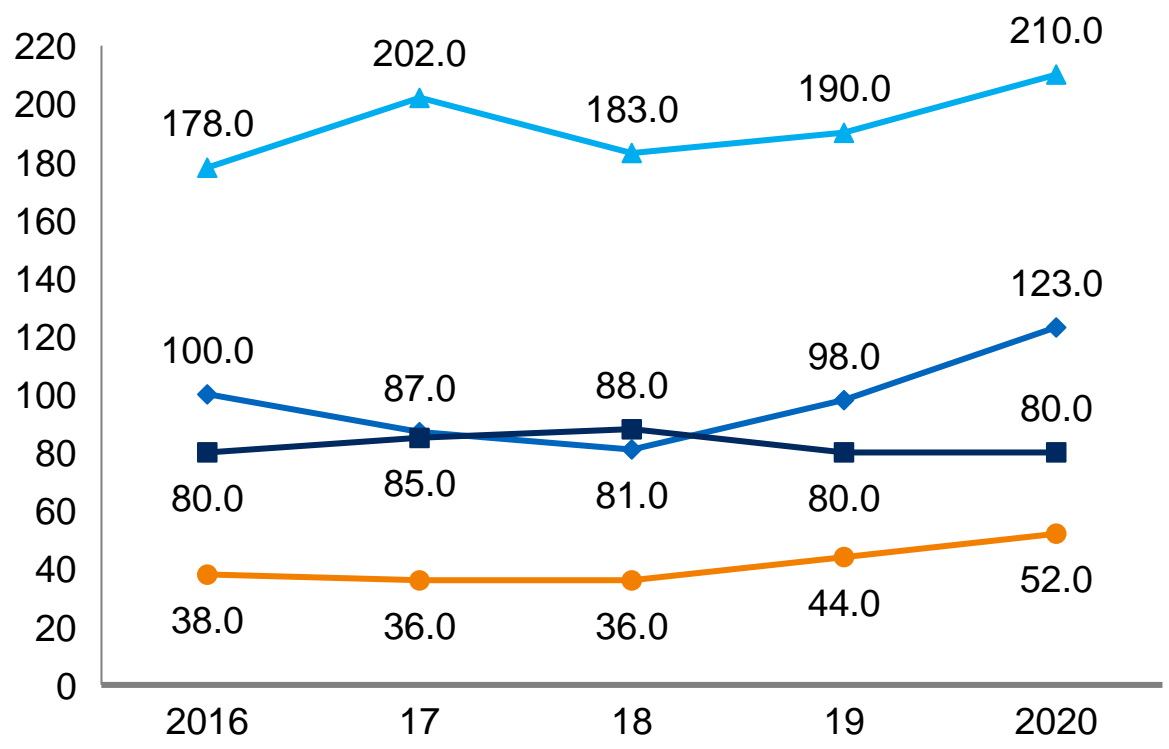
Heterosexual contact
was the reported risk for **40%** of cases
in women

Deaths in NJ

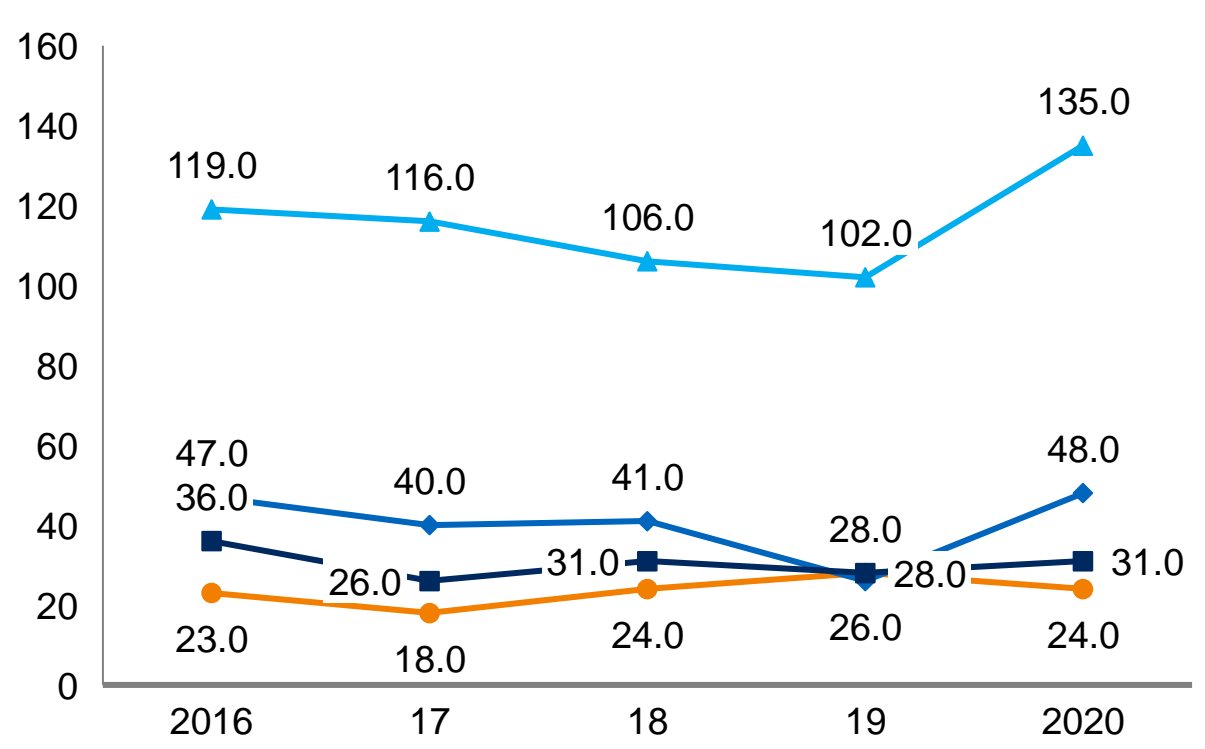
Number of deaths among persons with Diagnosed HIV infection in NJ - by Year of death, Race/ethnicity, and Sex at birth

● Multiracial
 ▲ Black/African American
 ◆ Hispanic/Latino
 ■ White

Deaths among males



Deaths among females

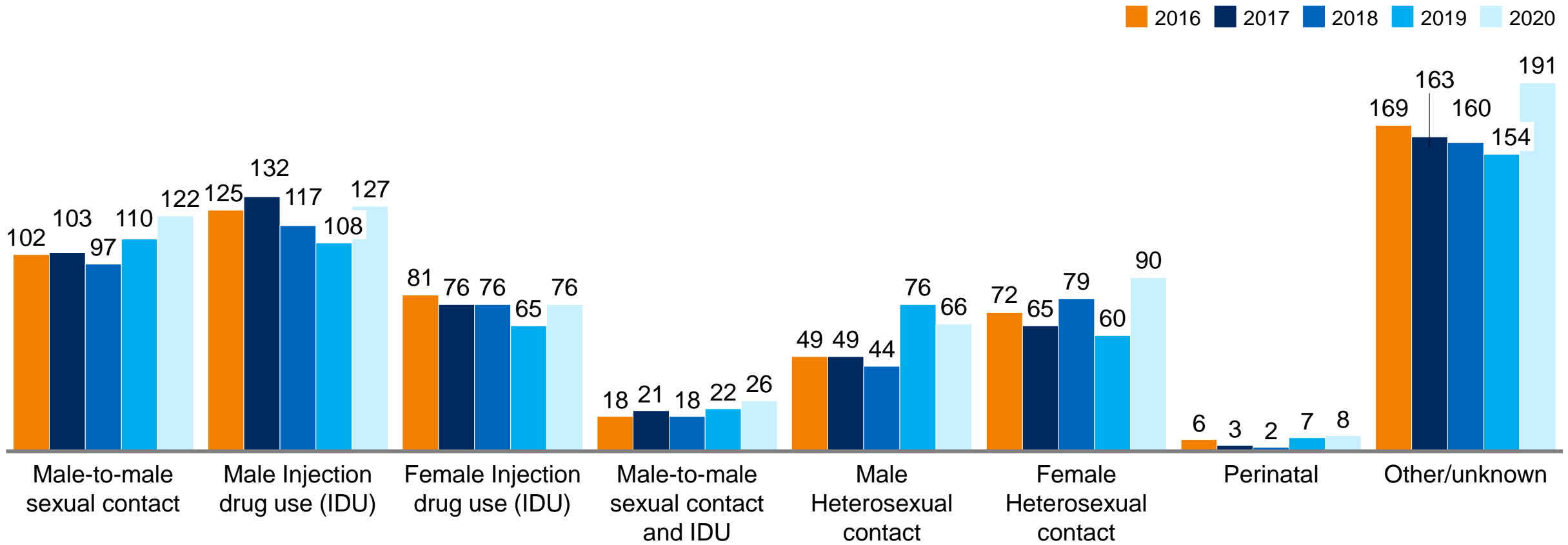


Number of deaths is highest among **African American** males and females

The rates of death among African Americans are **2.9x (males) and 4.4x (females)** that of Hispanic/Latino males and females

The rate of infection among males is almost **4x that of females**
But the rate of deaths among males is only **2x that of females**

Number of deaths among persons with Diagnosed HIV infection in NJ >=13 years – by Year of death and Transmission category

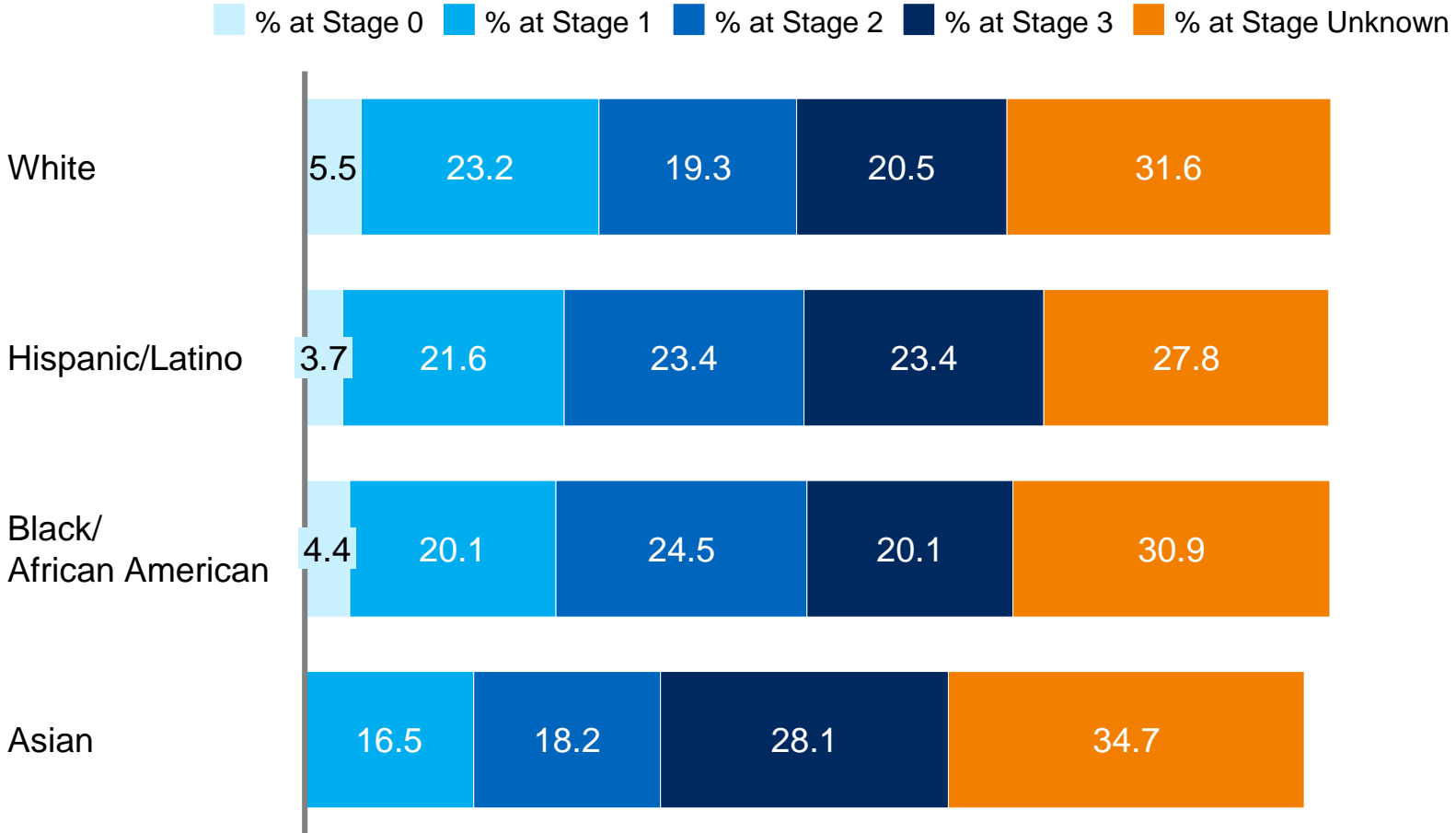


**Deaths in MSM
is catching up with
deaths in male IDU**

**Combined, persons with IDU as transmission category
have the highest number of deaths**

Stages of Disease in NJ

Stage of disease at time of HIV diagnosis among persons aged ≥13 years – by Race/ethnicity in NJ between 2016-2020

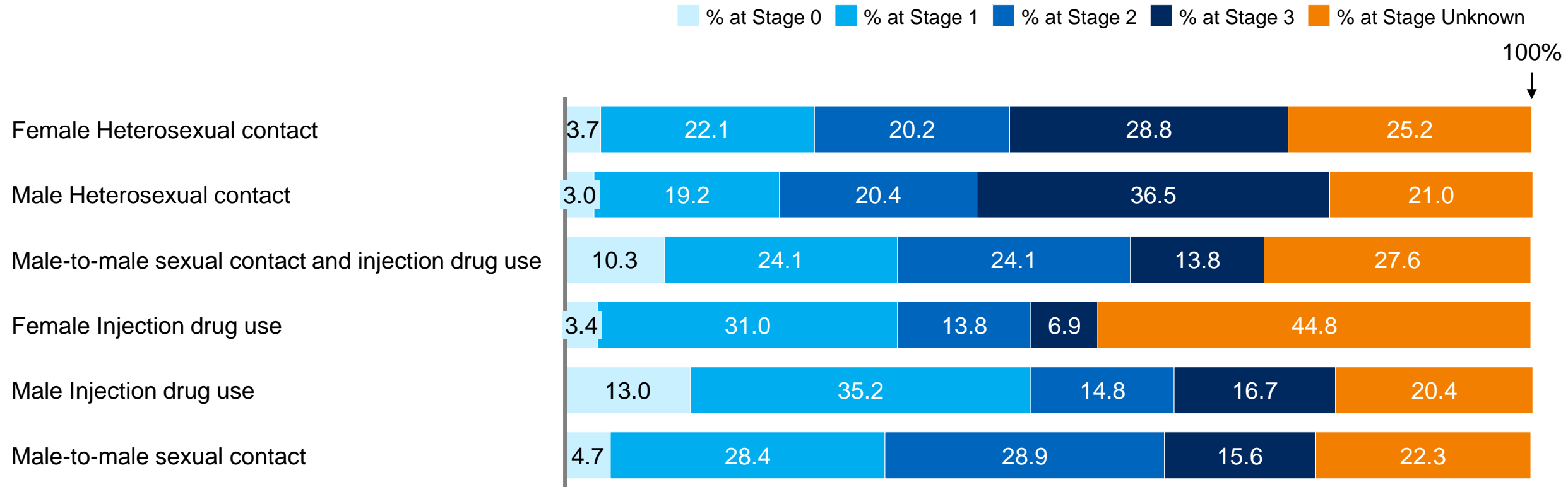


More Hispanics/Latinos are being diagnosed at Stage 3 (AIDS)

than other populations, discounting Asians whose total numbers are low

Being diagnosed at **Stage 0** is evidence of **higher routinized testing** among populations

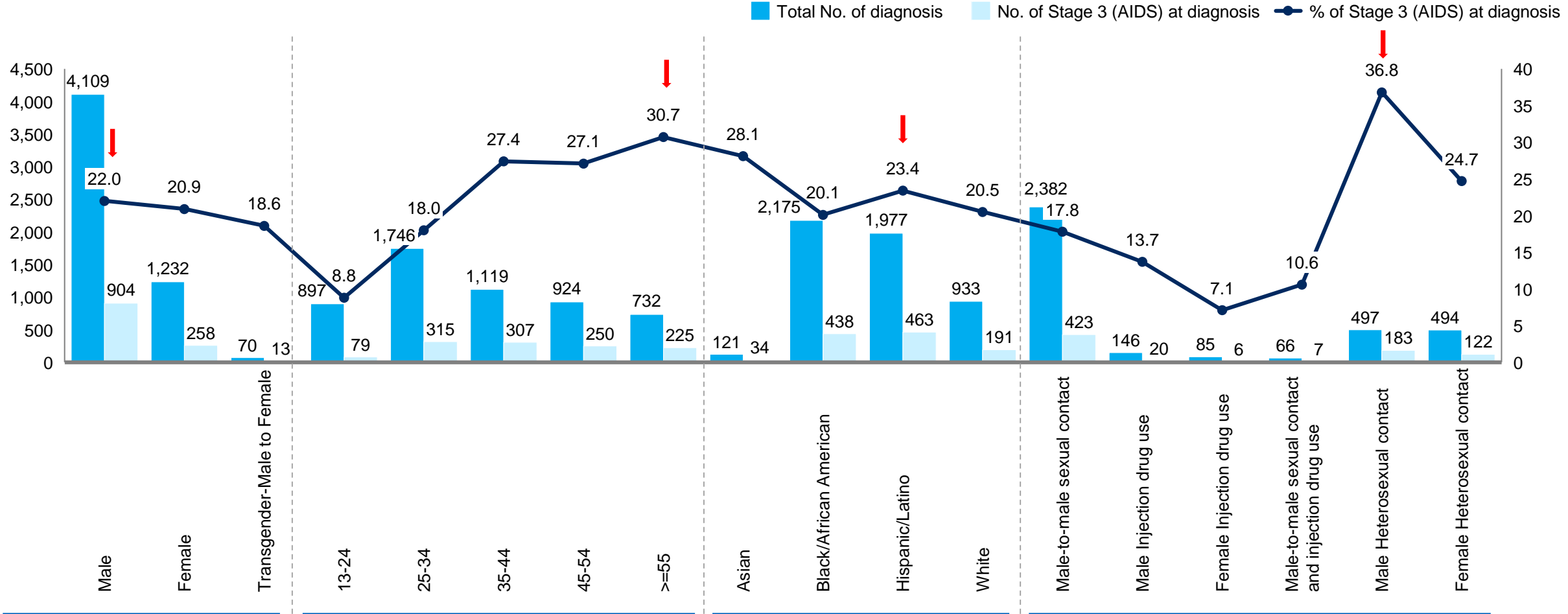
Stage of disease at time of HIV diagnosis among persons aged ≥13 years – by Transmission Category in NJ between 2016-2020



~1 in 5 persons
is diagnosed at stage 3 (AIDS) in NJ

Highest percent of persons diagnosed at stage 3 (AIDS) are
males with heterosexual contact
followed by females with heterosexual contact

Number and percentage of Late Diagnosis (at AIDS) among all new diagnoses between 2016-2020 - by selected characteristics



22%
of males are
diagnosed late

>55 age bracket
receives more late
diagnoses

Hispanics/Latinos
receive more late
diagnoses

~1 in 3
persons with heterosexual
contact receive late
diagnoses

Care Continuum in NJ

Care Continuum statistics for persons living with diagnosed HIV Infection in 2020

Overall



- Between 2016-2020, **~7 in 10 people** are **linked to care within 30 days of diagnosis**
- Between 2016-2020, **88%** were **linked to care within 365 days of diagnosis**

By gender identity



- 75%** (males) and **78.9%** (females) **linked to care in the calendar year**
- Of those linked to care, **84.7%** (males) and **84.5%** (females) **achieve viral suppression**
- Viral suppression within trans women is **38.6%**

By race/ethnicity



- African Americans: 76.5%** are **linked to care** in same calendar year as diagnosis; **81%** of those **achieve viral suppression**
- Hispanics/Latinos: 77%** are **linked to care** within the calendar year as diagnosis; **87%** **achieve viral suppression**
- 50.7% African Americans** **achieve viral suppression** within 6 months of diagnosis as compared to **59.4% of Hispanics/Latinos** and **58.2% of Whites**

By age



- Persons 13-24** have the **highest percent in care, but not virally suppressed (22.12%)**
- Viral suppression is inverse with age: **80%** of **55+ persons** are **virally suppressed** as compared to **70%** of **persons 25-34**

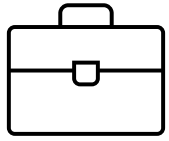
By transmission category



- The **lowest linkage to care is in MSM** with only **75%** getting a CD4 or VL in the calendar year of diagnosis; all **other categories** are **closer to 80%**
- Highest unmet need is among MSM (25%)** and **transwomen (26%)**
- Persons with **IDU transmission** have the **hardest time achieving viral suppression** after being linked to care (**18.6%**)

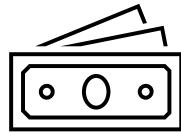
Clinical and Behavioral Characteristics of Persons Living With HIV (PLWH) in NJ

Socio-economic and demographic characteristics of interviewed PLWH in the last 12 months



4.6%

were unemployed



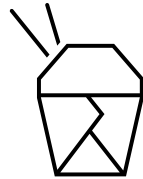
71.8%

had yearly household income below \$40,000



38.4%

Had disability



22.1%

Went without food



32.4%

Pregnant since HIV diagnosis

Health insurance or coverage for care or medications, past 12 months:

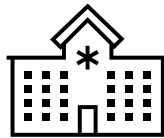
- **38.0%** Ryan White HIV/AIDS program assistance
- **48.2%** Medicaid
- **21.9%** Medicare
- **9.6%** Other Public Insurance
- **2.2%** VA/Tricare/Champus

Unmet needs of interviewed PLWH in the last 12 months



43.4%

have had at least one
Emergency Department visit



20.2%

have had at least one
hospital admission

PLWH who needed but did not receive services by time of interview:

- **17.2%** SNAP or WIC
- **16.1%** Shelter or Housing
- **10.5%** Meal or Food services
- **7.4%** Patient navigation
- **6.5%** Mental health services
- **6.3%** Transportation services
- **6.1%** Case management services
- **5.8%** HIV peer group support
- **5.3%** Medication through ADAP

Needs for shelter or housing assistance among people with diagnosed HIV in 2019

HOPWA funds awarded for FY 2019

\$12,566,464.00*

Estimated number of people with HIV who have shelter/housing needs

14,159*

Reasons for unmet needs for shelter or housing services among adults with diagnosed HIV, MMP – 2015-2020

Could not find information needed to get service or did not know it existed:

39.4%

Personal reasons, such as fear or embarrassment, or had other things going on in life that made it difficult to receive service

9.8%

Service did not meet needs or were not eligible for service

22.6%

>1 reason reported

11.1%

Homeless at any time, past 12 months

5.2%

Moved in with others due to financial problems

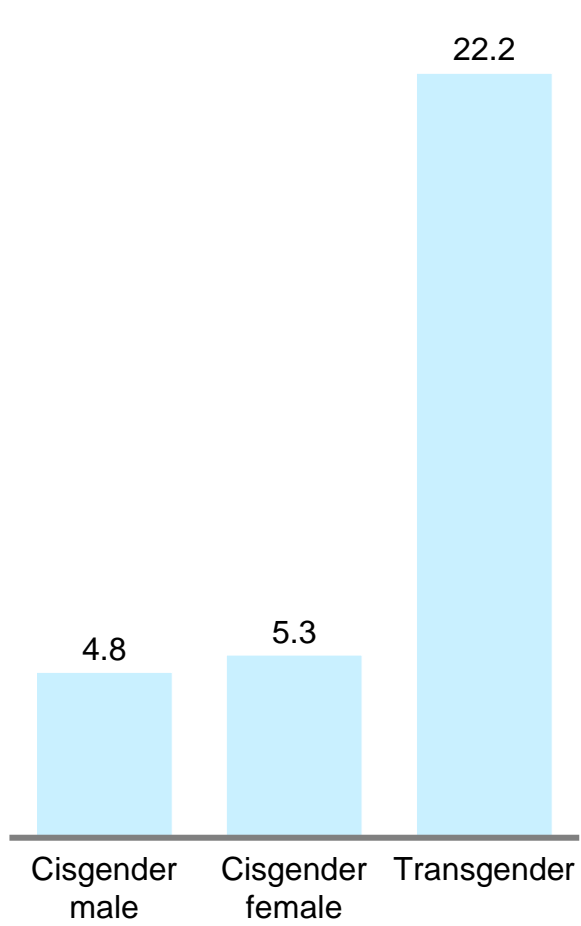
9.1%

Evicted from housing or moved more than 1 times, past 12 months

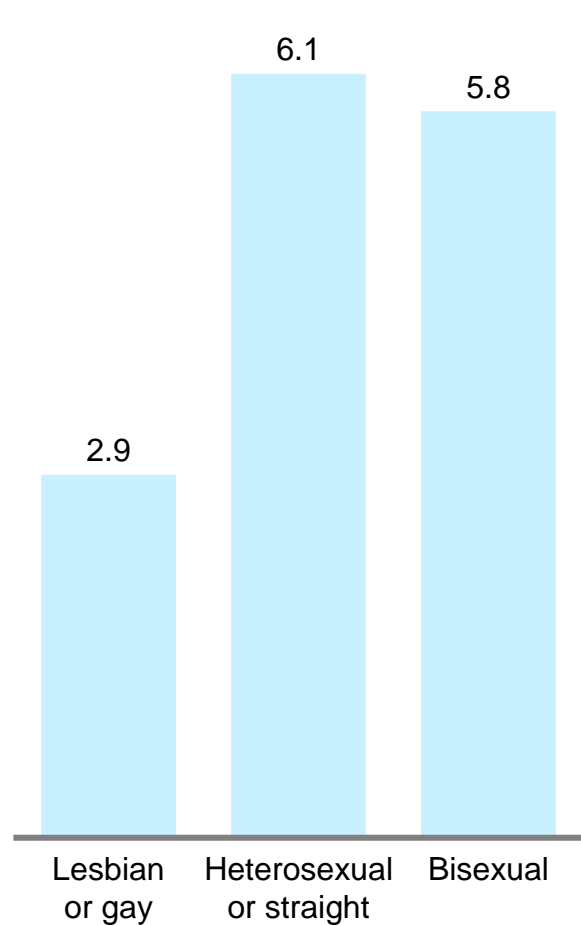
23.2%

% Homelessness in the 12 months before interview among persons with diagnosed HIV

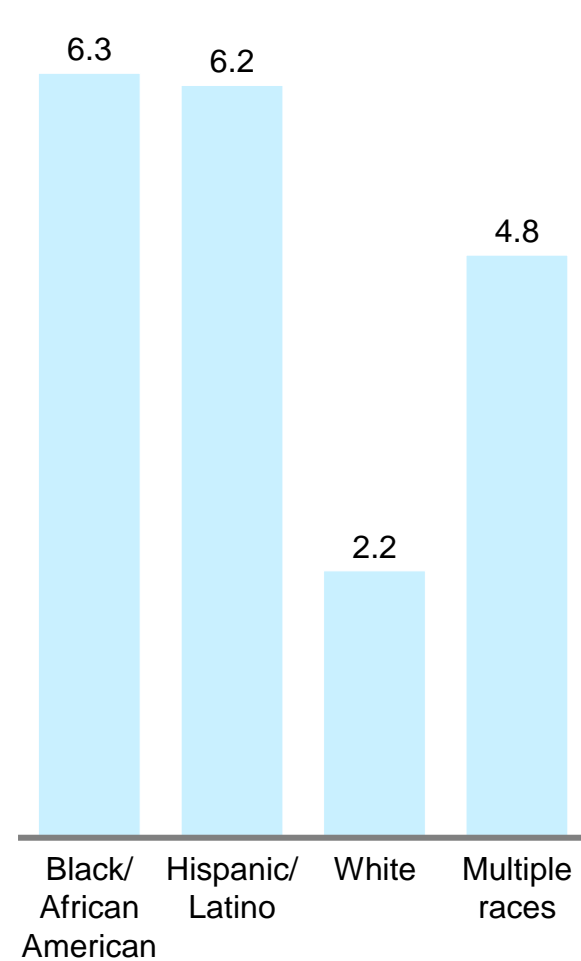
Gender identity



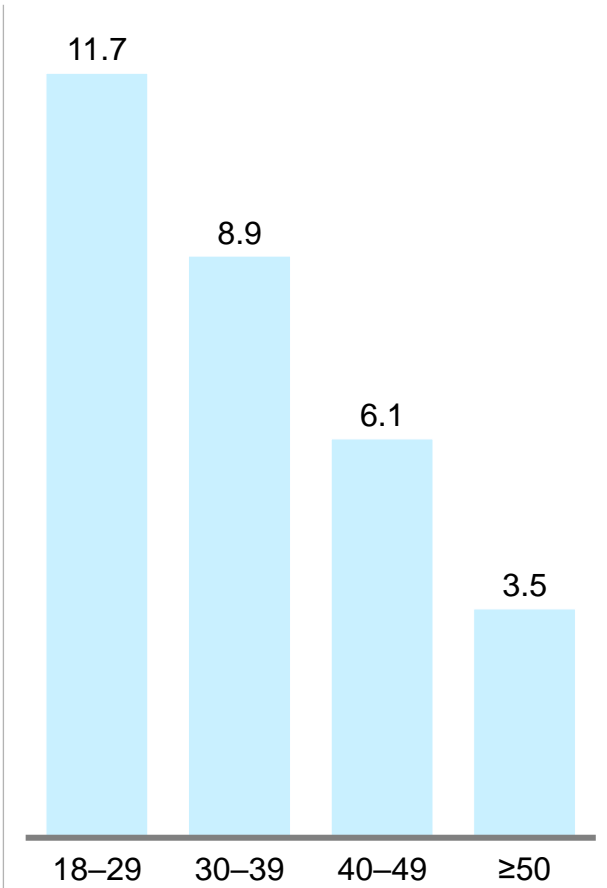
Sexual orientation



Race/ethnicity

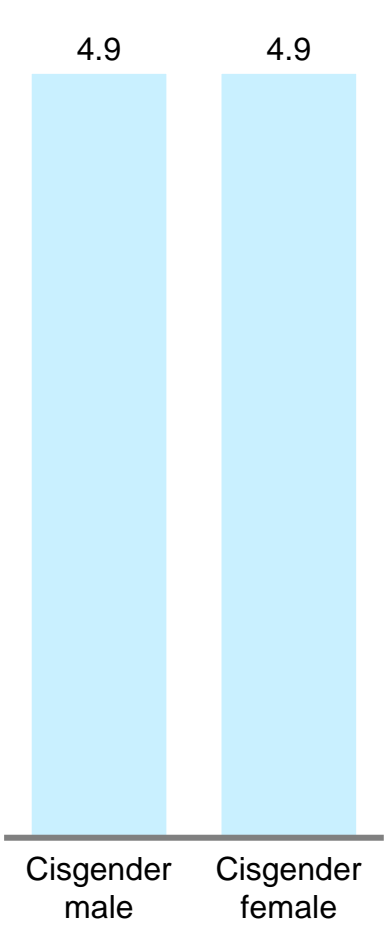


Age at time of interview

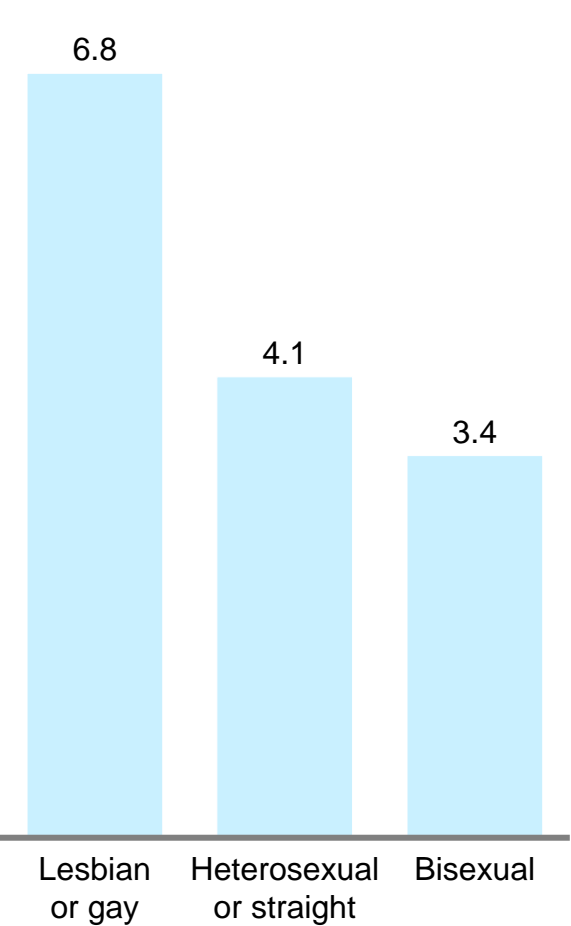


Percentage that engaged in sex without using an HIV prevention strategy in the 12 months before interview

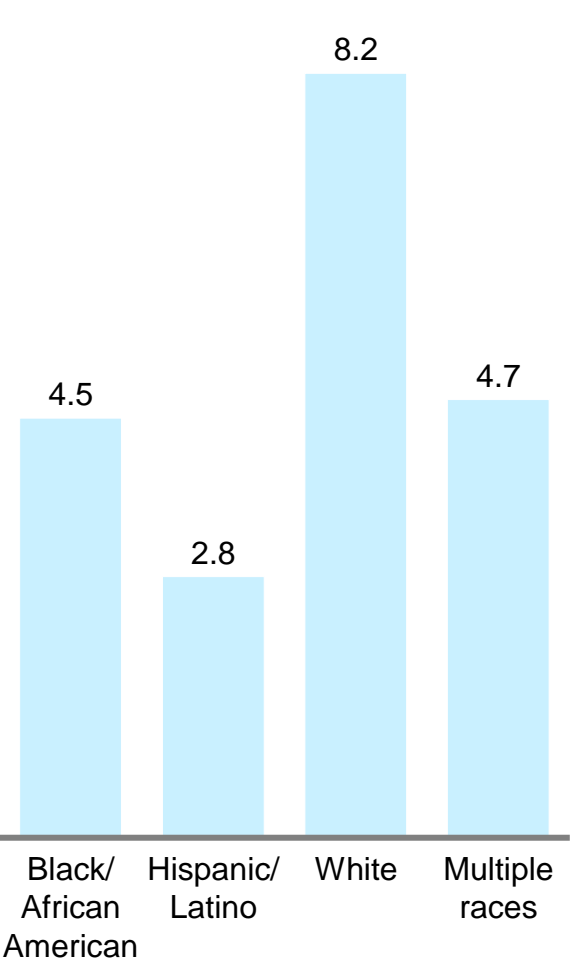
Gender identity



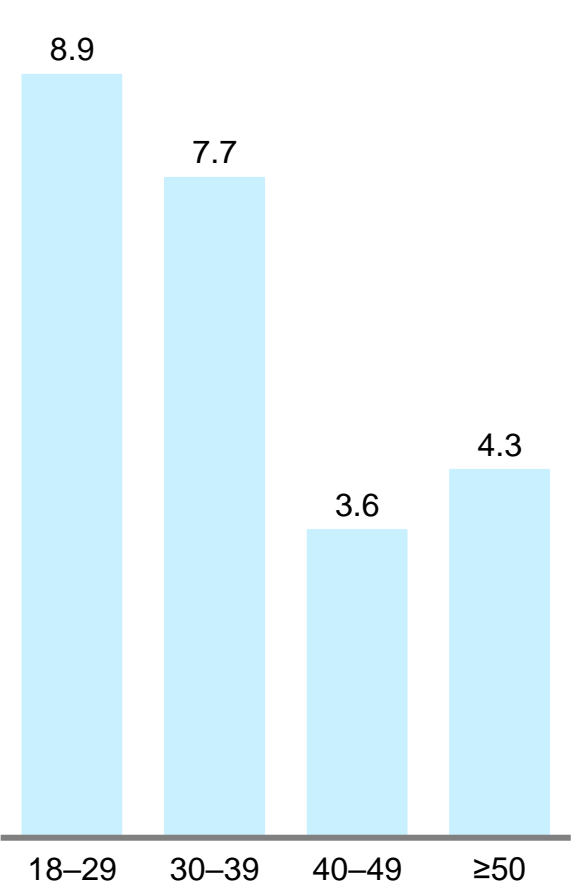
Sexual orientation



Race/ethnicity



Age at time of interview



Sexually transmitted disease testing during the 12 months before interview among sexually active persons with diagnosed HIV

No test documented for:

- Gonorrhea: **54.6%**
- Chlamydia: **54.4 %**
- Syphilis: **45.6%**

Did not complete all three tests (Gonorrhea, Chlamydia, and Syphilis): **60.4%**

Sexual behavior during the 12 months before interview among men who had sex with men (MSM)

11.5% engaged in sexual activity **without prevention strategy use**

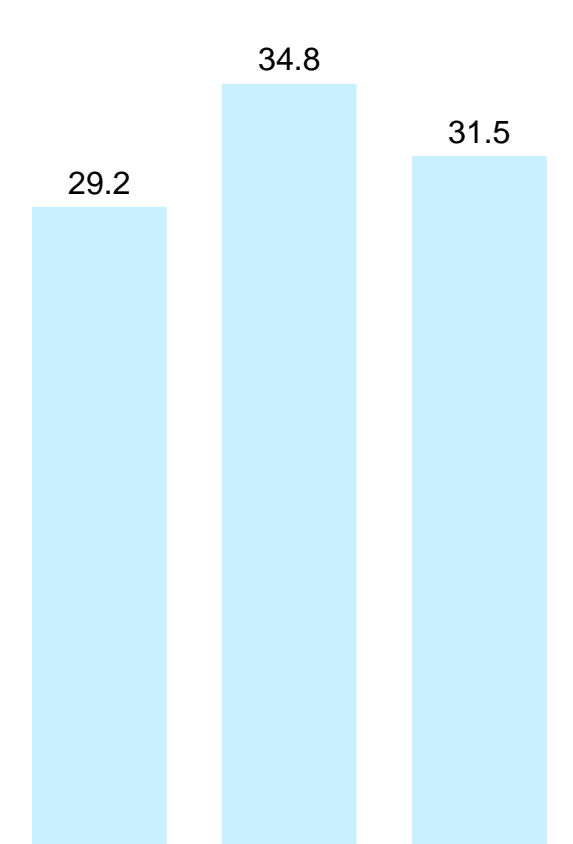
Among those who did use prevention strategy:

53.9% MSM had **sex with partner with HIV**, as compared to **27.5% WSM** and **23.5% MSW**

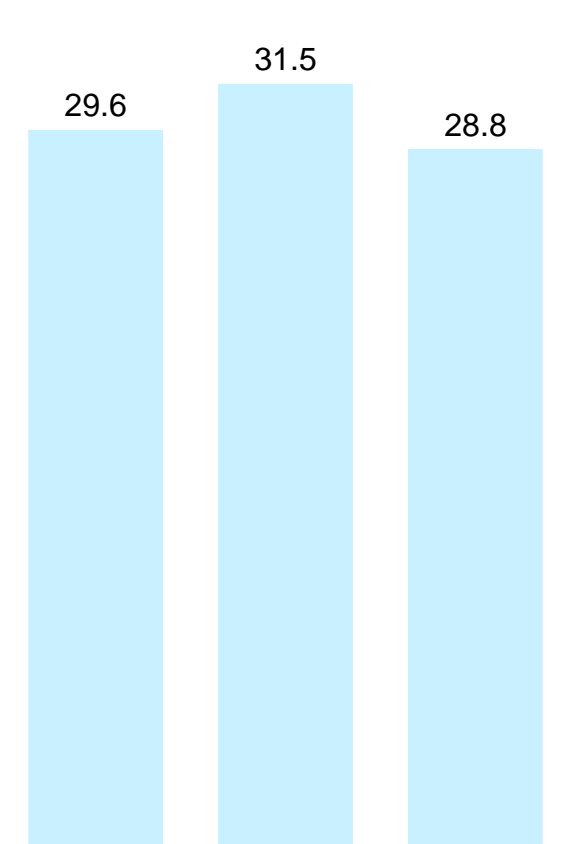
18.4% MSM had **condomless sex** with a partner, compared to **2.4% WSM** and **1.3% MSW**

HIV stigma (median score) in past 12 months among persons with diagnosed HIV (0 is the lowest and 100 the highest level of stigma; 38 is the national median)

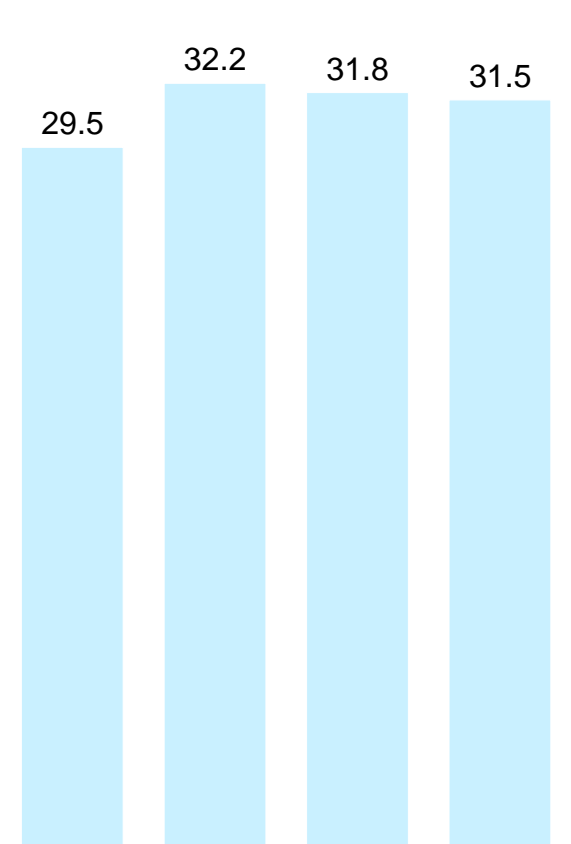
Gender identity



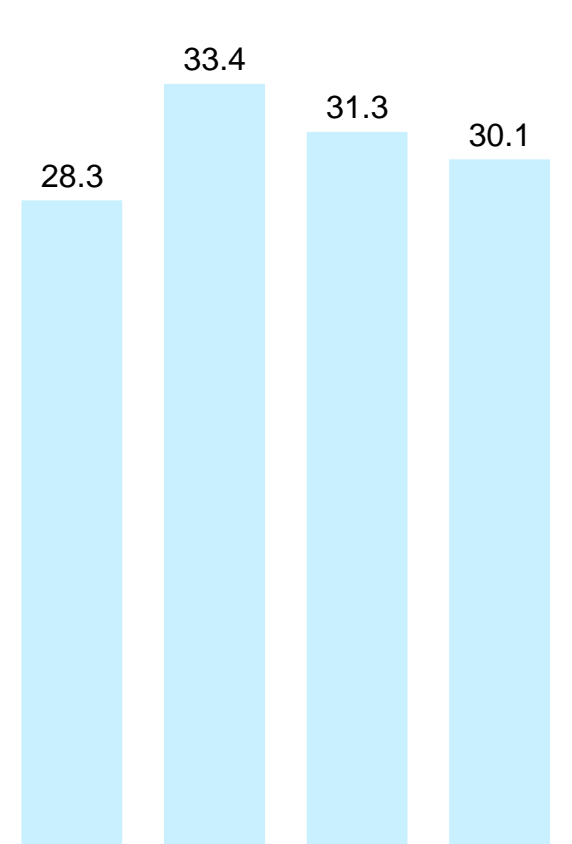
Sexual orientation



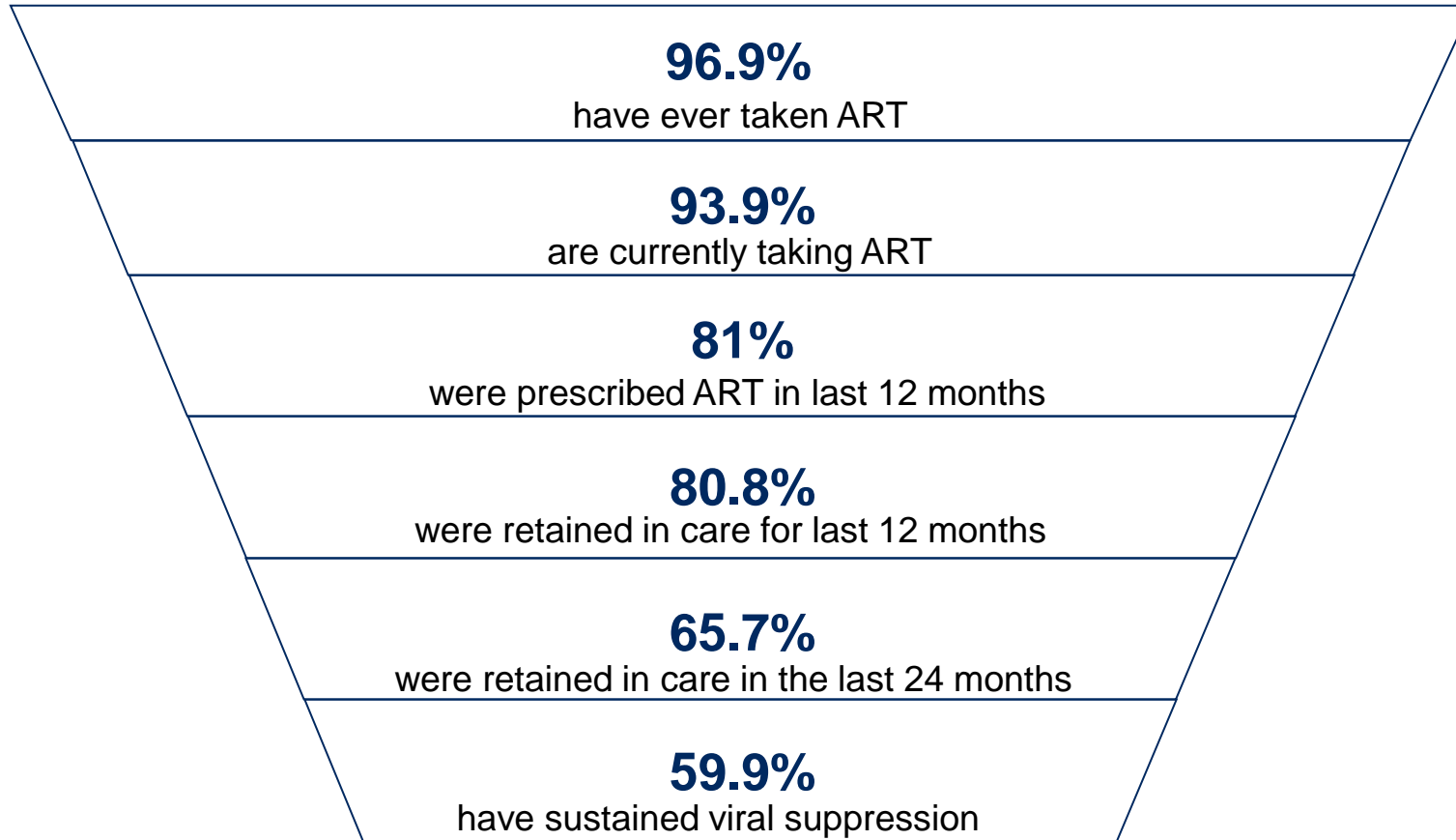
Race/ethnicity



Age at time of interview



Clinical Outcomes among persons with diagnosed HIV



Among those currently on ART, **33% missed at least one dose in the last 30 days**

Key Characteristics of HIV Cluster Cases in NJ

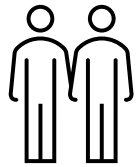
Key characteristics of 1238 HIV clusters members, based on data between Jan 2020 – May 2022



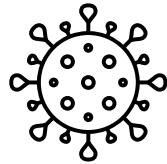
85.8%
were men



71.1%
were 20-39 years old



45.1%
reported MSM contact



38.7%
were not virally suppressed

35.8%
were African American

32.8%
were Hispanic

Counties of residence at the time of cluster involvement:

- **14.3%** Essex County
- **13.7%** Hudson County
- **10.1%** Union County
- **9.6%** Camden County
- **9.5%** Middlesex County

Cities of residence at the time of cluster involvement:

- **8.8%** Newark
- **7.7%** Camden
- **6.4%** Jersey City
- **5.1%** Elizabeth
- **4.5%** Trenton

Goal Dashboard of HIV Progress in NJ

NJ's progress toward goals

GOALS	BASELINE (2017)	ANNUAL RESULT (2019)	2025 TARGET	PERCENT OF TARGET CHANGE ACHIEVED	PROJECTED ACHIEVEMENT OF GOAL
NEW DIAGNOSES: Reduce new HIV infections by 75% from a 2017 baseline	1,114	1,150	836	-12.95	NO
KNOWLEDGE OF STATUS: Increase knowledge of status to 95% from a 2017 baseline	89.6%*	88.2%*	95%	-25.93	NO
LINKAGE TO MEDICAL CARE: Increase linkage to care within 1 month of diagnosis to 95% from a 2017 baseline	69.30%	75%	95%	22.18	YES
VIRAL SUPPRESSION: Increase viral suppression among people with diagnosed HIV to 95% from a 2017 baseline	38.10%	39.60%	95%	2.64	NO
PrEP: Increase PrEP coverage to 50% from a 2017 baseline	12.1%*	22.4%*	50%	27.18	YES
HOMELESSNESS: Reduce homelessness among people with diagnosed HIV by 50% from a 2017 baseline	?	14,159	50%	Not calculated due to missing baseline data	NO
STIGMA: Decrease stigma among people with diagnosed HIV by 50% from a 2018 baseline median score of 31.2 on a 10-item questionnaire	35.1% (2015-18)	35.4% (2015-2020)	50%	Not calculated due to missing year wise stigma score	?

* AHEAD

Questions?



Please Contact:

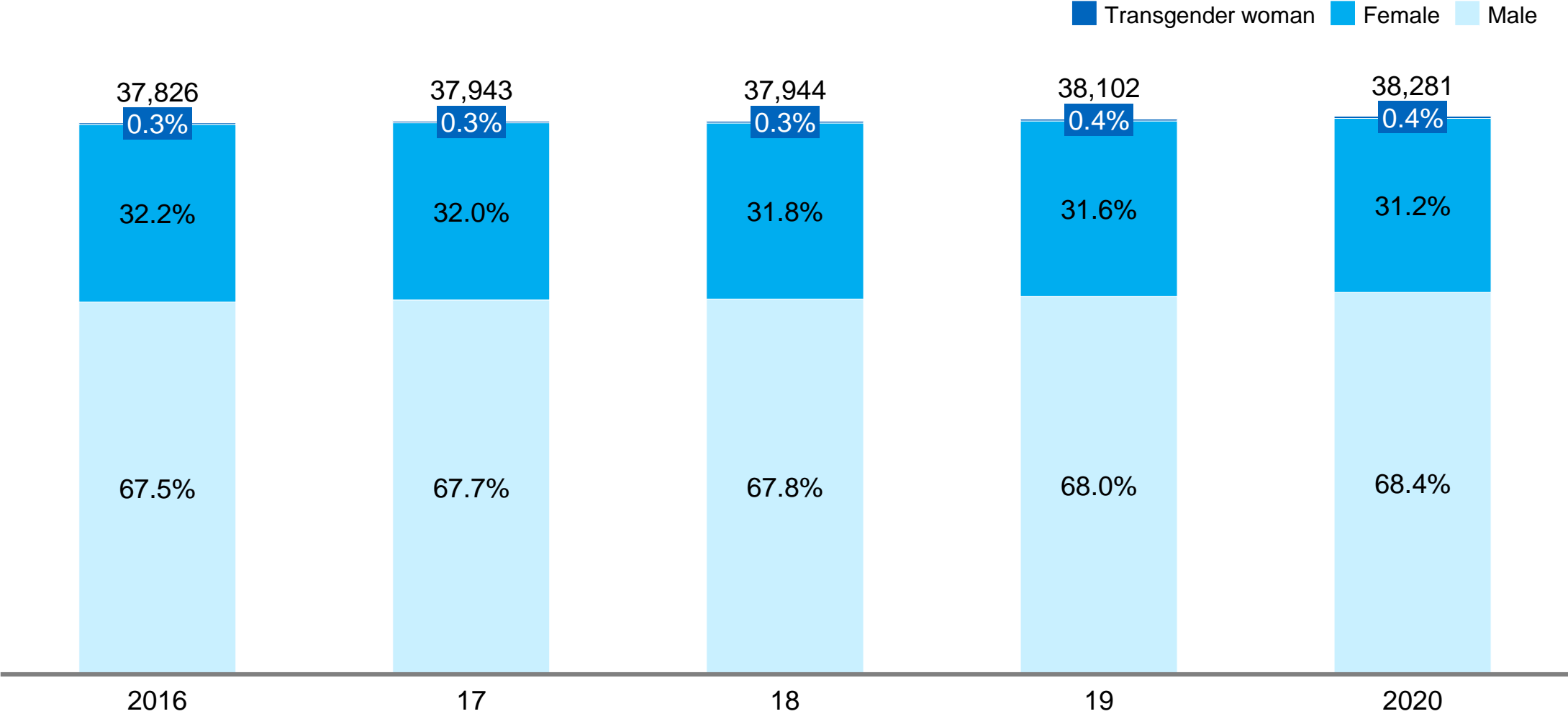
Anindita Fahad @ Anindita.Fahad@doh.nj.gov

ACKNOWLEDGEMENT: Caitlin Murano, Ayomide Ajiboye and Namrata Marjit, Epidemiologic Services Unit, Division of HIV, STD, TB Services

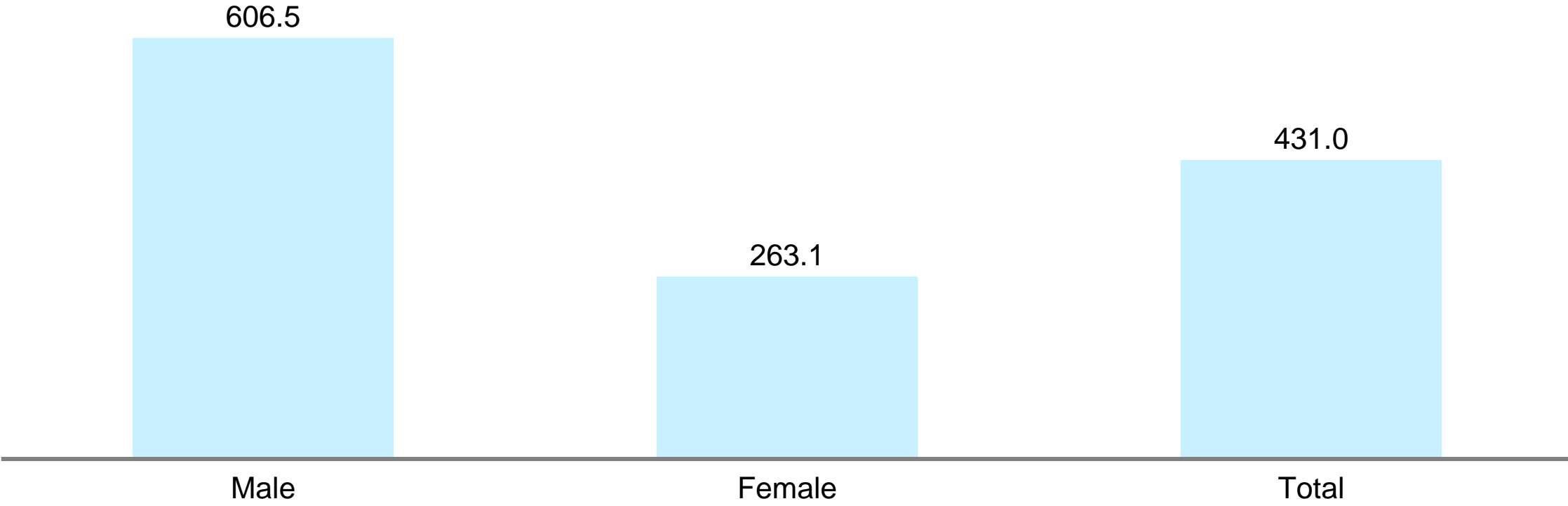
Appendix

Prevalence

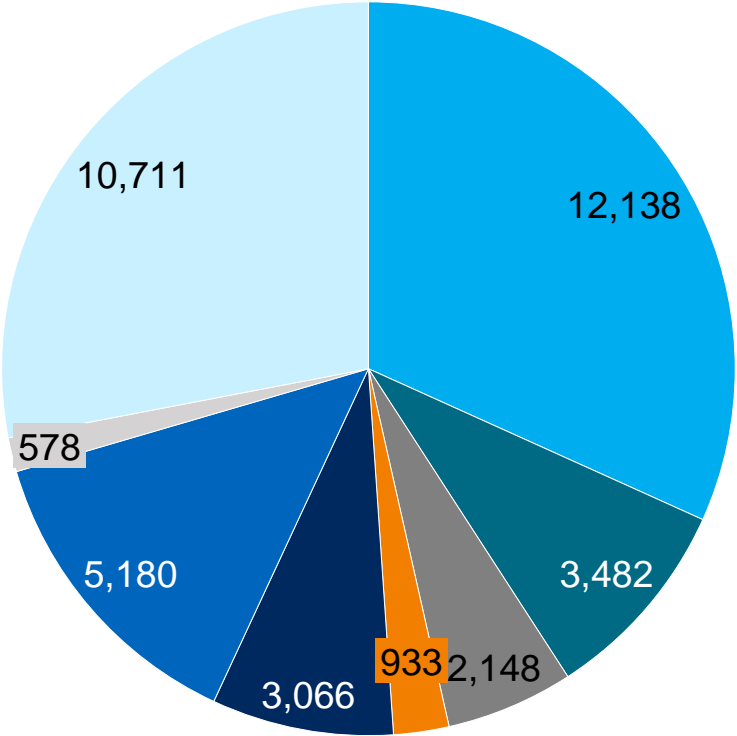
Numbers of persons living with diagnosed HIV infection in NJ - by Year and gender identity



Rates of persons (per 100,000) living with diagnosed HIV infection in NJ in 2020 – by Sex at birth

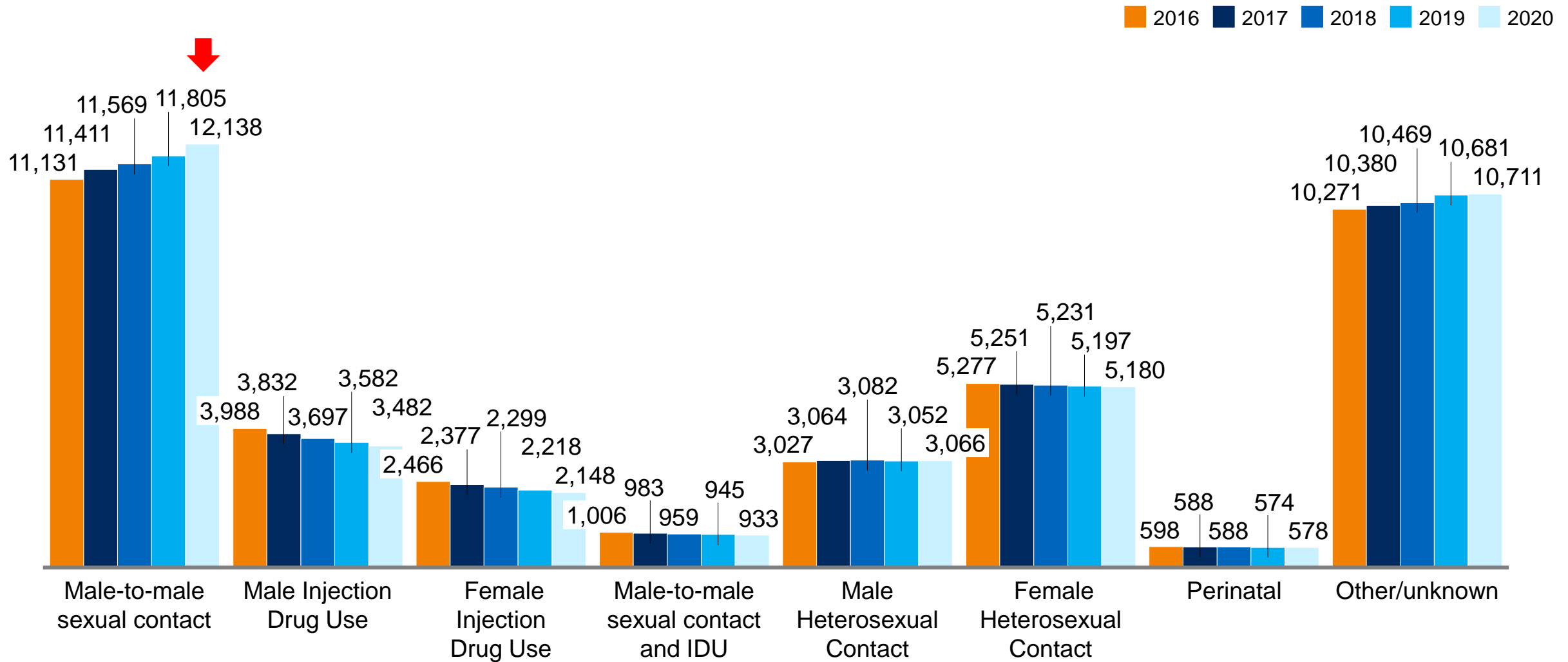


Number of persons >=13 living with diagnosed HIV infection in NJ – by Transmission category



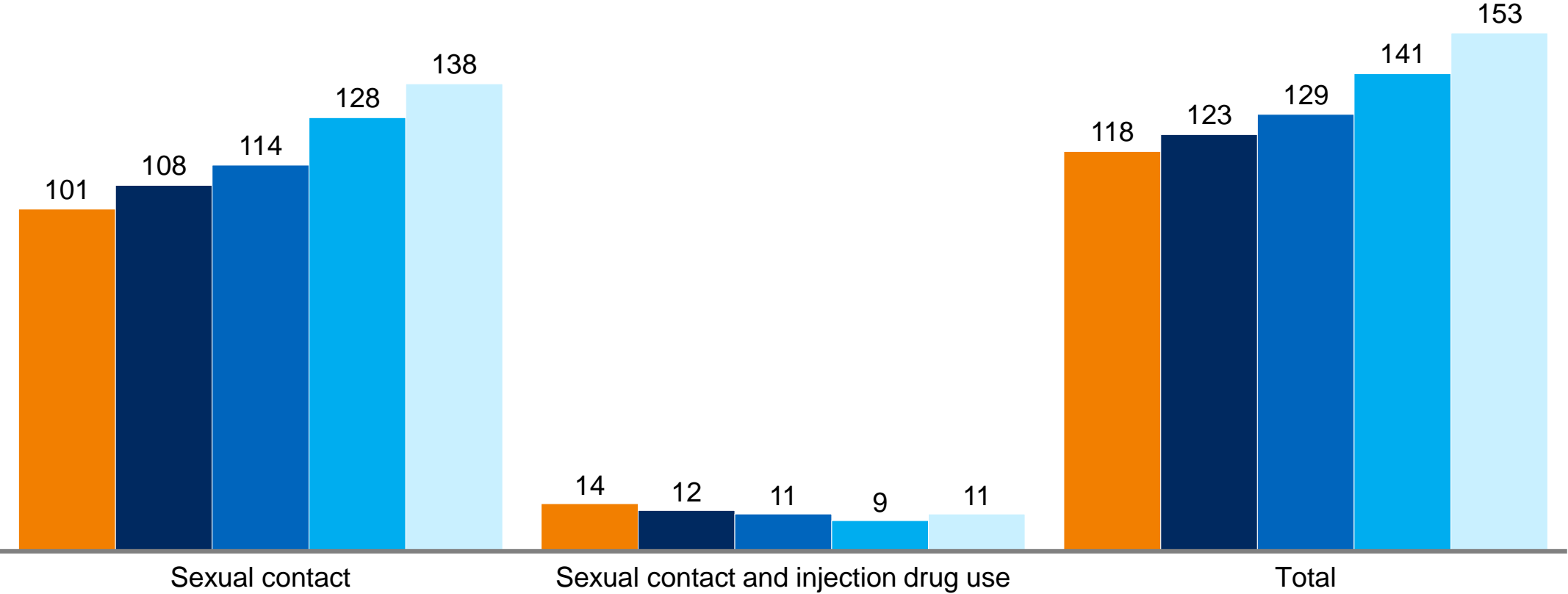
- Male-to-male sexual contact
- Female Injection Drug Use
- Male Heterosexual Contact
- Perinatal
- Male Injection Drug Use
- Male-to-male sexual contact and IDU
- Female Heterosexual Contact
- Other/unknown

Number of persons >=13 years living with diagnosed HIV infection in NJ – by Year and Transmission category



Number of transgender women >= 13 years living with diagnosed HIV infection in NJ – by Year and Exposure category

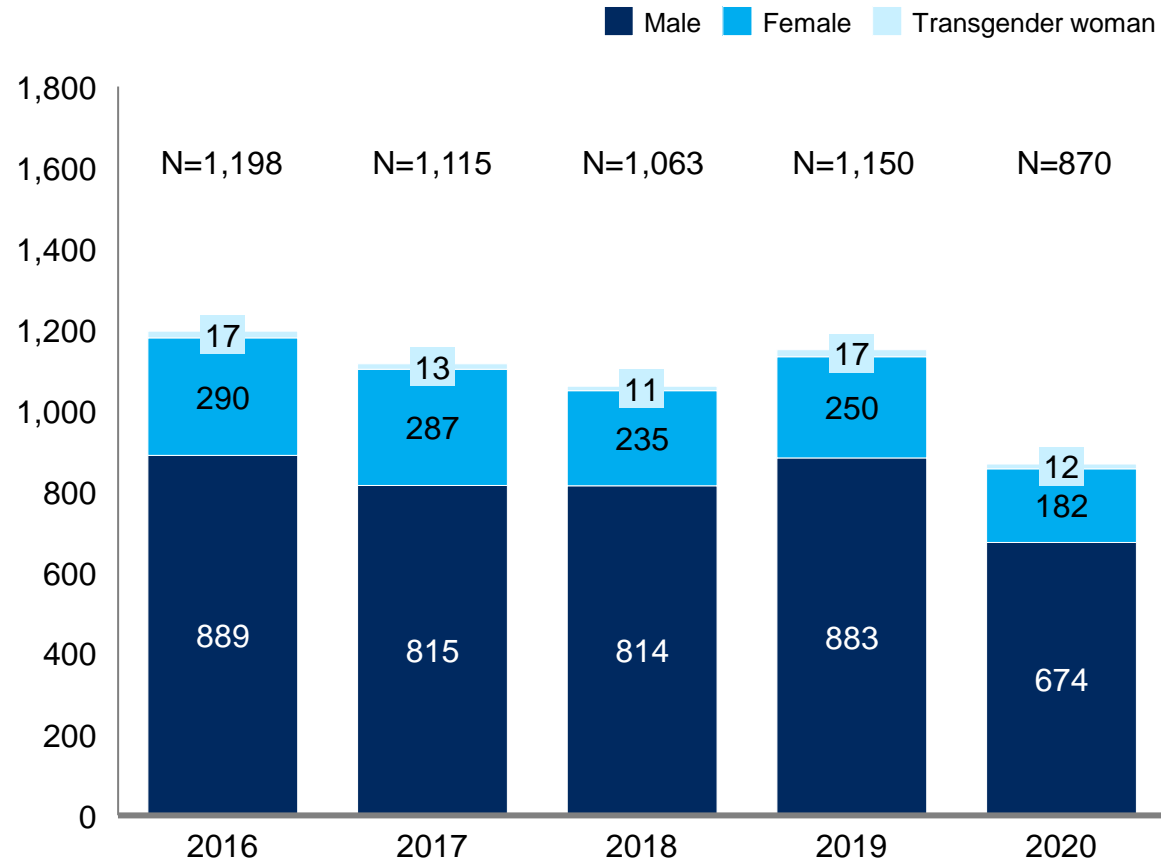
2016 2017 2018 2019 2020



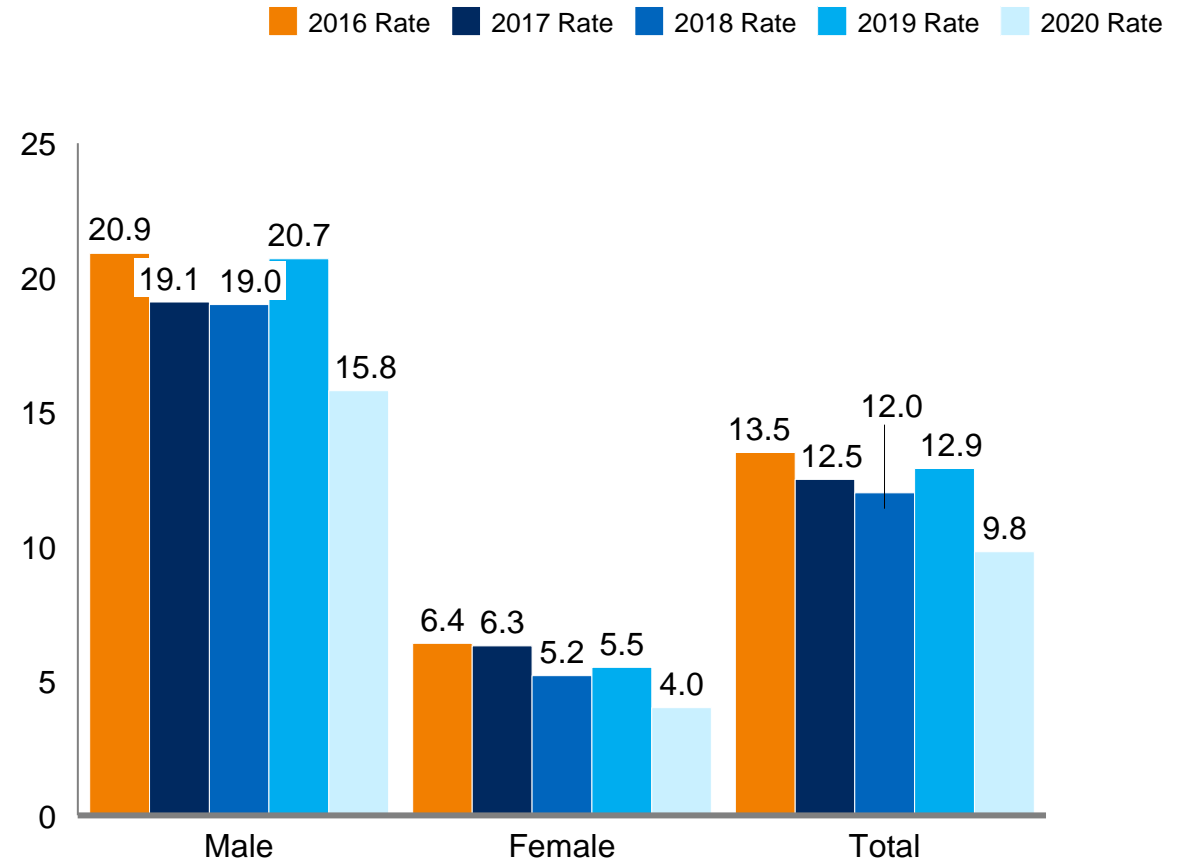
Diagnoses

HIV diagnoses in NJ - by Year of HIV diagnosis and Gender

Number of new diagnosis

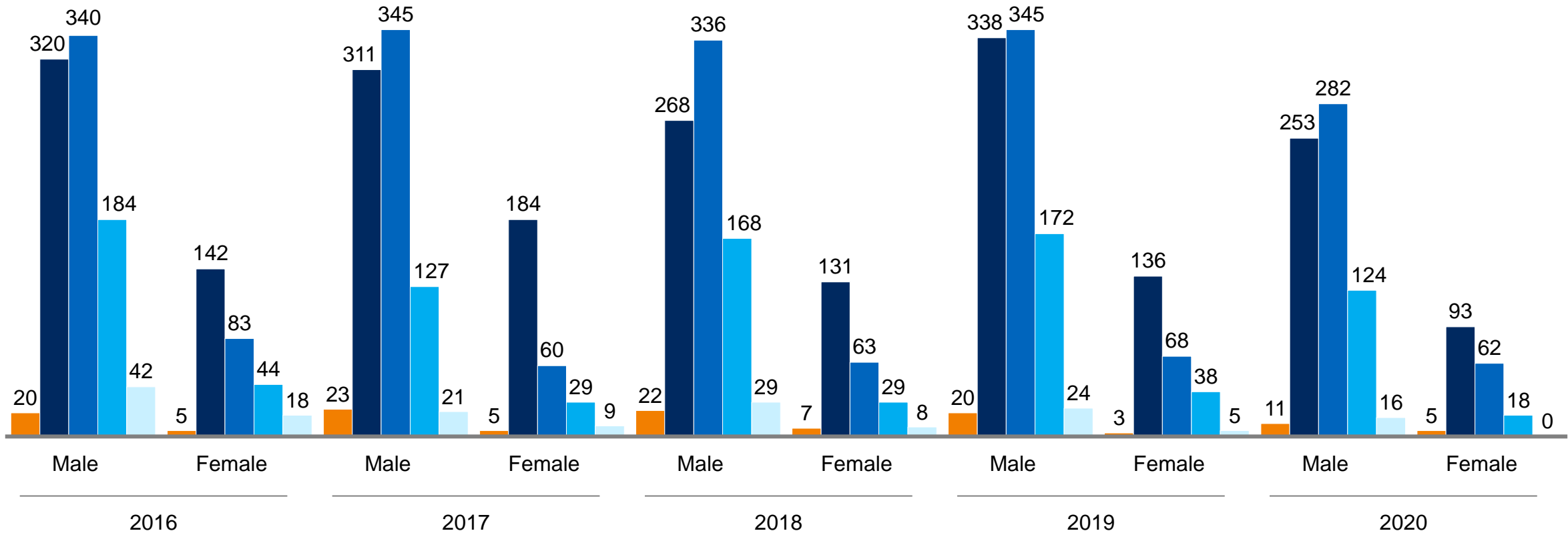


Rates (per 100,000 population) of HIV diagnoses



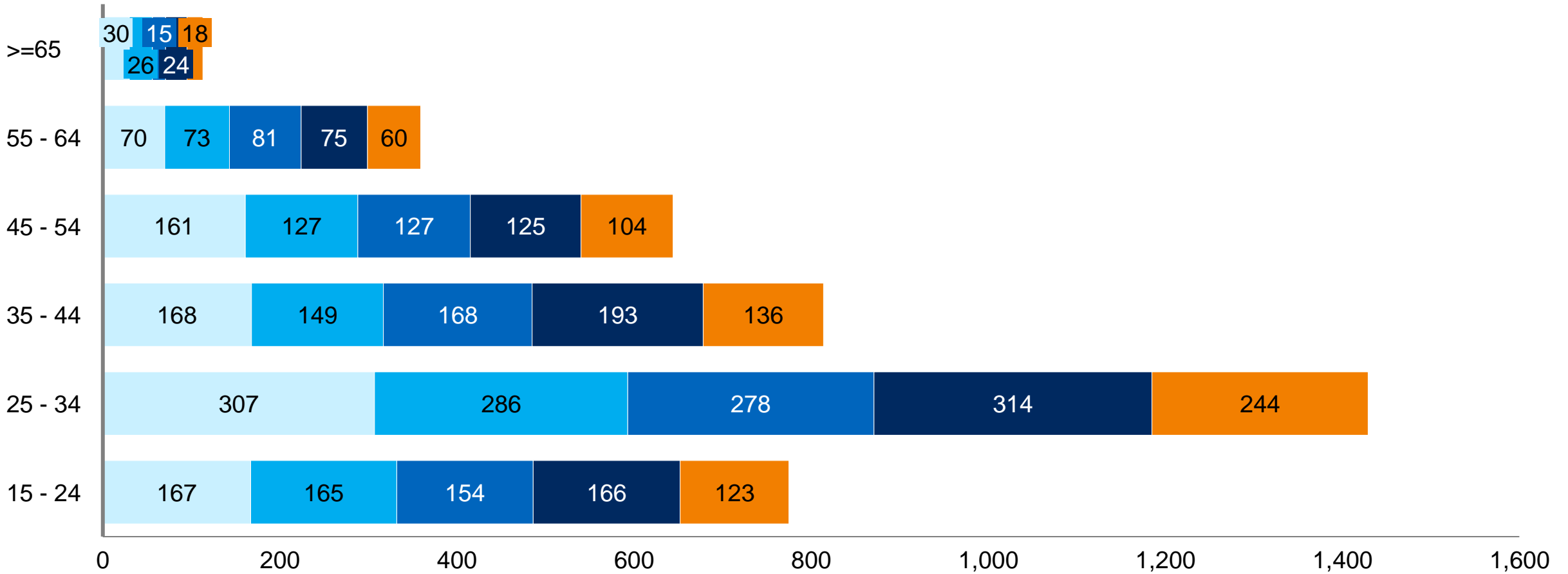
Number of HIV diagnoses in NJ - by Year of HIV diagnosis, Race/ethnicity, and Sex at birth

■ Asian
 ■ Black/African American
 ■ Hispanic/Latino
 ■ White
 ■ Multiracial

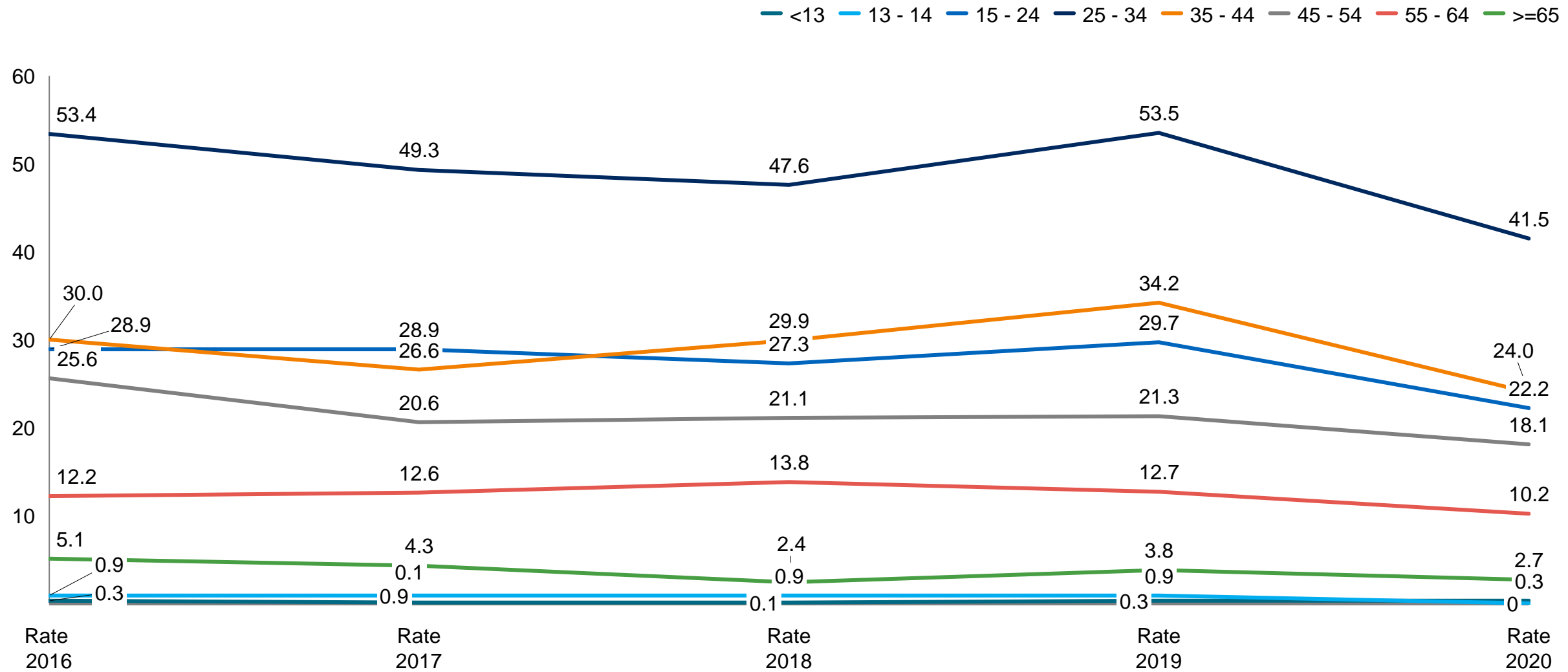


Number of HIV diagnoses in NJ - by Year of HIV diagnosis, Age at HIV diagnosis, and Male Sex at birth

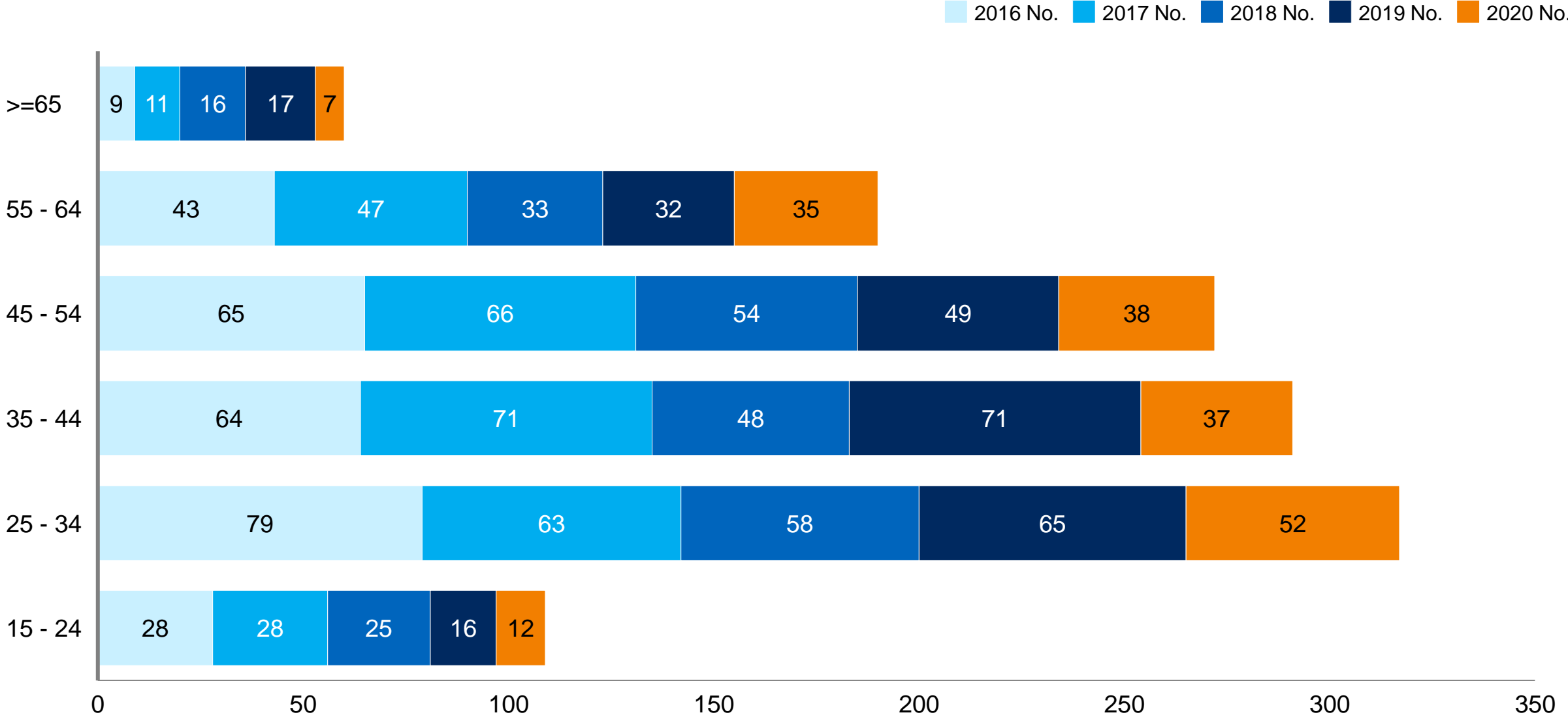
2016 No. 2017 No. 2018 No. 2019 No. 2020 No.



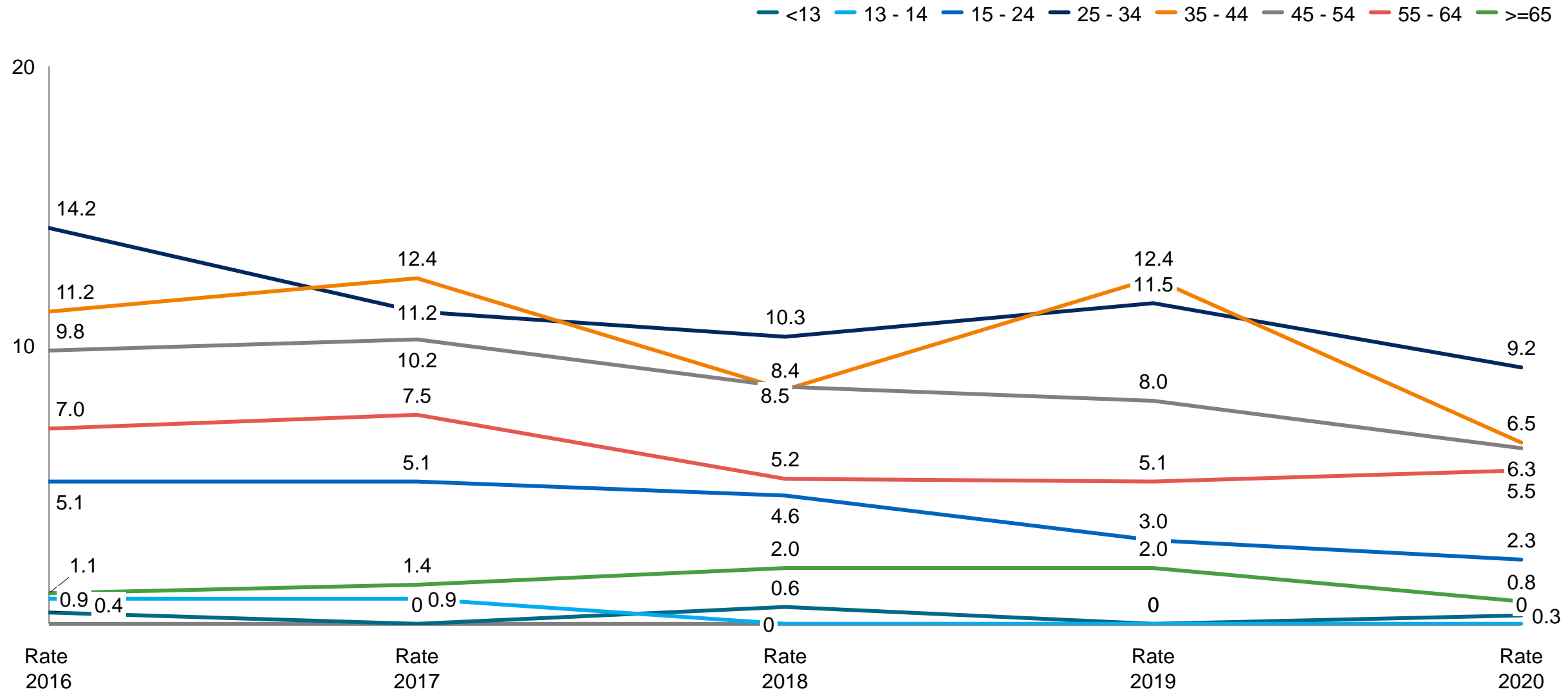
Rate (per 100,000 population) of HIV diagnoses in NJ - by Year of HIV diagnosis, Age at HIV diagnosis, and Male Sex at birth



Number of HIV diagnoses in NJ - by Year of HIV diagnosis, Age at HIV diagnosis, and Female Sex at birth



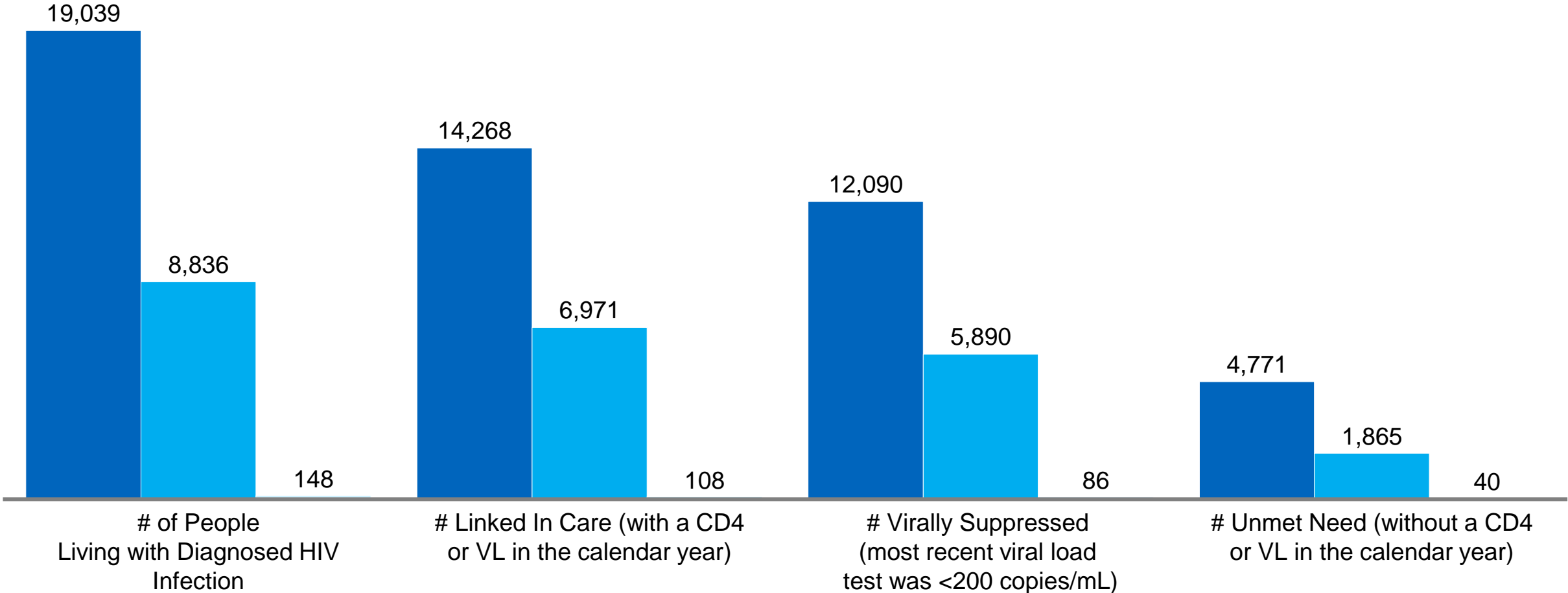
Rate (per 100,000 population) of HIV diagnoses in NJ - by Year of HIV diagnosis, Age at HIV diagnosis, and female Sex at birth



Care Continuum

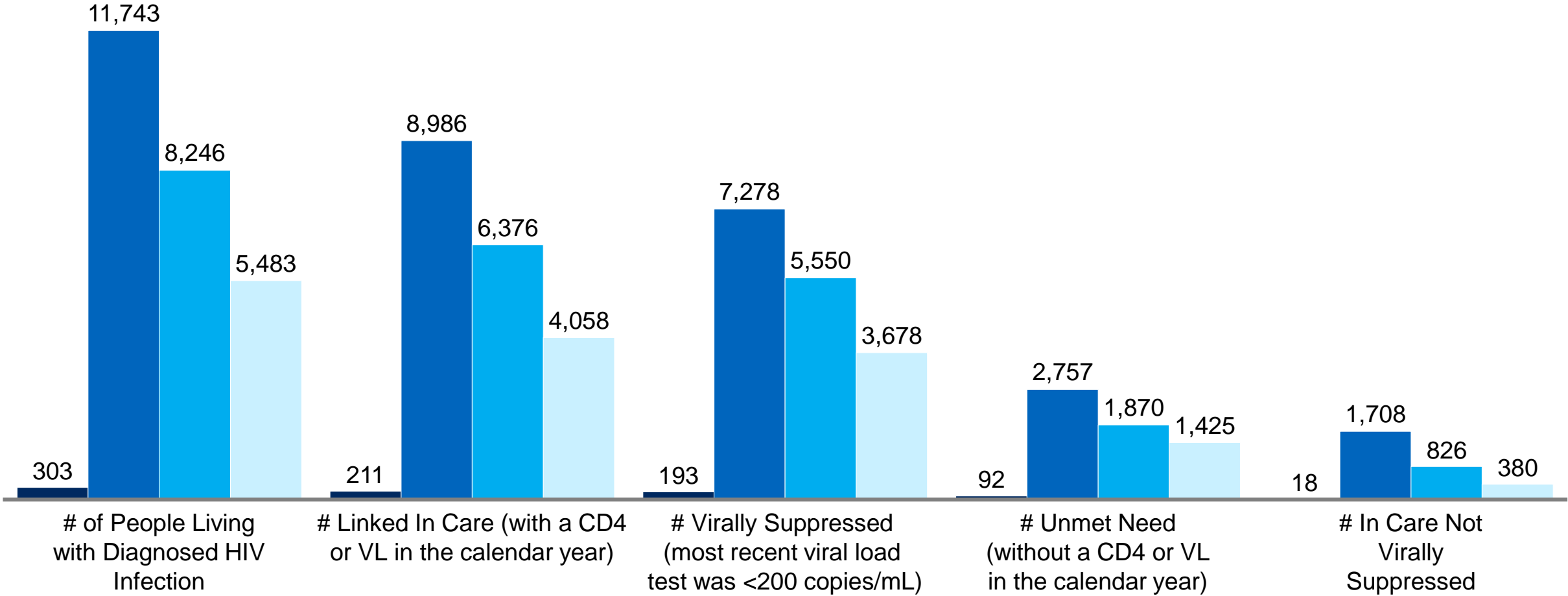
Care Continuum for persons living with diagnosed HIV Infection in 2020 – by Gender Identity

■ Male ■ Female ■ Transgender



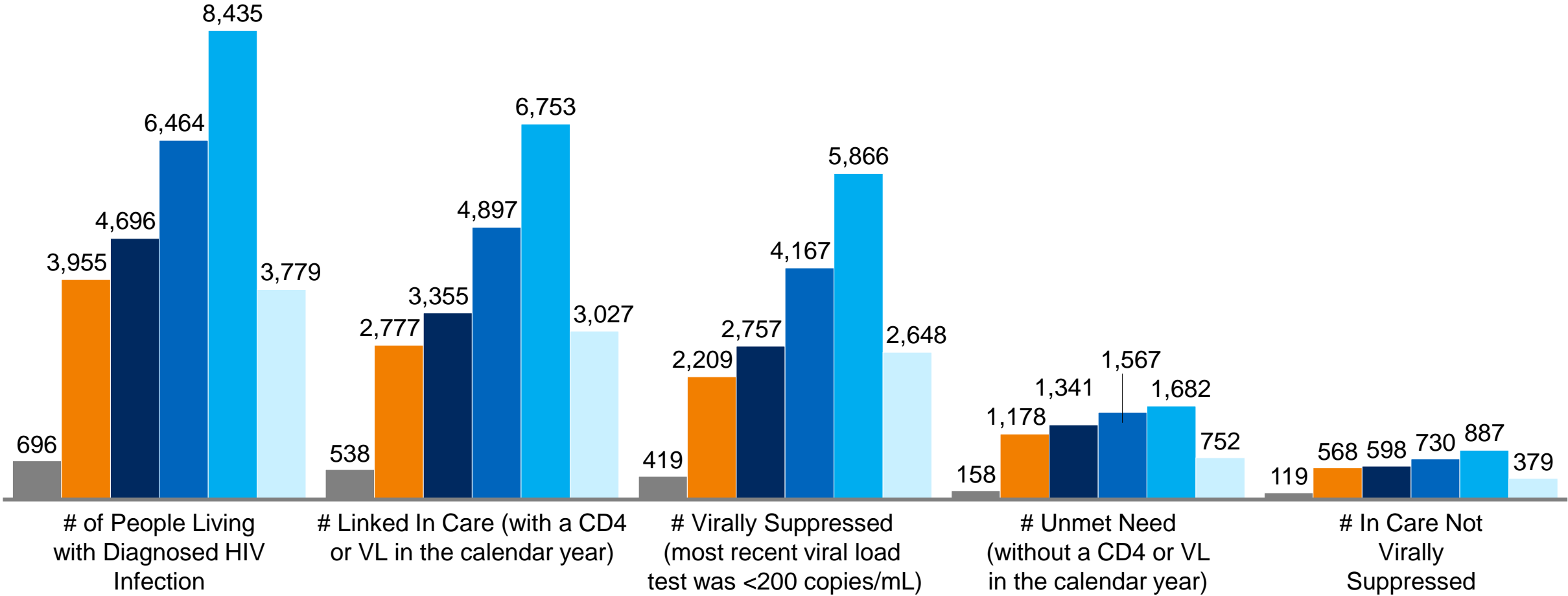
Care Continuum for persons living with diagnosed HIV Infection in 2020 – by Race/ethnicity

■ Asian
 ■ Black/African American
 ■ Hispanic/Latino
 ■ White

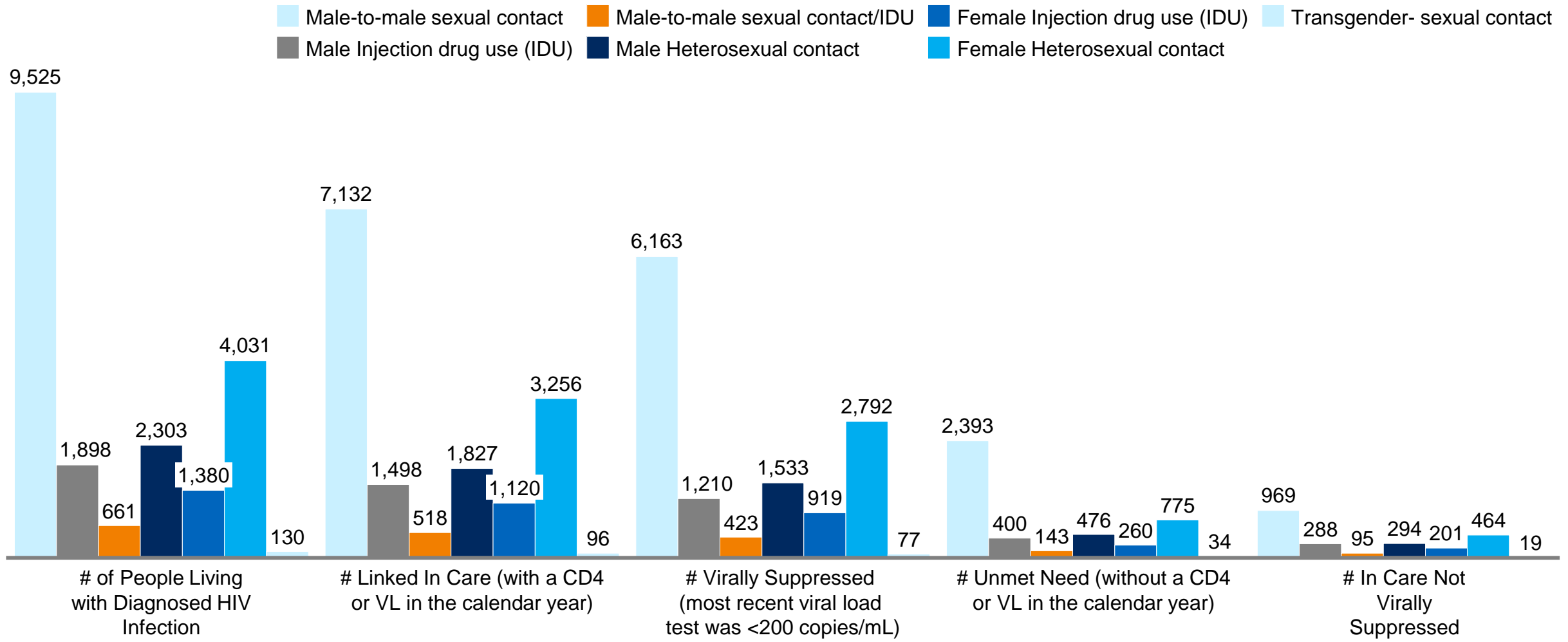


Care Continuum for persons living with diagnosed HIV Infection in 2020 – by Age Group

13 to 24 25 to 34 35 to 44 45 to 54 55 to 64 65+



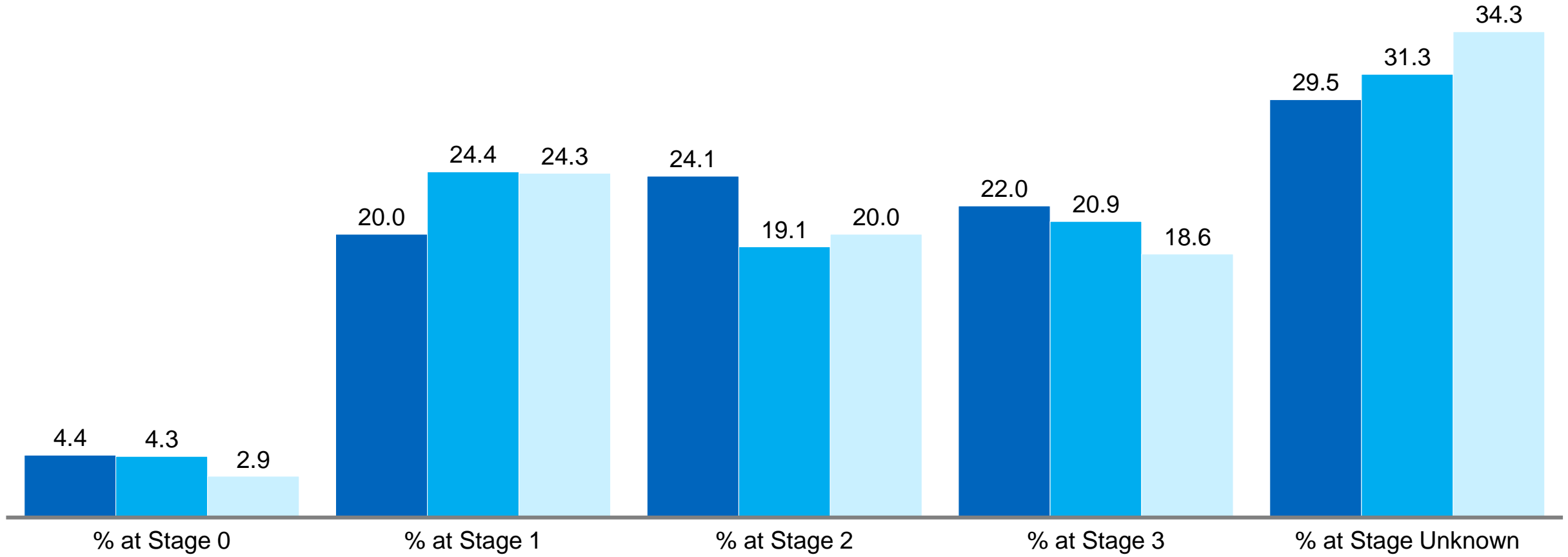
Care Continuum for persons living with diagnosed HIV Infection in 2020 – by Transmission Category



Stage of Disease

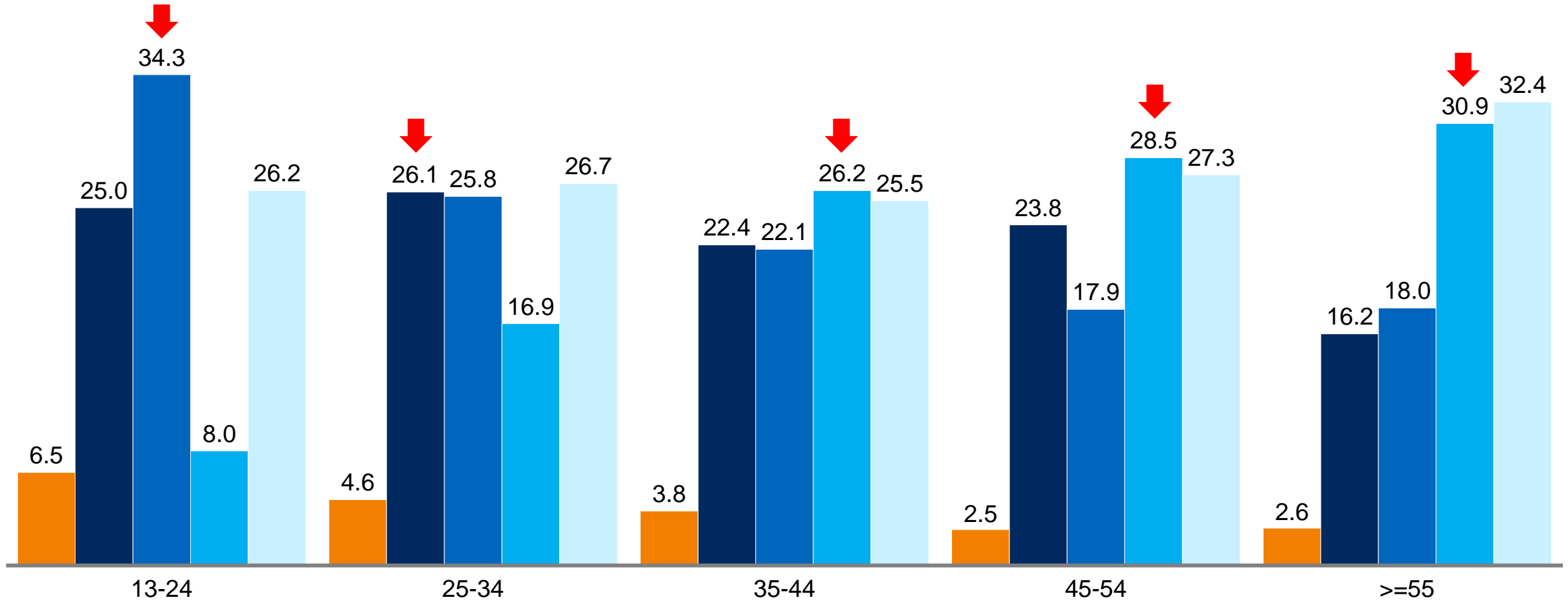
Stage of disease at time of HIV diagnosis among persons aged ≥13 years – by Gender Identity in NJ between 2016-2020

Male Female Transgender Women



Stage of disease at time of HIV diagnosis among persons aged ≥13 years, - by Age Group in NJ between 2016-2020

■ % at Stage 0
 ■ % at Stage 1
 ■ % at Stage 2
 ■ % at Stage 3
 ■ % at Stage Unknown



Definitions of terms used in the presentation

Definitions



HIV – includes all cases of (stage 0, 1, 2, 3 [acquired immunodeficiency syndrome (AIDS)], or unknown stage)



AIDS – Stage 3 at the time of diagnosis



Cumulative Cases – Includes all cases that have been diagnosed and reported since 1982, including those individuals who have died



Prevalence –The total number of individuals who have been diagnosed with HIV/AIDS, minus those who have died. Used interchangeably with persons who are living with HIV/AIDS

Definitions (contd.)



New Diagnosis - Persons newly diagnosed in New Jersey in the measurement year, regardless of the stage of disease (stage 0, 1, 2, 3 [acquired immunodeficiency syndrome (AIDS)], or unknown) at the time of initial diagnosis



Deaths - All-cause mortality for persons with HIV/AIDS



Transgender woman - Individuals who were assigned "male" sex at birth but have ever identified as "female" gender



Prevalence Rate - The number of prevalent cases is the total number of cases of disease existing in a population. A prevalence rate is the total number of cases of a disease existing in a population divided - by the total population

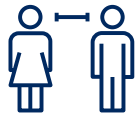
Definitions (contd.)



Diagnosis rate - the number of new cases during a specified period divided either - by the average population (usually mid-period) or - by the cumulative person-time the population was at risk



Male-to-male sexual contact - Include men who had sexual contact with other men (i.e., homosexual contact) and men who had sexual contact with both men and women (i.e., bisexual contact)



Heterosexual contact - Persons who had heterosexual contact with a person known to have, or to be at high risk for, HIV infection (e.g., an injection drug user or a man who has sex with men)

Definitions (contd.)



Injection drug use - Persons who received an injection, either self-administered or given - by another person, of a drug that was not prescribed - by a physician for this person. The drug itself is not the source of the HIV infection, but rather the sharing of syringes or other injection equipment (e.g., cookers and cottons), which can result in transmission of bloodborne pathogens, such as HIV



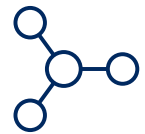
Male-to-male sexual contact and injection drug use - Include men who had injected drugs as well as had sexual contact with other men or sexual contact with both men and women



Other transmission category - Persons whose infection was attributed to hemophilia, blood transfusion, perinatal exposure or whose risk factor was not reported or not identified

Definitions (contd.)

1 — Stage of disease at time of HIV diagnosis - is based on the first CD4 test
2 — performed or documentation of an AIDS-defining condition ≤ 3 months (≤ 91
3 — days) after a diagnosis of HIV infection



Linkage to HIV medical care – a measure of documentation of ≥ 1 CD4 or VL or genotype test ≤ 30 , ≤ 91 , ≤ 182 and ≤ 365 days after HIV diagnosis



A viral load test result of < 200 copies/mL indicates HIV viral suppression. Viral load test results are within 6 months (≤ 182 days) of diagnosis of HIV infection during the specified year

Definitions (contd.)



Stage 0 or early diagnosis - If there was a negative HIV test within 6 months of the first HIV infection diagnosis, the stage is 0, and remains 0 until 6 months after diagnosis



Late Diagnosis - Number of people with late diagnosed HIV in the most recent calendar year based on the residence at time of diagnosis. Based on the first CD4 test result (<200 cells/ml or a CD4 percentage of total lymphocytes of <14) or documentation of an AIDS defining condition <= 3 months after a diagnosis of HIV infection



Unmet Needs – Number of people living with diagnosed HIV infection without any CD4 or VL test in the recent calendar year



Virally suppressed – Number of people living with diagnosed HIV infection in the jurisdiction who are in care and whose most recent viral load test was <200copies/mL in the most recent calendar year